MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG020708-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / Woodside Ave.	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	13-Feb-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-10-15 (E802025-11) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB80805	08-Feb-08	08-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*		*65-135*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*108 %*		*52-149*		"	"	"	
Surrogate: Toluene-d8		*101 %*		*65-135*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.1 %*		*65-135*		"	"	"	
MW-10-20 (E802025-12) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB80805	08-Feb-08	08-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*		*65-135*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*114 %*		*52-149*		"	"	"	
Surrogate: Toluene-d8		*98.9 %*		*65-135*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*		*65-135*		"	"	"	

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Petra Geotechnical	Project: PG020708-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / Woodside Ave.	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	13-Feb-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-10-25 (E802025-13) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB80805	08-Feb-08	08-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*101 %*		*65-135*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*107 %*		*52-149*		"	"	"	
Surrogate: Toluene-d8		*94.5 %*		*65-135*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*112 %*		*65-135*		"	"	"	
MW-10-30 (E802025-14) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Methyl tert-butyl ether	31	5.0	ug/kg	0.5	EB80805	08-Feb-08	08-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*		*65-135*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*111 %*		*52-149*		"	"	"	
Surrogate: Toluene-d8		*100 %*		*65-135*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.7 %*		*65-135*		"	"	"	

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Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-10-35 (E802025-15) Soil Sampled: 05-Feb-08 Received: 07-Feb-08									
Methyl tert-butyl ether	13	5.0	ug/kg	0.5	EB80805	08-Feb-08	08-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*104 %*		*65-135*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*103 %*		*52-149*	"	"	"	"	
Surrogate: Toluene-d8		*99.3 %*		*65-135*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.0 %*		*65-135*	"	"	"	"	
MW-10-40 (E802025-16) Soil Sampled: 05-Feb-08 Received: 07-Feb-08									
Methyl tert-butyl ether	7.7	5.0	ug/kg	0.5	EB80805	08-Feb-08	08-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*		*65-135*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*111 %*		*52-149*	"	"	"	"	
Surrogate: Toluene-d8		*95.7 %*		*65-135*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*		*65-135*	"	"	"	"	

MOBILE GEOCHEMISTRY
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Petra Geotechnical	Project: PG020708-11	
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San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	13-Feb-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-10-43 (E802025-17) Soil Sampled: 05-Feb-08 Received: 07-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB80805	08-Feb-08	08-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*		*65-135*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*111 %*		*52-149*		"	"	"	
Surrogate: Toluene-d8		*102 %*		*65-135*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.1 %*		*65-135*		"	"	"	

MOBILE GEOCHEMISTRY

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Petra Geotechnical	Project: PG020708-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / Woodside Ave.	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	13-Feb-08

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H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-9-5 (E802025-01) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-9-10 (E802025-02) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-9-15 (E802025-03) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-9-20 (E802025-04) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-9-25 (E802025-05) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-9-30 (E802025-06) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Gasoline (C5-C11)	14	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-9-35 (E802025-07) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	

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TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-9-39 (E802025-08) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-10-5 (E802025-09) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-10-10 (E802025-10) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-10-15 (E802025-11) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-10-20 (E802025-12) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-10-25 (E802025-13) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-10-30 (E802025-14) Soil Sampled: 04-Feb-08 Received: 07-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	

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TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-10-35 (E802025-15) Soil	**Sampled: 05-Feb-08**	**Received: 07-Feb-08**							
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-10-40 (E802025-16) Soil	**Sampled: 05-Feb-08**	**Received: 07-Feb-08**							
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-10-43 (E802025-17) Soil	**Sampled: 05-Feb-08**	**Received: 07-Feb-08**							
Gasoline (C5-C11)	ND	10	mg/kg	1	EB81203	12-Feb-08	12-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	

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Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB80805 - EPA 5030										
Blank (EB80805-BLK1)				Prepared & Analyzed: 08-Feb-08						
Methyl tert-butyl ether	ND	5.0	ug/kg							
Di-isopropyl ether	ND	5.0	"							
Ethyl tert-butyl ether	ND	5.0	"							
Tert-amyl methyl ether	ND	5.0	"							
Benzene	ND	5.0	"							
Toluene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
m,p-Xylene	ND	10	"							
o-Xylene	ND	5.0	"							
Tert-butyl alcohol	ND	25	"							
Surrogate: Dibromofluoromethane	*26.7*		"	*25.0*		*107*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*25.0*		"	*25.0*		*100*	*52-149*			
Surrogate: Toluene-d8	*24.8*		"	*25.0*		*99.1*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*25.1*		"	*25.0*		*100*	*65-135*			
LCS (EB80805-BS1)				Prepared & Analyzed: 08-Feb-08						
Benzene	25.3	5.0	ug/kg	25.0		101	65-135			
Toluene	21.1	5.0	"	25.0		84.3	64-135			
Surrogate: Dibromofluoromethane	*27.0*		"	*25.0*		*108*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*24.3*		"	*25.0*		*97.3*	*52-149*			
Surrogate: Toluene-d8	*24.8*		"	*25.0*		*99.3*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*23.4*		"	*25.0*		*93.7*	*65-135*			
Matrix Spike (EB80805-MS1)	**Source: E802025-09**			Prepared & Analyzed: 08-Feb-08						
Benzene	21.5	5.0	ug/kg	25.0	ND	86.0	65-135			
Toluene	21.0	5.0	"	25.0	ND	83.8	64-135			
Surrogate: Dibromofluoromethane	*24.6*		"	*25.0*		*98.4*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*28.1*		"	*25.0*		*112*	*52-149*			
Surrogate: Toluene-d8	*24.9*		"	*25.0*		*99.5*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*24.0*		"	*25.0*		*96.0*	*65-135*			

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Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB80805 - EPA 5030										
Matrix Spike Dup (EB80805-MSD1)	**Source: E802025-09**			Prepared & Analyzed: 08-Feb-08						
Benzene	26.1	5.0	ug/kg	25.0	ND	104	65-135	19.4	30	
Toluene	20.4	5.0	"	25.0	ND	81.8	64-135	2.44	30	
Surrogate: Dibromofluoromethane	*26.7*		"	*25.0*		*107*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*24.8*		"	*25.0*		*99.1*	*52-149*			
Surrogate: Toluene-d8	*24.2*		"	*25.0*		*96.8*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*20.9*		"	*25.0*		*83.8*	*65-135*			
Batch EB81104 - EPA 5030										
Blank (EB81104-BLK1)				Prepared & Analyzed: 07-Feb-08						
Methyl tert-butyl ether	ND	5.0	ug/kg							
Di-isopropyl ether	ND	5.0	"							
Ethyl tert-butyl ether	ND	5.0	"							
Tert-amyl methyl ether	ND	5.0	"							
Benzene	ND	5.0	"							
Toluene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
m,p-Xylene	ND	10	"							
o-Xylene	ND	5.0	"							
Tert-butyl alcohol	ND	25	"							
Surrogate: Dibromofluoromethane	*25.8*		"	*25.0*		*103*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*24.0*		"	*25.0*		*96.0*	*52-149*			
Surrogate: Toluene-d8	*25.2*		"	*25.0*		*101*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*23.8*		"	*25.0*		*95.1*	*65-135*			
Matrix Spike (EB81104-MS1)	**Source: E802008-01**			Prepared & Analyzed: 07-Feb-08						
Benzene	27.7	5.0	ug/kg	25.0	ND	111	65-135			
Toluene	23.7	5.0	"	25.0	ND	94.8	64-135			
Surrogate: Dibromofluoromethane	*24.6*		"	*25.0*		*98.5*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*24.6*		"	*25.0*		*98.2*	*52-149*			
Surrogate: Toluene-d8	*25.4*		"	*25.0*		*102*	*65-135*			

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Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB81104 - EPA 5030										
Matrix Spike (EB81104-MS1)	**Source: E802008-01**			Prepared & Analyzed: 07-Feb-08						
Surrogate: 4-Bromofluorobenzene	*24.5*		*ug/kg*	*25.0*		*98.1*	*65-135*			
Matrix Spike Dup (EB81104-MSD1)	**Source: E802008-01**			Prepared & Analyzed: 07-Feb-08						
Benzene	29.0	5.0	ug/kg	25.0	ND	116	65-135	4.49	30	
Toluene	25.1	5.0	"	25.0	ND	100	64-135	5.80	30	
Surrogate: Dibromofluoromethane	*25.3*		*"*	*25.0*		*101*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*23.2*		*"*	*25.0*		*92.7*	*52-149*			
Surrogate: Toluene-d8	*24.5*		*"*	*25.0*		*97.8*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*22.5*		*"*	*25.0*		*89.9*	*65-135*			

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG020708-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / Woodside Ave.	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	13-Feb-08

TPH by GC FID - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB81203 - LUFT-DHS										
Blank (EB81203-BLK1)				Prepared & Analyzed: 12-Feb-08						
Gasoline (C5-C11)	ND	10	mg/kg							
Diesel (C12-C24)	ND	10	"							
Matrix Spike (EB81203-MS1)		Source: E802025-15		Prepared & Analyzed: 12-Feb-08						
Gasoline (C5-C11)	150	10	mg/kg	151	ND	99.3	67-125			
Diesel (C12-C24)	260	10	"	251	ND	104	67-125			
Matrix Spike Dup (EB81203-MSD1)		Source: E802025-15		Prepared & Analyzed: 12-Feb-08						
Gasoline (C5-C11)	155	10	mg/kg	151	ND	103	67-125	3.28	30	
Diesel (C12-C24)	245	10	"	251	ND	97.6	67-125	5.94	30	

MOBILE GEOCHEMISTRY
H&P

Petra Geotechnical	Project: PG020708-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / Woodside Ave.	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	13-Feb-08

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

☑ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Date:
H&P Project # P6020708-11
Outside Lab:

Client: PETRA GEOTECHNICAL
Address: 12225 WORLD TRADE DR. SUITE P
SAN DIEGO, CA 92128
Email: jolbinski@petra-inc.com Phone: (858) 485-5530

Collector: DBS
Client Project # 252-06
Location: WOODSIDE AVE, SANTEE ELCAP OIL
Fax: (858) 485-8215

Page: of
Project Contact: JIM OLBINSKI
Turn around time: STD.

EDF: Yes ☑ No ☐
Global ID:

Sample Receipt
Intact: ☑ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☑ N/A
Cold: ☑ Yes ☐ No
N/A (Received on Site)

Special Instructions:

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☐ gasoline ☑ diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates / MTBE	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARWQCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify)	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2			Total # of containers
MW-9-5			9:30	2/4	S	STEEL SLEEVE	X			X													1
MW-9-10			9:30	"	"	"	"			"													"
MW-9-15			9:47	"	"	"	"			"													"
MW-9-20			9:55	"	"	"	"			"													"
MW-9-25			10:02																				
MW-9-30			10:08																				
MW-9-35			10:15																				
MW-9-39			10:21																				
MW-10-5			1:19																				
MW-10-10			1:25																				

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
	PETRA		Petra	2-7-08	10:20 AM
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
	Petra		H&P	2/7/08	11:00 AM
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ Disposal @ $2.00 each ☐ Return to client ☐ Pickup

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

☑ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159

☐ 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Date: _____

H&P Project # PG020708-11

Outside Lab: _____

Client: PETRA GEOTECHNICAL

Address: 12225 WORLD TRADE DR. SUITE P
SAN DIEGO, CA 92128

Email: jolbinski@petra-inc.com Phone: (858) 485-5530

Collector: DBS

Page: ____ of ____

Client Project # 252-06 Project Contact: JIM OLBINSKI

Location: ~~8~~ WOODSIDE AVE, SANTEE

Fax: (858) 485-8215 Turn around time: STD.

EDF: Yes ☑ No ☐

Global ID: _____

Sample Receipt
Intact: ☑ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☑ N/A
Cold: ☑ Yes ☐ No
N/A (Received on Site)

Special Instructions:

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☑ gasoline ☑ diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates / MTBE	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARWQCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify)	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2	Total # of containers
MW-10-15			3:15	2/4	S	STEEL SLEEVE	X			X											1
MW-10-20			3:23																		
MW-10-25			3:40																		
MW-10-30			4:03	↓																	
MW-10-35			11:53	2/5																	
MW-10-40			12:15																		
MW-10-43			12:58	↓	↓	↓	↓			↓											↓

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date: 2-7-08	Time: 10:20 AM
Relinquished by: (Signature)	(company) PETRA	Received by: (Signature)	(company) Petra	Date: 2/7/08	Time: 11:00 AM
Relinquished by: (Signature)	(company) Petra	Received by: (Signature)	(company) H&P	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ Disposal @ $2.00 each ☐ Return to client ☐ Pickup

MOBILE GEOCHEMISTRY

H&P

03 March 2008

Mr. Jim Olbinski
Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

RE: PG021108-11B

Enclosed are the results of analyses for samples received by the laboratory on 11-Feb-08 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595.

2470 Impala Drive, Carlsbad, California 92010 | 760.804.9678 — Fax 760.804.9159
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MOBILE GEOCHEMISTRY

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Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-11-5	E802035-01	Soil	08-Feb-08	11-Feb-08
MW-11-10	E802035-02	Soil	08-Feb-08	11-Feb-08
MW-11-15	E802035-03	Soil	08-Feb-08	11-Feb-08
MW-11-20	E802035-04	Soil	08-Feb-08	11-Feb-08
MW-11-25	E802035-05	Soil	08-Feb-08	11-Feb-08
MW-11-30	E802035-06	Soil	08-Feb-08	11-Feb-08
MW-11-35	E802035-07	Soil	08-Feb-08	11-Feb-08
MW-11-38	E802035-08	Soil	08-Feb-08	11-Feb-08
MW-12-5	E802035-09	Soil	08-Feb-08	11-Feb-08
MW-12-10	E802035-10	Soil	08-Feb-08	11-Feb-08
MW-12-15	E802035-11	Soil	08-Feb-08	11-Feb-08
MW-12-20	E802035-12	Soil	08-Feb-08	11-Feb-08
MW-12-25	E802035-13	Soil	08-Feb-08	11-Feb-08
MW-12-30	E802035-14	Soil	08-Feb-08	11-Feb-08
MW-12-35	E802035-15	Soil	08-Feb-08	11-Feb-08
MW-12-39	E802035-16	Soil	08-Feb-08	11-Feb-08

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-11-5 (E802035-01) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB82009	15-Feb-08	15-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*85.6 %*		*65-135*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*80.3 %*		*52-149*	"	"	"	"	
Surrogate: Toluene-d8		*89.2 %*		*65-135*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*65-135*	"	"	"	"	
MW-11-10 (E802035-02) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB82009	15-Feb-08	15-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*91.6 %*		*65-135*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*82.7 %*		*52-149*	"	"	"	"	
Surrogate: Toluene-d8		*95.0 %*		*65-135*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.9 %*		*65-135*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-11-15 (E802035-03) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB82009	15-Feb-08	15-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*88.9 %*		*65-135*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*80.4 %*		*52-149*		"	"	"	
Surrogate: Toluene-d8		*91.8 %*		*65-135*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.7 %*		*65-135*		"	"	"	
MW-11-20 (E802035-04) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB82205	19-Feb-08	19-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*86.0 %*		*65-135*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*75.5 %*		*52-149*		"	"	"	
Surrogate: Toluene-d8		*91.5 %*		*65-135*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.9 %*		*65-135*		"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-11-25 (E802035-05) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB82009	15-Feb-08	15-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*83.5 %*		*65-135*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*75.4 %*		*52-149*		"	"	"	
Surrogate: Toluene-d8		*91.6 %*		*65-135*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.0 %*		*65-135*		"	"	"	
MW-11-30 (E802035-06) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB82009	15-Feb-08	15-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*86.0 %*		*65-135*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*77.0 %*		*52-149*		"	"	"	
Surrogate: Toluene-d8		*93.3 %*		*65-135*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.3 %*		*65-135*		"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-11-35 (E802035-07) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB82009	15-Feb-08	15-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	14	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*82.8 %*		*65-135*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*74.2 %*		*52-149*		"	"	"	
Surrogate: Toluene-d8		*90.6 %*		*65-135*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.6 %*		*65-135*		"	"	"	
MW-11-38 (E802035-08) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB82009	15-Feb-08	15-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	9.3	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*82.2 %*		*65-135*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*76.1 %*		*52-149*		"	"	"	
Surrogate: Toluene-d8		*89.0 %*		*65-135*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.6 %*		*65-135*		"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-12-5 (E802035-09) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB82009	15-Feb-08	15-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*90.2 %*		*65-135*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*82.2 %*		*52-149*	"	"	"	"	
Surrogate: Toluene-d8		*99.7 %*		*65-135*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.3 %*		*65-135*	"	"	"	"	
MW-12-10 (E802035-10) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB82009	15-Feb-08	15-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*88.5 %*		*65-135*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*80.5 %*		*52-149*	"	"	"	"	
Surrogate: Toluene-d8		*95.0 %*		*65-135*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.0 %*		*65-135*	"	"	"	"	

MOBILE GEOCHEMISTRY
H&P

Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-12-15 (E802035-11) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB82009	15-Feb-08	15-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*83.4 %*		*65-135*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*71.2 %*		*52-149*		"	"	"	
Surrogate: Toluene-d8		*93.2 %*		*65-135*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.8 %*		*65-135*		"	"	"	
MW-12-20 (E802035-12) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB82205	19-Feb-08	19-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*92.8 %*		*65-135*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*87.8 %*		*52-149*		"	"	"	
Surrogate: Toluene-d8		*103 %*		*65-135*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*111 %*		*65-135*		"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-12-25 (E802035-13) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB82205	19-Feb-08	19-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*88.2 %*		*65-135*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*80.1 %*		*52-149*	"	"	"	"	
Surrogate: Toluene-d8		*93.6 %*		*65-135*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*		*65-135*	"	"	"	"	
MW-12-30 (E802035-14) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB82205	19-Feb-08	19-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*84.2 %*		*65-135*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*83.3 %*		*52-149*	"	"	"	"	
Surrogate: Toluene-d8		*88.6 %*		*65-135*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.1 %*		*65-135*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-12-35 (E802035-15) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	8.3	5.0	ug/kg	0.5	EB82205	19-Feb-08	19-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*95.4 %*		*65-135*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*86.0 %*		*52-149*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*65-135*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*112 %*		*65-135*	"	"	"	"	
MW-12-39 (E802035-16) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	ND	5.0	ug/kg	0.5	EB82205	19-Feb-08	19-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*93.3 %*		*65-135*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*89.4 %*		*52-149*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*65-135*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*65-135*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-11-5 (E802035-01) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-11-10 (E802035-02) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-11-15 (E802035-03) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-11-20 (E802035-04) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-11-25 (E802035-05) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-11-30 (E802035-06) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-11-35 (E802035-07) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-11-38 (E802035-08) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-12-5 (E802035-09) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-12-10 (E802035-10) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-12-15 (E802035-11) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-12-20 (E802035-12) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-12-25 (E802035-13) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-12-30 (E802035-14) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-12-35 (E802035-15) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-12-39 (E802035-16) Soil Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	10	mg/kg	1	EB82207	21-Feb-08	21-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB82009 - EPA 5030										
Blank (EB82009-BLK1)				Prepared & Analyzed: 15-Feb-08						
Methyl tert-butyl ether	ND	5.0	ug/kg							
Di-isopropyl ether	ND	5.0	"							
Ethyl tert-butyl ether	ND	5.0	"							
Tert-amyl methyl ether	ND	5.0	"							
Benzene	ND	5.0	"							
Toluene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
m,p-Xylene	ND	10	"							
o-Xylene	ND	5.0	"							
Tert-butyl alcohol	ND	25	"							
Surrogate: Dibromofluoromethane	*21.4*		"	*25.0*		*85.5*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*21.6*		"	*25.0*		*86.5*	*52-149*			
Surrogate: Toluene-d8	*22.5*		"	*25.0*		*90.0*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*24.4*		"	*25.0*		*97.6*	*65-135*			
Matrix Spike (EB82009-MS1)		Source: E802035-03		Prepared & Analyzed: 15-Feb-08						
Benzene	21.5	5.0	ug/kg	25.0	ND	86.2	65-135			
Toluene	23.3	5.0	"	25.0	ND	93.1	64-135			
Surrogate: Dibromofluoromethane	*20.9*		"	*25.0*		*83.8*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*19.1*		"	*25.0*		*76.3*	*52-149*			
Surrogate: Toluene-d8	*23.1*		"	*25.0*		*92.3*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*25.8*		"	*25.0*		*103*	*65-135*			
Matrix Spike Dup (EB82009-MSD1)		Source: E802035-03		Prepared & Analyzed: 15-Feb-08						
Benzene	22.4	5.0	ug/kg	25.0	ND	89.5	65-135	3.78	30	
Toluene	23.2	5.0	"	25.0	ND	92.7	64-135	0.344	30	
Surrogate: Dibromofluoromethane	*21.2*		"	*25.0*		*85.0*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*18.8*		"	*25.0*		*75.2*	*52-149*			
Surrogate: Toluene-d8	*22.2*		"	*25.0*		*88.7*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*22.6*		"	*25.0*		*90.4*	*65-135*			

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control
H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB82205 - EPA 5030										
Blank (EB82205-BLK1)				Prepared & Analyzed: 19-Feb-08						
Methyl tert-butyl ether	ND	5.0	ug/kg							
Di-isopropyl ether	ND	5.0	"							
Ethyl tert-butyl ether	ND	5.0	"							
Tert-amyl methyl ether	ND	5.0	"							
Benzene	ND	5.0	"							
Toluene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
m,p-Xylene	ND	10	"							
o-Xylene	ND	5.0	"							
Tert-butyl alcohol	ND	25	"							
Surrogate: Dibromofluoromethane	*19.9*		"	*25.0*		*79.7*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*18.6*		"	*25.0*		*74.5*	*52-149*			
Surrogate: Toluene-d8	*21.9*		"	*25.0*		*87.5*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*24.1*		"	*25.0*		*96.6*	*65-135*			
Matrix Spike (EB82205-MS1)		Source: E802035-13		Prepared & Analyzed: 19-Feb-08						
Benzene	23.9	5.0	ug/kg	25.0	ND	95.7	65-135			
Toluene	23.9	5.0	"	25.0	ND	95.6	64-135			
Surrogate: Dibromofluoromethane	*21.7*		"	*25.0*		*87.0*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*20.0*		"	*25.0*		*80.1*	*52-149*			
Surrogate: Toluene-d8	*23.4*		"	*25.0*		*93.4*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*24.2*		"	*25.0*		*96.9*	*65-135*			
Matrix Spike Dup (EB82205-MSD1)		Source: E802035-13		Prepared & Analyzed: 19-Feb-08						
Benzene	25.5	5.0	ug/kg	25.0	ND	102	65-135	6.29	30	
Toluene	25.2	5.0	"	25.0	ND	101	64-135	5.29	30	
Surrogate: Dibromofluoromethane	*22.5*		"	*25.0*		*90.0*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*22.7*		"	*25.0*		*90.6*	*52-149*			
Surrogate: Toluene-d8	*25.6*		"	*25.0*		*102*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*24.1*		"	*25.0*		*96.4*	*65-135*			

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

TPH by GC FID - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB82207 - LUFT-DHS										
Blank (EB82207-BLK1)				Prepared & Analyzed: 21-Feb-08						
Gasoline (C5-C11)	ND	10	mg/kg							
Diesel (C12-C24)	ND	10	"							
Matrix Spike (EB82207-MS1)		Source: E802035-01		Prepared & Analyzed: 21-Feb-08						
Gasoline (C5-C11)	164	10	mg/kg	200	ND	81.8	67-125			
Diesel (C12-C24)	461	10	"	500	ND	92.2	67-125			
Matrix Spike Dup (EB82207-MSD1)		Source: E802035-01		Prepared & Analyzed: 21-Feb-08						
Gasoline (C5-C11)	205	10	mg/kg	200	ND	103	67-125	22.5	30	
Diesel (C12-C24)	462	10	"	500	ND	92.4	67-125	0.130	30	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11B	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

☑ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159

☐ 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Date: _____

H&P Project # PG-021108-11 B

Outside Lab: _____

Client: PETRA GEOTECH.

Address: 12225 WORLD TRADE DR. #P
S.D. CA 92128

Email: jolbinski@petra-inc.com Phone: (858) 495-5530

Collector: DBS.

Client Project # 252-06

Location: 11427 WOODSIDE AVE., SANTEE

Fax: (858) 495-8215

Page: 1 of 2

Project Contact: JIM OLBINSKI

Turn around time: STD.

EDF: Yes ☑ No ☐

Global ID: T0607303173

Sample Receipt
Intact: ☑ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☑ N/A
Cold: ☑ Yes ☐ No
N/A (Received on Site)

Special Instructions:

P.O. # 08-1043

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☑ gasoline ☐ diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates / MTBE	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARWQCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify)	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2	Total # of containers
MW-11-5			9:50	2/8	S	STEEL SLEEVE	X			X											
MW-11-10			9:58																		
MW-11-15			10:04																		
MW-11-20			10:10																		
MW-11-25			10:16																		
MW-11-30			10:30																		
MW-11-35			10:36																		
MW-11-38			10:39																		
MW-12-5			2:26																		
MW-12-10			2:30							✓											

Relinquished by: (Signature) _____ (company) PETRA

Relinquished by: (Signature) _____ (company) Petra

Relinquished by: (Signature) _____ (company)

Received by: (Signature) _____ (company) Petra — Date: 2-11-08 — Time: 1.30pm

Received by: (Signature) _____ (company) H&P — Date: 2/11/08 — Time: 2:15pm

Received by: (Signature) _____ (company) — Date: _____ — Time: _____

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ Disposal @ $2.00 each ☐ Return to client ☐ Pickup

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

☑ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Date:
H&P Project # P60211 08-11 B
Outside Lab:

Client: PETRA GEOTECH
Address: 12225 WORLD TRADE DR. #P
S.D. CA 92128
Email: jolbinski@petra-inc.com Phone: (858) 485-5530

Collector: DBS.
Client Project # 252-06
Location: 11427 WOODSIDE AVE, SANTEE
Fax: (858) 485-9215

Page: 2 of 2
Project Contact: JIM OLBINSKI
Turn around time: STD.

EDF: Yes☑ No☐
Global ID: T0607303173

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☑ Yes ☐ No
N/A (Received on Site)

Special Instructions:

P.O. # 08-1043

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☐ gasoline ☑ diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates/MTBE	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARWQCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify)	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2	Total # of containers
MW-12-15			2:35	2/8	S	STEEL SLEEVE	X			X											
MW-12-20			2:40																		
MW-12-25			2:45																		
MW-12-30			2:54																		
MW-12-35			3:12																		
MW-12-39			3:17																		

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date: 2-11-08	Time: 1.30 pm
Relinquished by: (Signature)	(company) PETRA	Received by: (Signature)	(company) Petra	Date: 2/11/08	Time: 2:15 pm
Relinquished by: (Signature)	(company) Petra	Received by: (Signature)	(company) H&P	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ *Disposal @ $2.00 each* ☐ *Return to client* ☐ *Pickup*

EnviroMatrix Analytical, Inc.

29 February 2008

PETRA Geotechnical, Inc.
Attn: Jim Olbinski
12225 World Trade Drive, Suite P
San Diego, California 92128

EMA Log #: 0802367

Project Name: Wigington Oil
Project Desc./#: 252-06

Enclosed are the results of analyses for samples received by the laboratory on 02/20/08 12:10. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

Dan Verdon
Laboratory Director

CA ELAP Certification #: 2564

RECEIVED
MAR 04 2008

Client Name: PETRA Geotechnical, Inc. **EMA Log #: 0802367**
Project Name: Wigington Oil

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-13-5	0802367-01	Soil	02/18/08 08:17	02/20/08 12:10
MW-13-10	0802367-02	Soil	02/18/08 08:21	02/20/08 12:10
MW-13-15	0802367-03	Soil	02/18/08 09:10	02/20/08 12:10
MW-13-20	0802367-04	Soil	02/18/08 09:16	02/20/08 12:10
MW-13-25	0802367-05	Soil	02/18/08 10:20	02/20/08 12:10
MW-13-30	0802367-06	Soil	02/18/08 10:26	02/20/08 12:10
MW-13-35	0802367-07	Soil	02/18/08 10:35	02/20/08 12:10
MW-13-40	0802367-08	Soil	02/18/08 10:46	02/20/08 12:10
MW-13-45	0802367-09	Soil	02/18/08 10:53	02/20/08 12:10
MW-13-50	0802367-10	Soil	02/18/08 11:00	02/20/08 12:10
MW-14-5	0802367-11	Soil	02/18/08 14:10	02/20/08 12:10
MW-14-10	0802367-12	Soil	02/18/08 14:16	02/20/08 12:10
MW-14-15	0802367-13	Soil	02/18/08 14:23	02/20/08 12:10
MW-14-20	0802367-14	Soil	02/18/08 14:30	02/20/08 12:10
MW-14-25	0802367-15	Soil	02/18/08 14:38	02/20/08 12:10
MW-14-30	0802367-16	Soil	02/18/08 14:48	02/20/08 12:10
MW-14-35	0802367-17	Soil	02/18/08 15:00	02/20/08 12:10
MW-14-40	0802367-18	Soil	02/18/08 15:05	02/20/08 12:10
MW-15-5	0802367-19	Soil	02/19/08 08:36	02/20/08 12:10
MW-15-10	0802367-20	Soil	02/19/08 08:40	02/20/08 12:10
MW-15-15	0802367-21	Soil	02/19/08 08:44	02/20/08 12:10
MW-15-20	0802367-22	Soil	02/19/08 08:48	02/20/08 12:10
MW-15-25	0802367-23	Soil	02/19/08 08:55	02/20/08 12:10
MW-15-30	0802367-24	Soil	02/19/08 09:01	02/20/08 12:10
MW-15-35	0802367-25	Soil	02/19/08 09:10	02/20/08 12:10
MW-15-40	0802367-26	Soil	02/19/08 09:18	02/20/08 12:10
MW-16-5	0802367-27	Soil	02/19/08 11:13	02/20/08 12:10
MW-16-10	0802367-28	Soil	02/19/08 11:18	02/20/08 12:10
MW-16-15	0802367-29	Soil	02/19/08 11:23	02/20/08 12:10
MW-16-20	0802367-30	Soil	02/19/08 11:26	02/20/08 12:10

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-16-25	0802367-31	Soil	02/19/08 11:30	02/20/08 12:10
MW-16-30	0802367-32	Soil	02/19/08 11:35	02/20/08 12:10
MW-16-35	0802367-33	Soil	02/19/08 11:40	02/20/08 12:10
MW-16-40	0802367-34	Soil	02/19/08 11:43	02/20/08 12:10
MW-17-5	0802367-35	Soil	02/19/08 14:05	02/20/08 12:10
MW-17-10	0802367-36	Soil	02/19/08 14:10	02/20/08 12:10
MW-17-15	0802367-37	Soil	02/19/08 14:12	02/20/08 12:10
MW-17-20	0802367-38	Soil	02/19/08 14:16	02/20/08 12:10
MW-17-25	0802367-39	Soil	02/19/08 14:20	02/20/08 12:10
MW-17-30	0802367-40	Soil	02/19/08 14:24	02/20/08 12:10
MW-17-35	0802367-41	Soil	02/19/08 14:30	02/20/08 12:10
MW-17-38	0802367-42	Soil	02/19/08 14:35	02/20/08 12:10
MW-17-45	0802367-43	Soil	02/19/08 00:00	02/20/08 12:10

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc. **EMA Log #: 0802367**
Project Name: Wigington Oil

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-13-5 (0802367-01) Soil Sampled: 02/18/08 08:17 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/23/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*103 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	
MW-13-10 (0802367-02) Soil Sampled: 02/18/08 08:21 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/23/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-13-15 (0802367-03) Soil Sampled: 02/18/08 09:10 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/23/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*104 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	
MW-13-20 (0802367-04) Soil Sampled: 02/18/08 09:16 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/23/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-13-25 (0802367-05) Soil Sampled: 02/18/08 10:20 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/23/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*108 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	
MW-13-30 (0802367-06) Soil Sampled: 02/18/08 10:26 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/23/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-13-35 (0802367-07) Soil Sampled: 02/18/08 10:35 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/23/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*112 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	
MW-13-40 (0802367-08) Soil Sampled: 02/18/08 10:46 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/23/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-13-45 (0802367-09) Soil Sampled: 02/18/08 10:53 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/23/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	
MW-13-50 (0802367-10) Soil Sampled: 02/18/08 11:00 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/23/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*100 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-14-5 (0802367-11) Soil Sampled: 02/18/08 14:10 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/23/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	
MW-14-10 (0802367-12) Soil Sampled: 02/18/08 14:16 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/23/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*112 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-14-15 (0802367-13) Soil Sampled: 02/18/08 14:23 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/23/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*103 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	
MW-14-20 (0802367-14) Soil Sampled: 02/18/08 14:30 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/23/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*114 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc. **EMA Log #: 0802367**
Project Name: Wigington Oil

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-14-25 (0802367-15) Soil Sampled: 02/18/08 14:38 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/23/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*111 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	
MW-14-30 (0802367-16) Soil Sampled: 02/18/08 14:48 Received: 02/20/08 12:10									
Benzene	**31.7**	2.00	ug/kg	1	8022301	02/23/08	02/24/08	EPA 8260B	
Ethylbenzene	**61.9**	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	**22.5**	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	**5.35**	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*117 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*100 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-14-35 (0802367-17) Soil Sampled: 02/18/08 15:00 Received: 02/20/08 12:10									
Benzene	**100**	2.00	ug/kg	1	8022301	02/23/08	02/24/08	EPA 8260B	
Ethylbenzene	**143**	2.00	"	"	"	"	"	"	
Metbyl tert-butyl ether	**71.2**	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	**5.32**	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*115 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	
MW-14-40 (0802367-18) Soil Sampled: 02/18/08 15:05 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022301	02/23/08	02/24/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*120 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-15-5 (0802367-19) Soil Sampled: 02/19/08 08:36 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*101 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	
MW-15-10 (0802367-20) Soil Sampled: 02/19/08 08:40 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*104 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-15-15 (0802367-21) Soil Sampled: 02/19/08 08:44 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	
MW-15-20 (0802367-22) Soil Sampled: 02/19/08 08:48 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*108 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-15-25 (0802367-23) Soil Sampled: 02/19/08 08:55 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	
MW-15-30 (0802367-24) Soil Sampled: 02/19/08 09:01 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	**2.38**	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*113 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-15-35 (0802367-25) Soil Sampled: 02/19/08 09:10 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	
MW-15-40 (0802367-26) Soil Sampled: 02/19/08 09:18 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	**2.58**	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*109 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16-5 (0802367-27) Soil Sampled: 02/19/08 11:13 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*95 %*	*80-121*		"	"	"	"	
MW-16-10 (0802367-28) Soil Sampled: 02/19/08 11:18 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*104 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16-15 (0802367-29) Soil Sampled: 02/19/08 11:23 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	
MW-16-20 (0802367-30) Soil Sampled: 02/19/08 11:26 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*108 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*100 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16-25 (0802367-31) Soil Sampled: 02/19/08 11:30 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	
MW-16-30 (0802367-32) Soil Sampled: 02/19/08 11:35 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16-35 (0802367-33) Soil Sampled: 02/19/08 11:40 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	**3.02**	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*113 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	
MW-16-40 (0802367-34) Soil Sampled: 02/19/08 11:43 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	**2.70**	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*112 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-17-5 (0802367-35) Soil Sampled: 02/19/08 14:05 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	
MW-17-10 (0802367-36) Soil Sampled: 02/19/08 14:10 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*109 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-17-15 (0802367-37) Soil Sampled: 02/19/08 14:12 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022503	02/25/08	02/25/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*114 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*100 %*	*80-121*		"	"	"	"	
MW-17-20 (0802367-38) Soil Sampled: 02/19/08 14:16 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022504	02/25/08	02/26/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*122 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-17-25 (0802367-39) Soil Sampled: 02/19/08 14:20 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022504	02/25/08	02/26/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*118 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	
MW-17-30 (0802367-40) Soil Sampled: 02/19/08 14:24 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022504	02/25/08	02/26/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*119 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-17-35 (0802367-41) Soil Sampled: 02/19/08 14:30 Received: 02/20/08 12:10									G-04
Benzene	ND	2.00	ug/kg	1	8022504	02/25/08	02/26/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*126 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*129 %*	*70-124*		"	"	"	"	*S-04*
Surrogate: Toluene-d8		*111 %*	*80-121*		"	"	"	"	
MW-17-38 (0802367-42) Soil Sampled: 02/19/08 14:35 Received: 02/20/08 12:10									
Benzene	ND	2.00	ug/kg	1	8022504	02/25/08	02/26/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-17-45 (0802367-43) Soil Sampled: 02/19/08 00:00 Received: 02/20/08 12:10									**G-04**
Benzene	ND	2.00	ug/kg	1	8022504	02/25/08	02/26/08	EPA 8260B	
Ethylbenzene	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	5.00	"	"	"	"	"	"	
o-Xylene	ND	2.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*120 %*	*61-141*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*	*70-124*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*80-121*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

TPH by EPA 8015B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-13-5 (0802367-01) Soil Sampled: 02/18/08 08:17 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/21/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93 %*	*75-129*		"	"	"	"	
MW-13-10 (0802367-02) Soil Sampled: 02/18/08 08:21 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/21/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95 %*	*75-129*		"	"	"	"	
MW-13-15 (0802367-03) Soil Sampled: 02/18/08 09:10 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/21/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87 %*	*75-129*		"	"	"	"	
MW-13-20 (0802367-04) Soil Sampled: 02/18/08 09:16 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/21/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88 %*	*75-129*		"	"	"	"	
MW-13-25 (0802367-05) Soil Sampled: 02/18/08 10:20 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/21/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90 %*	*75-129*		"	"	"	"	
MW-13-30 (0802367-06) Soil Sampled: 02/18/08 10:26 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/21/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92 %*	*75-129*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

TPH by EPA 8015B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-13-35 (0802367-07) Soil Sampled: 02/18/08 10:35 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90 %*	*75-129*		"	"	"	"	
MW-13-40 (0802367-08) Soil Sampled: 02/18/08 10:46 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95 %*	*75-129*		"	"	"	"	
MW-13-45 (0802367-09) Soil Sampled: 02/18/08 10:53 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86 %*	*75-129*		"	"	"	"	
MW-13-50 (0802367-10) Soil Sampled: 02/18/08 11:00 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88 %*	*75-129*		"	"	"	"	
MW-14-5 (0802367-11) Soil Sampled: 02/18/08 14:10 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*89 %*	*75-129*		"	"	"	"	
MW-14-10 (0802367-12) Soil Sampled: 02/18/08 14:16 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92 %*	*75-129*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

TPH by EPA 8015B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-14-15 (0802367-13) Soil Sampled: 02/18/08 14:23 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87 %*	*75-129*		"	"	"	"	
MW-14-20 (0802367-14) Soil Sampled: 02/18/08 14:30 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*85 %*	*75-129*		"	"	"	"	
MW-14-25 (0802367-15) Soil Sampled: 02/18/08 14:38 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91 %*	*75-129*		"	"	"	"	
MW-14-30 (0802367-16) Soil Sampled: 02/18/08 14:48 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	**37.2**	10.0	"	"	"	"	"	"	D-45
Surrogate: 4-Bromofluorobenzene		*83 %*	*75-129*		"	"	"	"	
MW-14-35 (0802367-17) Soil Sampled: 02/18/08 15:00 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87 %*	*75-129*		"	"	"	"	
MW-14-40 (0802367-18) Soil Sampled: 02/18/08 15:05 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90 %*	*75-129*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

TPH by EPA 8015B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-15-5 (0802367-19) Soil Sampled: 02/19/08 08:36 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88 %*	*75-129*		"	"	"	"	
MW-15-10 (0802367-20) Soil Sampled: 02/19/08 08:40 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022106	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92 %*	*75-129*		"	"	"	"	
MW-15-15 (0802367-21) Soil Sampled: 02/19/08 08:44 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98 %*	*75-129*		"	"	"	"	
MW-15-20 (0802367-22) Soil Sampled: 02/19/08 08:48 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92 %*	*75-129*		"	"	"	"	
MW-15-25 (0802367-23) Soil Sampled: 02/19/08 08:55 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91 %*	*75-129*		"	"	"	"	
MW-15-30 (0802367-24) Soil Sampled: 02/19/08 09:01 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98 %*	*75-129*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

TPH by EPA 8015B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-15-35 (0802367-25) Soil Sampled: 02/19/08 09:10 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/22/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93 %*	*75-129*		"	"	"	"	
MW-15-40 (0802367-26) Soil Sampled: 02/19/08 09:18 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/23/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95 %*	*75-129*		"	"	"	"	
MW-16-5 (0802367-27) Soil Sampled: 02/19/08 11:13 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/23/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	D-03, D-40
Surrogate: 4-Bromofluorobenzene		*95 %*	*75-129*		"	"	"	"	
MW-16-10 (0802367-28) Soil Sampled: 02/19/08 11:18 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/23/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95 %*	*75-129*		"	"	"	"	
MW-16-15 (0802367-29) Soil Sampled: 02/19/08 11:23 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/23/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95 %*	*75-129*		"	"	"	"	
MW-16-20 (0802367-30) Soil Sampled: 02/19/08 11:26 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/23/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94 %*	*75-129*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

TPH by EPA 8015B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16-25 (0802367-31) Soil Sampled: 02/19/08 11:30 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/23/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97 %*	*75-129*		"	"	"	"	
MW-16-30 (0802367-32) Soil Sampled: 02/19/08 11:35 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/23/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97 %*	*75-129*		"	"	"	"	
MW-16-35 (0802367-33) Soil Sampled: 02/19/08 11:40 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/23/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93 %*	*75-129*		"	"	"	"	
MW-16-40 (0802367-34) Soil Sampled: 02/19/08 11:43 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/23/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93 %*	*75-129*		"	"	"	"	
MW-17-5 (0802367-35) Soil Sampled: 02/19/08 14:05 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/23/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94 %*	*75-129*		"	"	"	"	
MW-17-10 (0802367-36) Soil Sampled: 02/19/08 14:10 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/23/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96 %*	*75-129*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

TPH by EPA 8015B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-17-15 (0802367-37) Soil Sampled: 02/19/08 14:12 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/23/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*75-129*		"	"	"	"	
MW-17-20 (0802367-38) Soil Sampled: 02/19/08 14:16 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/23/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96 %*	*75-129*		"	"	"	"	
MW-17-25 (0802367-39) Soil Sampled: 02/19/08 14:20 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/23/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90 %*	*75-129*		"	"	"	"	
MW-17-30 (0802367-40) Soil Sampled: 02/19/08 14:24 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022107	02/21/08	02/23/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*100 %*	*75-129*		"	"	"	"	
MW-17-35 (0802367-41) Soil Sampled: 02/19/08 14:30 Received: 02/20/08 12:10									
Gasoline (C6-C10)	**378**	10.0	mg/kg	1	8022511	02/25/08	02/26/08	EPA 8015B	D-12
Diesel (C10-C28)	**1610**	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93 %*	*75-129*		"	"	"	"	
MW-17-38 (0802367-42) Soil Sampled: 02/19/08 14:35 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022511	02/25/08	02/26/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95 %*	*75-129*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

TPH by EPA 8015B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-17-45 (0802367-43) Soil Sampled: 02/19/08 00:00 Received: 02/20/08 12:10									
Gasoline (C6-C10)	ND	10.0	mg/kg	1	8022511	02/25/08	02/26/08	EPA 8015B	
Diesel (C10-C28)	ND	10.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93 %*	*75-129*		"	"	"	"	

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022301										
Blank (8022301-BLK1)				Prepared & Analyzed: 02/23/08						
Benzene	ND	2.00	ug/kg							
Ethylbenzene	ND	2.00	"							
Methyl tert-butyl ether	ND	2.00	"							
Toluene	ND	2.00	"							
m,p-Xylene	ND	5.00	"							
o-Xylene	ND	2.00	"							
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"							
Di-isopropyl ether	ND	2.00	"							
Ethyl tert-butyl ether	ND	2.00	"							
tert-Amyl methyl ether	ND	2.00	"							
Surrogate: Dibromofluoromethane	*117*		"	*125*		*94*	*61-141*			
Surrogate: 4-Bromofluorobenzene	*123*		"	*125*		*98*	*70-124*			
Surrogate: Toluene-d8	*123*		"	*125*		*98*	*80-121*			
LCS (8022301-BS1)				Prepared & Analyzed: 02/23/08						
Benzene	120	2.00	ug/kg	125		96	81-120			
Chlorobenzene	125	2.00	"	125		100	90-109			
1,1-Dichloroethene	101	2.00	"	125		81	67-116			
Toluene	117	2.00	"	125		94	78-112			
Trichloroethene	124	2.00	"	125		99	79-108			
Surrogate: Dibromofluoromethane	*114*		"	*125*		*91*	*61-141*			
Surrogate: 4-Bromofluorobenzene	*121*		"	*125*		*97*	*70-124*			
Surrogate: Toluene-d8	*124*		"	*125*		*99*	*80-121*			
Duplicate (8022301-DUP1)		**Source: 0802367-01**		Prepared & Analyzed: 02/23/08						
Benzene	ND	2.00	ug/kg		ND				30	
Ethylbenzene	ND	2.00	"		ND				30	
Methyl tert-butyl ether	ND	2.00	"		ND				30	
Toluene	ND	2.00	"		ND				30	
m,p-Xylene	ND	5.00	"		ND				30	
o-Xylene	ND	2.00	"		ND				30	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"		ND				30	
Di-isopropyl ether	ND	2.00	"		ND				30	
Ethyl tert-butyl ether	ND	2.00	"		ND				30	
tert-Amyl methyl ether	ND	2.00	"		ND				30	
Surrogate: Dibromofluoromethane	*126*		"	*125*		*101*	*61-141*			
Surrogate: 4-Bromofluorobenzene	*133*		"	*125*		*106*	*70-124*			
Surrogate: Toluene-d8	*123*		"	*125*		*98*	*80-121*			

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022301										
Matrix Spike (8022301-MS1)		**Source: 0802367-01**		Prepared & Analyzed: 02/23/08						
Benzene	129	2.00	ug/kg	125	ND	103	77-127			
Chlorobenzene	132	2.00	"	125	ND	106	84-114			
1,1-Dichloroethene	112	2.00	"	125	ND	90	61-129			
Toluene	123	2.00	"	125	ND	98	66-139			
Trichloroethene	129	2.00	"	125	ND	103	83-113			
Surrogate: Dibromofluoromethane	*127*		"	*125*		*102*	*61-141*			
Surrogate: 4-Bromofluorobenzene	*130*		"	*125*		*104*	*70-124*			
Surrogate: Toluene-d8	*124*		"	*125*		*99*	*80-121*			
Matrix Spike Dup (8022301-MSD1)		**Source: 0802367-01**		Prepared & Analyzed: 02/23/08						
Benzene	130	2.00	ug/kg	125	ND	104	77-127	0.8	30	
Chlorobenzene	133	2.00	"	125	ND	106	84-114	0.8	30	
1,1-Dichloroethene	114	2.00	"	125	ND	91	61-129	2	30	
Toluene	124	2.00	"	125	ND	99	66-139	0.8	30	
Trichloroethene	130	2.00	"	125	ND	104	83-113	0.8	30	
Surrogate: Dibromofluoromethane	*126*		"	*125*		*101*	*61-141*			
Surrogate: 4-Bromofluorobenzene	*129*		"	*125*		*103*	*70-124*			
Surrogate: Toluene-d8	*123*		"	*125*		*98*	*80-121*			
Batch 8022503										
Blank (8022503-BLK1)				Prepared & Analyzed: 02/25/08						
Benzene	ND	2.00	ug/kg							
Ethylbenzene	ND	2.00	"							
Methyl tert-butyl ether	ND	2.00	"							
Toluene	ND	2.00	"							
m,p-Xylene	ND	5.00	"							
o-Xylene	ND	2.00	"							
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"							
Di-isopropyl ether	ND	2.00	"							
Ethyl tert-butyl ether	ND	2.00	"							
tert-Amyl methyl ether	ND	2.00	"							
Surrogate: Dibromofluoromethane	*118*		"	*125*		*94*	*61-141*			
Surrogate: 4-Bromofluorobenzene	*120*		"	*125*		*96*	*70-124*			
Surrogate: Toluene-d8	*122*		"	*125*		*98*	*80-121*			

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022503										
LCS (8022503-BS1)				Prepared & Analyzed: 02/25/08						
Benzene	127	2.00	ug/kg	125		102	81-120			
Chlorobenzene	132	2.00	"	125		106	90-109			
1,1-Dichloroethene	108	2.00	"	125		86	67-116			
Toluene	122	2.00	"	125		98	78-112			
Trichloroethene	131	2.00	"	125		105	79-108			
Surrogate: Dibromofluoromethane	*116*		"	*125*		*93*	*61-141*			
Surrogate: 4-Bromofluorobenzene	*119*		"	*125*		*95*	*70-124*			
Surrogate: Toluene-d8	*122*		"	*125*		*98*	*80-121*			
Duplicate (8022503-DUP1)		**Source: 0802367-19**		Prepared & Analyzed: 02/25/08						
Benzene	ND	2.00	ug/kg		ND				30	
Ethylbenzene	ND	2.00	"		ND				30	
Methyl tert-butyl ether	ND	2.00	"		ND				30	
Toluene	ND	2.00	"		ND				30	
m,p-Xylene	ND	5.00	"		ND				30	
o-Xylene	ND	2.00	"		ND				30	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"		ND				30	
Di-isopropyl ether	ND	2.00	"		ND				30	
Ethyl tert-butyl ether	ND	2.00	"		ND				30	
tert-Amyl methyl ether	ND	2.00	"		ND				30	
Surrogate: Dibromofluoromethane	*134*		"	*125*		*107*	*61-141*			
Surrogate: 4-Bromofluorobenzene	*131*		"	*125*		*105*	*70-124*			
Surrogate: Toluene-d8	*124*		"	*125*		*99*	*80-121*			
Matrix Spike (8022503-MS1)		**Source: 0802367-19**		Prepared & Analyzed: 02/25/08						
Benzene	125	2.00	ug/kg	125	ND	100	77-127			
Chlorobenzene	129	2.00	"	125	ND	103	84-114			
1,1-Dichloroethene	107	2.00	"	125	ND	86	61-129			
Toluene	120	2.00	"	125	ND	96	66-139			
Trichloroethene	127	2.00	"	125	ND	102	83-113			
Surrogate: Dibromofluoromethane	*129*		"	*125*		*103*	*61-141*			
Surrogate: 4-Bromofluorobenzene	*128*		"	*125*		*102*	*70-124*			
Surrogate: Toluene-d8	*123*		"	*125*		*98*	*80-121*			

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022503										
Matrix Spike Dup (8022503-MSD1)		**Source: 0802367-19**		Prepared & Analyzed: 02/25/08						
Benzene	129	2.00	ug/kg	125	ND	103	77-127	3	30	
Chlorobenzene	132	2.00	"	125	ND	106	84-114	2	30	
1,1-Dichloroethene	109	2.00	"	125	ND	87	61-129	2	30	
Toluene	123	2.00	"	125	ND	98	66-139	2	30	
Trichloroethene	130	2.00	"	125	ND	104	83-113	2	30	
Surrogate: Dibromofluoromethane	*126*		"	*125*		*101*	*61-141*			
Surrogate: 4-Bromofluorobenzene	*128*		"	*125*		*102*	*70-124*			
Surrogate: Toluene-d8	*123*		"	*125*		*98*	*80-121*			
Batch 8022504										
Blank (8022504-BLK1)				Prepared & Analyzed: 02/25/08						
Benzene	ND	2.00	ug/kg							
Ethylbenzene	ND	2.00	"							
Methyl tert-butyl ether	ND	2.00	"							
Toluene	ND	2.00	"							
m,p-Xylene	ND	5.00	"							
o-Xylene	ND	2.00	"							
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"							
Di-isopropyl ether	ND	2.00	"							
Ethyl tert-butyl ether	ND	2.00	"							
tert-Amyl methyl ether	ND	2.00	"							
Surrogate: Dibromofluoromethane	*129*		"	*125*		*103*	*61-141*			
Surrogate: 4-Bromofluorobenzene	*126*		"	*125*		*101*	*70-124*			
Surrogate: Toluene-d8	*124*		"	*125*		*99*	*80-121*			
LCS (8022504-BS1)				Prepared & Analyzed: 02/25/08						
Benzene	128	2.00	ug/kg	125		102	81-120			
Chlorobenzene	131	2.00	"	125		105	90-109			
1,1-Dichloroethene	110	2.00	"	125		88	67-116			
Toluene	121	2.00	"	125		97	78-112			
Trichloroethene	128	2.00	"	125		102	79-108			
Surrogate: Dibromofluoromethane	*130*		"	*125*		*104*	*61-141*			
Surrogate: 4-Bromofluorobenzene	*123*		"	*125*		*98*	*70-124*			
Surrogate: Toluene-d8	*123*		"	*125*		*98*	*80-121*			

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022504										
Duplicate (8022504-DUP1)		**Source: 0802367-38**		Prepared & Analyzed: 02/25/08						
Benzene	ND	2.00	ug/kg		ND				30	
Ethylbenzene	ND	2.00	"		ND				30	
Methyl tert-butyl ether	ND	2.00	"		ND				30	
Toluene	ND	2.00	"		ND				30	
m,p-Xylene	ND	5.00	"		ND				30	
o-Xylene	ND	2.00	"		ND				30	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	100	"		ND				30	
Di-isopropyl ether	ND	2.00	"		ND				30	
Ethyl tert-butyl ether	ND	2.00	"		ND				30	
tert-Amyl methyl ether	ND	2.00	"		ND				30	
Surrogate: Dibromofluoromethane	*150*		"	*125*		*120*	*61-141*			
Surrogate: 4-Bromofluorobenzene	*131*		"	*125*		*105*	*70-124*			
Surrogate: Toluene-d8	*124*		"	*125*		*99*	*80-121*			
Matrix Spike (8022504-MS1)		**Source: 0802367-38**		Prepared & Analyzed: 02/25/08						
Benzene	131	2.00	ug/kg	125	ND	105	77-127			
Chlorobenzene	130	2.00	"	125	ND	104	84-114			
1,1-Dichloroethene	126	2.00	"	125	ND	101	61-129			
Toluene	121	2.00	"	125	ND	97	66-139			
Trichloroethene	124	2.00	"	125	ND	99	83-113			
Surrogate: Dibromofluoromethane	*159*		"	*125*		*127*	*61-141*			
Surrogate: 4-Bromofluorobenzene	*128*		"	*125*		*102*	*70-124*			
Surrogate: Toluene-d8	*124*		"	*125*		*99*	*80-121*			
Matrix Spike Dup (8022504-MSD1)		**Source: 0802367-38**		Prepared & Analyzed: 02/25/08						
Benzene	132	2.00	ug/kg	125	ND	106	77-127	0.8	30	
Chlorobenzene	131	2.00	"	125	ND	105	84-114	0.8	30	
1,1-Dichloroethene	123	2.00	"	125	ND	98	61-129	2	30	
Toluene	121	2.00	"	125	ND	97	66-139	0	30	
Trichloroethene	127	2.00	"	125	ND	102	83-113	2	30	
Surrogate: Dibromofluoromethane	*147*		"	*125*		*118*	*61-141*			
Surrogate: 4-Bromofluorobenzene	*130*		"	*125*		*104*	*70-124*			
Surrogate: Toluene-d8	*125*		"	*125*		*100*	*80-121*			

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

TPH by EPA 8015B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022106										
Blank (8022106-BLK1)				Prepared & Analyzed: 02/21/08						
Gasoline (C6-C10)	ND	10.0	mg/kg							
Diesel (C10-C28)	ND	10.0	"							
Surrogate: 4-Bromofluorobenzene	*44.4*		"	*50.0*		*89*	*75-129*			
LCS (8022106-BS1)				Prepared & Analyzed: 02/21/08						
Gasoline (C6-C10)	208	10.0	mg/kg	200		104	75-125			
Diesel (C10-C28)	495	10.0	"	500		99	75-125			
Surrogate: 4-Bromofluorobenzene	*42.1*		"	*50.0*		*84*	*75-129*			
LCS Dup (8022106-BSD1)				Prepared & Analyzed: 02/21/08						
Gasoline (C6-C10)	218	10.0	mg/kg	200		109	75-125	5	30	
Diesel (C10-C28)	502	10.0	"	500		100	75-125	1	30	
Surrogate: 4-Bromofluorobenzene	*44.4*		"	*50.0*		*89*	*75-129*			
Duplicate (8022106-DUP1)		**Source: 0802367-01**		Prepared & Analyzed: 02/21/08						
Gasoline (C6-C10)	ND	10.0	mg/kg		ND				30	
Diesel (C10-C28)	ND	10.0	"		ND				30	
Surrogate: 4-Bromofluorobenzene	*45.9*		"	*50.0*		*92*	*75-129*			
Matrix Spike (8022106-MS1)		**Source: 0802367-01**		Prepared & Analyzed: 02/21/08						
Gasoline (C6-C10)	232	10.0	mg/kg	200	ND	116	75-125			
Diesel (C10-C28)	484	10.0	"	500	ND	97	75-125			
Surrogate: 4-Bromofluorobenzene	*45.4*		"	*50.0*		*91*	*75-129*			
Matrix Spike Dup (8022106-MSD1)		**Source: 0802367-01**		Prepared & Analyzed: 02/21/08						
Gasoline (C6-C10)	224	10.0	mg/kg	200	ND	112	75-125	4	30	
Diesel (C10-C28)	533	10.0	"	500	ND	107	75-125	10	30	
Surrogate: 4-Bromofluorobenzene	*46.4*		"	*50.0*		*93*	*75-129*			

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

TPH by EPA 8015B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022107										
Blank (8022107-BLK1)				Prepared: 02/21/08 Analyzed: 02/22/08						
Gasoline (C6-C10)	ND	10.0	mg/kg							
Diesel (C10-C28)	ND	10.0	"							
Surrogate: 4-Bromofluorobenzene	*46.0*		"	*50.0*		*92*	*75-129*			
LCS (8022107-BS1)				Prepared: 02/21/08 Analyzed: 02/22/08						
Gasoline (C6-C10)	181	10.0	mg/kg	200		90	75-125			
Diesel (C10-C28)	438	10.0	"	500		88	75-125			
Surrogate: 4-Bromofluorobenzene	*45.9*		"	*50.0*		*92*	*75-129*			
LCS Dup (8022107-BSD1)				Prepared: 02/21/08 Analyzed: 02/22/08						
Gasoline (C6-C10)	213	10.0	mg/kg	200		106	75-125	16	30	
Diesel (C10-C28)	484	10.0	"	500		97	75-125	10	30	
Surrogate: 4-Bromofluorobenzene	*48.3*		"	*50.0*		*97*	*75-129*			
Duplicate (8022107-DUP1)		**Source: 0802367-21**		Prepared: 02/21/08 Analyzed: 02/22/08						
Gasoline (C6-C10)	ND	10.0	mg/kg		ND				30	
Diesel (C10-C28)	ND	10.0	"		ND				30	
Surrogate: 4-Bromofluorobenzene	*49.0*		"	*50.0*		*98*	*75-129*			
Matrix Spike (8022107-MS1)		**Source: 0802367-21**		Prepared: 02/21/08 Analyzed: 02/22/08						
Gasoline (C6-C10)	202	10.0	mg/kg	200	ND	101	75-125			
Diesel (C10-C28)	465	10.0	"	500	ND	93	75-125			
Surrogate: 4-Bromofluorobenzene	*47.8*		"	*50.0*		*96*	*75-129*			
Matrix Spike Dup (8022107-MSD1)		**Source: 0802367-21**		Prepared: 02/21/08 Analyzed: 02/22/08						
Gasoline (C6-C10)	211	10.0	mg/kg	200	ND	106	75-125	4	30	
Diesel (C10-C28)	497	10.0	"	500	ND	99	75-125	7	30	
Surrogate: 4-Bromofluorobenzene	*50.2*		"	*50.0*		*100*	*75-129*			

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Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802367

TPH by EPA 8015B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022511										
Blank (8022511-BLK1)				Prepared: 02/25/08 Analyzed: 02/26/08						
Gasoline (C6-C10)	ND	10.0	mg/kg							
Diesel (C10-C28)	ND	10.0	"							
Surrogate: 4-Bromofluorobenzene	*46.1*		"	*50.0*		*92*	*75-129*			
LCS (8022511-BS1)				Prepared: 02/25/08 Analyzed: 02/26/08						
Gasoline (C6-C10)	187	10.0	mg/kg	200		94	75-125			
Diesel (C10-C28)	453	10.0	"	500		91	75-125			
Surrogate: 4-Bromofluorobenzene	*46.1*		"	*50.0*		*92*	*75-129*			
LCS Dup (8022511-BSD1)				Prepared: 02/25/08 Analyzed: 02/26/08						
Gasoline (C6-C10)	210	10.0	mg/kg	200		105	75-125	12	30	
Diesel (C10-C28)	465	10.0	"	500		93	75-125	3	30	
Surrogate: 4-Bromofluorobenzene	*46.5*		"	*50.0*		*93*	*75-129*			
Duplicate (8022511-DUP1)		**Source: 0802367-41**		Prepared: 02/25/08 Analyzed: 02/26/08						
Gasoline (C6-C10)	361	10.0	mg/kg		378			5	30	D-12
Diesel (C10-C28)	1530	10.0	"		1610			5	30	
Surrogate: 4-Bromofluorobenzene	*48.3*		"	*50.0*		*97*	*75-129*			
Matrix Spike (8022511-MS1)		**Source: 0802367-41**		Prepared: 02/25/08 Analyzed: 02/26/08						
Gasoline (C6-C10)	672	10.0	mg/kg	200	378	147	75-125			QM-08
Diesel (C10-C28)	2270	10.0	"	500	1610	132	75-125			QM-08
Surrogate: 4-Bromofluorobenzene	*50.4*		"	*50.0*		*101*	*75-129*			
Matrix Spike Dup (8022511-MSD1)		**Source: 0802367-41**		Prepared: 02/25/08 Analyzed: 02/26/08						
Gasoline (C6-C10)	491	10.0	mg/kg	200	378	56	75-125	31	30	QM-08
Diesel (C10-C28)	2060	10.0	"	500	1610	90	75-125	10	30	
Surrogate: 4-Bromofluorobenzene	*46.8*		"	*50.0*		*94*	*75-129*			

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Client Name: PETRA Geotechnical, Inc. **EMA Log #: 0802367**
Project Name: Wigington Oil

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-08	The spike recovery was outside of the QC limits due to noted non-homogeneity of the QC sample matrix.
G-04	This sample contains analytes identified by the method but were not requested for reporting.
D-45	Chromatographic pattern appears weathered.
D-40	Diesel Range Organics (DRO) present but do not match diesel fuel pattern.
D-12	Results in the Gasoline Range are primarily due to overlap from a heavier fuel hydrocarbon product.
D-03	Waste oil present.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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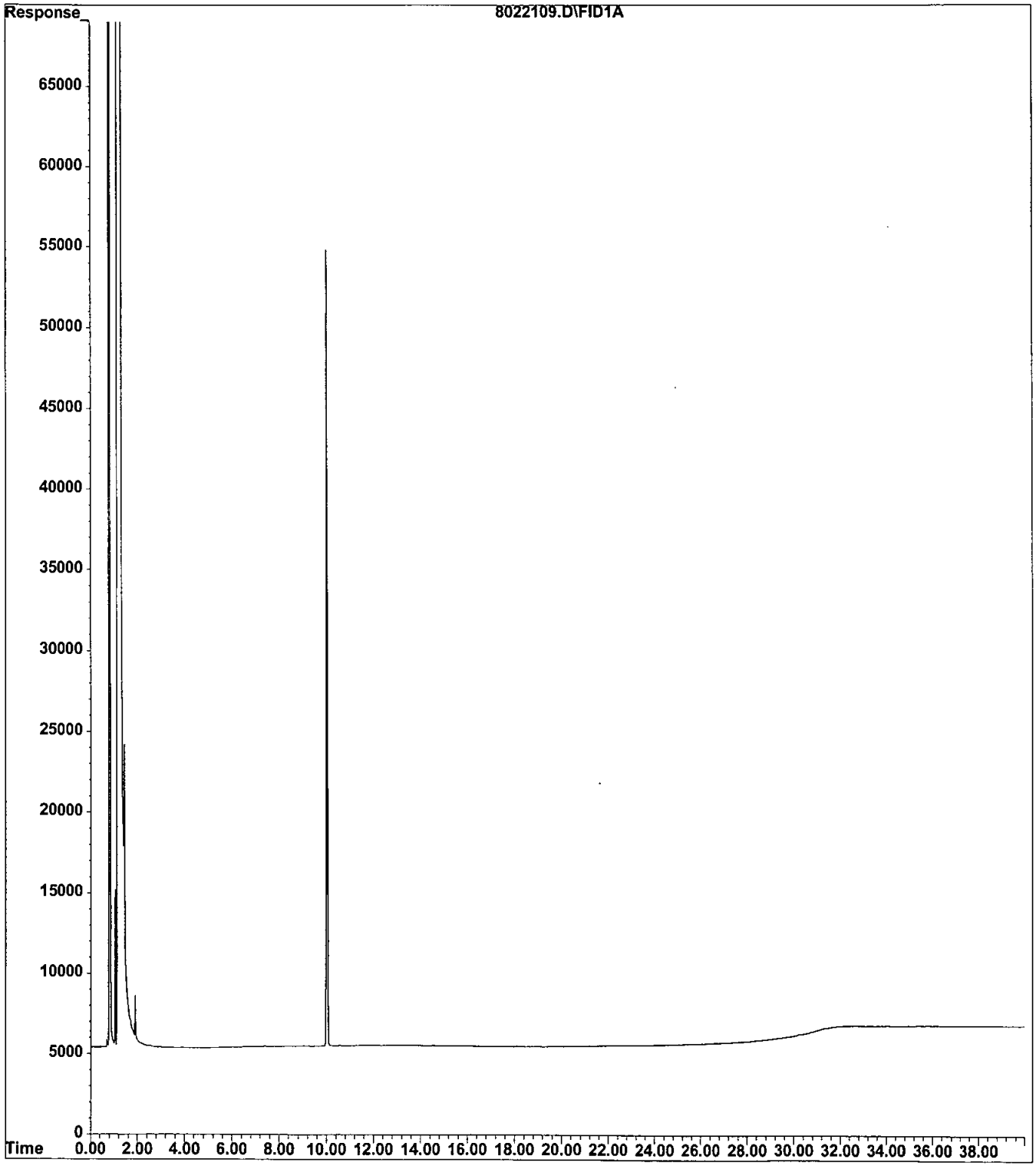
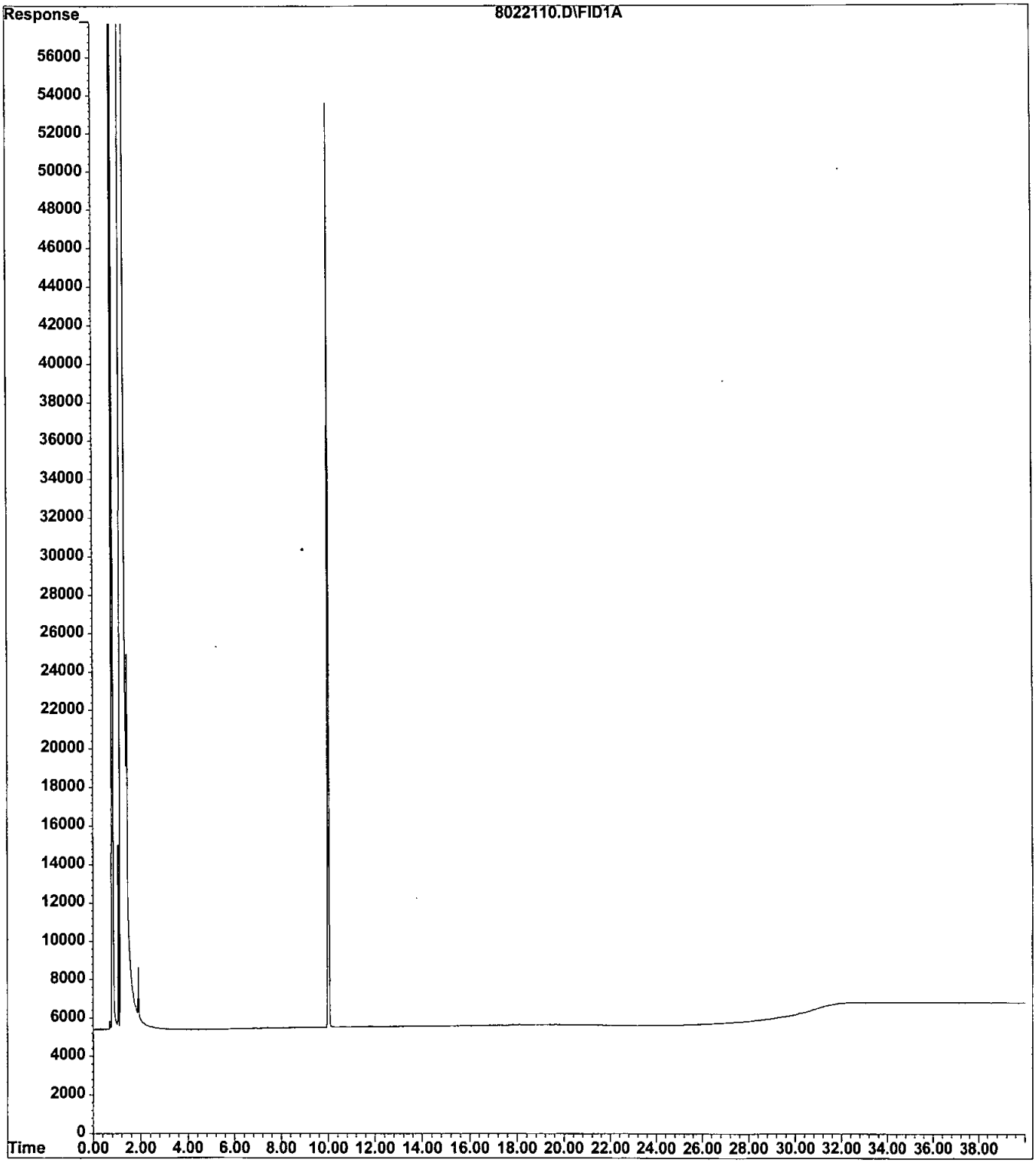
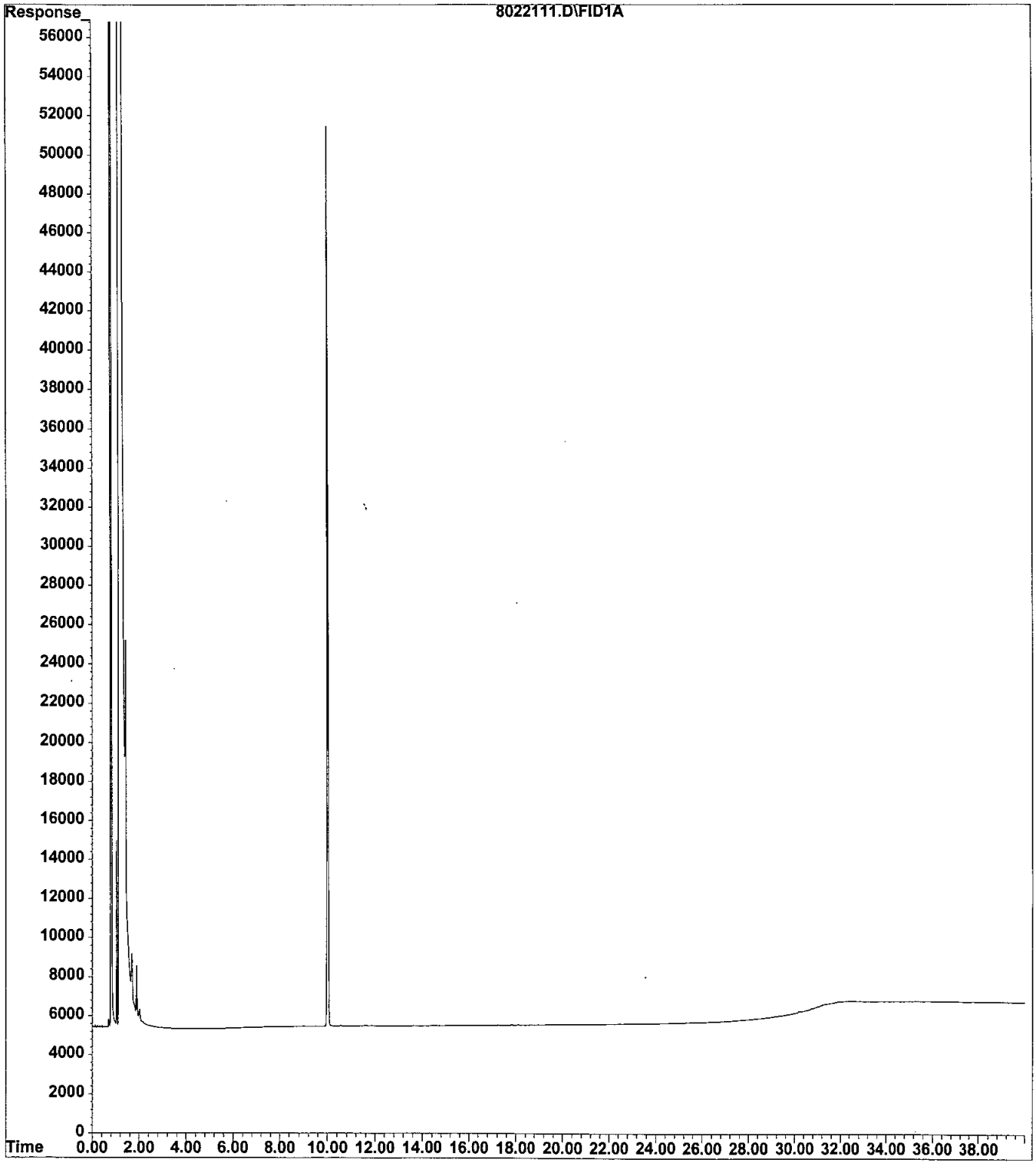
File : C:\HPCHEM\1\DATA\8022101.S\8022109.D
Operator :
Acquired : 21 Feb 20108 7:04 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-01
Misc Info :
Vial Number: 9



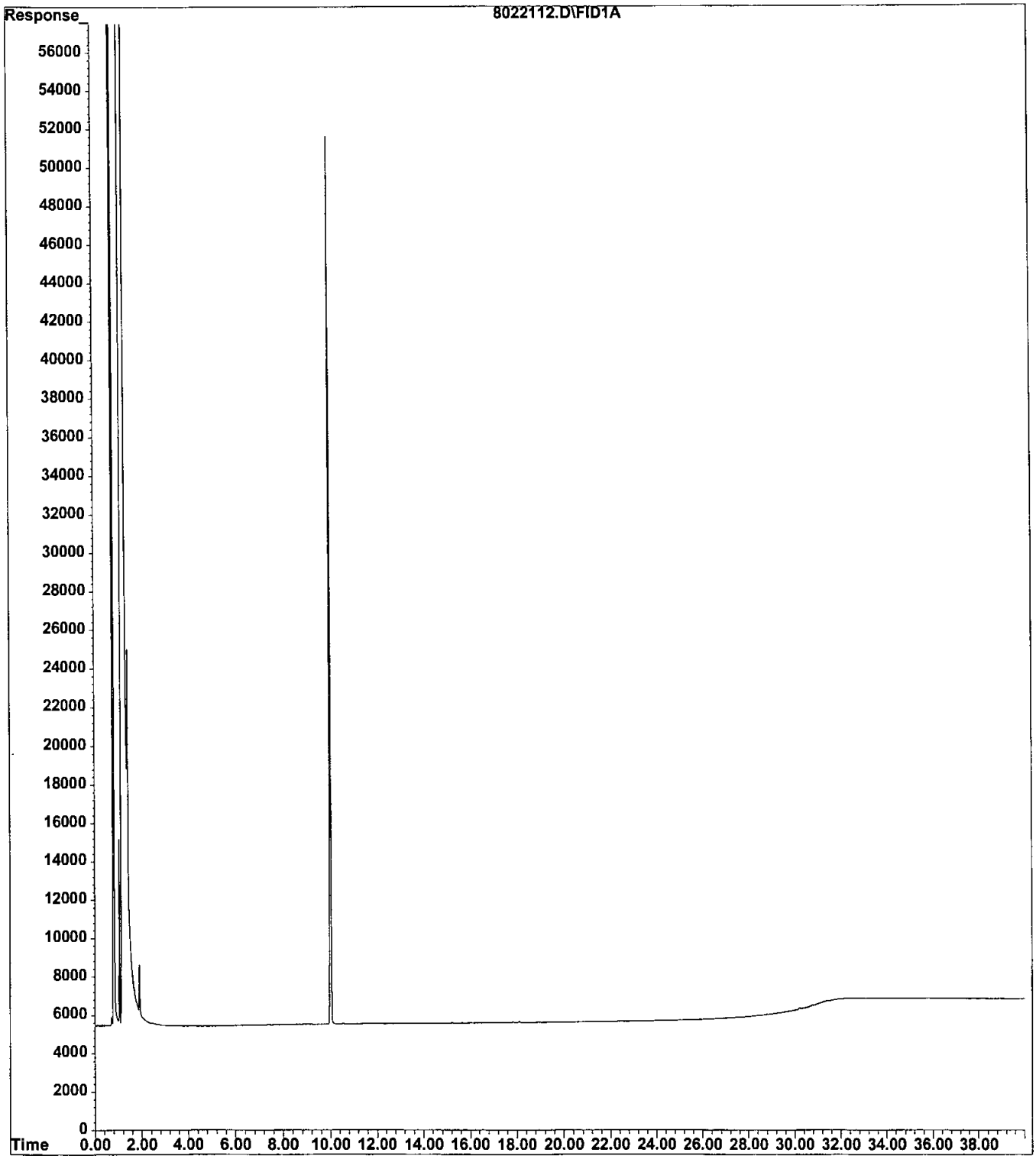
File : C:\HPCHEM\1\DATA\8022101.S\8022110.D
Operator :
Acquired : 21 Feb 20108 7:54 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-02
Misc Info :
Vial Number: 10



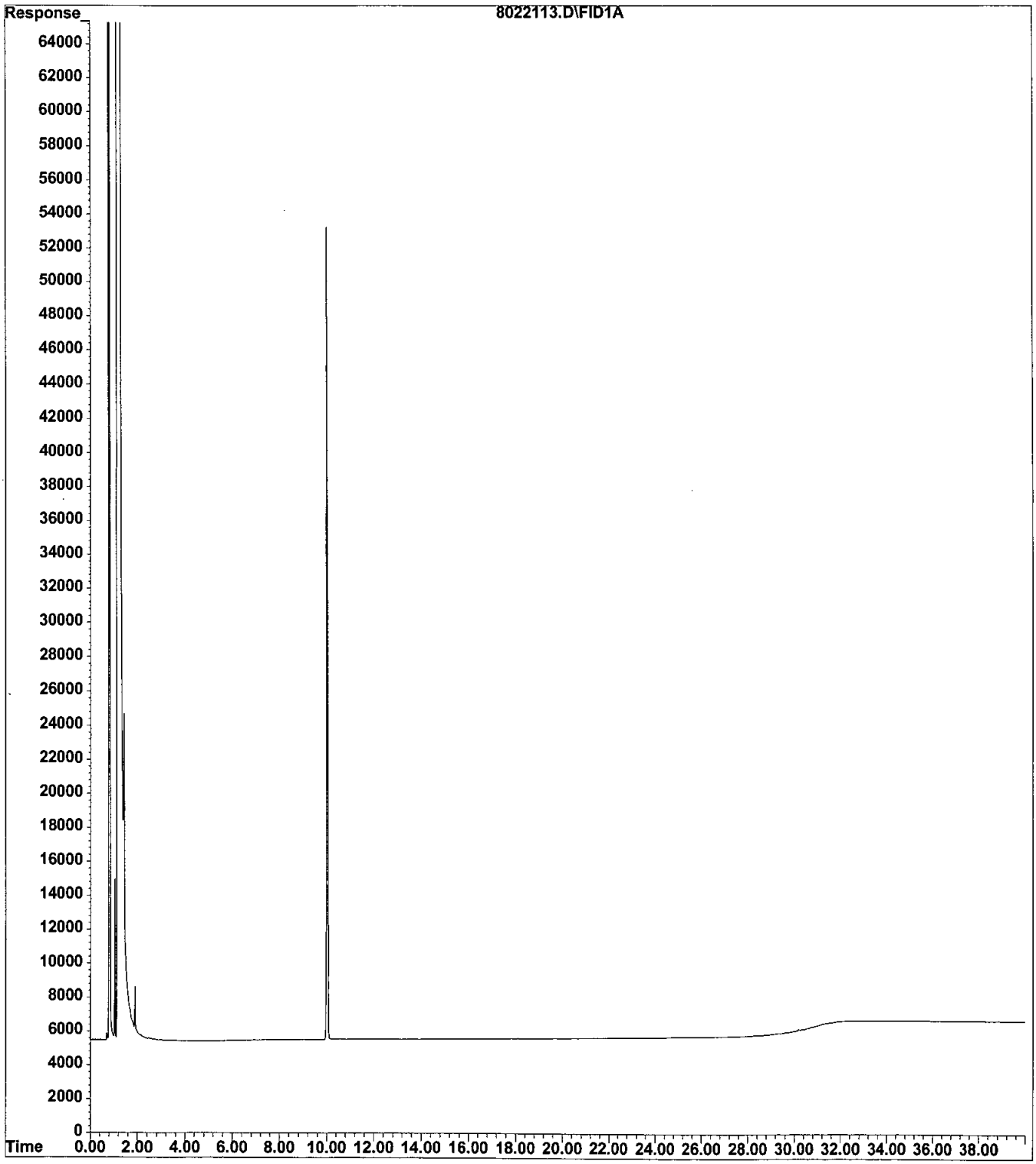
File : C:\HPCHEM\1\DATA\8022101.S\8022111.D
Operator :
Acquired : 21 Feb 20108 8:44 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-03
Misc Info :
Vial Number: 11



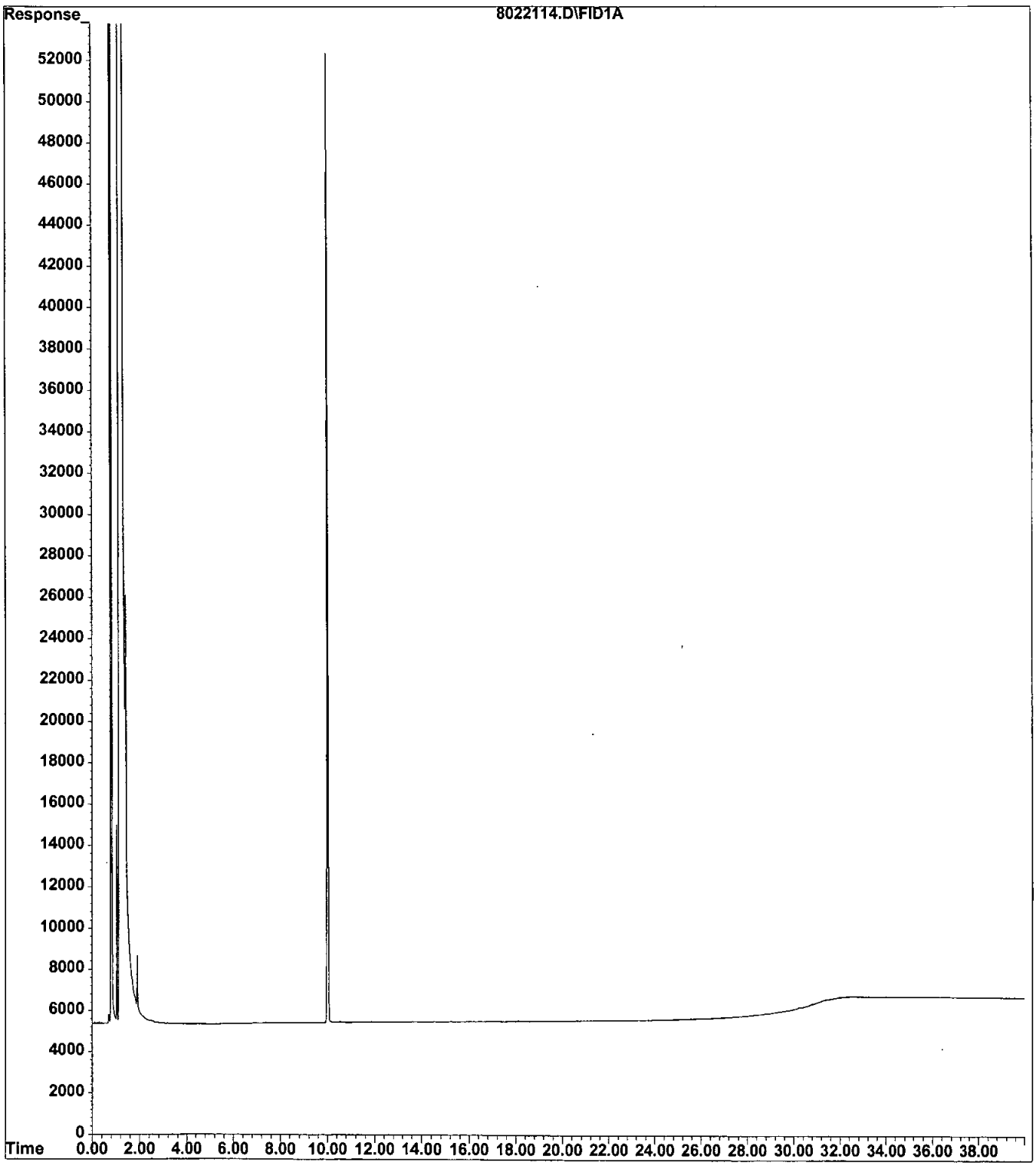
File : C:\HPCHEM\1\DATA\8022101.S\8022112.D
Operator :
Acquired : 21 Feb 20108 9:34 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-04
Misc Info :
Vial Number: 12



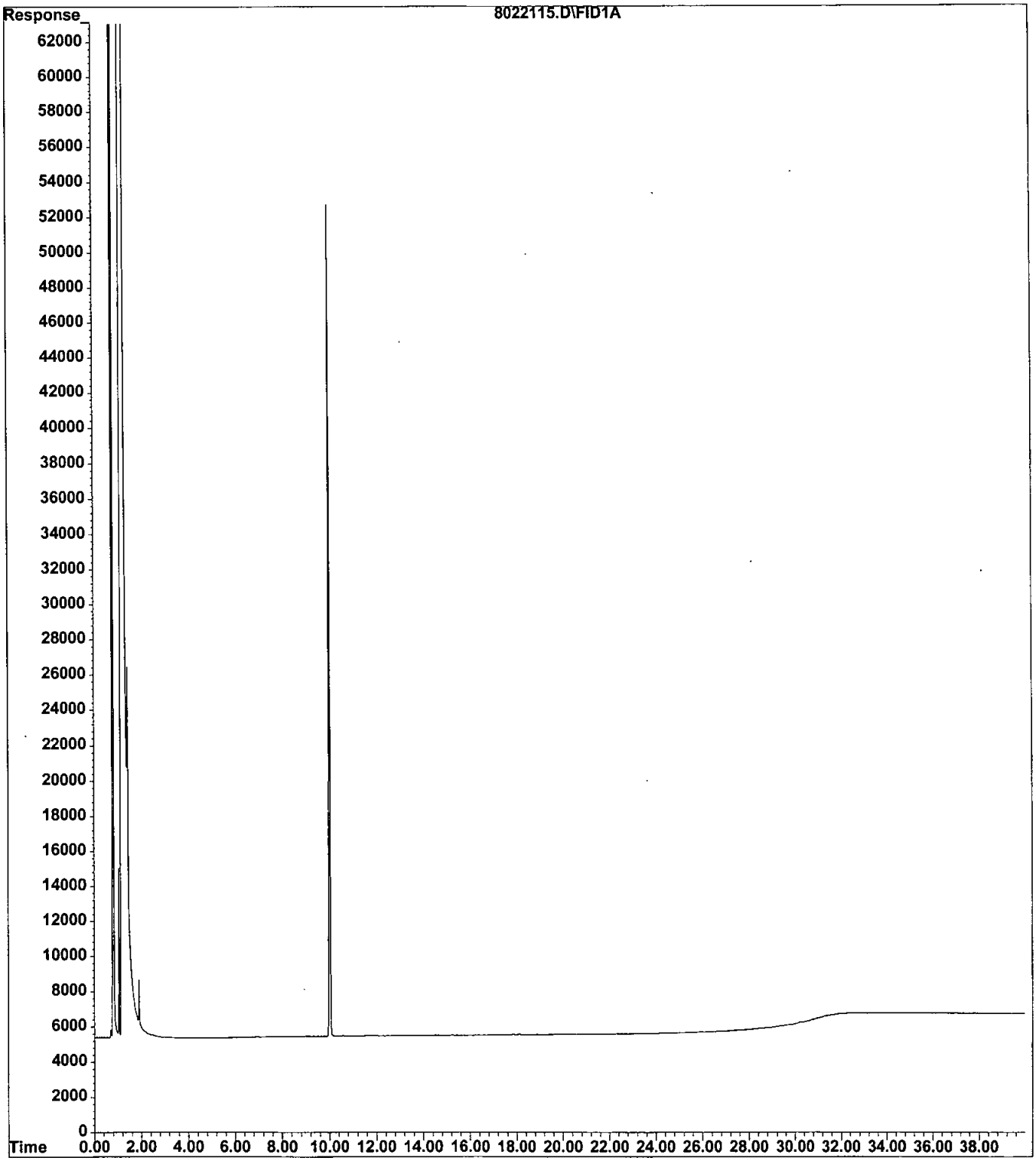
File : C:\HPCHEM\1\DATA\8022101.S\8022113.D
Operator :
Acquired : 21 Feb 20108 10:24 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-05
Misc Info :
Vial Number: 13



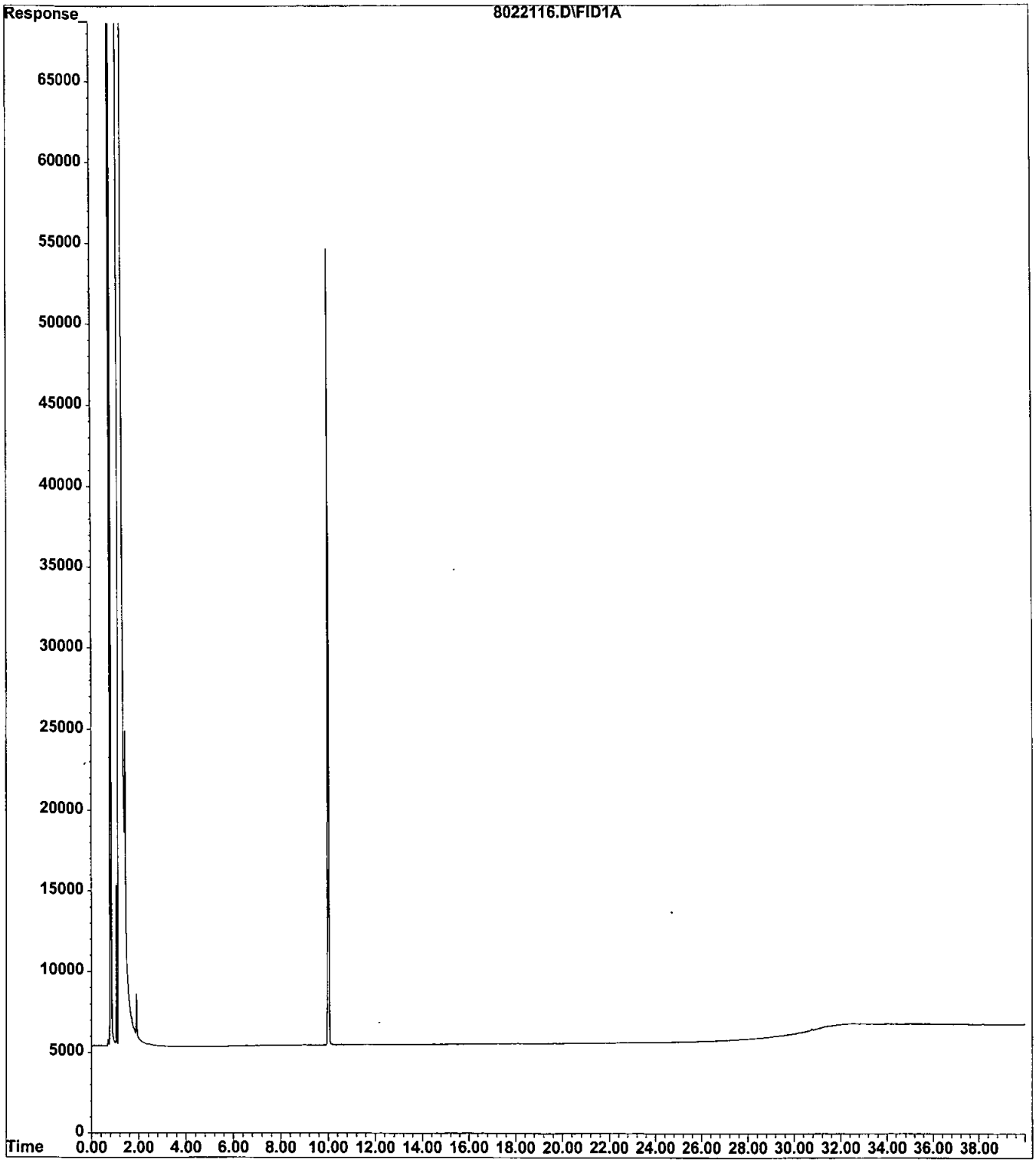
File : C:\HPCHEM\1\DATA\8022101.S\8022114.D
Operator :
Acquired : 21 Feb 20108 11:14 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-06
Misc Info :
Vial Number: 14



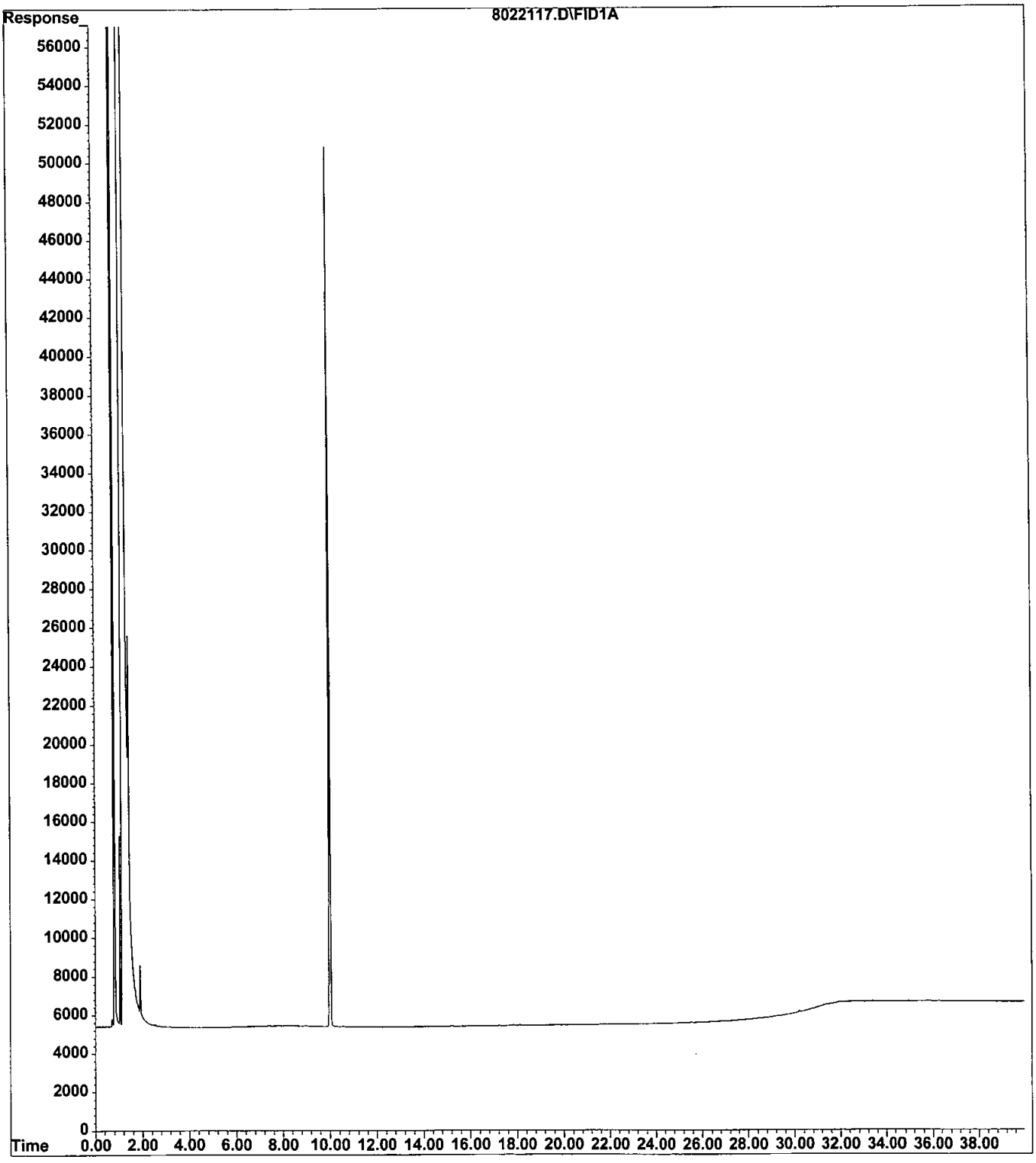
File : C:\HPCHEM\1\DATA\8022101.S\8022115.D
Operator :
Acquired : 22 Feb 20108 12:03 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-07
Misc Info :
Vial Number: 15



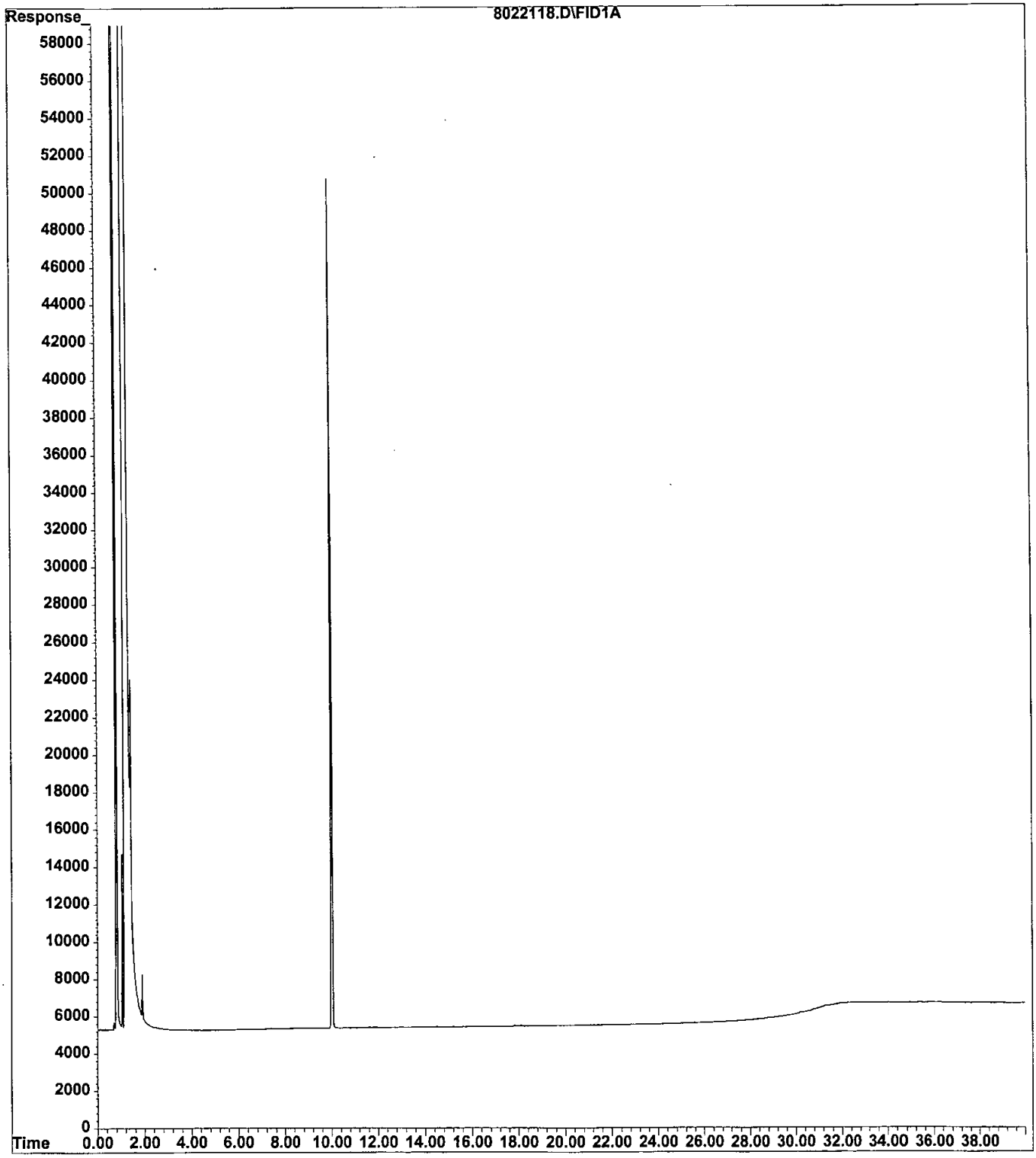
File : C:\HPCHEM\1\DATA\8022101.S\8022116.D
Operator :
Acquired : 22 Feb 20108 12:53 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-08
Misc Info :
Vial Number: 16



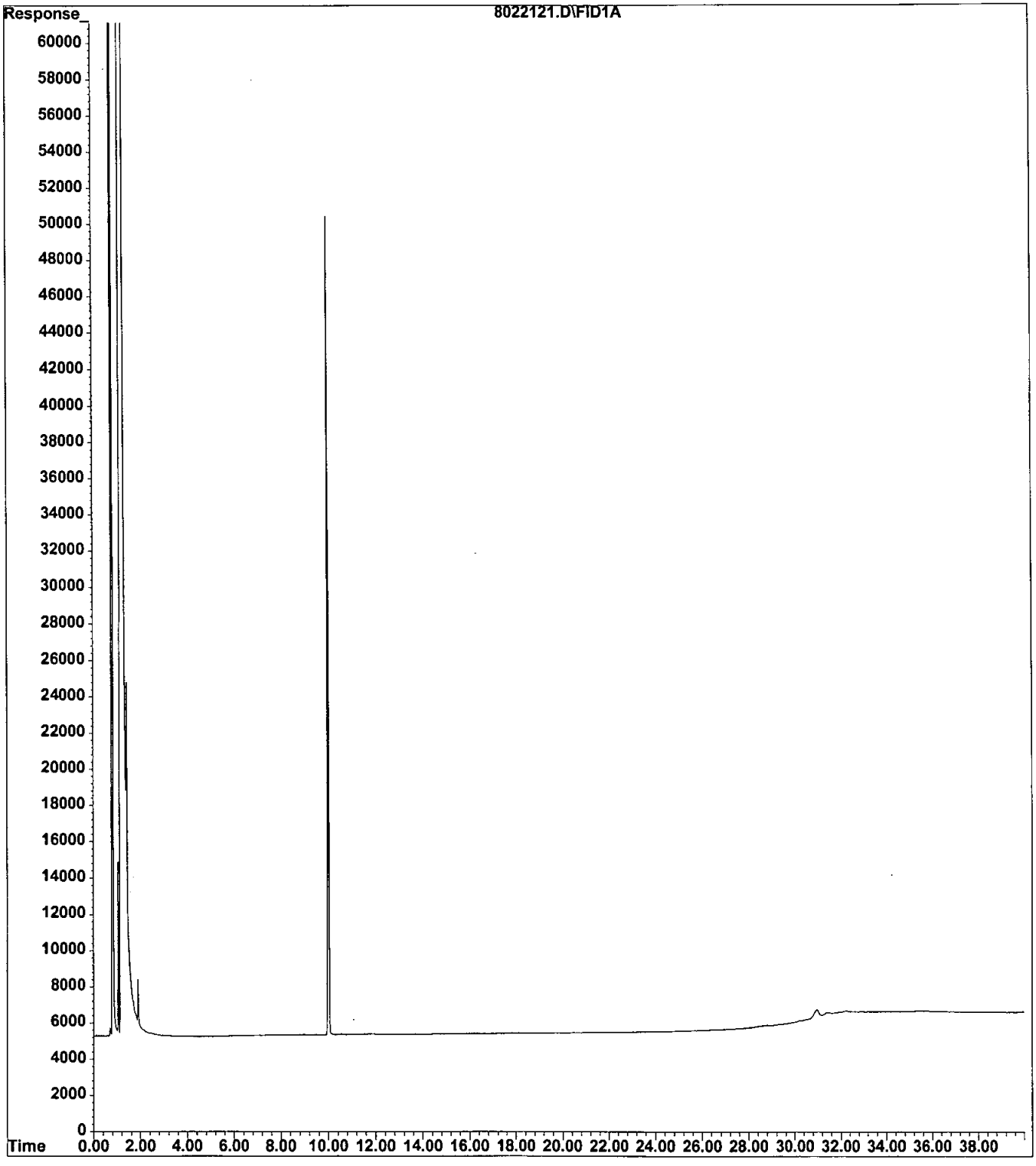
File : C:\HPCHEM\1\DATA\8022101.S\8022117.D
Operator :
Acquired : 22 Feb 20108 1:43 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-09
Misc Info :
Vial Number: 17



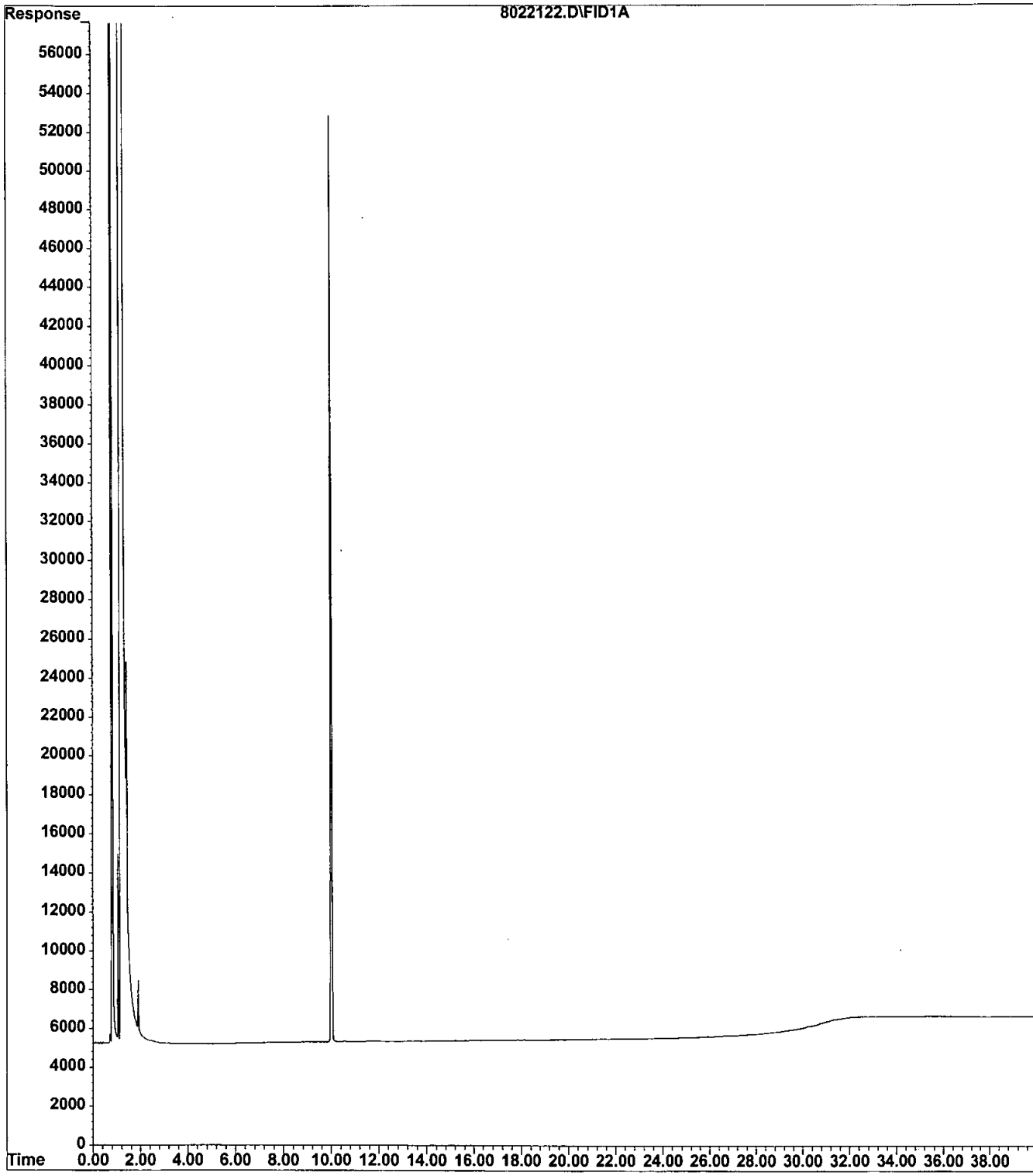
File : C:\HPCHEM\1\DATA\8022101.S\8022118.D
Operator :
Acquired : 22 Feb 20108 2:32 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-10
Misc Info :
Vial Number: 18



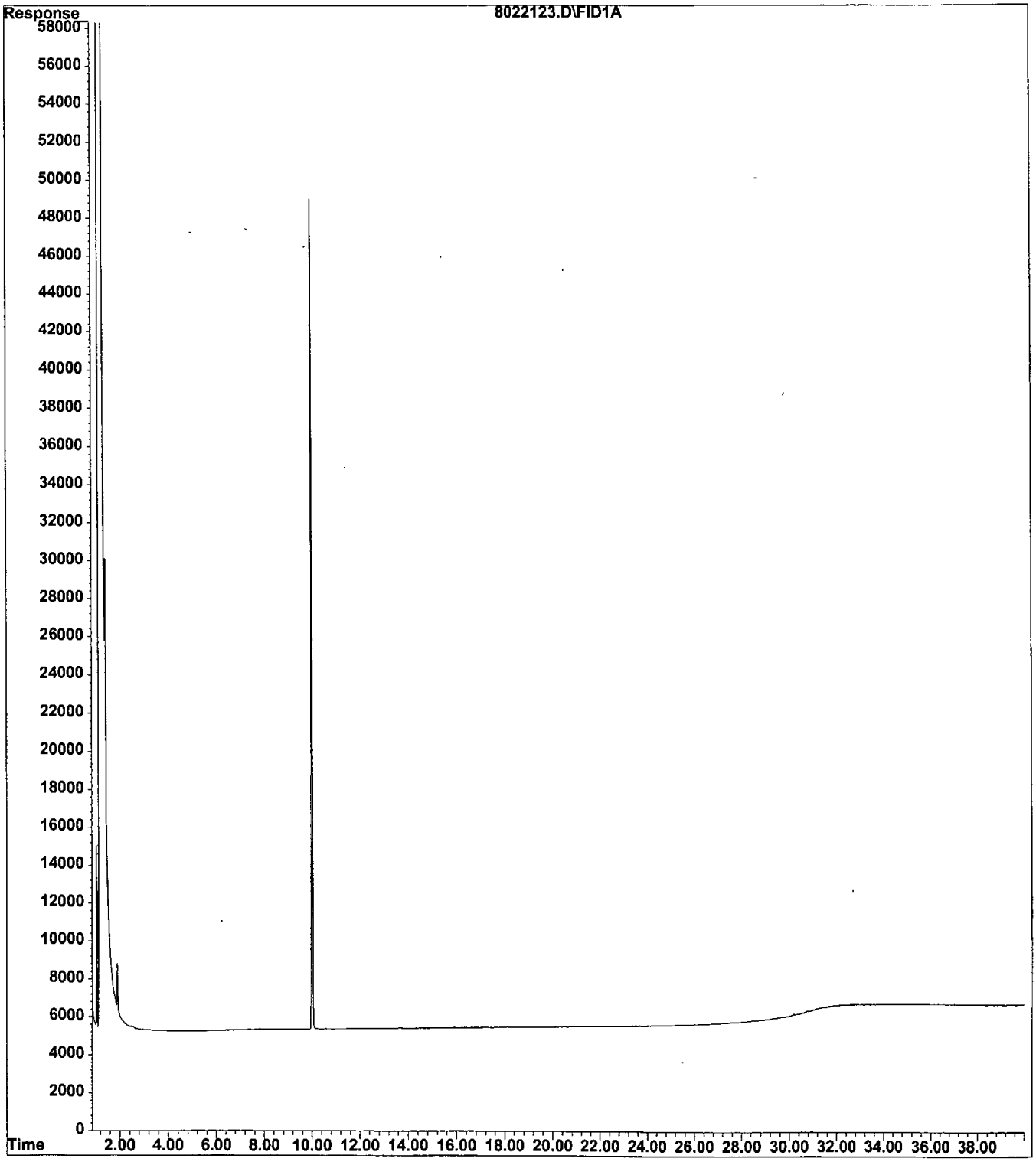
File : C:\HPCHEM\1\DATA\8022101.S\8022121.D
Operator :
Acquired : 22 Feb 20108 5:01 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-11
Misc Info :
Vial Number: 21



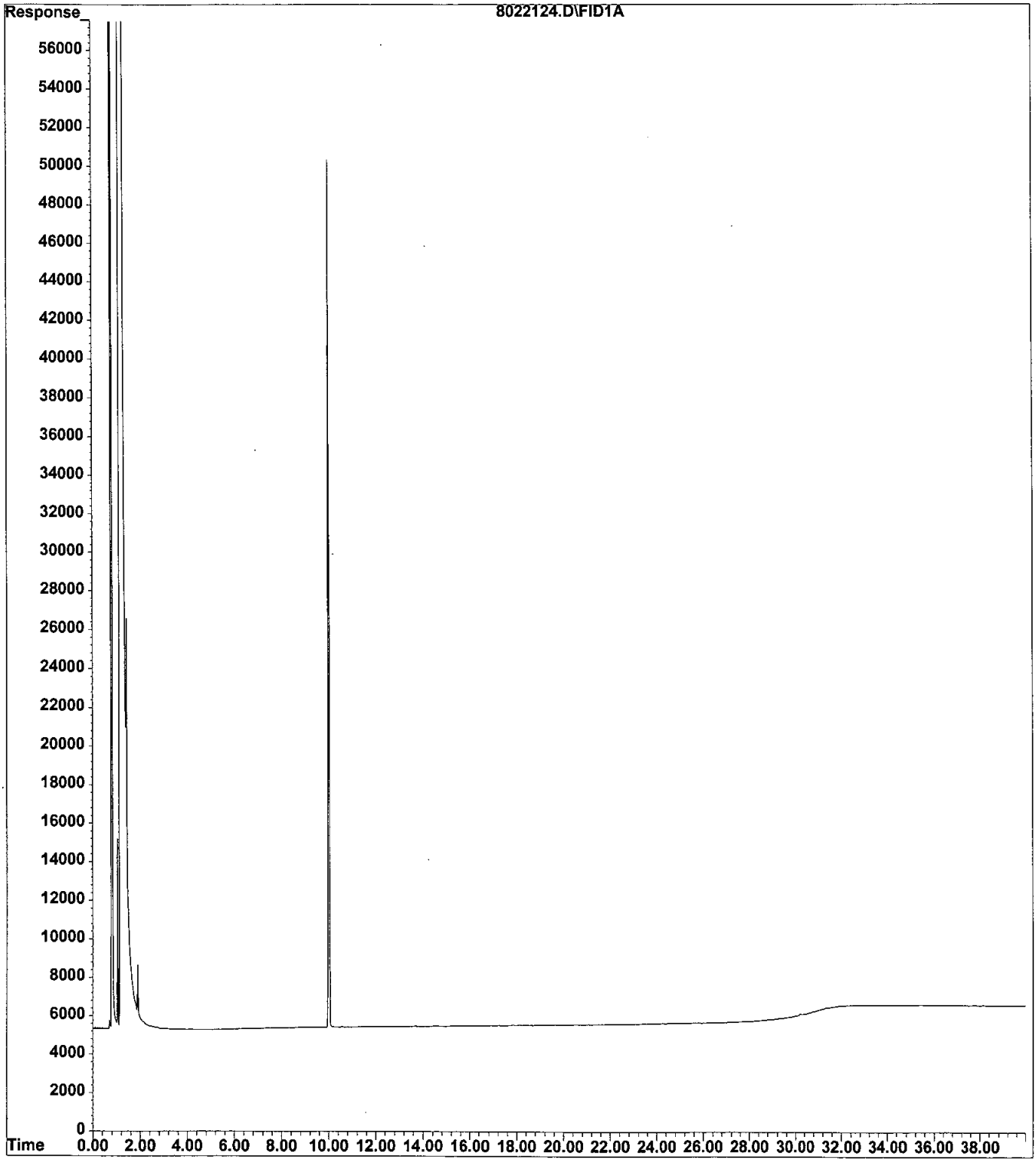
File : C:\HPCHEM\1\DATA\8022101.S\8022122.D
Operator :
Acquired : 22 Feb 20108 5:50 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-12
Misc Info :
Vial Number: 22



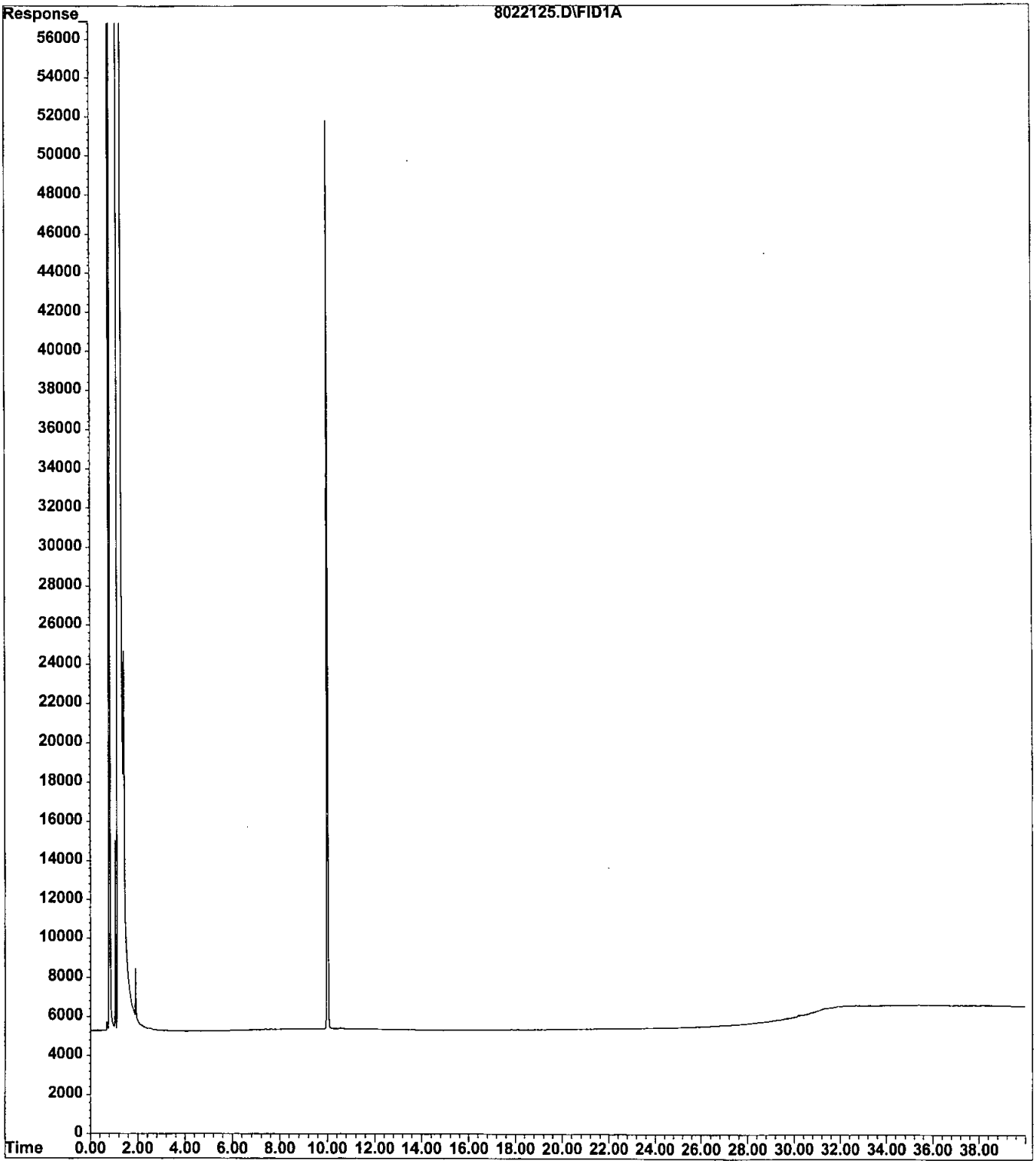
File : C:\HPCHEM\1\DATA\8022101.S\8022123.D
Operator :
Acquired : 22 Feb 20108 6:40 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-13
Misc Info :
Vial Number: 23



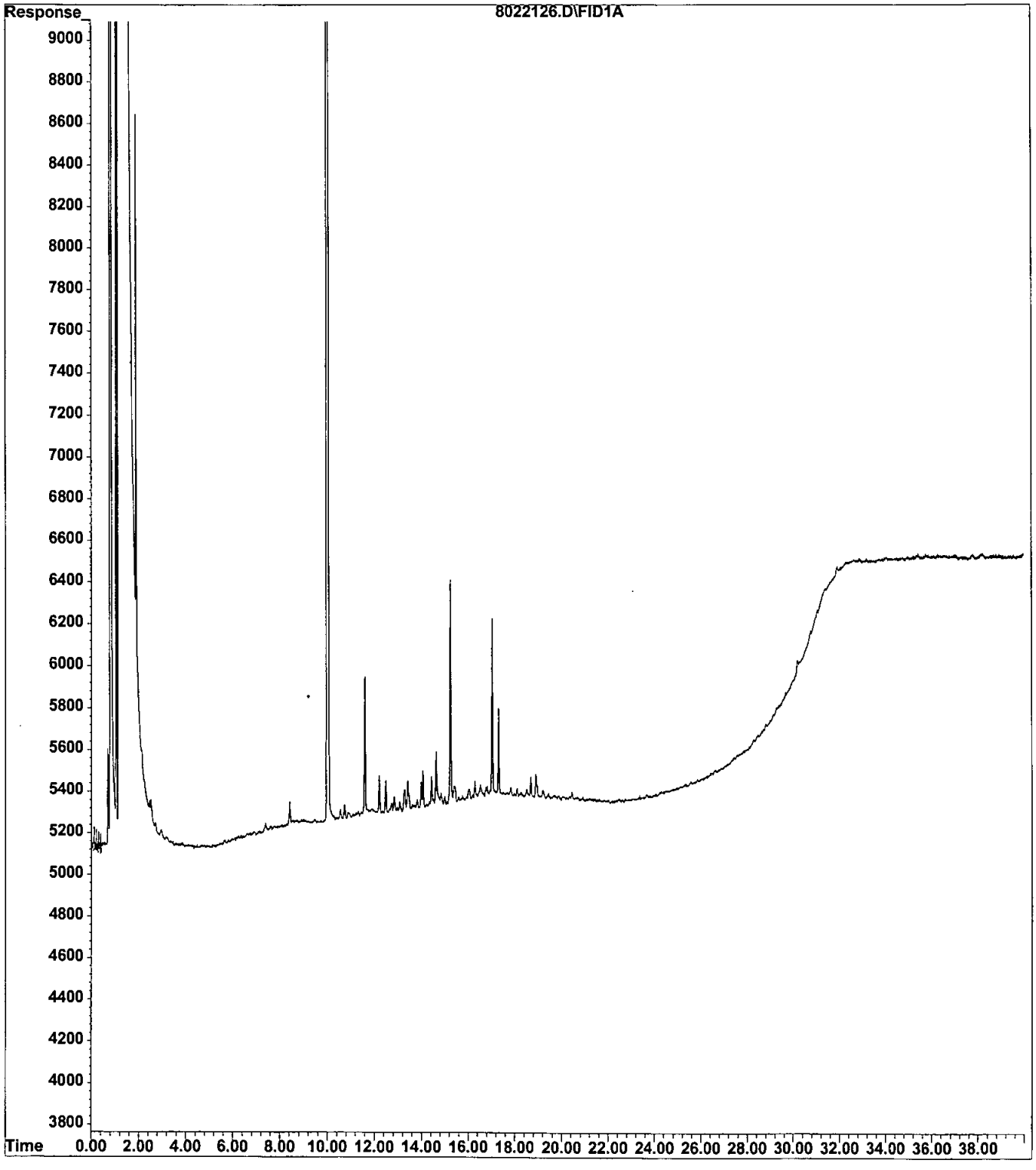
File : C:\HPCHEM\1\DATA\8022101.S\8022124.D
Operator :
Acquired : 22 Feb 20108 7:29 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-14
Misc Info :
Vial Number: 24



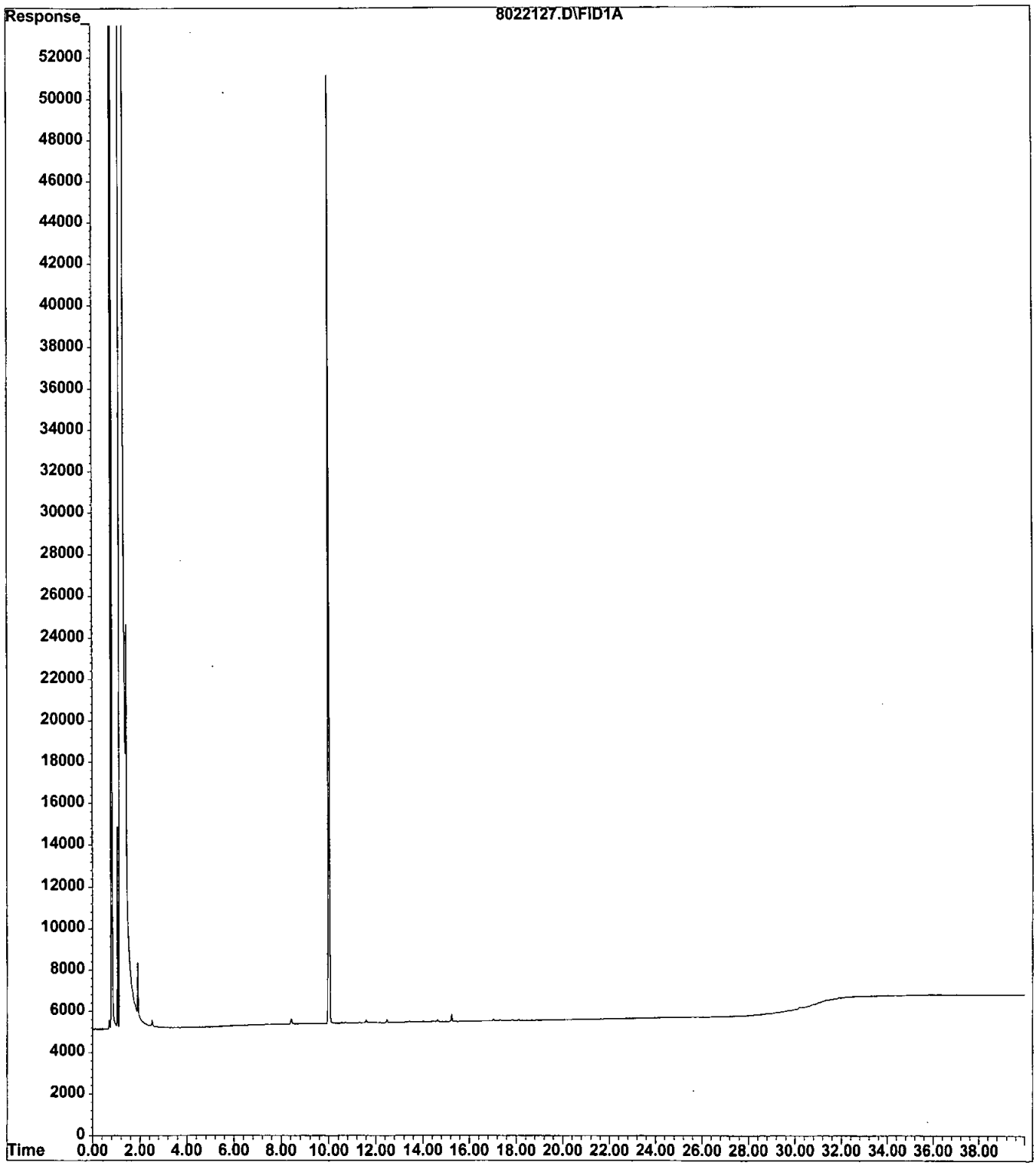
File : C:\HPCHEM\1\DATA\8022101.S\8022125.D
Operator :
Acquired : 22 Feb 20108 8:18 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-15
Misc Info :
Vial Number: 25



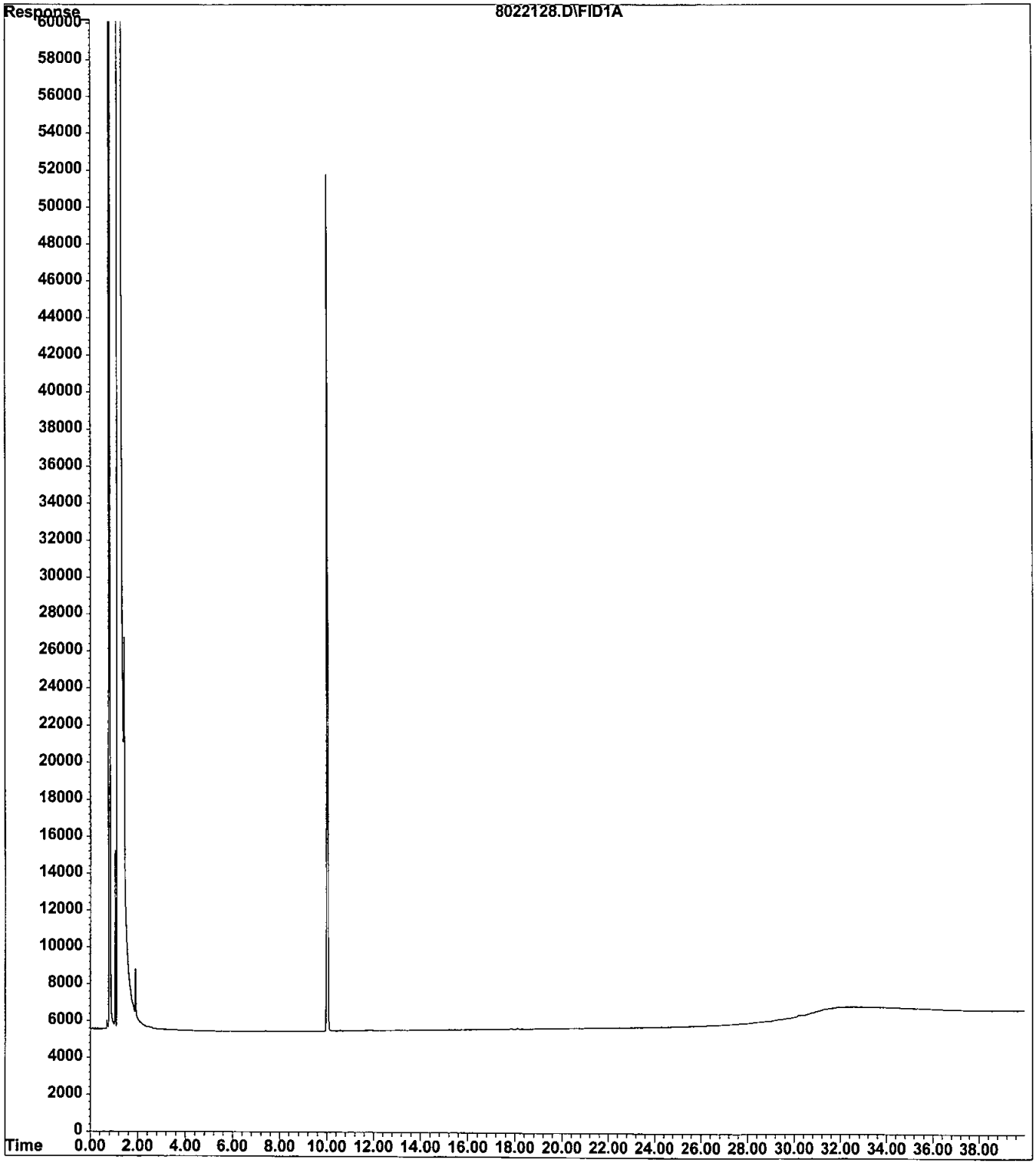
File : C:\HPCHEM\1\DATA\8022101.S\8022126.D
Operator :
Acquired : 22 Feb 20108 9:08 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-16
Misc Info :
Vial Number: 26



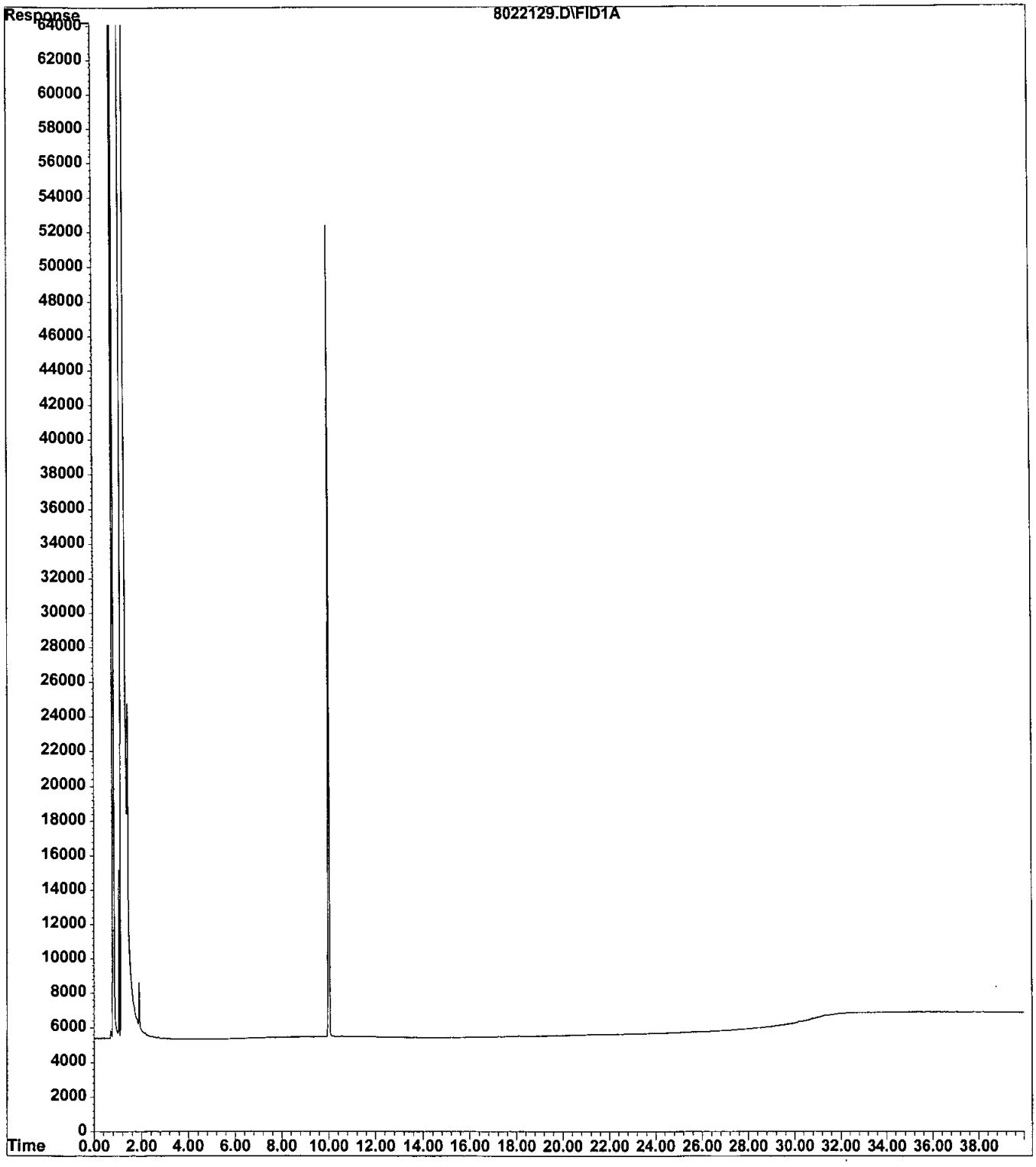
File : C:\HPCHEM\1\DATA\8022101.S\8022127.D
Operator :
Acquired : 22 Feb 20108 9:57 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-17
Misc Info :
Vial Number: 27



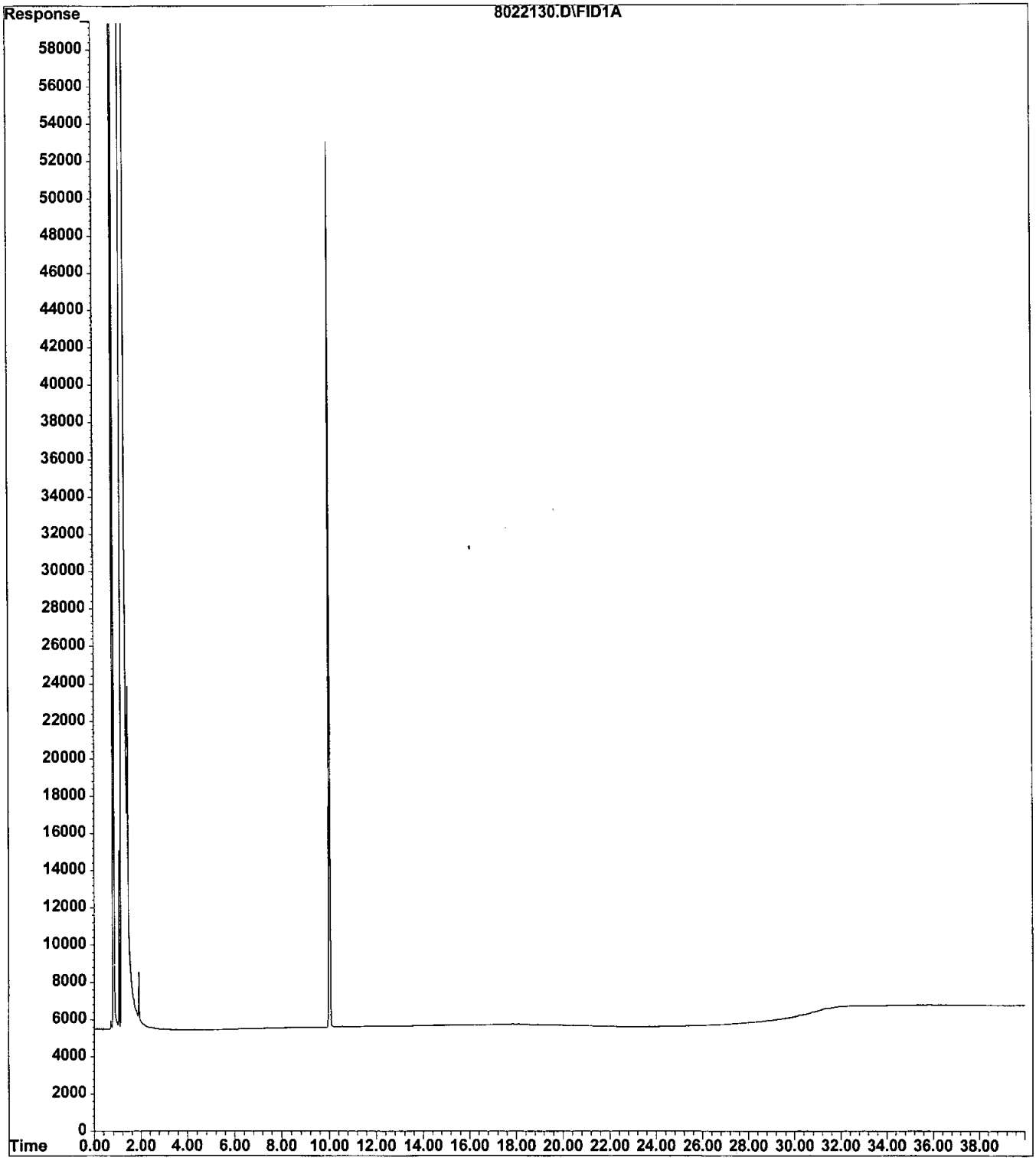
File : C:\HPCHEM\1\DATA\8022101.S\8022128.D
Operator :
Acquired : 22 Feb 20108 10:47 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-18
Misc Info :
Vial Number: 28



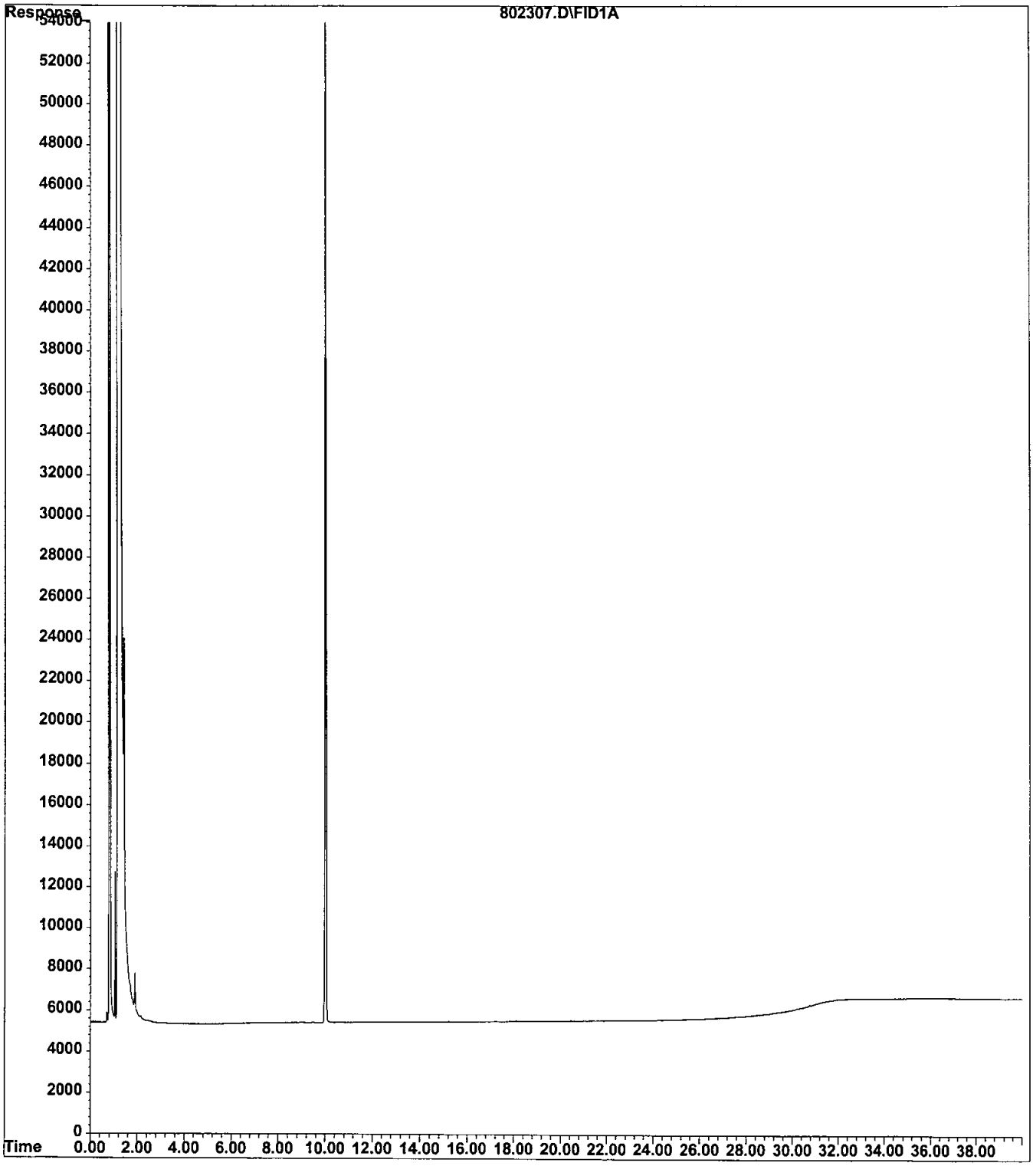
File : C:\HPCHEM\1\DATA\8022101.S\8022129.D
Operator :
Acquired : 22 Feb 20108 11:36 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-19
Misc Info :
Vial Number: 29



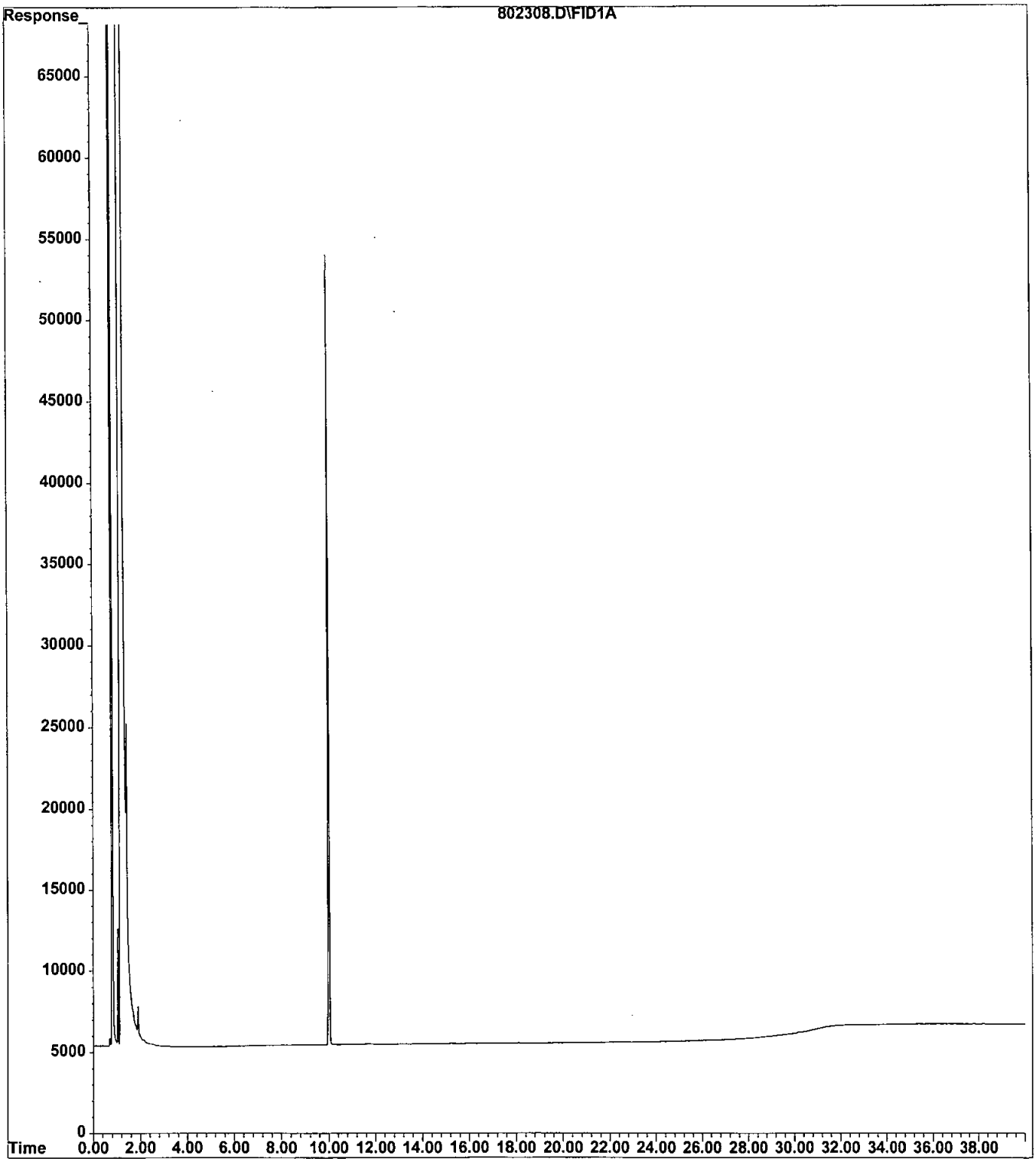
File : C:\HPCHEM\1\DATA\8022101.S\8022130.D
Operator :
Acquired : 22 Feb 20108 12:26 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-20
Misc Info :
Vial Number: 30



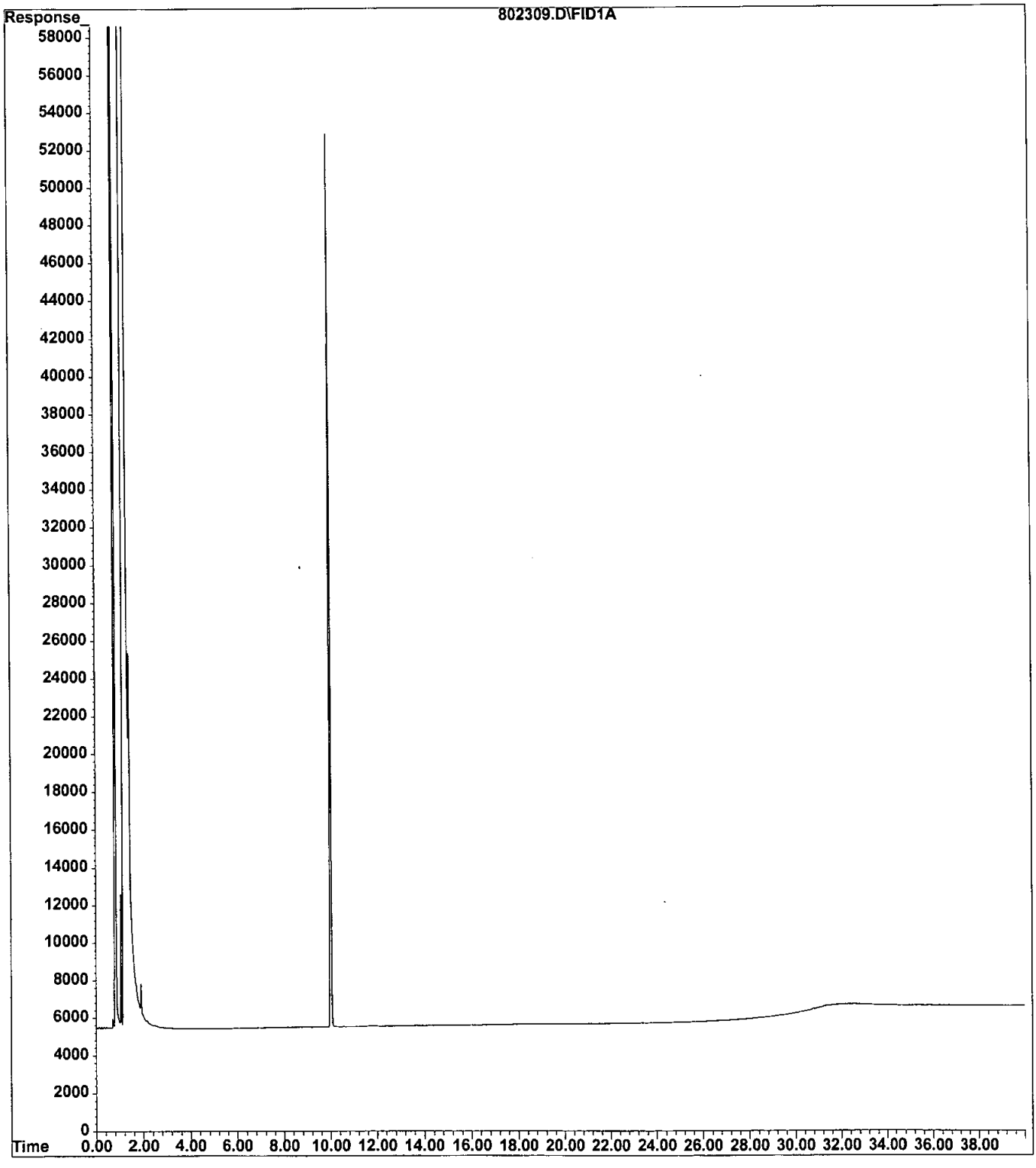
File : C:\HPCHEM\1\DATA\8022301.S\802307.D
Operator :
Acquired : 22 Feb 20108 8:01 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-21
Misc Info :
Vial Number: 7



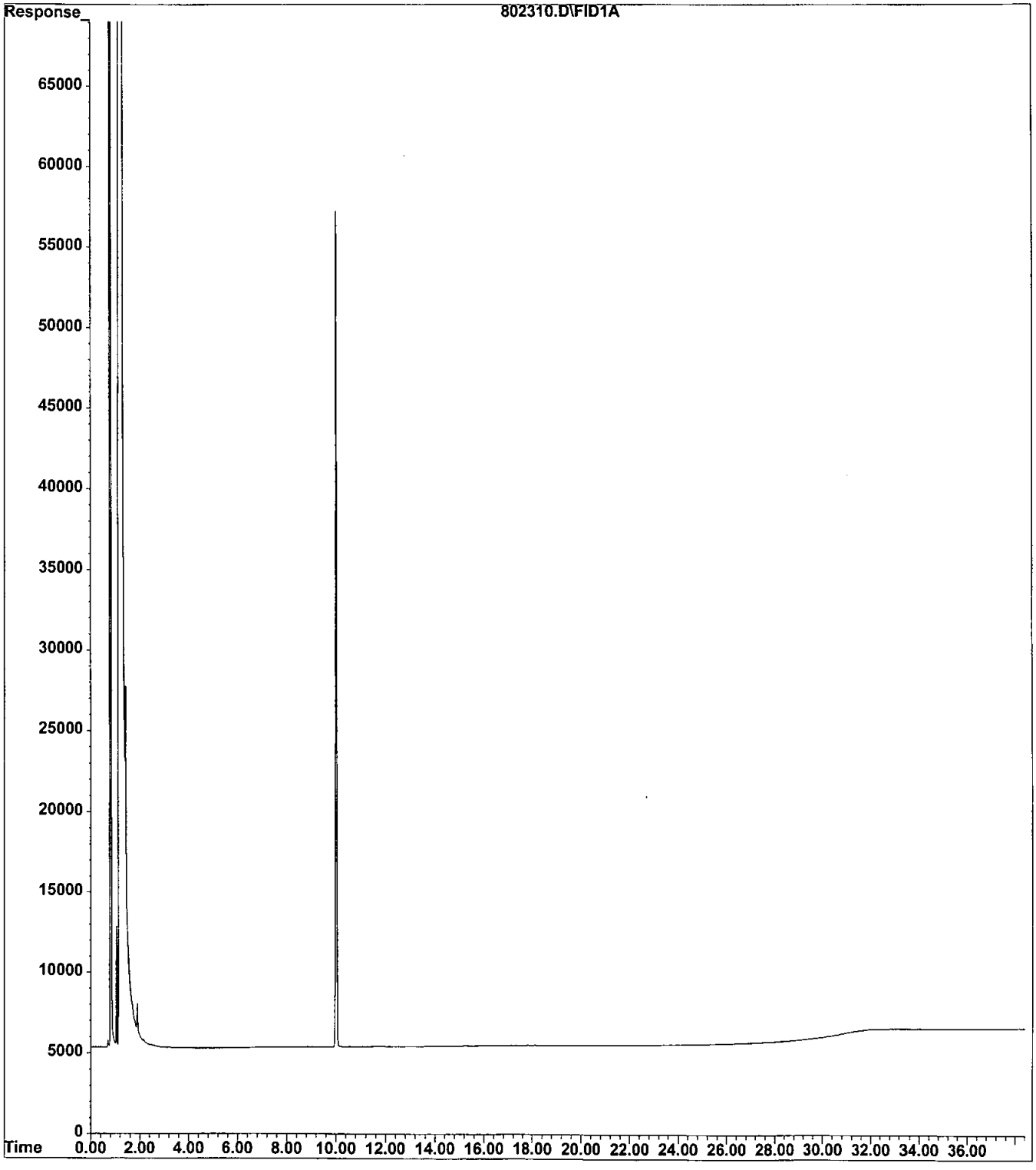
File : C:\HPCHEM\1\DATA\8022301.S\802308.D
Operator :
Acquired : 22 Feb 20108 8:50 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-22
Misc Info :
Vial Number: 8



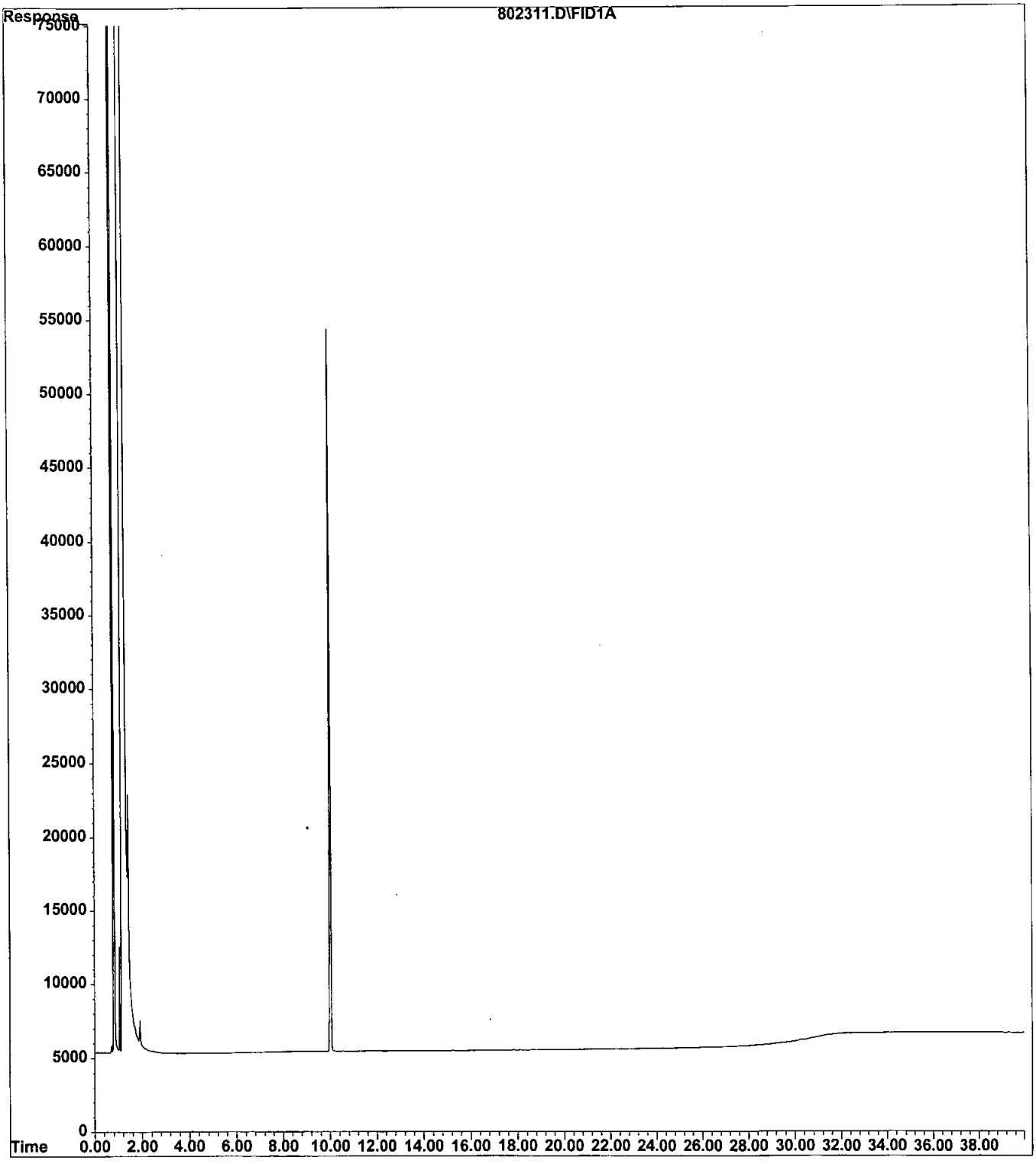
File : C:\HPCHEM\1\DATA\8022301.S\802309.D
Operator :
Acquired : 22 Feb 20108 9:40 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-23
Misc Info :
Vial Number: 9



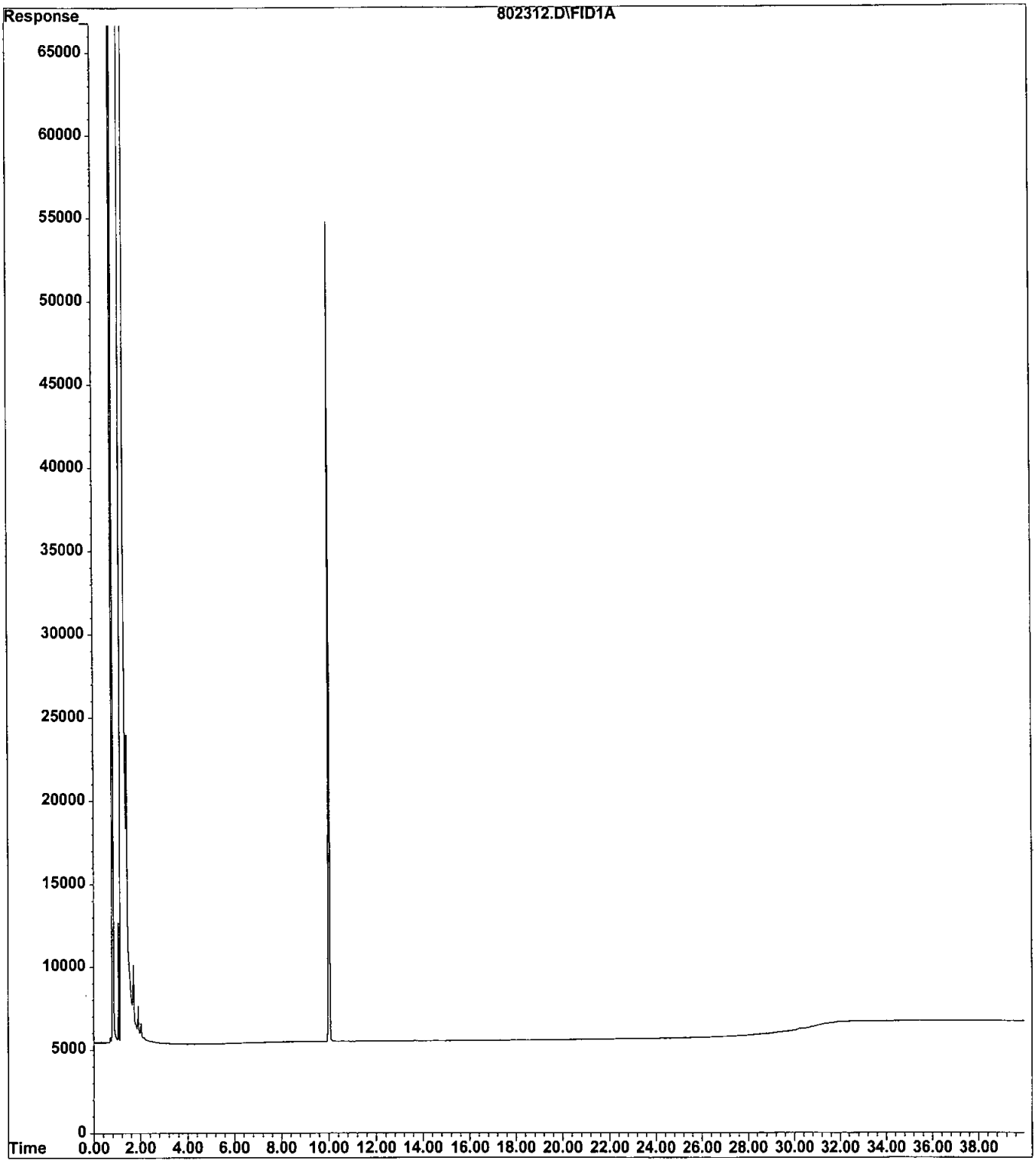
File : C:\HPCHEM\1\DATA\8022301.S\802310.D
Operator :
Acquired : 22 Feb 20108 10:30 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-24
Misc Info :
Vial Number: 10



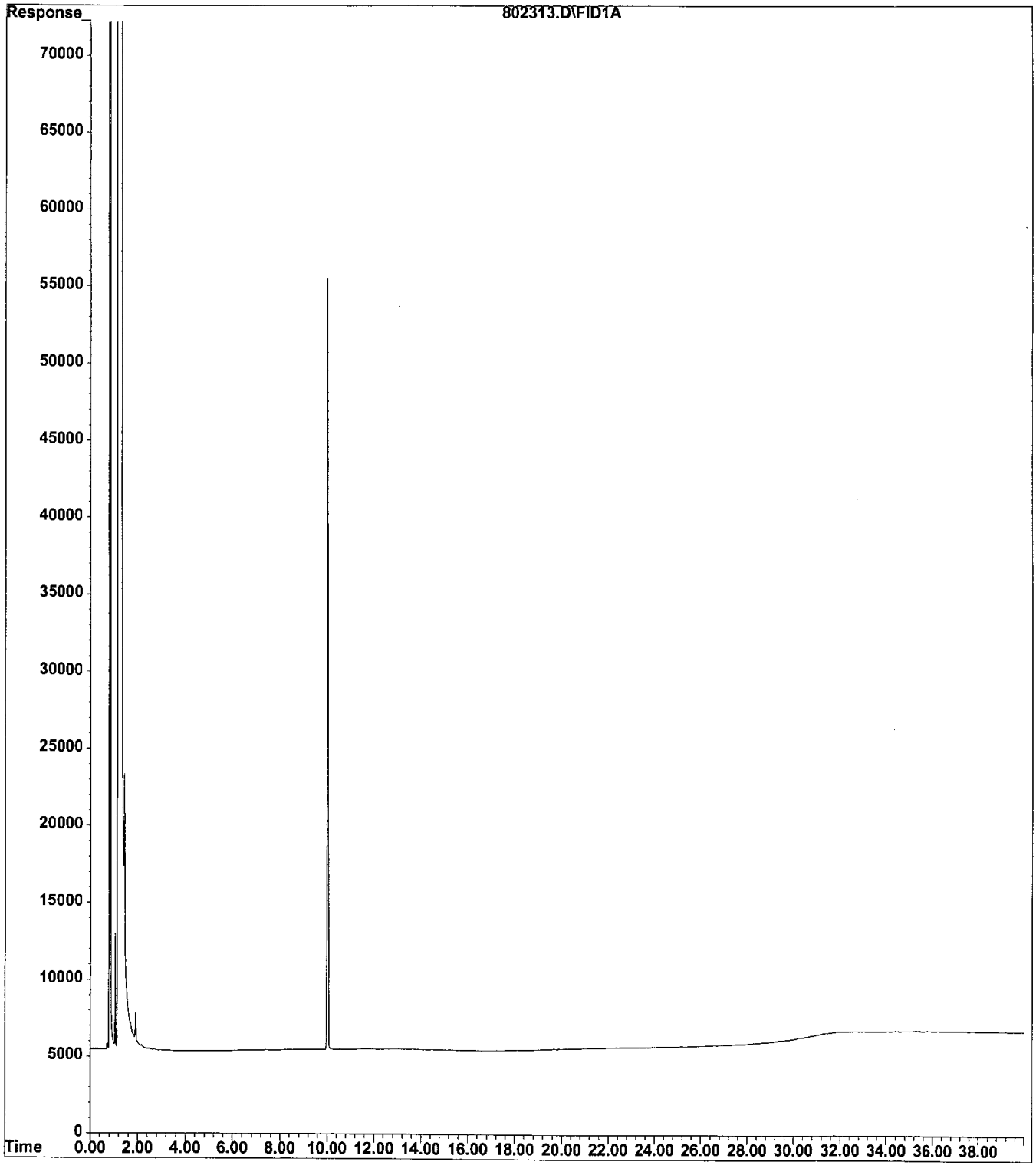
File : C:\HPCHEM\1\DATA\8022301.S\802311.D
Operator :
Acquired : 22 Feb 20108 11:20 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-25
Misc Info :
Vial Number: 11



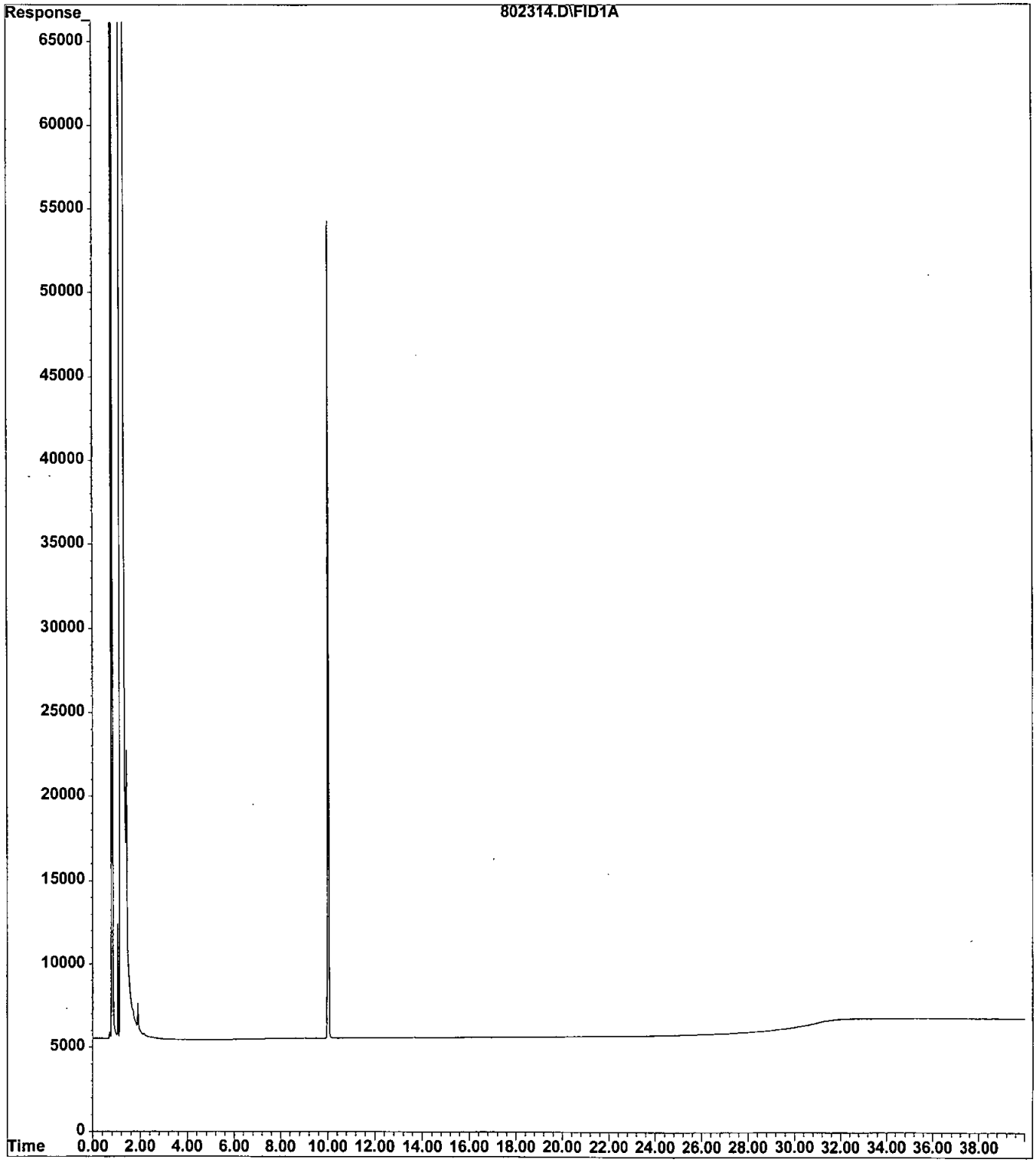
File : C:\HPCHEM\1\DATA\8022301.S\802312.D
Operator :
Acquired : 23 Feb 20108 12:09 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-26
Misc Info :
Vial Number: 12



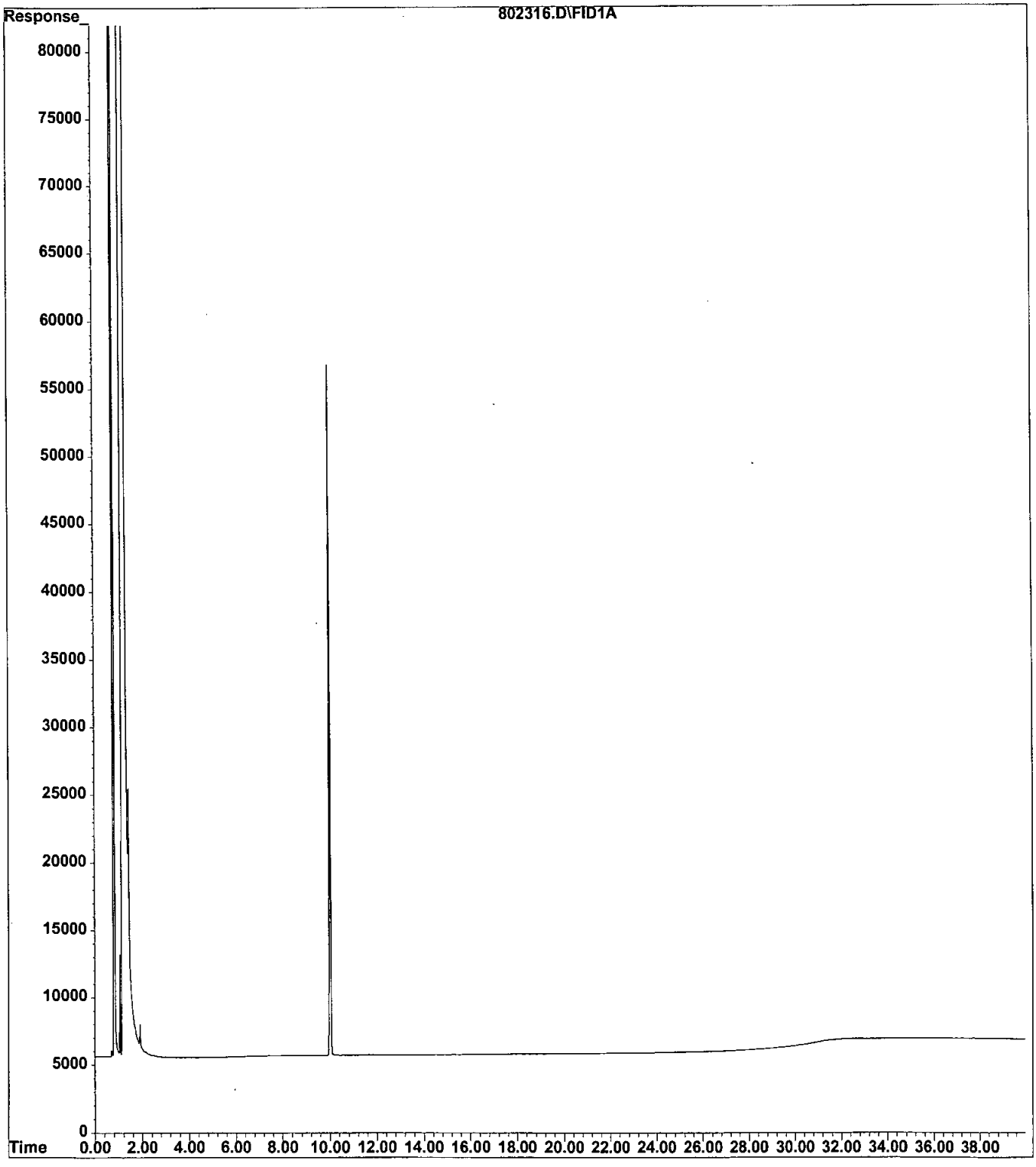
File : C:\HPCHEM\1\DATA\8022301.S\802313.D
Operator :
Acquired : 23 Feb 20108 12:59 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-28
Misc Info :
Vial Number: 13



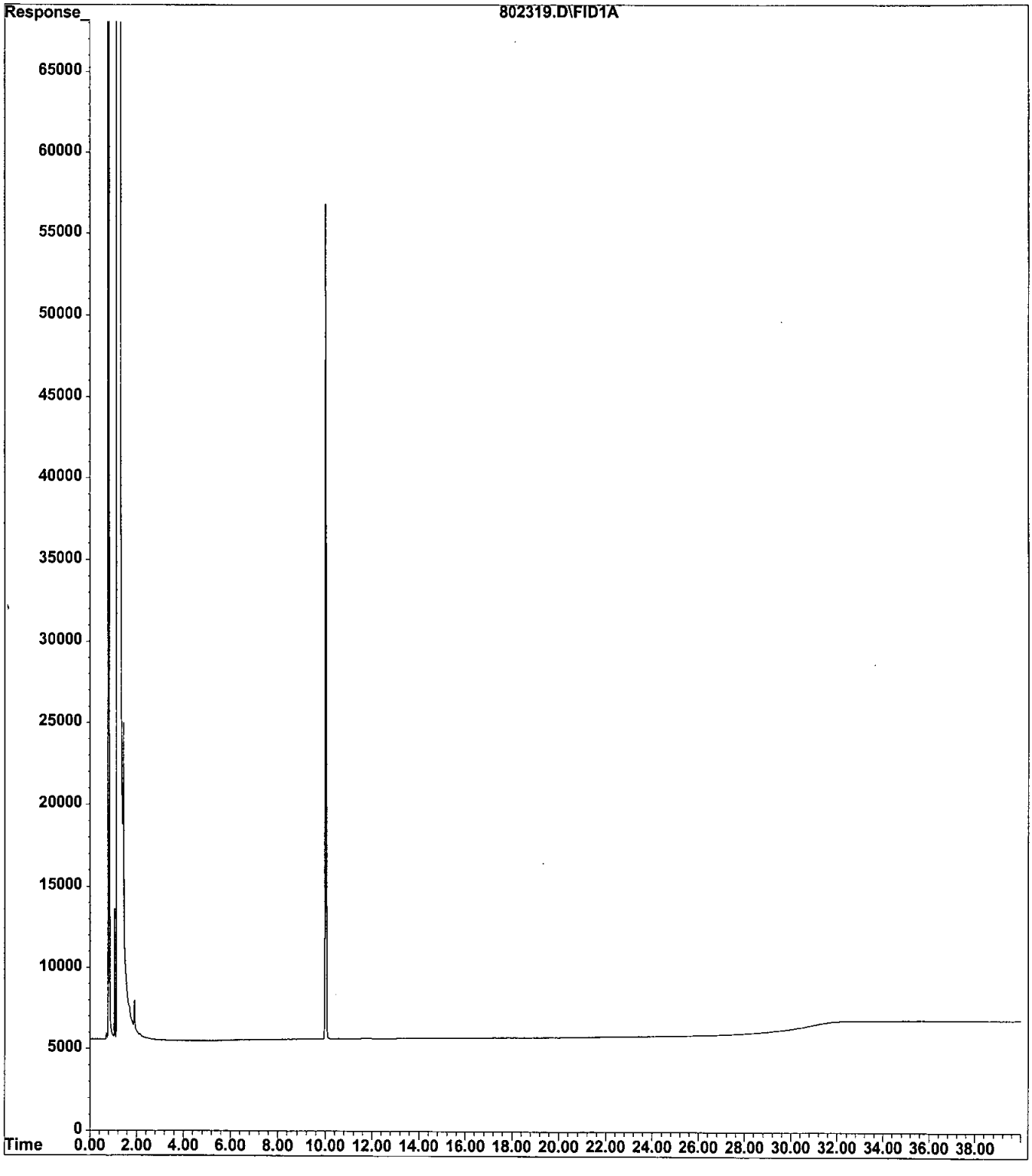
File : C:\HPCHEM\1\DATA\8022301.S\802314.D
Operator :
Acquired : 23 Feb 20108 1:48 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-29
Misc Info :
Vial Number: 14



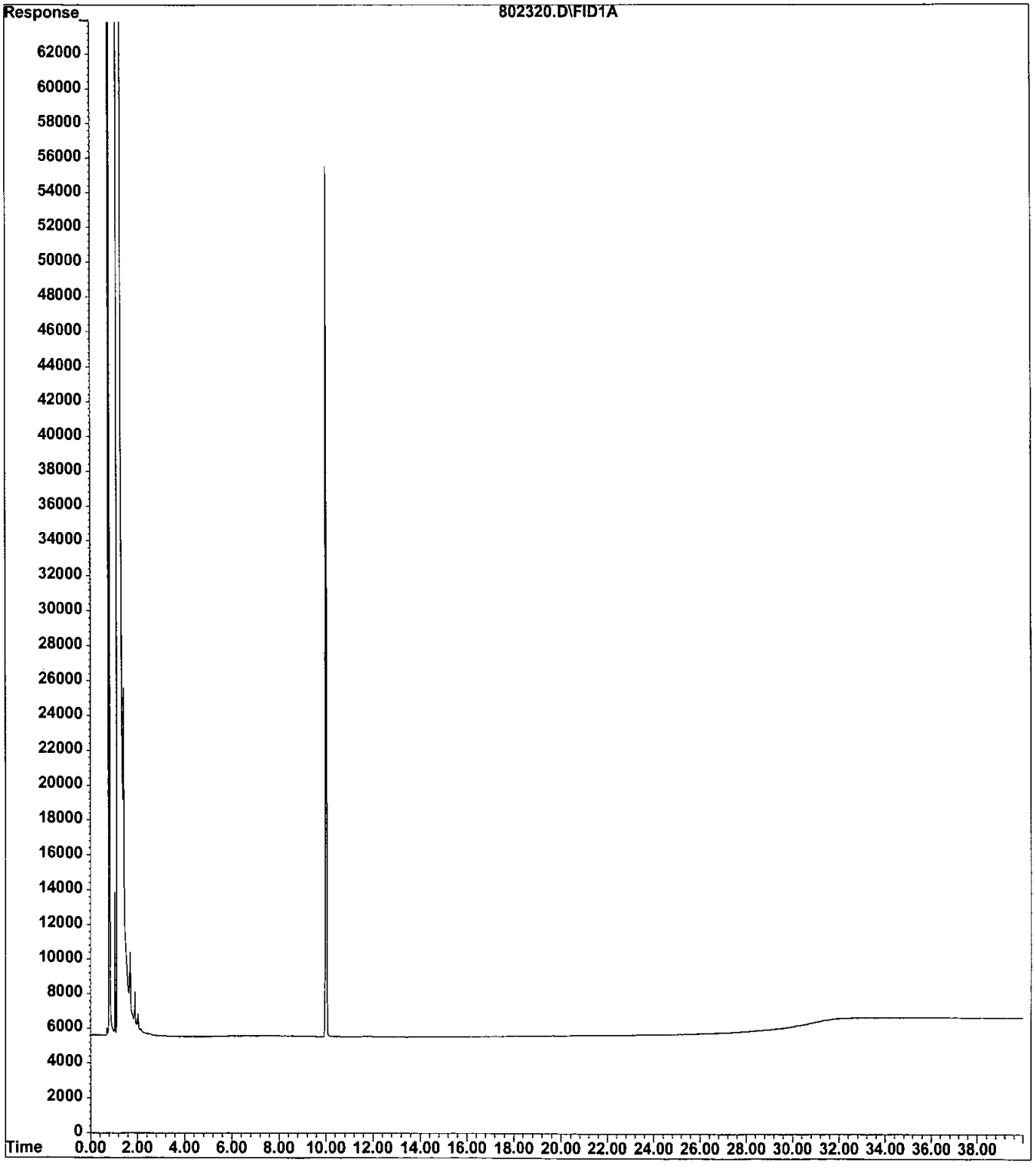
File : C:\HPCHEM\1\DATA\8022301.S\802316.D
Operator :
Acquired : 23 Feb 20108 3:27 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-31
Misc Info :
Vial Number: 16



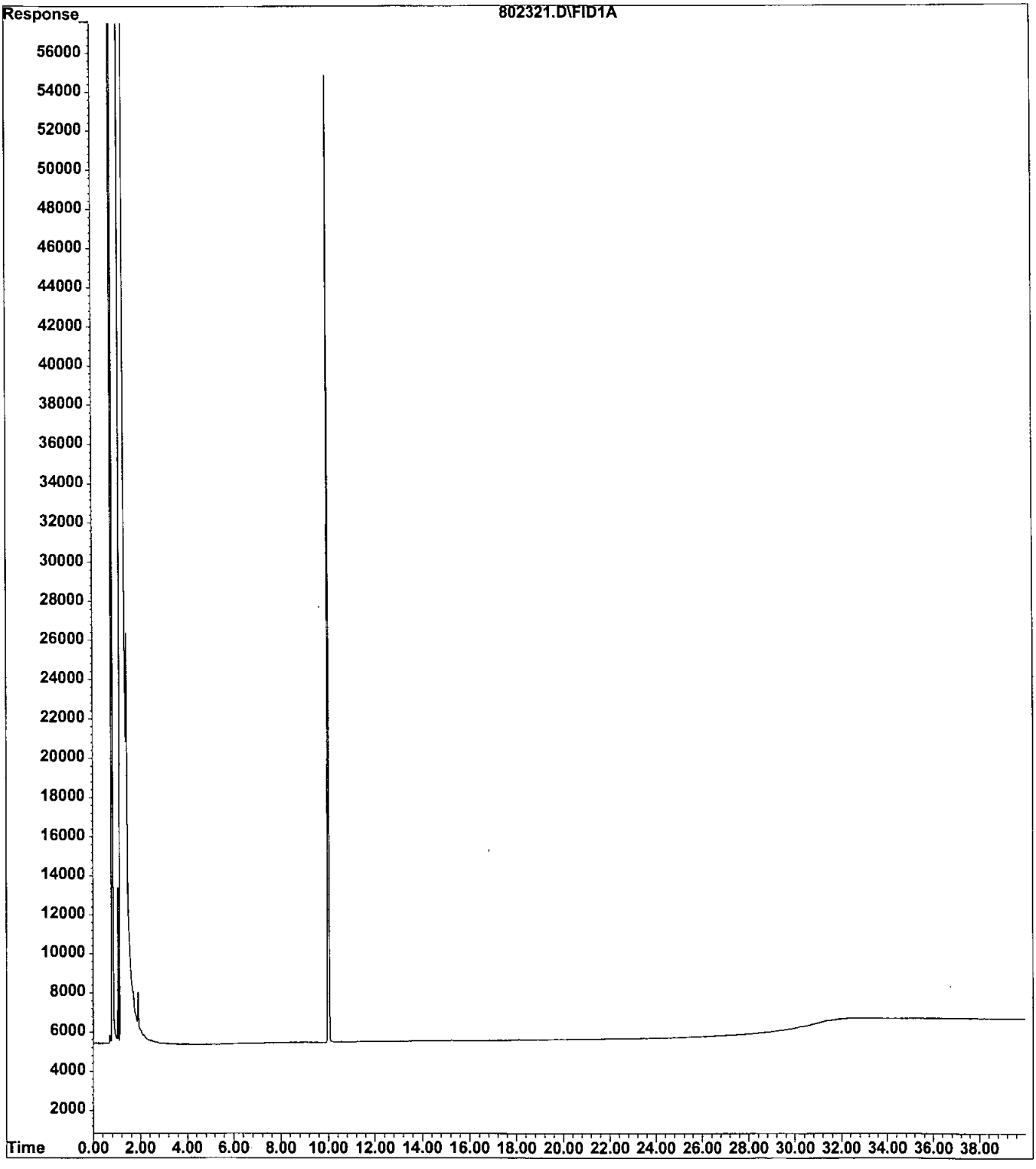
File : C:\HPCHEM\1\DATA\8022301.S\802319.D
Operator :
Acquired : 23 Feb 20108 5:56 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-32
Misc Info :
Vial Number: 19



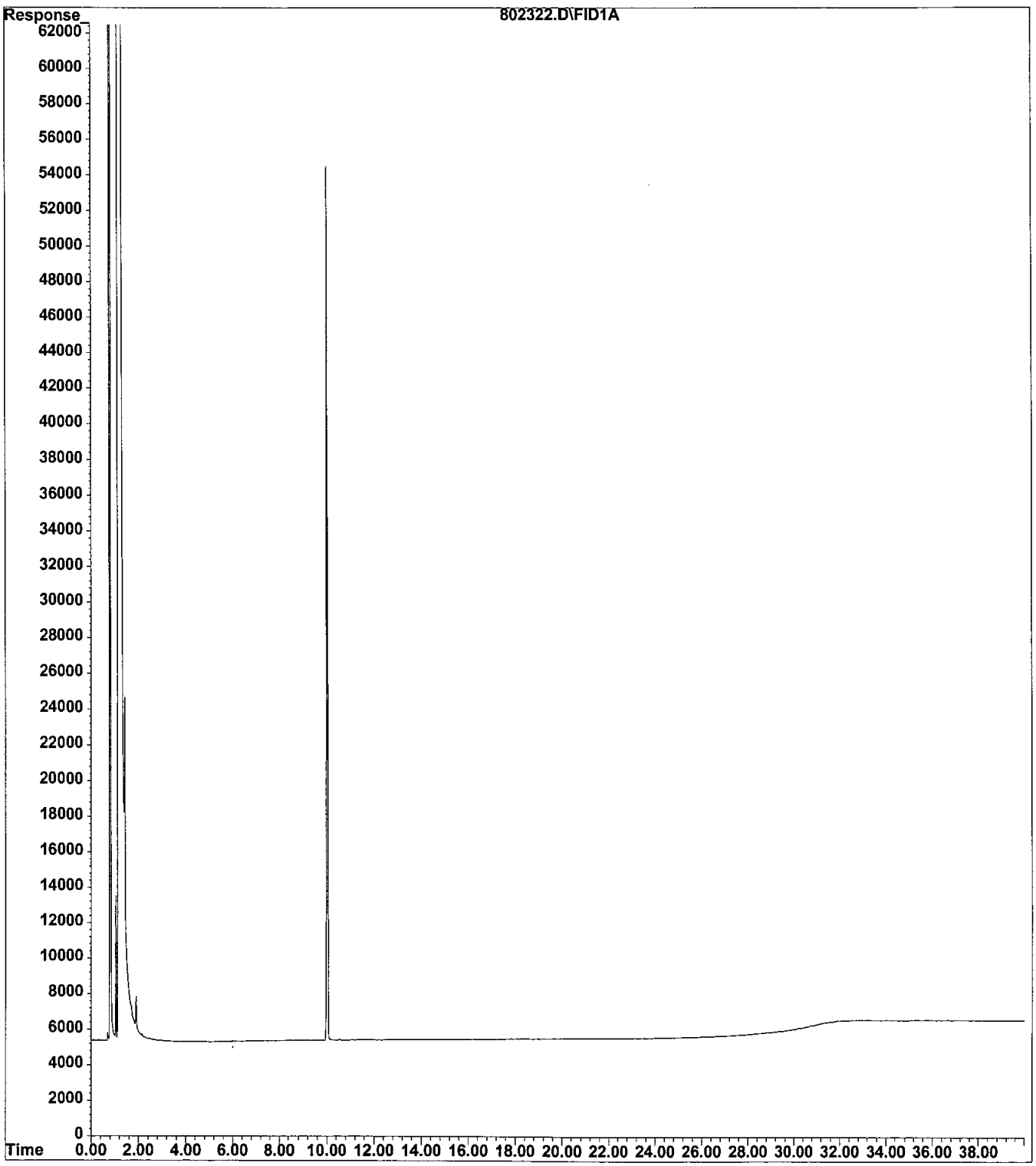
File : C:\HPCHEM\1\DATA\8022301.S\802320.D
Operator :
Acquired : 23 Feb 20108 6:46 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-33
Misc Info :
Vial Number: 20



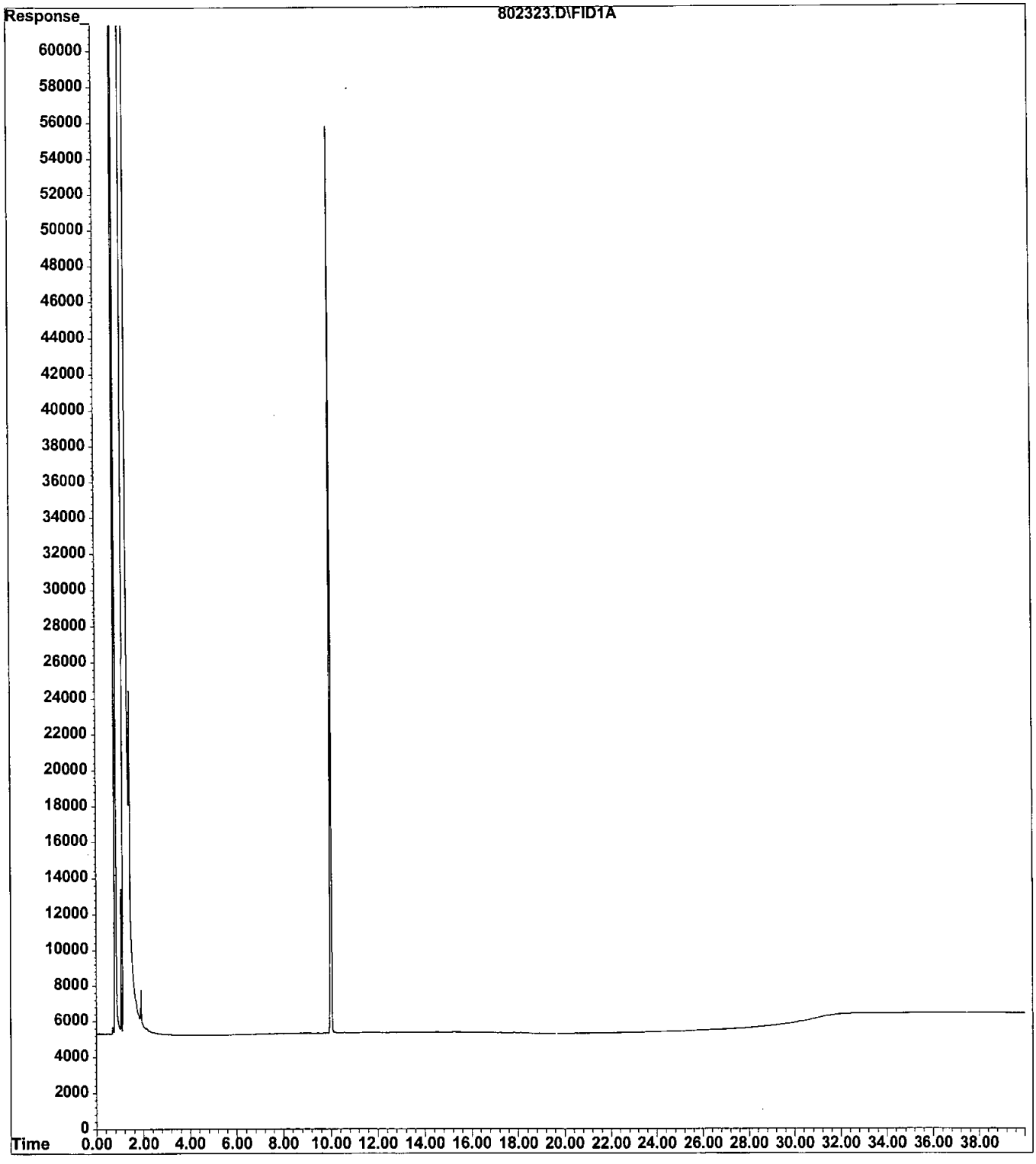
File : C:\HPCHEM\1\DATA\8022301.S\802321.D
Operator :
Acquired : 23 Feb 20108 7:36 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-34
Misc Info :
Vial Number: 21



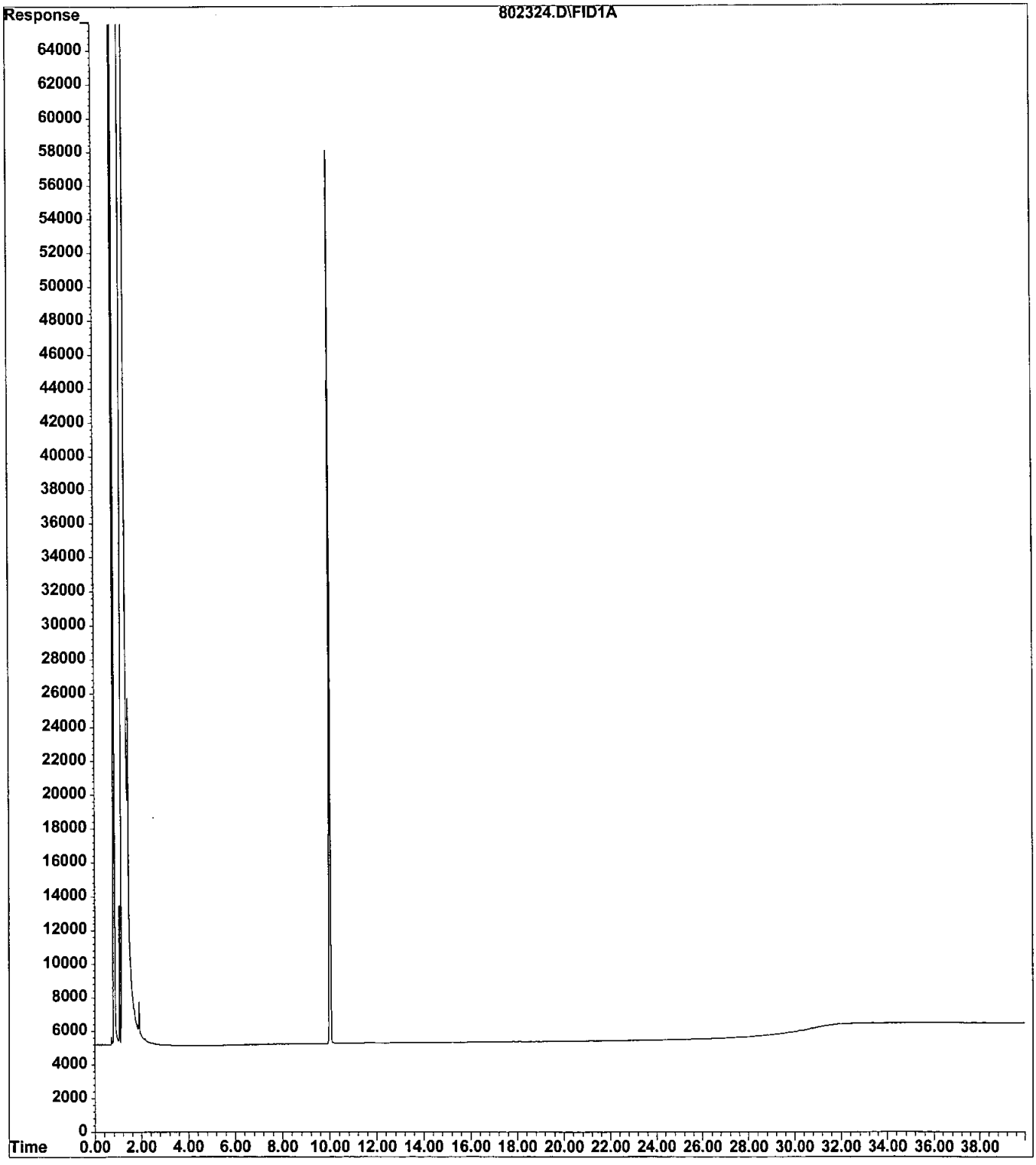
File : C:\HPCHEM\1\DATA\8022301.S\802322.D
Operator :
Acquired : 23 Feb 20108 8:26 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-35
Misc Info :
Vial Number: 22



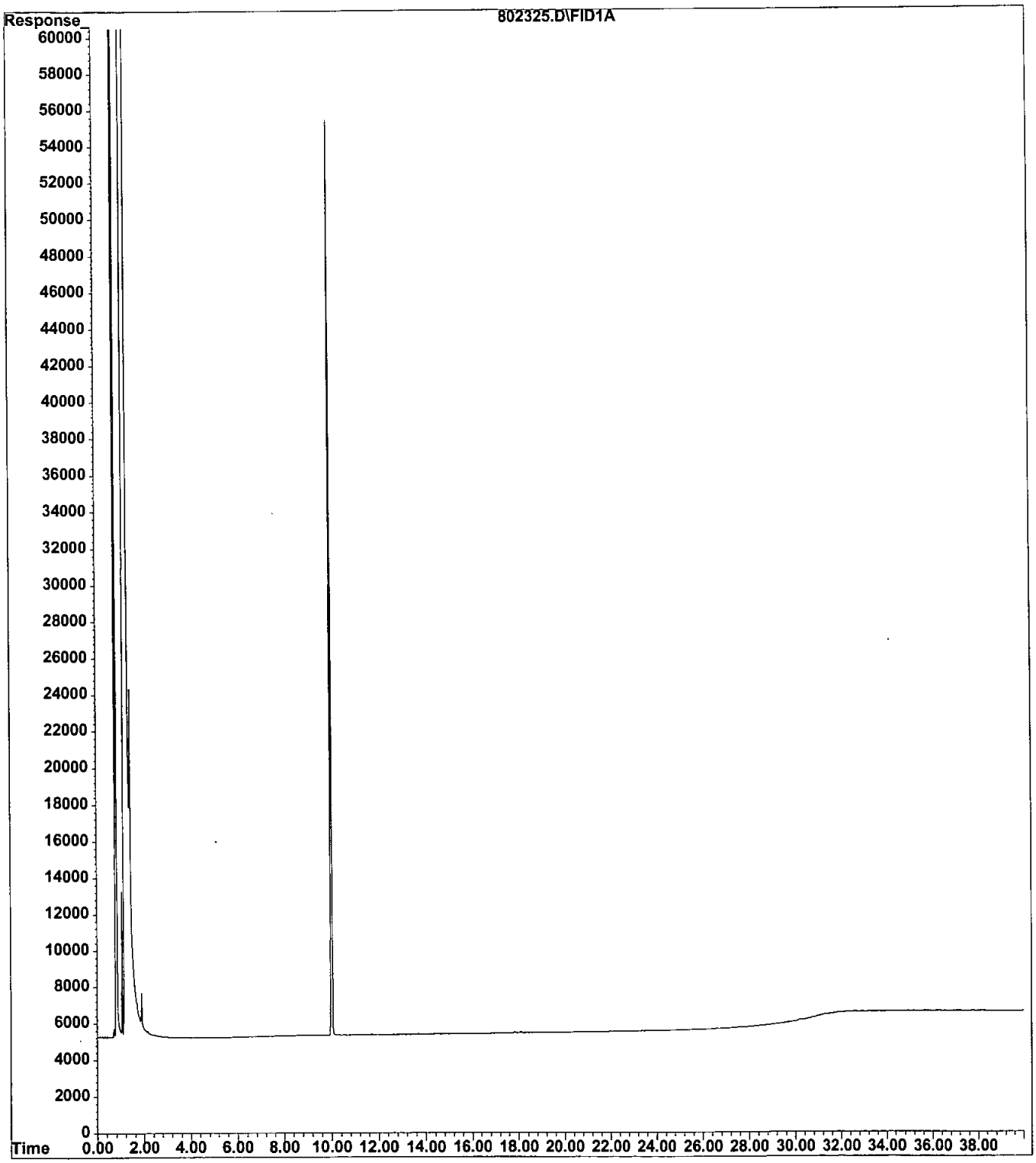
File : C:\HPCHEM\1\DATA\8022301.S\802323.D
Operator :
Acquired : 23 Feb 20108 9:15 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-36
Misc Info :
Vial Number: 23



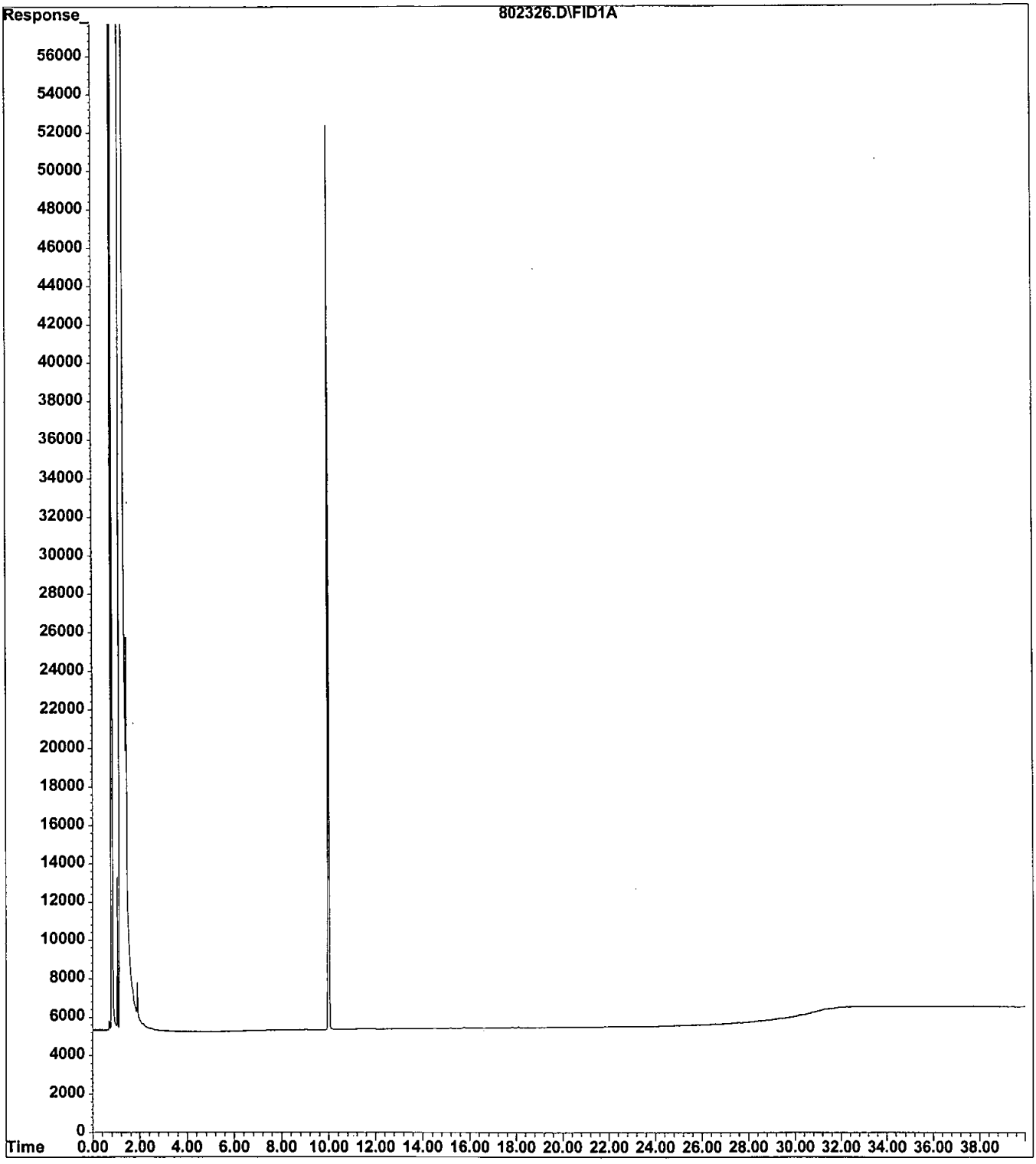
File : C:\HPCHEM\1\DATA\8022301.S\802324.D
Operator :
Acquired : 23 Feb 20108 10:05 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-37
Misc Info :
Vial Number: 24



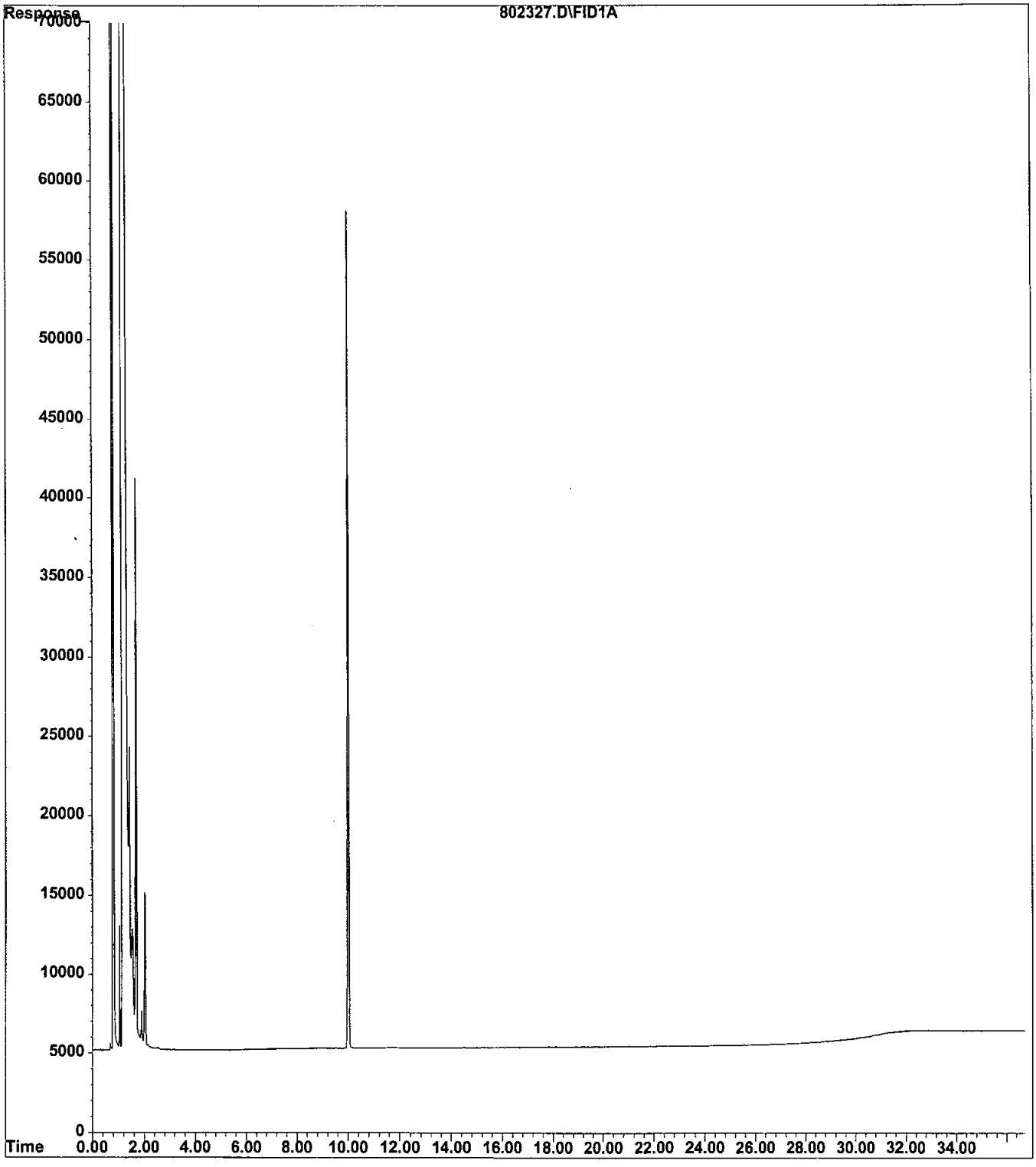
File : C:\HPCHEM\1\DATA\8022301.S\802325.D
Operator :
Acquired : 23 Feb 20108 10:55 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-38
Misc Info :
Vial Number: 25



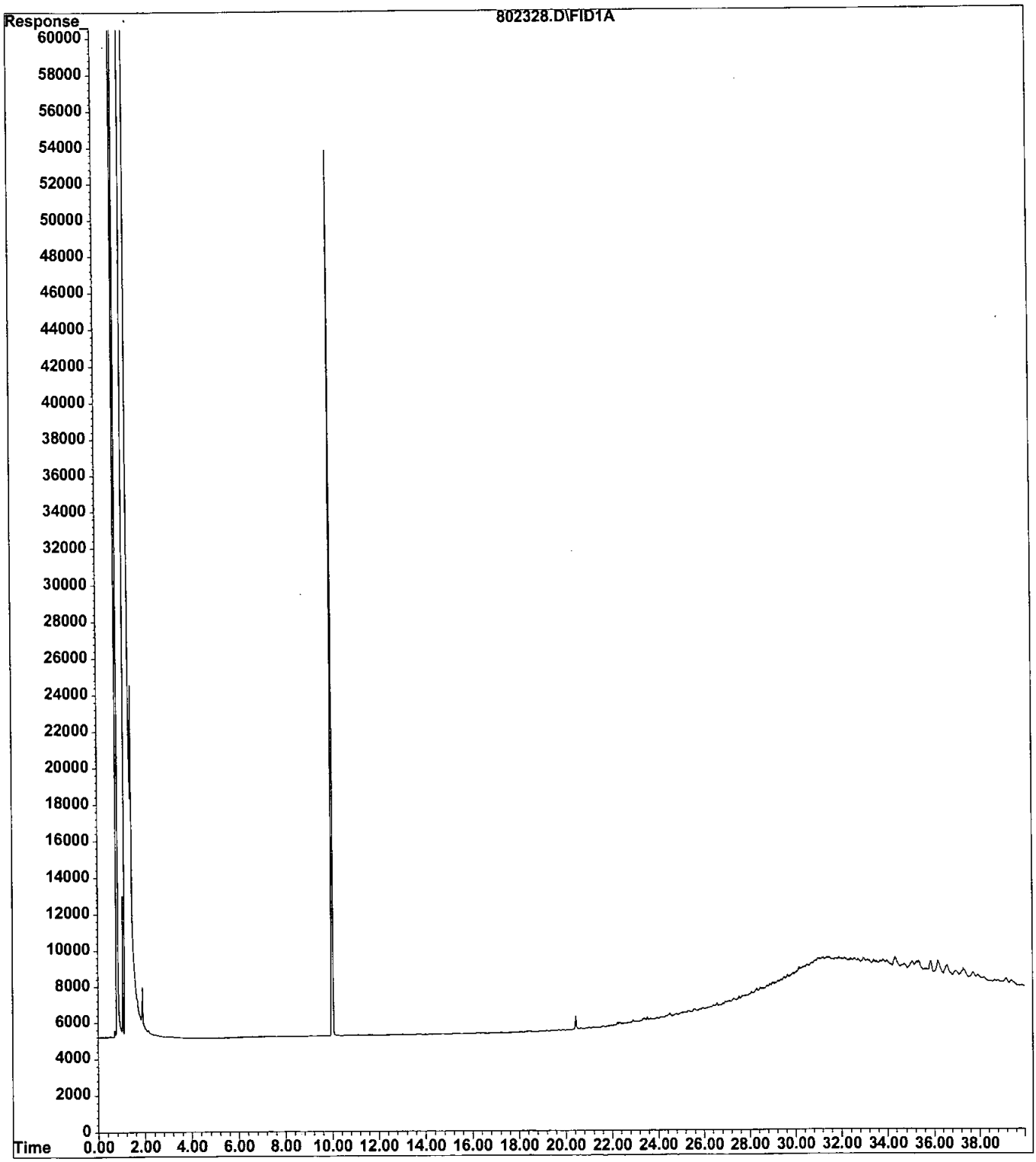
File : C:\HPCHEM\1\DATA\8022301.S\802326.D
Operator :
Acquired : 23 Feb 20108 11:45 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-39
Misc Info :
Vial Number: 26



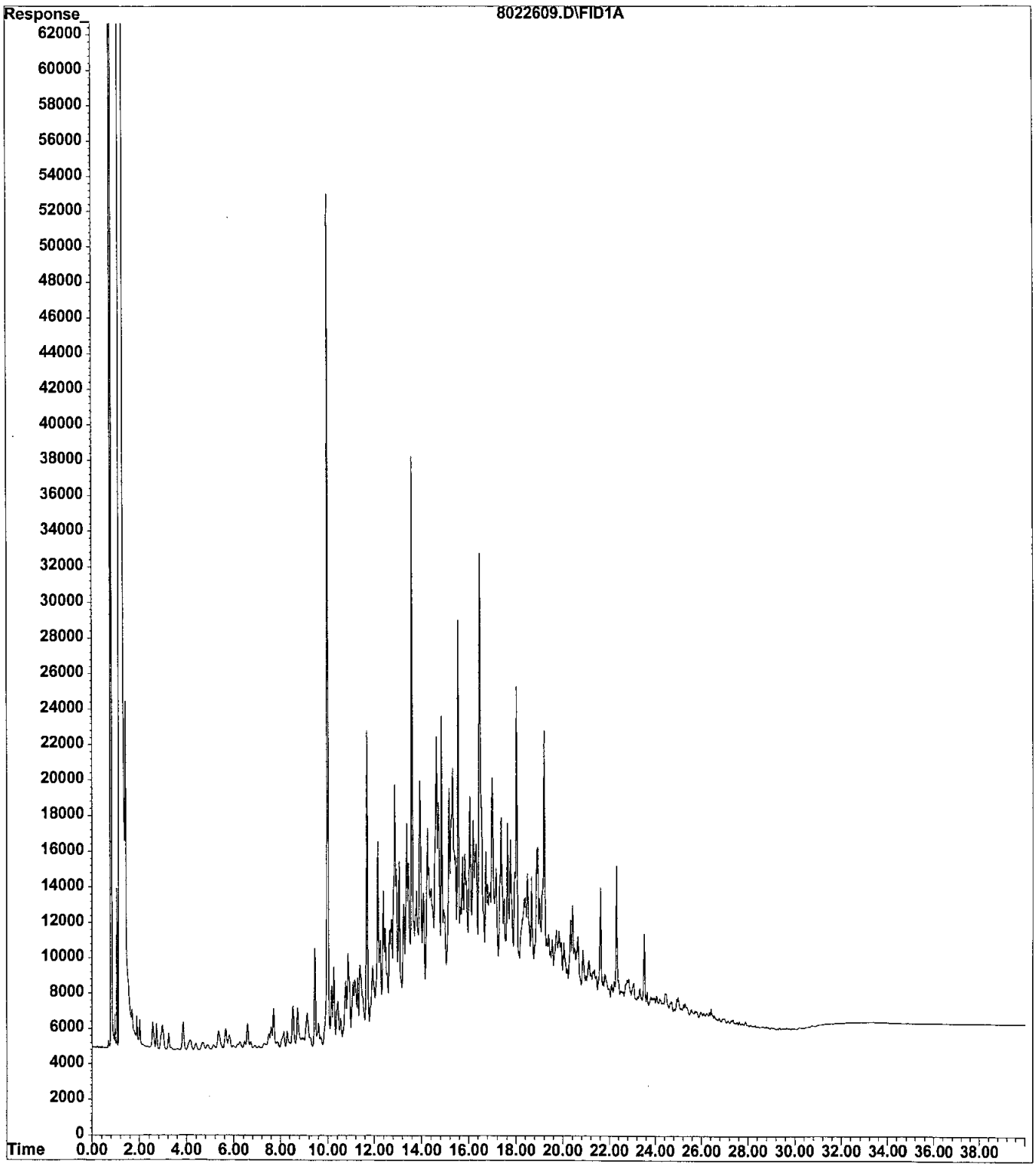
File : C:\HPCHEM\1\DATA\8022301.S\802327.D
Operator :
Acquired : 23 Feb 20108 12:35 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-40
Misc Info :
Vial Number: 27



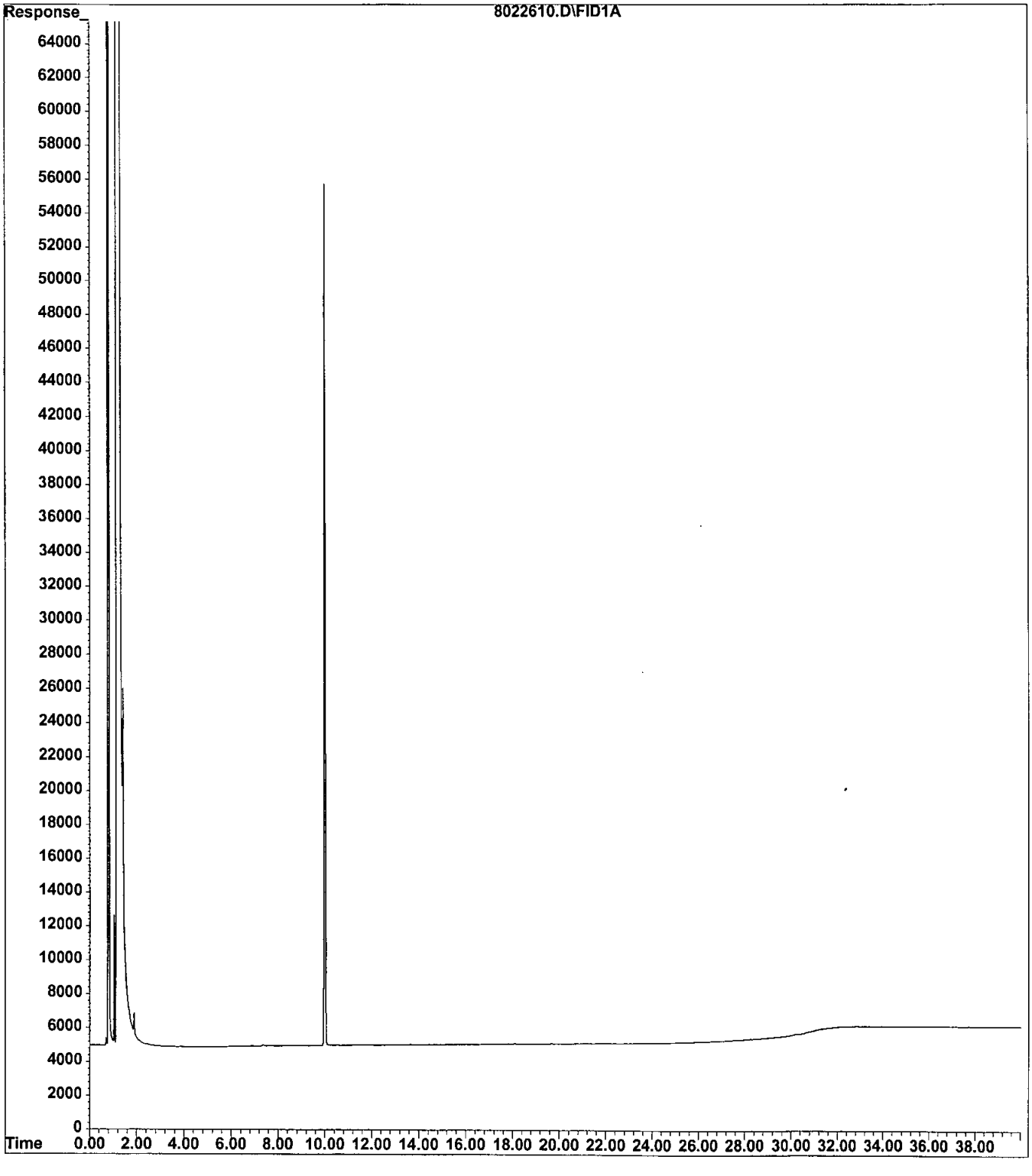
File : C:\HPCHEM\1\DATA\8022301.S\802328.D
Operator :
Acquired : 23 Feb 20108 1:26 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-27
Misc Info :
Vial Number: 28



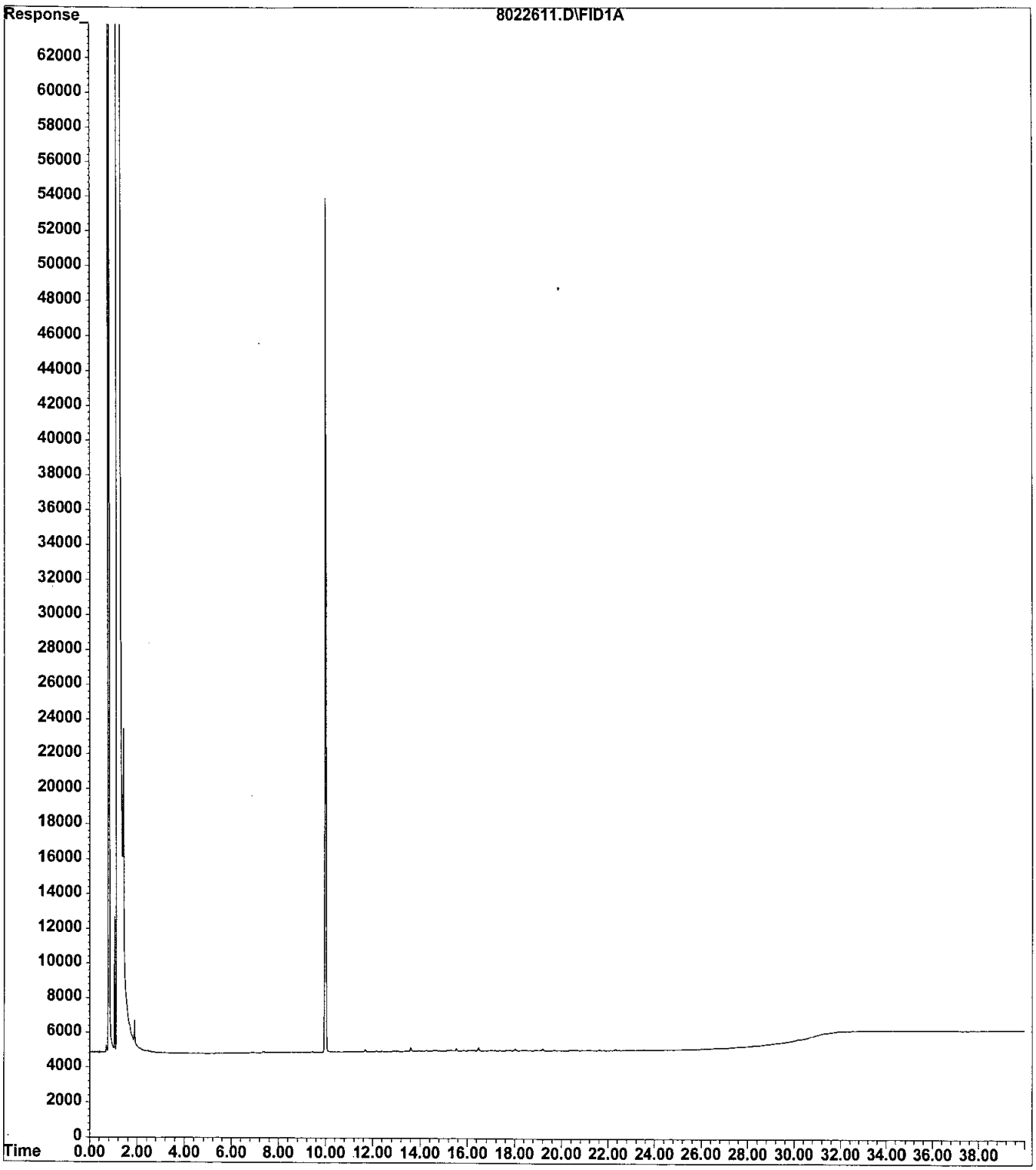
File : C:\HPCHEM\1\DATA\8022601.S\8022609.D
Operator :
Acquired : 26 Feb 20108 7:40 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-41
Misc Info :
Vial Number: 9



File : C:\HPCHEM\1\DATA\8022601.S\8022610.D
Operator :
Acquired : 26 Feb 20108 8:31 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-42
Misc Info :
Vial Number: 10



File : C:\HPCHEM\1\DATA\8022601.S\8022611.D
Operator :
Acquired : 26 Feb 20108 9:21 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802367-43
Misc Info :
Vial Number: 11



CHAIN-OF-CUSTODY FORM

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A · San Diego, CA 92123 · Phone (858) 560-7717 · Fax (858) 560-7763

EMA LOG #: ~~0802365~~ 0802367 (2/20/08)

Client: PETRA GEOTECH

Attn: [1]JIM OLBINSKI

Sampler(s): DOUG STEPHENSON

Address: 12225 WORLD TRADE DR. #P
S.D. CA 92128

Phone: (858) 485-5530 Fax: 485-8215

Email: jolbinski@petra-inc

Billing Address: 3185-A AIRWAY AVE.
COSTA MESA, CA 92626

Project ID: WILMINGTON OIL

Project #: 252-06 PO#: 08-1058

SAMPLE DETAIL

#	Client Sample ID	Sample Date/Time		Sample Matrix	Container(s) # of / Type
01	MW-13-5	2/18	8:17	SED	1/STEEL SLEEVE
02	MW-13-10		8:21		
03	MW-13-15		9:10		
04	MW-13-20		9:16		
05	MW-13-25		10:20		
06	MW-13-30		10:26		
07	MW-13-35		10:35		
08	MW-13-40		10:46		
09	MW-13-45		10:53		
10	MW-13-50		11:00		

REQUESTED ANALYSIS

Oil & Grease ☐1664 ☐413.1 ☐413.2	418.1 (Total Recoverable Petroleum Hydrocarbons)	8015B (TPH) ☐Gas ☐Diesel ☐Ext ☐ASTM D2887	624 / 8260 (VOC) ☐Full ☒BTXE ☐MTBE ☐Oxy ☐Nap	625 / 8270 (Semi Volatile Organics) ☐ PAH only.	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	☐pH ☐Conductivity (EC) ☐TSS ☐TDS	☐Nitrate ☐Nitrite ☐TKN ☐NH3	TTLC Metals (CAC Title 22) / (CAM 17)	STLC Metals (CAC Title 22) / (CAM 17)	TCLP (RCRA) ☐Metals ☐Organics	Cd Cr Cu Pb Ni Ag Zn ☐Dissolved	Coliform, ☐Total (MTF) ☐Fecal (MTF) ☐Colilert,T+E.Coli	Enterococcus, ☐MTF ☐idexx	Heterotrophic Plate Count (HPC)	Micro Other Note	Sample Comments
		X	X																

Sample Matrix Codes: GW=ground water WW=waste water DW=drinking water SW=storm water

A=air SED=sediment O=oil T=tissue S=solid other (specify) L=liquid other (specify)

Shipped By: ☐Courier ☐UPS ☐FedEx ☐USPS ☑Client drop off ☐Other

[1]Turnaround Time: ☐Same day ☐24 hr ☐48 hr ☐3 day ☐4 day ☐5 day ☑STD (7 day)

[1]Reporting Requirements: ☐Fax ☐PDF ☐Excel ☑Geotracker EDF ☐Other

[1]Sample Disposal: ☑By Laboratory ☐[2]Return to client: P/U or Delivery ☐Archive until ___/___/___

SAMPLE INTEGRITY

Correct Containers: Yes No N/A

Containers Properly Preserved: Yes No N/A

Custody Seals Intact: Yes No N/A

Temperature @ Receipt: 5°C on ice

COC/Labels Agree: Yes No N/A

Sampled By: ☐Client ☐EMA ☐Autosampler

Project Comments:

CHAIN OF CUSTODY RECORD

	RELINQUISHED BY	RECEIVED BY	DATE/TIME STAMP
Signature			2/20/08 11:38AM
Print	DOUG STEPHENSON	Jennifer Jones	
Company	PETRA	Petra	
Signature			2/20/08 1210
Print	Jennifer Jones	Christina Rink	
Company	Petra	EMA	
Signature			
Print			
Company			

[1]Additional costs may apply, consult a project manager for details.

[2]EMA reserves the right to return any samples that do not match our waste profile.

White - EMA Canary - Accounting Pink - Client (w/Report) Goldenrod - Client (Relinquish Samples)

Note: By relinquishing samples to EnviroMatrix Analytical, Inc., client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed of after 30 days unless otherwise noted. All work is subject to EMA's terms and conditions.

CHAIN-OF-CUSTODY FORM

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A · San Diego, CA 92123 · Phone (858) 560-7717 · Fax (858) 560-7763

EMA LOG #: 0802367

Client: PETRA GEOTECHNICAL INC
Attn: JIM OLBINSKI
Sampler(s): DOUG STEPHENSON
Address: 12225 WORLD TRADE DR. SUITE P
S.D. CA 92128
Phone: (858) 485-5530 Fax: 485-9215
Email: jolbinski@petra-inc.com
Billing Address: 3185-A AIRWAY AVE
COSTA MESA, CA 92626
Project ID: WILMINGTON OIL
Project #: 252-06 PO#: 08-1058

SAMPLE DETAILS

#	Client Sample ID	Sample Date/Time		Sample Matrix	Container(s) # of / Type
01	MW-14-5	2/18	2:10	SED	1/STEEL SLEEVE
02	MW-14-10		2:16		
03	MW-14-15		2:23		
04	MW-14-20		2:30		
05	MW-14-25		2:38		
06	MW-14-30		2:48		
07	MW-14-35		3:00		
08	MW-14-40	↓	3:05		
09	MW-15-5	2/19	8:36		
10	MW-15-10	↓	8:40	↓	↓

REQUESTED ANALYSIS

Oil & Grease ☐1664 ☐413.2 ☐413.1	418.1 (Total Recoverable Petroleum Hydrocarbons)	8015B (TPH) ☐Gas ☒Diesel	☐Ext ☐ASTM D2887	624 / 8260 (VOC) ☐Full ☐BTEX ☐MTBE ☐Oxy ☐Nap	625 / 8270 (Semi Volatile Organics) ☐ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)
		X		X			

Called @ Sample 11 on 2/20 around 5:50
Sample core ID and COC did not match

Microbiology Notes

Sample Comments

Sample Matrix Codes: GW=ground water WW=waste water DW=drinking water SW=storm water
A=air SED=sediment O=oil T=tissue S=solid other (specify) L=liquid other (specify)

Shipped By: ☐Courier ☐UPS ☐FedEx ☐USPS ☒Client drop off ☐Other
[1]Turnaround Time: ☐Same day ☐24 hr ☐48 hr ☐3 day ☐4 day ☐5 day ☐STD (7 day)
[1]Reporting Requirements: ☐Fax ☐PDF ☐Excel ☒Geotracker EDF ☐Other
[1]Sample Disposal: ☒By Laboratory ☐[2]Return to client: P/U or Delivery ☐Archive until ___/___/___

SAMPLE INTEGRITY

Correct Containers: Yes No N/A
Containers Properly Preserved: Yes No N/A
Custody Seals Intact: Yes No N/A
Temperature @ Receipt: 5°C ice
COC/Labels Agree: Yes No N/A
Sampled By: ☐Client ☐EMA ☐Autosampler

Project Comments:
cc: JJones@petra-inc.com on ALL reports

CHAIN OF CUSTODY RECORD

	RELINQUISHED BY	RECEIVED BY	DATE/TIME STAMP
Signature			2/20/08 11:38 AM
Print	DOUG STEPHENSON	Jennifer Jones	
Company	PETRA	Petra	
Signature			
Print	Jennifer Jones	Christina Rink	2/20/08 1210
Company	Petra	EMA	
Signature			
Print			
Company			

[1]Additional costs may apply, consult a project manager for details.
[2]EMA reserves the right to return any samples that do not match our waste profile.

White - EMA Canary - Accounting Pink - Client (w/Report) Goldenrod - Client (Relinquish Samples)

Note: By relinquishing samples to EnviroMatrix Analytical, Inc., client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed of after 30 days unless otherwise noted. All work is subject to EMA's terms and conditions.

CHAIN-OF-CUSTODY FORM

EnviroMatrix **EMA** *Analytical, Inc.*

4340 Viewridge Ave., Ste. A · San Diego, CA 92123 · Phone (858) 560-7717 · Fax (858) 560-7763

EMA LOG #: 0802367

Client: PETRA GEOTECH

Attn: JIM OLBINSKI

Sampler(s): DOUG STEPHENSON

Address: 12225 WORLD TRADE DR #P
92128

Phone: (858)485-5530 Fax: 485-8215

Email: jolbinski@petra-inc.com

Billing Address: 3105-A KEARNY AVE
CM. 92626

Project ID: WRIGHTON OIL

Project #: 252-06 PO#: 08-1058

SAMPLE DETAILS

#	Client Sample ID	Sample Date/Time	Sample Matrix	Container(s) # of / Type
01	MW-15-15	2/19 8:44	SED	1/STEEL SLEEVE
02	MW-15-20	8:48		
03	MW-15-25	8:55		
04	MW-15-30	9:01		
05	MW-15-35	9:10		
06	MW-15-40	9:18		
07	MW-16-5	11:13		
08	MW-16-10	11:18		
09	MW-16-15	11:23		
10	MW-16-20	11:26		

REQUESTED ANALYSIS

#	Oil & Grease ☐413.1 ☐413.2 ☐1664	418.1 (Total Recoverable Petroleum Hydrocarbons)	8015B (TPH) ☒Gas ☒Diesel ☐Ext ☐ASTM D2887	624 / 8260 (VOC) ☐Full ☐BTEX ☐MTBE ☐Oxy ☐Nap	625 / 8270 (Semi Volatile Organics) ☐ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	☐pH ☐Conductivity (EC) ☐TSS ☐TDS	☐Nitrate ☐Nitrite ☐TKN ☐NH3	TTLC Metals (CAC Title 22) / (CAM 17)	STLC Metals (CAC Title 22) / (CAM 17)	TCLP (RCRA) ☐Metals ☐Organics	Cd Cr Cu Pb Ni Ag Zn ☐Dissolved	Coliform, ☐Total (MTF) ☐Fecal (MTF) ☐Colilert,T+E.Coli	Enterococcus, ☐MTF ☐Idexx	Heterotrophic Plate Count (HPC)
01			X	X														
02																		
03																		
04																		
05																		
06																		
07																		
08																		
09																		
10																		

Microbiology Notes:

Sample Comments:

Sample Matrix Codes: GW=ground water WW=waste water DW=drinking water SW=storm water
A=air SED=sediment O=oil T=tissue S=solid other (specify) L=liquid other (specify)

Shipped By: ☐Courier ☐UPS ☐FedEx ☐USPS ☒Client drop off ☐Other

[1]Turnaround Time: ☐Same day ☐24 hr ☐48 hr ☐3 day ☐4 day ☐5 day ☒STD (7 day)

[1]Reporting Requirements: ☐Fax ☐PDF ☐Excel ☒Geotracker EDF ☐Other

[1]Sample Disposal: ☒By Laboratory ☐[2]Return to client: P/U or Delivery ☐Archive until ___/___/___

SAMPLE INTEGRITY

Correct Containers: Yes No N/A

Containers Properly Preserved: Yes No N/A

Custody Seals Intact: Yes No N/A

Temperature @ Receipt: 5°C on ice

COC/Labels Agree: Yes No N/A

Sampled By: ☐Client ☐EMA ☐Autosampler

Project Comments:

CHAIN-OF-CUSTODY RECORD

	RELINQUISHED BY	RECEIVED BY	DATE/TIME STAMP
Signature			2/20/08 11:38AM
Print	DOUG STEPHENSON	Jennifer Jones	
Company	PETRA	Petra	
Signature			2/20/08 1210
Print	Jennifer Jones	Christina Rink	
Company	Petra	EPA	
Signature			
Print			
Company			

[1]Additional costs may apply, consult a project manager for details.

[2]EMA reserves the right to return any samples that do not match our waste profile.

White - EMA Canary - Accounting Pink - Client (w/Report) Goldenrod - Client (Relinquish Samples)

Note: By relinquishing samples to EnviroMatrix Analytical, Inc., client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed of after 30 days unless otherwise noted. All work is subject to EMA's terms and conditions.

CHAIN-OF-CUSTODY FORM

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A · San Diego, CA 92123 · Phone (858) 560-7717 · Fax (858) 560-7763

EMA LOG #: C802367

Client: PETRA GEOTECH

Attn: JIM OLBINSKI

Sampler(s): DOUG ST.

Address: 12225 WORLD TRADE DR. #P
92128

Phone: (858)485-5530 Fax: (858)485-8215

Email: jolbinski@petra-inc.com

Billing Address: 3185-A AIRWAY AVE
C.M. 92626

Project ID: WIGINGTON OIL

Project #: 252-06 PO#: 08-1055

SAMPLE DETAILS

#	Client Sample ID	Sample Date/Time	Sample Matrix	Container(s) # of / Type
01	MW-16-25	2/19 11:30	SED	1/STEEL SLEEVE
02	MW-16-30	11:35		
03	MW-16-35	11:40		
04	MW-16-40	11:43		
05	MW-17-5	2:05		
06	MW-17-10	2:10		
07	MW-17-15	2:12		
08	MW-17-20	2:16		
09	MW-17-25	2:20		
10	MW-17-30	2:24		

Sample Matrix Codes: GW=ground water WW=waste water DW=drinking water SW=storm water
A=air SED=sediment O=oil T=tissue S=solid other (specify) L=liquid other (specify)

Shipped By: ☐Courier ☐UPS ☐FedEx ☐USPS ☑Client drop off ☐Other

[1]Turnaround Time: ☐Same day ☐24 hr ☐48 hr ☐3 day ☐4 day ☐5 day ☑STD (7 day)

[1]Reporting Requirements: ☐Fax ☐PDF ☐Excel ☑Geotracker EDF ☐Other

[1]Sample Disposal: ☑By Laboratory ☐[2]Return to client: P/U or Delivery ☐Archive until __/__/__

SAMPLE INTEGRITY

Correct Containers: Yes No N/A

Containers Properly Preserved: Yes No N/A

Custody Seals Intact: Yes No N/A

Temperature @ Receipt: 3°C ice

COC/Labels Agree: Yes No N/A

Sampled By: ☐Client ☐EMA ☐Autosampler

Project Comments:

TURNAROUND TIME ANALYSIS

Oil & Grease ☐1664 ☐413.1 ☐413.2	418.1 (Total Recoverable Petroleum Hydrocarbons)	8015B (TPH) ☐Gas ☑Diesel ☐Ext ☐ASTM D2887	624 / 8260 (VOC) ☐Full ☐BTXE ☑MTBE ☑Oxy ☐Nap	625 / 8270 (Semi Volatile Organics) ☐PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	☐pH ☐Conductivity (EC) ☐TSS ☐TDS	☐Nitrate ☐Nitrite ☐TKN ☐NH3	TTLC Metals (CAC Title 22) / (CAM 17)	STLC Metals (CAC Title 22) / (CAM 17)	TCLP (RCRA) ☐Metals ☐Organics	Cd Cr Cu Pb Ni Ag Zn ☐Dissolved	Coliform, ☐Total (MTF) ☐Fecal (MTF) ☐Colilert,T+E.Coli	Enterococcus, ☐MTF ☐Idexx	Heterotrophic Plate Count (HPC)	Microbiology Notes
		X	X															

Sample Comments:

CHAIN OF CUSTODY RECORD

	RELINQUISHED BY	RECEIVED BY	DATE/TIME STAMP
Signature			2/20/08 11:38AM
Print	DOUG STEPHENSON	Jennifer Jones	
Company	PETRA	Petra	
Signature			
Print	Jennifer Jones	Christina Rink	2/20/08 1210
Company	Petra	EMA	
Signature			
Print			
Company			

[1]Additional costs may apply, consult a project manager for details.

[2]EMA reserves the right to return any samples that do not match our waste profile.

White - EMA Canary - Accounting Pink - Client (w/Report) Goldenrod - Client (Relinquish Samples)

Note: By relinquishing samples to EnviroMatrix Analytical, Inc., client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed of after 30 days unless otherwise noted. All work is subject to EMA's terms and conditions.

CHAIN-OF-CUSTODY FORM

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A · San Diego, CA 92123 · Phone (858) 560-7717 · Fax (858) 560-7763

EMA LOG #: 0802367

Client: PETRA GEOTECHNICAL

Attn: JIM OLBINSKI

Sampler(s): DOUG STEPHENSON

Address: 12225 WORLD TRADE DR #P
92128

Phone: (858) 485-5530 Fax: 495-8825

Email: jolbinski@petra-inc.com

Billing Address: 385-A AIRWAY AVE
C.M. CA 92626

Project ID: WIGHTSTON DIC

Project #: 252-06 PO#: 08-1058

SAMPLE DETAILS

#	Client Sample ID	Sample Date/Time		Sample Matrix	Container(s) # of / Type
01	MW-17-35	2/19	2:30	SED	1/STEEL SLEEVE
02	MW-17-38	↓	2:35	↓	↓
03	MW-17-45	↓		↓	↓
04					
05					
06					
07					
08					
09					
10					

REQUESTED ANALYSIS

#	Oil & Grease ☐413.1 ☐413.2 ☐1664	418.1 (Total Recoverable Petroleum Hydrocarbons)	8015B (TPH) ☐Gas ☐Diesel ☐Ext ☐ASTM D2887	624 / 8260 (VOC) ☐Full ☐BTEX ☐MTBE ☐Oxy ☐Nap	625 / 8270 (Semi Volatile Organics) ☐ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	☐pH ☐Conductivity (EC) ☐TSS ☐TDS	☐Nitrate ☐Nitrite ☐TKN ☐NH3	TTLC Metals (CAC Title 22) / (CAM 17)	STLC Metals (CAC Title 22) / (CAM 17)	TCLP (RCRA) ☐Metals ☐Organics	Cd Cr Cu Pb Ni Ag Zn ☐Dissolved	Coliform, ☐Total (MTF) ☐Fecal (MTF) ☐Colilert,T+E.Coli	Enterococcus, ☐MTF ☐Idexx	Heterotrophic Plate Count (HPC)
01			X	X														
02			↓	↓														
03			↓	↓														

Sample Matrix Codes: GW=ground water WW=waste water DW=drinking water SW=storm water
A=air SED=sediment O=oil T=tissue S=solid other (specify) L=liquid other (specify)

Shipped By: ☐Courier ☐UPS ☐FedEx ☐USPS ☑Client drop off ☐Other

[1]Turnaround Time: ☐Same day ☐24 hr ☐48 hr ☐3 day ☐4 day ☐5 day ☑STD (7 day)

[1]Reporting Requirements: ☐Fax ☐PDF ☐Excel ☑Geotracker EDF ☐Other

[1]Sample Disposal: ☑By Laboratory ☐[2]Return to client: P/U or Delivery ☐Archive until ___/___/___

LABORATORY USE ONLY - SAMPLE RECEIPT INFORMATION

Correct Containers: Yes No N/A

Containers Properly Preserved: Yes No N/A

Custody Seals Intact: Yes No N/A

Temperature @ Receipt: 5°C on ice

COC/Labels Agree: Yes No N/A

Sampled By: ☐Client ☐EMA ☐Autosampler

Project Comments:

CHAIN-OF-CUSTODY RECORD

	RELINQUISHED BY	RECEIVED BY	DATE/TIME STAMP
Signature			2/20/08 11:38AM
Print	DOUG STEPHENSON	Jennifer Jones	
Company	PETRA	Petra	
Signature			2/20/08 1210
Print	Jennifer Jones	Christina Rink	
Company	Petra	EMA	
Signature			
Print			
Company			

[1]Additional costs may apply, consult a project manager for details.

[2]EMA reserves the right to return any samples that do not match our waste profile.

White - EMA Canary - Accounting Pink - Client (w/Report) Goldenrod - Client (Relinquish Samples)

Note: By relinquishing samples to EnviroMatrix Analytical, Inc., client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed of after 30 days unless otherwise noted. All work is subject to EMA's terms and conditions.

APPENDIX G

GROUNDWATER LABORATORY REPORTS

PETRA

MOBILE GEOCHEMISTRY

H&P

07 February 2008

Mr. Chuck Houser
Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

RE: PG012508-13

Enclosed are the results of analyses for samples received by the laboratory on 25-Jan-08 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595.

2470 Impala Drive, Carlsbad, California 92010 | 760.804.9678 — Fax 760.804.9159
3825 Industry Avenue, Lakewood, California 90712 | 562.426.6991 — Fax 562.426.6995
www.HandPmg.com | 1-800-834-9888

RECEIVED
APR 17

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG012508-13	
12225 World Trade Drive, Suite P	Project Number: 252-06 / El Cap Oil	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	07-Feb-08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2	E801090-01	Water	22-Jan-08	25-Jan-08

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG012508-13	
12225 World Trade Drive, Suite P	Project Number: 252-06 / El Cap Oil	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	07-Feb-08

TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-2 (E801090-01) Water	**Sampled: 22-Jan-08**	**Received: 25-Jan-08**							**O-04**
Gasoline (C5-C11)	110000000	500000	ug/l	1000	EB80706	06-Feb-08	06-Feb-08	DHS LUFT	G-25
Diesel (C12-C24)	930000000	500000	"	"	"	"	"	"	D-08
Motor Oil (C25-C36)	ND	1000000	"	"	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG012508-13	
12225 World Trade Drive, Suite P	Project Number: 252-06 / El Cap Oil	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	07-Feb-08

TPH by GC FID - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB80706 - LUFT-DHS										
Blank (EB80706-BLK1)				Prepared & Analyzed: 06-Feb-08						
Gasoline (C5-C11)	ND	500	ug/l							
Diesel (C12-C24)	ND	500	"							
Motor Oil (C25-C36)	ND	1000	"							
LCS (EB80706-BS1)				Prepared & Analyzed: 06-Feb-08						
Gasoline (C5-C11)	1800	500	ug/l	1510		119	75-125			
Diesel (C12-C24)	2570	500	"	2510		103	75-125			
LCS Dup (EB80706-BSD1)				Prepared & Analyzed: 06-Feb-08						
Gasoline (C5-C11)	1570	500	ug/l	1510		104	75-125	13.6	30	
Diesel (C12-C24)	2720	500	"	2510		108	75-125	5.55	30	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG012508-13	
12225 World Trade Drive, Suite P	Project Number: 252-06 / El Cap Oil	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	07-Feb-08

Notes and Definitions

O-04	This sample was analyzed outside the EPA recommended holding time.
G-25	The hydrocarbon resembles weathered gasoline.
D-08	Results in the diesel organics range are primarily due to overlap from a gasoline range product.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

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☐ 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Date: 1/25/08
H&P Project # PG 012508-13
Outside Lab: _____

Client: Petra
Address: 12225 World Trade Dr. Ste P
San Diego, CA 92128
Email: chouser@petra-inc.com Phone: 858 485-5530

Collector: C. Houser
Client Project # 252-06
Location: El Cap 0;1
Fax: _____

Page: ____ of ____
Project Contact: C. Houser/J. Olbinski
Turn around time: Normal

EDF: Yes ☐ No ☒
Global ID: _____

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☒ Yes ☐ No
N/A (Received on Site)

Special Instructions:
Need to identify product as gas or diesel and if possible, and if it is gas, whether relatively fresh or weathered.
Thanks.

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☒ gasoline ☒ diesel ☒ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARW/QCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify)	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2	Total # of containers
MW-2		/	3:10 PM	1/22/08	liquid	40mL VOA	X														1

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date: 1/25/08	Time: 2:00
Relinquished by: (Signature)	(company) Petra	Received by: (Signature)	(company) H&P	Date: 1-25-08	Time: 2:43 pm
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ *Disposal @ $2.00 each* ☐ *Return to client* ☐ *Pickup*

MOBILE GEOCHEMISTRY

H&P

03 March 2008

Mr. Jim Olbinski
Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

RE: PG021108-11A

Enclosed are the results of analyses for samples received by the laboratory on 11-Feb-08 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595.

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3825 Industry Avenue, Lakewood, California 90712 | 562.426.6991 — Fax 562.426.6995
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MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11A	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-9	E802035-17	Water	08-Feb-08	11-Feb-08
MW-10	E802035-18	Water	08-Feb-08	11-Feb-08

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11A	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-9 (E802035-17) Water Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	40	10	ug/l	1	EB81502	13-Feb-08	13-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	10	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	10	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	10	"	"	"	"	"	"	
Benzene	370	5.0	"	"	"	"	"	"	
Toluene	890	5.0	"	"	"	"	"	"	
Ethylbenzene	550	5.0	"	"	"	"	"	"	
m,p-Xylene	2200	10	"	"	"	"	"	"	
o-Xylene	510	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	50	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*88.3 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*87.9 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*95.0 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*82.9 %*		*75-125*	"	"	"	"	
MW-10 (E802035-18) Water Sampled: 08-Feb-08 Received: 11-Feb-08									
Methyl tert-butyl ether	7.4	1.0	ug/l	0.1	EB81502	13-Feb-08	13-Feb-08	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*87.0 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*84.0 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*91.1 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.4 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11A	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-9 (E802035-17) Water Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	6800	500	ug/l	1	EB82504	20-Feb-08	20-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-10 (E802035-18) Water Sampled: 08-Feb-08 Received: 11-Feb-08									
Gasoline (C5-C11)	ND	500	ug/l	1	EB82504	20-Feb-08	20-Feb-08	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11A	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB81502 - EPA 5030										
Blank (EB81502-BLK1)				Prepared & Analyzed: 13-Feb-08						
Methyl tert-butyl ether	ND	1.0	ug/l							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
Tert-amyl methyl ether	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tert-butyl alcohol	ND	5.0	"							
Surrogate: Dibromofluoromethane	*4.40*		"	*5.00*		*88.0*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*4.69*		"	*5.00*		*93.7*	*62-139*			
Surrogate: Toluene-d8	*4.51*		"	*5.00*		*90.1*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*4.49*		"	*5.00*		*89.8*	*75-125*			
Matrix Spike (EB81502-MS1)			**Source: E802035-18**	Prepared & Analyzed: 13-Feb-08						
Benzene	4.69	0.5	ug/l	5.00	ND	93.7	75-125			
Toluene	4.84	0.5	"	5.00	0.30	90.8	74-125			
Surrogate: Dibromofluoromethane	*4.27*		"	*5.00*		*85.3*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*4.36*		"	*5.00*		*87.2*	*62-139*			
Surrogate: Toluene-d8	*4.63*		"	*5.00*		*92.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*4.60*		"	*5.00*		*92.0*	*75-125*			
Matrix Spike Dup (EB81502-MSD1)			**Source: E802035-18**	Prepared & Analyzed: 13-Feb-08						
Benzene	4.47	0.5	ug/l	5.00	ND	89.3	75-125	4.79	20	
Toluene	4.64	0.5	"	5.00	0.30	86.8	74-125	4.18	20	
Surrogate: Dibromofluoromethane	*4.66*		"	*5.00*		*93.1*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*4.67*		"	*5.00*		*93.4*	*62-139*			
Surrogate: Toluene-d8	*4.88*		"	*5.00*		*97.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*4.75*		"	*5.00*		*94.9*	*75-125*			

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11A	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

TPH by GC FID - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB82504 - LUFT-DHS										
Blank (EB82504-BLK1)				Prepared & Analyzed: 20-Feb-08						
Gasoline (C5-C11)	ND	500	ug/l							
Diesel (C12-C24)	ND	500	"							
Matrix Spike (EB82504-MS1)		Source: E802028-10		Prepared & Analyzed: 20-Feb-08						
Gasoline (C5-C11)	1290	500	ug/l	1200	ND	108	75-125			
Diesel (C12-C24)	3380	500	"	3000	ND	113	75-125			
Matrix Spike Dup (EB82504-MSD1)		Source: E802028-10		Prepared & Analyzed: 20-Feb-08						
Gasoline (C5-C11)	1150	500	ug/l	1200	ND	96.1	75-125	11.5	30	
Diesel (C12-C24)	3010	500	"	3000	ND	100	75-125	11.7	30	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG021108-11A	
12225 World Trade Drive, Suite P	Project Number: 252-06	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	03-Mar-08

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

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Date: 2/11/08

H&P Project # PG021108-1 A

Outside Lab:

Client: PETRA GEOTECHNICAL

Address: 12225 WORLD TRADE DRIVE SUITE P
SAN DIEGO, CA 92128

Email: JOLBINSKI@PETRA-INC.COM Phone: (858) 485-5530

Collector: PAS

Client Project # 252-06

Location: EL CAPITAN OIL

Fax: (858) 485-8215

Page: 1 of 1

Project Contact: JIM OLBINSKI

Turn around time: STANDARD

EDF: Yes ☒ No ☐

Global ID: T0607303173

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☒ Yes ☐ No
N/A (Received on Site)

Special Instructions:

P.O. # 08-1035

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☒ gasoline ☐ diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates/MTBE	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARWQCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify)	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2				Total # of containers
MW-9		25.5	3:10	2/8/08	H_2O	VOA	X			X														
MW-10		14.5	3:55	2/8/08	H_2O	VOA	X			X														

Relinquished by: (Signature) DOUGLAS S	(company) PETRA	Received by: (Signature)	(company) PETRA
Relinquished by: (Signature)	(company) PETRA	Received by: (Signature)	(company) H&P
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)

Date: 2-11-08	Time: 1:26 PM
Date: 2/11/08	Time: 2:15 PM
Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ *Disposal @ $2.00 each* ☐ *Return to client* ☐ *Pickup*

EnviroMatrix **Analytical, Inc.**

25 February 2008

PETRA Geotechnical, Inc.
Attn: Jim Olbinski
12225 World Trade Drive, Suite P
San Diego, California 92128

EMA Log #: 0802312

Project Name: Wigington Oil
Project Desc./#: 252-06

Enclosed are the results of analyses for samples received by the laboratory on 02/15/08 14:38. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

Dan Verdon
Laboratory Director

CA ELAP Certification #: 2564

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802312

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-11	0802312-01	Grnd-Water	02/12/08 15:26	02/15/08 14:38
MW-12	0802312-02	Grnd-Water	02/12/08 14:15	02/15/08 14:38

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802312

Volatile Organic Compounds by EPA Method 8260B (BTEX+MTBE Only)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-11 (0802312-01) Grnd-Water	**Sampled: 02/12/08 15:26**		**Received: 02/15/08 14:38**						**G-04**
Benzene	**21.2**	1.00	ug/l	1	8022209	02/22/08	02/22/08	EPA 8260B	
Ethylbenzene	**12.8**	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Toluene	**1.29**	1.00	"	"	"	"	"	"	
m,p-Xylene	**2.17**	2.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*97 %*	*79-115*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*80-135*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*78-118*		"	"	"	"	
MW-12 (0802312-02) Grnd-Water	**Sampled: 02/12/08 14:15**		**Received: 02/15/08 14:38**						
Benzene	ND	1.00	ug/l	1	8022209	02/22/08	02/22/08	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	**16.7**	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*97 %*	*79-115*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*100 %*	*80-135*		"	"	"	"	
Surrogate: Toluene-d8		*97 %*	*78-118*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802312

TPH by EPA 8015B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-11 (0802312-01) Grnd-Water Sampled: 02/12/08 15:26 Received: 02/15/08 14:38									
Diesel (C10-C28)	ND	500	ug/l	1	8021908	02/19/08	02/20/08	EPA 8015B	D-40
Surrogate: 4-Bromofluorobenzene		*100 %*	*69-139*		"	"	"	"	
Gasoline (C6-C10)	**530**	20	"	"	8022030	02/20/08	02/20/08	"	
Surrogate: 4-Bromofluorobenzene		*258 %*	*77-135*		"	"	"	"	*S-02, S-04*
MW-12 (0802312-02) Grnd-Water Sampled: 02/12/08 14:15 Received: 02/15/08 14:38									
Diesel (C10-C28)	ND	500	ug/l	1	8021908	02/19/08	02/20/08	EPA 8015B	
Surrogate: 4-Bromofluorobenzene		*92 %*	*69-139*		"	"	"	"	
Gasoline (C6-C10)	**31**	20	"	"	8022030	02/20/08	02/20/08	"	
Surrogate: 4-Bromofluorobenzene		*86 %*	*77-135*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802312

Volatile Organic Compounds by EPA Method 8260B (BTEX+MTBE Only) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022209										
Blank (8022209-BLK1)				Prepared & Analyzed: 02/22/08						
Benzene	ND	1.00	ug/l							
Ethylbenzene	ND	1.00	"							
Methyl tert-butyl ether	ND	1.00	"							
Toluene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
o-Xylene	ND	1.00	"							
Surrogate: Dibromofluoromethane	*47.2*		"	*50.0*		*94*	*79-115*			
Surrogate: 4-Bromofluorobenzene	*49.2*		"	*50.0*		*98*	*80-135*			
Surrogate: Toluene-d8	*48.3*		"	*50.0*		*97*	*78-118*			
LCS (8022209-BS1)				Prepared & Analyzed: 02/22/08						
Benzene	49.0	1.00	ug/l	50.0		98	90-108			
Chlorobenzene	50.2	1.00	"	50.0		100	90-109			
1,1-Dichloroethene	43.3	1.00	"	50.0		87	70-105			
Toluene	46.6	1.00	"	50.0		93	81-106			
Trichloroethene	49.8	1.00	"	50.0		100	90-108			
Surrogate: Dibromofluoromethane	*46.9*		"	*50.0*		*94*	*79-115*			
Surrogate: 4-Bromofluorobenzene	*50.0*		"	*50.0*		*100*	*80-135*			
Surrogate: Toluene-d8	*48.8*		"	*50.0*		*98*	*78-118*			
Duplicate (8022209-DUP1)		**Source: 0802278-03**		Prepared & Analyzed: 02/22/08						
Benzene	ND	1.00	ug/l		ND				30	
Ethylbenzene	ND	1.00	"		ND				30	
Methyl tert-butyl ether	ND	1.00	"		ND				30	
Toluene	3.09	1.00	"		2.83			9	30	
m,p-Xylene	ND	2.00	"		ND				30	
o-Xylene	ND	1.00	"		ND				30	
Surrogate: Dibromofluoromethane	*46.8*		"	*50.0*		*94*	*79-115*			
Surrogate: 4-Bromofluorobenzene	*49.8*		"	*50.0*		*100*	*80-135*			
Surrogate: Toluene-d8	*47.9*		"	*50.0*		*96*	*78-118*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802312

Volatile Organic Compounds by EPA Method 8260B (BTEX+MTBE Only) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022209										
Matrix Spike (8022209-MS1)		**Source: 0802278-03**		Prepared & Analyzed: 02/22/08						
Benzene	50.7	1.00	ug/l	50.0	ND	101	82-116			
Chlorobenzene	51.3	1.00	"	50.0	ND	103	86-115			
1,1-Dichloroethene	44.7	1.00	"	50.0	ND	89	70-105			
Toluene	50.6	1.00	"	50.0	2.83	96	76-111			
Trichloroethene	51.4	1.00	"	50.0	ND	103	88-112			
Surrogate: Dibromofluoromethane	*46.9*		"	*50.0*		*94*	*79-115*			
Surrogate: 4-Bromofluorobenzene	*49.6*		"	*50.0*		*99*	*80-135*			
Surrogate: Toluene-d8	*48.2*		"	*50.0*		*96*	*78-118*			
Matrix Spike Dup (8022209-MSD1)		**Source: 0802278-03**		Prepared & Analyzed: 02/22/08						
Benzene	51.6	1.00	ug/l	50.0	ND	103	82-116	2	30	
Chlorobenzene	52.9	1.00	"	50.0	ND	106	86-115	3	30	
1,1-Dichloroethene	44.7	1.00	"	50.0	ND	89	70-105	0	30	
Toluene	52.3	1.00	"	50.0	2.83	99	76-111	3	30	
Trichloroethene	52.8	1.00	"	50.0	ND	106	88-112	3	30	
Surrogate: Dibromofluoromethane	*46.5*		"	*50.0*		*93*	*79-115*			
Surrogate: 4-Bromofluorobenzene	*48.8*		"	*50.0*		*98*	*80-135*			
Surrogate: Toluene-d8	*48.5*		"	*50.0*		*97*	*78-118*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802312

TPH by EPA 8015B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8021908										
Blank (8021908-BLK1)				Prepared & Analyzed: 02/19/08						
Diesel (C10-C28)	ND	500	ug/l							
Surrogate: 4-Bromofluorobenzene	*3300*		"	*3330*		*99*	*69-139*			
LCS (8021908-BS1)				Prepared & Analyzed: 02/19/08						
Diesel (C10-C28)	5300	500	ug/l	5000		106	75-125			
Surrogate: 4-Bromofluorobenzene	*3210*		"	*3330*		*96*	*69-139*			
LCS Dup (8021908-BSD1)				Prepared & Analyzed: 02/19/08						
Diesel (C10-C28)	5300	500	ug/l	5000		106	75-125	0	30	
Surrogate: 4-Bromofluorobenzene	*3070*		"	*3330*		*92*	*69-139*			
Duplicate (8021908-DUP1)		**Source: 0802269-01**		Prepared & Analyzed: 02/19/08						
Diesel (C10-C28)	ND	500	ug/l		ND				30	
Surrogate: 4-Bromofluorobenzene	*3050*		"	*3330*		*92*	*69-139*			
Matrix Spike (8021908-MS1)		**Source: 0802269-01**		Prepared & Analyzed: 02/19/08						
Diesel (C10-C28)	6200	500	ug/l	5000	ND	124	75-125			QM-05
Surrogate: 4-Bromofluorobenzene	*3490*		"	*3330*		*105*	*69-139*			
Matrix Spike Dup (8021908-MSD1)		**Source: 0802269-01**		Prepared & Analyzed: 02/19/08						
Diesel (C10-C28)	9400	500	ug/l	5000	ND	188	75-125	41	30	QM-05
Surrogate: 4-Bromofluorobenzene	*3510*		"	*3330*		*105*	*69-139*			
Batch 8022030										
Blank (8022030-BLK1)				Prepared & Analyzed: 02/20/08						
Gasoline (C6-C10)	ND	20	ug/l							
Surrogate: 4-Bromofluorobenzene	*21.6*		"	*25.0*		*86*	*77-135*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802312

TPH by EPA 8015B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022030										
LCS (8022030-BS1)				Prepared & Analyzed: 02/20/08						
Gasoline (C6-C10)	211	20	ug/l	200		106	75-125			
Surrogate: 4-Bromofluorobenzene	*23.9*		"	*25.0*		*96*	*77-135*			
LCS Dup (8022030-BSD1)				Prepared & Analyzed: 02/20/08						
Gasoline (C6-C10)	221	20	ug/l	200		110	75-125	5	30	
Surrogate: 4-Bromofluorobenzene	*26.8*		"	*25.0*		*107*	*77-135*			
Duplicate (8022030-DUP1)		**Source: 0802269-01**		Prepared & Analyzed: 02/20/08						
Gasoline (C6-C10)	12	20	ug/l		ND				30	
Surrogate: 4-Bromofluorobenzene	*21.6*		"	*25.0*		*86*	*77-135*			
Matrix Spike (8022030-MS1)		**Source: 0802269-01**		Prepared & Analyzed: 02/20/08						
Gasoline (C6-C10)	227	20	ug/l	200	ND	114	75-125			
Surrogate: 4-Bromofluorobenzene	*29.3*		"	*25.0*		*117*	*77-135*			
Matrix Spike Dup (8022030-MSD1)		**Source: 0802269-01**		Prepared & Analyzed: 02/20/08						
Gasoline (C6-C10)	224	20	ug/l	200	ND	112	75-125	1	30	
Surrogate: 4-Bromofluorobenzene	*30.0*		"	*25.0*		*120*	*77-135*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

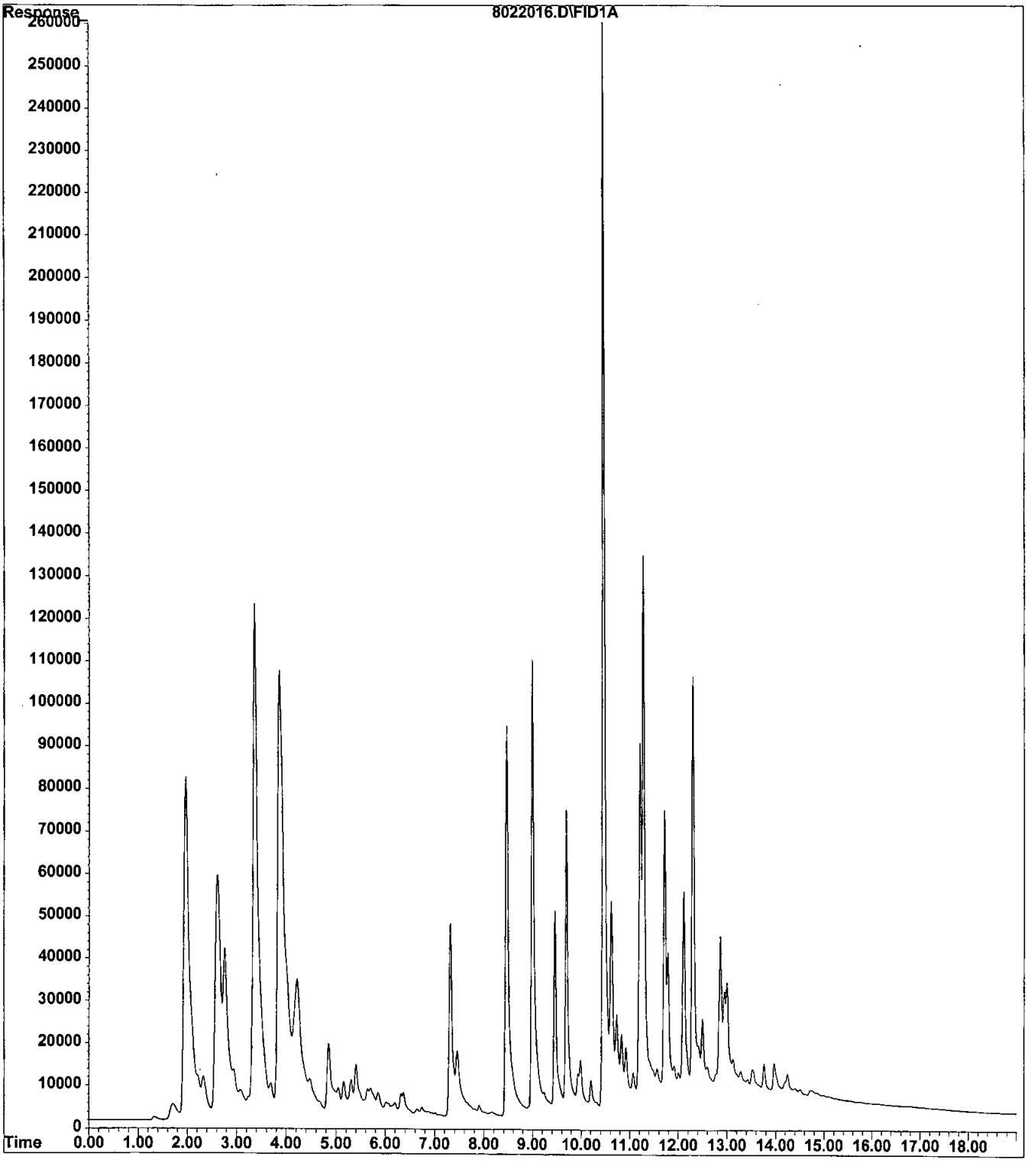
EMA Log #: 0802312

Notes and Definitions

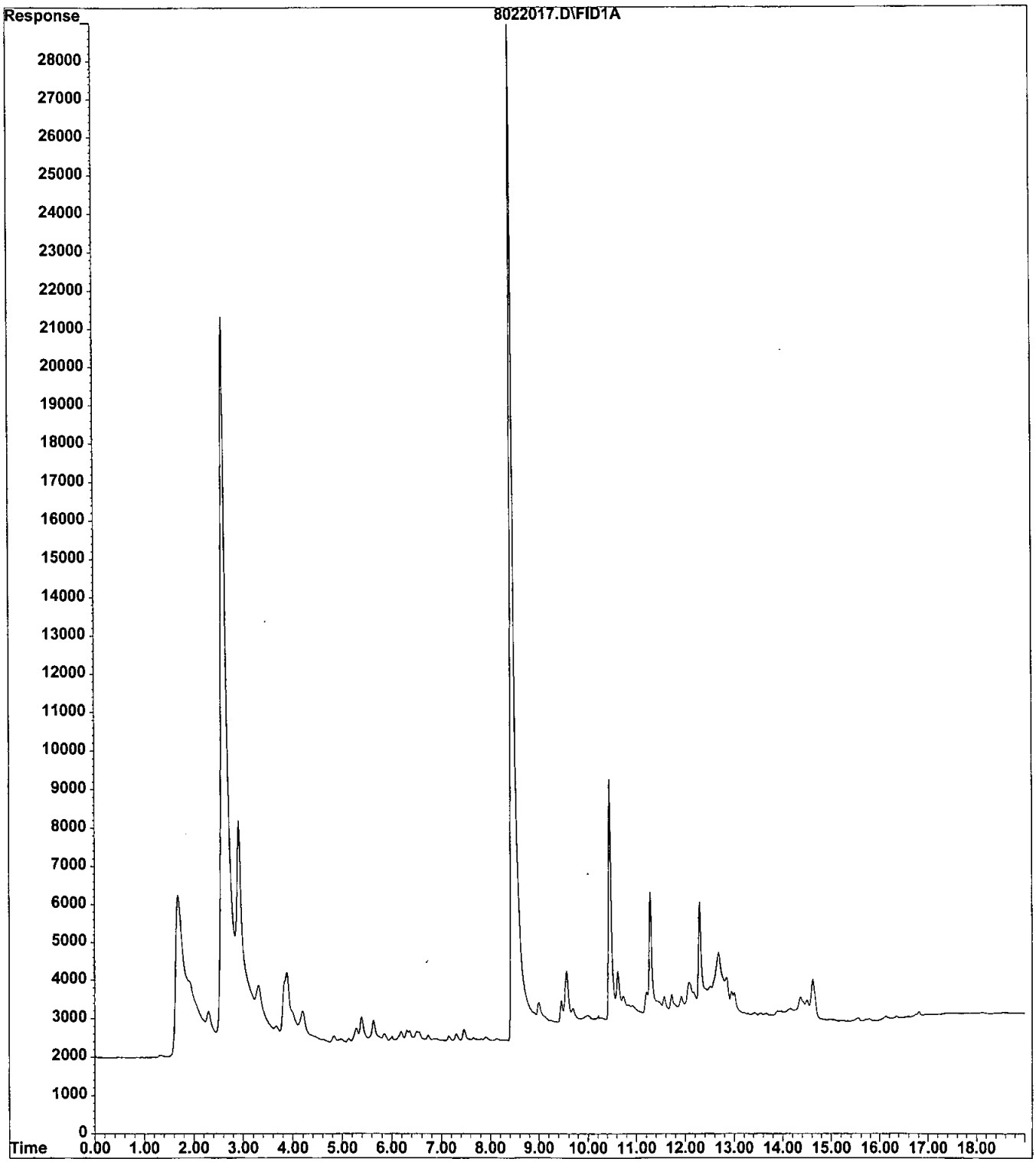
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
G-04	This sample contains analytes identified by the method but were not requested for reporting.
D-40	Diesel Range Organics (DRO) present but do not match diesel fuel pattern.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

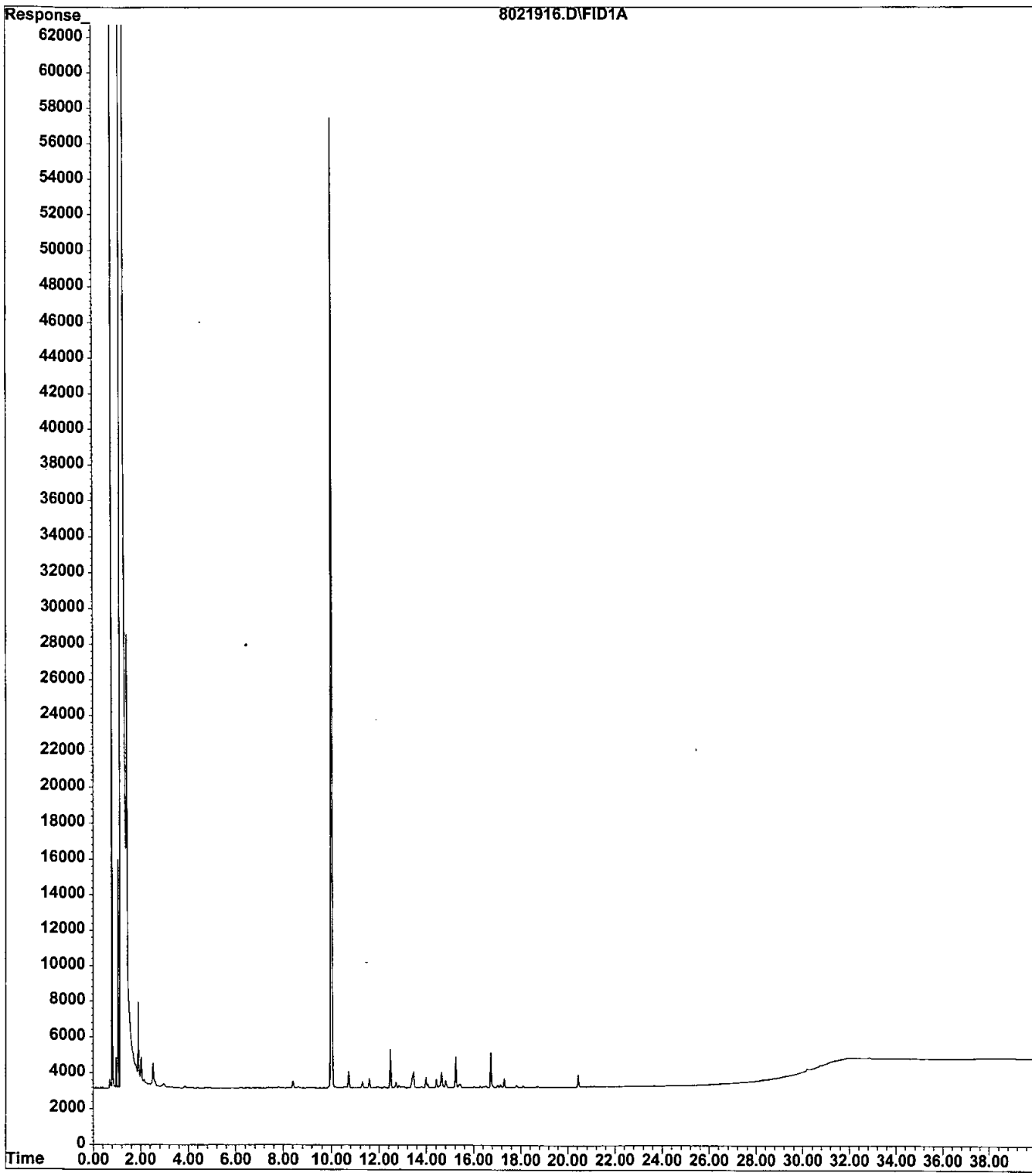
File : C:\HPCHEM\2\DATA\8022001.S\8022016.D
Operator :
Acquired : 20 Feb 20108 8:35 pm using AcqMethod TPHPT.M
Instrument : VOLATILES
Sample Name: 0802312-01
Misc Info :
Vial Number: 16



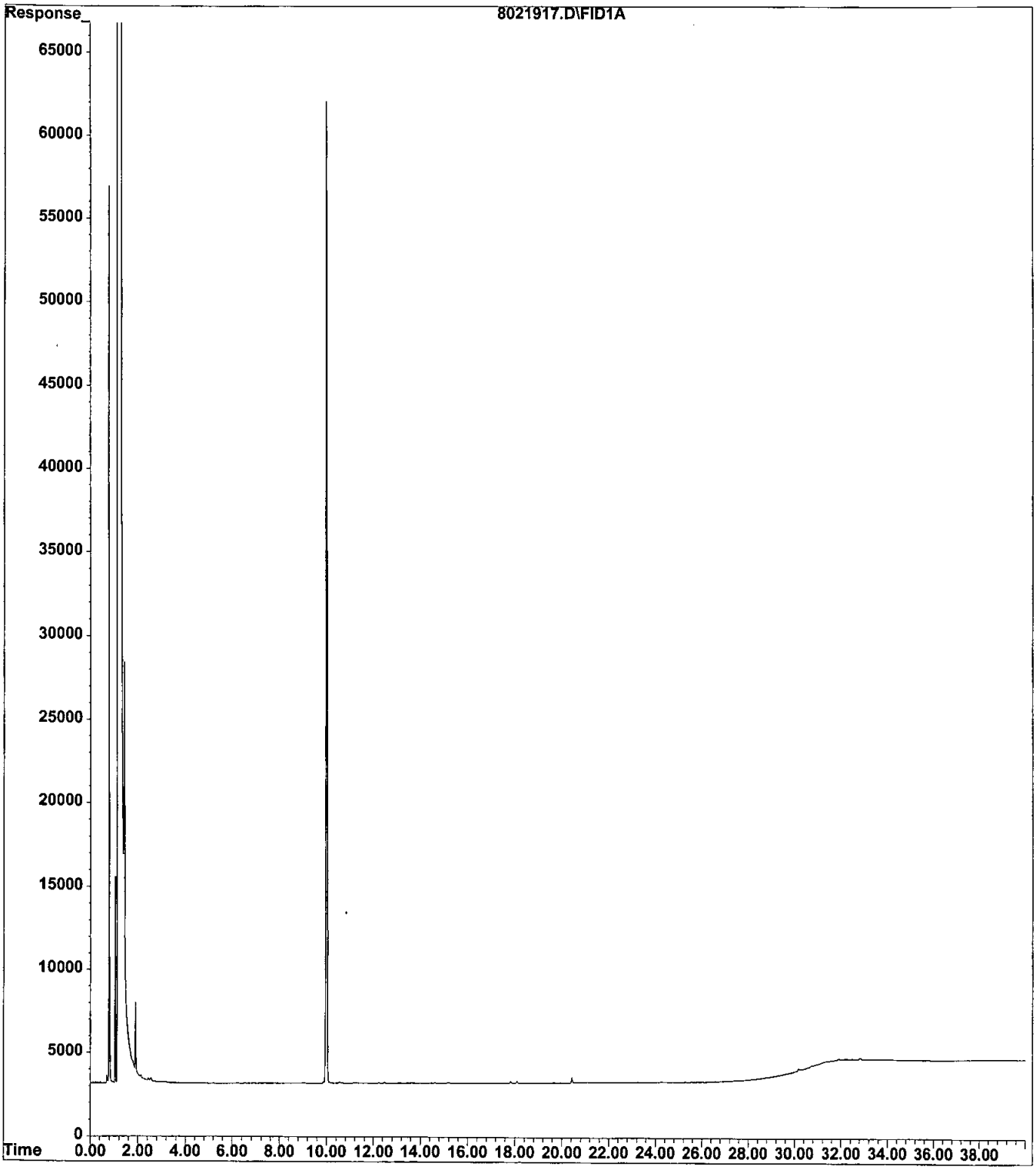
File : C:\HPCHEM\2\DATA\8022001.S\8022017.D
Operator :
Acquired : 20 Feb 20108 9:10 pm using AcqMethod TPHPT.M
Instrument : VOLATILES
Sample Name: 0802312-02
Misc Info :
Vial Number: 17



File : C:\HPCHEM\1\DATA\8021901.S\8021916.D
Operator :
Acquired : 20 Feb 20108 12:08 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802312-01
Misc Info :
Vial Number: 16



File : C:\HPCHEM\1\DATA\8021901.S\8021917.D
Operator :
Acquired : 20 Feb 20108 12:57 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802312-02
Misc Info :
Vial Number: 17



EnviroMatrix Analytical, Inc.

page ___ of ___

CHAIN-OF-CUSTODY FORM

4340 Viewridge Ave., Ste. A · San Diego, CA 92123 · Phone (858) 560-7717 · Fax (858) 560-7763

EMA LOG #: 0802312

Client: PETRA GEOTECHNICAL, INC.

Attn: JIM OLBINSKI

Sampler(s): DOUG STEPHENSON

Address: 12225 WORLD TRADE DR #P
S.D. CA 92128

Phone: (858) 485-5530 Fax: (858) 485-0215

Email: JJones@petra-inc.com jolbinski@petra-inc.com

Billing Address: 3185 AIRWAY AVE SUITE A
COSTA MESA, CA 92626

Project ID: WIGINGTON OIL

Project #: 252-06 PO#:

SAMPLE DETAILS

#	Client Sample ID	Sample Date/Time	Sample Matrix	Container(s) # of / Type
01	MW-11	2/12 3:26	GW	5/G
02	MW-12	2/12 2:15	GW	5/G
03				
04				
05				
06				
07				
08				
09				
10				

REQUESTED ANALYSIS

#	Oil & Grease □1664	□413.1 □413.2	418.1 (Total Recoverable Petroleum Hydrocarbons)	8015B (TPH) □Gas □Diesel	□ASTM D2887 □Ext	624 / 8260 (VOC) □Full □BTXE □MTBE □Oxy □Nap.	625 / 8270 (Semi Volatile Organics) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	□pH □Conductivity (EC) □TSS □TDS	□Nitrate □Nitrite □TKN □NH3	TTLC Metals (CAC Title 22) / (CAM 17)	STLC Metals (CAC Title 22) / (CAM 17)	TCLP (RCRA) □Metals □Organics	Cd Cr Cu Pb Ni Ag Zn □Dissolved	Coliform, □Total (MTF) □Fecal (MTF) □Colilert,T+E.Coli	Enterococcus, □MTF □Idexx	Heterotrophic Plate Count (HPC)	Microbiology Notes
01				X		X														
02				X		X														
03																				
04																				
05																				
06																				
07																				
08																				
09																				
10																				

Sample Matrix Codes: GW=ground water WW=waste water DW=drinking water SW=storm water
A=air SED=sediment O=oil T=tissue S=solid other (specify) L=liquid other (specify)

Shipped By: □Courier □UPS □FedEx □USPS ☑Client drop off □Other ___

[1]Turnaround Time: □Same day □24 hr □48 hr □3 day □4 day □5 day ☑STD (7 day)

[1]Reporting Requirements: □Fax ☑PDF □Excel ☑Geotracker EDF □Other ___

[1]Sample Disposal: □By Laboratory □[2]Return to client: P/U or Delivery □Archive until ___/___/___

SAMPLE IN TEMP

Correct Containers: Yes No N/A

Containers Properly Preserved: Yes No N/A

Custody Seals Intact: Yes No N/A

Temperature @ Receipt: 11°C

COC/Labels Agree: Yes No N/A

Sampled By: □Client □EMA □Autosampler

Project Comments: Received on Ice

CHAIN OF CUSTODY RECORD

	RELINQUISHED BY	RECEIVED BY	DATE/TIME STAMP
Signature			2/15/08
Print	DOUG STEPHENSON	Jonas Polk	14:38
Company	PETRA GEOTECH	EMA	
Signature			
Print			
Company			
Signature			
Print			
Company			

White - EMA Canary - Accounting Pink - Client (w/Report) Goldenrod - Client (Relinquish Samples)

[1]Additional costs may apply, consult a project manager for details.

[2]EMA reserves the right to return any samples that do not match our waste profile.

Note: By relinquishing samples to EnviroMatrix Analytical, Inc., client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed of after 30 days unless otherwise noted. All work is subject to EMA's terms and conditions.

EnviroMatrix **Analytical, Inc.**

03 March 2008

PETRA Geotechnical, Inc.
Attn: Jim Olbinski
12225 World Trade Drive, Suite P
San Diego, California 92128

EMA Log #: 0802409

Project Name: Wigington Oil
Project Desc./#: 252-06

Enclosed are the results of analyses for samples received by the laboratory on 02/22/08 13:58. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

Dan Verdon
Laboratory Director

CA ELAP Certification #: 2564

RECEIVED
MAR 05 2008

4340 Viewridge Avenue, Suite A • San Diego, California 92123 • (858) 560-7717 • Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802409

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-13	0802409-01	Grnd-Water	02/22/08 12:40	02/22/08 13:58
MW-14	0802409-02	Grnd-Water	02/22/08 09:50	02/22/08 13:58
MW-15	0802409-03	Grnd-Water	02/22/08 11:45	02/22/08 13:58

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802409

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-13 (0802409-01) Grnd-Water Sampled: 02/22/08 12:40 Received: 02/22/08 13:58									
Benzene	ND	1.00	ug/l	1	8022604	02/26/08	02/26/08	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	50.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	1.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*99 %*	*79-115*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99 %*	*80-135*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*78-118*		"	"	"	"	
MW-14 (0802409-02) Grnd-Water Sampled: 02/22/08 09:50 Received: 02/22/08 13:58									**G-04**
Benzene	**5260**	100	ug/l	100	8022604	02/26/08	02/26/08	EPA 8260B	
Ethylbenzene	**2440**	100	"	"	"	"	"	"	
Methyl tert-butyl ether	**455**	100	"	"	"	"	"	"	
Toluene	**490**	100	"	"	"	"	"	"	
m,p-Xylene	**7040**	200	"	"	"	"	"	"	
o-Xylene	**1470**	100	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	5000	"	"	"	"	"	"	
Di-isopropyl ether	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	100	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	100	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*93 %*	*79-115*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96 %*	*80-135*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*78-118*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802409

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-15 (0802409-03) Grnd-Water	**Sampled: 02/22/08 11:45**		**Received: 02/22/08 13:58**						**G-04**
Benzene	**279**	25.0	ug/l	25	8022604	02/26/08	02/26/08	EPA 8260B	
Ethylbenzene	**658**	25.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	25.0	"	"	"	"	"	"	
Toluene	**34.5**	25.0	"	"	"	"	"	"	
m,p-Xylene	**780**	50.0	"	"	"	"	"	"	
o-Xylene	ND	25.0	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	1250	"	"	"	"	"	"	
Di-isopropyl ether	ND	25.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	25.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	25.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*97 %*	*79-115*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99 %*	*80-135*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*78-118*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802409

TPH by EPA 8015B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-13 (0802409-01) Grnd-Water	**Sampled: 02/22/08 12:40**		**Received: 02/22/08 13:58**						
Diesel (C10-C28)	ND	500	ug/l	1	8022805	02/28/08	02/28/08	EPA 8015B	
Surrogate: 4-Bromofluorobenzene		*119 %*	*69-139*		"	"	"	"	
Gasoline (C6-C10)	ND	20	"	"	8022804	02/28/08	02/28/08	"	
Surrogate: 4-Bromofluorobenzene		*91 %*	*77-135*		"	"	"	"	
MW-14 (0802409-02) Grnd-Water	**Sampled: 02/22/08 09:50**		**Received: 02/22/08 13:58**						
Diesel (C10-C28)	ND	500	ug/l	1	8022805	02/28/08	02/28/08	EPA 8015B	
Surrogate: 4-Bromofluorobenzene		*120 %*	*69-139*		"	"	"	"	
Gasoline (C6-C10)	**53100**	2000	"	100	8022804	02/28/08	02/28/08	"	
Surrogate: 4-Bromofluorobenzene		*87 %*	*77-135*		"	"	"	"	
MW-15 (0802409-03) Grnd-Water	**Sampled: 02/22/08 11:45**		**Received: 02/22/08 13:58**						
Diesel (C10-C28)	ND	500	ug/l	1	8022805	02/28/08	02/29/08	EPA 8015B	
Surrogate: 4-Bromofluorobenzene		*123 %*	*69-139*		"	"	"	"	
Gasoline (C6-C10)	**5800**	200	"	10	8022804	02/28/08	02/28/08	"	
Surrogate: 4-Bromofluorobenzene		*111 %*	*77-135*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802409

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022604										
Blank (8022604-BLK1)				Prepared & Analyzed: 02/26/08						
Benzene	ND	1.00	ug/l							
Ethylbenzene	ND	1.00	"							
Methyl tert-butyl ether	ND	1.00	"							
Toluene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
o-Xylene	ND	1.00	"							
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	50.0	"							
Di-isopropyl ether	ND	1.00	"							
Ethyl tert-butyl ether	ND	1.00	"							
tert-Amyl methyl ether	ND	1.00	"							
Surrogate: Dibromofluoromethane	*47.8*		"	*50.0*		*96*	*79-115*			
Surrogate: 4-Bromofluorobenzene	*48.7*		"	*50.0*		*97*	*80-135*			
Surrogate: Toluene-d8	*48.7*		"	*50.0*		*97*	*78-118*			
LCS (8022604-BS1)				Prepared & Analyzed: 02/26/08						
Benzene	50.1	1.00	ug/l	50.0		100	90-108			
Chlorobenzene	52.2	1.00	"	50.0		104	90-109			
1,1-Dichloroethene	42.3	1.00	"	50.0		85	70-105			
Toluene	48.2	1.00	"	50.0		96	81-106			
Trichloroethene	51.9	1.00	"	50.0		104	90-108			
Surrogate: Dibromofluoromethane	*46.8*		"	*50.0*		*94*	*79-115*			
Surrogate: 4-Bromofluorobenzene	*48.0*		"	*50.0*		*96*	*80-135*			
Surrogate: Toluene-d8	*49.2*		"	*50.0*		*98*	*78-118*			
Duplicate (8022604-DUP1)			**Source: 0802409-01**	Prepared & Analyzed: 02/26/08						
Benzene	ND	1.00	ug/l		ND				30	
Ethylbenzene	ND	1.00	"		ND				30	
Methyl tert-butyl ether	ND	1.00	"		ND				30	
Toluene	ND	1.00	"		ND				30	
m,p-Xylene	ND	2.00	"		ND				30	
o-Xylene	ND	1.00	"		ND				30	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	50.0	"		ND				30	
Di-isopropyl ether	ND	1.00	"		ND				30	
Ethyl tert-butyl ether	ND	1.00	"		ND				30	
tert-Amyl methyl ether	ND	1.00	"		ND				30	
Surrogate: Dibromofluoromethane	*51.7*		"	*50.0*		*103*	*79-115*			
Surrogate: 4-Bromofluorobenzene	*49.3*		"	*50.0*		*99*	*80-135*			
Surrogate: Toluene-d8	*48.2*		"	*50.0*		*96*	*78-118*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802409

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022604										
Matrix Spike (8022604-MS1)		**Source: 0802409-01**		Prepared & Analyzed: 02/26/08						
Benzene	51.2	1.00	ug/l	50.0	ND	102	82-116			
Chlorobenzene	52.5	1.00	"	50.0	ND	105	86-115			
1,1-Dichloroethene	44.1	1.00	"	50.0	ND	88	70-105			
Toluene	48.1	1.00	"	50.0	ND	96	76-111			
Trichloroethene	51.8	1.00	"	50.0	ND	104	88-112			
Surrogate: Dibromofluoromethane	*50.8*		"	*50.0*		*102*	*79-115*			
Surrogate: 4-Bromofluorobenzene	*48.5*		"	*50.0*		*97*	*80-135*			
Surrogate: Toluene-d8	*48.8*		"	*50.0*		*98*	*78-118*			
Matrix Spike Dup (8022604-MSD1)		**Source: 0802409-01**		Prepared & Analyzed: 02/26/08						
Benzene	51.8	1.00	ug/l	50.0	ND	104	82-116	1	30	
Chlorobenzene	53.1	1.00	"	50.0	ND	106	86-115	1	30	
1,1-Dichloroethene	44.3	1.00	"	50.0	ND	89	70-105	0.5	30	
Toluene	48.3	1.00	"	50.0	ND	97	76-111	0.4	30	
Trichloroethene	52.4	1.00	"	50.0	ND	105	88-112	1	30	
Surrogate: Dibromofluoromethane	*50.8*		"	*50.0*		*102*	*79-115*			
Surrogate: 4-Bromofluorobenzene	*48.6*		"	*50.0*		*97*	*80-135*			
Surrogate: Toluene-d8	*48.5*		"	*50.0*		*97*	*78-118*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802409

TPH by EPA 8015B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022804										
Blank (8022804-BLK1)				Prepared & Analyzed: 02/28/08						
Gasoline (C6-C10)	ND	20	ug/l							
Surrogate: 4-Bromofluorobenzene	*22.7*		"	*25.0*		*91*	*77-135*			
LCS (8022804-BS1)				Prepared & Analyzed: 02/28/08						
Gasoline (C6-C10)	203	20	ug/l	200		102	75-125			
Surrogate: 4-Bromofluorobenzene	*29.5*		"	*25.0*		*118*	*77-135*			
LCS Dup (8022804-BSD1)				Prepared & Analyzed: 02/28/08						
Gasoline (C6-C10)	200	20	ug/l	200		100	75-125	1	30	
Surrogate: 4-Bromofluorobenzene	*26.1*		"	*25.0*		*104*	*77-135*			
Duplicate (8022804-DUP1)		**Source: 0802409-01**		Prepared & Analyzed: 02/28/08						
Gasoline (C6-C10)	13	20	ug/l		14			7	30	
Surrogate: 4-Bromofluorobenzene	*24.6*		"	*25.0*		*98*	*77-135*			
Matrix Spike (8022804-MS1)		**Source: 0802409-01**		Prepared & Analyzed: 02/28/08						
Gasoline (C6-C10)	202	20	ug/l	200	14	94	75-125			
Surrogate: 4-Bromofluorobenzene	*28.2*		"	*25.0*		*113*	*77-135*			
Matrix Spike Dup (8022804-MSD1)		**Source: 0802409-01**		Prepared & Analyzed: 02/28/08						
Gasoline (C6-C10)	204	20	ug/l	200	14	95	75-125	1	30	
Surrogate: 4-Bromofluorobenzene	*29.1*		"	*25.0*		*116*	*77-135*			
Batch 8022805										
Blank (8022805-BLK1)				Prepared & Analyzed: 02/28/08						
Diesel (C10-C28)	ND	500	ug/l							
Surrogate: 4-Bromofluorobenzene	*3700*		"	*3330*		*111*	*69-139*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802409

TPH by EPA 8015B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022805										
LCS (8022805-BS1)				Prepared & Analyzed: 02/28/08						
Diesel (C10-C28)	5200	500	ug/l	5000		104	75-125			
Surrogate: 4-Bromofluorobenzene	*3890*		"	*3330*		*117*	*69-139*			
LCS Dup (8022805-BSD1)				Prepared & Analyzed: 02/28/08						
Diesel (C10-C28)	5900	500	ug/l	5000		118	75-125	13	30	
Surrogate: 4-Bromofluorobenzene	*3820*		"	*3330*		*115*	*69-139*			
Duplicate (8022805-DUP1)		**Source: 0802409-01**		Prepared & Analyzed: 02/28/08						
Diesel (C10-C28)	ND	500	ug/l		ND				30	
Surrogate: 4-Bromofluorobenzene	*3950*		"	*3330*		*119*	*69-139*			
Matrix Spike (8022805-MS1)		**Source: 0802409-01**		Prepared & Analyzed: 02/28/08						
Diesel (C10-C28)	5100	500	ug/l	5000	ND	102	75-125			
Surrogate: 4-Bromofluorobenzene	*3880*		"	*3330*		*117*	*69-139*			
Matrix Spike Dup (8022805-MSD1)		**Source: 0802409-01**		Prepared & Analyzed: 02/28/08						
Diesel (C10-C28)	5100	500	ug/l	5000	ND	102	75-125	0	30	
Surrogate: 4-Bromofluorobenzene	*4000*		"	*3330*		*120*	*69-139*			

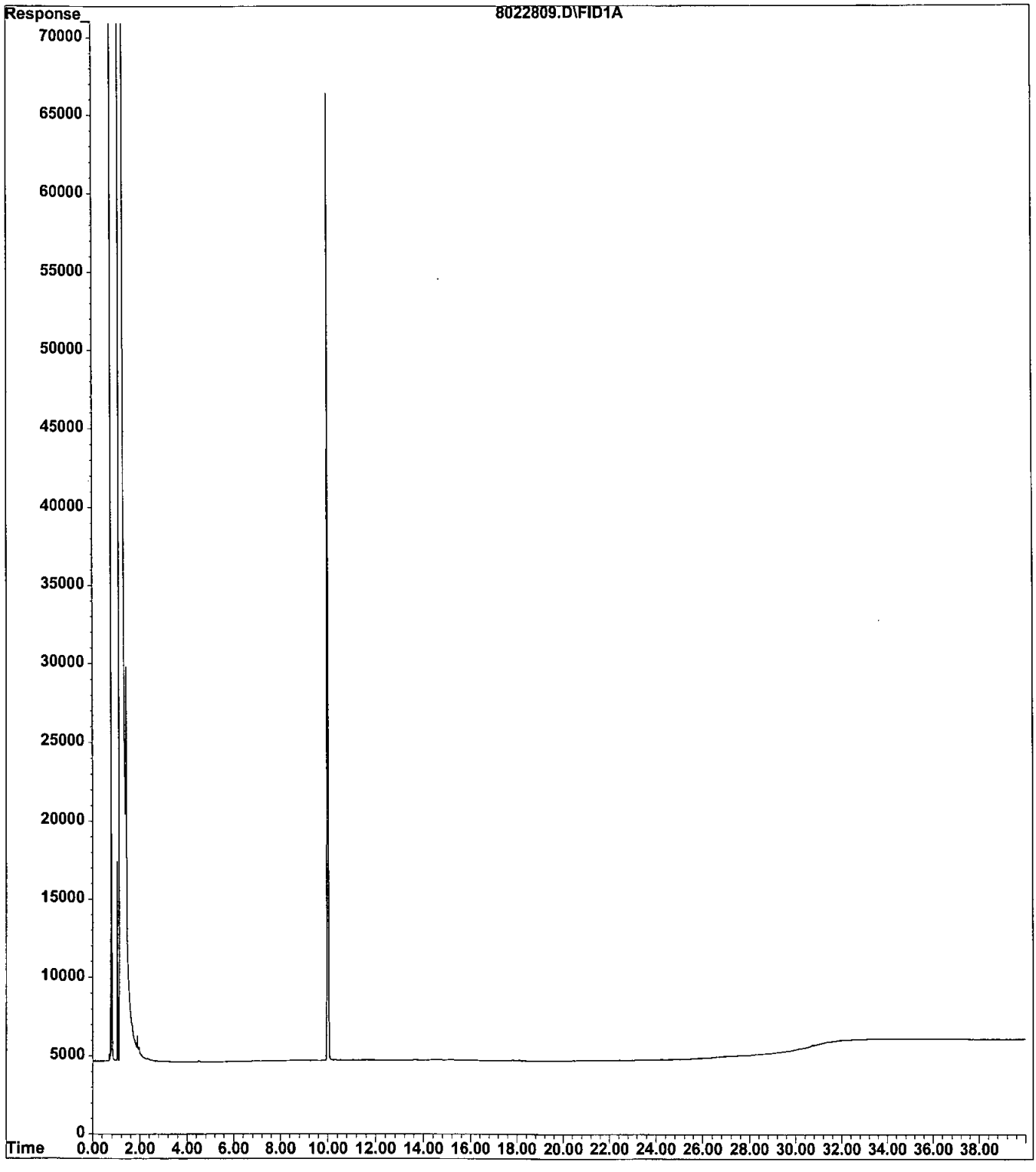
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Notes and Definitions

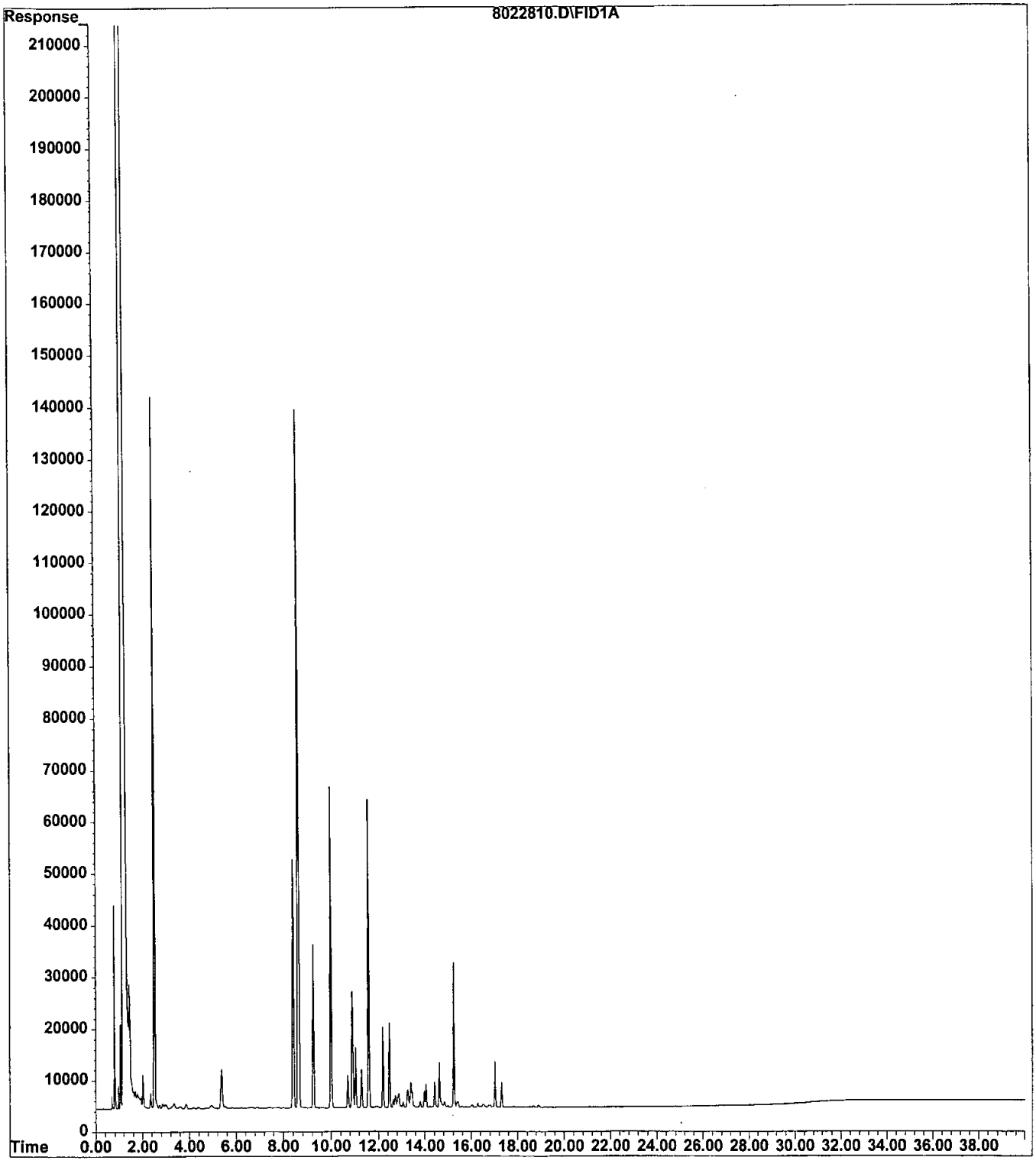
G-04	This sample contains analytes identified by the method but were not requested for reporting.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

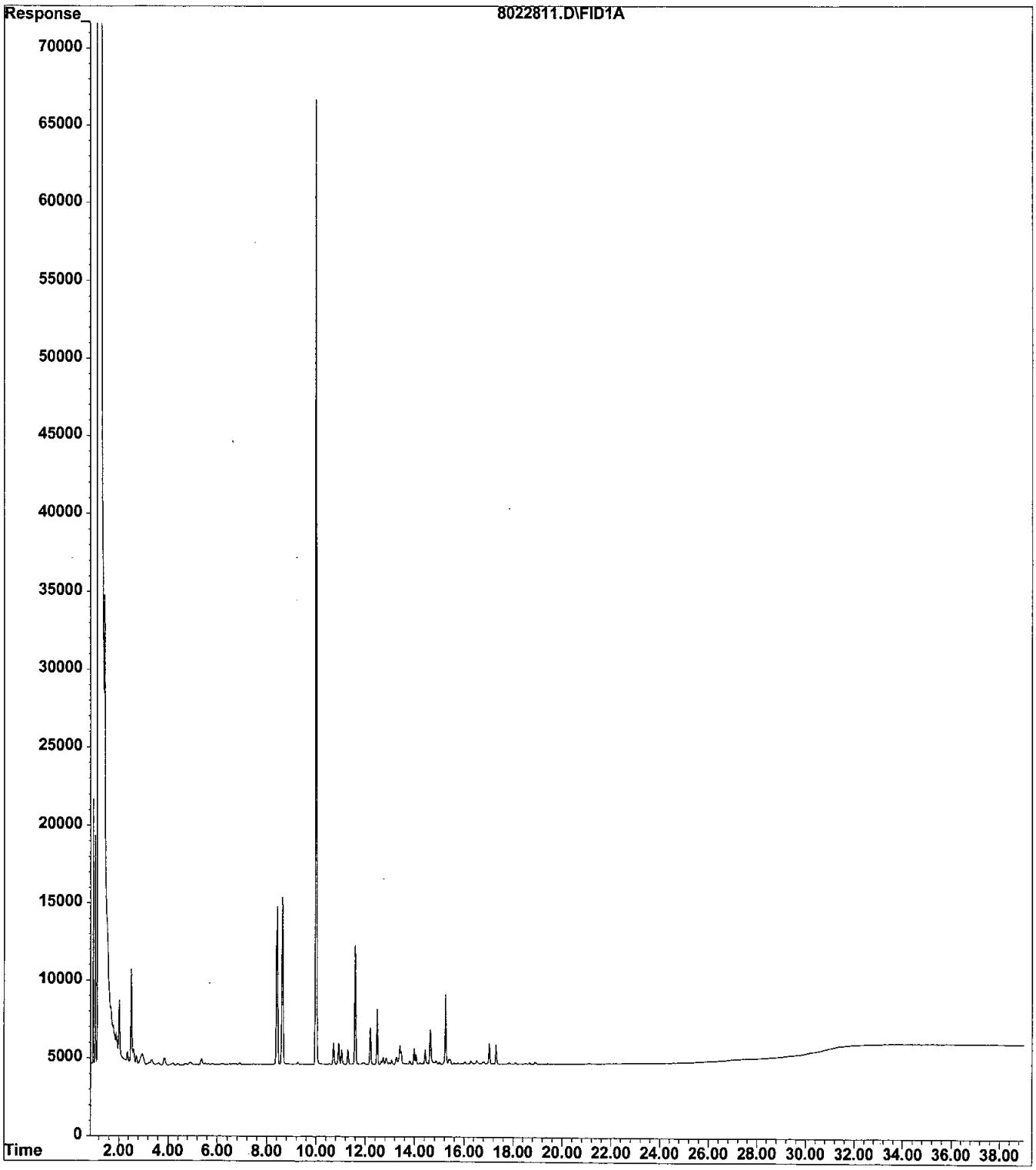
File : C:\HPCHEM\1\DATA\8022801.S\8022809.D
Operator :
Acquired : 28 Feb 20108 11:02 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802409-01
Misc Info :
Vial Number: 9



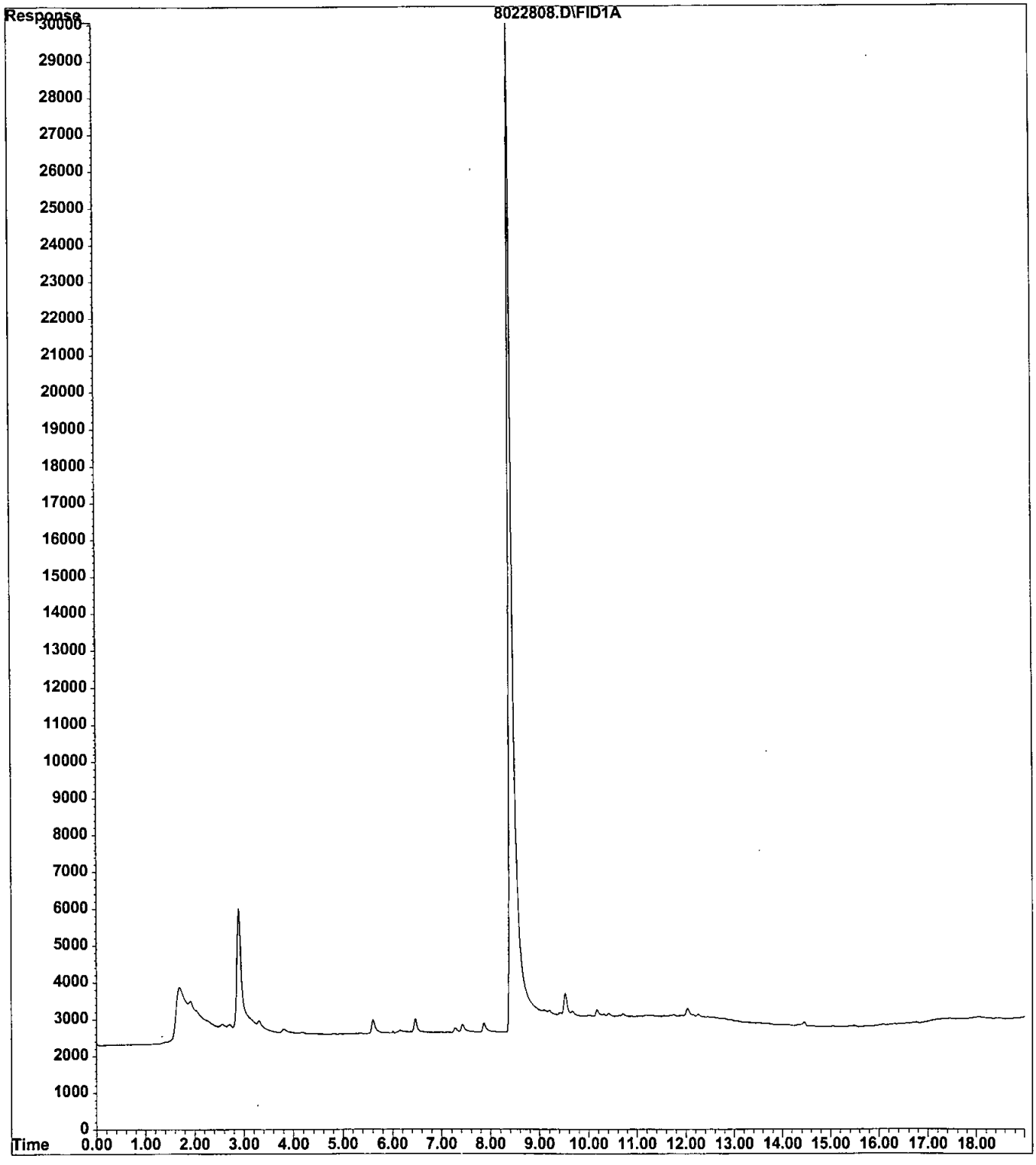
File : C:\HPCHEM\1\DATA\8022801.S\8022810.D
Operator :
Acquired : 28 Feb 20108 11:52 pm using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802409-02
Misc Info :
Vial Number: 10



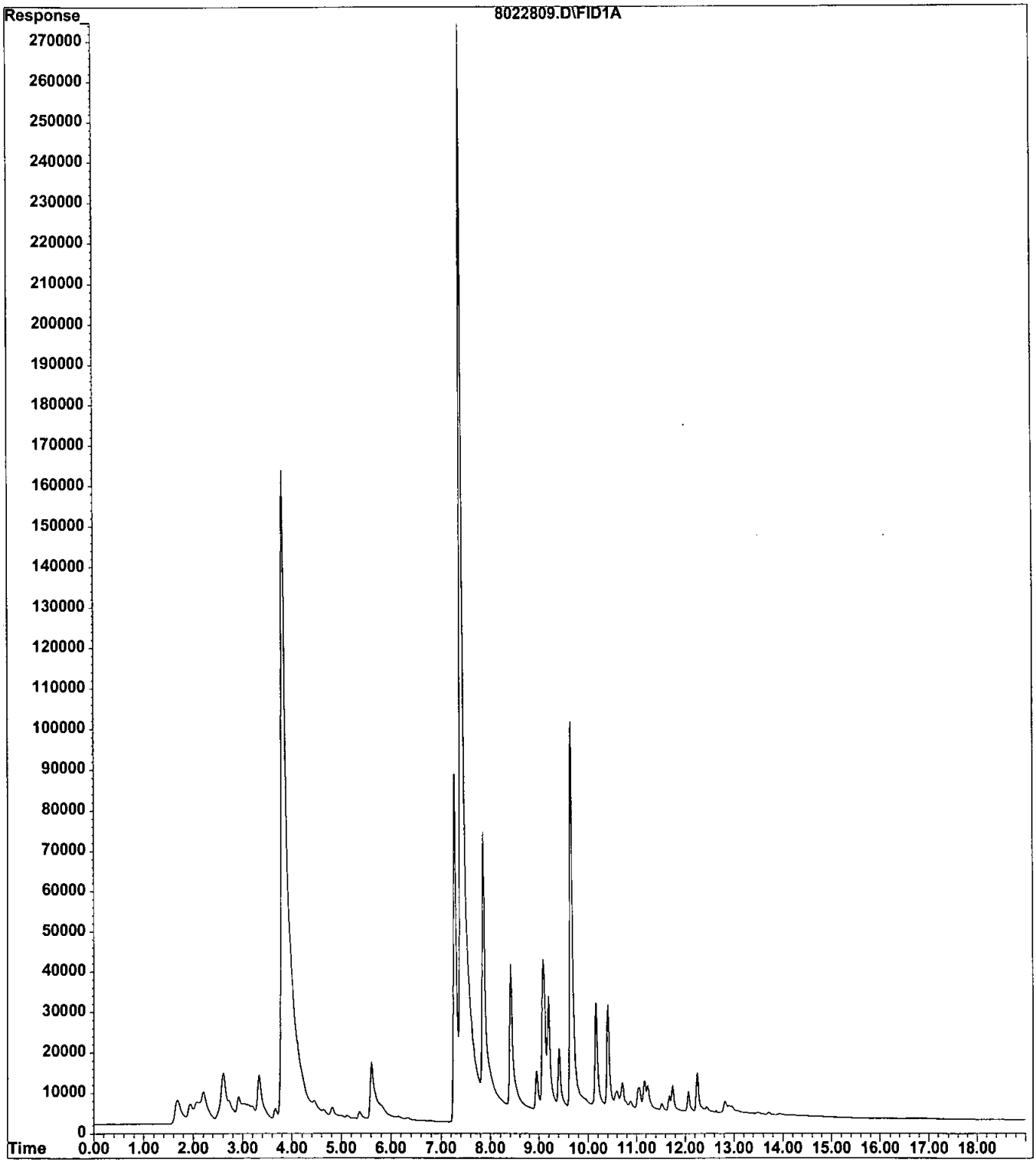
File : C:\HPCHEM\1\DATA\8022801.S\8022811.D
Operator :
Acquired : 29 Feb 20108 12:42 am using AcqMethod TPHEXT.M
Instrument : TPH
Sample Name: 0802409-03
Misc Info :
Vial Number: 11



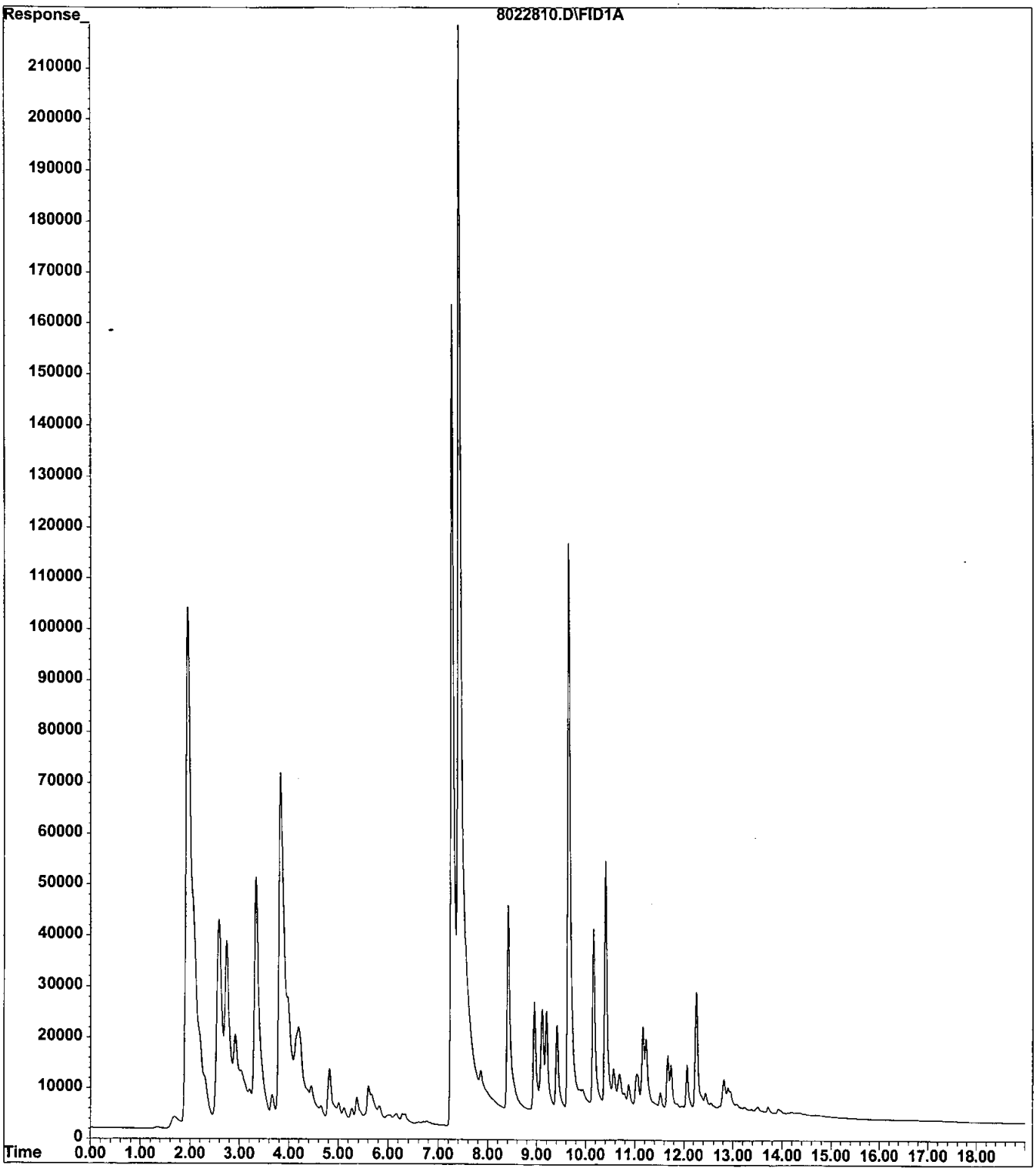
File : C:\HPCHEM\2\DATA\8022801.S\8022808.D
Operator :
Acquired : 28 Feb 20108 4:00 pm using AcqMethod TPHPT.M
Instrument : VOLATILES
Sample Name: 0802409-01
Misc Info :
Vial Number: 8



File : C:\HPCHEM\2\DATA\8022801.S\8022809.D
Operator :
Acquired : 28 Feb 20108 4:34 pm using AcqMethod TPHPT.M
Instrument : VOLATILES
Sample Name: 0802409-02@DF=100
Misc Info :
Vial Number: 9



File : C:\HPCHEM\2\DATA\8022801.S\8022810.D
Operator :
Acquired : 28 Feb 20108 5:10 pm using AcqMethod TPHPT.M
Instrument : VOLATILES
Sample Name: 0802409-03@DF=10
Misc Info :
Vial Number: 10



CHAIN-OF-CUSTODY FORM

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A · San Diego, CA 92123 · Phone (858) 560-7717 · Fax (858) 560-7763

EMA LOG #: 0802409

Client: PETRA GEOTECHNICAL
Attn: JIM OLBINSKI
Sampler(s): DOUG STEPHENSON
Address: 12225 WORLD TRADE DR. SUITE P
S.D. CA 92128
Phone: 858 485-5530 Fax: 858 485-8215
Email: jolbinski@petra-inc.com
Billing Address:

Project ID: WILMINGTON OIL
Project #: 252-06 PO#: 08-1058

SAMPLE DETAIL

#	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container(s) # of / Type
01	MW-13	2/22	12:40	GW	5 VOA 1 1/2S
02	MW-14	↓	9:50	↓	↓
03	MW-15	↓	11:45	↓	↓
04					
05					
06					
07					
08					
09					
10					

REQUESTED ANALYSIS

#	Oil & Grease ☐413.1 ☐413.2 ☐1664	418.1 (Total Recoverable Petroleum Hydrocarbons)	8015B (TPH) ☐Gas ☐Diesel ☐Ext ☐ASTM D2887	624 / 8260 (VOC) ☐Full ☐BTXE ☐MTBE ☐Oxy ☐Nap	625 / 8270 (Semi Volatile Organics) ☐ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	☐pH ☐Conductivity (EC) ☐TSS ☐TDS	☐Nitrate ☐Nitrite ☐TKN ☐NH3	TTLC Metals (CAC Title 22) / (CAM 17)	STLC Metals (CAC Title 22) / (CAM 17)	TCLP (RCRA) ☐Metals ☐Organics	Cd Cr Cu Pb Ni Ag Zn ☐Dissolved	Coliform, ☐Total (MTF) ☐Fecal (MTF) ☐Colilert,T+E.Coli	Enterococcus, ☐MTF ☐Idexx	Heterotrophic Plate Count (HPC)	Microbiology Notes	Sample Comments
01			X	X															
02			↓	↓															
03			↓	↓															

Sample Matrix Codes: GW=ground water WW=waste water DW=drinking water SW=storm water
A=air SED=sediment O=oil T=tissue S=solid other (specify) L=liquid other (specify)

Shipped By: ☐Courier ☐UPS ☐FedEx ☐USPS ☑Client drop off ☐Other
[1]Turnaround Time: ☐Same day ☐24 hr ☐48 hr ☐3 day ☐4 day ☐5 day ☑STD (7 day)
[1]Reporting Requirements: ☐Fax ☐PDF ☐Excel ☑Geotracker EDF ☐Other
[1]Sample Disposal: ☑By Laboratory ☐[2]Return to client: P/U or Delivery ☐Archive until ___/___/___

SAMPLE INTEGRITY

Correct Containers: Yes No N/A
Containers Properly Preserved: Yes No N/A
Custody Seals Intact: Yes No N/A
Temperature @ Receipt: 11°C on ice
COC/Labels Agree: Yes No N/A
Sampled By: ☐Client ☐EMA ☐Autosampler

Project Comments: also cc: jjones@petra-inc.com

CHAIN-OF-CUSTODY RECORD

	RELINQUISHED BY	RECEIVED BY	DATE/TIME STAMP
Signature			2/22/08
Print	DOUG STEPHENSON	Sean Flores	13:58
Company	PETRA	EMA Inc.	
Signature			
Print			
Company			
Signature			
Print			
Company			

[1]Additional costs may apply, consult a project manager for details.
[2]EMA reserves the right to return any samples that do not match our waste profile.

White - EMA Canary - Accounting Pink - Client (w/Report) Goldenrod - Client (Relinquish Samples)

Note: By relinquishing samples to EnviroMatrix Analytical, Inc., client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed of after 30 days unless otherwise noted. All work is subject to EMA's terms and conditions.

EnviroMatrix Analytical, Inc.

11 March 2008

PETRA Geotechnical, Inc.
Attn: Doug Stephenson
12225 World Trade Drive, Suite P
San Diego, California 92128

EMA Log #: 0802523

Project Name: Wigington Oil
Project Desc./#:252-06

Enclosed are the results of analyses for samples received by the laboratory on 02/28/08 16:55. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

Dan Verdon
Laboratory Director

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802523

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-16	0802523-01	Grnd-Water	02/26/08 14:55	02/28/08 16:55
MW-17	0802523-02	Grnd-Water	02/26/08 16:15	02/28/08 16:55

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802523

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16 (0802523-01) Grnd-Water Sampled: 02/26/08 14:55 Received: 02/28/08 16:55									
Benzene	**179**	5.00	ug/l	5	8030518	03/05/08	03/06/08	EPA 8260B	
Ethylbenzene	**94.4**	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	**146**	5.00	"	"	"	"	"	"	
Toluene	ND	5.00	"	"	"	"	"	"	
m,p-Xylene	ND	10.0	"	"	"	"	"	"	
o-Xylene	ND	5.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	250	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	5.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*115 %*	*79-115*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*80-135*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*78-118*		"	"	"	"	
MW-17 (0802523-02) Grnd-Water Sampled: 02/26/08 16:15 Received: 02/28/08 16:55									**G-04**
Benzene	ND	1.00	ug/l	1	8030518	03/05/08	03/05/08	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	50.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	1.00	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*109 %*	*79-115*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*	*80-135*		"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*78-118*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802523

TPH by EPA 8015B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16 (0802523-01) Grnd-Water	**Sampled: 02/26/08 14:55**		**Received: 02/28/08 16:55**						
Diesel (C10-C28)	ND	500	ug/l	1	8030404	03/04/08	03/04/08	EPA 8015B	D-40
Surrogate: 4-Bromofluorobenzene		*85 %*	*69-139*		"	"	"	"	
Gasoline (C6-C10)	**959**	100	"	5	8030602	03/06/08	03/10/08	"	
Surrogate: 4-Bromofluorobenzene		*98 %*	*77-135*		"	"	"	"	
MW-17 (0802523-02) Grnd-Water	**Sampled: 02/26/08 16:15**		**Received: 02/28/08 16:55**						
Diesel (C10-C28)	**8390**	500	ug/l	1	8030404	03/04/08	03/04/08	EPA 8015B	D-45
Surrogate: 4-Bromofluorobenzene		*106 %*	*69-139*		"	"	"	"	
Gasoline (C6-C10)	**1410**	500	"	25	8030405	03/04/08	03/05/08	"	D-12
Surrogate: 4-Bromofluorobenzene		*86 %*	*77-135*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802523

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8030518										
Blank (8030518-BLK1)				Prepared & Analyzed: 03/05/08						
Benzene	ND	1.00	ug/l							
Ethylbenzene	ND	1.00	"							
Methyl tert-butyl ether	ND	1.00	"							
Toluene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
o-Xylene	ND	1.00	"							
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	50.0	"							
Di-isopropyl ether	ND	1.00	"							
Ethyl tert-butyl ether	ND	1.00	"							
tert-Amyl methyl ether	ND	1.00	"							
Surrogate: Dibromofluoromethane	*54.8*		"	*50.0*		*110*	*79-115*			
Surrogate: 4-Bromofluorobenzene	*50.4*		"	*50.0*		*101*	*80-135*			
Surrogate: Toluene-d8	*48.9*		"	*50.0*		*98*	*78-118*			
LCS (8030518-BS1)				Prepared & Analyzed: 03/05/08						
Benzene	50.0	1.00	ug/l	50.0		100	90-108			
Chlorobenzene	50.0	1.00	"	50.0		100	90-109			
1,1-Dichloroethene	50.0	1.00	"	50.0		100	70-105			
Toluene	47.3	1.00	"	50.0		95	81-106			
Trichloroethene	48.4	1.00	"	50.0		97	90-108			
Surrogate: Dibromofluoromethane	*54.6*		"	*50.0*		*109*	*79-115*			
Surrogate: 4-Bromofluorobenzene	*50.9*		"	*50.0*		*102*	*80-135*			
Surrogate: Toluene-d8	*49.2*		"	*50.0*		*98*	*78-118*			
Duplicate (8030518-DUP1)		**Source: 0803077-01**		Prepared & Analyzed: 03/05/08						
Benzene	ND	1.00	ug/l		ND				30	
Ethylbenzene	ND	1.00	"		ND				30	
Methyl tert-butyl ether	ND	1.00	"		ND				30	
Toluene	ND	1.00	"		ND				30	
m,p-Xylene	ND	2.00	"		ND				30	
o-Xylene	ND	1.00	"		ND				30	
tert-Butyl alcohol (2-Methyl-2-propanol)	ND	50.0	"		ND				30	
Di-isopropyl ether	ND	1.00	"		ND				30	
Ethyl tert-butyl ether	ND	1.00	"		ND				30	
tert-Amyl methyl ether	ND	1.00	"		ND				30	
Surrogate: Dibromofluoromethane	*56.7*		"	*50.0*		*113*	*79-115*			
Surrogate: 4-Bromofluorobenzene	*51.8*		"	*50.0*		*104*	*80-135*			
Surrogate: Toluene-d8	*49.1*		"	*50.0*		*98*	*78-118*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802523

Volatile Organic Compounds by EPA Method 8260B (BTEX+Oxygenates) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8030518										
Matrix Spike (8030518-MS1)		**Source: 0803077-01**		Prepared & Analyzed: 03/05/08						
Benzene	50.1	1.00	ug/l	50.0	ND	100	82-116			
Chlorobenzene	49.8	1.00	"	50.0	ND	100	86-115			
1,1-Dichloroethene	51.8	1.00	"	50.0	ND	104	70-105			
Toluene	47.0	1.00	"	50.0	ND	94	76-111			
Trichloroethene	48.0	1.00	"	50.0	ND	96	88-112			
Surrogate: Dibromofluoromethane	*55.8*		"	*50.0*		*112*	*79-115*			
Surrogate: 4-Bromofluorobenzene	*52.2*		"	*50.0*		*104*	*80-135*			
Surrogate: Toluene-d8	*49.1*		"	*50.0*		*98*	*78-118*			
Matrix Spike Dup (8030518-MSD1)		**Source: 0803077-01**		Prepared & Analyzed: 03/05/08						
Benzene	50.8	1.00	ug/l	50.0	ND	102	82-116	1	30	
Chlorobenzene	49.6	1.00	"	50.0	ND	99	86-115	0.4	30	
1,1-Dichloroethene	53.8	1.00	"	50.0	ND	108	70-105	4	30	QM-05
Toluene	46.9	1.00	"	50.0	ND	94	76-111	0.2	30	
Trichloroethene	48.3	1.00	"	50.0	ND	97	88-112	0.6	30	
Surrogate: Dibromofluoromethane	*56.4*		"	*50.0*		*113*	*79-115*			
Surrogate: 4-Bromofluorobenzene	*50.9*		"	*50.0*		*102*	*80-135*			
Surrogate: Toluene-d8	*48.9*		"	*50.0*		*98*	*78-118*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802523

TPH by EPA 8015B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8030404										
Blank (8030404-BLK1)				Prepared & Analyzed: 03/04/08						
Diesel (C10-C28)	ND	500	ug/l							
Surrogate: 4-Bromofluorobenzene	*2770*		"	*3330*		*83*	*69-139*			
LCS (8030404-BS1)				Prepared & Analyzed: 03/04/08						
Diesel (C10-C28)	5000	500	ug/l	5000		100	75-125			
Surrogate: 4-Bromofluorobenzene	*2730*		"	*3330*		*82*	*69-139*			
LCS Dup (8030404-BSD1)				Prepared & Analyzed: 03/04/08						
Diesel (C10-C28)	5500	500	ug/l	5000		110	75-125	10	30	
Surrogate: 4-Bromofluorobenzene	*3570*		"	*3330*		*107*	*69-139*			
Duplicate (8030404-DUP1)		**Source: 0802523-01**		Prepared & Analyzed: 03/04/08						
Diesel (C10-C28)	2200	500	ug/l		ND				30	
Surrogate: 4-Bromofluorobenzene	*3250*		"	*3330*		*98*	*69-139*			
Matrix Spike (8030404-MS1)		**Source: 0802523-01**		Prepared & Analyzed: 03/04/08						
Diesel (C10-C28)	6900	500	ug/l	5000	ND	138	75-125			QM-01
Surrogate: 4-Bromofluorobenzene	*4100*		"	*3330*		*123*	*69-139*			
Matrix Spike Dup (8030404-MSD1)		**Source: 0802523-01**		Prepared & Analyzed: 03/04/08						
Diesel (C10-C28)	7000	500	ug/l	5000	ND	140	75-125	1	30	QM-01
Surrogate: 4-Bromofluorobenzene	*2870*		"	*3330*		*86*	*69-139*			
Batch 8030405										
Blank (8030405-BLK1)				Prepared: 03/04/08 Analyzed: 03/05/08						
Gasoline (C6-C10)	ND	20	ug/l							
Surrogate: 4-Bromofluorobenzene	*21.1*		"	*25.0*		*84*	*77-135*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802523

TPH by EPA 8015B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8030405										
LCS (8030405-BS1)				Prepared: 03/04/08 Analyzed: 03/05/08						
Gasoline (C6-C10)	215	20	ug/l	200		108	75-125			
Surrogate: 4-Bromofluorobenzene	*27.9*		"	*25.0*		*112*	*77-135*			
LCS Dup (8030405-BSD1)				Prepared: 03/04/08 Analyzed: 03/05/08						
Gasoline (C6-C10)	224	20	ug/l	200		112	75-125	4	30	
Surrogate: 4-Bromofluorobenzene	*28.6*		"	*25.0*		*114*	*77-135*			
Duplicate (8030405-DUP1)		**Source: 0803040-01**		Prepared: 03/04/08 Analyzed: 03/05/08						
Gasoline (C6-C10)	15	20	ug/l		16			6	30	
Surrogate: 4-Bromofluorobenzene	*22.8*		"	*25.0*		*91*	*77-135*			
Matrix Spike (8030405-MS1)		**Source: 0803040-01**		Prepared: 03/04/08 Analyzed: 03/05/08						
Gasoline (C6-C10)	210	20	ug/l	200	16	97	75-125			
Surrogate: 4-Bromofluorobenzene	*24.7*		"	*25.0*		*99*	*77-135*			
Matrix Spike Dup (8030405-MSD1)		**Source: 0803040-01**		Prepared: 03/04/08 Analyzed: 03/05/08						
Gasoline (C6-C10)	222	20	ug/l	200	16	103	75-125	6	30	
Surrogate: 4-Bromofluorobenzene	*24.7*		"	*25.0*		*99*	*77-135*			
Batch 8030602										
Blank (8030602-BLK1)				Prepared: 03/06/08 Analyzed: 03/10/08						
Gasoline (C6-C10)	ND	20	ug/l							
Surrogate: 4-Bromofluorobenzene	*20.6*		"	*25.0*		*82*	*77-135*			
LCS (8030602-BS1)				Prepared: 03/06/08 Analyzed: 03/10/08						
Gasoline (C6-C10)	219	20	ug/l	200		110	75-125			
Surrogate: 4-Bromofluorobenzene	*23.8*		"	*25.0*		*95*	*77-135*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.
Project Name: Wigington Oil

EMA Log #: 0802523

TPH by EPA 8015B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8030602										
LCS Dup (8030602-BSD1)				Prepared: 03/06/08 Analyzed: 03/10/08						
Gasoline (C6-C10)	189	20	ug/l	200		94	75-125	15	30	
Surrogate: 4-Bromofluorobenzene	*20.5*		"	*25.0*		*82*	*77-135*			
Duplicate (8030602-DUP1)		**Source: 0803077-01**		Prepared: 03/06/08 Analyzed: 03/10/08						
Gasoline (C6-C10)	12	20	ug/l		ND				30	
Surrogate: 4-Bromofluorobenzene	*20.9*		"	*25.0*		*84*	*77-135*			
Matrix Spike (8030602-MS1)		**Source: 0803077-01**		Prepared: 03/06/08 Analyzed: 03/10/08						
Gasoline (C6-C10)	216	20	ug/l	200	ND	108	75-125			
Surrogate: 4-Bromofluorobenzene	*25.0*		"	*25.0*		*100*	*77-135*			
Matrix Spike Dup (8030602-MSD1)		**Source: 0803077-01**		Prepared: 03/06/08 Analyzed: 03/10/08						
Gasoline (C6-C10)	212	20	ug/l	200	ND	106	75-125	2	30	
Surrogate: 4-Bromofluorobenzene	*25.4*		"	*25.0*		*102*	*77-135*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: PETRA Geotechnical, Inc.	**EMA Log #: 0802523**
Project Name: Wigington Oil	

Notes and Definitions

QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QM-01	The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
G-04	This sample contains analytes identified by the method but were not requested for reporting.
D-45	Chromatographic pattern appears weathered.
D-40	Diesel Range Organics (DRO) present but do not match diesel fuel pattern.
D-12	Results in the Gasoline Range are primarily due to overlap from a heavier fuel hydrocarbon product.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CHAIN-OF-CUSTODY FORM

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A · San Diego, CA 92123 · Phone (858) 560-7717 · Fax (858) 560-7763

EMA LOG #: 0802523

Client: PETRA GEOTECH

Attn: DOUG STEPHENSON

Sampler(s): DBS

Address: 12225 WORLD TRADE DR. #P
S.D. CA 92128

Phone: (858) 485-5530 Fax: (858) 485-8215

Email: dstephenson@petra-inc.com

Billing Address:

Project ID: WIGHGTON OIL

Project #: 252-06 PO#: 08-1058

SAMPLE DETAILS

#	Client Sample ID	Sample Date/Time	Sample Matrix	Container(s) # of / Type
01	MW-16	2/26 2:55	GW	5 VOA 125mL
02	MW-17	2/26 4:15	GW	" "
03				
04				
05				
06				
07				
08				
09				
10				

REQUESTED ANALYSIS

#	Oil & Grease ☐413.1 ☐413.2 ☐1664	418.1 (Total Recoverable Petroleum Hydrocarbons)	8015B (TPH) ☒Gas ☒Diesel ☐Ext ☐ASTM D2887	624 / 8260 (VOC) ☐Full ☒BTEX ☐MTBE ☒Oxy ☐Nap	625 / 8270 (Semi Volatile Organics) ☐ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	☐pH ☐Conductivity (EC) ☐TSS ☐TDS	☐Nitrate ☐Nitrite ☐TKN ☐NH3	TTLC Metals (CAC Title 22) / (CAM 17)	STLC Metals (CAC Title 22) / (CAM 17)	TCLP (RCRA) ☐Metals ☐Organics	Cd Cr Cu Pb Ni Ag Zn ☐Dissolved	Californ, ☐Total (MTF) ☐Fecal (MTF) ☐Colilert,T+E.Coli	Enterococcus, ☐MTF ☐Idexx	Heterotrophic Plate Count (HPC)	Microbiology Notes:	Sample Comments:
01			X	X																
02			X	X																
03																				
04																				
05																				
06																				
07																				
08																				
09																				
10																				

Sample Matrix Codes: GW=ground water WW=waste water DW=drinking water SW=storm water

A=air SED=sediment O=oil T=tissue S=solid other (specify) L=liquid other (specify)

Shipped By: ☐Courier ☐UPS ☐FedEx ☐USPS ☒Client drop off ☐Other

[1]Turnaround Time: ☐Same day ☐24 hr ☐48 hr ☐3 day ☐4 day ☐5 day ☒STD (7 day)

[1]Reporting Requirements: ☐Fax ☐PDF ☐Excel ☒Geotracker EDF ☐Other

[1]Sample Disposal: ☒By Laboratory ☐[2]Return to client: P/U or Delivery ☐Archive until ___/___/___

SAMPLE INTEGRITY

Correct Containers: Yes No N/A

Containers Properly Preserved: Yes No N/A

Custody Seals Intact: Yes No N/A

Temperature @ Receipt: _____

COC/Labels Agree: Yes No N/A

Sampled By: ☐Client ☐EMA ☐Autosampler

Project Comments: ON ICE

T = 6°

CHAIN OF CUSTODY RECORD

	RELINQUISHED BY	RECEIVED BY	DATE/TIME STAMP
Signature	Doug Stephenson	Jennifer Jones	2/28/08 4:23PM
Print	DOUG STEPHENSON	Jennifer Jones	
Company	PETRA	Petra	
Signature	Jennifer Jones	Lovis Lukose	2-28-08 4:55
Print	Jennifer Jones	Lovis Lukose	
Company	Petra	EMA	
Signature			
Print			
Company			

White - EMA Canary - Accounting Pink - Client (w/Report) Goldenrod - Client (Relinquish Samples)

[1]Additional costs may apply, consult a project manager for details.

[2]EMA reserves the right to return any samples that do not match our waste profile.

Note: By relinquishing samples to EnviroMatrix Analytical, Inc., client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed of after 30 days unless otherwise noted. All work is subject to EMA's terms and conditions.

San Diego County

12225 World Trade Drive, Suite P
San Diego, California 92128
858-485-5530

PETRA

past + present + future
it's in our science

Engineers, Geologists
Environmental Scientists

Completed 3/12/09 1:30

September 5, 2008
J.N. 252-06

Ms. Linda Wigington
WIGINGTON PETROLEUM, INC.
c/o William L. Fischbeck, Esq.
Fischbeck & Oberndorfer
5464 Grossmont Center Drive, Third Floor
La Mesa, California 91942

Subject: **Report of High Vacuum Dual Phase Extraction (HVDPE) Pilot Test, El Capitan Oil Company, 11427 Woodside Avenue, Santee, California, DEH Unauthorized Release No. H19469-001.**

Dear Ms. Wigington:

Petra Geotechnical, Inc. (Petra) is pleased to present this report of high vacuum, dual-phase extraction pilot (HVDPE) test conducted at above referenced site located at the El Capitan Oil Company facility located in Santee, California (Figure 1). This report has been prepared pursuant to the requirements of the San Diego County Site Assessment and Mitigation (SAM) Program and in accordance with the contract between Petra and Ms. Linda Wigington (Client).

Respectfully Submitted,

James S. Olbinski, CEG
Associate Geologist

PROFESSIONAL GEOLOGIST
JAMES S. OLBINSKI
NO. 1482
CERTIFIED
ENGINEERING
GEOLOGIST
11-09
STATE OF CALIFORNIA

JSO/CEH/JL/br

C:\MyFiles\2006\200\252-06 Wigington Oil\660 (Remediation)\HVDPE JanFeb 2008\252-06 Jan-Feb 08 HVDPE Test Report.doc

Distribution: 1) Addressee, via hand delivery
1) SAM Program, Attention: Ms. Teresa Sherman, via hand delivery
1) UST Cleanup Fund with Reimbursement Request, via Ontrac

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REPORT OF HIGH VACUUM DUAL PHASE EXTRACTION (HVDPE) PILOT TEST, EL CAPITAN OIL COMPANY, 11427 WOODSIDE AVENUE, SANTEE, CALIFORNIA, DEH UNAUTHORIZED RELEASE NO. H19469-001

SITE DESCRIPTION AND BACKGROUND

SITE IDENTIFICATION

Site Name:	El Capitan Oil Company
Site Address:	11427 Woodside Avenue, Santee, California
A.P.N.:	382-320-06
DEH Case:	H19469-001

SITE BACKGROUND

The site is located in central San Diego County in the community of Santee. A reported total of 13 underground storage tanks (USTs) have been removed from the site between 1987 and 1998. Results of sampling conducted during UST removal activities indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) issued a letter requiring corrective action relative to the release (County of San Diego, HMMD, August 19, 1993).

During 1988 through 2005, EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the site. A total of 18 borings and eight groundwater monitoring wells had been drilled and sampled at the site. Based on the results of these assessment activities, it appeared the extent of petroleum hydrocarbon-impacted groundwater had not been fully delineated. Additional delineation was required to the southwest, south and east of the former UST system.

On March 25, 2005, EnecoTech submitted a workplan for additional site assessment. In a letter dated October 10, 2007, the SAM Program approved this workplan. Following this approval, Petra discussed the project with Ms. Teresa Sherman of the SAM Program via phone conversations and e-mail correspondence. In these discussions Petra proposed adding a well to the approved work. Ms. Sherman verbally approved Petra's recommendation for a tenth monitoring well with the requirement that an addendum to the existing Revised Work Plan (EnecoTech, 2005) be performed. The SAM Program indicated that additional assessment would be required to complete delineation of the extent of dissolved petroleum hydrocarbons in groundwater. It was agreed and a workplan addendum for the additional well was submitted (Petra, 2007a) and subsequently approved (SAM, 2008).

Additional assessment activities conducted by Petra to the southwest, south and east of the former UST system were underway during this HVDPE pilot test (reported herein). Part of Petra's assessment included the installation of nine new monitoring wells. Of these nine new monitoring wells, three were incorporated into the HVDPE pilot-test program. Descriptive logs of the nine new borings, including well construction/completion details will be provided in a site assessment report (in progress).

GEOLOGY

Regional Geology

The site is located in the Peninsular Ranges Geomorphic Province of Southern California. This province is typified by northwest to southeast-tending mountain ranges approximately parallel to the San Andreas and related regional fault systems. The plutonic rocks of the Peninsular Ranges are generally characterized as granitic rocks of the Southern California batholith (Norris & Webb, 1990) in association with the lesser amounts of metamorphic rocks. Sedimentary Rocks ranging in age from Cretaceous to Pleistocene form the San Diego Embayment and coastal terraces west of the batholith.

As interpreted from regional geologic maps (Strand, 1962, Tan, 2002 and Todd, 2004), geologic materials underlying the site may include Quaternary-aged alluvium and colluvium. The more detailed geologic map of Tan (Tan, 2002) identifies Pleistocene alluvial deposits underlying the site and describes these sediments as "moderately consolidated, poorly sorted flood plain deposits consisting of gravelly, sandy silt and clay." These sediments are in uncomformable contact with underlying bedrock.

The regional geologic maps have identified bedrock in the near vicinity as being "granitoid" (Todd, 2004). Tan (Tan, 2002) has mapped Cretaceous-aged tonalite immediately south of the site. The tonalite was described as including "some granodiorite and quartz diorite, medium-

grained, generally dark colored and severely weathered." Based upon the referenced regional mapping, the site is most likely to be underlain by Cretaceous-aged tonalite. The upper portion of the granitic bedrock is typically highly weathered.

Site-Specific Geology

Based on a review of EnecoTech reports and our experience in the site vicinity, it appears the site is underlain by alluvium. These materials appear to be, in turn, underlain by weathered granitic bedrock, which also comprises the highlands to the south of the site.

HYDROGEOLOGY

Based on review of a document titled Water Quality Control Plan, San Diego Basin – Region 9, (approved by the California Regional Water Quality Control Board September 8, 1994), the site is interpreted to lie within the Regional Water Quality Control Board (RWQCB), San Diego Basin Region 9, Santee Hydrologic Sub Area (7.12) of the Lower San Diego Hydrologic Area (7.10) of the San Diego Hydrologic Unit (7.00). According to the RWQCB, surface water in the area has existing beneficial use for industrial and agricultural purposes and exempted potential use for municipal purposes. According to this RWQCB document, the groundwater in the Santee Hydrologic Sub Area has been classified as having existing beneficial uses for municipal, agricultural, and industrial process supply purposes.

According to previous reports referenced above, groundwater is present at depths ranging from approximately 29.45 to 31.90 feet below grade. The groundwater flow direction has been interpreted to be generally toward the west-southwest (EnecoTech, 2002 and EnecoTech 2003).

OBJECTIVES

Due to the presence of free product in three of the wells at the site, high vacuum dual phase extraction (HVDPE) may be a cost-effective and technically feasible interim remedial option for removal of free product, as well as removing hydrocarbon-affected groundwater. The objective of the proposed scope of services was to evaluate the potential effectiveness of HVDPE as an alternative for remediation of free product and contaminated groundwater at the site.

SCOPE OF SERVICES

The HVDPE pilot test was conducted for a period of 30 days between January 22 and February 24, 2008. A mobile extraction system, provided by CalClean, Inc. (CalClean), was used to conduct the test. Upon completion of the pilot test, CalClean prepared a report titled High Vacuum Dual Phase Extraction Report, dated March 8, 2008 (CalClean, 2008). A copy of this report is included in Appendix C. HVDPE test procedures are summarized in the CalClean report.

The CalClean, Inc. system is permitted by the San Diego County Air Pollution Control District to operate at various locations in the county. The pilot test was conducted in general accordance with the approved work plan (Petra, 2007b). Some deviations from the approved work plan were necessitated during the course of the pilot test. These deviations, with explanation, are as follows:

- The work plan approval (SAM, 2008) stipulated "analyze soil vapor samples collected on the first and last days of the HVDPE pilot test for the presence of volatile organic compounds (VOCs) by EPA method 8260B." Individual wells MW-1, MW-2, MW-3 and MW-4 were started using EPA Method 8260B but were finalized using EPA Method 8021B (CalClean, 2008). Individual wells MW-9, MW-14 and MW-17 were analyzed by EPA Method 8021B alone (CalClean, 2008). All combined samples were analyzed by EPA Method 8021B alone. Additional pilot testing discussed later in this report will further address analytical requirements.

- The approved work plan, page 4, stated that "the proposed pilot testing consists of a 30-day HVDPE pilot test conducted on three monitoring wells (MW-2, MW-3, and MW-4) containing free product at the site." Wells MW-1, MW-6, MW-7 were included in the initial pilot test. In addition, wells MW-9 and MW-17 (installed on February 2, 2008 and February 19, 2008, respectively) were included later in the extraction test. Part of the reason these wells were added was that, during the initial testing, sufficient vacuum to demonstrate effective vapor flow was not measured on observed wells. Wells MW-1, MW-6, and MW-7 were added to collect additional data on subsurface vapor flow. Due to their proximity to portions of the site interpreted to have relatively high concentrations of petroleum hydrocarbons in groundwater, new wells MW-9 and MW-17 were extracted after installation, development and sampling. Other new wells were used as observation wells once installed, developed, and sampled.

Following is a summary of activities conducted during the pilot test.

Free product has been measured in wells MW-2 and MW-3 as recently as July 28, 2008 during the 3rd quarter 2008 groundwater monitoring event (Petra, report in progress), and historically reported in these and additional wells MW-1, MW-4 and MW-6. Historically high dissolved phase petroleum hydrocarbons have been noted in all wells (EnecoTech, 2003). Wells MW-1, MW-2, MW-3, MW-4, MW-6, and MW-7 were used as the initial extraction wells because they had previously exhibited among the highest concentrations of petroleum hydrocarbons reported at the site. Monitoring well MW-5 was not utilized for this event since it is located on the interior of the office structure and is not suitable for monitoring of remediation activities. Monitoring well MW-8 is located within the CalTrans Right-of-Way (State Highway 67), and behind a fence. Due to its difficult accessibility, this well was not extracted from during this event and only limited vacuum monitoring was performed.

Initially, short-term pilot tests were performed in each of the extraction wells. Once the short-term tests (ranging from 7to 24 hours) were completed, HVDPE was continued in multiple wells. Extraction activities were conducted for a total of 33 days during the HVDPE event. Wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-7, and MW-8 were used as the initial observation wells, when not being extracted, to monitor change in vacuum and groundwater levels during the pilot test.

During the pilot test, new monitoring wells were drilled, completed and sampled as part of site assessment activities (report in progress). Of these new wells, three (MW-9, MW-14 and MW-17) were used as additional extraction points due to their down-gradient position from, and/or close proximity to, the free product wells of past monitoring events. In addition, upon their respective completions, new wells MW-14, MW-15 and MW-17 were used as additional observation wells to monitor change in vacuum and groundwater levels during the latter portion (2/22/08 through 2/24/08) of the HVDPE pilot test. Figure 2 is a site plan depicting the existing site groundwater monitoring wells. Figure 3 indicates the extraction wells and observation wells used during the pilot test.

Influent petroleum hydrocarbon vapor concentrations were determined by collecting vapor samples from each extraction well during the pilot test and at the end of the 33-day event. In addition, combined influent samples were collected during the event. The vapor samples were collected in Tedlar™ bags and submitted to a laboratory for analysis (CalClean, 2008). As extraction proceeded on each well, or a combination of two to three wells, the remaining site wells were used as observation wells and were checked periodically for vacuum and depth to groundwater. These observation wells were monitored in an effort to obtain data relating to the extent of influence of the extraction process on vapor migration and groundwater drawdown. Summaries of influent petroleum hydrocarbon vapor concentration, laboratory test results, vacuum measurements, and depth to groundwater measurements are included in the attached CalClean report (Appendix C).

Approximately 128,620 gallons of hydrocarbon-affected groundwater were extracted during the HVDPE pilot test. Prior to groundwater treatment, volatized vapors from the extracted groundwater were combined with vadose-zone extracted vapors and combusted in a thermal oxidizer. The extracted groundwater underwent additional treatment through granular activated carbon. During the initial portion of the pilot test, all treated groundwater was contained in storage tanks until CalClean obtained a discharge permit (Mr. Noel Shenoi – personal

communication). Once treated and a discharge permit obtained, groundwater was discharged to the onsite sewer system in accordance with Industrial User Discharge Permit Number 21-0296-01-A obtained from the City of San Diego and the Padre Dam Municipal Water District on January 30, 2008 (CalClean, 2008). A copy of this permit is attached in Appendix D.

HVDPE TEST DATA ANALYSIS

FIELD DATA

All field data collected during the pilot test are summarized in the attached CalClean report.

ESTIMATED MASS OF HYDROCARBONS EXTRACTED

As presented in the attached CalClean report (CalClean, 2008), the total equivalent amount of hydrocarbons extracted during the 33-day event was approximately 3,096.48 pounds (based on laboratory test data) and 3,415.86 pounds based (based on Horiba field organic vapor analyzer data) giving an average of 3,256.17 pounds.

ESTIMATED AREA OF INFLUENCE

Vacuum measurements obtained from observation wells during the pilot test were used to evaluate whether the extraction method was capable of producing vapor flow through the subsurface, sufficient to affect portions of the vadose zone between the extraction wells. This is normally estimated as a "radius of influence" where the range of influence is interpreted and depicted by conventional contouring methods, assuming relatively homogenous subsurface geologic materials underlie the site.

Table 1 summarizes the extraction well(s) and associated observation wells along with the maximum measured vacuum collected during the pilot test. Effective vapor flow is demonstrated by wells exhibiting a vacuum of approximately 0.1 inch of water or greater. During the initial extraction test on well MW-1 (Table 1), a maximum vacuum of 0.15 inches of

water was measured at well MW-6. However, when the extraction was placed on well MW-6 a similar response in well MW-1 was not obtained. At approximately 68 feet separation, wells MW-1 and MW-6 are the closest spaced wells on the site. The next closest wells are MW-4 and MW-7 (78 feet) and MW-4 and MW-6 (80 Feet). During the extraction test, pulling from wells MW-1 and MW-3 combined, an effective vacuum was attained in only two wells MW-14 and MW-17 (Table 1). Otherwise, there was no effective vapor flow demonstrated throughout the pilot test allowing for a determination of radius of influence. These results indicated that the radius of influence due to a high vacuum (17 to 19 inches of Mercury) on one well, or a combination of wells, on the average, is less than 68 feet.

OBSERVATION WELL GROUNDWATER DEPTHS

Measurable decreases in groundwater levels were noted in the observation wells as pilot test progressed. Table 1 and Hydrographs (Appendix D) present a summary of the maximum measured groundwater drawdown at each observation well during the pilot test. During the pilot test, all site wells (excluding MW-1) showed measurable drawndown of at least 0.01 feet, with a drawn down as high as 0.07 feet in well MW-6 when a vacuum was applied to MW-1. The recovery period for individual extraction wells varied from four hours in MW-3 (vacuum on MW-7) to 18 hours in MW-4 (vacuums on MW-6 and duel vacuum MW-1&3 sequentially). Other long recovery wells included MW-7 (seven hours) and MW-2 (17 hours).

SOIL VAPOR SAMPLE ANALYTICAL RESULTS

A summary of soul vapor analytical results and copies of laboratory reports are included in the attached CalClean report. Reported soil vapor sample concentrations for each well for total petroleum hydrocarbons as gasoline (TPHg), benzene, and methyl-tert-butyl ether (MTBE) are as follows. All concentrations are reported in parts per million vapor (ppmv).

Summary of HVDPE Start/End Influent Concentrations

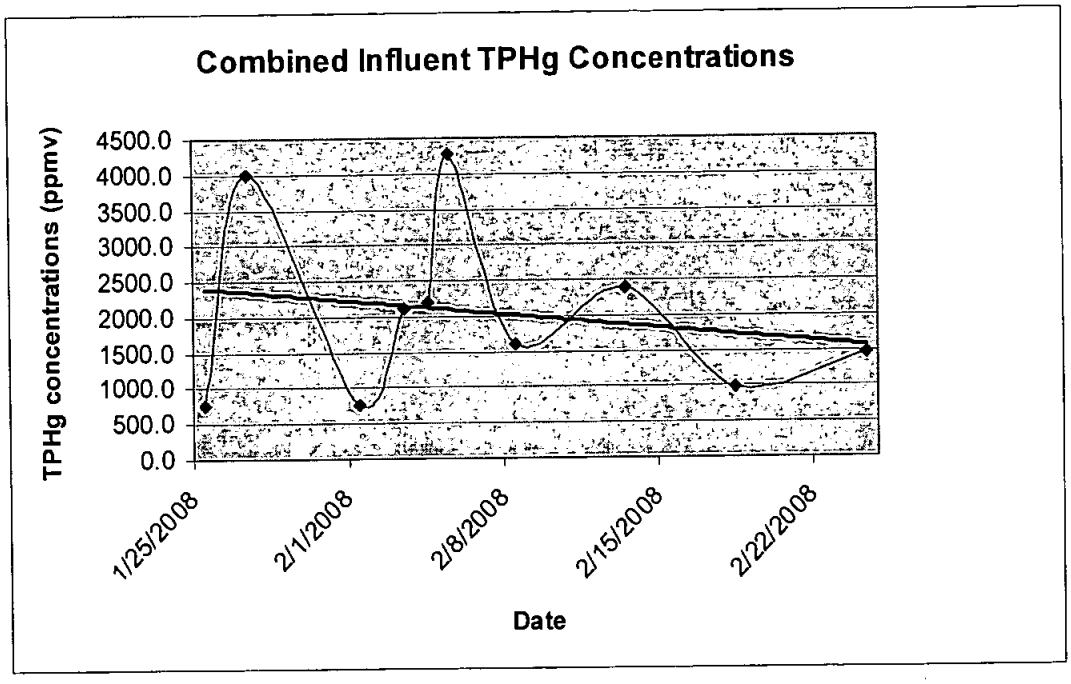
Well Number	Start Date/Time	End Date/Time	TPHg		Benzene		MTBE	
			Starting	*Ending*	*Starting*	*Ending*	*Starting*	*Ending*
MW-1	1/22/2008 12:00	2/24/2008 08:05	12,500	1,790	109*	67	6.68*	141
MW-2	1/23/2008 11:10	1/23/2008 18:50	3,060	959	26.7*	5.97*	9.83*	4.05*
MW-3	1/25/2008 20:10	2/24/2008 08:10	1,560	1,430	8.22*	49	7.04*	67
MW-4	1/24/2008 14:10	2/04/2008 03:50	1,680	2,560	3.46*	38	3.73*	104
MW-6	1/24/2008 23:10	1/25/2008 06:50	579	645	6.11*	4.83*	5.61*	3.59*
MW-7	1/24/2008 05:10	1/24/2008 12:50	667	811	2.38*	3.99*	3.34*	5.34*
MW-9	2/08/2008 16:00	2/09/2008 10:00	329	508	2.9	6.2	12	5.8
MW-14	2/23/2008 13:25	2/23/2008 15:25	1,000	368	34	15	22	12
MW-17	2/23/2008 15:40	2/23/2008 17:40	303	295	1.6	0.92	10	5.2

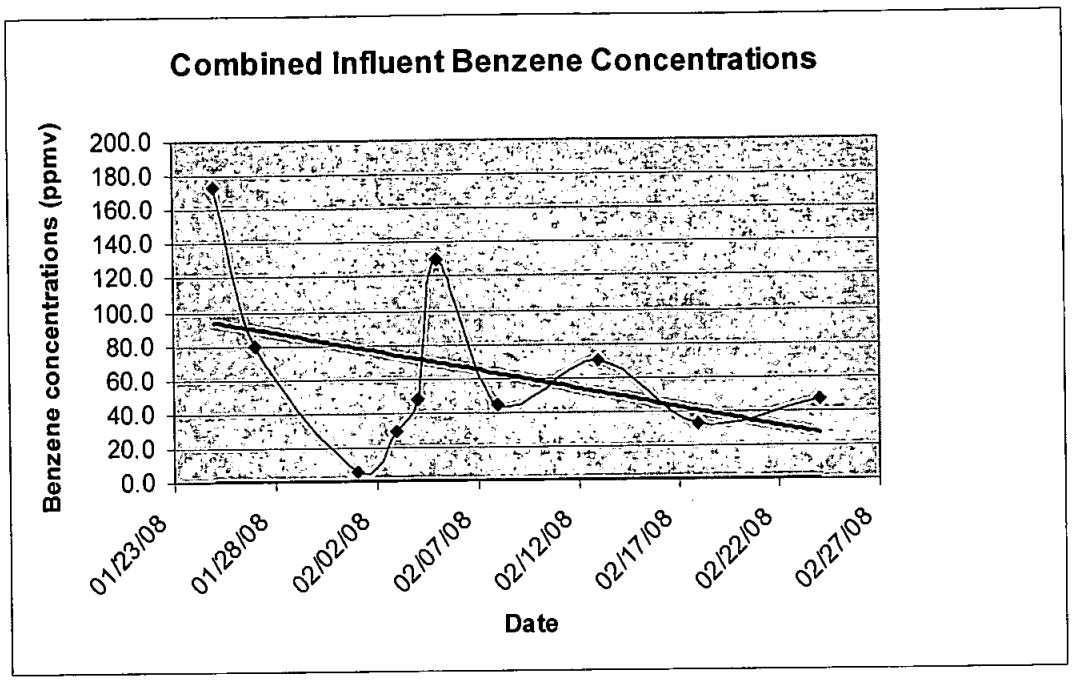
Notes: * = Samples analyzed by EPA 8260B
All values in ppmv (parts per million by volume)

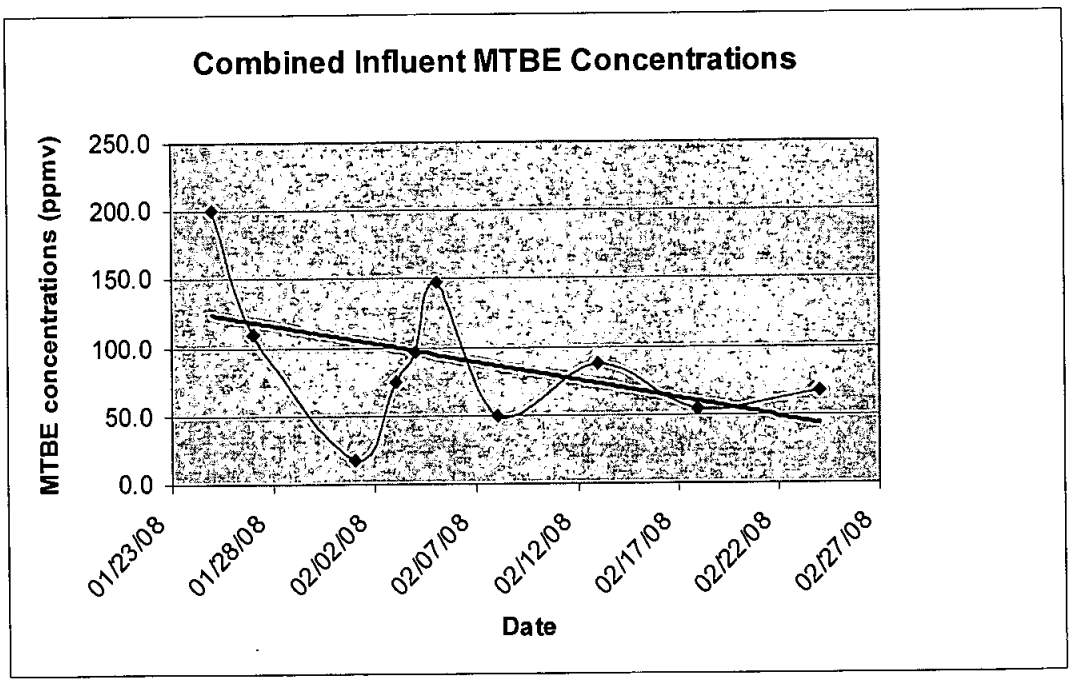
The shaded values are those showing an increase in the concentrations from start to end for the individual extraction wells. Wells MW-4 and MW-7 showed an increase in concentrations for these three analytes. Wells MW-2, MW-14 and MW-17 showed a decrease in concentrations for TPHg, benzene and MTBE.

As indicated in CalClean's Table 1, listing combined extraction wells, the measured influent vapor concentrations (TPHg, benzene and MTBE) fluctuated for the first 12 days of the pilot test

(1/25/08 thru 2/05/08). This is likely a reflection of surges of free product re-entering various wells during the early stages of the pilot test. From 2/08/08 through 2/24/08, vapor concentrations appeared to stabilize and showed a more uniform decreasing trend thereafter. These trends are indicated in the following graphs.




Combined Influent Benzene Concentrations
Benzene concentrations (ppmv)
200.0
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
01/23/08
01/28/08
02/02/08
02/07/08
02/12/08
02/17/08
02/22/08
02/27/08
Date


Combined Influent MTBE Concentrations
MTBE concentrations (ppmv)
250.0
200.0
150.0
100.0
50.0
0.0
01/23/08
01/28/08
02/02/08
02/07/08
02/12/08
02/17/08
02/22/08
02/27/08
Date

SUMMARY AND CONCLUSIONS

Following is a summary of the observations and results of the HVDPE pilot test at 11427 Woodside Avenue, Santee, California:

- Approximately 128,620 gallons of hydrocarbon-affected groundwater were extracted from which 3,256.17 pounds of petroleum hydrocarbons, measured from inlet vapor concentrations, were removed and treated;

- Based on the results of the recent HVDPE pilot test, the vapor extraction radius-of-influence due to a high vacuum (17 to 19 inches of Mercury) on one well, or a combination of wells, on the average, appears to be less than 68 feet. There is insufficient data to determine a radius of influence at this site based on the existing conditions and the recent HVDPE pilot test.

- Measurable decreases in groundwater levels were noted in observation wells as the pilot test progressed, indicating the extraction method produces drawn down of the groundwater table and potentially increases the efficiency of HVDPE for free product removal and remediation of petroleum hydrocarbon-bearing soil and groundwater.

- Based on the observations during the HVDPE pilot test, it appears that HVDPE could be an effective method to treat and mitigate petroleum hydrocarbon-bearing soil, free product and petroleum hydrocarbon-impacted groundwater at the site. However, with a demonstrative vapor-extraction radius-of-influence of less than 68 feet for this site the effective soil-vapor extraction radius of influence is not known. The localized installation of four additional, relatively close-spaced, monitoring/extraction wells could produce data (when coupled with a second, more limited, HVDPE pilot test) to determine an effective vapor-extraction radius-of-influence and effective groundwater withdrawal sufficient to address source-area soil vapor extraction and groundwater remediation in the vicinity of the former USTs and existing fuel dispensers.

2 to per C. Housel

RECOMMENDATIONS

Based on the apparent viability of HVDPE for the site, Petra recommends the installation of the four relatively close-spaced monitoring/extraction wells. Potential well locations are depicted on Figure 4.

Petra recommends that following installation of the additional wells that a second, limited and focused HVDPE pilot test be conducted at the site to help determine an effective vapor-extraction radius of influence and effective groundwater withdrawal sufficient to address the cost-effectiveness of HVDPE as a source-area soil vapor extraction and groundwater remediation method in the vicinity of the former USTs and existing fuel dispensers. If these recommendations are approved by the SAM program, a work plan detailing the well location/construction and proposed focused HVDPE pilot test will be prepared.

Site assessment is in progress and Petra will be issuing a site assessment report (in progress). Additional recommendations emanating from laboratory test results, findings and conclusions of the site assessment will be provided in the upcoming report.

INVESTIGATION LIMITATIONS

This report is based on the project analytical data and findings as presented herein. The materials encountered on the project site, described in other literature, and used in the analytical testing program believed to be representative of the project area, and the conclusions and recommendations in this report are presented on that basis. However, soil and bedrock materials can vary laterally and vertically within a project site and those variations, if present, could affect the conclusions and recommendations contained herein. In addition, chemicals could be present at the site that escaped detection by the project sampling and analytical testing program.

Although this investigation has attempted to evaluate HVDPE as an appropriate remediation alternative to mitigate petroleum hydrocarbon-bearing groundwater present at the site, potential conditions adversely effecting HVDPE as a remediation alternative may have escaped detection for reasons which include, but are not limited to, the following:

- The limited scope of this pilot test:
- Subsurface conditions not observed during site investigations activities; and,

- The presence of undetected, unknown, or unreported environmental releases.

Should additional environmental conditions, beyond those already identified at the site, be detected during further progression of the project, Petra will be prepared to assist the client in evaluating the extent and appropriate mitigation of such conditions.

REPORT USAGE AND FUTURE SITE CONDITIONS

This report is intended for the sole usage of Ms. Linda Wigington or her agents, and the San Diego County Site Assessment and Mitigation (SAM) Program. The conclusions of this report are judged to be relevant at the time the work described in this report was conducted. Future site conditions may differ and this report should not be relied upon to represent future site conditions unless a qualified consultant familiar with the practice of similar environmental assessments is consulted to assess the necessity of updating this report.

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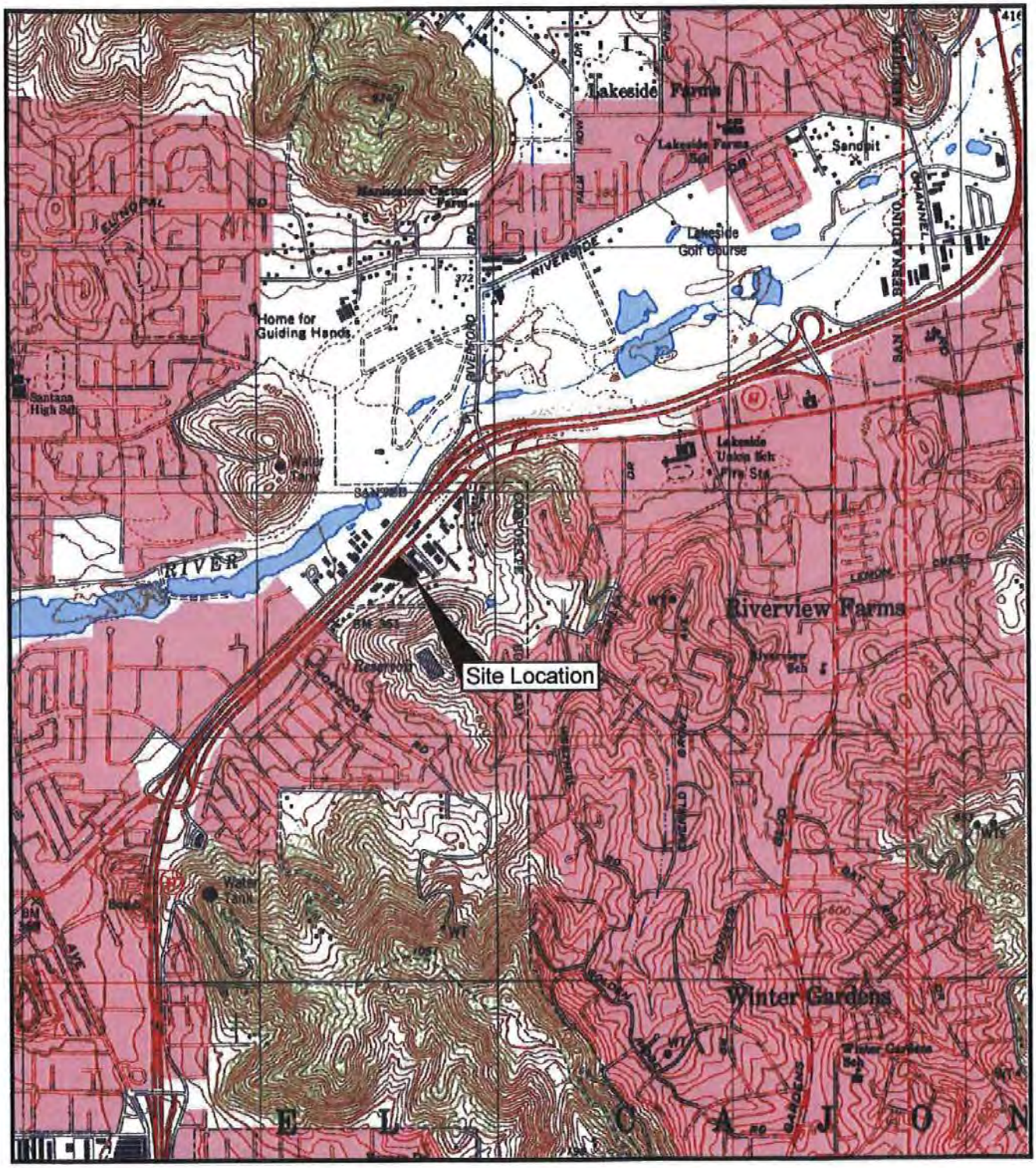
FIGURES

PETRA



Base Map: USGS 7.5-Minute Topographic Map, El Cajon Quadrangle, 1996.

0 0.5
GRAPHIC SCALE (in miles)

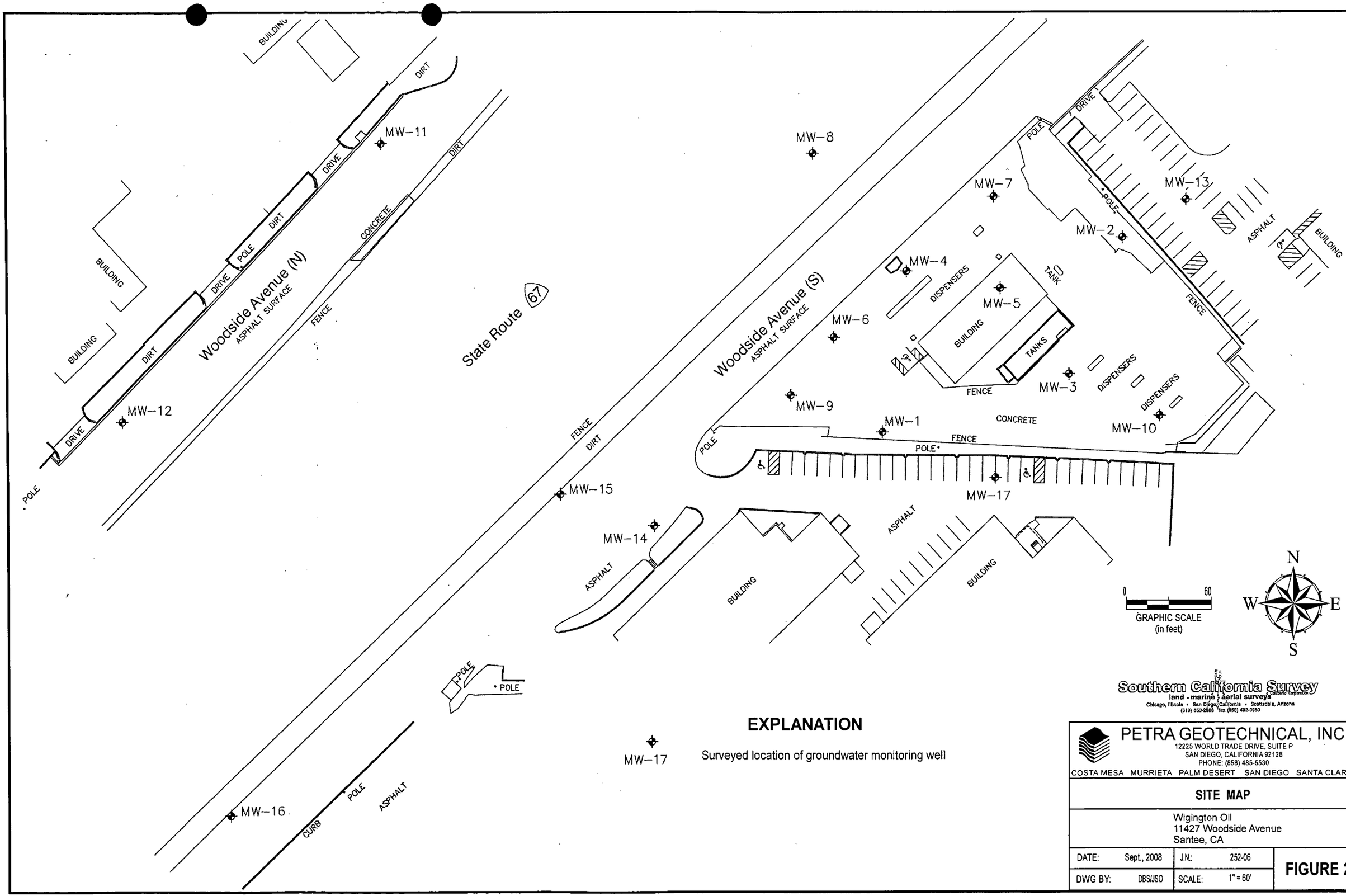
N
W E
S

PETRA GEOTECHNICAL, INC.
12225 WORLD TRADE DRIVE, SUITE P
SAN DIEGO, CALIFORNIA 92128
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

SITE LOCATION MAP

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE: Sept., 2008	J.N.: 252-06	**FIGURE 1**
DWG BY: DBS	SCALE: See Left	



EXPLANATION

MW-17 Surveyed location of groundwater monitoring well

Southern California Survey
land · marine · aerial surveys
Chicago, Illinois • San Diego, California • Scottsdale, Arizona
(619) 553-2688 fax (858) 492-0850

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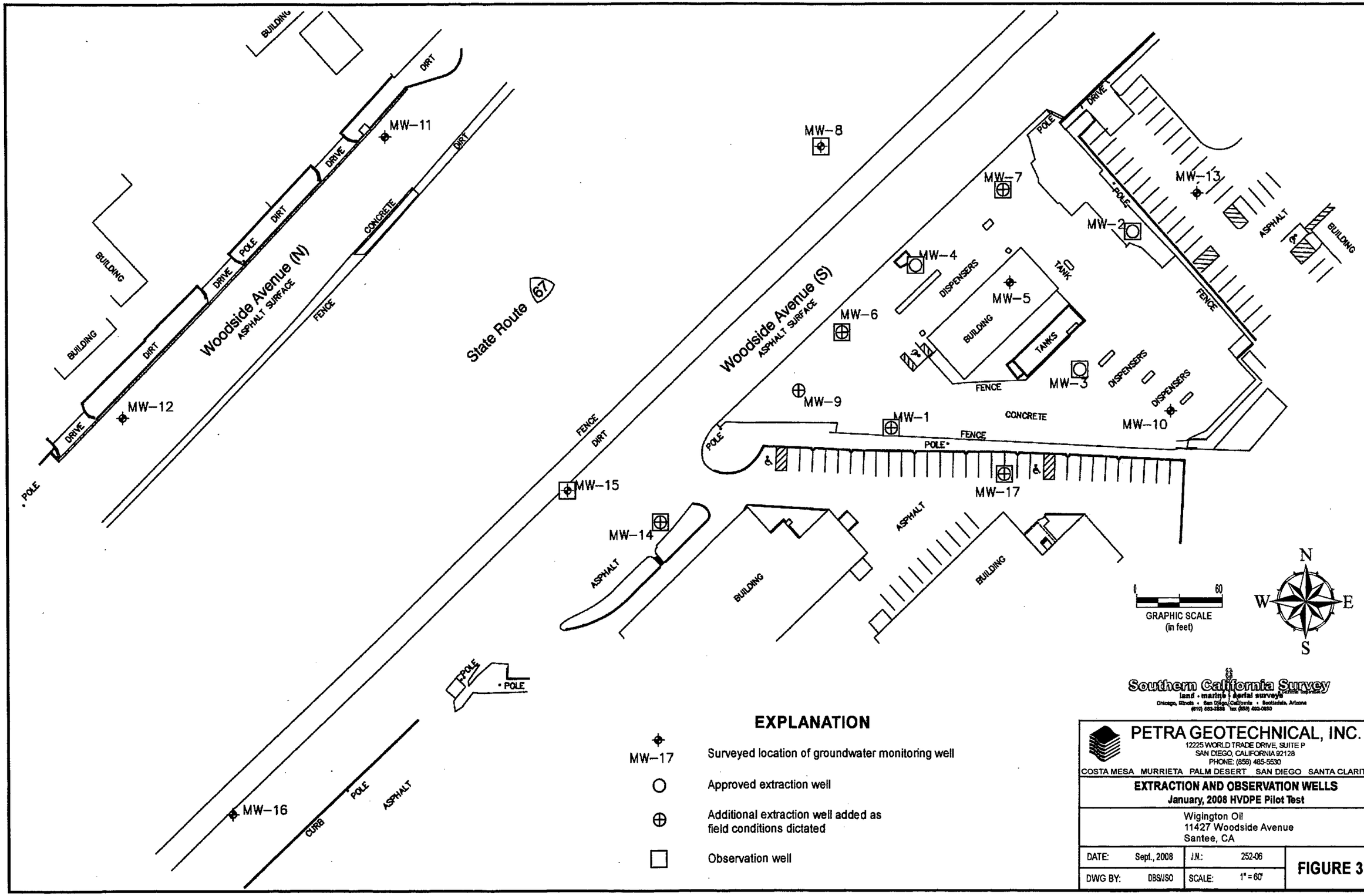
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

SITE MAP

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	Sept., 2008	J.N.:	252-06	**FIGURE 2**
DWG BY:	DBS/JSO	SCALE:	1" = 60'	



Southern California Survey
land • marine | aerial surveys
Chicago, Illinois • San Diego, California • Scottsdale, Arizona
(619) 583-3588 fax (858) 499-0650

EXPLANATION

MW-17	Surveyed location of groundwater monitoring well
○	Approved extraction well
⊕	Additional extraction well added as field conditions dictated
□	Observation well

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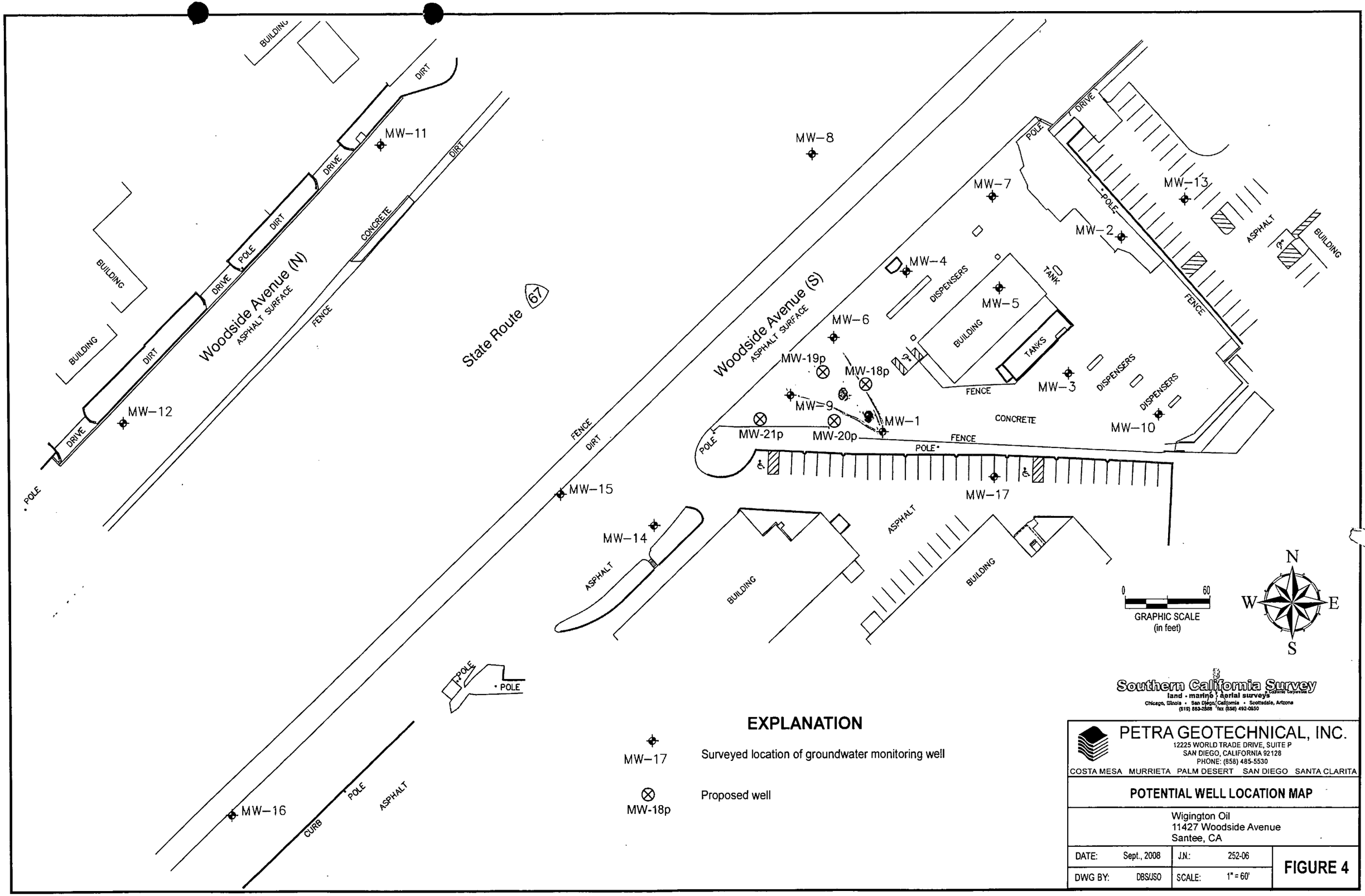
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

EXTRACTION AND OBSERVATION WELLS
January, 2008 HVDPE Pilot Test

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	Sept., 2008	J.N.:	252-06
DWG BY:	DBS/JSO	SCALE:	1" = 60'

FIGURE 3



EXPLANATION

MW-17 — Surveyed location of groundwater monitoring well

MW-18p — Proposed well

Southern California Survey
land · marine · aerial surveys
Chicago, Illinois • San Diego, California • Scottsdale, Arizona
(619) 583-2888 fax (858) 492-0950

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COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

POTENTIAL WELL LOCATION MAP

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	Sept., 2008	J.N.:	252-06	FIGURE 4
DWG BY:	DBS/JSO	SCALE:	1" = 60'	

TABLE 1

PETRA

TABLE 1

HVDPE Vacuum and Drawdown Results

Wigington Oil (aka El Capitan Oil)

Extraction Well	Unit Vacuum (avg. in. of Hg)	Observation Well	Maximum Observed Vac. (in. of H_2O)	Observed Drawdown (feet)	Distance from Extraction Well (ft)
MW-1	17.5	MW-2	0.00	+0.08	216
		MW-3	0.00	-0.10	217
		MW-4	0.06	+0.04	112
		MW-6	0.15	+0.07	73
		MW-7	0.00	+0.05	180
MW-2	17.7	MW-1	0.00	0.00	216
		MW-3	0.02	0.00	102
		MW-4	0.00	0.00	155
		MW-6	0.00	-0.02	217
		MW-7	0.00	+0.02	96
MW-3	18.7	MW-1	0.00	0.00	217
		MW-2	0.00	**-7.43**	102
		MW-4	0.00	-0.21	135
		MW-6	0.00	+0.03	169
		MW-7	0.00	0.00	134
MW-4	18	MW-1	0.02	0.00	112
		MW-2	0.00	0.00	155
		MW-3	0.00	0.00	135
		MW-6	0.02	0.00	68
		MW-7	0.00	**-2.50**	80
MW-6	18	MW-1	0.00	0.00	73
		MW-2	0.00	**-1.35**	217
		MW-3	0.00	0.00	169
		MW-4	0.00	**-4.83**	68
		MW-7	0.00	0.00	149
MW-7	18	MW-1	0.02	+0.87	180
		MW-2	0.00	-0.75	96
		MW-3	0.00	**-7.80**	134
		MW-4	0.00	+0.06	80
		MW-6	0.00	+0.03	149
MW-9	21	MW-1	0.00	-0.25	70
		MW-2	0.01	-0.01	259
		MW-3	0.00	-0.10	198
		MW-4	0.00	-0.11	118
		MW-6	0.03	-0.13	50
		MW-7	0.00	-0.04	198

Combined Extraction Wells	Unit Vacuum (avg. in. of Hg)	Observation Well	Maximum Observed Vac. (in. of H_2O)	Observed Drawdown (feet)	Distance from Nearest Extraction Well (ft)
MW-1	17	MW-2	0.02	-0.13	102
& MW-3		MW-4	0.00	-0.09	112
		MW-6	0.06	-0.08	73
		MW-7	0.00	-0.16	134
		MW-8	0.00	-0.03	197
		MW-14	0.14	-0.12	177
		MW-15	0.07	-0.06	234
		MW-17	0.12	-0.14	85

APPENDIX A

WORKPLAN FOR HIGH VACUUM DUAL PHASE EXTRACTION

PETRA
Environmental Division

WORK PLAN FOR HIGH VACUUM DUAL-PHASE EXTRACTION PILOT TEST AND INTERIM REMEDIATION
EL CAPITAN OIL COMPANY, 11427 WOODSIDE AVENUE SANTEE, CALIFORNIA
DEH UNAUTHORIZED RELEASE NO. H19469-001

PREPARED FOR

MS. LINDA WIGINGTON
WIGINGTON PETROLEUM, INC.
C/O WILLIAM L. FISCHBECK, ESQ.
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DECEMBER 24, 2007
J.N. 252-06

San Diego County

12225 World Trade Drive, Suite P
San Diego, California 92128
858-485-5530

PETRA

past + present + future
it's in our science

Engineers, Geologists
Environmental Scientists

December 24, 2007
J.N. 252-06

Ms. Linda Wigington
WIGINGTON PETROLEUM, INC.
c/o William L. Fischbeck, Esq.
Fischbeck & Oberndorfer
5464 Grossmont Center Drive, Third Floor
La Mesa, California 91942

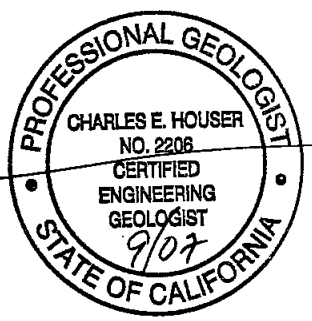
Subject: **Work Plan for High Vacuum, Dual-Phase Extraction Pilot Test and Interim Remediation, El Capitan Oil Company, 11427 Woodside Avenue, Santee, California, DEH Unauthorized Release No. H19469-001**

Dear Ms. Wigington:

Petra Geotechnical, Inc. (Petra) is pleased to present this work plan to conduct a high vacuum dual phase extraction (HVDPE) pilot test and interim remediation for the above-referenced Site. This work plan has been prepared pursuant to the requirements of the San Diego County Site Assessment and Mitigation (SAM) Program.

Should you have any questions regarding this work plan, please call the undersigned at 858.485.5530.

Respectfully submitted,
PETRA GEOTECHNICAL, INC.



Charles E. Houser, C.E.G. 2206
Associate Geologist

CEH/jj
C:\MyFiles\2006\200\252-06\660 (Remediation)\HVDPEworkplanElCapOil.doc
Distribution: (1) Addressee, via Hand Delivery
(1) San Diego County, Site Assessment and Mitigation Program – Ms. Teresa Sherman, via Hand Delivery
(1) UST Cleanup Fund, with Reimbursement Request, via CA Overnight

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WORK PLAN FOR HIGH VACUUM, DUAL-PHASE EXTRACTION PILOT TEST AND INTERIM REMEDIATION EL CAPITAN OIL COMPANY 11427 WOODSIDE AVENUE, SANTEE, CALIFORNIA DEH UNAUTHORIZED RELEASE NO. H19469-001

INTRODUCTION

Petra Geotechnical, Inc., (Petra) is pleased to submit this work plan for a high vacuum, dual-phase extraction (HVDPE) pilot test and interim remediation at El Capitan Oil Company fuel services facility located in Santee, California (Figure 1). This workplan has been prepared pursuant to the requirements of the San Diego County Site Assessment and Mitigation (SAM) Program.

SITE DESCRIPTION

Site Identification

Site Name:	Former El Capitan Oil Company
Site Address:	11427 Woodside Avenue, Santee, California
A.P.N.:	382-320-06
DEH Case:	H19469-001

Site History

The site is located in central San Diego County in the community of Santee. A reported total of 13 underground storage tanks (USTs) have been removed from the site between 1987 and 1998. Results of sampling conducted during UST removal activities indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) issued a letter requiring corrective action relative to the release (County of San Diego, HMMD, August 19, 1993).

During 1988 through 2005, EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the site. A total of 18 borings and 8 groundwater monitoring wells have been drilled and sampled at the site. Based on the results of assessment activities conducted to date, it appears the extent of petroleum hydrocarbon-impacted groundwater has not been fully

delineated. Additional delineation is required to the southwest, south and east of the former UST system.

On March 25, 2005, EnecoTech submitted a workplan for additional site assessment. In a letter dated October 10, 2007, the SAM Program approved this workplan. Petra discussed adding a well to the proposed and approved work with SAM Program personnel. It was agreed that a workplan addendum for the additional well should be submitted for approval.

During groundwater monitoring and sampling activities conducted by Petra on October 25, 2007, phase-separated petroleum hydrocarbons (free product) were detected in wells MW-2, MW-3 and MW-4. This workplan is for Petra to conduct a high vacuum, dual-phase extraction (HVDPE) pilot test and interim remediation to evaluate the feasibility of using this technology for mitigation of the free product at the site.

GEOLOGY

Regional Geology

The site is located in the Peninsular Ranges Geomorphic Province of Southern California. This province is typified by northwest to southeast-trending mountain ranges approximately parallel to the San Andreas and related regional fault systems. The plutonic rocks of the Peninsular Ranges are generally characterized as granitic rocks of the Southern California batholith (Norris & Webb, 1990) in association with lesser amounts of metamorphic rocks. Sedimentary rocks ranging in age from Cretaceous to Pleistocene form the San Diego embayment and coastal terraces west of the batholith.

As interpreted from regional geologic maps (Strand, 1962, Tan, 2002 and Todd, 2004), geologic materials underlying the site may include Quaternary-aged alluvium and colluvium. The more detailed geologic map of Tan (Tan, 2002) identifies Pleistocene alluvial deposits underlying the site and describes these sediments as "moderately consolidated, poorly sorted flood plain

deposits consisting of gravelly, sandy silt and clay." These sediments are in unconformable contact with underlying bedrock.

The regional geologic maps have identified bedrock in the near vicinity as being "granitoid" (Todd, 2004). Tan (Tan, 2002) has mapped Cretaceous-aged tonalite immediately south of the site. The tonalite was described as including "some granodiorite and quartz diorite, medium-grained, generally dark colored and severely weathered." Based upon the referenced regional mapping, the site is most likely to be underlain by Cretaceous-aged tonalite. The top of the granitic composition bedrock is typically highly weathered to an as yet undetermined depth.

Site-Specific Geology

Based on a review of EnecoTech reports and our experience in the site vicinity, it appears the site is underlain by alluvium and slopewash. These materials appear to be, in turn, underlain by weathered granitic bedrock which also comprises the highlands to the south of the site.

HYDROGEOLOGY

Based on review of a document titled *Water Quality Control Plan, San Diego Basin - Region 9*, (approved by the California Regional Water Quality Control Board September 8, 1994), the site is interpreted to lie within the Regional Water Quality Control Board (RWQCB), San Diego Basin Region 9, Santee Hydrologic Sub Area (7.12) of the Lower San Diego Hydrologic Area (7.10) of the San Diego Hydrologic Unit (7.00). According to the RWQCB, surface water in the area has existing beneficial use for industrial and agricultural purposes and exempted potential use for municipal purposes. According to this RWQCB document, the groundwater in the Santee Hydrologic Sub Area has been classified as having existing beneficial uses for municipal, agricultural, industrial and industrial process supply purposes.

According to previous reports referenced above, groundwater is present at depths ranging from approximately 29.45 to 31.90 feet below grade. The groundwater flow direction has been

J.N. 252-06
Wigington Oil

County of San Diego

GARY W. ERBECK
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
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619-338-2222/FAX 619-338-2315/1-800-253-9933
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JACK MILLER
ASSISTANT DIRECTOR

January 16, 2008

Ms. Linda Wigington
Wigington Petroleum, Inc.
c/o William L. Fischbeck, Esq.
Fischbeck & Oberndorfer
5464 Grossmont Center Drive, Third Floor
La Mesa, CA 91942

Dear Ms. Wigington:

RECEIVED
JAN 18 2008

WORKPLAN APPROVAL
UNAUTHORIZED RELEASE #H19469-001
EL CAPITAN OIL COMPANY
11427 WOODSIDE AVENUE, SANTEE, CA 92071

This letter has been prepared in accordance with the requirements set forth in Title 23 (State Underground Storage Tank Regulations), Division 3, Chapter 16, Article 11, Section 2722. The purpose of this letter is to notify the Responsible Party of the status of the Workplan received by the County of San Diego, Department of Environmental Health (DEH), Site Assessment and Mitigation Program (SAM), on December 28, 2007.

The *Work Plan for High Vacuum, Dual-Phase Extraction Pilot Test and Interim Remediation*, dated December 24, 2007, was prepared by Petra Geotechnical, Inc. The Workplan proposes that a 30-day high vacuum, dual phase extraction (HVDPE) pilot test be conducted at the site to evaluate the feasibility of using this technology for mitigation of phase-separated petroleum hydrocarbons (free product) and contaminated groundwater.

The *Work Plan for High Vacuum, Dual-Phase Extraction Pilot Test and Interim Remediation* is:

( ) approved.
( ) disapproved-call the undersigned for further instructions.
(X) approved with the following changes or conditions:

1. Analyze soil vapor samples collected on the first and last days of the HVDPE pilot test for the presence of volatile organic compounds (VOCs) by EPA Method 8260B.

This approval is valid for 6 months from the date of this letter. Keep this letter for your records as it may be required for corrective action cost reimbursement under Senate Bill 2004 (California Health and Safety Code, Division 20, Chapter 6.75, Article 6).

As a reminder, please continue submitting all of the soil and groundwater data electronically into GeoTracker based on our letter dated July 13, 2005. SAM will not be able to close your unauthorized release case until all required information has been submitted to GeoTracker.

Please be advised that any site assessment must meet with the standard of care as detailed in the current edition of the SAM Manual. Failure to meet with the standard of care could result in referral of the consultant to the State Licensing Board.

If you have any questions, please call me at (619) 338-2258.

Sincerely,

Teresa E. Sherman

TERESA E. SHERMAN, Project Manager
Site Assessment and Mitigation Program

TES:ae

cc: Charles Houser, Petra Geotechnical, Inc.

WP/H19469-001-108WPA

interpreted, in the referenced reports (EnecoTech, 2002 and EnecoTech, 2003), to be generally toward the west-southwest.

OBJECTIVES

Due to the presence of free product in three of the wells at the site, high vacuum dual phase extraction (HVDPE) may be a cost-effective and technically feasible interim remedial option for removal of free product, as well as removing hydrocarbon-affected groundwater. The objective of the proposed scope of services is to evaluate the potential effectiveness of HVDPE as an alternative for remediation of free product and contaminated groundwater at the site.

SCOPE OF SERVICES

This work plan outlines the scope of work to perform a high vacuum dual phase extraction (HVDPE) pilot test and interim remediation at the site. The proposed pilot testing consists of a 30-day HVDPE pilot test conducted on three monitoring wells (MW-2, MW-3, and MW-4) containing free product at the site.

The HVDPE pilot test procedure involves removing air at high vacuum from monitoring/extraction wells to evaluate contaminant removal rates and to determine the distribution of airflow (i.e., radius of influence) within the contaminated zone. Petra proposes to conduct the following activities to complete the HVDPE pilot test:

- A mobile HVDPE extraction treatment system will perform HVDPE pilot tests on the site wells to determine the feasibility of removing free product and hydrocarbon-impacted groundwater from the site.
- A short-term HVDPE test (8 hours) will be performed in each of the above-mentioned wells.
- Over the remaining days, a constant-rate performance test will be performed simultaneously in two or more wells. Additional wells (other than MW-2, MW-3, and MW-4) may alternately be involved in the test. As the test progresses, Petra will evaluate

rates and quantities of hydrocarbon removal and add wells to the extraction program, as appropriate.

- Influent individual well and combined wells vapor samples will be collected during the short-term tests and the constant-rate test. The samples will be analyzed to evaluate vapor extraction effectiveness and to determine mass removal rates.

- The selected remedial action alternative will be evaluated for technical feasibility and economic feasibility will be discussed in the Pilot Test and Interim Remediation Report.

During the HVDPE pilot test, data will be collected to evaluate the effectiveness of HVDPE for removing free product from groundwater and volatile organic compounds (VOC) adsorbed to saturated and unsaturated zone soil, and to obtain the following specific design information:

- The area of influence from each extraction well and the induced vacuum achieved at each observation well under optimum HVDPE system operating conditions.

- The airflow requirements required to effectively influence the target areas at the site.

- The hydrocarbon destruction rates that can be obtained during operation of the HVDPE system.

If the technology is shown to be effective at the site, the data obtained from the pilot test will be used to design a full-scale HVDPE treatment system, which may include the intermittent use of a mobile HVDPE system to occasionally remediate the site over a period of time. To implement the HVDPE feasibility pilot test and interim remediation, Petra proposes to complete the following tasks:

Task #1 Permitting

Petra will contract with CalClean Inc. to perform the HVDPE test at the site. CalClean has already obtained a various locations permit from the San Diego Air Pollution Control District. CalClean will notify the APCD of the startup date at the site. CalClean will also obtain a sewer discharge permit/approval from the City of San Diego and Padre Dam Municipal Water Resources Agency.

Task #2 Health and Safety Plan

Prior to conducting all field activities, a Health and Safety Plan will be prepared outlining all field activities to be performed at the site during the pilot testing activities. A copy of the Health and Safety Plan will be available onsite during all field activities.

Task #3 Initiation of HVDPE Pilot Test

The HVDPE pilot test will be performed to obtain in-situ field data to evaluate contaminant removal rates and to determine the special distribution of airflow within the zone of influence (radius of influence) of the extraction wells. Petra will subcontract a mobile high vacuum treatment system capable of extracting free product and soil vapor from the subsurface.

The HVDPE system will be coupled to a thermal oxidizer used to treat extracted soil vapor in accordance with permit conditions established by the San Diego APCD.

Task #4 Sample Collection

Soil vapor samples collected during the HVDPE pilot test will be collected in laboratory supplied Tedlar™ bags. Soil vapor samples will be labeled with the sample ID and location, date and time, and name of sampler. The samples will be stored at ambient temperature in a cooler that protects the samples from direct sunlight. The samples will be shipped to the laboratory under chain-of-custody documentation and analyzed on a standard turn-around-time (TAT). Selected vapor samples will be analyzed by a state-certified laboratory for the presence of TPHg and BTEX compounds by EPA Methods 8015 and 8021. A duplicate sample of the vapor sample with the highest concentrations of constituents of concern may be analyzed for TPHg by EPA Method TO-3 and VOCs by EPA Method TO-15.

Task #5 Handling of Extracted Groundwater

Depending on the amount of groundwater extracted at the site during the HVDPE test, the extracted groundwater will be placed in one or more storage containers ranging in size from 55-gallon drums to a 21,000-gallon storage tank. Some of the extracted groundwater will be beneficially reused/recycled daily as makeup water in CalClean's water-based liquid ring pump system which loses approximately 100-500 gallons per day in operation. The remaining extracted water will be treated in activated carbon canisters to the sewer permit requirements for discharge to the sanitary sewer system.

Task #6 Data Analysis and Report Preparation

Field data collected during the HVDPE pilot test and interim remediation will include applied vacuum, airflow rates, soil pressures, and influent contaminant concentrations. The tabulated data collected during the pilot test and interim remediation will be used to generate the following plots/diagrams:

- Soil vapor cumulative removal rate versus time;
- Influent vapor concentrations versus time;
- System flow diagram and description of system used for the pilot test; and
- Applied vacuum and flow rate data versus time.

Following completion of the pilot test and data analysis, Petra will prepare a report of the pilot test and interim remediation activities and results. The report will document the pilot testing and interim remediation activities and provide an evaluation of the test data and an assessment of the feasibility of HVDPE for site remediation.

SCHEDULE OF ACTIVITIES

Petra will begin permitting after receiving written approval of this work plan from the SAM Program. We anticipate the report documenting the pilot test and interim remediation activities and results would be completed and submitted within 30 days of the completion of the pilot test.

REFERENCES

California Regional Water Quality Control Board, San Diego Region, 1994, *Water Quality Control Plan for the San Diego Basin (9)*, September 8.

County of San Diego, 1993, *Notice of Violation, El Capitan Oil Company, 11427 S. Woodside Avenue, Santee, California 92071,* Department of Environmental Health, Hazardous Materials Management Division, August 19.

EnecoTech Southwest, Inc. (EnecoTech) 2005, *Revised Work Plan for Additional Site Assessment, 11427 Woodside Avenue, Santee, California, H19469-001/T0948/APN 382-320-06*, Project No. 1689-001 (BG 020), March 25.

EnecoTech, 2003, *Comprehensive Site Assessment, Wigington Petroleum, 11427 Woodside Avenue, Santee, California 92071, H19469-001/T0948/APN 382-320-06*, Project No. 1689-001 (BG 015), March 7.

EnecoTech, 2002, *Additional Site Assessment, Wigington Petroleum, 11427 Woodside Avenue, Santee, California, T0948/H19469-001/APN 382-320-06*, Project No. 1689-001 (BG 007), June 21.

Norris, R. M. and Webb, R. W., 1990, *Geology of California, Second Edition*, John Wiley & Sons, Inc.

Strand, R. G., 1962 (Fourth printing 1992), *Geologic Map of California, Olaf P. Jenkins Edition, San Diego-El Centro Sheet*, California Division of Mines and Geology, Scale 1:250,000.

Tan, S. S., 2002, *Geologic Map of the El Cajon 7.5' Quadrangle, San Diego County, California: a Digital Database*, Department of Conservation, California Geological Survey, scale indicated 1:24,000.

Todd, Victoria R., 2004, *Preliminary Geologic Map of the El Cajon 30"X60' Quadrangle, Southern California, Version 1.0*, U. S. Department of the Interior, U. S. Geologic Survey, Open File Report 2004-1361, scale indicated 1:100,000.

APPENDIX B

WORKPLAN APPROVAL LETTER

PETRA

County of San Diego

GARY W. ERBECK
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
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JACK MILLER
ASSISTANT DIRECTOR

January 16, 2008

Ms. Linda Wigington
Wigington Petroleum, Inc.
c/o William L. Fischbeck, Esq.
Fischbeck & Oberndorfer
5464 Grossmont Center Drive, Third Floor
La Mesa, CA 91942

Dear Ms. Wigington:

RECEIVED
JAN 18 2008

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UNAUTHORIZED RELEASE #H19469-001
EL CAPITAN OIL COMPANY
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If you have any questions, please call me at (619) 338-2258.

Sincerely,

Teresa E. Sherman

TERESA E. SHERMAN, Project Manager
Site Assessment and Mitigation Program

TES:ae

cc: Charles Houser, Petra Geotechnical, Inc.

WP/H19469-001-108WPA

APPENDIX C

HIGH VACUUM DUAL PHASE EXTRACTION REPORT BY CALCLEAN, INC

PETRA

CALCLEAN INC.

"A Partner in Protecting California's Waters"

March 8, 2008

Wigington Petroleum Company
P. O. Box 2504
Spring Valley, CA 91977

ATTN: MS. LINDA WIGINGTON

SITE: EL CAPITAN OIL COMPANY
11427 WOODSIDE AVENUE
SANTEE, CALIFORNIA

RE: HIGH VACUUM DUAL PHASE EXTRACTION
AND TREATMENT REPORT

Dear Ms. Wigington:

CalClean Inc. is submitting this High Vacuum Dual Phase Extraction and Treatment Report for the above referenced site. This report includes all remedial activities performed during the dates of January 22 to February 24, 2008. ***Three additional days of HVDPE were provided without extra charge due to system availability.***

From January 22 to February 24, 2008, CalClean performed a 33-day high vacuum dual phase extraction (HVDPE) event on several onsite and offsite wells using a low-noise, truck-mounted 450-CFM high-vacuum liquid ring blower along with a San Diego Air Pollution Control District (SDAPCD) various locations permitted propane-fired thermal oxidizer (Permit To Operate No. 977108). This technology allows hydrocarbons to be simultaneously removed from the vadose zone, capillary fringe, and saturated soil zone. A high vacuum was applied for vapor extraction and drawdown of the groundwater table around the extraction wells, while vacuum and vapor flow rates were modified to optimize recovery of vapor, free-product and dissolved-phase hydrocarbons.

During the event, the high vacuum dual phase extraction (HVDPE) system was connected to various wells individually or in combination. Initially, short-term pilot tests were performed in each of the extraction wells that had previously exhibited free product gasoline in the wells. These wells were MW-1, MW-2 and MW-3. Short-term tests were also conducted in onsite wells MW-4, MW-5, MW-6, MW-7, MW-9, and offsite wells MW-14 and MW-17 (after installation). Once the short-term tests were completed, HVDPE was performed in several wells simultaneously. HVDPE activities were conducted for a total of 33 days during the HVDPE event.

Vapor samples were collected in Tedlar bags from each extraction well during the pilot test and at the end of the 33-day event. Combined influent samples were also collected during the event. Vapor samples obtained during the event were obtained from the truck-mounted HVDPE system prior to the influent vapors entering the thermal oxidizer. The sample port for the influent vapor samples is located at the flow measurement orifice tube so that mass removal calculations can be done using flow and concentration data obtained at the same location on the HVDPE system. New one-liter Tedlar bags were used for obtaining the vapor samples directly from the influent vapor sampling port. No purge volumes, decontamination procedures, or preservation methods are applicable for obtaining vapor samples in Tedlar bags. Each sample bag was provided a unique identification label and stored at room temperature before they were hand-delivered to the laboratory under chain of custody procedures to Associated Laboratories (a State of California, Department of Health Services (DHS) certified laboratory) for chemical analysis.

The laboratory results, listed in Table 1 and laboratory reports included in Attachment 1, indicate the following:

- The starting Total Petroleum Hydrocarbons as Gasoline (TPH-G) vapor concentrations for wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-7, MW-9, MW-14 and MW-15 were 12,500 ppmv, 3,060 ppmv, 1,560 ppmv, 1,680 ppmv, 579 ppmv, 667 ppmv, 329 ppmv, 1,000 ppmv, and 303 ppmv, respectively. The ending TPH-G vapor concentrations were 1,790 ppmv, 959 ppmv, 1,430 ppmv, 2,560 ppmv, 645 ppmv, 811 ppmv, 598 ppmv, 368 ppmv, and 295 ppmv, respectively. The starting and ending Combined well TPH-G vapor concentrations were 7,550 ppmv and 1,450 ppmv, respectively.

- The starting Benzene vapor concentrations for wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-9, MW-14 and MW-15 were 109 ppmv, 26.7 ppmv, 8.22 ppmv, 3.46 ppmv, 6.11 ppmv, 2.38 ppmv, 2.9 ppmv, 34 ppmv, and 1.6 ppmv, respectively. The ending Benzene vapor concentrations were 67 ppmv, 5.97 ppmv, 49 ppmv, 38 ppmv, 4.83 ppmv, 3.99 ppmv, 6.2 ppmv, 15 ppmv, and 0.92 ppmv, respectively. The starting and ending Combined well Benzene vapor concentrations were 173 ppmv and 47 ppmv, respectively.

- The starting Methyl tert-Butyl Ether (MtBE) vapor concentrations for wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-9, MW-14 and MW-15 were 6.68 ppmv, 9.83 ppmv, 7.04 ppmv, 3.73 ppmv, 5.61 ppmv, 3.34 ppmv, 12 ppmv, 22 ppmv, and 10 ppmv, respectively. The ending MtBE vapor concentrations were 141 ppmv, 4.05 ppmv, 67 ppmv, 107 ppmv, 3.59 ppmv, 5.34 ppmv, 5.8 ppmv, 12 ppmv, and 5.2 ppmv, respectively. The starting and ending Combined well MtBE vapor concentrations were 201 ppmv and 67 ppmv, respectively.

The total equivalent amount of hydrocarbons recovered through vapor extraction during the 33-day event was 3,096.48 pounds (based on laboratory data), and 3,415.86 pounds (based on the Horiba field organic vapor analyzer data) with an average of 3,256.17 pounds. The cumulative tabulation of recovered hydrocarbons (based on laboratory data) is provided in Table 2. The cumulative tabulation of recovered hydrocarbons (based on the field organic vapor analyzer data) is provided in Table 3.

The above states the amount of hydrocarbons removed in pounds. The following South Coast Air Quality Management District equation was used in calculating mass removal:

$$Q \text{ (in pounds)} = \frac{\text{(Flow in scfm)(Concentration in ppmv)(86 lb/lb. mol)(minutes)}}{\text{(1,000,000) (379 scf/lb. mol)}}$$

Q (in gallons) = Q (in pounds) / 6.254 pounds per gallon of gasoline

The total volume of hydrocarbon-affected groundwater recovered from the extraction wells during the 33-day HVDPE event was approximately 128,620 gallons. The extracted water was treated onsite in a granular activated carbon system and discharged to the onsite sewer system in accordance with Industrial User Discharge Permit Number 21-0296-01-A obtained from the City of San Diego and the Padre Dam Municipal Water District on January 30, 2008.

The following attachments are included to document the HVDPE event at the site:

Table 1	Results of Laboratory Analysis of Influent Vapor Samples
Table 2	High Vacuum Dual Phase Extraction Spreadsheet (using Lab Data)
Figure 1	Total Inlet HC Concentrations versus Time (33-Days, Using Lab Data)
Figure 2	Cumulative HC Recovered over 33 Days (using Lab Data)
Table 3	High Vacuum Dual Phase Extraction Data Spreadsheet (using Horiba Data)
Figure 3	Total Inlet HC Concentrations versus Time (33-Days, Using Horiba Data)
Figure 4	Cumulative HC Recovered over 33 Days (using Horiba Data)
Attachment 1	Laboratory Reports
Attachment 2	High Vacuum Dual Phase Extraction Field Data Sheets

If you have any questions regarding this report, please contact us at (714) 734-9137 or via cell phone at (714) 936-2706.

Sincerely,

CALCLEAN INC.

Noel Shenoi
Principal Engineer

Attachments

CalClean Inc.

Table 1
RESULTS OF LABORATORY ANALYSIS OF VAPOR SAMPLES
El Capitan Oil Co.
Santee, California

Sample ID/ Date	Date/Time Sampled	TPH-g (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Total Xylenes (ppmv)	MTBE (ppmv)
MW-1	1/22/2008 1200	12,500	109* 8260	4.73*	23.3*	14.2*	6.68*
MW-1	1/23/2008 1020	5,290	16.1*	5*	9.02*	5.75*	4.03*
MW-1	1/25/2008 1110	5,230	126	53	47	59	181
MW-1	1/27/2008 0800	7,100	158	19	71	72	228
MW-1	2/8/2008 1550	2,780	79	34	39	48	82
MW-1	2/18/2008 0805	1,100	41	7.6	6.2	9.1	48
MW-1	2/24/2008 0805	1,790	67	106	23	53	141
MW-2	1/23/2008 1110	3,060	26.7*	0.637*	18.5*	6.694*	9.83*
MW-2	1/23/2008 1850	959	5.97*	0.531*	8.68*	4.131*	4.05*
MW-3	1/25/2008 2010	1,560	8.22*	0.456*	5.16*	2.98*	7.04*
MW-3	1/24/2008 0350	2,520	6.89*	0.464*	2.95*	1.663*	35.4*
MW-3	1/25/2008 1120	5,390	122	20	47	58	161
MW-3	1/27/2008 0810	8,350	222	58	90	119	362
MW-3	2/8/2008 1555	2,270	70	38	44	54	48
MW-3	2/18/2008 0810	334	13	2.9	2.8	4	11
MW-3	2/24/2008 0810	1,430	49	91	21	48	67

CalClean Inc.

Table 1
RESULTS OF LABORATORY ANALYSIS OF VAPOR SAMPLES
El Capitan Oil Co.
Santee, California

Sample ID/ Date	Date/Time Sampled	TPH-g (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Total Xylenes (ppmv)	MTBE (ppmv)
MW-4	1/24/2008 1410	1,680	3.46*	0.555*	5.41*	3.425*	3.73*
MW-4	1/24/2008 2150	2,110	11.4*	0.89*	5.67*	4.07*	7.61*
MW-4	2/3/2008 2020	1,900	23	13	12	4	91
MW-4	2/4/2008 0350	2,560	38	4.8	28	3	107
MW-6	1/24/2008 2310	579	6.11*	0.706*	4.64*	3.36*	5.61*
MW-6	1/25/2008 0650	645	4.83*	0.61*	3.81*	2.899*	3.59*
MW-7	1/24/2008 0510	667	2.38*	0.285*	4.24*	2.372*	3.34*
MW-7	1/24/2008 1250	811	3.99*	0.782*	7.65*	4.62*	5.34*
MW-9	2/8/2008 1600	329	2.9	12	12	27	12
MW-9	2/9/2008 1000	508	6.2	21	6	36	5.8
MW-14	2/23/2008 1325	1,000	34	55	36	63	22
MW-14	2/23/2008 1525	368	15	56	1.8	37	12
MW-17	2/23/2008 1540	303	1.6	2.2	2.2	5.4	10
MW-17	2/23/2008 1740	295	0.92	2.4	2	6.4	5.2

CalClean Inc.

Table 1
RESULTS OF LABORATORY ANALYSIS OF VAPOR SAMPLES
El Capitan Oil Co.
Santee, California

Sample ID/ Date	Date/Time Sampled	TPH-g (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Total Xylenes (ppmv)	MTBE (ppmv)
Combined	1/25/2008 1130	7,550	173	20	53	51	201
Combined	1/27/2008 0820	3,990	80	13	40	44	110
Combined	2/1/2008 0905	757	5.4	13	9.6	21	17
Combined	2/3/2008 2030	2,120	29	3.3	23	10	74
Combined	2/4/2008 0400	2,190	48	30	9.3	18	97
Combined	2/5/2008 1600	4,280	130	17	50	48	147
Combined	2/8/2008 1545	1,610	44	25	23	31	49
Combined	2/13/2008 1200	2,390	70	22	30	34	87
Combined	2/18/2008 0800	982	33	5.8	5.6	7.2	54
Combined	2/24/2008 0800	1,450	47	64	20	50	67

Notes:
ppmv = parts per million by volume
TPH - g = total petroleum hydrocarbons - gasoline
TPH-G, BTEX and MtBE analyzed by EPA 8015B/8021B
MtBE = methyl tertiary butyl ether
*Samples analyzed by EPA 8260B

CalClean Inc.

Table 2

HIGH VACUUM DUAL PHASE EXTRACTION SPREADSHEET (Using Lab Data)

El Capitan Oil Co., Santee, CA

TIME	SYSTEM PARAMETERS			Hydrocarbon Recovery		
	Average System Vacuum (in of Hg)	Average Total System Inlet Flow (scfm)	Influent Concentrations Post-dilution* (ppmv)	(lbs)	(gal)	(Cumul. lbs)
1/22/2008 12:00	19	42	12,500	0.00	0.00	0
1/23/2008 10:20	17	45	5,290	117.65	18.83	117.65
1/23/2008 11:10	17	45	3,060	2.13	0.34	119.79
1/23/2008 18:50	18	53	959	10.28	1.65	130.06
1/23/2008 20:10	19	40	1,560	1.06	0.17	131.13
1/24/2008 3:50	18	53	2,520	9.90	1.58	141.03
1/24/2008 5:10	18	51	667	1.50	0.24	142.53
1/24/2008 12:50	18	52	811	3.97	0.64	146.51
1/24/2008 14:10	18	55	1,680	1.21	0.19	147.71
1/24/2008 21:50	18	53	2,110	10.68	1.71	158.40
1/24/2008 23:10	18	54	579	1.31	0.21	159.70
1/25/2008 6:50	18	53	645	3.42	0.55	163.12
1/25/2008 11:30	17	95	7,550	19.27	3.08	182.38
1/27/2008 8:20	17	95	3,990	513.71	82.23	696.09
2/1/2008 9:05	17	97	757	449.05	71.88	1,145.14
2/3/2008 20:30	15	173	2,120	220.55	35.30	1,365.70
2/4/2008 4:00	15	170	2,190	158.50	25.37	1,524.20
2/5/2008 16:00	17	95	4,280	350.15	56.05	1,874.35

CalClean Inc.

Table 2

HIGH VACUUM DUAL PHASE EXTRACTION SPREADSHEET (Using Lab Data)

El Capitan Oil Co., Santee, CA

TIME	SYSTEM PARAMETERS			Hydrocarbon Recovery		
	Average System Vacuum (in of Hg)	Average Total System Inlet Flow (scfm)	Influent Concentrations Post-dilution* (ppmv)	(lbs)	(gal)	(Cumul. lbs)
2/8/2008 15:45	17	95	1,610	364.72	58.38	2,239.08
2/13/2008 12:00	17	90	2,390	353.26	56.54	2,592.34
2/18/2008 8:00	18	74	982	263.52	42.18	2,855.86
2/24/2008 12:00	17	95	1,450	240.62	38.52	3,096.48
	TOTAL HC RECOVERED* - LAB DATA			**3,096.48**	**495.64**	
	TOTAL HC RECOVERED - FIELD ANALYZER DATA**			**3,415.86**	**546.76**	
	Average HC Recovered* (Field Analyzer/Lab Data)**			**3,256.17**	**521.20**	

TOTAL GROUNDWATER RECOVERED	**128,620**

in of Hg = inches of mercury
scfm = standard cubic feet per minute
ppmv = parts per million by volume
gal = gallons
lbs = pounds

* Concentration data based on laboratory data.
** Based on Horiba field analyzer data.
*** Average HC Recovered using Laboratory and Horiba data

Figure 1

Total Inlet HC Concentrations vs Time (33 Days)

El Capitan Oil Co., Santee, CA - 1/22/08-2/24/08

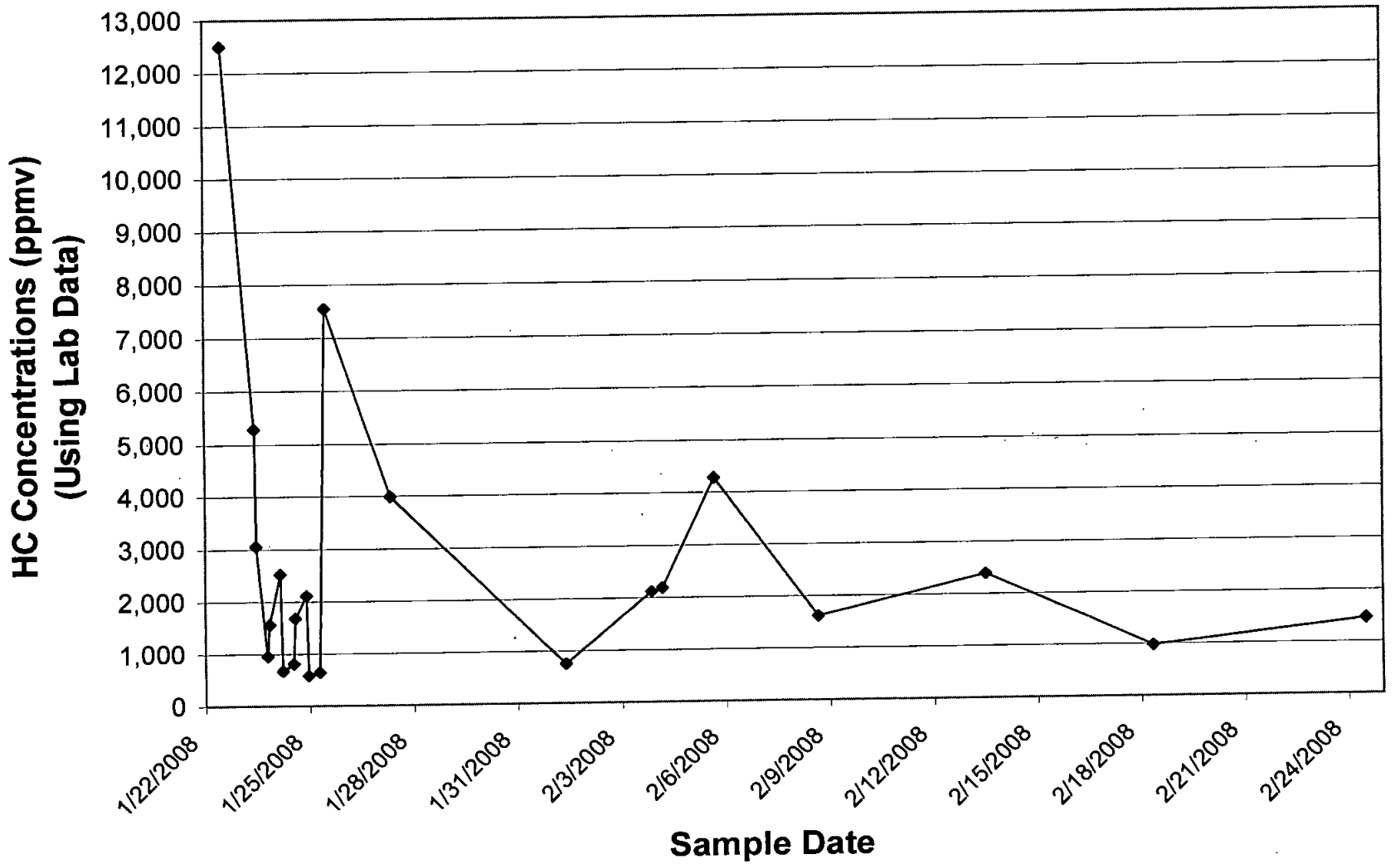
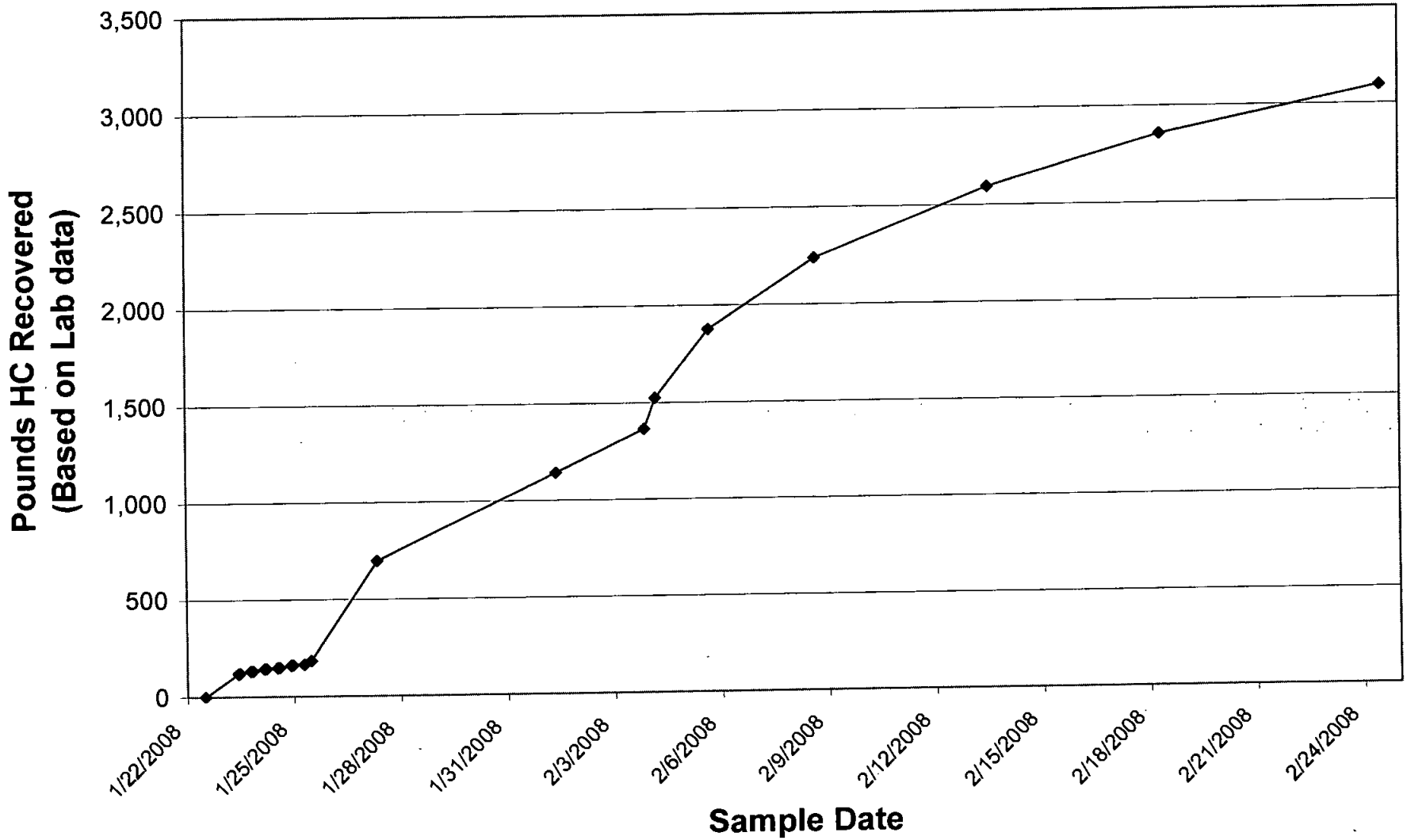


Figure 2
Cumulative HC Recovered Over 33 Days
El Capitan Oil Co., Santee, CA - 1/22/08-2/24/08



CalClean Inc.

Table 3

HIGH VACUUM DUAL PHASE EXTRACTION DATA SPREADSHEET (Using Field Analyzer Data)

El Capitan Oil Co., Santee, CA

TIME	Extraction Well # MW-1 (Stinger Depth)	Extraction Well # MW-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # MW-4 (Stinger Depth)	Extraction Well # MW-6 (Stinger Depth)	Extraction Well # MW-7 (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
1/22/2008 10:30	36'						19	40	5,760	2	0.00	0.00	0
1/22/2008 11:30	36'						19	40	7,010	3	3.48	0.56	3.48
1/22/2008 12:30	36'						19	42	7,020		3.92	0.63	7.39
1/22/2008 13:30	36.6'						17	45	6,070		3.88	0.62	11.27
1/22/2008 14:30	36.6'						17	48	6,058		3.84	0.61	15.11
1/22/2008 15:30	36.6'						17	45	7,150		4.18	0.67	19.29
1/22/2008 16:30	36.6'						18	47	7,510		4.59	0.73	23.88
1/22/2008 17:30	36.6'						17	45	7,630		4.74	0.76	28.62
1/22/2008 18:30	36.6'						17	46	7,640		4.73	0.76	33.35
1/22/2008 19:30	36.6'						17	45	7,650		4.74	0.76	38.09
1/22/2008 23:30	36.6'						17	45	7,600		18.69	2.99	56.77
1/23/2008 4:00	36.6'						17	48	6,700		20.37	3.26	77.14
1/23/2008 8:00	36.6'						17	45	6,680		16.94	2.71	94.09
1/23/2008 9:00	36.6'						17	46	6,570		4.10	0.66	98.19
1/23/2008 10:30	36.6'		8 hr.				17	45	6,360		6.01	0.96	104.20
1/23/2008 11:00	closed		open MW-2				17	45	942		1.12	0.18	105.32
1/23/2008 12:00			43'				17	48	530		0.47	0.07	105.78
1/23/2008 13:00			43'				17	45	500		0.33	0.05	106.11
1/23/2008 14:00			43'				18	49	480		0.31	0.05	106.42
1/23/2008 15:00			43'				18	50	450		0.31	0.05	106.73
1/23/2008 16:00			43'				18	50	420		0.30	0.05	107.03
1/23/2008 17:00			43'				18	52	408		0.29	0.05	107.32
1/23/2008 18:00			43'				18	53	375		0.28	0.04	107.60
1/23/2008 19:00			43'				18	50	360		0.26	0.04	107.86
1/23/2008 20:00		open MW-3	closed				19	40	700		0.32	0.05	108.18
1/23/2008 21:00		41'					19	42	920		0.45	0.07	108.63
1/23/2008 22:00		41'					19	43	950		0.54	0.09	109.17
1/23/2008 23:00		41'					19	40	930		0.53	0.09	109.70
1/24/2008 0:00		41'					19	42	900		0.51	0.08	110.21
1/24/2008 1:00		41'					19	45	870		0.52	0.08	110.74

CalClean Inc.

Table 3

HIGH VACUUM DUAL PHASE EXTRACTION DATA SPREADSHEET (Using Field Analyzer Data)

El Capitan Oil Co., Santee, CA

TIME	Extraction Well # MW-1 (Stinger Depth)	Extraction Well # MW-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # MW-4 (Stinger Depth)	Extraction Well # MW-6 (Stinger Depth)	Extraction Well # MW-7 (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)**	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
1/24/2008 2:00		41'					18	51	860		0.57	0.09	111.30
1/24/2008 3:00		41'					18	53	845		0.60	0.10	111.91
1/24/2008 4:00		41'					18	50	840		0.59	0.09	112.50
1/24/2008 5:00		closed				open MW-7	18	51	280		0.39	0.06	112.88
1/24/2008 6:00						39'	18	50	270		0.19	0.03	113.07
1/24/2008 7:00						39'	18	53	250		0.18	0.03	113.25
1/24/2008 8:00						39'	18	52	230		0.17	0.03	113.43
1/24/2008 9:00						39'	18	55	215		0.16	0.03	113.59
1/24/2008 10:00						39'	18	53	200		0.15	0.02	113.74
1/24/2008 11:00						39'	18	54	150		0.13	0.02	113.87
1/24/2008 12:00						39'	18	52	118		0.10	0.02	113.97
1/24/2008 13:00						39'	18	53	100		0.08	0.01	114.04
1/24/2008 14:00				open MW-4		closed	18	55	520		0.23	0.04	114.27
1/24/2008 15:00				38'			18	54	570		0.40	0.06	114.68
1/24/2008 16:00				38'			18	55	560		0.42	0.07	115.09
1/24/2008 17:00				38'			18	50	550		0.40	0.06	115.49
1/24/2008 18:00				38'			18	53	530		0.38	0.06	115.87
1/24/2008 19:00				38'			18	52	515		0.37	0.06	116.24
1/24/2008 20:00				38'			18	53	510		0.37	0.06	116.61
1/24/2008 21:00				38'			18	50	500		0.35	0.06	116.96
1/24/2008 22:00				38'			18	53	480		0.34	0.05	117.31
1/24/2008 23:00				closed	open MW-6		18	54	210		0.25	0.04	117.56
1/25/2008 0:00					38'		18	53	220		0.16	0.03	117.72
1/25/2008 1:00					38'		18	53	209		0.15	0.02	117.87
1/25/2008 2:00					38'		18	50	205		0.15	0.02	118.02
1/25/2008 3:00					38'		18	53	200		0.14	0.02	118.16
1/25/2008 4:00					38'		18	50	190		0.14	0.02	118.29
1/25/2008 5:00					38'		18	51	175		0.13	0.02	118.42
1/25/2008 6:00					38'		18	53	160		0.12	0.02	118.54
1/25/2008 7:00					38'		18	55	130		0.11	0.02	118.64

CalClean Inc.

Table 3

HIGH VACUUM DUAL PHASE EXTRACTION DATA SPREADSHEET (Using Field Analyzer Data)

El Capitan Oil Co., Santee, CA

TIME	Extraction Well # MW-1 (Stinger Depth)	Extraction Well # MW-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # MW-4 (Stinger Depth)	Extraction Well # MW-6 (Stinger Depth)	Extraction Well # MW-7 (Stinger Depth)	SYSTEM PARAMETERS: System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	Hydrocarbon Recovery (using Horiba Data): (lbs)	(gal)	(Cumul. lbs)
1/25/2008 11:00	open MW-1	open MW-3			closed		17	95	4,500		9.46	1.51	128.10
1/25/2008 12:00	39'	40'					17	96	5,800		6.70	1.07	134.80
1/25/2008 16:00	39'	40'					19	96	5,650		29.93	4.79	164.73
1/25/2008 20:00	39'	40'					17	95	5,600		29.26	4.68	193.98
1/26/2008 0:00	39'	40'					17	96	5,500		28.87	4.62	222.85
1/26/2008 4:00	39'	40'					17	95	5,450		28.48	4.56	251.32
1/26/2008 8:00	39'	40'					17	95	4,400		25.48	4.08	276.80
1/26/2008 12:00	39'	43'					17	96	4,370		22.81	3.65	299.61
1/26/2008 16:00	39'	43'					17	95	7,200		30.09	4.82	329.70
1/26/2008 20:00	39'	43'					17	95	7,100		36.99	5.92	366.69
1/27/2008 0:00	39'	43'					17	96	7,000		36.67	5.87	403.36
1/27/2008 4:00	39'	43'					17	96	7,400		37.64	6.03	441.00
1/27/2008 8:00	39'	43'					17	95	7,800		39.53	6.33	480.53
1/27/2008 12:00	39'	43'					17	95	5,700		34.92	5.59	515.45
1/27/2008 16:00	39'	43'					17	95	5,600		29.23	4.68	544.68
1/27/2008 20:00	39'	43'					17	95	5,200		27.94	4.47	572.62
1/28/2008 0:00	39'	43'					17	95	5,150		26.77	4.29	599.39
1/28/2008 4:00	39'	43'					17	95	5,080		26.46	4.24	625.85
1/28/2008 8:00	39'	43'					17	95	5,000		26.08	4.17	651.93
1/28/2008 12:00	39'	43'					17	95	5,200		26.39	4.22	678.32
1/28/2008 16:00	39'	43'					17	95	4,800		25.87	4.14	704.18
1/28/2008 20:00	39'	43'					17	96	4,600		24.44	3.91	728.63
1/29/2008 0:00	39'	43'					17	95	4,580		23.87	3.82	752.50
1/29/2008 4:00	39'	43'					17	96	4,550		23.74	3.80	776.24
1/29/2008 8:00	39'	43'					17	98	4,620		24.22	3.88	800.46
1/29/2008 12:00	39'	43'					17	96	4,760		24.78	3.97	825.24
1/29/2008 16:00	39'	43'					17	95	4,780		24.81	3.97	850.05
1/29/2008 20:00	39'	43'					17	98	5,120		26.01	4.16	876.06
1/30/2008 0:00	39'	43'					17	97	5,410		27.96	4.47	904.02
1/30/2008 4:00	39'	43'					17	93	5,720		28.79	4.61	932.81

CalClean Inc.

Table 3

HIGH VACUUM DUAL PHASE EXTRACTION DATA SPREADSHEET (Using Field Analyzer Data)

El Capitan Oil Co., Santee, CA

TIME	Extraction Well # MW-1 (Stinger Depth)	Extraction Well # MW-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # MW-4 (Stinger Depth)	Extraction Well # MW-6 (Stinger Depth)	Extraction Well # MW-7 (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
1/30/2008 8:00	39'	43'					17	90	6,120		29.50	4.72	962.31
1/30/2008 12:00	39'	43'					17	94	6,230		30.94	4.95	993.25
1/30/2008 16:00	39'	43'					17	96	6,270		32.34	5.18	1,025.58
1/30/2008 20:00	39'	43'					17	93	6,360		32.50	5.20	1,058.08
1/31/2008 0:00	39'	43'					17	90	6,320		31.59	5.06	1,089.68
1/31/2008 4:00	39'	43'					17	94	6,210		31.39	5.02	1,121.07
1/31/2008 8:00	39'	43'					17	97	6,330		32.61	5.22	1,153.68
1/31/2008 12:00	39'	43'					17	98	6,280		33.48	5.36	1,187.16
1/31/2008 16:00	39'	43'					17	95	6,240		32.90	5.27	1,220.05
1/31/2008 20:00	39'	43'					17	98	6,160		32.58	5.22	1,252.64
2/1/2008 0:00	39'	43'					17	96	6,110		32.41	5.19	1,285.05
2/1/2008 4:00	39'	43'					17	96	6,090		31.89	5.10	1,316.94
2/1/2008 8:00	39'	43'					17	97	6,050		31.90	5.11	1,348.84
2/1/2008 12:00	39'	43'					17	95	5,970		31.42	5.03	1,380.26
2/1/2008 16:00	39'	43'					17	96	5,950		31.00	4.96	1,411.26
2/1/2008 20:00	39'	43'					17	95	5,900		30.82	4.93	1,442.07
2/2/2008 0:00	39'	43'					17	95	5,870		30.45	4.87	1,472.52
2/2/2008 4:00	39'	43'					17	96	4,070		25.85	4.14	1,498.37
2/2/2008 8:00	39'	43'					17	95	4,000		20.99	3.36	1,519.35
2/2/2008 12:00	39'	43'					17	95	3,900		20.44	3.27	1,539.79
2/2/2008 16:00	39'	43'					17	95	4,600		21.99	3.52	1,561.78
2/2/2008 20:00	39'	43'					17	96	4,560		23.82	3.81	1,585.60
2/3/2008 0:00	39'	43'					17	96	4,500		23.68	3.79	1,609.28
2/3/2008 4:00	39'	43'					17	95	4,470		23.33	3.73	1,632.61
2/3/2008 8:00	39'	43'					17	96	4,430		23.14	3.70	1,655.75
2/3/2008 12:00	39'	43'					17	96	4,400		23.08	3.69	1,678.83
2/3/2008 16:00	39'	43'					17	96	4,370		22.93	3.67	1,701.76
2/3/2008 20:00	39'	43'					15	173	4,690		33.18	5.31	1,734.94
2/3/2008 22:00	39'	43'					15	170	4,800		22.16	3.55	1,757.10
2/4/2008 0:00	39'	43'					15	173	4,770		22.35	3.58	1,779.45

CalClean Inc.

Table 3

HIGH VACUUM DUAL PHASE EXTRACTION DATA SPREADSHEET (Using Field Analyzer Data)

El Capitan Oil Co., Santee, CA

TIME	Extraction Well # MW-1 (Stinger Depth)	Extraction Well # MW-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # MW-4 (Stinger Depth)	Extraction Well # MW-6 (Stinger Depth)	Extraction Well # MW-7 (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
2/4/2008 2:00	39'	43'					15	170	4,740		22.21	3.55	1,801.65
2/4/2008 4:00	39'	43'					17	170	4,510		21.41	3.43	1,823.06
2/4/2008 8:00	39'	43'					17	96	4,340		32.05	5.13	1,855.11
2/4/2008 12:00	39'	43'					17	95	4,300		22.47	3.60	1,877.58
2/4/2008 16:00	39'	43'					17	96	4,270		22.29	3.57	1,899.87
2/4/2008 20:00	39'	43'					17	95	4,210		22.05	3.53	1,921.92
2/5/2008 0:00	39'	43'					17	96	4,170		21.79	3.49	1,943.71
2/5/2008 4:00	39'	43'					17	95	4,130		21.58	3.45	1,965.29
2/5/2008 8:00	39'	43'					17	95	4,100		21.29	3.41	1,986.58
2/5/2008 12:00	39'	43'					17	94	4,080		21.05	3.37	2,007.63
2/5/2008 16:00	39'	43'					17	95	4,050		20.92	3.35	2,028.55
2/5/2008 20:00	39'	43'					17	97	4,010		21.07	3.37	2,049.62
2/6/2008 0:00	39'	43'					17	96	4,030		21.13	3.38	2,070.75
2/6/2008 4:00	39'	43'					17	94	4,040		20.88	3.34	2,091.63
2/6/2008 8:00	39'	43'					17	97	4,000		20.91	3.35	2,112.53
2/6/2008 12:00	39'	43'					17	95	3,980		20.86	3.34	2,133.39
2/6/2008 16:00	39'	43'					17	93	3,970		20.35	3.26	2,153.74
2/6/2008 20:00	39'	43'					17	94	3,940		20.14	3.22	2,173.88
2/7/2008 0:00	39'	43'					17	95	3,920		20.23	3.24	2,194.11
2/7/2008 4:00	39'	43'					17	97	3,910		20.47	3.28	2,214.58
2/7/2008 8:00	39'	43'					17	93	3,860		20.10	3.22	2,234.67
2/7/2008 12:00	39'	43'					17	94	3,820		19.55	3.13	2,254.23
2/7/2008 16:00	39'	43'					17	98	3,790		19.89	3.18	2,274.12
2/7/2008 20:00	39'	43'					17	99	3,750		20.22	3.24	2,294.34
2/8/2008 0:00	39'	43'					17	92	3,700		19.37	3.10	2,313.72
2/8/2008 4:00	39'	43'					17	94	3,680		18.69	2.99	2,332.41
2/8/2008 8:00	39'	43'					17	91	3,710		18.61	2.98	2,351.02
2/8/2008 12:00	39'	43'					17	95	3,690		18.74	3.00	2,369.76
2/8/2008 16:00	closed	closed	open MW-9				21	40	300		7.33	1.17	2,377.09
2/8/2008 17:00			38'				21	45	270		0.16	0.03	2,377.26

MW-9

MW-1 9

CalClean Inc.

Table 3

HIGH VACUUM DUAL PHASE EXTRACTION DATA SPREADSHEET (Using Field Analyzer Data)

El Capitan Oil Co., Santee, CA

TIME	Extraction Well # MW-1 (Stinger Depth)	Extraction Well # MW-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # MW-4 (Stinger Depth)	Extraction Well # MW-6 (Stinger Depth)	Extraction Well # MW-7 (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
2/8/2008 18:00			38'				21	47	275		0.17	0.03	2,377.43
2/8/2008 19:00			38'				21	44	260		0.17	0.03	2,377.60
2/8/2008 20:00			38'				21	42	255		0.15	0.02	2,377.75
2/8/2008 21:00			38'				21	46	265		0.16	0.02	2,377.90
2/8/2008 22:00			38'				21	45	270		0.17	0.03	2,378.07
2/8/2008 23:00			38'				21	48	260		0.17	0.03	2,378.24
2/9/2008 0:00			38'				21	40	270		0.16	0.03	2,378.39
2/9/2008 1:00			38'				21	48	290		0.17	0.03	2,378.56
2/9/2008 2:00			38'				21	46	310		0.19	0.03	2,378.75
2/9/2008 3:00			38'				21	43	290		0.18	0.03	2,378.94
2/9/2008 4:00			38'				21	47	320		0.19	0.03	2,379.12
2/9/2008 5:00			38'				21	41	340		0.20	0.03	2,379.32
2/9/2008 6:00			38'				21	44	330		0.19	0.03	2,379.51
2/9/2008 7:00			38'				21	42	335		0.19	0.03	2,379.71
2/9/2008 8:00			38'				21	43	365		0.20	0.03	2,379.91
2/9/2008 9:00			38'				21	45	370		0.22	0.04	2,380.13
2/9/2008 10:00			38'				21	46	340		0.22	0.04	2,380.35
2/9/2008 12:00	open MW-1	open MW-3	closed				17	95	3,590		3.77	0.60	2,384.12
2/9/2008 16:00	40'	43'					17	91	3,620		18.26	2.92	2,402.38
2/9/2008 20:00	40'	43'					17	99	3,600		18.68	2.99	2,421.06
2/10/2008 0:00	40'	43'					17	93	3,580		18.77	3.00	2,439.83
2/10/2008 4:00	40'	43'					17	90	3,560		17.79	2.85	2,457.62
2/10/2008 8:00	40'	43'					17	92	3,580		17.69	2.83	2,475.31
2/10/2008 12:00	40'	43'					17	94	3,550		18.06	2.89	2,493.37
2/10/2008 16:00	40'	43'					17	91	3,510		17.78	2.85	2,511.15
2/10/2008 20:00	40'	43'					17	96	3,480		17.80	2.85	2,528.95
2/11/2008 0:00	40'	43'					17	90	3,440		17.52	2.80	2,546.47
2/11/2008 4:00	40'	43'					17	92	3,450		17.07	2.73	2,563.54
2/11/2008 8:00	40'	43'					17	93	3,410		17.28	2.77	2,580.82
2/11/2008 12:00	40'	43'					17	94	3,390		17.31	2.77	2,598.13

CalClean Inc.

Table 3

HIGH VACUUM DUAL PHASE EXTRACTION DATA SPREADSHEET (Using Field Analyzer Data)

El Capitan Oil Co., Santee, CA

TIME	Extraction Well # MW-1 (Stinger Depth)	Extraction Well # MW-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # MW-4 (Stinger Depth)	Extraction Well # MW-6 (Stinger Depth)	Extraction Well # MW-7 (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
2/11/2008 16:00	40'	43'					17	91	3,340		16.95	2.71	2,615.09
2/11/2008 20:00	40'	43'					17	98	3,360		17.24	2.76	2,632.33
2/12/2008 0:00	40'	43'					17	97	3,300		17.68	2.83	2,650.01
2/12/2008 4:00	40'	43'					17	94	3,310		17.19	2.75	2,667.20
2/12/2008 8:00	40'	43'					17	91	3,250		16.52	2.64	2,683.72
2/12/2008 12:00	40'	43'					17	95	3,210		16.36	2.62	2,700.08
2/12/2008 16:00	40'	43'					17	93	3,190		16.38	2.62	2,716.46
2/12/2008 20:00	40'	43'					17	90	3,160		15.82	2.53	2,732.28
2/13/2008 0:00	40'	43'					17	95	3,190		15.99	2.56	2,748.28
2/13/2008 4:00	40'	43'					17	97	3,180		16.65	2.67	2,764.93
2/13/2008 8:00	40'	43'					17	92	3,120		16.21	2.59	2,781.14
2/13/2008 12:00	40'	43'					17	90	3,050		15.29	2.45	2,796.43
2/13/2008 16:00	40'	43'					17	94	2,980		15.11	2.42	2,811.53
2/13/2008 20:00	40'	43'					17	92	2,940		14.99	2.40	2,826.53
2/14/2008 0:00	40'	43'					18	91	2,880		14.50	2.32	2,841.03
2/14/2008 4:00	40'	43'					18	95	2,900		14.64	2.34	2,855.66
2/14/2008 8:00	40'	43'					18	92	2,840		14.61	2.34	2,870.28
2/14/2008 12:00	40'	43'					18	94	2,800		14.28	2.29	2,884.56
2/14/2008 16:00	40'	43'					18	90	2,790		14.00	2.24	2,898.56
2/14/2008 20:00	40'	43'					18	97	2,730		14.05	2.25	2,912.62
2/15/2008 0:00	40'	43'					18	93	2,720		14.10	2.26	2,926.72
2/15/2008 4:00	40'	43'					18	95	2,650		13.75	2.20	2,940.46
2/15/2008 8:00	40'	43'					18	96	2,610		13.68	2.19	2,954.14
2/15/2008 12:00	40'	43'					18	99	2,550		13.70	2.19	2,967.84
2/15/2008 16:00	40'	43'					18	94	2,510		13.30	2.13	2,981.14
2/15/2008 20:00	40'	43'					18	92	2,490		12.66	2.03	2,993.80
2/16/2008 0:00	40'	43'					18	95	2,430		12.53	2.01	3,006.32
2/16/2008 4:00	40'	43'					18	97	2,450		12.76	2.04	3,019.08
2/16/2008 8:00	40'	43'					18	94	2,400		12.61	2.02	3,031.69
2/16/2008 12:00	40'	43'					18	91	2,360		11.99	1.92	3,043.68

CalClean Inc.

Table 3

HIGH VACUUM DUAL PHASE EXTRACTION DATA SPREADSHEET (Using Field Analyzer Data)

El Capitan Oil Co., Santee, CA

, 2 wells

TIME	Extraction Well # MW-1 (Stinger Depth)	Extraction Well # MW-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # MW-4 (Stinger Depth)	Extraction Well # MW-6 (Stinger Depth)	Extraction Well # MW-7 (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
2/16/2008 16:00	40'	43'					18	92	2,300		11.61	1.86	3,055.29
2/16/2008 20:00	40'	43'					18	95	2,260		11.61	1.86	3,066.90
2/17/2008 0:00	40'	43'					18	96	2,230		11.68	1.87	3,078.58
2/17/2008 4:00	40'	43'					18	98	2,200		11.70	1.87	3,090.28
2/17/2008 8:00	40'	43'					18	94	2,150		11.37	1.82	3,101.65
2/17/2008 12:00	40'	43'					18	90	2,100		10.65	1.70	3,112.30
2/17/2008 16:00	40'	43'					18	95	2,090		10.55	1.69	3,122.85
2/17/2008 20:00	40'	43'					18	91	2,060		10.51	1.68	3,133.36
2/18/2008 0:00	40'	43'					18	93	2,080		10.37	1.66	3,143.73
2/18/2008 4:00	40'	43'					18	95	2,040		10.55	1.69	3,154.28
2/18/2008 8:00	40'	43'					18	94	1,990		10.37	1.66	3,164.65
2/18/2008 12:00	40'	43'					18	90	1,960		9.90	1.58	3,174.54
2/18/2008 16:00	40'	43'					18	96	1,920		9.83	1.57	3,184.37
2/18/2008 20:00	40'	43'					18	91	1,890		9.70	1.55	3,194.07
2/19/2008 0:00	40'	43'					18	94	1,810		9.32	1.49	3,203.39
2/19/2008 4:00	40'	43'					18	92	1,760		9.04	1.45	3,212.43
2/19/2008 8:00	40'	43'					18	98	1,720		9.00	1.44	3,221.43
2/19/2008 12:00	40'	43'					18	93	1,700		8.89	1.42	3,230.33
2/19/2008 16:00	40'	43'					18	91	1,720		8.57	1.37	3,238.89
2/19/2008 20:00	40'	43'					18	95	1,670		8.58	1.37	3,247.48
2/20/2008 0:00	40'	43'					18	94	1,620		8.47	1.36	3,255.94
2/20/2008 4:00	40'	43'					17	90	1,600		8.07	1.29	3,264.01
2/20/2008 8:00	40'	43'					17	96	1,570		8.03	1.28	3,272.04
2/20/2008 12:00	40'	43'					17	93	1,530		7.98	1.28	3,280.02
2/20/2008 16:00	40'	43'					17	99	1,550		8.05	1.29	3,288.07
2/20/2008 20:00	40'	43'					17	92	1,480		7.88	1.26	3,295.95
2/21/2008 0:00	40'	43'					17	90	1,500		7.38	1.18	3,303.33
2/21/2008 4:00	40'	43'					17	94	1,440		7.37	1.18	3,310.70
2/21/2008 8:00	40'	43'					17	95	1,390		7.28	1.17	3,317.98
2/21/2008 12:00	40'	43'					17	91	1,350		6.94	1.11	3,324.92

CalClean Inc.

Table 3

HIGH VACUUM DUAL PHASE EXTRACTION DATA SPREADSHEET (Using Field Analyzer Data)

El Capitan Oil Co., Santee, CA

TIME	Extraction Well # MW-1 (Stinger Depth)	Extraction Well # MW-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # MW-4 (Stinger Depth)	Extraction Well # MW-6 (Stinger Depth)	Extraction Well # MW-7 (Stinger Depth)	SYSTEM PARAMETERS: System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	Hydrocarbon Recovery (using Horiba Data): (lbs)	(gal)	(Cumul. lbs)
2/21/2008 16:00	40'	43'					17	93	1,360		6.79	1.09	3,331.71
2/21/2008 20:00	40'	43'					17	96	1,300		6.84	1.10	3,338.55
2/22/2008 0:00	40'	43'					17	96	1,270		6.72	1.08	3,345.27
2/22/2008 4:00	40'	43'					17	93	1,240		6.46	1.03	3,351.73
2/22/2008 8:00	40'	43'					17	90	1,200		6.08	0.97	3,357.81
2/22/2008 12:00	40'	43'					17	95	1,180		5.99	0.96	3,363.80
2/22/2008 16:00	40'	43'					17	94	1,150		6.00	0.96	3,369.80
2/22/2008 20:00	40'	43'					17	92	1,120		5.75	0.92	3,375.55
2/23/2008 0:00	40'	43'					17	90	1,070		5.43	0.87	3,380.97
2/23/2008 4:00	40'	43'					17	95	1,090		5.44	0.87	3,386.41
2/23/2008 8:00	40'	43'					17	99	1,030		5.60	0.90	3,392.01
2/23/2008 12:00	40'	43'					17	93	1,000		5.31	0.85	3,397.32
2/23/2008 14:00	closed	closed	open MW-14				20	45	840		1.73	0.28	3,399.05
2/23/2008 15:00			37'				20	48	750		0.50	0.08	3,399.55
2/23/2008 16:00			37'				20	46	280		0.33	0.05	3,399.88
2/23/2008 17:00	open !?	open ?	37'		open 17 ?		20	47	310		0.19	0.03	3,400.07
2/23/2008 20:00	40'	43'	closed				17	96	960		1.85	0.30	3,401.92
2/24/2008 0:00	40'	43'					17	92	920		4.81	0.77	3,406.73
2/24/2008 4:00	40'	43'					17	98	880		4.66	0.75	3,411.39
2/24/2008 8:00	40'	43'					17	95	820		4.47	0.72	3,415.86

TOTAL HC RECOVERED	3,415.86	546.76
TOTAL GROUNDWATER EXTRACTED		128,620

MW-17

when was MW-17 extracted?

Comments: Manual dilution was not opened during the event.

in of Hg = inches of mercury

scfm = standard cubic feet per minute

gal = gallons

lbs = pounds

* Concentrations based on Horiba MEXA 324-JU field organic vapor analyzer, calibrated as hexane

** Inlet flow measured through orifice tube and converted from acfm to reported scfm

Figure 3

Total Inlet HC Concentrations vs Time (33 Days)

El Capitan Oil Co., Santee, CA - 1/22/08-2/24/08

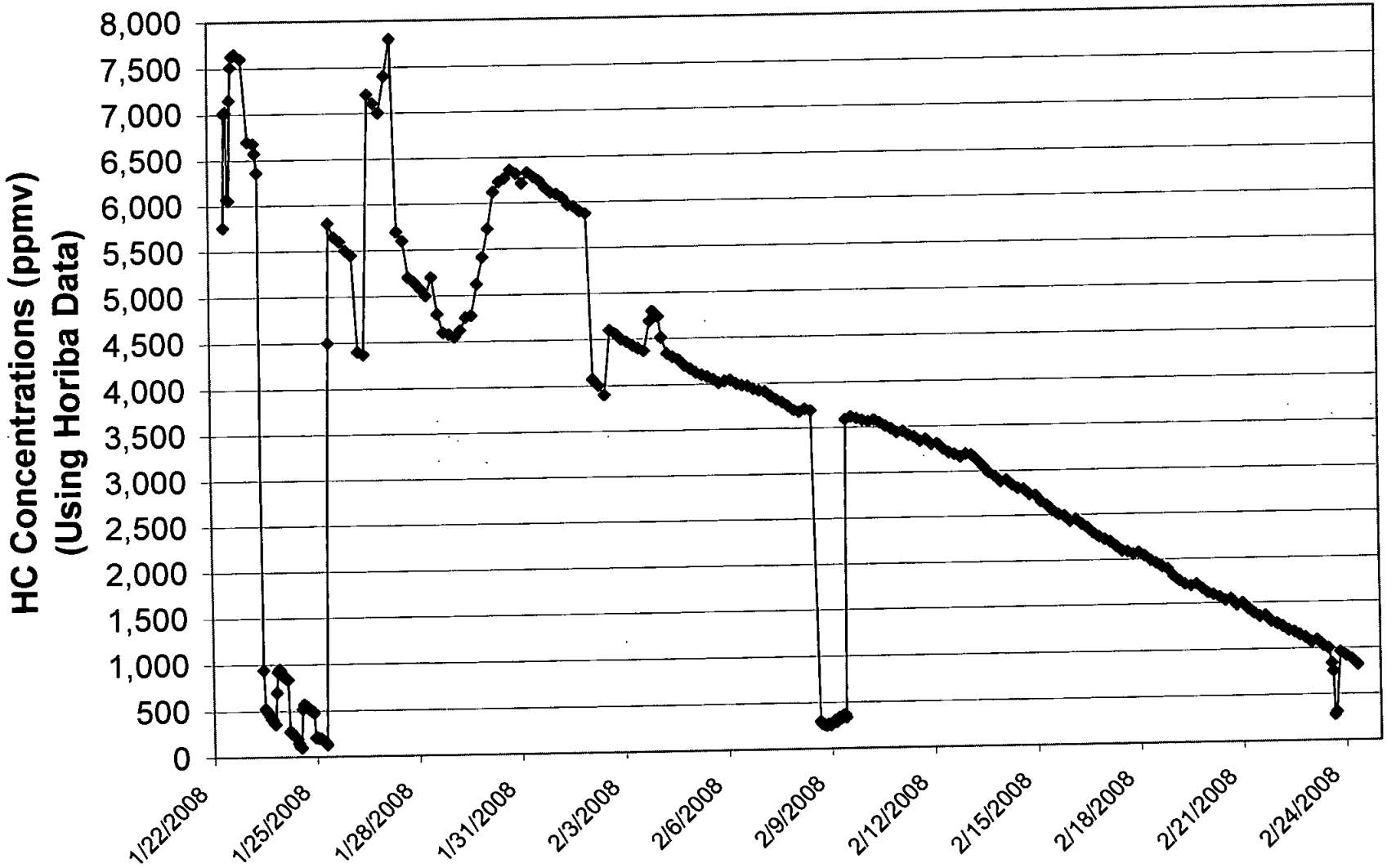
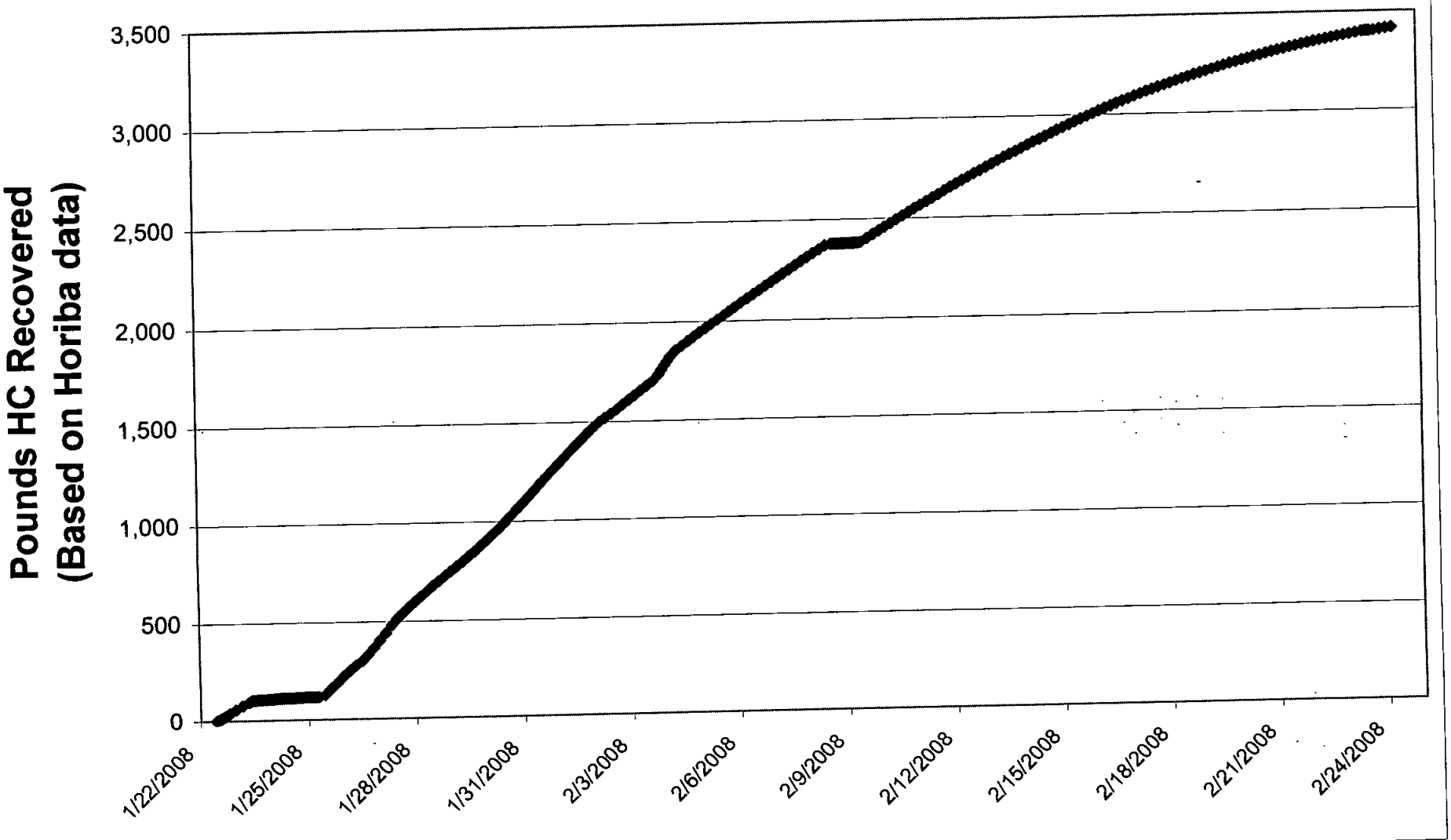


Figure 4

Cumulative HC Recovered Over 33 Days

El Capitan Oil Co., Santee, CA - 1/22/08-2/24/08



ATTACHMENT 1

LABORATORY REPORTS

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900 FAX 714/538-1209

CLIENT Calclean (9977)
ATTN: Noel Shenoi
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 205409
REPORTED 02/06/2008
RECEIVED 01/23/2008

PROJECT El Capitan Oil Co.
Santee, CA

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
867100	MW-1
867101	Stack

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 867100 **Client:** Calclean

Matrix: AIR **Client Sample ID:** MW-1

Date Sampled: 01/22/2008

Time Sampled: 12:00

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
260B Volatile Organics (BTEX) in Air						
Benzene	109000	10000	10000.0	Vppb	01/30/08	YL
Ethylbenzene	23300	10000	10000.0	Vppb	01/30/08	YL
m,p-Xylene	10000	20000	20000.0	Vppb	01/30/08	YL
Methyl t- butyl ether (MTBE)	6680	10000	10000.0	Vppb	01/30/08	YL
o-Xylene	4200	10000	10000.0	Vppb	01/30/08	YL
Toluene	4730	10000	10000.0	Vppb	01/30/08	YL
Diisopropyl Ether	ND	20000	20000.0	Vppb	01/30/08	YL
Ethyl tert-Butyl Ether	ND	20000	20000.0	Vppb	01/30/08	YL
tert-Amyl Methyl Ether	ND	20000	20000.0	Vppb	01/30/08	YL
tert-Butanol	ND	20000	20000.0	Vppb	01/30/08	YL
015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	12500	100	500.0	Vppm	01/24/08	SW
Gasoline	51000	100	2210.0	ug/L	01/24/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 867101 **Client:** Calclean
Matrix: AIR **Client Sample ID:** Stack
Date Sampled: 01/22/2008
Time Sampled: 12:10
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	0.08	1	0.01	Vppm	01/24/08	SW
Ethyl benzene	0.10	1	0.01	Vppm	01/24/08	SW
Methyl t - butyl ether	0.32	1	0.10	Vppm	01/24/08	SW
Toluene	0.12	1	0.01	Vppm	01/24/08	SW
Xylene (total)	0.33	1	0.03	Vppm	01/24/08	SW
Benzene	0.24	1	0.03	ug/L	01/24/08	SW
Ethyl benzene	0.44	1	0.04	ug/L	01/24/08	SW
Methyl t - butyl ether	1.1	1	0.36	ug/L	01/24/08	SW
Toluene	0.46	1	0.04	ug/L	01/24/08	SW
Xylene (total)	1.4	1	0.13	ug/L	01/24/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	ND	1	5.0	Vppm	01/24/08	SW
Gasoline	ND	1	22.1	ug/L	01/24/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

QA REPORT FORM

QC Sample: 205310-632

Matrix: AIR

Prep. Date : January 24, 2008

Analysis Date: 01/24/08-1/25/08

Lab ID#'s in Batch: 205409, 205310, 205508, 205214

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	3,771.67	4,065.23	7
Benzene	8021B	75.88	74.93	1
Toluene	8021B	108.13	108.52	0
Ethylbenzene	8021B	6.79	6.60	3
Xylenes	8021B	24.25	21.31	13

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

ASSOCIATED LABORATORIES

QA REPORT FORM

Method : 8260 AIR

QC Sample: 205510-496

Matrix: Air

Analysis Date: January 30, 2008

Lab ID#'s in Batch: 205437, 205409, 205510, 205664, 205514, 205474

REPORTING UNITS = Vppb

SAMPLE DUPLICATE RESULT

Test	Sample Result	Sample Duplicate	%RPD
Toluene	6,400	6,160	4
Ethyl benzene	1,920	1,850	4
m,p-Xylenes	3,550	3,500	1
o-Xylene	733	767	5

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

ASSOCIATED LABORATORIES
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

Chain of Custody Record

205409

Page 1 of 1

Company	CalClean Inc. 3002 Dow, #142 Tustin, CA 92780	Phone	(714) 734-9137
Project Manager	NOEL SHENOI	Fax	(714) 734-9138
Project Name	EL CAPITAN OIL CO	Project #	
Site Name and Address	SANTEE, CA	A.L. Job No.	

	Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	Analysis Requested: TPH-G (8015)	BTEX/MTBE (8021)		BTEX/OXYS (8260B)							Test Instructions & Comments
1	MW-1		1/22/08	1200	AIR	TEDLAR	NONE	X			X							
2	STACK		1/22/08	1210	"	"	"	X	X									
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		EDF
13																		
14																		AIR=PPMV & by IL
15																		

Sample Receipt - To Be Filled By Laboratory

Total Number of Containers		Property Cooled Y / N / NA	
Custody Seals Y / N / NA		Samples Intact Y / N / NA	
Received in Good Condition Y / N		Samples Accepted Y / N	

Turn Around Time

☒ Normal ☐ Rush ☐ Same Day ☐ 24 hrs. ☐ 48 hrs. ☐ 72 hrs.

Relinquished by Sampler: 1.	Relinquished by 2.	Relinquished by 3.
Signature: Noel Shenoi	Signature:	Signature:
Printed Name:	Printed Name:	Printed Name:
Date: 1/23/08 Time:	Date: Time:	Date: Time:
Received By: 1.	Received By: 2.	Received By: 3.
Signature:	Signature:	Signature:
Printed Name:	Printed Name:	Printed Name:
Date: 1/23/08 Time: 1250	Date: Time:	Date: Time:

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900
FAX 714/538-1209

CLIENT Calclean (9977)
ATTN: Noel Shenoi
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 205693
REPORTED 02/11/2008
RECEIVED 01/25/2008

PROJECT El Capitan Oil Co., Santee

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
868253	MW-1 10:20
868254	MW-2 11:10
868255	MW-2 18:50
868256	MW-3 20:10
868257	MW-3 03:50
868258	MW-7 05:10
868259	MW-7 12:50
868260	MW-4 14:10
868261	MW-4 21:50
868262	MW-6 23:10
868263	MW-6 06:50

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 868253 **Client:** Calclean

Matrix: AIR **Client Sample ID:** MW-1 10:20

Date Sampled: 01/23/2008

Time Sampled: 10:20

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organics (BTEX) in Air						
Benzene	16100	625	625.0	Vppb	02/06/08	YL
Ethylbenzene	9020	625	625.0	Vppb	02/06/08	YL
m,p-Xylene	4460	1250	1250.0	Vppb	02/06/08	YL
Methyl t- butyl ether (MTBE)	4030	625	625.0	Vppb	02/06/08	YL
o-Xylene	1290	625	625.0	Vppb	02/06/08	YL
Toluene	5000	625	625.0	Vppb	02/06/08	YL
Diisopropyl Ether	ND	1250	1250.0	Vppb	02/06/08	YL
Ethyl tert-Butyl Ether	ND	1250	1250.0	Vppb	02/06/08	YL
tert-Amyl Methyl Ether	ND	1250	1250.0	Vppb	02/06/08	YL
tert-Butanol	ND	1250	1250.0	Vppb	02/06/08	YL
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	5290	50	250.0	Vppm	01/29/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 868254 **Client:** Calclean

Matrix: AIR **Client Sample ID:** MW-2 11:10

Date Sampled: 01/23/2008

Time Sampled: 11:10

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organics (BTEX) in Air						
Benzene	26700	313	312.5	Vppb	02/06/08	YL
Ethylbenzene	18500	313	312.5	Vppb	02/06/08	YL
m,p-Xylene	5920	625	625.0	Vppb	02/06/08	YL
Methyl t- butyl ether (MTBE)	9830	313	312.5	Vppb	02/06/08	YL
o-Xylene	774	313	312.5	Vppb	02/06/08	YL
Toluene	637	313	312.5	Vppb	02/06/08	YL
Diisopropyl Ether	ND	625	625.0	Vppb	02/06/08	YL
Ethyl tert-Butyl Ether	ND	625	625.0	Vppb	02/06/08	YL
tert-Amyl Methyl Ether	ND	625	625.0	Vppb	02/06/08	YL
tert-Butanol	ND	625	625.0	Vppb	02/06/08	YL
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	3060	50	250.0	Vppm	01/28/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 868255
Matrix: AIR
Date Sampled: 01/23/2008
Time Sampled: 18:50
Sampled By:

Client: Caiclean
Client Sample ID: MW-2 18:50

Analyte	Result	DF	DLR	Units	Date/Analyst	
260B Volatile Organics (BTEX) in Air						
Benzene	5970	100	100.0	Vppb	02/02/08	YL
Ethylbenzene	8680	100	100.0	Vppb	02/02/08	YL
m,p-Xylene	3160	200	200.0	Vppb	02/02/08	YL
Methyl t- butyl ether (MTBE)	4050	100	100.0	Vppb	02/02/08	YL
o-Xylene	971	100	100.0	Vppb	02/02/08	YL
Toluene	531	100	100.0	Vppb	02/02/08	YL
Diisopropyl Ether	ND	200	200.0	Vppb	02/02/08	YL
Ethyl tert-Butyl Ether	ND	200	200.0	Vppb	02/02/08	YL
tert-Amyl Methyl Ether	ND	200	200.0	Vppb	02/02/08	YL
tert-Butanol	ND	200	200.0	Vppb	02/02/08	YL
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	959	10	50.0	Vppm	01/28/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 868256 **Client:** Calclean

Matrix: AIR **Client Sample ID:** MW-3 20:10

Date Sampled: 01/23/2008

Time Sampled: 20:10

Sampled By:

8260B Volatile Organics (BTEX) in Air

Analyte	Result	DF	DLR	Units	Date/Analyst	
Benzene	8220	100	100.0	Vppb	02/06/08	YL
Ethylbenzene	5160	100	100.0	Vppb	02/06/08	YL
m,p-Xylene	2310	200	200.0	Vppb	02/06/08	YL
Methyl t- butyl ether (MTBE)	7040	100	100.0	Vppb	02/06/08	YL
o-Xylene	670	100	100.0	Vppb	02/06/08	YL
Toluene	456	100	100.0	Vppb	02/06/08	YL
Diisopropyl Ether	ND	200	200.0	Vppb	02/06/08	YL
Ethyl tert-Butyl Ether	ND	200	200.0	Vppb	02/06/08	YL
tert-Amyl Methyl Ether	ND	200	200.0	Vppb	02/06/08	YL
tert-Butanol	ND	200	200.0	Vppb	02/06/08	YL

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	1560	10	50.0	Vppm	01/28/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

)rder #: 868257
Client: Calclean
Matrix: AIR
Client Sample ID: MW-3 03:50
ate Sampled: 01/24/2008
ime Sampled: 03:50
ampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
260B Volatile Organics (BTEX) in Air						
Benzene	6890	313	312.5	Vppb	02/06/08	YL
Ethylbenzene	2950	313	312.5	Vppb	02/06/08	YL
m,p-Xylene	1280	625	625.0	Vppb	02/06/08	YL
Methyl t- butyl ether (MTBE)	35400	313	312.5	Vppb	02/06/08	YL
o-Xylene	383	313	312.5	Vppb	02/06/08	YL
Toluene	464	313	312.5	Vppb	02/06/08	YL
Diisopropyl Ether	ND	625	625.0	Vppb	02/06/08	YL
Ethyl tert-Butyl Ether	ND	625	625.0	Vppb	02/06/08	YL
tert-Amyl Methyl Ether	ND	625	625.0	Vppb	02/06/08	YL
tert-Butanol	ND	625	625.0	Vppb	02/06/08	YL
)15B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	2520	25	125.0	Vppm	01/28/08	SW

)LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 868258 **Client:** Calclean
Matrix: AIR **Client Sample ID:** MW-7 05:10
Date Sampled: 01/24/2008
Time Sampled: 05:10
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organics (BTEX) in Air						
Benzene	2380	100	100.0	Vppb	02/03/08	YL
Ethylbenzene	4240	100	100.0	Vppb	02/03/08	YL
m,p-Xylene	1840	200	200.0	Vppb	02/03/08	YL
Methyl t- butyl ether (MTBE)	3340	100	100.0	Vppb	02/03/08	YL
o-Xylene	532	100	100.0	Vppb	02/03/08	YL
Toluene	285	100	100.0	Vppb	02/03/08	YL
Diisopropyl Ether	ND	200	200.0	Vppb	02/03/08	YL
Ethyl tert-Butyl Ether	ND	200	200.0	Vppb	02/03/08	YL
tert-Amyl Methyl Ether	ND	200	200.0	Vppb	02/03/08	YL
tert-Butanol	ND	200	200.0	Vppb	02/03/08	YL
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	667	5	25.0	Vppm	01/28/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 868259 **Client:** Calclean

Matrix: AIR **Client Sample ID:** MW-7 12:50

Date Sampled: 01/24/2008

Time Sampled: 12:50

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organics (BTEX) in Air						
Benzene	3990	100	100.0	Vppb	02/03/08	YL
Ethylbenzene	7650	100	100.0	Vppb	02/03/08	YL
m,p-Xylene	3400	200	200.0	Vppb	02/03/08	YL
Methyl t- butyl ether (MTBE)	5340	100	100.0	Vppb	02/03/08	YL
o-Xylene	1220	100	100.0	Vppb	02/03/08	YL
Toluene	782	100	100.0	Vppb	02/03/08	YL
Diisopropyl Ether	ND	200	200.0	Vppb	02/03/08	YL
Ethyl tert-Butyl Ether	ND	200	200.0	Vppb	02/03/08	YL
tert-Amyl Methyl Ether	ND	200	200.0	Vppb	02/03/08	YL
tert-Butanol	316	200	200.0	Vppb	02/03/08	YL
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	811	5	25.0	Vppm	01/28/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 868260 **Client:** Calclean
Matrix: AIR **Client Sample ID:** MW-4 14:10
Date Sampled: 01/24/2008
Time Sampled: 14:10
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organics (BTEX) in Air						
Benzene	3460	100	100.0	Vppb	02/03/08	YL
Ethylbenzene	5410	100	100.0	Vppb	02/03/08	YL
m,p-Xylene	2530	200	200.0	Vppb	02/03/08	YL
Methyl t- butyl ether (MTBE)	3730	100	100.0	Vppb	02/03/08	YL
o-Xylene	895	100	100.0	Vppb	02/03/08	YL
Toluene	555	100	100.0	Vppb	02/03/08	YL
Diisopropyl Ether	ND	200	200.0	Vppb	02/03/08	YL
Ethyl tert-Butyl Ether	ND	200	200.0	Vppb	02/03/08	YL
tert-Amyl Methyl Ether	ND	200	200.0	Vppb	02/03/08	YL
tert-Butanol	209	200	200.0	Vppb	02/03/08	YL
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	1680	25	125.0	Vppm	01/29/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 868261
Matrix: AIR
Date Sampled: 01/24/2008
Time Sampled: 21:50
Sampled By:

Client: Calclean
Client Sample ID: MW-4 21:50

Analyte	Result	DF	DLR	Units	Date/Analyst	
260B Volatile Organics (BTEX) in Air						
Benzene	11400	100	100.0	Vppb	02/03/08	YL
Ethylbenzene	5670	100	100.0	Vppb	02/03/08	YL
m,p-Xylene	3030	200	200.0	Vppb	02/03/08	YL
Methyl t- butyl ether (MTBE)	7610	100	100.0	Vppb	02/03/08	YL
o-Xylene	1040	100	100.0	Vppb	02/03/08	YL
Toluene	890	100	100.0	Vppb	02/03/08	YL
Diisopropyl Ether	ND	200	200.0	Vppb	02/03/08	YL
Ethyl tert-Butyl Ether	ND	200	200.0	Vppb	02/03/08	YL
tert-Amyl Methyl Ether	ND	200	200.0	Vppb	02/03/08	YL
tert-Butanol	2140	200	200.0	Vppb	02/03/08	YL
015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	2110	25	125.0	Vppm	01/29/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 868262 **Client:** Calclean
Matrix: AIR **Client Sample ID:** MW-6 23:10
Date Sampled: 01/24/2008
Time Sampled: 23:10
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organics (BTEX) in Air						
Benzene	6110	100	100.0	Vppb	02/06/08	YL
Ethylbenzene	4640	100	100.0	Vppb	02/06/08	YL
m,p-Xylene	2480	200	200.0	Vppb	02/06/08	YL
Methyl t- butyl ether (MTBE)	5610	100	100.0	Vppb	02/06/08	YL
o-Xylene	880	100	100.0	Vppb	02/06/08	YL
Toluene	706	100	100.0	Vppb	02/06/08	YL
Diisopropyl Ether	ND	200	200.0	Vppb	02/06/08	YL
Ethyl tert-Butyl Ether	ND	200	200.0	Vppb	02/06/08	YL
tert-Amyl Methyl Ether	ND	200	200.0	Vppb	02/06/08	YL
tert-Butanol	606	200	200.0	Vppb	02/06/08	YL
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	579	5	25.0	Vppm	01/28/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 868263 **Client:** Caliclean
Matrix: AIR **Client Sample ID:** MW-6 06:50
Date Sampled: 01/25/2008
Time Sampled: 06:50
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
260B Volatile Organics (BTEX) in Air						
Benzene	4830	100	100.0	Vppb	02/06/08	YL
Ethylbenzene	3810	100	100.0	Vppb	02/06/08	YL
m,p-Xylene	2120	200	200.0	Vppb	02/06/08	YL
Methyl t- butyl ether (MTBE)	3590	100	100.0	Vppb	02/06/08	YL
o-Xylene	779	100	100.0	Vppb	02/06/08	YL
Toluene	610	100	100.0	Vppb	02/06/08	YL
Diisopropyl Ether	ND	200	200.0	Vppb	02/06/08	YL
Ethyl tert-Butyl Ether	ND	200	200.0	Vppb	02/06/08	YL
tert-Amyl Methyl Ether	ND	200	200.0	Vppb	02/06/08	YL
tert-Butanol	512	200	200.0	Vppb	02/06/08	YL
015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	645	5	25.0	Vppm	01/28/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

QA REPORT FORM

Method : 8260 AIR

QC Sample: 205999-471

Matrix: Air

Analysis Date: February 6, 2008

Lab ID#'s in Batch: 205693, 205999m, 205872, 205869

REPORTING UNITS = Vppb

SAMPLE DUPLICATE RESULT

Test	Sample Result	Sample Duplicate	%RPD
Toluene	74	67	10
Ethyl benzene	64	60	7
m,p-Xylenes	127	117	8
o-Xylene	109	103	6

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

ASSOCIATED LABORATORIES

QA REPORT FORM

QC Sample: 205404-096

Matrix: AIR

Prep. Date : January 28, 2008

Analysis Date: January 28, 2008

Lab ID#'s in Batch: 205298, 205404, 205788, 205693,

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	1,643.07	1,757.51	7
Benzene	8021B	15.83	16.20	2
Toluene	8021B	97.51	105.26	8
Ethylbenzene	8021B	24.17	26.62	10
Xylenes	8021B	143.51	156.90	9

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

Chain of Custody Record

ASSOCIATED LABORATORIES
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

Company	CalClean Inc. 3002 Dow, #142 Tustin, CA 92780	Phone	(714) 734-9137
Project Manager	NOEL SHENOI	Fax	(714) 734-9138
Project Name	EL CAPITAN OIL CO	Project #	
Site Name and Address	SANTEE, CA	A.L. Job No.	705193

Page 1 of 1

	Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	Analysis Requested: TPH-G (8015)	MTBE/BTEX/OXYS (8260B)	Test Instructions & Comments
1	MW-1		1/23/08	1020	AIR	TEDLAR	NONE	X	X	
2	MW-2			1110						
3	MW-2			1850						
4	MW-3			2010						
5	MW-3		1/24/08	0350						
6	MW-7			0510						
7	MW-7			1250						
8	MW-4			1410						
9	MW-4			2150						
10	MW-6			2310						
11	MW-6		1/25/08	0650						
12										EDF
13										
14										AIR=PPMV
15										

Sample Receipt - To Be Filled By Laboratory

Total Number of Containers		Properly Cooled Y / N / NA	
Custody Seals Y / N / NA		Samples Intact Y / N / NA	
Received in Good Condition Y / N		Samples Accepted Y / N	

Turn Around Time

☒ Normal ☐ Rush ☐ Same Day ☐ 24 hrs. ☐ 48 hrs. ☐ 72 hrs.

	1.	2.	3.
Relinquished by Sampler:			
Signature:	Noel Shenoi		
Printed Name:			
Date: / Time:	1/25/08		
Received By:	1.	2.	3.
Signature:			
Printed Name:			
Date: / Time:	1/25/08		

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900 *FAX 714/538-1209*

CLIENT Calclean (9977)
ATTN: Noel Shenoi
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 205867
REPORTED 01/31/2008
RECEIVED 01/29/2008

PROJECT El Capitan Oil Co., Santee, CA

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
868942	MW-1 1/25/08
868943	MW-3 1/25/08
868944	Combined 1/25/08
868945	MW-1 1/27/08
868946	MW-3 1/27/08
868947	Combined 1/27/08

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 868942
Matrix: AIR
Date Sampled: 01/25/2008
Time Sampled: 11:10
Sampled By:

Client: Calclean
Client Sample ID: MW-1 1/25/08

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	126	50	0.5	Vppm	01/30/08	SW
Ethyl benzene	47	50	0.5	Vppm	01/30/08	SW
Methyl t - butyl ether	181	50	5.0	Vppm	01/30/08	SW
Toluene	53	50	0.5	Vppm	01/30/08	SW
Xylene (total)	59	50	1.5	Vppm	01/30/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	5230	50	250.0	Vppm	01/30/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 868943 **Client:** Calclean
Matrix: AIR **Client Sample ID:** MW-3 1/25/08
Date Sampled: 01/25/2008
Time Sampled: 11:20
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	122	50	0.5	Vppm	01/30/08	SW
Ethyl benzene	47	50	0.5	Vppm	01/30/08	SW
Methyl t - butyl ether	161	50	5.0	Vppm	01/30/08	SW
Toluene	20	50	0.5	Vppm	01/30/08	SW
Xylene (total)	58	10	0.3	Vppm	01/30/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	5390	50	250.0	Vppm	01/30/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 868944
Matrix: AIR
Date Sampled: 01/25/2008
Time Sampled: 11:30
Sampled By:

Client: Calclean
Client Sample ID: Combined 1/25/08

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	173	50	0.5	Vppm	01/30/08	SW
Ethyl benzene	53	50	0.5	Vppm	01/30/08	SW
Methyl t - butyl ether	201	100	10.0	Vppm	01/30/08	SW
Toluene	20	50	0.5	Vppm	01/30/08	SW
Xylene (total)	51	50	1.5	Vppm	01/30/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	7550	50	250.0	Vppm	01/30/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 868945
Matrix: AIR
Date Sampled: 01/27/2008
Time Sampled: 08:00
Sampled By:

Client: [redacted]clean
Client Sample ID: MW-1 1/27/08

Analyte	Result	DF	DLR	Units	Date/Analyst	
021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	158	50	0.5	Vppm	01/30/08	SW
Ethyl benzene	71	50	0.5	Vppm	01/30/08	SW
Methyl t - butyl ether	228	100	10.0	Vppm	01/30/08	SW
Toluene	19	50	0.5	Vppm	01/30/08	SW
Xylene (total)	72	50	1.5	Vppm	01/30/08	SW
015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	7100	50	250.0	Vppm	01/30/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 868946
Matrix: AIR
Date Sampled: 01/27/2008
Time Sampled: 08:10
Sampled By:

Client: Calclean
Client Sample ID: MW-3 1/27/08

Analyte	Result	DF	DLR	Units	Date/Analyst
8021B BTEX/MTBE in Air - (Vppm & ug/L)					
Benzene	222	100	1.0	Vppm	01/30/08 SW
Ethyl benzene	90	100	1.0	Vppm	01/30/08 SW
Methyl t - butyl ether	362	100	10.0	Vppm	01/30/08 SW
Toluene	58	100	1.0	Vppm	01/30/08 SW
Xylene (total)	119	100	3.0	Vppm	01/30/08 SW
8015B - Gasoline in Air - (Vppm & ug/L)					
Gasoline	8350	100	500.0	Vppm	01/30/08 SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 868947
Matrix: AIR
Date Sampled: 01/27/2008
Time Sampled: 08:20
Sampled By:

Client: [illegible]clean
Client Sample ID: Combined 1/27/08

Analyte	Result	DF	DLR	Units	Date/Analyst	
021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	80	50	0.5	Vppm	01/30/08	SW
Ethyl benzene	40	50	0.5	Vppm	01/30/08	SW
Methyl t - butyl ether	110	50	5.0	Vppm	01/30/08	SW
Toluene	13	50	0.5	Vppm	01/30/08	SW
Xylene (total)	44	50	1.5	Vppm	01/30/08	SW
015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	3990	50	250.0	Vppm	01/30/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

QA REPORT FORM

QC Sample: 205867-942

Matrix: AIR

Prep. Date : January 30, 2008

Analysis Date: 01/30/08-01/31/08

Lab ID#'s in Batch: 205867, 206000, 205999,

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	5,233.19	5,230.64	0
Benzene	8021B	126.57	122.03	4
Toluene	8021B	52.75	53.95	2
Ethylbenzene	8021B	47.41	47.04	1
Xylenes	8021B	59.42	49.02	19

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

Chain of Custody Record

ASSOCIATED LABORATORIES
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

Company	CalClean Inc. 3002 Dow, #142 Tustin, CA 92780	Phone	(714) 734-9137
Project Manager	NOEL SHENOI	Fax	(714) 734-9138
Project Name	EL CAPITAN OIL CO	Project #	
Site Name and Address	SANTEE, CA	A.L. Job No.	205867

Page 1 of 1

	Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPH-G (8015)	BTEX/MTBE (8021)	BTEX/OXYS (8260B)	Test Instructions & Comments
1	MW-1		1/25/08	1110	AIR	TEDLAR	NONE	X	X		
2	MW-3			1120							
3	COMBINED			1130							
4	MW-1		1/27/08	0800							
5	MW-3			0810							
6	COMBINED			0820							
7											
8											
9											
10											
11											
12											EDF
13											
14											AIR=PPMV
15											

Analysis Requested

Sample Receipt - To Be Filled By Laboratory

Total Number of Containers		Properly Cooled Y / N / NA	
Custody Seals Y / N / NA		Samples Intact Y / N / NA	
Received in Good Condition Y / N		Samples Accepted Y / N	

Turn Around Time

☒ Normal ☐ Rush ☐ Same Day ☐ 24 hrs. ☐ 48 hrs. ☐ 72 hrs.

	Relinquished by Sampler: 1.	Relinquished by 2.	Relinquished by 3.
Signature:	Noel Shenoi		
Printed Name:			
Date: / Time:	1/29/08		
Received By:	1.	2.	3.
Signature:			
Printed Name:			
Date: / Time:	1/29/08 1440		

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900 *FAX 714/538-1209*

CLIENT Calclean (9977)
ATTN: Noel Shenoi
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 206245
REPORTED 02/11/2008
RECEIVED 02/01/2008

PROJECT El Capitan Oil Co., Santee, CA

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
870483	Effluent
870484	Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 870483 **Client:** [redacted]clean
Matrix: WATER **Client Sample ID:** Effluent
Date Sampled: 01/30/2008
Time Sampled: 16:00
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
2540 D Total Suspended Solids					
Total Suspended Solids	ND	1	5.0	mg/L	02/05/08 AE
410.4 Chemical Oxygen Demand (COD)					
Chemical Oxygen Demand	7.0	1	4.0	mg/L	02/08/08 LT
8021B BTEX + MTBE					
Benzene	ND	1	0.3	ug/L	02/05/08 LT
Ethyl benzene	ND	1	0.3	ug/L	02/05/08 LT
Methyl t - butyl ether	ND	1	5	ug/L	02/05/08 LT
Toluene	ND	1	0.3	ug/L	02/05/08 LT
Xylene (total)	ND	1	0.6	ug/L	02/05/08 LT
Surrogates				**Units**	**Control Limits**
a,a,a-Trifluorotoluene	87			%	70 - 130
8015B - Gasoline					
Gasoline	ND	1	50	ug/L	02/05/08 LT
Surrogates				**Units**	**Control Limits**
a,a,a-Trifluorotoluene	87			%	55 - 200

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 870484 **Client:** Calclean

Matrix: WATER **Client Sample ID:** Laboratory Method Blank

Date Sampled:

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
2540 D Total Suspended Solids						
Total Suspended Solids	ND	1	5.0	mg/L	02/05/08	AE
410.4 Chemical Oxygen Demand (COD)						
Chemical Oxygen Demand	ND	1	4.0	mg/L	02/08/08	LT
8021B BTEX + MTBE						
Benzene	ND	1	0.3	ug/L	02/05/08	LT
Ethyl benzene	ND	1	0.3	ug/L	02/05/08	LT
Methyl t - butyl ether	ND	1	5	ug/L	02/05/08	LT
Toluene	ND	1	0.3	ug/L	02/05/08	LT
Xylene (total)	ND	1	0.6	ug/L	02/05/08	LT
Surrogates				**Units**	**Control Limits**	
a,a,a-Trifluorotoluene	87			%	70 - 130	
8015B - Gasoline						
Gasoline	ND	1	50	ug/L	02/05/08	LT
Surrogates				**Units**	**Control Limits**	
a,a,a-Trifluorotoluene	87			%	55 - 200	

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

LCS REPORT FORM

QC Sample: G1-BLCS/BLCSD

Matrix: WATER

Prep. Date: Feb 05-08

Analysis Date: 2/5/08-2/6/08

Lab ID#'s in Batch: 206245 , 206246 .

REPORTING UNITS = µg/L

LAB CONTROLLED SPIKE / LAB CONTROLLED DUPLICATE RESULT

Test	Method	Sample Result	Spike Added	Matrix LCS	Matrix LCSD	%Rec LCS	%Rec LCSD	RPD
Benzene	8021	ND	20	19.3	19.8	97	99	3
Toluene	8021	ND	20	20.1	20.2	101	101	0
Ethylbenzene	8021	ND	20	20.7	21.1	104	106	2
Xylenes	8021	ND	60	68.2	67.5	114	113	1

ND = Not Detected
RPD = Relative Percent Difference of Matrix LCS and Matrix LCSD
%REC-LCS & LCSD = Percent Recovery of LCS & LCSD

%REC LIMITS = 70 - 130
RPD LIMITS = 30

SURROGATE RECOVERY

Sample No.	AAA-TFT
QC Limit	55-200
Method Blank	87
LCS	101
LCSD	99

AAA-TFT = a,a,a-Trifluorotoluene

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: 206216/870331

Matrix: WATER

Prep. Date: February 5, 2008

Analysis Date: February 5, 2008

Lab ID#'s in Batch: 206169- 206216- 206218- 206180- 206205- 206212- 206245- 206246- 206257- 206263

REPORTING UNITS = mg/L

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
TSS	160.2	121	126	4

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 5%

SSOCIATED LABORATORIES
QA REPORT FORM

)C Sample: 206356

Matrix: WATER

rep. Date: February 8, 2008

nalysis Date: February 8, 2008

ab ID#'s in Batch: 206086, 206180, 206356, 206378, 206384, 206386, 206390, 206542, 206246 206245,

IATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

eporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
COD	410.4	2,250	1,000	3,160	3,170	91	92	0

D = Not-Detected
PD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 75 - 125
RPD LIMITS = 20

REPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND<4	901	1,000	90	80%	120%

lue = Preparation Blank Value
:S Result = Lab Control Sample Result
ue = True Value of LCS
Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES
LCS REPORT FORM

QC Sample: G1-LCS&LCSD

Matrix: WATER

Prep. Date: February 5, 2008

Analysis Date 2/5/08-2/6/08

Lab ID#'s in Batch: 206245 , 206246 , 205657 , 206207 , 206233 , 206234 , 206235 , 206142 .

LAB CONTROLLED SPIKE / LAB CONTROLLED DUPLICATE RESULT

Reporting Units = µg/L

Test	Method	Method Blank	Spike Added	LCS Spike	LCSD Spk. Dup	%Rec LCS	%Rec LCSD	RPD
TPH	8015M-G	ND	500	449	459	90	92	2

ND = Not Detected
LCS Result = Lab Control Sample Result
%REC-LCS & LCSD = Percent Recovery of LCS Spike & LCS Spike Duplicate
RPD = Relative Percent Difference of LCS Spike and LCS Spike Duplicate

%REC LIMITS = 70 - 130
RPD LIMITS = 30

SURROGATE RECOVERY

Sample No.	AAA-TFT
QC Limit	55-200
Method Blank	87
LCS	200
LCSD	189

AAA-TFT = a,a,a-Trifluorotoluene

Chain of Custody Record

ASSOCIATED LABORATORIES
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

LR206245

Company	CalClean Inc. 3002 Dow, #142 Tustin, CA 92780	Phone	(714) 734-9137
Project Manager	NOEL SHENOI	Fax	(714) 734-9138
Project Name	EL CAPITAN OIL CO	Project #	
Site Name and Address	SANTEE, CA	A.L. Job No.	

Page 1 of 1

	Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPH-G (8015)	BTEX/MTBE (8021)	BTEX/MTBE (8260)	COD	TSS	Test Instructions & Comments
1			~~1/30/08~~		~~AIR~~	~~CANISTER~~	~~NONE~~						
2													
3	EFFLUENT		1/30/08	1600	W	3 VOA	HCl	X	X				
4					W	500 ml	H_2SO_4				X		
5					W	500 ml	NONE					X	
6													
7													
8													
9													
10													
11													
12													EDF
13													
14													~~AIR=PPBV~~
15													

Analysis Requested

Sample Receipt - To Be Filled By Laboratory

Total Number of Containers	5	Properly Cooled (Y) / N / NA	
Custody Seals Y / N / (NA)		Samples Intact (Y) / N / NA	
Received in Good Condition (Y) / N		Samples Accepted (Y) / N	

Turn Around Time

☒ Normal ☐ Rush ☐ Same Day ☐ 24 hrs. ☐ 48 hrs. ☐ 72 hrs.

	Relinquished by Sampler: 1.	Relinquished by 2.	Relinquished by 3.
Signature:	Noel Shenoi		
Printed Name:			
Date:	2/1/08 Time:	Time:	Time:
	Received By: 1.	**Received By: 2.**	**Received By: 3.**
Signature:			
Printed Name:	Juan Montoya		
Date:	2-1-08 Time: 14:46	Time:	Time:

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

ASSOCIATED LABORATORIES
806 North Batavia – Orange, California 92868 – 714-771-6900 FAX 714-538-1209

SAMPLE ACCEPTANCE CHECKLIST

Section 1
Client: Calclean
Date Received: 2-1-08
Sample(s) received in cooler: (Yes) No (Skip Section 2)
Project:

Section 2
Was the cooler packed with: ✓ Ice ___ Ice Packs ___ Bubble Wrap ___ Styrofoam ___ Paper ___ None ___ Other
Cooler or box temperature: 2.3°C

(Acceptance range is 2 to 6 Deg. C.)

Section 3

	YES	NO	N/A
Was a COC received?	✓		
Were custody seals present?			✓
If Yes – were they intact?		✓	
Were all samples sealed in plastic bags?		✓	
Did all samples arrive intact? If no, indicate below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were correct containers used for the tests required?	✓		
Was a sufficient amount of sample sent for tests indicated?	✓		
No head space in VOA vials?	✓		
Were the correct preservatives used?	✓		
Were the samples scanned for presence of radioactivity?			✓
Was total residual chlorine measured (Fish Bioassay samples only)? *			✓

*: If the answer is no, please inform Fish Bioassay Dept. immediately.

Section 4
Explanations/Comments

Section 5
Was Project Manager notified of discrepancies: Y / N (N/A)

Completed By: _____ Date: 2-1-08

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900 *FAX 714/538-1209*

CLIENT Calclean (9977)
ATTN: Noel Shenoi
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 206156
REPORTED 02/05/2008
RECEIVED 02/01/2008

PROJECT El Capitan Oil Co.

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
870180	Combined

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 870180 **Client:** Calclean

Matrix: AIR **Client Sample ID:** Combined

Date Sampled: 02/01/2008

Time Sampled: 09:05

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	5.4	5	0.05	Vppm	02/01/08	SW
Ethyl benzene	9.6	5	0.05	Vppm	02/01/08	SW
Methyl t - butyl ether	17	5	0.5	Vppm	02/01/08	SW
Toluene	13	5	0.05	Vppm	02/01/08	SW
Xylene (total)	21	5	0.15	Vppm	02/01/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	757	5	25.0	Vppm	02/01/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

QA REPORT FORM

QC Sample: 202643-824

Matrix: AIR

Prep. Date : February 1, 2008

Analysis Date: February 1, 2008

Lab ID#'s in Batch: 206117, 206175, 206176, 206157, 206118, 206156

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	214.58	210.22	2
Benzene	8021B	1.07	1.00	7
Toluene	8021B	21.03	20.12	4
Ethylbenzene	8021B	5.18	4.92	5
Xylenes	8021B	33.98	32.37	5

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

Chain of Custody Record

ASSOCIATED LABORATORIES
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

206156

Page 1 of 1

Company	CalClean Inc. 3002 Dow, #142 Tustin, CA 92780	Phone	(714) 734-9137
Project Manager	NOEL SHENOI	Fax	(714) 734-9138
Project Name	EL CAPITAN OIL CO	Project #	
Site Name and Address	SANTEE, CA	A.L. Job No.	

	Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPH-G (8015)	BTEX/MTBE (8021)	BTEX/OXYs (8260B)	Test Instructions & Comments
1	COMBINED		2/1/08	0905	AIR	TEDLAR	NONE	X	X		
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											EDF
13											
14											AIR=PPMV
15											

Analysis Requested

Sample Receipt - To Be Filled By Laboratory

Total Number of Containers	1	Properly Cooled Y / N / NA	
Custody Seals Y / N / NA		Samples Intact Y / N / NA	
Received in Good Condition Y / N		Samples Accepted Y / N	

Turn Around Time

☒ Normal ☐ Rush ☐ Same Day ☐ 24 hrs. ☐ 48 hrs. ☐ 72 hrs.

	Relinquished by Sampler: 1.	Relinquished by 2.	Relinquished by 3.
Signature:	[signature]		
Printed Name:			
Date: / Time:	2/1/08		
	Received By: 1.	**Received By: 2.**	**Received By: 3.**
Signature:	[signature]		
Printed Name:	Joan Montoya		
Date: / Time:	2-1-08 14:34		

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900 *FAX 714/538-1209*

CLIENT Calclean (9977)
ATTN: Noel Shenoi
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 206700
REPORTED 02/21/2008
RECEIVED 02/11/2008

PROJECT El Capitan Oil Co Santee Ca

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
872307	MW-4 - 02/03/08
872308	Combined - 02/03/08
872309	MW-4 - 02/04/08
872310	Combined - 02/04/08

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 872307 **Client:** Calclean

Matrix: AIR **Client Sample ID:** MW-4 - 02/03/08

Date Sampled: 02/03/2008

Time Sampled: 20:20

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	23	10	0.1	Vppm	02/15/08	SW
Ethyl benzene	12	10	0.1	Vppm	02/15/08	SW
Methyl t - butyl ether	91	25	2.5	Vppm	02/15/08	SW
Toluene	13	10	0.1	Vppm	02/15/08	SW
Xylene (total)	4.0	10	0.3	Vppm	02/15/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	1900	10	50.0	Vppm	02/15/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 872308
Matrix: AIR
Date Sampled: 02/03/2008
Time Sampled: 20:30
Sampled By:

Client: [redacted]clean
Client Sample ID: Combined - 02/03/08

Analyte	Result	DF	DLR	Units	Date/Analyst	
021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	29	50	0.5	Vppm	02/15/08	SW
Ethyl benzene	23	10	0.1	Vppm	02/15/08	SW
Methyl t - butyl ether	74	50	5.0	Vppm	02/15/08	SW
Toluene	3.3	10	0.1	Vppm	02/15/08	SW
Xylene (total)	10	10	0.3	Vppm	02/15/08	SW
015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	2120	50	250.0	Vppm	02/15/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 872309
Matrix: AIR
Date Sampled: 02/04/2008
Time Sampled: 03:50
Sampled By:

Client: Calclean
Client Sample ID: MW-4 - 02/04/08

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	38	25	0.25	Vppm	02/15/08	SW
Ethyl benzene	28	10	0.1	Vppm	02/15/08	SW
Methyl t - butyl ether	107	25	2.5	Vppm	02/15/08	SW
Toluene	4.8	10	0.1	Vppm	02/15/08	SW
Xylene (total)	3.0	10	0.3	Vppm	02/15/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	2560	10	50.0	Vppm	02/15/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 872310 **Client:** [illegible]clean

Matrix: AIR **Client Sample ID:** Combined - 02/04/08

Date Sampled: 02/04/2008

Time Sampled: 04:00

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	48	25	0.25	Vppm	02/15/08	SW
Ethyl benzene	9.3	25	0.25	Vppm	02/15/08	SW
Methyl t - butyl ether	97	25	2.5	Vppm	02/15/08	SW
Toluene	30	25	0.25	Vppm	02/15/08	SW
Xylene (total)	18	25	0.75	Vppm	02/15/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	2190	25	125.0	Vppm	02/15/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

QA REPORT FORM

QC Sample: 206700-310

Matrix: AIR

Prep. Date : February 15, 2008

Analysis Date: 02/15/08-02/16/08

Lab ID#'s in Batch: 206700, 207022, 206975, 206979,

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	2,194.54	1,986.43	10
Benzene	8021B	48.25	48.38	0
Toluene	8021B	29.16	29.55	1
Ethylbenzene	8021B	9.33	9.32	0
Xylenes	8021B	18.23	18.24	0

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

Chain of Custody Record

ASSOCIATED LABORATORIES
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

Company	CalClean Inc. 3002 Dow, #142 Tustin, CA 92780	Phone	(714) 734-9137
Project Manager	NOEL SHENOI	Fax	(714) 734-9138
Project Name	EL CAPITAN OIL CO	Project #	
Site Name and Address	SANTEE, CA	A.L. Job No.	20670

Page 1 of 1

	Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPH-G (8015)	BTEX/MTBE (8021)	BTEX/MTBE/Naphthalene (8260)	Test Instructions & Comments
1	MW-4		2/3/08	2020	AIR	TEDLAR	NONE	X	X		
2	COMBINED		"	2030							
3	MW-4		2/4/08	0350							
4	COMBINED		"	0400							
5											
6											
7											
8											
9											
10											
11											
12											EDF
13											
14											AIR=PPMV
15											

Analysis Requested

Sample Receipt - To Be Filled By Laboratory

Total Number of Containers	4	Properly Cooled Y / N / NA	
Custody Seals Y / N / NA		Samples Intact Y / N / NA	
Received in Good Condition Y / N		Samples Accepted Y / N	

Turn Around Time

☒ Normal ☐ Rush ☐ Same Day ☐ 24 hrs. ☐ 48 hrs. ☐ 72 hrs.

Relinquished by Sampler: 1.	Relinquished by 2.	Relinquished by 3.
Signature: [signature]	Signature:	Signature:
Printed Name:	Printed Name:	Printed Name:
Date: 2/11/08 Time:	Date: Time:	Date: Time:
Received By: 1.	**Received By: 2.**	**Received By: 3.**
Signature: [signature]	Signature:	Signature:
Printed Name: Ryan Mowbray	Printed Name:	Printed Name:
Date: 2-11-08 Time: 14:05	Date: Time:	Date: Time:

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900 *FAX 714/538-1209*

CLIENT Calclean (9977)
ATTN: Noel Shenoi
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 206718
REPORTED 02/13/2008
RECEIVED 02/11/2008

PROJECT El Capitan Oil Co., Santee, CA

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
872400	Combined 02/05/08
872401	Combined 02/08/08
872402	MW-1
872403	MW-3
872404	MW-9 02/08/08
872405	MW-9 02/09/08

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 872400
Matrix: AIR
Date Sampled: 02/05/2008
Time Sampled: 16:00
Sampled By:

Client: Calclean
Client Sample ID: Combined 02/05/08

Analyte	Result	DF	DLR	Units	Date/Analyst	
021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	130	50	0.5	Vppm	02/11/08	SW
Ethyl benzene	50	50	0.5	Vppm	02/11/08	SW
Methyl t - butyl ether	147	50	5.0	Vppm	02/11/08	SW
Toluene	17	50	0.5	Vppm	02/11/08	SW
Xylene (total)	48	50	1.5	Vppm	02/11/08	SW
015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	4280	50	250.0	Vppm	02/11/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 872401 **Client:** Calclean

Matrix: AIR **Client Sample ID:** Combined 02/08/08

Date Sampled: 02/08/2008

Time Sampled: 15:45

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	44	50	0.5	Vppm	02/11/08	SW
Ethyl benzene	23	50	0.5	Vppm	02/11/08	SW
Methyl t - butyl ether	49	50	5.0	Vppm	02/11/08	SW
Toluene	25	50	0.5	Vppm	02/11/08	SW
Xylene (total)	31	50	1.5	Vppm	02/11/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	1610	50	250.0	Vppm	02/11/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 872402
Matrix: AIR
Date Sampled: 02/08/2008
Time Sampled: 15:50
Sampled By:

Client: [redacted]clean
Client Sample ID: MW-1

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	79	50	0.5	Vppm	02/11/08	SW
Ethyl benzene	39	50	0.5	Vppm	02/11/08	SW
Methyl t - butyl ether	82	50	5.0	Vppm	02/11/08	SW
Toluene	34	50	0.5	Vppm	02/11/08	SW
Xylene (total)	48	50	1.5	Vppm	02/11/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	2780	50	250.0	Vppm	02/11/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 872403 **Client:** Calclean
Matrix: AIR **Client Sample ID:** MW-3
Date Sampled: 02/08/2008
Time Sampled: 15:55
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	70	25	0.25	Vppm	02/11/08	SW
Ethyl benzene	44	25	0.25	Vppm	02/11/08	SW
Methyl t - butyl ether	48	25	2.5	Vppm	02/11/08	SW
Toluene	38	25	0.25	Vppm	02/11/08	SW
Xylene (total)	54	25	0.75	Vppm	02/11/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	2270	25	125.0	Vppm	02/11/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 872404
Matrix: AIR
Date Sampled: 02/08/2008
Time Sampled: 16:00
Sampled By:

Client: [redacted]clean
Client Sample ID: MW-9 02/08/08

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	2.9	5	0.05	Vppm	02/12/08	SW
Ethyl benzene	12	5	0.05	Vppm	02/12/08	SW
Methyl t - butyl ether	12	5	0.5	Vppm	02/12/08	SW
Toluene	12	5	0.05	Vppm	02/12/08	SW
Xylene (total)	27	5	0.15	Vppm	02/12/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	329	5	25.0	Vppm	02/12/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 872405 **Client:** Calclean

Matrix: AIR **Client Sample ID:** MW-9 02/09/08

Date Sampled: 02/09/2008

Time Sampled: 10:00

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	6.2	10	0.1	Vppm	02/12/08	SW
Ethyl benzene	6.0	10	0.1	Vppm	02/12/08	SW
Methyl t - butyl ether	5.8	10	1.0	Vppm	02/12/08	SW
Toluene	21	10	0.1	Vppm	02/12/08	SW
Xylene (total)	36	10	0.3	Vppm	02/12/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	508	10	50.0	Vppm	02/12/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

QA REPORT FORM

QC Sample: 206684-246

Matrix: AIR

Prep. Date : February 11, 2008

Analysis Date: 02/11/08-02/12/08

Lab ID#'s in Batch: 206683, 206684, 206718, 206706, 206719,

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	6,242.06	6,307.31	1
Benzene	8021B	1.72	2.08	19
Toluene	8021B	105.01	106.32	1
Ethylbenzene	8021B	20.68	20.61	0
Xylenes	8021B	93.93	93.04	1

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

Chain of Custody Record

ASSOCIATED LABORATORIES
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

J0618

Page 1 of 1

Company	CalClean Inc. 3002 Dow, #142 Tustin, CA 92780	Phone	(714) 734-9137
Project Manager	NOEL SHENOI	Fax	(714) 734-9138
Project Name	EL CAPITAN OIL CO	Project #	
Site Name and Address	SANTEE, CA	A.L. Job No.	

	Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPH-G (8015)	BTEX/MTBE (8021)	BTEX/MTBE (8260)	Test Instructions & Comments
1	COMBINED		2/5/08	1600	AIR	TEDLAR	NONE	X	X		
2	COMBINED		2/8/08	1545							
3	MW-1			1550							
4	MW-3			1555							
5	MW-9			1600							
6	MW-9		2/9/08	1000							EDF
7											
8											
9											
10											
11											
12											
13											
14											AIR=PPMV
15											

Analysis Requested

Sample Receipt - To Be Filled By Laboratory

Total Number of Containers		Properly Cooled Y / N / NA	
Custody Seals Y / N / NA		Samples Intact Y / N / NA	
Received in Good Condition Y / N		Samples Accepted Y / N	

Turn Around Time

☒ Normal ☐ Rush ☐ Same Day ☐ 24 hrs. ☐ 48 hrs. ☐ 72 hrs.

	Relinquished by Sampler: 1.	Relinquished by 2.	Relinquished by 3.
Signature:	[signature]		
Printed Name:			
Date / Time:	2/11/08		
Received By:	**1.**	**2.**	**3.**
Signature:	[signature]		
Printed Name:			
Date / Time:	2/11/08 1542		

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900 *FAX 714/538-1209*

CLIENT Calclean (9977)
ATTN: Noel Shenoi
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 207342
REPORTED 02/25/2008
RECEIVED 02/20/2008

PROJECT El Capitan Oil Co.

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
875088	Combined 2/13/08
875089	Combined 2/18/08
875090	MW-1
875091	MW-3

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing , all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 875088
Matrix: AIR
Date Sampled: 02/13/2008
Time Sampled: 12:00
Sampled By:

Client: Calclean
Client Sample ID: Combined 2/13/08

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	70	50	0.5	Vppm	02/21/08	SW
Ethyl benzene	30	50	0.5	Vppm	02/21/08	SW
Methyl t - butyl ether	87	50	5.0	Vppm	02/21/08	SW
Toluene	22	50	0.5	Vppm	02/21/08	SW
Xylene (total)	34	50	1.5	Vppm	02/21/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	2390	50	250.0	Vppm	02/21/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 875089
Matrix: AIR
Date Sampled: 02/18/2008
Time Sampled: 08:00
Sampled By:

Client: Cleanean
Client Sample ID: Combined 2/18/08

Analyte	Result	DF	DLR	Units	Date/Analyst	
021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	33	5	0.05	Vppm	02/21/08	SW
Ethyl benzene	5.6	5	0.05	Vppm	02/21/08	SW
Methyl t - butyl ether	54	5	0.5	Vppm	02/21/08	SW
Toluene	5.8	5	0.05	Vppm	02/21/08	SW
Xylene (total)	7.2	5	0.15	Vppm	02/21/08	SW
015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	982	5	25.0	Vppm	02/21/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 875090 **Client:** Calclean

Matrix: AIR **Client Sample ID:** MW-1

Date Sampled: 02/18/2008

Time Sampled: 08:05

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	41	25	0.25	Vppm	02/21/08	SW
Ethyl benzene	6.2	25	0.25	Vppm	02/21/08	SW
Methyl t - butyl ether	48	25	2.5	Vppm	02/21/08	SW
Toluene	7.6	25	0.25	Vppm	02/21/08	SW
Xylene (total)	9.1	25	0.75	Vppm	02/21/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	1100	25	125.0	Vppm	02/21/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 875091
Matrix: AIR
Date Sampled: 02/18/2008
Time Sampled: 08:10
Sampled By:

Client: Chelean
Client Sample ID: MW-3

Analyte	Result	DF	DLR	Units	Date/Analyst	
021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	13	10	0.1	Vppm	02/21/08	SW
Ethyl benzene	2.8	10	0.1	Vppm	02/21/08	SW
Methyl t - butyl ether	11	10	1.0	Vppm	02/21/08	SW
Toluene	2.9	10	0.1	Vppm	02/21/08	SW
Xylene (total)	4.0	10	0.3	Vppm	02/21/08	SW
015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	334	10	50.0	Vppm	02/21/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

QA REPORT FORM

QC Sample: 207339-079

Matrix: AIR

Prep. Date : February 21, 2008

Analysis Date: February 21, 2008

Lab ID#'s in Batch: 207337, 207338, 207339, 207342,

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	1,755.21	2,030.08	15
Benzene	8021B	4.50	5.11	13
Toluene	8021B	30.09	35.83	17
Ethylbenzene	8021B	13.11	15.07	14
Xylenes	8021B	6.17	7.15	15

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

Chain of Custody Record

ASSOCIATED LABORATORIES
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

Company	CalClean Inc. 3002 Dow, #142 Tustin, CA 92780	Phone	(714) 734-9137
Project Manager	NOEL SHENOI	Fax	(714) 734-9138
Project Name	EL CAPITAN OIL CO	Project #	
Site Name and Address	SANTEE, CA	A.L. Job No.	207342

Page 1 of 1

	Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPH-G (8015)	BTEX/MTBE (8021)	BTEX/OXYS (8260B)	Test Instructions & Comments
1	COMBINED		2/13/08	1200	AIR	TEDLAR	NONE	X	X		
2	COMBINED		2/18/08	0800				X	X		
3	MW-1			0805				X	X		
4	MW-3			0810				X	X		
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

Analysis Requested

EDF

AIR=PPMV

Sample Receipt - To Be Filled By Laboratory

Total Number of Containers		Properly Cooled Y / N / NA	
Custody Seals Y / N / NA		Samples Intact Y / N / NA	
Received in Good Condition Y / N		Samples Accepted Y / N	

Turn Around Time

☒ Normal ☐ Rush ☐ Same Day ☐ 24 hrs. ☐ 48 hrs. ☐ 72 hrs.

Relinquished by Sampler: 1.	Relinquished by 2.	Relinquished by 3.
Signature: Noel Shenoi	Signature:	Signature:
Printed Name:	Printed Name:	Printed Name:
Date: 2/20/08 Time:	Date: Time:	Date: Time:
Received By: 1.	**Received By: 2.**	**Received By: 3.**
Signature: Matthew Stuart	Signature:	Signature:
Printed Name:	Printed Name:	Printed Name:
Date: 2/20/08 Time: 1425	Date: Time:	Date: Time:

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900 *FAX 714/538-1209*

CLIENT Calclean (9977)
ATTN: Noel Shenoi
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 207637
REPORTED 02/27/2008
RECEIVED 02/25/2008

PROJECT El Capitan Oil Co.
Santee, CA

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
876715	MW-14 13:25
876716	MW-14 15:25
876717	MW-17 15:40
876718	MW-17 17:40
876719	Combined
876720	MW-1
876721	MW-3

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 876715
Matrix: AIR
Date Sampled: 02/23/2008
Time Sampled: 13:25
Sampled By:

Client: Calclean
Client Sample ID: MW-14 13:25

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	34	25	0.25	Vppm	02/25/08	SW
Ethyl benzene	36	25	0.25	Vppm	02/25/08	SW
Methyl t - butyl ether	22	25	2.5	Vppm	02/25/08	SW
Toluene	55	25	0.25	Vppm	02/25/08	SW
Xylene (total)	63	25	0.75	Vppm	02/25/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	1000	25	125.0	Vppm	02/25/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 876716 **Client:** Calclean

Matrix: AIR **Client Sample ID:** MW-14 15:25

Date Sampled: 02/23/2008

Time Sampled: 15:25

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	15	10	0.1	Vppm	02/25/08	SW
Ethyl benzene	1.8	10	0.1	Vppm	02/25/08	SW
Methyl t - butyl ether	12	10	1.0	Vppm	02/25/08	SW
Toluene	56	10	0.1	Vppm	02/25/08	SW
Xylene (total)	37	10	0.3	Vppm	02/25/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	368	10	50.0	Vppm	02/25/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 876717 **Client:** Calclean
Matrix: AIR **Client Sample ID:** MW-17 15:40
Date Sampled: 02/23/2008
Time Sampled: 15:40
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	1.6	10	0.1	Vppm	02/26/08	SW
Ethyl benzene	2.2	10	0.1	Vppm	02/26/08	SW
Methyl t - butyl ether	10	10	1.0	Vppm	02/26/08	SW
Toluene	2.2	10	0.1	Vppm	02/26/08	SW
Xylene (total)	5.4	10	0.3	Vppm	02/26/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	303	10	50.0	Vppm	02/26/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 876718
Matrix: AIR
Date Sampled: 02/23/2008
Time Sampled: 17:40
Sampled By:

Client: Calclean
Client Sample ID: MW-17 17:40

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	0.92	10	0.1	Vppm	02/26/08	SW
Ethyl benzene	2.0	10	0.1	Vppm	02/26/08	SW
Methyl t - butyl ether	5.2	10	1.0	Vppm	02/26/08	SW
Toluene	2.4	10	0.1	Vppm	02/26/08	SW
Xylene (total)	6.4	10	0.3	Vppm	02/26/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	295	10	50.0	Vppm	02/26/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 876719
Matrix: AIR
Date Sampled: 02/24/2008
Time Sampled: 08:00
Sampled By:

Client: Calclean
Client Sample ID: Combined

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	47	25	0.25	Vppm	02/26/08	SW
Ethyl benzene	20	25	0.25	Vppm	02/26/08	SW
Methyl t - butyl ether	67	25	2.5	Vppm	02/26/08	SW
Toluene	64	25	0.25	Vppm	02/26/08	SW
Xylene (total)	50	25	0.75	Vppm	02/26/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	1450	25	125.0	Vppm	02/26/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 876720
Matrix: AIR
Date Sampled: 02/24/2008
Time Sampled: 08:05
Sampled By:

Client: Calclean
Client Sample ID: MW-1

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	67	25	0.25	Vppm	02/26/08	SW
Ethyl benzene	23	25	0.25	Vppm	02/26/08	SW
Methyl t - butyl ether	141	25	2.5	Vppm	02/26/08	SW
Toluene	106	25	0.25	Vppm	02/26/08	SW
Xylene (total)	53	25	0.75	Vppm	02/26/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	1790	25	125.0	Vppm	02/26/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 876721
Matrix: AIR
Date Sampled: 02/24/2008
Time Sampled: 08:10
Sampled By:

Client: Calclean
Client Sample ID: MW-3

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	49	25	0.25	Vppm	02/26/08	SW
Ethyl benzene	21	25	0.25	Vppm	02/26/08	SW
Methyl t - butyl ether	67	25	2.5	Vppm	02/26/08	SW
Toluene	91	25	0.25	Vppm	02/26/08	SW
Xylene (total)	48	25	0.75	Vppm	02/26/08	SW
8015B - Gasoline in Air - (Vppm & ug/L)						
Gasoline	1430	25	125.0	Vppm	02/26/08	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Chain of Custody Record

ASSOCIATED LABORATORIES
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

A.L. Job No. 071637 Page 1 of 1

Company	CalClean Inc. 3002 Dow, #142 Tustin, CA 92780	Phone	(714) 734-9137
Project Manager	NOEL SHENOI	Fax	(714) 734-9138
Project Name	EL CAPITAN OIL CO	Project #	
Site Name and Address	SANTEE, CA		

Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPH-G (8015)	BTEX/MTBE (8021)	BTEX/OXYS (8260)	Test Instructions & Comments
1 MW-14		2/23/08	1325	AIR	TEDLAR	NONE	X	X		
2 MW-14			1525							
3 MW-17			1540							
4 MW-17			1740							
5 COMBINED		2/24/08	0800							
6 MW-1			0805							
7 MW-3			0810							
8										
9										
10										
11										
12										EDF
13										
14										AIR=PPMV
15										

Analysis Requested

Sample Receipt - To Be Filled By Laboratory

Total Number of Containers	7	Properly Cooled Y / N / NA	
Custody Seals Y / N / NA		Samples Intact Y / N / NA	
Received in Good Condition Y / N		Samples Accepted Y / N	

Turn Around Time

☒ Normal ☐ Rush ☐ Same Day ☐ 24 hrs. ☐ 48 hrs. ☐ 72 hrs.

	Relinquished by Sampler: 1.	Relinquished by 2.	Relinquished by 3.
Signature:	Noel Shenoi		
Printed Name:			
Date: / Time:	2/25/08		
	Received By: 1.	**Received By: 2.**	**Received By: 3.**
Signature:	Juan Montoya		
Printed Name:			
Date: / Time:	2-25-08 15:06		

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900 *FAX 714/538-1209*

CLIENT Calclean (9977)
ATTN: Noel Shenoi
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 204508
REPORTED 01/15/2008
RECEIVED 01/09/2008

PROJECT EL Capitan Oil Co.

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
863352	MW-8
863353	Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 863352 **Client Sample ID:** MW-8
Matrix: WATER
Date Sampled: 01/08/2008
Time Sampled: 14:00

Analyte	Result	DLR	Units	Date/Analyst
1010 Ignitability by PM Closed Cup Method				
Ignitability by PM Closed Cup Method	> 200		deg F	01/10/08 HK
200.7 ICP Total Metals - Water Only				
Lead	ND	0.005	mg/L	01/11/08 KN

Order #: 863353 **Client Sample ID:** Laboratory Method Blank
Matrix: WATER

Analyte	Result	DLR	Units	Date/Analyst
200.7 ICP Total Metals - Water Only				
Lead	ND	0.005	mg/L	01/11/08 KN

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

ASSOCIATED LABORATORIES
QA REPORT FORM - METHOD 200.8

QC Sample: LR 204287-862337 H# 011008W10

Matrix: WATER

Prep. Date: January 10, 2008

Analysis Date: January 10, 2008

Lab ID#'s in Batch: LR 204287, 204300, 204379, 204508, 204506, 204501, 204504, 204516, 204518, 204507, 204513.

Reporting Units = mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Test	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	% RPD
As	ND	0.05	0.057	0.056	114	112	2
Se	0.014	0.05	0.073	0.073	118	118	0
Pb	ND	0.05	0.052	0.052	104	104	0
Cd	ND	0.05	0.054	0.055	108	110	2
Cr	0.004	0.05	0.056	0.054	104	100	4
Cu	ND	0.05	0.047	0.045	94	90	4
Ni	0.004	0.05	0.051	0.049	94	90	4
Zn	0.004	0.05	0.052	0.050	96	92	4
Ag	ND	0.05	0.047	0.047	94	94	0

* = Outside QC limits, due to matrix Interference
If Sample Result > 4 times Spike Added, then "NC"

% REC LIMITS = 70 - 130
RPD LIMITS = 20

ASSOCIATED LABORATORIES
LCS REPORT FORM - METHOD 200.8

LCS RECOVERY / METHOD BLANK

Test	LCS Result	True Value	LCS %Rec	QC Limit %REC	MB Limit	MB Result
Ag	0.025	0.025	100	80-120	0.005	ND
As	0.050	0.05	100	80-120	0.002	ND
Cd	0.050	0.05	100	80-120	0.001	ND
Cr	0.051	0.05	102	80-120	0.002	ND
Cu	0.050	0.05	100	80-120	0.005	ND
Ni	0.049	0.05	98	80-120	0.005	ND
Pb	0.052	0.05	104	80-120	0.005	ND
Se	0.050	0.05	100	80-120	0.005	ND
Zn	0.050	0.05	100	80-120	0.010	ND

Chain of Custody Record

ASSOCIATED LABORATORIES
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

Company	CalClean Inc. 3002 Dow, #142 Tustin, CA 92780	Phone	(714) 734-9137
Project Manager	NOEL SHENOI	Fax	(714) 734-9138
Project Name	EL CAPITAN OIL CO	Project #	
Site Name and Address	SANTEE	A.L. Job No.	J04508

Page 1 of 1

	Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPH-G (8015)	BTEX/MTBE (8021)	BTEX/OXYS (8260)	TOTAL LEAD	FLASHPOINT	Test Instructions & Comments
1			~~1/8/08~~		~~AIR~~	~~1 EDLAR C~~	~~NONE~~						
2													
3	MW-8		1/8/08	1400	W	1 500 ml	HNO_3				X		
4						1 1 L	NONE					X	
5													
6													
7													
8													
9													
10													
11													EDF
12													
13													
14													AIR=PPMV
15													

Analysis Requested

Sample Receipt - To Be Filled By Laboratory

Total Number of Containers		Properly Cooled Y / N / NA	
Custody Seals Y / N / NA		Samples Intact Y / N / NA	
Received in Good Condition Y / N		Samples Accepted Y / N	

Turn Around Time

☒ Normal ☐ Rush ☐ Same Day ☐ 24 hrs. ☐ 48 hrs. ☒ 72 hrs.

	Relinquished by Sampler: 1.	Relinquished by 2.	Relinquished by 3.
Signature:	Noel Shenoi		
Printed Name:			
Date: / Time:	1/9/08		
	Received By: 1.	**Received By: 2.**	**Received By: 3.**
Signature:			
Printed Name:	Evan Mintzer		
Date: / Time:	1/9/08 1500		

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

CalClean Inc.

ATTACHMENT 2

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM
FIELD DATA SHEETS

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: **11427 WOODSIDE AVENUE** City: **SANTEE** Site #: **EL CAPITAN OIL CO.** Date: 01 / 22 / 2008

Client: **WIGINGTON PETROLEUM** Operator (s): PETER F.

					Well#1: MW-1		Well#2: MW-5		Well #3: MW-2		Well #4: MW-3		Well #5: MW-4		Well #6: MW-6		Well #7: MW-7		Well #8: MW-8	
Initial Depth to Groundwater / F.P.					29.91		30.07		31.81 / 31.87		31.00 / 31.06		29.27		29.52		29.23			
~~Screen Interval~~ T.D.					41.00				44.45		43.35		41.70		41.84		41.60			
Time	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)		Stinger Depth (feet)		Stinger Depth (feet)	VAC	Stinger Depth (feet)	VAC	Stinger Depth (feet)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)
1/22																				
1030	19	40	1650	5760	OPEN	36'														
1130	19	40	1450	7010					0.00	31.89/31.96	0.00	31.07/31.08	0.00	29.27	0	29.50	0.00	29.20		
1230	19	42	1540	7020					0.00	31.89/31.96	0.00	31.05/31.08	0.00	29.27	0	29.50	0.00	29.20		
1330	17	45	1500	6070		36.6'			0.00	31.77/31.81	0.00	31.09/31.10	.02	29.27	.04	29.50	0.00	29.21		
1430	17	48	1460	6058					0.00	31.77/31.81	0.00	31.08/31.10	.02	29.27	.04	29.50	0.00	29.21		
1530	17	45	1458	7150					0.00 w/s-p	31.81/31.87	0.00	31.08/31.10	.06	29.28	.10	29.51	0.00	29.22		
1630	18	47	1408	7510					0.00	31.77/31.81	0.00	31.08/31.10	.06	29.28	.10	29.51	0.00	29.22		
1730	17	45	1412	7630					0.00	31.77/31.81	0.00	31.06/31.10	.06	29.28	.10	29.52	0.00	29.22		
1830	17	46	1410	7640					0.00	31.77/31.81	0.00	31.08/31.10	.06	29.28	.10	29.52	0.00	29.22		
1930	17	45	1408	7650					0.00	31.77/31.81	0.00	31.08/31.10	.06	29.28	.10	29.52	0.00	29.22		
2330	17	45	1410	7600					0.00	31.77/31.81	0.00	31.08/31.10	.06	29.28	.11	29.52	0.00	29.22		
1-23																				
0400	17	48	1460	6700					0.00	31.73/31.79	0.00	31.11/31.16	.06	29.31	.13	29.56	0.00	29.25		
0800	17	45	1458	6680					0.00	31.73/31.79	0.00	31.11/31.16	.06	29.31	.15	29.57	0.00	29.25		
0900	17	46	1430	6570					0.00	31.73/31.79	0.00	31.11/31.16	.06	29.31	.15	29.57	0.00	29.25		
1030	17	45	1435	6360	End	38.90	DTW	30.08	0.00	31.77/31.79	0.00	31.11/31.16	.06	29.31	.15	29.57	0.00	29.25	0.00	31.97
1100	17	45	1430	942	vac				Open	42'	0.00	31.11/31.15	0.00	29.30	0.00	29.55	0.00	29.23		
1200	17	48	1430	530	0.00	30.00				43'	0.00	31.11/31.15	0.00	29.30	0.00	29.55	0.00	29.23		
1300	17	45	1430	500	0.00	30.00					0.00	31.11/31.15	0.00	29.30	0.00	29.55	0.00	29.23		
1400	18	49	1430	480	0.00	30.00					0.00	31.11/31.15	0.00	29.30	0.00	29.55	0.00	29.23		
1500	18	50	1436	450	0.00	30.00					0.00	31.11/31.15	0.00	29.30	0.00	29.55	0.00	29.23		
1600	18	50	1413	420	0.00	30.00					.02	31.09/31.15	0.00	29.30	0.00	29.53	0.00	29.25		
1700	18	52	1408	408	0.00	30.00					.02	31.09/31.15	0.00	29.30	0.00	29.53	0.00	29.25		

Comments: 1-22-08: TOOK start vapor sample of MW-1 @ 1040, stack @ 1045, Chuck took water samples @ 1530 of MW-2.

1-23-08: Took end vapor samples of MW-1 @ 1020, took start samples of MW-2 @ 1110

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: **11427 WOODSIDE AVENUE** City: **SANTEE** Site #: **EL CAPITAN OIL CO.** Date: 1 / 23 / 2008

Client: **WIGINGTON PETROLEUM** Operator (s): PETER F.

					Well#1: MW-1		Well#2: MW-5		Well #3: MW-2		Well #4: MW-3		Well #5: MW-4		Well #6: MW-6		Well #7: MW-7		Well #8: MW-8	
Initial Depth to Groundwater / F.P.					29.91		30.07		31.81/31.87		31.00/31.06		29.27		29.52		29.23		31.47	
Screen Interval / T.D.					41.00				44.45		43.35		41.70		41.84		41.60			
Time	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)	VAC	Stinger Depth DTW (feet)	VAC	Stinger Depth (feet)		Stinger Depth (feet)	VAC	Stinger Depth (feet)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)
1800	18	53	1403	375	0.00	30.00			OPEN		.02	31.08/31.18	0.00	29.30	0.00	29.53	0.00	29.25		
1900	18	50	1403	360	0.00	30.00	DTW	30.08	DTW	43.80	.02	31.18/31.18	0.00	29.30	0.00	29.53	0.00	29.25		
2000	19	40	1430	700							OPEN	41'								
2100	19	42	1428	920	0.00	30.00			0.00	41.98			0.00	29.31	0.00	29.55	0.00	29.28		
2200	19	43	1420	950	0.00	30.00			0.00	41.98			0.00	29.33	0.00	29.55	0.00	29.28		
2300	19	40	1415	930	0.00	30.00			0.00	36.27			0.00	29.34	0.00	29.58	0.00	29.28		
2400	19	42	1418	900	0.00	30.00			0.00	36.27			0.00	29.34	0.00	29.58	0.00	29.28		
1-24-08																				
0100	19	45	1425	870	0.00	30.00			0.00	35.10			0.00	29.34	0.00	29.58	0.00	29.28		
0200	18	51	1408	860	0.00	30.00			0.00	34.60			0.00	29.34	0.00	29.58	0.00	29.28		
0300	18	53	1410	845	0.00	30.00			0.00	34.55			0.00	29.34	0.00	29.58	0.00	29.28		
0400	18	50	1415	840	0.00	30.00			0.00	34.40	DTW	40.30	0.00	29.34	0.00	29.58	0.00	29.28		
0500	18	51	1440	280													open	39'		
0600	18	50	1438	270	0.00	30.00			0.00	34.30	0.00	38.80	0.00	29.34	0.00	29.58				
0700	18	53	1430	250	0.00	30.87			0.00	34.11	0.00	31.34	0.00	29.35	0.00	29.57				
0800	18	52	1420	230	0.00	30.87			0.00	34.11	0.00	31.34	0.00	29.35	0.00	29.57				
0900	18	55	1410	215	.02	30.00			0.00	33.55	0.00	31.00	0.00	29.40	0.00	29.60				
1000	18	53	1408	200	.02	30.00			0.00	33.55	0.00	31.00	0.00	29.40	0.00	29.60				
1100	18	54	1410	150	.02	30.00			0.00	33.55	0.00	31.00	0.00	29.40	0.00	29.60				
1200	18	52	1408	118	.02	30.00	DTW	30.07	0.00	33.55	0.00	31.00	0.00	29.40	0.00	29.61			0.00	31.47
1300	18	53	1410	100	.02	30.00			0.00	33.55	0.00	31.00	0.00	29.40	0.00	29.61	DTW	31.80		
1400	18	55	1420	520	.00	30.00			0.00	33.55	0.00	31.00	OPEN	38'	0.00	29.61	0.00	31.78		
1500	18	54	1430	570	.00	30.00			0.00	33.55	0.00	31.00			0.00	29.61	0.00	31.75		
1600	18	55	1430	560	.02	30.00			0.00	33.55	0.00	31.00			.02	29.60	0.00	31.75		

Comments: 1-23-08 : TOOK end vapor samples of MW-2 @ 1850, TOOK start vapor samples of MW-3 @ 2010

1-24-08: TOOK End vapor samples of MW-3 @ 0350, TOOK start vapor samples of MW-7 @ 0510

TOOK end vapor samples of MW-7 @ 1250, TOOK start vapor samples of MW-4 @ 1410

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: **11427 WOODSIDE AVENUE** City: **SANTEE** Site #: **EL CAPITAN OIL CO.** Date: 1/24/2008

Client: **WIGINGTON PETROLEUM** Operator (s): PETER F.

					Well#1: MW-1		Well#2: MW-5		Well #3: MW-2		Well #4: MW-3		Well #5: MW-4		Well #6: MW-6		Well #7: MW-7		Well #8: MW-8	
Initial Depth to Groundwater / F.P.					29.91		30.07		31.81/31.87		31.00/31.06		29.27		29.52		29.23		31.47	
Screen Interval / T.D.					41.00				44.45		43.35		41.70		41.84		41.60			
Time	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)	VAC	Stinger Depth (feet)		Stinger Depth (feet)	VAC	Stinger Depth (feet)	VAC	Stinger Depth (feet)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)
1-24-08													open	38'						
1700	18	50	1410	550	.02	30.00			0.00	33.55	0.00	31.00			.02	29.60	0.00	31.75		
1800	18	53	1415	530	.02	30.00			0.00	33.55	0.00	31.00			.02	29.61	0.00	30.80		
1900	18	52	1420	515	.02	30.00			0.00	33.55	0.00	31.00			.02	29.61	0.00	30.40		
2000	18	53	1415	510	.02	30.00			0.00	33.55	0.00	31.03			.02	29.63	0.00	29.25		
2100	18	50	1419	500	.02	30.00			0.00	33.55	0.00	31.00			.02	29.61	0.00	29.25		
2200	18	53	1400	480	.02	30.00			0.00	33.56	0.00	31.00	DTW	38.50	.02	29.61	0.00	29.25		
2300	18	54	1408	210	0.00	30.00			0.00	33.56	0.00	31.00	0.00	37.20	open	38'	0.00	29.25		
0000	18	53	1408	220	0.00				0.00	33.55	0.00	31.06	0.00	36.10			0.00	29.25		
1-25-08																				
0100	18	52	1410	209	0.00	30.00			0.00	33.54	0.00	31.00	0.00	35.00			0.00	29.24		
0200	18	50	1409	205	0.00	30.00			0.00	33.55	0.00	31.06	0.00	34.10			0.00	29.25		
0300	18	53	1407	200	0.00	30.00			0.00	33.55	0.00	31.00	0.00	33.20			0.00	29.25		
0400	18	50	1408	190	0.00	30.00			0.00	33.55	0.00	31.00	0.00	32.10			0.00	29.25		
0500	18	51	1408	175	0.00	30.00			0.00	32.60	0.00	31.00	0.00	31.30			0.00	29.24		
0600	18	53	1409	160	0.00	30.00	VAC	DTW	0.00	32.20	0.00	31.00	0.00	31.27			0.00	29.25		
0700	18	55	1410	130	0.00	30.00	0.00	30.08	0.00	32.10	0.00	31.05	0.00	31.27	DTW	39.00	0.00	29.25		
1100	17	95	1420	4500	open	30'					open	40'								
1200	17	96	1430	5,800					0.00	32.10			0.00	31.27	0.00	29.80	0.00	29.25		
1600	19	96	1410	5,650					.02	32.01			0.00	29.37	.04	29.59	0.00	29.30		
2000	17	95	1410	5,600					.02	32.01			0.00	29.37	.04	29.59	0.00	29.30		
0000	17	96	1410	5,500					.02	32.01			0.00	29.37	.04	29.55	0.00	29.30		
1-26-08																				
0400	17	95	1420	5,450					.02	32.01			0.00	29.37	.04	29.55	0.00	29.30		

Comments: 1-24-08: TOOK END VAPOR SAMPLES OF MW-4 @ 2150, TOOK START VAPOR SAMPLES of MW-6 @ 2310

1-25-08: TOOK END VAPOR SAMPLES of MW-6 @ 0650, TOOK Start vapor Samples of MW-1 @ 1110 5,200 ppmv MW-3 @ 1120 5,800 ppmv and combined @ 1130

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: **11427 WOODSIDE AVENUE** City: **SANTEE** Site #: **EL CAPITAN OIL CO.** Date: 1 / 26 / 2008

Client: **WIGINGTON PETROLEUM** Operator (s): PETER F.

					Well#1: MW-1		Well#2: MW-5		Well #3: MW-2		Well #4: MW-3		Well #5: MW-4		Well #6: MW-6		Well #7: MW-7		Well #8: MW-8	
Initial Depth to Groundwater / F.P.					29.91		30.07		31.81/31.87		31.00/31.06		29.27		29.52		29.23		31.47	
Screen Interval / T.D.					41.00				44.45		43.35		41.70		41.84		41.60			
Time	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)
1-26-08					open						open									
0800	17	95	1415	4400	4,600	PPMV			.02	32.01	5,500	PPMV	0.00	29.37	.04	29.55	0.00	29.30		
1200	17	96	1400	4,370					.02	32.01		43'	0.00	29.37	.04	29.55	0.00	29.30		
1600	17	95	1411	7200			VAC	DTW	.02	32.01			0.00	29.37	.04	29.55	0.00	29.30		
2000	17	95	1420	7,100	7,200	PPMV	0.00	30.07	.02	32.01	6,000	PPMV	0.00	29.37	.04	29.53	0.00	29.30	0.00	31.47
0000	17	96	1430	7,000																
1-27-08																				
0400	17	96	1415	7,400																
0800	17	95	1418	7,800	7,900	PPMV			.02	32.01	6,500	PPMV	0.00	29.37	.04	29.53	0.00	29.30		
1200	17	95	1418	5,700					.02	32.01			0.00	29.37	.04	29.53	0.00	29.30		
1600	17	95	1420	5 600					.02	32.01			0.00	29.37	.04	29.53	0.00	29.30	0.00	31.45
2000	17	95	1400	5 200					.02	32.01			0.00	29.37	.04	29.53	0.00	29.30		
0000	17	95	1415	5150					.02	32.01			0.00	29.37	.04	29.53	0.00	29.30		
1-28																				
0400	17	95	1418	5,080					.02	32.01			0.00	29.37	.04	29.53	0.00	29.30		
0800	17	95	1430	5,000					.02	32.01			0.00	29.37	.04	29.53	0.00	29.30		
1200	17	96	1430	5,200	6,900	PPMV			.02	32.01	5,400	PPMV	0.00	29.37	.04	29.53	0.00	29.30	0.00	31.45
1600	17	95	1420	4,800					.02	32.01			0.00	29.37	.04	29.53	0.00	29.30		
2000	17	96	1415	4,600					.02	32.01			0.00	29.37	.04	29.53	0.00	29.30		
0000	17	95	1410	4,580					.02	32.01			0.00	29.37	.04	29.53	0.00	29.30		

Comments: 1-26: TOOK vapor samples of MW-1 @ 0800, MW-3 @ 0810, combined @ 0820

1-27: Took vapor samples of MW-1 @ 0800, MW-3 @ 0810, combined @ 0820

1-28: Took vapor samples of MW-1 @ 1200, MW-3 @ 1210, combined @ 1220

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: 11427 Woodside Avenue City: Santee Site #: El Capitan Oil Co. Date: 1/29/2008 Page 5 of 15

Client: Wegington Petroleum. Operator (s): Mike

					Well#1: MW-1		Well#2: MW-5		Well #3: MW-2		Well #4: MW-3		Well #5: MW-4		Well #6: MW-6		Well #7: MW-7		Well #8: MW-8	
Initial Depth to Groundwater/Free Product					29.91		30.07		31.81/31.87		31.00/31.06		29.27		29.52		29.23		31.47	
Screen Interval					41.00				44.45		43.35		41.70		41.84		41.60			
Time	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)	VAC	DTW	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)
1-29					open	40'			VAC	DTW	open	43'								
0400	17	96	1420	4550					.02	32.01			.00	29.30	.04	29.53	.00	29.30		
0800	17	98	1418	4620					.02	32.02			.00	29.30	.04	29.53	.00	29.30		
1200	17	96	1410	4760	6870	PPMV			.02	32.02	5460	PPMV	.00	29.30	.04	29.53	.00	29.30	0.00	31.45
1600	17	95	1415	4780					.02	32.02			.00	29.30	.04	29.53	.00	29.30		
2000	17	98	1407	5120					.02	32.02			.00	29.30	.04	29.53	.00	29.31		
0000	17	97	1408	5410					.02	32.03			.00	29.30	.04	29.53	.00	29.31		
1-30																				
0400	17	93	1406	5720					.07	32.03			.00	29.30	.04	29.53	.00	29.32		
0800	17	90	1407	6120	6860	PPMV			.07	32.03	5720	PPMV	.00	29.30	.04	29.53	.00	29.32		
1200	17	94	1409	6230					.02	32.03			.00	29.30	.04	29.54	.00	29.32	0.00	31.45
1600	17	96	1413	6270					.02	32.03			.00	29.30	.04	29.54	.00	29.32		
2000	17	93	1416	6360					.02	32.03			.00	29.30	.04	29.54	.00	29.32		
0000	17	90	1410	6320					.02	32.03			.00	29.30	.04	29.54	.00	29.32		
1-31																				
0400	17	94	1403	6210					.02	32.03			.00	29.30	.04	29.54	.00	29.32		
0800	17	97	1413	6330					.02	32.08			.00	29.30	.04	29.54	.00	29.32		
1200	17	98	1414	6280	6730	PPMV			.02	32.03	5670	PPMV	.00	29.30	.04	29.54	.00	29.32	0.00	31.45
1600	17	95	1416	6240					.02	32.03			.00	29.30	.04	29.54	.00	29.32		
2000	17	98	1418	6160					.02	32.02			.00	29.30	.04	29.54	.00	29.32		
0000	17	96	1409	6110					.02	32.02			.00	29.30	.04	29.54	.00	29.32		

Comments: 1/29/08 TOOK VAPOR Samples, MW-1 @ 1200 (6870 PPMV), MW-3 @ 1210 (5460 PPMV), Combined @ 1220 (4760 PPMV)
1-30-08 TOOK VAPOR Samples, MW-1 @ 1200 (6860 PPMV), MW-3 @ 1210 (5720 PPMV), Combined @ 1220 (6230 PPMV).
1-31-08 TOOK VAPOR Samples, MW-1 @ 1200 (6730 PPMV), MW-3 @ 1210 (5670 PPMV) COMBINED @ 1220 (6280 PPMV)

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: **11427 WOODSIDE AVENUE** City: **SANTEE** Site #: **EL CAPITAN OIL CO.** Date: 2 / 1 / 2008

Client: **WIGINGTON PETROLEUM** Operator (s): PETER F.

					Well#1: MW-1		Well#2: MW-5		Well #3: MW-2		Well #4: MW-3		Well #5: MW-4		Well #6: MW-6		Well #7: MW-7		Well #8: MW-8	
Initial Depth to Groundwater / F.P.					29.91		30.07		31.81/31.87		31.00/31.06		29.27		29.52		29.23		31.47	
Screen Interval / T.D.					41.00				44.45		43.35		41.70		41.84		41.60			
Time	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)	Vacuum "H2O	DTW (ft)	Vacuum "H2O	DTW (ft)	Vacuum "H2O	DTW (ft)	Vacuum "H2O	DTW (ft)
2-1																				
0400	17	96	1409	6,090					.02	32.02			0.00	29.30	.04	29.54	0.00	29.32		
0800	17	97	1410	6050					.02	32.02			0.00	29.30	.04	29.54	0.00	29.32		
1200	17	95	1420	5970	5990	PPMV			.02	32.02	4070	PPMV	0.00	29.30	.04	29.54	0.00	29.32	0.00	31.45
1600	17	96	1415	5,950					.02	32.02			0.00	29.30	.04	29.54	0.00	29.32		
2000	17	95	1420	5900					.02	32.01			0.00	29.30	.04	29.54	0.00	29.32		
0000	17	95	1420	5,870					.02	32.01			0.00							
2-2																				
0400	17	96	1415	4,070					.02	32.01			0.00	29.30	.04	29.54	0.00	29.32		
0800	17	95	1418	4,000			VAC	DTW	.02	32.01			0.00	29.30	.04	29.54	0.00	29.32		
1200	17	95	1400	3,900	4,500	PPMV	0.00	30.07	.02	32.01	3,090	PPMV	0.00	29.30	.04	29.54	0.00	29.32	0.00	31.45
1600	17	95	1415	4,600					.02	32.01			0.00	29.30	.04	29.54	0.00	29.32		
2000	17	96	1420	4,560					.02	32.01			0.00	29.30	.04	29.54	0.00	29.32		
0000	17	96	1420	4,500					.02	32.01			0.00	29.30	.04	29.54	0.00	29.32		
2-3																				
0400	17	95	1418	4,470					.02	32.01			0.00	29.30	.04	29.54	0.00	29.32		
0800	17	96	1415	4,430					.02	32.01			0.00	29.30	.04	29.54	0.00	29.32		
1200	17	96	1411	4,400	4,450	PPMV			.02	32.01	3,000	PPMV	0.00	29.30	.04	29.54	0.00	29.32	0.00	31.45
1600	17	96	1413	4,370					.02	32.01			0.00	29.30	.04	29.54	0.00	29.32		
2000	15	173	1420	4,690					.02	32.01			open	2700 PPMV	.04	29.54	0.00	29.32		
2200	15	170	1409	4,800					.02	32.01					.04	29.54	0.00	29.32		
0000	15	173	1408	4,770					.02	32.01					.04	29.54	0.00	29.32		
2-4																				
0200	15	170	1410	4,740					.02	32.01					.06	29.54	0.00	29.32		

Comments: 2-3: TOOK VAPOR SAMPLE OF MW-4 @ 2020 (2,700 PPMV), COMBINED @ 2030 (4,690 PPMV)

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: **11427 WOODSIDE AVENUE** City: **SANTEE** Site #: **EL CAPITAN OIL CO.** Date: 2/4/2008

Client: **WIGINGTON PETROLEUM** Operator (s): PETER F./JASON

					Well#1: MW-1		Well#2: MW-5		Well #3: MW-2		Well #4: MW-3		Well #5: MW-4		Well #6: MW-6		Well #7: MW-7		Well #8: MW-8	
Initial Depth to Groundwater / F.P.					29.91		30.07		31.81/31.81		31.00/31.06		29.27		29.52		29.23		31.47	
Screen Interval / T.D.					41.00				44.45		43.35		41.70		41.84		41.60			
Time	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)
2-4					open				VAC	DTW	open		open	38'						
0400	15	170	1400	4,510					.02	31.83			0.00	30.50	.08	29.56	.02	29.33		
0800	17	96	1405	4,340	4390	PPMV	VAC	DTW	.02	31.80	2990	PPMV	0.00	30.10	.04	29.56	0.00	29.32		
1200	17	95	1410	4,300			0.00	30.07	.02	31.80			0.00	29.80	.04	29.55	0.00	29.32	0.00	31.47
1600	17	96	1415	4,270					.02	31.80			0.00	29.30	.04	29.55	0.00	29.32		
2000	17	95	1410	4,210					.02	31.79			0.00	29.30	.04	29.55	0.00	29.32		
2400	17	96	1418	4,170					.02	31.77			0.00	29.30	.04	29.55	0.00	29.32		
2-5																				
0400	17	95	1412	4,130					.02	31.77			0.00	29.30	.04	29.55	0.00	29.32		
0800	17	95	1420	4,100	4280	PPMV			.02	31.76	2970	PPMV	0.00	29.30	.04	29.55	0.00	29.32		
1200	17	94	1408	4080					.02	31.73			0.00	29.22	.04	29.51	0.00	29.29	0.00	31.46
1400	17	92	1406	4030					.02	31.69			0.00	29.24	.04	29.48	0.00	29.27		
1600	17	95	1400	4050					.02	31.66			0.00	29.25	.04	29.46	0.00	29.25		
2000	17	97	1403	4010					.02	31.63			0.00	29.22	.04	29.46	0.00	29.24		
2/5																				
0000	17	96	1410	4030					.02	31.66			0.00	29.17	.04	29.43	0.00	29.20		
0400	17	94	1405	4040					.02	31.57			0.00	29.15	.04	29.41	0.00	29.15		
0800	17	97	1406	4000	4080	PPMV			.02	31.47	2950	PPMV	0.00	29.08	.06	29.32	0.00	29.19	0.00	31.47
1200	17	95	1409	3980					.02	31.45			0.00	29.05	.06	29.30	0.00	29.19		
1600	17	93	1403	3970					.02	31.43			0.00	29.02	.06	29.28	0.00	29.20		
2000	17	94	1408	3940					.02	31.43			0.00	29.03	.05	29.27	0.00	29.18		

Comments: 2-4: TOOK End Samples of MW-4 @ 0350 (2,400 PPMV), combined @ 0400 (4,510 PPMV)

2/5/08 - TOOK COMBINED VAPOR SAMPLE @ 1600 (4030 PPMV)

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: **11427 WOODSIDE AVENUE** City: **SANTEE** Site #: **EL CAPITAN OIL CO.** Date: 2/7/2008 Page 8 of 15

Client: **WIGINGTON PETROLEUM** Operator (s): JASON

					Well#1: MW-1		Well#2: MW-5		Well #3: MW-2		Well #4: MW-3		Well #5: MW-4		Well #6: MW-6		Well #7: MW-7		Well #8: MW-8	
Initial Depth to Groundwater / F.P.					29.91		30.07		31.81/31.87		31.00/31.06		29.27		29.52		29.23		31.47	
Screen Interval / T.D.					41.00				44.45		43.35		41.70		41.84		41.60			
Time	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)
2/7					OPEN	40'			VAC	DTW	OPEN	43'								
0000	17	95	1405	3920					.02	31.44			0.00	28.99	.05	29.21	0.00	29.16		
0400	17	97	1409	3910			VAC	DTW	.02	31.43			0.00	28.95	.05	29.18	0.00	29.11		
0800	17	93	1401	3860	3960	PPMV	0.00	30.07	.02	31.44	2720	PPMV	0.00	28.92	.05	29.14	0.00	29.04	0.00	31.39
1200	17	94	1403	3820					.02	31.43			0.00	28.88	.05	29.07	0.00	29.00		
1600	17	98	1404	3790					.02	31.42			0.00	28.87	.05	29.05	0.00	29.00		
2000	17	99	1406	3750					.02	31.39			0.00	28.85	.05	29.03	0.00	28.98		
2/8																				
0000	17	92	1408	3700					.01	31.38			0.00	28.85	.05	29.01	0.00	28.95		
0400	17	94	1403	3680					.01	31.36			0.00	28.84	.05	29.01	0.00	28.91		
0800	17	91	1400	3710	3830	PPMV			.01	31.34	2530	PPMV	0.00	28.81	.05	29.01	0.00	28.89	0.00	31.37
1200	17	95	1406	3690					.01	31.32			0.00	28.79	.05	29.00	0.00	28.86		
1600					CLOSED						CLOSED									

Comments: 2/8/08- TOOK COMBINED VAPOR SAMPLE @ 1545 (3600 PPMV) MW-1 @ 1550 (3800 PPMV) MW-3 @ 1555 (2480 PPMV)

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: **11427 WOODSIDE AVENUE** City: **SANTEE** Site #: **EL CAPITAN OIL CO.** Date: 2/8/2008

Client: **WIGINGTON PETROLEUM** Operator (s): JASON

					Well#1: MW-9		Well#2: MW-1		Well #3: MW-2		Well #4: MW-3		Well #5: MW-4		Well #6: MW-6		Well #7: MW-7		Well #8:	
Initial Depth to Groundwater / F.P.					28.65		29.91		31.81/31.87		31.00/31.06		29.27		29.52		29.23			
Screen Interval / T.D.					39.00		41.00		44.45		43.35		41.70		41.84		41.60			
Time	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)
2/8					OPEN	38'	VAC	DTW	VAC	DTW	VAC	DTW								
1600	21	40	1407	300			0.00	29.25	.01	31.34	0.00	30.52	0.00	28.71	.03	28.93	0.00	28.80		
1700	21	45	1410	270																
1800	21	47	1403	275																
1900	21	44	1406	260																
2000	21	42	1404	255			0.00	29.23	.01	31.34	0.00	30.50	0.00	28.69	.03	28.90	0.00	28.78		
2100	21	46	1405	265																
2200	21	45	1401	270																
2300	21	48	1409	260																
2/9																				
0000	21	40	1407	270			0.00	29.16	0.00	31.33	0.00	30.48	0.00	28.66	.04	28.87	0.00	28.76		
0100	21	48	1403	290																
0200	21	46	1410	310																
0300	21	43	1405	290																
0400	21	47	1406	320			0.00	29.08	0.00	31.32	0.00	30.45	0.00	28.61	.04	28.83	0.00	28.76		
0500	21	41	1404	340																
0600	21	44	1401	330																
0700	21	42	1400	355																
0800	21	43	1410	365			0.00	29.00	0.00	31.33	0.00	30.42	0.00	28.60	.04	28.80	0.00	28.76		
0900	21	45	1403	370																
1000	21	46	1408	340	CLOSED															

Comments: 2/8/08- TOOK VAPOR SAMPLE OF MW-9 @ 1600 (300 PPMV)
2/9/08- TOOK VAPOR SAMPLE OF MW-9 @ 1000 (340 PPMV)

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: **11427 WOODSIDE AVENUE** City: **SANTEE** Site #: **EL CAPITAN OIL CO.** Date: 2/9/2008

Client: **WIGINGTON PETROLEUM** Operator (s): JASON

					Well#1: MW-1		Well#2: MW-3		Well #3: MW-2		Well #4: MW-4		Well #5: MW-5		Well #6: MW-6		Well #7: MW-7		Well #8: MW-8	
Initial Depth to Groundwater / F.P.					29.91		31.00/31.06		31.81/31.87		29.27		30.07		29.52		29.23		31.47	
Screen Interval / T.D.					41.00		43.35		44.45		41.70				41.84		41.60		42.17	
Time 2/9	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)
1005					OPEN	40'	OPEN	43'	VAC	DTW	VAC	DTW								
1200	17	95	1406	3590					.01	31.29	0.00	28.60	0.00	30.07	.04	28.78	0.00	28.74	0.00	31.30
1600	17	91	1404	3620					.01	31.26	0.00	28.59			.03	28.78	0.00	28.73		
2000	17	99	1400	3600					.01	31.23	0.00	28.59			.03	28.78	0.00	28.70		
2/10																				
0000	17	93	1405	3580					.01	31.25	0.00	28.57			.03	28.77	0.00	28.68		
0400	17	90	1403	3560					.01	31.21	0.00	28.54			.03	28.75	0.00	28.64		
0800	17	92	1402	3580	3700	PPMV	2350	PPMV	.01	31.21	0.00	28.55			.03	28.73	0.00	28.62	0.00	31.27
1200	17	94	1407	3550					.01	31.18	0.00	28.53			.03	28.70	0.00	28.60		
1600	17	91	1406	3510					.01	31.15	0.00	28.50			.02	28.66	0.00	28.59		
2000	17	96	1410	3480					.01	31.11	0.00	28.47			.02	28.64	0.00	28.56		
2/11																				
0000	17	90	1405	3440					.01	31.10	0.00	28.45			.02	28.61	0.00	28.53		
0400	17	92	1408	3450					.01	31.10	0.00	28.43			.02	28.60	0.00	28.50		
0800	17	93	1406	3410	3570	PPMV	2190	PPMV	.01	31.09	0.00	28.39			.02	28.56	0.00	28.50	0.00	31.27
1200	17	94	1402	3390					.01	31.08	0.00	28.36			.02	28.54	0.00	28.49		
1600	17	91	1404	3340					.01	31.06	0.00	28.34			.02	28.52	0.00	28.47		
2000	17	98	1410	3360					.01	31.04	0.00	28.31			.02	28.51	0.00	28.46		

Comments:

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: **11427 WOODSIDE AVENUE** City: **SANTEE** Site #: **EL CAPITAN OIL CO.** Date: 2/12/2008

Client: **WIGINGTON PETROLEUM** Operator (s): JASON

					Well#1: MW-1		Well#2: MW-3		Well #3: MW-2		Well #4: MW-4		Well #5: MW-5		Well #6: MW-6		Well #7: MW-7		Well #8: MW-8	
Initial Depth to Groundwater / F.P.					29.91		31.00/31.06		31.81/31.87		29.27		30.07		29.52		29.23		31.47	
Screen Interval / T.D.					41.00		43.35		44.45		41.79				41.84		41.60		42.17	
Time	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)
2/12					OPEN	40'	OPEN	43'	VAC	DTW	VAC	DTW								
0000	17	97	1403	3300					.01	31.02	0.00	28.28			.02	28.50	0.00	28.44		
0400	17	94	1400	3310					0.00	31.00	0.00	28.24			.02	28.49	0.00	28.40		
0800	17	91	1408	3250	3420	PPMV	1880	PPMV	0.00	31.00	0.00	28.22	0.00	30.06	.02	28.46	0.00	28.38	0.00	31.25
1200	17	95	1405	3210					0.00	30.98	0.00	28.22			.02	28.44	0.00	28.37		
1600	17	93	1406	3190					0.00	30.96	0.00	28.21			.02	28.42	0.00	28.37		
2000	17	90	1409	3160					0.00	30.96	0.00	28.17			.02	28.38	0.00	28.34		
2/13																				
0000	17	95	1406	3190					0.00	30.96	0.00	28.17			.02	28.39	0.00	28.31		
0400	17	97	1408	3180					0.00	30.93	0.00	28.18			.02	28.37	0.00	28.33		
0800	17	92	1400	3120	3190	PPMV	1800	PPMV	0.00	30.91	0.00	28.18			.02	28.38	0.00	28.31	0.00	31.24
1200	17	90	1404	3050		40.5'			0.00	30.96	0.00	28.22			.02	28.43	0.00	28.36		
1600	17	94	1409	2980					0.00	30.97	0.00	28.24			.02	28.47	0.00	28.40		
2000	17	92	1406	2940					0.00	30.97	0.00	28.25			.02	28.48	0.00	28.42		
2/14																				
0000	18	91	1405	2880					0.00	30.97	0.00	28.28			.02	28.49	0.00	28.46		
0400	18	95	1403	2900					0.00	30.98	0.00	28.30			.02	28.49	0.00	28.45		
0800	18	92	1408	2840	2900	PPMV	1620	PPMV	0.00	30.94	0.00	28.29			.02	28.49	0.00	28.47	0.00	31.24
1200	18	94	1406	2800					0.00	30.99	0.00	28.31			.02	28.54	0.00	28.49		
1600	18	90	1407	2790					0.00	30.99	0.00	28.33			.02	28.55	0.00	28.51		
2000	18	97	140	2730					0.00	31.02	0.00	28.37			.02	28.58	0.00	28.51		

Comments: 2/13/08 - TOOK COMBINED VAPOR SAMPLE @ 1200 (3050 PPMV)

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: **11427 WOODSIDE AVENUE** City: **SANTEE** Site #: **EL CAPITAN OIL CO.** Date: 2/15/2008

Client: **WIGINGTON PETROLEUM** Operator (s): JASON

					Well#1: MW-1		Well#2: MW-3		Well #3: MW-2		Well #4: MW-4		Well #5: MW-5		Well #6: MW-6		Well #7: MW-7		Well #8: MW-8	
Initial Depth to Groundwater / F.P.					29.91		31.00/31.06		31.81/31.87		29.27		30.07		29.52		29.23		31.47	
Screen Interval / T.D.					41.00		43.35		44.45		41.70				41.84		41.60		42.17	
Time	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)
2/15					OPEN	40.5'	OPEN	43'	VAC	DTW	VAC	DTW								
0000	18	93	1400	2720					0.00	31.04	0.00	28.37			.02	28.60	0.00	28.50		
0400	18	95	1410	2650					0.00	31.06	0.00	28.41			.02	28.60	0.00	28.48		
0800	18	96	1405	2610	2660	PPMV	1450	PPMV	0.00	31.08	0.00	28.44	0.00	30.06	.02	28.63	0.00	28.47	0.00	31.25
1200	18	99	1403	2550					0.00	31.08	0.00	28.45			.02	28.66	0.00	28.45		
1600	18	94	1401	2510					0.00	31.07	0.00	28.43			.02	28.64	0.00	28.46		
2000	18	92	1406	2490					0.00	31.09	0.00	28.43			.02	28.64	0.00	28.47		
2/16																				
0000	18	95	1404	2430					0.00	31.11	0.00	28.46			.02	28.66	0.00	28.46		
0400	18	97	1410	2450					0.00	31.12	0.00	28.48			.02	28.68	0.00	28.47		
0800	18	94	1403	2400	2500	PPMV	1390	PPMV	0.00	31.14	0.00	28.50			.02	28.70	0.00	28.44	0.00	31.25
1200	18	91	1405	2360					0.00	31.15	0.00	28.51			.02	28.70	0.00	28.42		
1600	18	92	1401	2300					0.00	31.14	0.00	28.52			.02	28.72	0.00	28.44		
2000	18	95	1400	2260					0.00	31.16	0.00	28.55			.02	28.72	0.00	28.45		
2/17																				
0000	18	96	1403	2230					0.00	31.14	0.00	28.52			.02	28.70	0.00	28.46		
0400	18	98	1407	2200					0.00	31.15	0.00	28.54			.02	28.71	0.00	28.44		
0800	18	94	1406	2150	2260	PPMV	1290	PPMV	0.00	31.17	0.00	28.57			.02	28.73	0.00	28.42	0.00	31.25
1200	18	90	1400	2100					0.00	31.16	0.00	28.55			.02	28.75	0.00	28.44		
1600	18	95	1402	2090					0.00	31.16	0.00	28.56			.02	28.71	0.00	28.43		
2000	18	91	1404	2060					0.00	31.15	0.00	28.54			.02	28.73	0.00	28.43		

Comments:

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: **11427 WOODSIDE AVENUE** City: **SANTEE** Site #: **EL CAPITAN OIL CO.** Date: 2/18/2008

Client: **WIGINGTON PETROLEUM** Operator (s): JASON

	Well#1: MW-1		Well#2: MW-3		Well #3: MW-2		Well #4: MW-4		Well #5: MW-5		Well #6: MW-6		Well #7: MW-7		Well #8: MW-8	
Initial Depth to Groundwater / F.P.	29.91		31.00/31.06		31.81/31.87		29.27		30.07		29.52		29.23		31.47	
Screen Interval / T.D.	41.00		43.35		44.45		41.70				41.84		41.60		42.17	
Time		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)
2/18	OPEN	40.5'	OPEN	43'	VAC	DTW	VAC	DTW								
0000					0.00	31.16	0.00	28.56			.02	28.74	0.00	28.44		
0400					0.00	31.18	0.00	28.54			.02	28.74	0.00	28.45		
0800	2100	PPMV	1250	PPMV	0.00	31.15	0.00	28.51	0.00	30.07	.02	28.74	0.00	28.44	0.00	31.27
1200					0.00	31.15	0.00	28.50			.02	28.74	0.00	28.52		
1600					0.00	31.19	0.00	28.51			.02	28.75	0.00	28.51		
2000					0.00	31.17	0.00	28.52			.02	28.72	0.00	28.51		
2/19																
0000					0.00	31.18	0.00	28.51			.02	28.72	0.00	28.50		
0400					0.00	31.16	0.00	28.51			.02	28.70	0.00	28.52		
0800	1850	PPMV	1110	PPMV	0.00	31.19	0.00	28.51			.02	28.71	0.00	28.53	0.00	31.28
1200					0.00	31.18	0.00	28.49			.02	28.73	0.00	28.54		
1600					0.00	31.18	0.00	28.52			.02	28.74	0.00	28.55		
2000					0.00	31.20	0.00	28.53			.02	28.75	0.00	28.57		
2/20																
0000					0.00	31.16	0.00	28.51			.02	28.73	0.00	28.56		
0400					0.00	31.14	0.00	28.52			.02	28.74	0.00	28.54		
0800	1660	PPMV	1060	PPMV	0.00	31.14	0.00	28.50			.02	28.76	0.00	28.53	0.00	31.27
1200					0.00	31.15	0.00	28.53			.02	28.74	0.00	28.53		
1600					0.00	31.13	0.00	28.54			.02	28.75	0.00	28.55		
2000					0.00	31.13	0.00	28.54			.02	28.74	0.00	28.57		

Time	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)
2/18				
0000	18	93	1407	2080
0400	18	95	1410	2040
0800	18	94	1402	1990
1200	18	90	1405	1960
1600	18	96	1403	1920
2000	18	91	1402	1890
2/19				
0000	18	94	1410	1810
0400	18	92	1403	1760
0800	18	98	1409	1720
1200	18	93	1406	1700
1600	18	91	1404	1720
2000	18	95	1400	1670
2/20				
0000	18	94	1403	1620
0400	17	90	1410	1600
0800	17	96	1406	1570
1200	17	93	1402	1530
1600	17	99	1404	1550
2000	17	92	1405	1480

Comments: 2/18/08- TOOK COMBINED VAPOR SAMPLE @ 0800 (1990 PPMV) MW-1 @ 0805 (2100 PPMV) MW-3 @ 0810 (1250 PPMV)

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: **11427 WOODSIDE AVENUE** City: **SANTEE** Site #: **EL CAPITAN OIL CO.** Date: 2 /21/ 2008

Client: **WIGINGTON PETROLEUM** Operator (s): JASON

					Well#1: MW-1		Well#2: MW-3		Well #3: MW-2		Well #4: MW-4		Well #5: MW-5		Well #6: MW-6		Well #7: MW-7		Well #8: MW-8	
Initial Depth to Groundwater / F.P.					29.91		31.00/31.06		31.81/31.87		29.27		30.07		29.52		29.23		31.47	
Screen Interval / T.D.					41.00		43.35		44.45		41.70				41.84		41.60		42.17	
Time	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)
2/21					OPEN	40.5'	OPEN	43'	VAC	DTW	VAC	DTW								
0000	17	90	1404	1500					0.00	31.14	0.00	28.56			.02	28.74	0.00	28.56		
0400	17	94	1400	1440					0.00	31.15	0.00	28.56			.02	28.71	0.00	28.58		
0800	17	95	1408	1390	1510	PPMV	990	PPMV	0.00	31.17	0.00	28.56	0.00	30.07	.02	28.72	0.00	28.60	0.00	31.26
1200	17	91	1410	1350					0.00	31.18	0.00	28.54			.02	28.70	0.00	28.62		
1600	17	93	1403	1360					0.00	31.16	0.00	28.55			.02	28.71	0.00	28.59		
2000	17	96	1401	1300					0.00	31.18	0.00	28.54			.02	28.72	0.00	28.59		
2/22																				
0000	17	96	1406	1270					0.00	31.19	0.00	28.52			.02	28.74	0.00	28.56		
0400	17	93	1407	1240					0.00	31.18	0.00	28.53			.02	28.72	0.00	28.58		
0800	17	90	1402	1200	1290	PPMV	920	PPMV	0.00	31.16	0.00	28.51			.02	28.70	0.00	28.58	0.00	31.27
1200	17	95	1403	1180																
1600	17	94	1404	1150																
2000	17	92	1400	1120																
2/23																				
0000	17	90	1403	1070																
0400	17	95	1406	1090																
0800	17	99	1404	1030	1070	PPMV	850	PPMV												
1200	17	93	1405	1000	CLOSED		CLOSED						MW-14							
1400	20	45	1408	840									OPEN	37'						
1500	20	48	1400	750																
1525													CLOSED							

Comments: 2/23/08-TOOK VAPOR SAMPLE OF MW-14@ 1325 (900 PPMV) TOOK VAPOR SAMPLE OF MW-14@1525 (660 PPMV)

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: **11427 WOODSIDE AVENUE** City: **SANTEE** Site #: **EL CAPITAN OIL CO.** Date: 2 /23/ 2008 Page 15 of 15

Client: **WIGINGTON PETROLEUM** Operator (s): JASON

Initial Depth to Groundwater / F.P.					Well#1: MW-1		Well#2: MW-3		Well #3: MW-17		Well #4:		Well #5:		Well #6:		Well #7:		Well #8:	
Screen Interval / T.D.					29.91		31.00/31.06		34.39											
					41.00		43.35		44.49											
Time	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)
2/23																				
1600	20	46	1406	280					OPEN	43'										
1700	20	47	1401	310																
2000	17	96	1400	960	OPEN	40.5'	OPEN	43'												
2/24																				
0000	17	92	1406	920																
0400	17	98	1409	880																
0800	17	95	1401	820	890	PPMV	710	PPMV												
1030					30.18	DTW	31.98	DTW												

Comments: 2/23/08- TOOK VAPOR SAMPLE OF MW-17 @ 1540 (260 PPMV) TOOK VAPOR SAMPLE OF MW-17 @ 1740 (300 PPMV)
2/24/08- TOOK COMBINED VAPOR SAMPLE @ 0800 (820 PPMV) MW-1 @ 0805 (890 PPMV) MW-3 @ 0810 (710 PPMV)

HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: 11427 WOODSIDE AVENUE City: SANTEE Site #: EL CAPITAN OIL CO. Date: 2 /22/ 2008 Page 18 of 1

Client: WIGINGTON PETROLEUM Operator (s): JASON

Initial Depth to Groundwater / F.P.					Well#1: MW-2		Well#2: MW-4		Well #3: MW-6		Well #4: MW-7		Well #5: MW-8		Well #6: MW-14		Well #7: MW-15		Well #8: MW-17	
Screen Interval / T.D.					31.81/31.87	44.45	29.27	41.70	29.52	41.84	29.23	41.60	31.47	42.17	29.29	38.00	28.90	38.50	34.39	44.49
Time	Unit Vacuum ("Hg.)	Total Flowrate (scfm)	TOX Temp. (degF)	TOX Inlet Conc. (ppmv)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)		Stinger Depth (feet)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)	Vacuum "H_2O	DTW (ft)
2/22					VAC	DTW	VAC	DTW	VAC	DTW	VAC	DTW								
1200					0.00	31.09	0.00	28.52	.02	28.75	0.00	28.57			0.00	29.34	0.00	28.92	0.00	34.39
1600					0.00	31.06	0.00	28.52	.06	28.79	0.00	28.56			0.11	29.35	0.05	28.93	0.11	34.45
2000					0.00	31.04	0.00	28.52	.06	28.81	0.00	28.56			0.11	29.36	0.05	28.94	0.11	34.47
2/23																				
0000																				
0400					0.00	31.05	0.00	28.53	.06	28.81	0.00	28.58			0.11	29.35	0.05	28.95	0.09	34.49
0800					0.00	31.07	0.00	28.54	.06	28.83	0.00	28.57			0.12	29.34	0.05	28.96	0.11	34.50
1200					0.00	31.04	0.00	28.54	.06	28.81	0.00	28.58	0.00	31.27	0.12	29.38	0.06	28.94	0.11	34.48
1600					0.00	31.05	0.00	28.58	.06	28.78	0.00	28.56			0.12	29.39	0.07	28.97	0.12	34.49
2000					0.00	31.06	0.00	28.56	.08	28.78	0.00	28.58			0.12	29.43	0.07	28.98	OPEN	43'
2/24					0.00	31.08	0.00	28.54	.08	28.80	0.00	28.59			0.12	29.45	0.07	28.98	0.12	34.53
0000																				
0400					0.00	31.08	0.00	28.52	.08	28.78	0.00	28.58			0.13	29.46	0.07	28.96	0.12	34.46
0800					0.00	31.10	0.00	28.52	.08	28.76	0.00	28.62			0.13	29.42	0.07	28.91	0.12	34.40
					0.00	31.08	0.00	28.53	.08	28.75	0.00	28.63	0.00	31.27	0.14	29.40	0.07	28.89	0.12	34.35

Comments:

HIGH VACUUM DUAL PHASE EXTRACTION - *WATER METER FIELD DATA SHEET*

CALCLEAN INC.
(714) 734-9137

Project Location: **11427 WOODSIDE AVENUE** City: **SANTEE** Site #: **EL CAPITAN OIL CO.** Date: 1/25/2008 Page 1C of 1

Client: **WIGINGTON PETROLEUM** Operator (s): PETER F. / JASON

Date	Time	Water Meter Reading	Cumulative Amount	24-hr Diff.
1/25	1100	000000	000000	0
1/26	1100	5000	5000	5000
1/27	1200	11530	11530	
1/28	1200	15100	15100	3570
1/29	1200	17790	17790	2690
1/30	1200	21130	21130	3340
1/31	1200	23210	23210	2080
2/1	1200	27210	27210	4000
2/2	1200	31210	31210	4000
2/3	0800	35210	35210	
2/4	0800	39020	39020	3810
2/5	0800	42820	42820	3800
2/6	0800	45010	45010	2190
2/7	0800	48880	48880	3870
	2000	50880	50880	4000
2/8	0800	52880	52880	4000
	2000	54430	54430	3550
2/9	0800	55000	55000	2120
	2000	56400	56400	1970
2/10	0800	58410	58410	3410
	2000	60400	60400	4000
2/11	0800	62430	62430	4020
	2000	63980	63980	3580
2/12	0800	65870	65870	3440
	2000	68200	68200	4220
2/13	0800	70050	70050	4180
	2000	73220	73220	5020
2/14	0800	76000	76000	5950
	2000	78860	78860	5640
2/15	0800	81390	81390	5390
	2000	83890	83890	5030
2/16	0800	86800	86800	5410
	2000	90610	90610	6720
2/17	0800	93200	93200	6400
	2000	96440	96440	5830
2/18	0800	99040	99040	5840
	2000	102000	102000	5560
2/19	0800	104420	104420	5380
	2000	108050	108050	6050
2/20	0800	110120	110120	5700
	2000	113050	113050	5000
2/21	0800	115330	115330	5210
	2000	117780	117780	4730
2/22	0800	120280	120280	4950
	2000	122780	122780	5000
2/23	0800	124830	124830	4550
	2000	125930	125930	3150
2/24	0800	128240	128240	3410
	1030	128620	128620	

APPENDIX D

USER DISCHARGE PERMIT

PETRA

CALCLEAN, INC.

A partner in protecting California's waters

FAX TRANSMITTAL

TO: JIM OOBINSKI COMPANY: PETRA

FAX #: (858) 485-8215 #PAGES: 10

PHONE #: (____) _____

DATE: 6/4/08

FROM: **NOEL SHENOI**

PHONE #: (714) 734-9137
CELL #: (714) 936-2706
FAX #: (714) 734-9138
E-MAIL: noelshenoi@calclean.com
WEB SITE: calclean.com

RE: COPY OF SEWER PERMIT FOR EL CAPITAN SITE

Message:

PADRE DAM
Municipal Water District

January 30, 2008

CalClean, Inc.
3002 Dow Avenue, Suite 142
Tustin, CA 92780

Attention: Noel Shenoi

Subject: Industrial User Discharge Permit
Industry Number 21-0296-01-A

Enclosed is an Industrial User Discharge Permit from the City of San Diego for your business located at 11427 Woodside Ave, Santee, CA 92071 within the service area of Padre Dam Municipal Water District.

If you have any questions pertaining to the permit conditions, please contact the Industrial Wastewater Control Program of the Metropolitan Wastewater Department of the City of San Diego, at (858) 654-4100.

Sincerely,

Dee Kitchen

Dee Kitchen
Cross Connection Specialist

Enclosure

cc: Barbara Sharatz, City of San Diego

BOARD OF DIRECTORS
James Maletic
Augie Scalzitti
Andrew J. Menchek
August A. Caires MPA, SDA
Dan McMillan MBA, MS

9300 Fanita Parkway
Santee, CA 92071
T 619 448 3111
F 619 449 9469
www.padredam.org
PO Box 719003
Santee, CA 92072-9003

January 23, 2008

CalClean, Inc.
3002 Dow Avenue, Suite 142
Tustin, CA 92780

Attention: Noel Shenoi

Subject: Industrial User Discharge Permit
Industry Number 21-0296

The attached Industrial User Discharge Permit has been prepared on the basis of information supplied on your permit application and obtained during the investigation of your industry by Industrial Wastewater Control Program personnel. The permit is valid as long as all stipulated conditions are complied with and is subject to renewal and change as stated in the City of San Diego Municipal Code.

If for any reason you disagree with any conditions set forth in the attached permit, written notification must be submitted to the Industrial Wastewater Control Program within 10 working days from the date of this letter. The letter shall contain details and facts supporting your disagreement with the permit conditions.

If you have questions pertaining to the permit conditions or any information set forth in this letter, please contact the Wastewater Control office at (858) 654-4100.

Sincerely,

for ALAN C. LANGWORTHY
Deputy Director
Technical Services Division

CTM:bjl

Enclosure: Permit

INDUSTRIAL USER DISCHARGE PERMIT

Permit Number: 21-0296-01-A

Permit Category: 2

Effective Date: January 23, 2008

Expiration Date: February 1, 2009

Permittee: CalClean, Inc.
3002 Dow Avenue, Suite 142
Tustin, CA 92780

Attention: Noel Shenoi

For the Facility: El Capitan Oil Company
11427 Woodside Avenue
Santee, CA 92071

Pursuant to Federal, State, and Local regulations, the permittee is hereby authorized to discharge up to **10,100 gallons per day of extracted groundwater into the Metropolitan Sewer System** from this facility at a flow rate not to exceed 7 gallons per minute.

The discharge is subject to conditions set forth in the following sections of this permit:

(1) Standard Conditions: See pages 3-7 for Extracted Groundwater Discharge Permit Standard Conditions.
(2) Specific Conditions: This permit requires that specific actions be taken by the permittee. See Specific Conditions established on Attachment A, page 2.
(3) Attachment A: Discharge Standards for Connection 100.
(4) Attachment B: Self-Monitoring and Reporting Requirements for Connection 100.
(5) Appendix A: Permit Definitions.
(6) Appendix B: Instructions for Completing Self-Monitoring Forms.
(7) Resource Conservation and Recovery Act (RCRA) Information: See enclosed bulletin entitled "General Hazardous Waste Requirements".

Failure on the part of the industrial user to fulfill any of the specified conditions shall be sufficient cause for immediate revocation of this permit. Any assignment or transfer of this permit shall automatically make it void.

This permit may be modified by the Industrial Wastewater Control Program, as required or authorized by City codes, or as required by the Federal Government or agencies thereof. This permit is further subject to termination upon thirty (30) days written notice to the industrial user by an authorized representative of the Industrial Wastewater Control Program.

Groundwater discharge permits are issued for a limited duration. Discharges of extracted groundwater to sewer shall cease by the permit expiration date listed above unless a written extension or renewal is received from the Industrial Wastewater Control Program. In order to

avoid a lapse in sewer discharge authorization, permit renewal applications and proof of application for authorization to discharge under a specific or general NPDES permit must be received by the Industrial Wastewater Control Program no less than two weeks prior to the expiration of the current permit. In areas other than the City of San Diego, extension or renewal of the permit may be limited by local codes.

Issued on: January 23, 2008

By: INDUSTRIAL WASTEWATER
CONTROL PROGRAM
9192 Topaz Way
San Diego, California 92123-1119

Barbara Sharatz

Barbara Sharatz, Program Manager

Facility: 21-0296
Permit: 01-A

EXTRACTED GROUNDWATER DISCHARGE PERMIT STANDARD CONDITIONS

A. **Duty to Comply with Municipal Code**
The industrial user shall comply with applicable provisions of the Municipal Code pertaining to the sewer department and to the discharge of industrial wastes to the sewerage system.

B. **Duty to Provide Access**
The industrial user shall, upon the presentation of a valid Metropolitan Wastewater Department I.D., allow Industrial Wastewater Control Program (IWCP) personnel to enter the premises for inspection or sampling related to conditions of this permit.

C. **Duty to Comply**
The permittee must comply with all discharge limits, requirements, and conditions of this permit. Failure to comply may be grounds for administrative action, or enforcement proceedings including civil or criminal penalties, injunctive relief, and summary abatements.

D. **Accidental Discharge Report**
The industrial user shall notify the IWCP immediately in the event of any accidental discharge, spill, or slug load to the public sewerage system in violation of discharge prohibitions or standards. Immediate notification shall be made by contacting the IWCP Compliance Supervisor, Program Manager, or Permit Supervisor at (858) 654-4100 from 8:00 a.m. to 5:00 p.m. Monday through Friday, or (619) 527-7660 at all other times, and submitting a written report within five calendar days to:

Industrial Wastewater Control Program
9192 Topaz Way
San Diego, CA 92123-1119

This report must detail the nature, volume, time, and duration of the discharge, the steps taken to control/mitigate its effects on the sewer system, and the measures which have been and/or will be implemented to prevent similar discharges in the future. The permittee's notification of accidental releases in accordance with this section does not relieve it of other reporting requirements that arise under Local, State, or Federal laws.

E. **Bypass Provisions (see 40 CFR 403.17 for complete provisions)**
(1) The industrial user may allow any bypass (See Appendix A: Definitions) to occur which does not cause Pretreatment Standards or Requirements to be violated, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the reporting requirements and prohibitions set forth in E(2) and E(3) below.
(2) If the industrial user knows in advance of the need for a bypass of a wastewater treatment system that will result in noncompliance with Pretreatment Standards or Requirements, it shall submit prior notice to the IWCP, if possible at least ten calendar days before the date of the bypass, at the address in D., above.

The industrial user shall notify the IWCP of an unanticipated bypass that exceeds applicable Pretreatment Standards within 24 hours from the time the industrial user becomes aware of the bypass, and a written submission shall also be provided within five calendar days. The written submission shall be sent to the address in D., above, and must contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.
(3) Bypass is prohibited, and may result in enforcement actions unless the following three conditions are true:

(i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to pre vent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

(iii) The Industrial User submitted notices as required under Section E (2).

F. Upset Reporting Requirement (see 40 CFR 403.16 for complete Upset Provisions)

The industrial user shall notify the IWCP within 24 hours of becoming aware of an upset (see Appendix A: Definitions) that results in noncompliance with categorical Pretreatment Standards, and a written submission must be provided within five calendar days. The written submission shall be sent to the address listed in D., above, and must contain a description of the discharge and cause of noncompliance, the period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken and/or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

G. 40 CFR Part 261 Waste Reporting Requirement (40 CFR 403.12 (p)(1))

The industrial user shall notify the IWCP, the EPA Regional Waste Management Division Director, and State hazardous waste authorities in writing of any discharge into the POTW of a substance, which, if otherwise disposed of, would be a hazardous waste under 40 CFR part 261. The report must include the name of the hazardous waste as set forth in 40 CFR part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). See the full CFR text for additional reporting requirements for discharges of more than 100 kilograms of such waste per calendar month to the POTW. The notification requirement in this section does not apply to pollutants already reported under the self-monitoring requirements of 40 CFR 403.12 (b), (d), and (e).

California Regional Water Quality Control Board
9174 Sky Park Ct., Suite 100
San Diego, CA 92123
(858) 467-2967
www.swrcb.ca.gov/rwqcb9

Outside the City of San Diego: Permit extensions for projects located outside the City of San Diego are subject to approval and capacity charges established by the City or Sanitation District receiving the discharge.

H. Signatory Requirements

All applications and reports submitted to the Industrial Wastewater Control Program must contain the following certification statement and be signed as required in Sections (a), (b), (c), or (d) below:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering

the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

a) By a responsible corporate officer, if the Industrial User submitting the reports is a corporation. For the purpose of this paragraph, a responsible corporate officer means:
   (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or;
   (ii) the manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b) By a general partner or proprietor if the Industrial User submitting the reports is a partnership or sole proprietorship, respectively.

c) The principal executive officer or director having responsibility for the overall operation of the discharging facility if the Industrial User submitting the reports is a Federal, State, or Local governmental entity, or their agents.

d) By a duly authorized representative of the individual designated in paragraph (a), (b), or (c) of this section if:
   (i) the authorization is made in writing by the individual described in paragraph (a), (b), or (c);
   (ii) the authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the Industrial Discharge originates, such as the position of plant manager, operator of a well, or a well field superintendent, or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company; and
   (iii) the written authorization is submitted to the City.

I. Planned Changes

The permittee shall give written notice to the Industrial Wastewater Control Program 90 days prior to any facility expansion, production increase, or process modification which results in new discharges or a change in the nature of the discharge or an increase in the daily maximum discharge volume by more than fifteen percent (15%).

J. Continuation of Expired Permits

a) *Permit Duration:* In the City of San Diego, groundwater permits are issued for an initial permit valid for a period of up to one year. For projects outside of the City of San Diego, the permit duration shall be established by the participating agency in which the project is located.

b) *Permit Extensions:* The City of San Diego: extensions beyond one year will only be considered if the permittee has submitted an application to obtain authorization to discharge groundwater under the General NPDES to the CRWQCB, and has applied for a permit renewal at least two weeks days prior to the expiration of the IWCP discharge permit. Providing that there is sufficient capacity available to continue to accept the discharge a permit extension may be allowed. Permits will

not be extended beyond two years unless the permittee purchases adequate sewer capacity to allow continued discharge.

K. Retention of Records

a) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the IWCP at any time.

b) All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the IWCP shall be retained and preserved by the permittee until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

L. Permit Modification

This permit may be modified for good causes including, but not limited to, the following:

a) To incorporate any new or revised Federal, State, or Local pretreatment standards or requirements;

b) Material or substantial alterations or additions to the discharger's operation processes, or discharge volume or character which were not considered in drafting the effective permit;

c) A change in any condition in either the industrial user or the Publicly Owned Treatment Works (POTW) that requires either a temporary or permanent reduction or elimination of the authorized discharge;

d) Information indicating that the permitted discharge poses a threat to the Control Authority's collection and treatment systems, POTW personnel or the receiving waters;

e) Violation of any terms or conditions of the permit;

f) Misrepresentation or failure to disclose fully all relevant facts in the permit application or in any required reporting;

g) To correct typographical or other errors in the permit;

h) To reflect transfer of the facility ownership and/or operation to a new owner/operator;

i) Upon request of the permittee, provided such request does not create a violation of any applicable requirements, standards, laws, or rules and regulations.

M. Civil and Criminal Penalties

Any person who violates any permit condition, or who discharges wastewater which causes pollution, or who violates any cease and desist order, prohibition, effluent limitation or national pretreatment standard shall be liable civilly for a penalty not to exceed $2,500 for each day in which such violation occurs. Additionally, any person intentionally causing such violations shall be liable, upon conviction, for a sum not to exceed $10,000 for each day in which such violation occurs, or for imprisonment for not more than one year, or both.

N. **Compliance with Applicable Pretreatment Standards and Requirements**

Compliance with this permit does not relieve the permittee from its obligations regarding compliance with any and all applicable Local, State and Federal pretreatment standards and requirements including any such standards or requirements that may become effective during the term of this permit.

O. **Severability**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

P. **Non-transferability**

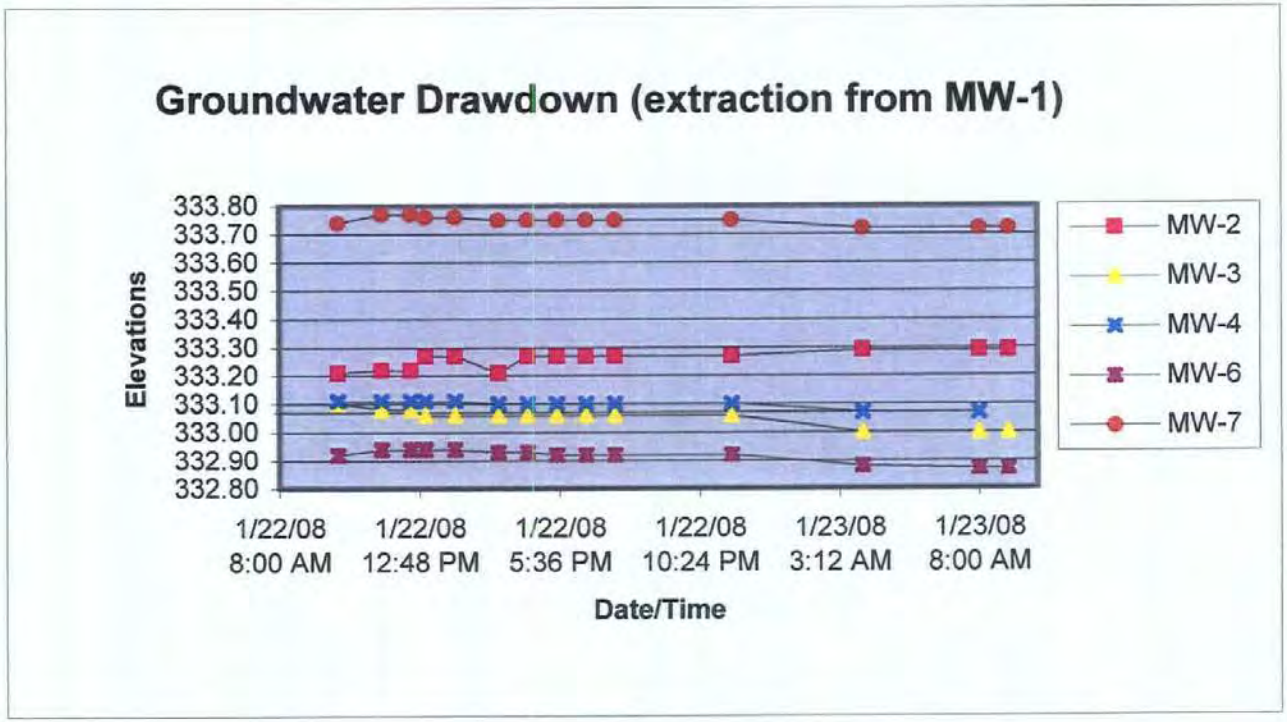
Industrial Discharge Permits are issued only for specific use for a specific operation. Any sale, lease, transfer, or assignment of the premises or operation for which the permit was issued shall require a new permit to be issued. Any new or changed conditions of operation shall require a new permit to be issued.

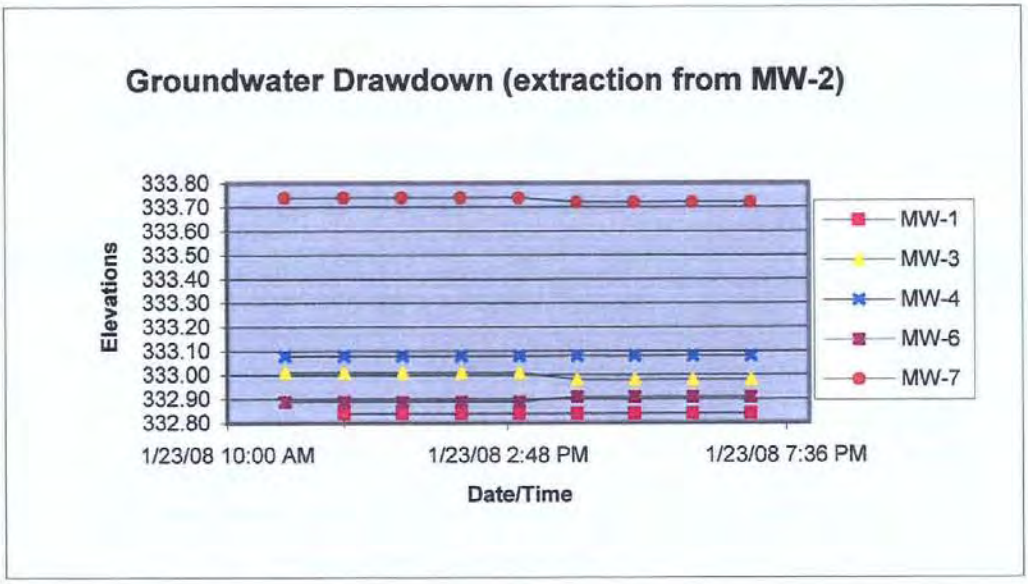
APPENDIX E

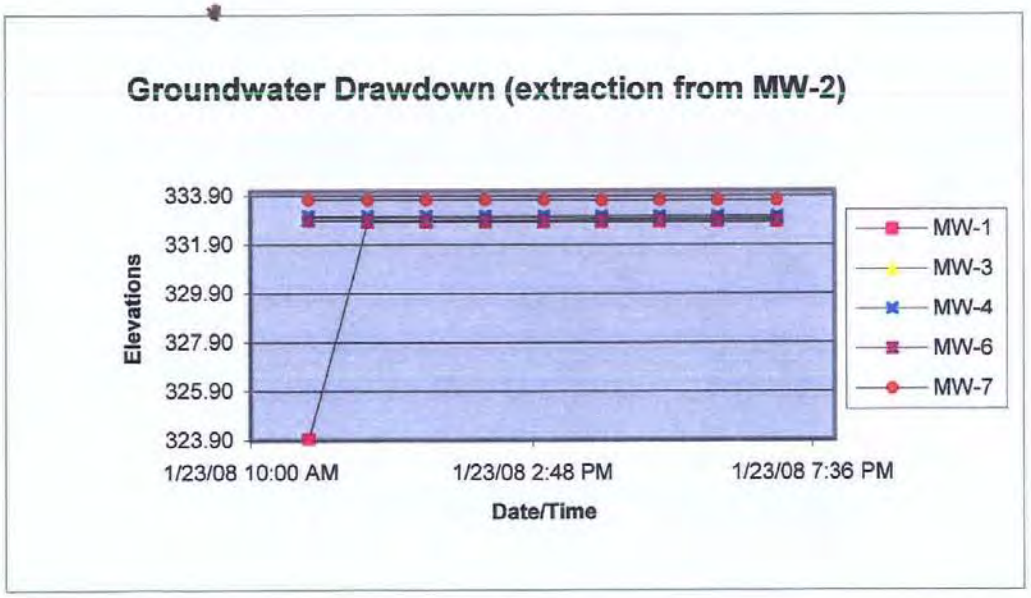
HYDROGRAPHS

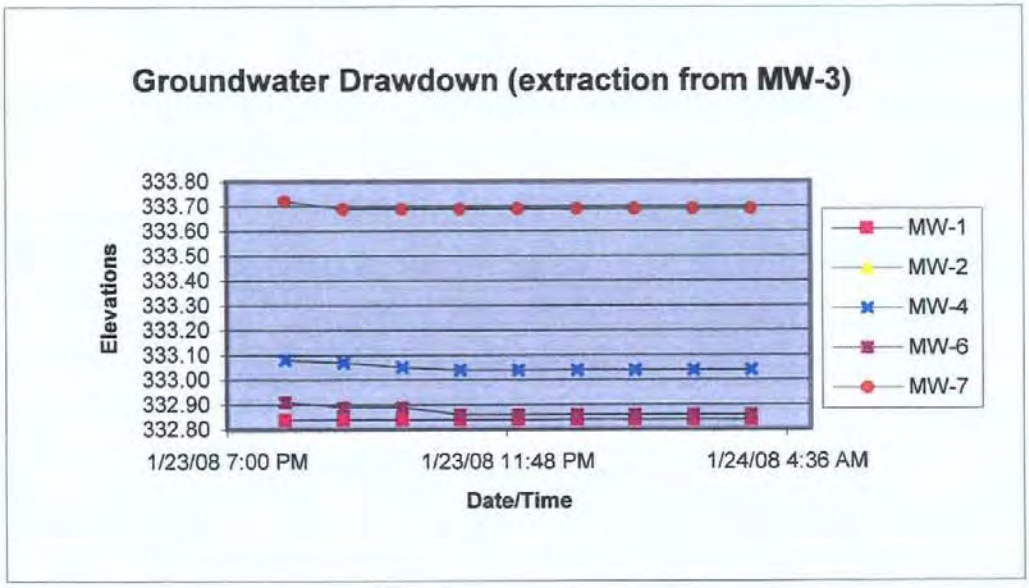
PETRA

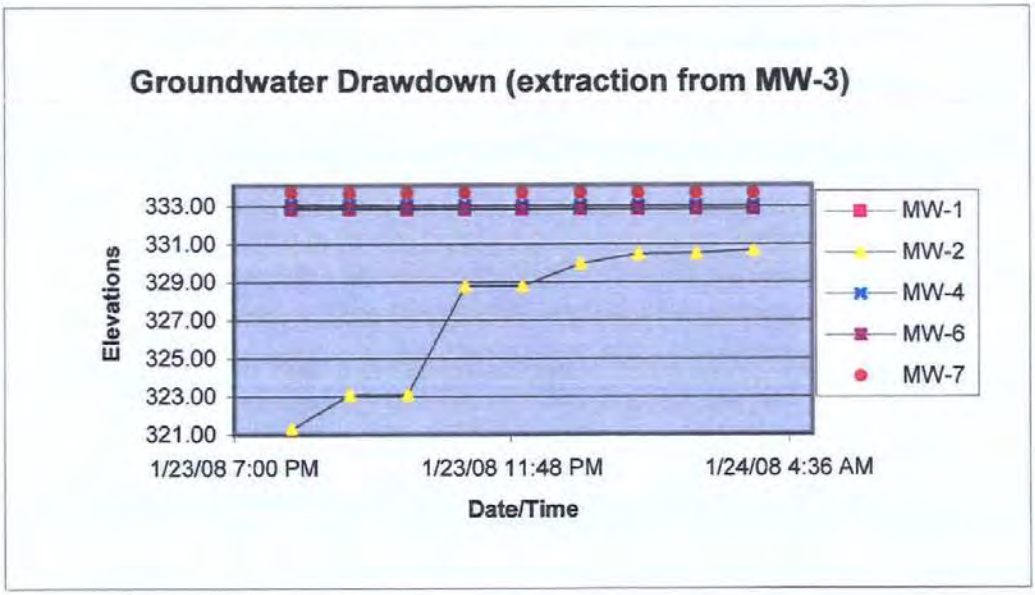
Wigington Oil - HVDPE, 2008



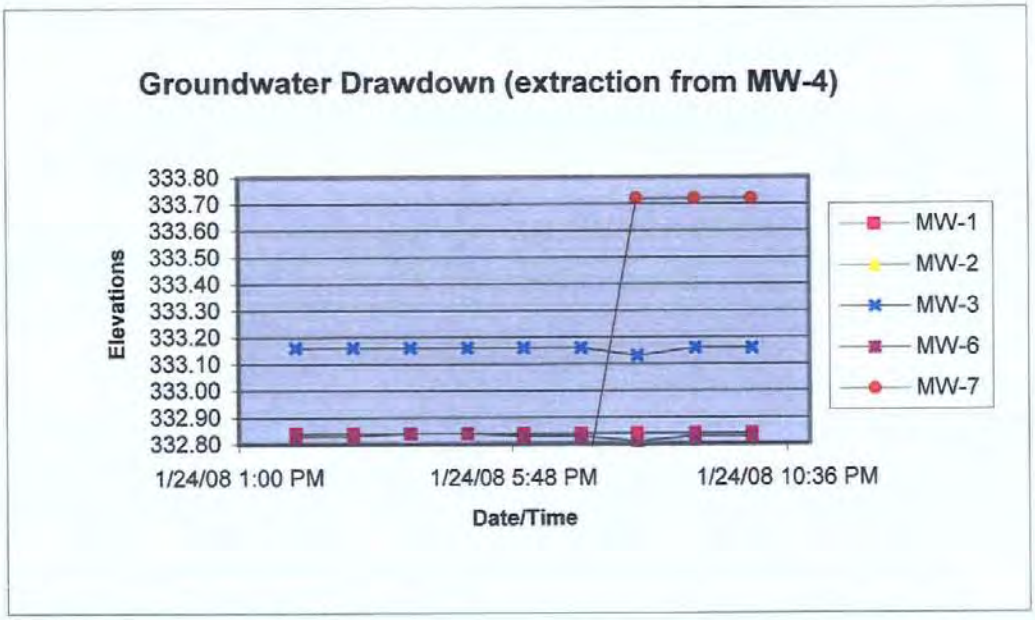

Groundwater Drawdown (extraction from MW-2)
333.80
333.70
333.60
333.50
333.40
333.30
333.20
333.10
333.00
332.90
332.80
Elevations
1/23/08 10:00 AM
1/23/08 2:48 PM
1/23/08 7:36 PM
Date/Time
MW-1
MW-3
MW-4
MW-6
MW-7

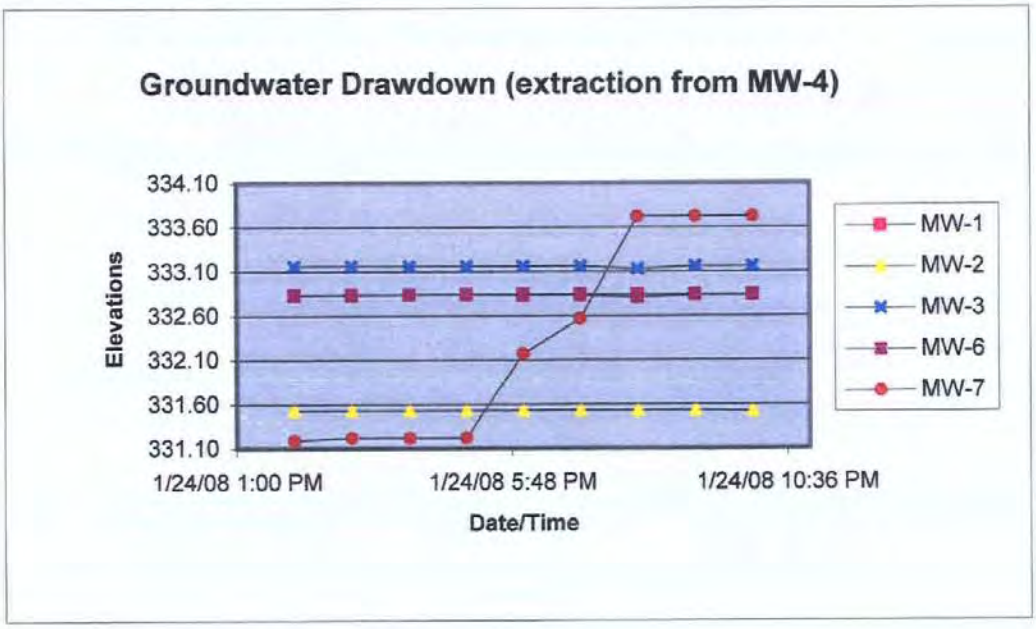

Groundwater Drawdown (extraction from MW-2)
333.90
331.90
329.90
327.90
325.90
323.90
Elevations
1/23/08 10:00 AM
1/23/08 2:48 PM
1/23/08 7:36 PM
Date/Time
MW-1
MW-3
MW-4
MW-6
MW-7


Groundwater Drawdown (extraction from MW-3)
Elevations
333.80
333.70
333.60
333.50
333.40
333.30
333.20
333.10
333.00
332.90
332.80
1/23/08 7:00 PM
1/23/08 11:48 PM
1/24/08 4:36 AM
Date/Time
MW-1
MW-2
MW-4
MW-6
MW-7

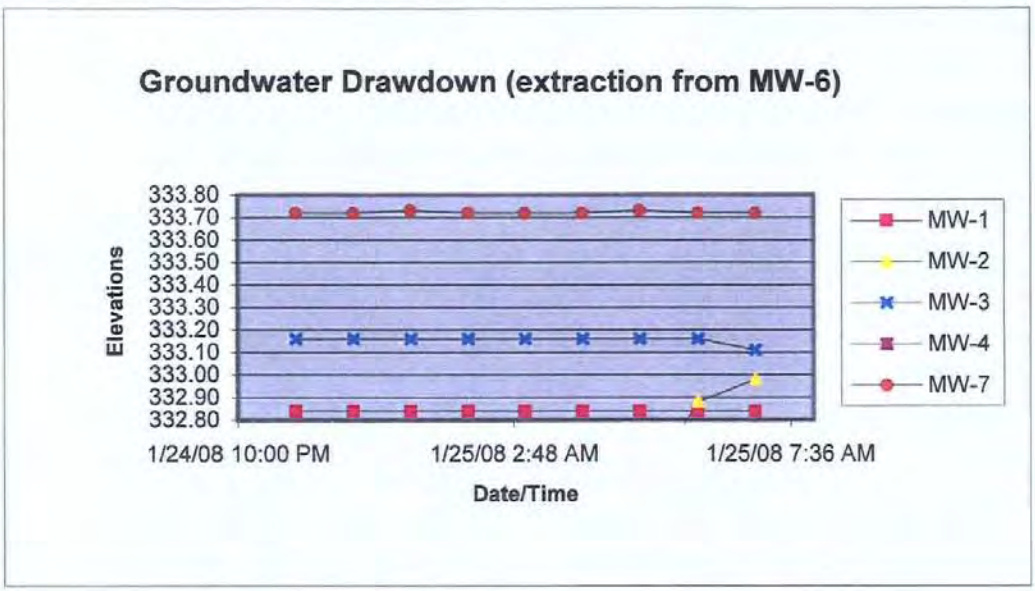

Groundwater Drawdown (extraction from MW-3)
Elevations
333.00
331.00
329.00
327.00
325.00
323.00
321.00
1/23/08 7:00 PM
1/23/08 11:48 PM
1/24/08 4:36 AM
Date/Time
MW-1
MW-2
MW-4
MW-6
MW-7

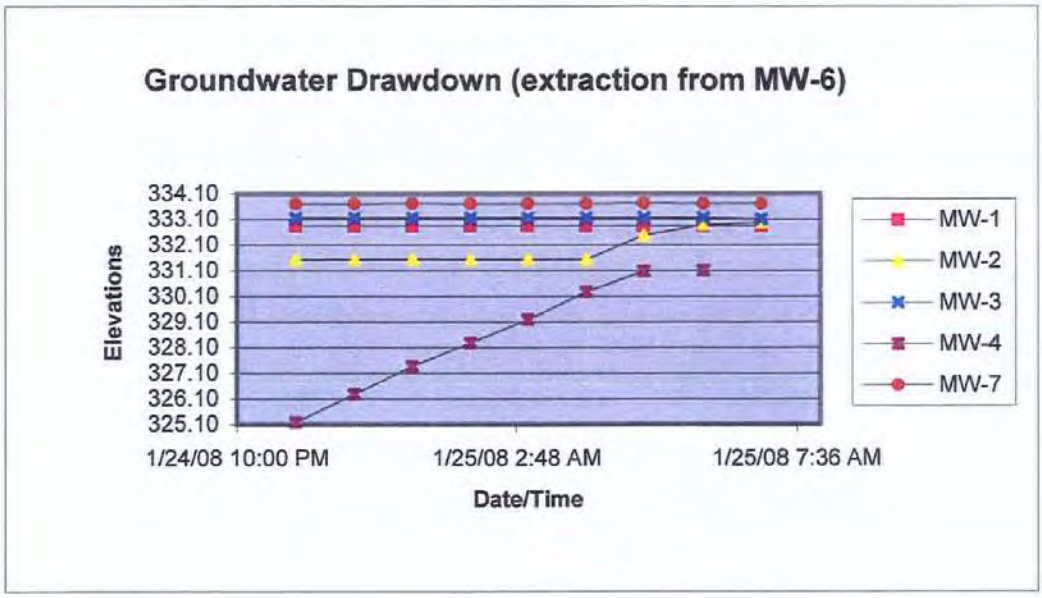
Wigington Oil HVDPE, 2008

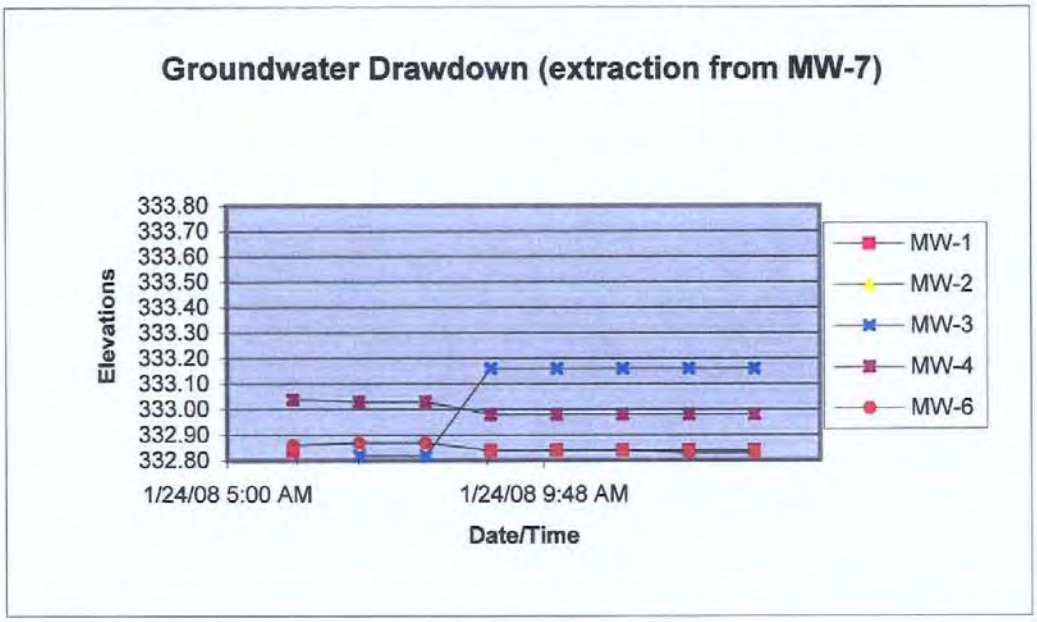


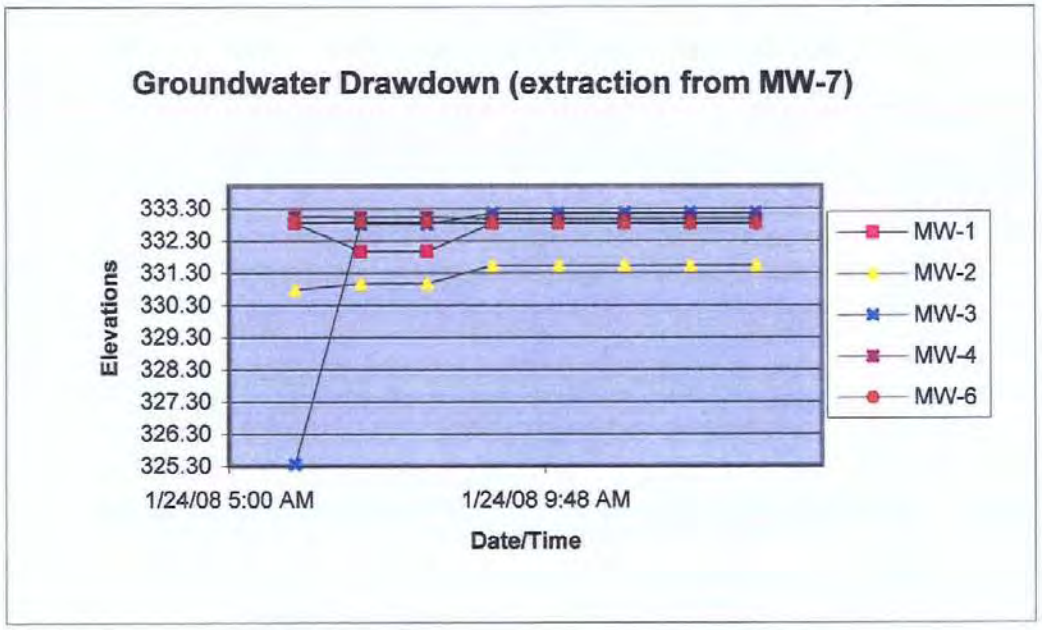


Wigington Oil HVDPE, 2008






Groundwater Drawdown (extraction from MW-7)
Elevations
333.80
333.70
333.60
333.50
333.40
333.30
333.20
333.10
333.00
332.90
332.80
1/24/08 5:00 AM
1/24/08 9:48 AM
Date/Time
MW-1
MW-2
MW-3
MW-4
MW-6


Groundwater Drawdown (extraction from MW-7)
Elevations
333.30
332.30
331.30
330.30
329.30
328.30
327.30
326.30
325.30
1/24/08 5:00 AM
1/24/08 9:48 AM
Date/Time
MW-1
MW-2
MW-3
MW-4
MW-6

San Diego County

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past + present + future
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Engineers, Geologists
Environmental Scientists

September 5, 2008
J.N. 252-06

Ms. Linda Wigington
WIGINGTON PETROLEUM, INC.
c/o William L. Fischbeck, Esq.
5464 Grossmont Center Drive, Third Floor
La Mesa, California 91942

Subject: **Third Quarter 2008 Groundwater Monitoring and Sampling Report, Wigington Petroleum, 11427 Woodside Avenue, Santee, California, T0948/H19469-001/APN 382-320-06.**

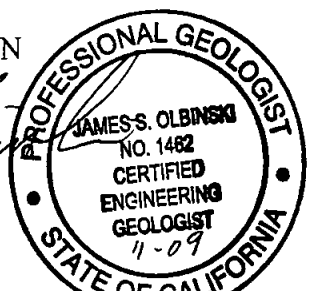
Dear Ms. Wigington:

The Environmental Division of **Petra Geotechnical, Inc. (Petra)** is pleased to present this quarterly groundwater monitoring and sampling report for the above-referenced site. The purpose of the investigation was to perform quarterly groundwater monitoring and sampling pursuant to the requirements of the San Diego County Site Assessment and Mitigation (SAM) Program. The subject monitoring was conducted in accordance with our original proposal (P.N. 1177-06, April 19, 2006) and subsequent change order (J.N. 252-06, February 12, 2008).

If there are any questions or comments regarding the scope of work performed or methodology, please call the undersigned at (858) 485-5530.

Respectfully submitted,

Petra Geotechnical, Inc.
ENVIRONMENTAL DIVISION



James S. Olbinski, CEG 1462
Associate Geologist

JSO/JL/br
\\Petrasandiego\myfiles\2006\200\252-06 Wigington Oil\650 (Phase II)\Monitoring Rpts\2008 3rd Qtr\252-06 3rd Qtr 08 GW Monitoring.doc

Distribution: 1) Addressee, via hand delivery
1) SAM Program, Attention: Ms. Teresa Sherman, via hand delivery
1) UST Cleanup Fund with Reimbursement Request, via Ontrac

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THIRD QUARTER 2008
GROUNDWATER MONITORING AND SAMPLING REPORT

Wigington Petroleum
11427 Woodside Avenue, Santee, California
T0948/H19469-001/APN 382-320-06

SITE LOCATION AND BACKGROUND

The site is located at 11427 Woodside Avenue in Santee, California (Figure 1). The property occupies approximately 1.15 acres and is triangular in shape. The property is developed solely as a fueling and petroleum product sales facility.

Site Name:	*El Capitan Oil Company*
Site Address:	*11427 Woodside Avenue, Santee, California 92071*
APN:	*382-320-06*
DEH Case No.:	*H19469-001*

A total of 13 underground storage tanks (USTs) have reportedly been removed from the site between 1987 and 1998. Results of sampling conducted during UST removal activities indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) issued a letter requiring corrective action relative to the release (HMMD, August 19, 1993).

During 1988 through 2005, EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the site (EnecoTech, 2002, 2003 & 2005). A total of 18 borings and eight groundwater monitoring wells have been drilled and sampled at the site by EnecoTech. These eight monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7 and MW-8) are depicted on Figure 2. Based on the results of these past assessment activities, it appears the extent of petroleum hydrocarbon-impacted groundwater was not ~~been~~ fully delineated.

On March 25, 2005, EnecoTech submitted a workplan for additional site assessment (EnecoTech, 2005). In a letter dated October 10, 2007, the SAM Program re-approved this workplan. Petra Geotechnical Inc. (Petra) discussed adding a well to the proposed and approved work plan with SAM Program personnel. The SAM Program agreed that another well was

warranted and requested a revised workplan for installation of that well. The workplan was submitted on December 21, 2007 (Petra, 2007) and the SAM Program approved the workplan in a letter dated January 15, 2008 (SAM, 2008).

Additional assessment activities by Petra are underway to the southwest, south and east of the former UST system. Part of Petra's assessment included the installation of nine new monitoring wells. These nine new monitoring wells were used in this third quarter, 2008 monitoring event. The logs of these nine new borings, including well construction/completion details, will be provided in a site assessment report now in progress. ✓

OBJECTIVE

The objective of the scope of work was to comply with SAM Program requirements for quarterly groundwater monitoring and sampling. The scope of work designed to meet the project objective included the following tasks.

Task 1: Groundwater monitoring, purging, and sampling.

Task 2: Laboratory analysis of collected groundwater samples.

Task 3: Report preparation.

GROUNDWATER MONITORING, PURGING, AND SAMPLING

On July 28, 29 and 30, 2008, sixteen wells were monitored. An electronic interface probe, with a manufacturer's reported accuracy of 1/100th of a foot, was used to measure the depth to water and check for the presence of phase-separated petroleum hydrocarbons (free product). Free product was not detected in any of the wells during this monitoring event. Eight of the wells (MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-9 and MW-10) were on site. Well MW-5 was monitored but not sampled due to the fact that the well has caved to just below the water table and is scheduled to be abandoned. Monitoring wells MW-8, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16 and MW-17 are located offsite.

? see page 6 MW-2, MW-3

if sampled

when

All sampled wells were purged and sampled in accordance with SAM Program guidelines. For fast recovering wells (wells that recover at least 80 percent within 2 hours), temperature, conductivity, and pH measurements (purging parameters) were taken after removal of the first borehole volume and each ½ borehole volume thereafter. Purging continued until at least one and one-half borehole volumes had been removed and purging parameters had stabilized to within 10 percent of the previous reading. Slow recovering wells (wells that recover less than 80 percent in two hours) were purged of one borehole volume. Purge water was placed in appropriate 55-gallon drums, labeled, and stored on-site pending disposal.

After purging was completed, the wells were allowed to recover. Fast recovering wells were allowed to recover at least 80 percent prior to sampling. Slow recovering wells were allowed to recover at least two hours prior to sampling. Groundwater samples were collected from each well with a single-use, disposable bailer and decanted into laboratory-supplied vials. The collected groundwater samples were labeled and placed in an ice-filled cooler pending delivery to the laboratory. Chain-of-custody procedures were implemented for sample tracking. Sampling data sheets are included in Appendix A.

LABORATORY ANALYSIS

Groundwater samples were submitted to a state-accredited laboratory for analysis. All samples were analyzed for total petroleum hydrocarbon as gasoline (TPHg) and as diesel fuel (TPHd) in general accordance with modified EPA Method 8015, and for benzene, toluene, ethylbenzene, and xylenes (BTEX), and oxygenates including methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA) in general accordance with EPA Method 8260B.

FINDINGS

GEOLOGY AND HYDROGEOLOGY

The following sections provide an overview of the regional and local geologic setting and include information pertaining to groundwater conditions in the vicinity of the study area.

Regional Geology

The site is located in the Peninsular Ranges Geomorphic Province of Southern California. This province is typified by northwest to southeast-trending mountain ranges approximately parallel to the San Andreas and related regional fault systems. The plutonic rocks of the western Peninsular Ranges are generally characterized as mafic (dark-colored) rocks, including gabbro, with granitic rocks of the Peninsular Ranges batholith (Harden, 1997) in association with lesser amounts of metamorphic rocks. Sedimentary rocks ranging in age from Cretaceous to Pleistocene form the San Diego embayment and coastal terraces west of the batholith.

As interpreted from regional geologic maps (Strand, 1962, Tan, 2002 and Todd, 2004), geologic materials underlying the site may include Quaternary-aged alluvium and colluvium. The more detailed geologic map of Tan (Tan, 2002) identifies Pleistocene alluvial deposits underlying the site and describes these sediments as "moderately consolidated, poorly sorted flood plain deposits consisting of gravelly, sandy silt and clay." These sediments are underlain by weathered granitic bedrock.

The regional geologic maps have identified bedrock in the near vicinity as being "granitoid" (Todd, 2004). Tan (2002) has mapped Cretaceous-aged tonalite immediately south of the site. The tonalite was described as including "some granodiorite and quartz diorite, medium-grained, generally dark colored and severely weathered." Based upon the referenced regional mapping, the site is most likely to be underlain by Cretaceous-aged tonalite. The site is located in the El Cajon Quadrangle Map (USGS, 1996).

Site-Specific Geology

Based on our experience at the site and in the site vicinity, the site is underlain by alluvium overlying weathered granitic bedrock. The granitic bedrock also comprises the highlands to the south of the site. The ground surface at the site slopes gently to the northwest, toward Woodside Avenue.

Hydrogeology

Based on review of a document titled *Water Quality Control Plan, San Diego Basin - Region 9* (approved by the California Regional Water Quality Control Board (RWQCB), September 8, 1994), the site is interpreted to lie within the RWQCB, San Diego Basin Region 9, Santee Hydrologic Sub Area (7.12) of the Lower San Diego Hydrologic Area (7.10) of the San Diego Hydrologic Unit (7.00). According to the RWQCB, surface water in this subarea has existing beneficial use for industrial and agricultural supply purposes and potential use for municipal purposes. The groundwater in this subarea has been classified as having existing beneficial uses for municipal, agricultural, industrial service, and industrial process supply purposes.

According to EnecoTech reports, referenced above, groundwater has been present at depths ranging from approximately 29.45 to 31.90 feet below grade. The groundwater flow direction was interpreted, in the referenced reports (EnecoTech, 2002 and EnecoTech, 2003), to be generally toward the west-southwest.

Since the fourth quarter, 2007, Petra has been reporting quarterly monitoring events. During the previous monitoring event of April, 2008, groundwater depths ranged from approximately 29.25 to 34.97 feet below grade (Petra, 2008c). The groundwater flow direction was interpreted to be generally toward the west-southwest with a gradient of approximately 0.0036.

The base map utilized for this monitoring event (Figure 3) is based upon a 2008-vintage well location survey by Southern California Survey, Inc. The 2008 survey was part of additional site assessment work by Petra (report in progress). Southern California Survey, Inc. originally surveyed the onsite wells for EnecoTech on April 26, 2002 (EnecoTech, 2002, pg. 5). The latest updated survey was performed on March 28, 2008 (Southern California Survey, 2008).

Groundwater Conditions

During the July, 2008 monitoring event, groundwater was encountered at depths ranging from approximately 30.08 to 36.08 feet below grade. The interpreted groundwater contours and gradients are depicted on Figure 3. Groundwater monitoring data is summarized in Table 1. Overall, the groundwater flow direction was interpreted to be generally toward the west-southwest with a gradient of approximately 0.0036. As depicted on Figure 3, the groundwater flow direction in the southern portion of the site is more northwest with a steeper gradient (approximately 0.025).

ANALYTICAL RESULTS

Groundwater sample analytical results are summarized in Table 2 and on Figure 4. Wells MW-7 and MW-13 were reported to have no detectable concentrations of dissolved petroleum hydrocarbons. Wells MW-2 and MW-3 contained free product and were not sampled. Detectable concentrations of petroleum hydrocarbon constituents were reported as follows:

TPHg- 46,000 µg/l (MW-15) to 420 µg/l (MW-1)
TPHd – 17 mg/l (MW-15) to 0.57 mg/l (MW-9)
Benzene – 6,600 µg/l (MW-14) to 4.2 µg/l (MW-11)
Toluene – 250 µg/l (MW-15) to 1.7 µg/l (MW-16)
Ethylbenzene – 3,700 µg/l (MW-15) to 15 µg/l (MW-8)
Xylenes – 10,000 µg/l (MW-15) to 15 µg/l (MW-1)
MTBE – 270 µg/l (MW-14) to 1.0 µg/l (MW-10)

Detectable concentrations of DIPE, ETBE, TAME and TBA were not reported in the sixteen samples analyzed for this quarterly event. Copies of laboratory reports are included in Appendix

B. The interpreted extent of the dissolved benzene and dissolved MTBE plumes, depicted on Figures 5 and 6 respectively, are partially controlled by analytical results from the 2nd quarter, 2008 monitoring and sampling event (Petra, 2008c). Specifically, the free product in wells MW-2 and MW-3 was ignored and the analytical results from the previous monitoring event were relied upon for this quarter's plume interpretation.

DISCUSSION

Detectable concentrations of dissolved petroleum hydrocarbons were detected in wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-8, MW-9, MW-10, MW-11, MW-12, MW-14, MW-15, MW-16, and MW-17. Wells MW-7 and MW-13 were reported to have no detectable concentrations of dissolved petroleum hydrocarbons. Historic groundwater analytical results are included in Appendix C.

Petra is currently conducting additional assessment in the west and southeast portions of the site and offsite to the east, northwest, west, southwest and south. Results of the additional site assessment will be provided in an upcoming report. Petra has also completed a high-vacuum, duel-phase extraction (HVDPE) pilot test at the site. Results of our evaluation of the HVDPE, as a potential remediation option for the site, will be provided in an upcoming report. Recommendations for further site assessment activities and future monitoring will be made in the upcoming reports.

CONCLUSIONS AND RECOMMENDATIONS

Based on the data obtained and reviewed as part of this investigation, including but not limited to current regulatory guidelines, laboratory results, field observations and data evaluation by a registered geologist, it is our professional opinion that the extent of groundwater with dissolved petroleum hydrocarbons has not been delineated. Additional conclusions and recommendations will be provided in the upcoming site assessment report (in progress). Petra recommends quarterly groundwater monitoring be continued at this site.

INVESTIGATION LIMITATIONS

This report is based on the project analytical data and findings as presented herein. The materials encountered on the project site, described in other literature, and used in the analytical testing program are believed to be representative of the project area, and the conclusions and recommendations in this report are presented on that basis. However, soil and bedrock materials can vary laterally and vertically within a project site and those variations, if present, could affect the conclusions and recommendations contained herein. In addition, chemicals could be present at the site that escaped detection by the project sampling and analytical testing program.

Although this investigation has attempted to delineate petroleum hydrocarbon-bearing groundwater relative to the site, potential sources of chemicals may have escaped detection for reasons which include, but are not limited to, the following:

- Our reliance on inadequate or inaccurate information provided to us by third parties such as public agencies and other outside sources;
- The limited scope of this investigation; and,
- The presence of undetected, unknown, or unreported environmental releases.

Should additional chemicals or other environmental conditions, beyond those already identified at the site, be detected during further progression of the project, Petra will be prepared to assist the client in evaluating the extent of and appropriate mitigation measures for such chemicals or conditions.

REPORT USAGE AND FUTURE SITE CONDITIONS

This report is intended for the sole usage of Wigington Petroleum, Inc. or its agents, and the San Diego County Site Assessment and Mitigation Program. The conclusions of this report are judged to be relevant at the time the work described in this report was conducted. Future site conditions may differ and this report should not be relied upon to represent future site conditions unless a qualified consultant familiar with the practice of similar environmental assessments is consulted to assess the necessity of updating this report.

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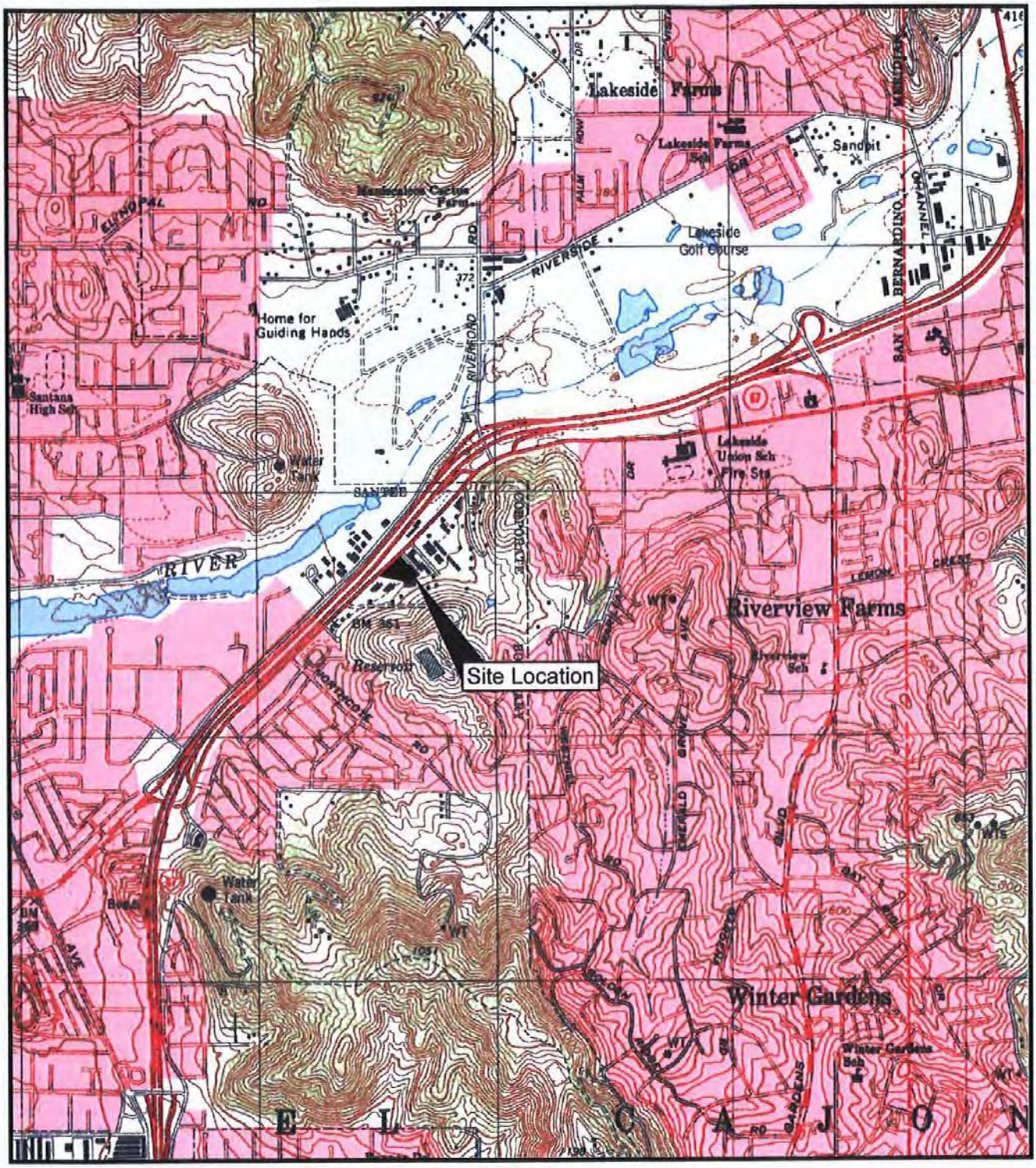
FIGURES

PETRA



Base Map: USGS 7.5-Minute Topographic Map, El Cajon Quadrangle, 1996.

0 0.5
GRAPHIC SCALE (in miles)

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12225 WORLD TRADE DRIVE, SUITE P
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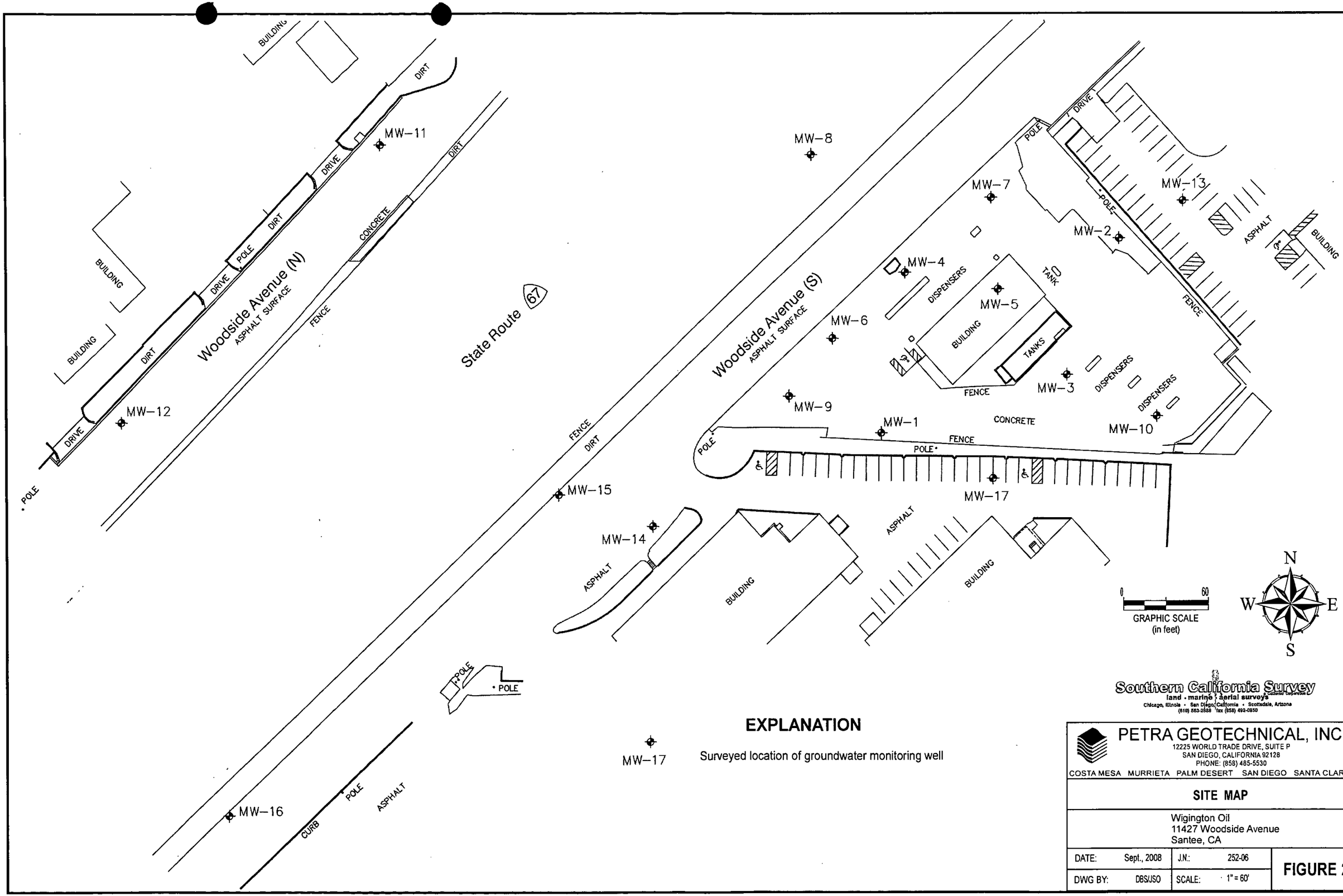
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

SITE LOCATION MAP

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE: Sept., 2008	J.N.: 252-06	**FIGURE 1**
DWG BY: DBS	SCALE: See Left	



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EXPLANATION

MW-17 Surveyed location of groundwater monitoring well

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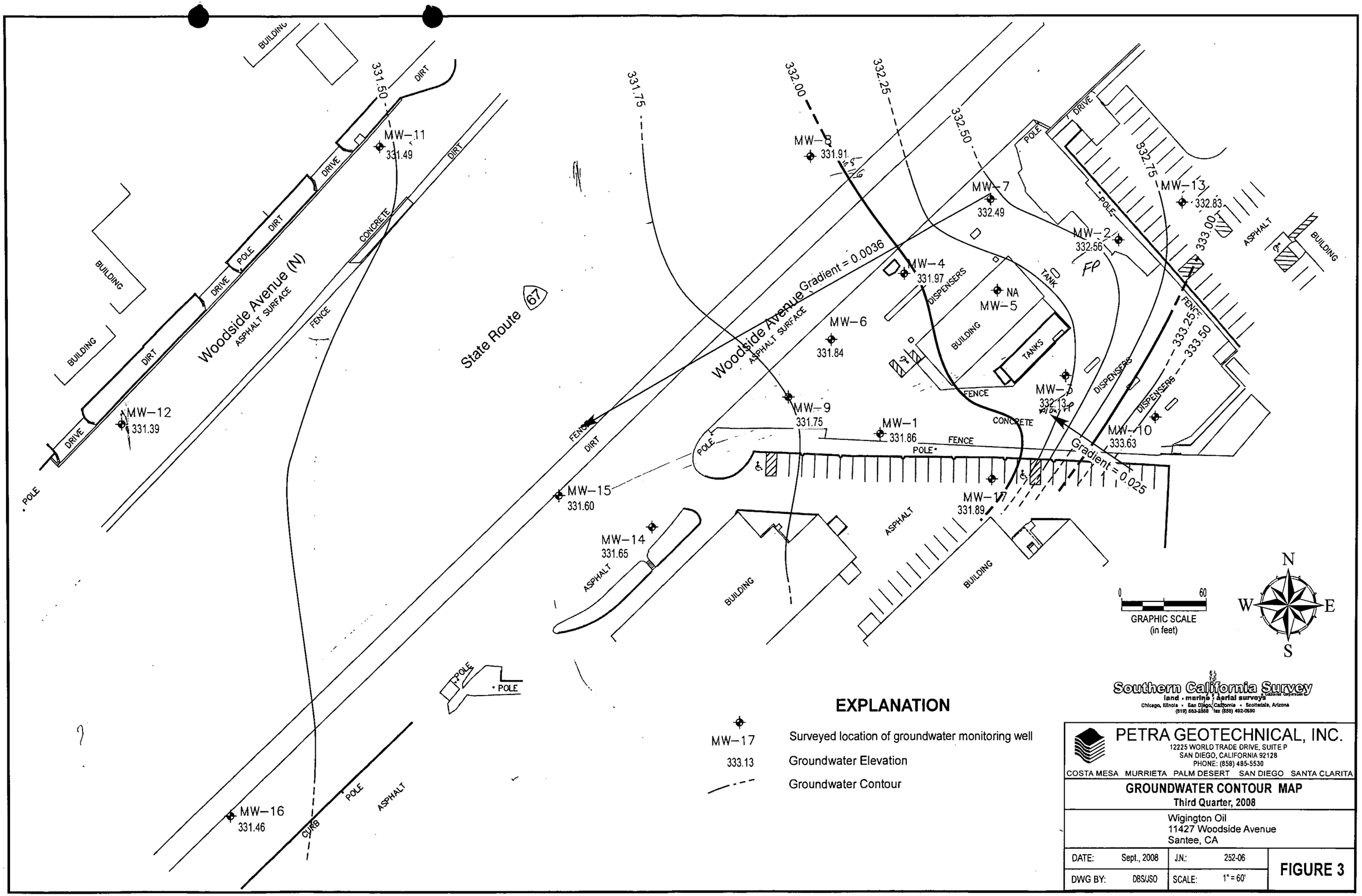
SITE MAP

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	Sept., 2008	J.N.:	252-06	**FIGURE 2**
DWG BY:	DBS/JSO	SCALE:	1" = 60'	



EXPLANATION

MW-17	Surveyed location of groundwater monitoring well
333.13	Groundwater Elevation
	Groundwater Contour

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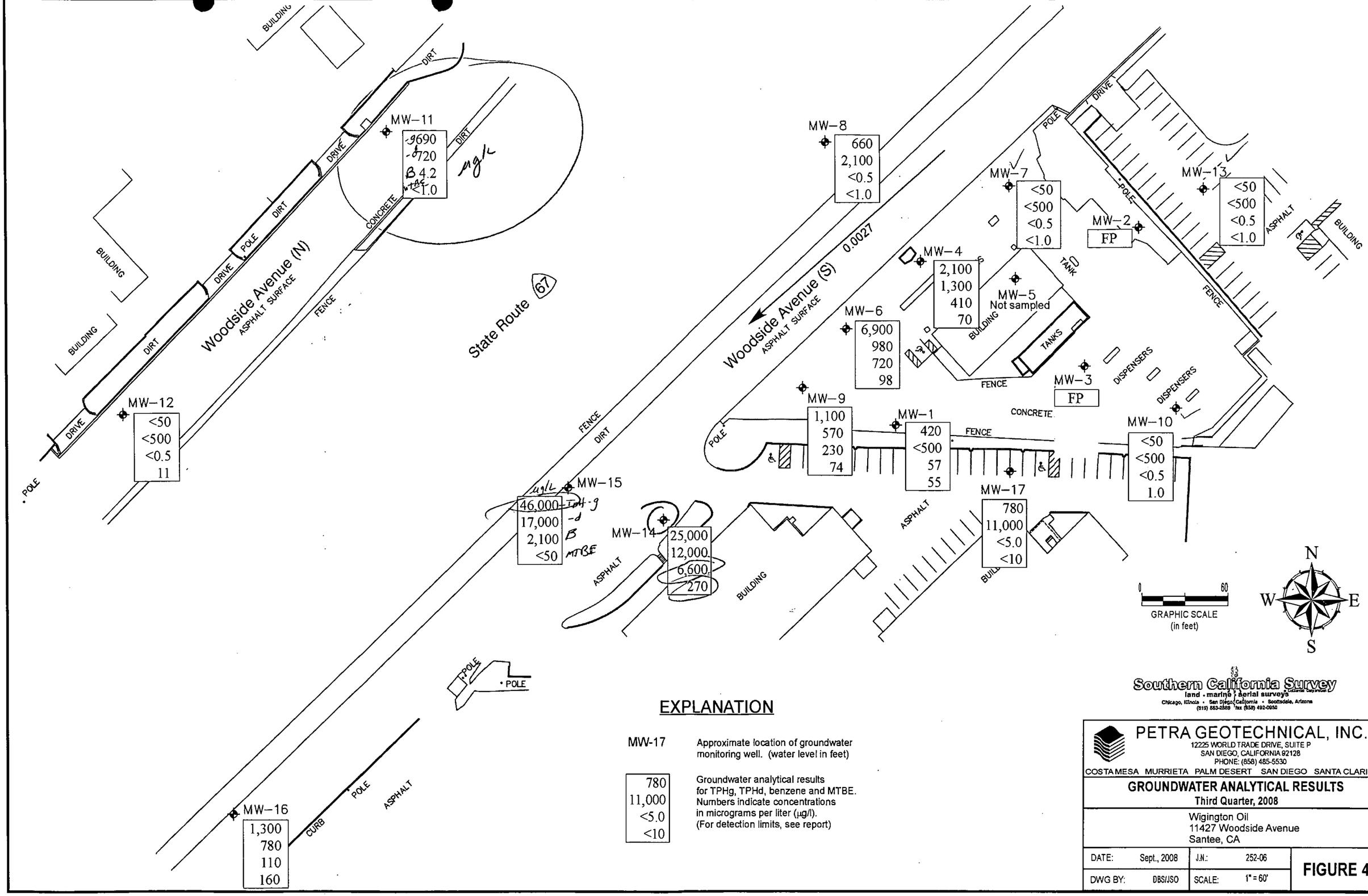
GROUNDWATER CONTOUR MAP
Third Quarter, 2008

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	Sept., 2008	J.N.:	252-06	**FIGURE 3**
DWG BY:	DBS/JSO	SCALE:	1" = 60'	



EXPLANATION

MW-17	Approximate location of groundwater monitoring well. (water level in feet)
780 11,000 <5.0 <10	Groundwater analytical results for TPHg, TPHd, benzene and MTBE. Numbers indicate concentrations in micrograms per liter (µg/l). (For detection limits, see report)

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GROUNDWATER ANALYTICAL RESULTS
Third Quarter, 2008

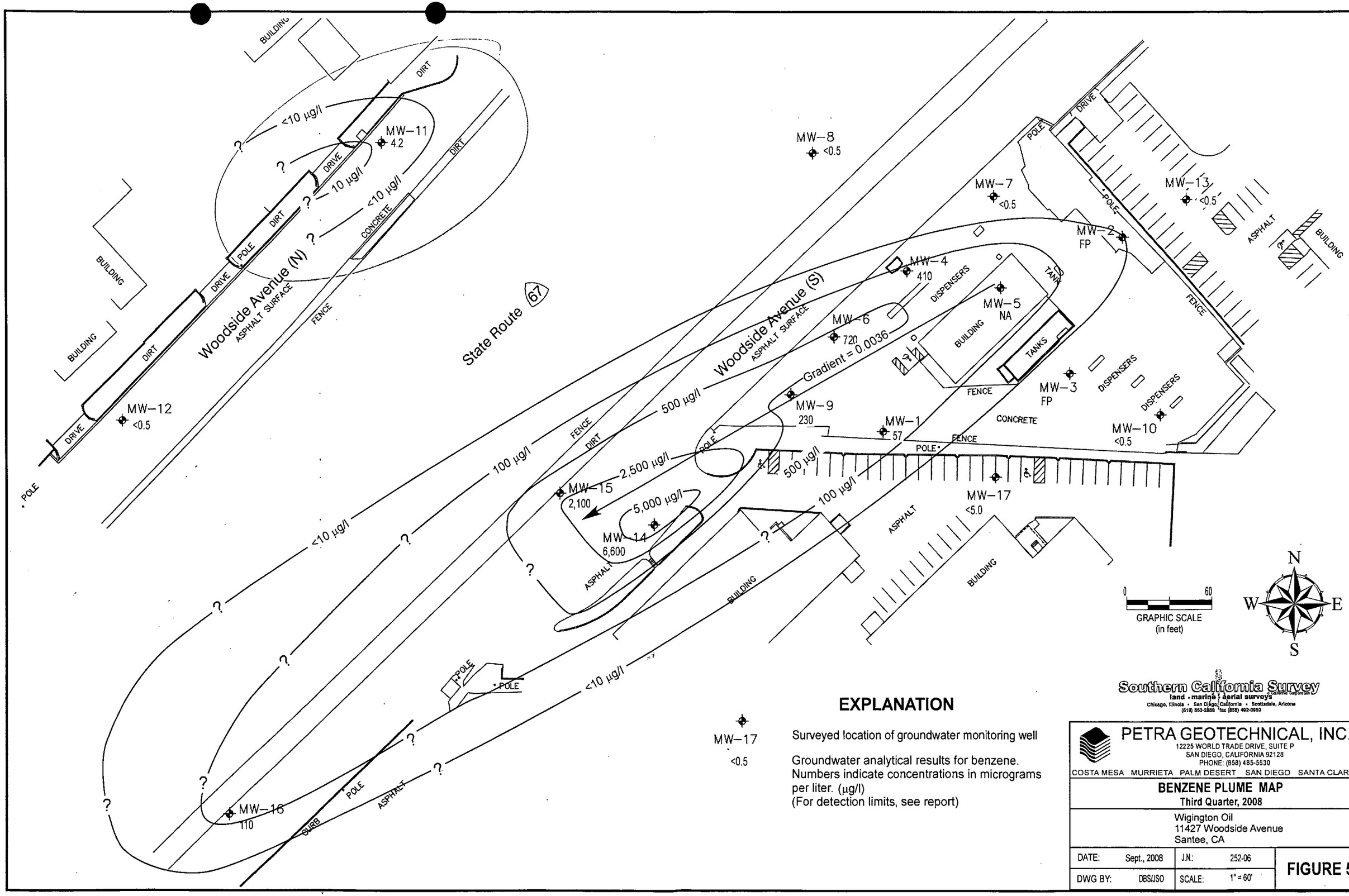
Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	Sept., 2008	J.N.:	252-06
DWG BY:	DBS/JSO	SCALE:	1" = 60'

FIGURE 4

July 28, 29, 30, 2008

TBA-ND



EXPLANATION

MW-17
<0.5

Surveyed location of groundwater monitoring well

Groundwater analytical results for benzene. Numbers indicate concentrations in micrograms per liter. (µg/l)
(For detection limits, see report)

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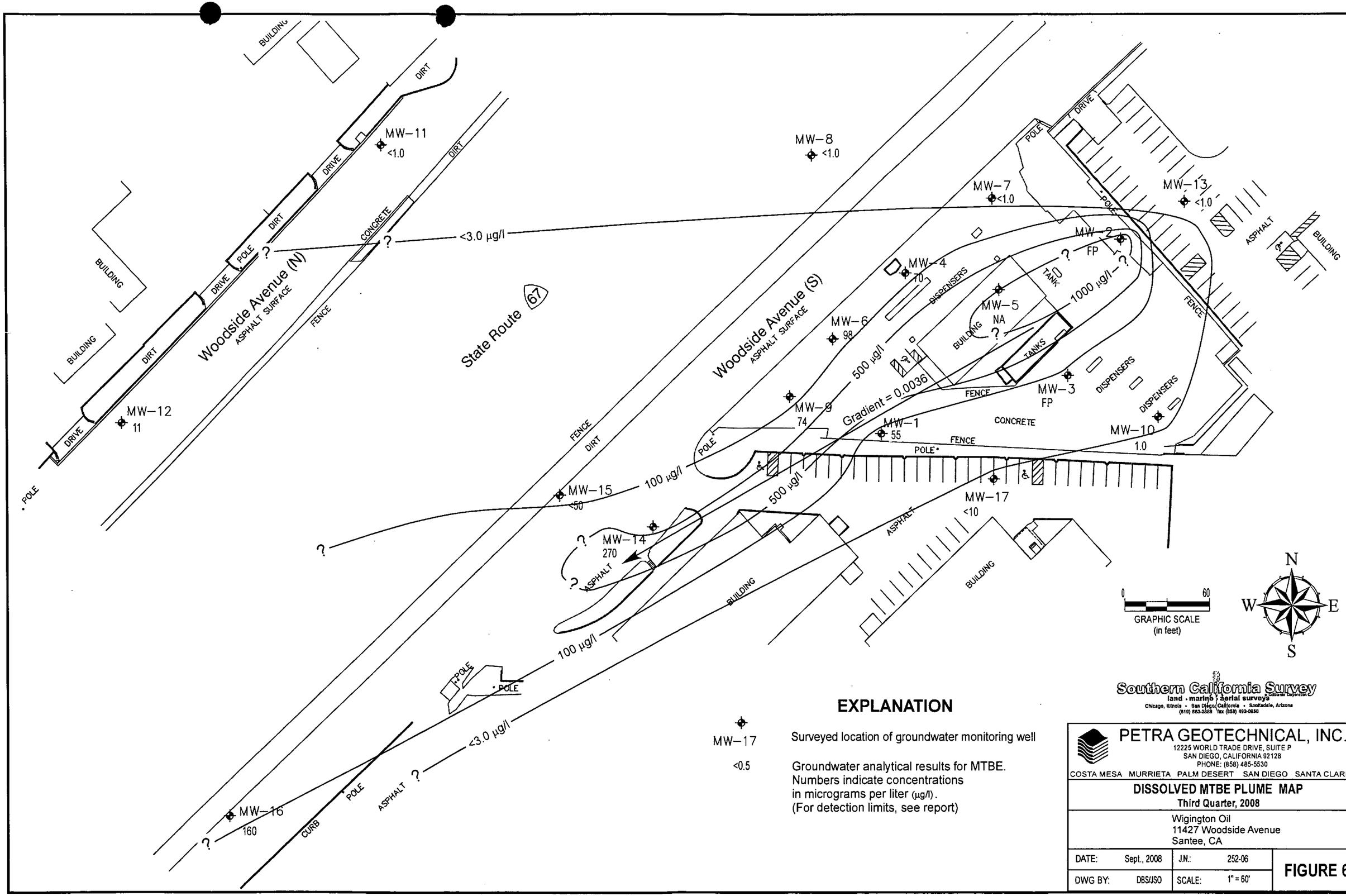
BENZENE PLUME MAP
Third Quarter, 2008

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	Sept., 2008	J.N.:	252-06	**FIGURE 5**
DWG BY:	DBS/JSO	SCALE:	1" = 60'	



EXPLANATION

MW-17
<0.5

Surveyed location of groundwater monitoring well

Groundwater analytical results for MTBE.
Numbers indicate concentrations
in micrograms per liter (µg/l).
(For detection limits, see report)

Southern California Survey
land · marine · aerial surveys
Chicago, Illinois · San Diego, California · Scottsdale, Arizona
(619) 563-2888 fax (858) 492-0690

PETRA GEOTECHNICAL, INC.
12225 WORLD TRADE DRIVE, SUITE P
SAN DIEGO, CALIFORNIA 92128
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

DISSOLVED MTBE PLUME MAP
Third Quarter, 2008

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	Sept., 2008	J.N.:	252-06
DWG BY:	DBS/JSO	SCALE:	1" = 60'

FIGURE 6

TABLES

PETRA

TABLE 1
Groundwater Monitoring Results
For Third Quarter Monitoring Event, 2008
Wigington Petroleum

July

Well	Top of Casing Elevation	Depth to Groundwater	Depth to Free Product	Free Product Thickness	Groundwater Elevation
MW-1	362.84	30.98			331.86
MW-2	365.08	32.52	32.51	0.01'	332.56
MW-3	364.16	32.03	32.02	0.01'	332.13
MW-4	362.38	30.41			331.97
MW-5	363.42	--			--
MW-6	362.44	30.60			331.84
MW-7	362.57	30.08			332.49
MW-8	364.51	32.60			331.91
MW-9	362.33	30.58			331.75
MW-10	367.28	33.65			333.63
MW-11	362.48	30.99			331.49
MW-12	361.88	30.49			331.39
MW-13	366.91	34.08			332.83
MW-14	362.79	31.14			331.65
MW-15	362.36	30.76			331.60
MW-16	362.48	31.02			331.46
MW-17	367.97	36.08			331.89

Note: -- Not Surveyed

TABLE 2
Groundwater Analytical Results
For Third Quarter Monitoring Event, 2008
Wigington Petroleum

Well Number	TPHg /VFH	TPHd*	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	ETBE	TAME	TBA
MW-1	420	<0.5	57	<0.5	19	15	55	<1.0	<1.0	<1.0	<10
MW-2	FP	FP	--	--	--	--	--	--	--	--	--
MW-3	FP	FP	--	--	--	--	--	--	--	--	--
MW-4	2,100	1.3	410	<2.5	72	<10	70	<5.0	<5.0	<5.0	<50
MW-5	--	--	--	--	--	--	--	--	--	--	--
MW-6	6,900	0.98	720	7.6	410	540	98	<10	<10	<10	<100
MW-7	<50	<0.5	<0.5	<0.5	<0.5	<2.0	<1.0	<1.0	<1.0	<1.0	<10
MW-8	660	2.1	<0.5	<0.5	15	<2.0	<1.0	<1.0	<1.0	<1.0	<10
MW-9	1,100	0.57	230	27	27	65	74	<5.0	<5.0	<5.0	<50
MW-10	<50	<0.5	<0.5	<0.5	<0.5	<2.0	1.0	<1.0	<1.0	<1.0	<10
MW-11	690	0.72	4.2	0.81	39	<2.0	<1.0	<1.0	<1.0	<1.0	<10
MW-12	<50	<0.5	<0.5	<0.5	<0.5	<2.0	11	<1.0	<1.0	<1.0	<10
MW-13	<50	<0.5	<0.5	<0.5	<0.5	<2.0	<1.0	<1.0	<1.0	<1.0	<10
MW-14	25,000	12	6,600	170	2,400	3,700	270	<100	<100	<100	<1,000
MW-15	46,000	17	2,100	250	3,700	10,000	<50	<50	<50	<50	<500
MW-16	1,300	0.78	110	1.7	210	<4.0	160	<2.0	<2.0	<2.0	<20
MW-17	780	11	<5.0	<5.0	<5.0	<1.5	<10	<10	<10	<10	<100

Notes: -- = Not sampled.
FP + Free Product
* = mg/l, all other results in µg/l why ?

APPENDIX A

GROUNDWATER MONITORING/SAMPLING DATA SHEETS

Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 07-28-08
Well ID: MW-1
Sampler: L. H

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons
Start:	11:17					
1.0 BHV	11:31	22.6	1374	4.45	31.70	18.0
1.5 BHV	11:46	22.5	1416	3.98	31.70	9.0
2.0 BHV	11:54	22.4	1428	3.88	32.00	9.0
2.5 BHV						
3.0 BHV						
Stop:						

Notes / Comments: Strong odor

Purge Method:
Bail / Pump / Vac
Total Gals. Purged: 36.0
Total Vols. Purged: 2.0
Sample Collection Time: 12:15
Sample Collection Depth: 30.29

30.98
9.14

Well Data		Recharge Info: F / S
Bore OD:	10	Fast or Slow Recovering Well
Casing ID:	4	
Well TD:	42'	**Percent Recovery:**
DTW:	30.98	(MD - IWD) x 0.80 then subtract result from MD
Ft./Water:	11.02	
80% Recovery:	31.18	PR : Percent recovery
Factor:	1.63	IWD : Initial Water depth
1 Vol:	17.96	MD : Maximum drawdown
3 Vol:		

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:
WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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1.02 x .8

FP @ 32.52 .01' 1/8"

Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date:
Well ID: M-2
Sampler:

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV							
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged:

Total Vols. Purged:

Sample Collection Time:

Sample Collection Depth:

Well Data	
Bore OD:	
Casing ID:	
Well TD:	
DTW:	32.52
Ft./Water:	
80% Recovery:	
Factor:	
1 Vol:	
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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FP 3202

1/8"

Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date:
Well ID: MW-3
Sampler:

Purge Data -	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV							
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged:

Total Vols. Purged:

Sample Collection Time:

Sample Collection Depth:

Well Data	
Bore OD:	
Casing ID:	
Well TD:	
DTW:	32.03
Ft./Water:	
80% Recovery:	
Factor:	
1 Vol:	
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 hhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 07-28-08
Well ID: MW-4
Sampler: L.H.

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	12:38						
1.0 BHV	12:51	21.6	1759	3.81	30.65	19.0	
1.5 BHV	1:04	21.6 ✓	1764	3.85	30.55	9.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 28.5

Total Vols. Purged: 1.5

Sample Collection Time: 1:18

Sample Collection Depth: 30.39 ✓

Well Data	
Bore OD:	10
Casing ID:	4
Well TD:	42'
DTW:	30.41
Ft./Water:	11.59
80% Recovery: ✓	30.45
Factor:	1.63
1 Vol:	18.89
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 07-28-08
Well ID: MW-6
Sampler: L.H

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	2:18						slight odor
1.0 BHV	2:27	21.7	1810	3.81	30.65	17.0	
1.5 BHV	2:42	21.7	1816	3.83	30.65	8.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: 25.5

Total Vols. Purged: 1.5

Sample Collection Time: 2:52

Sample Collection Depth: 30.61

Well Data

Bore OD:	10
Casing ID:	4
Well TD:	41
DTW:	30.6
Ft./Water:	10.4
80% Recovery:	30.61
Factor:	1.63
1 Vol:	16.9
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 07-29-09
Well ID: MW-7
Sampler: L.H.

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	8:06						
1.0 BHV	8:19	21.3	1871	4.10	30.56	18.0	
1.5 BHV	8:34	21.3	1878	3.97	30.52	9.0	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 27.0

Total Vols. Purged: 1.5

Sample Collection Time: 10.05

Sample Collection Depth: 30.10

Well Data

Bore OD:	10
Casing ID:	4
Well TD:	41
DTW:	30.08
Ft./Water:	10.92
80% Recovery:	30.17
Factor:	1.63
1 Vol:	17.79
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 07-29-08
Well ID: MW-8
Sampler: L. H

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	9:07						
1.0 BHV	9:17	21.9	1631	4.05	32.61	12.0	
1.5 BHV	9:24	21.8	1694	3.92	32.62	6.0	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 18.0

Total Vols. Purged: 1.5

Sample Collection Time: 9:40

Sample Collection-Depth: 32.6

Well Data

Bore OD:	10
Casing ID:	4
Well TD:	40
DTW:	32.6
Ft./Water:	7.4
80% Recovery:	32.6
Factor:	1.63
1 Vol:	12.06
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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San Diego, CA 92128

Site Name: WIGINGTON OIL / EL CAP OIL — Petra Geotechnical
Project Number: 252-06 — Sampling Data
Site Address: WOODSIDE AVE, SANTEE

Date: 07-28-08
Well ID: MW-9
Sampler: L.H.

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	3:22						
1.0 BHV	3:30	21.6	1783	3.80	30.96	14.0	
1.5 BHV	3:36	21.4	1788	3.81	3085	7.0	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 21.0

Total Vols. Purged: 1.5

Sample Collection Time: 3:47

Sample Collection Depth: 30.57

Well Data

Bore OD:	10
Casing ID:	4
Well TD:	39
DTW:	30.58
Ft./Water:	8.42
80% Recovery:	30.63
Factor:	1.63
1 Vol:	13.72
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 07-29-08
Well ID: MW-10
Sampler: LH

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	10:49						
1.0 BHV	10:57	23.5	1506	3.33	35.25	10.5	
1.5 BHV	11:02	23.0	1489	3.31	35.22	5.25	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 15.75

Total Vols. Purged: 1.5

Sample Collection Time: 11:15

Sample Collection Depth: 33.74

Well Data	
Bore OD:	10
Casing ID:	4
Well TD:	40
DTW:	33.65
Ft./Water:	6.35
80% Recovery:	38.97
Factor:	1.63
1 Vol:	10.35
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery

IWD : Initial Water depth

MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 07-29-08
Well ID: MW-11
Sampler: L.H

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons
Start:	2:29					
1.0 BHV	2:45	21.9	1258	3.30	30.98	6.0
1.5 BHV	2:54	22.1	1263	3.48	30.98	3.0
2.0 BHV						
2.5 BHV						
3.0 BHV						
Stop:						

Notes / Comments

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 9.0

Total Vols. Purged: 1.5

Sample Collection Time: 3:05

Sample Collection Depth: 30.97

Well Data	
Bore OD:	8
Casing ID:	2
Well TD:	38
DTW:	30.99
Ft./Water:	7.01
80% Recovery:	30.98
Factor:	.88
1 Vol:	6.16
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 07-29-08
Well ID: MW-12
Sampler: LH.

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	1:06						
1.0 BHV	1:25	21.7	1193	3.21	30.49	7.5	
1.5 BHV	1:34	21.7	1187	3.18	30.48	3.75	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 11.25

Total Vols. Purged: 1.5

Sample Collection Time: 1:45

Sample Collection Depth: 30.47

Well Data	
Bore OD:	8
Casing ID:	2
Well TD:	39
DTW:	30.49
Ft./Water:	8.51
80% Recovery:	30.49
Factor:	.88
1 Vol:	7.48
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 07-30-08
Well ID: MW-13
Sampler: L.H.

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV	11.40	25.0	2.68	4.15	41.80	9.5	Bail
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 10.0

Total Vols. Purged: 1.0

Sample Collection Time: 1.40

Sample Collection Depth: 40.75

Well Data	
Bore OD:	8
Casing ID:	2
Well TD:	45
DTW:	34.08
Ft./Water:	10.92
80% Recovery:	35.62
Factor:	.88
1 Vol:	9.6
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 07-30-08
Well ID: MW-14
Sampler: L.H

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	10:33						
1.0 BHV	10:44	21.4	1592	3.71	34.56	11.0	
1.5 BHV	10:50	21.2	1580	3.72	34.20	5.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 16.5

Total Vols. Purged: 1.5

Sample Collection Time: 11:00

Sample Collection Depth: 31.82

Well Data	
Bore OD:	10
Casing ID:	4
Well TD:	38
DTW:	31.14
Ft./Water:	6.86
80% Recovery:	31.82
Factor:	1.63
1 Vol:	11.18
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 07-30-08
Well ID: MW-15
Sampler: L.H.

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	7:56						Strong odor
1.0 BHV	8:17	21.2	1332	3.48	30.77	7.0	
1.5 BHV	8:28	21.2	1325	3.50	30.80	3.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:
(Bail) / Pump / Vac

Total Gals. Purged: 10.5
Total Vols. Purged: 1.5
Sample Collection Time: 8:40
Sample Collection Depth: 30.75

Well Data	
Bore OD:	8
Casing ID:	2
Well TD:	38.5
DTW:	30.76
Ft./Water:	7.74
80% Recovery:	30.76
Factor:	.88
1 Vol:	6.81
3 Vol:	

Recharge Info: F / S
Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 07-30-08
Well ID: MW-16
Sampler: L.H.

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	9:06						slight odor
1.0 BHV	9:21	21.1	1292	3.53	31.01	7.0	
1.5 BHV	9:32	20.9	1277	3.59	31.00	3.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 10.5

Total Vols. Purged: 1.5

Sample Collection Time: 8:40

Sample Collection Depth: 31.00

Well Data	
Bore OD:	8
Casing ID:	2
Well TD:	39
DTW:	31.02
Ft./Water:	7.98
80% Recovery:	31.01
Factor:	.88
1 Vol:	7.02
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 07-30-08
Well ID: MW-17
Sampler: LH

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	12:21						
1.0 BHV	12:38	23.1	1648	3.74	42.29	7.5	
1.5 BHV	1:04	23.4	1656	3.66	42.20	3.25	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: 10.75

Total Vols. Purged: 1.5

Sample Collection Time: 1:55

Sample Collection Depth: 36.51

Well Data	
Bore OD:	8
Casing ID:	2
Well TD:	44.5
DTW:	36.08
Ft/Water:	8.42
80% Recovery:	37.32
Factor:	.88
1 Vol:	7.40
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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San Diego, CA 92128

APPENDIX B

LABORATORY REPORTS-GROUNDWATER SAMPLES

PETRA

ORANGE COAST ANALYTICAL, INC.
3002 Dow Ave., Suite 532, Tustin CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

ORANGE COAST ANALYTICAL, INC.

3002 Dow Suite 532 Tustin, CA 92780

(714) 832-0064

Laboratory Certification (ELAP) No.: 2576
Expiration Date: 2009
Los Angeles County Sanitation District Lab ID# 10206

Laboratory Director's Name:
Mark Noorani

Client: Petra Geotechnical

Laboratory Reference: PTE 16641

Project Name: Wigington Oil

Project Number: 252-06

Date Received: 8/5/2008

Date Reported: 8/12/2008

Chain of Custody Received: ☑

Analytical Method: 8015B, CADHS LUFT, 8260B,

Mark Noorani, Laboratory Director

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Mr. Doug Stephenson
Petra Geotechnical
12225 World Trade Drive P
San Diego, CA, 92128

Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-1	16641-001	8/5/2008	7/28/2008	8/6/2008	8/6/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	57
Ethylbenzene	100-41-4	19
Toluene	108-88-3	<0.50
Total Xylenes	1330-20-7	15
Methyl t-butyl ether (MTBE)	1634-04-4	55
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	<10

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	94	48-143 %	1
Toluene-d8:	98	68-120 %	
4-Bromofluorobenzene:	92	64-120 %	

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Petra Geotechnical
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San Diego, CA, 92128

Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-4	16641-002	8/5/2008	7/28/2008	8/6/2008	8/6/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	410
Ethylbenzene	100-41-4	72
Toluene	108-88-3	<2.5
Total Xylenes	1330-20-7	<10
Methyl t-butyl ether (MTBE)	1634-04-4	70
Diisopropyl ether (DIPE)	108-20-3	<5.0
t-Amyl methyl ether (TAME)	994-05-8	<5.0
Ethyl t-butyl ether (ETBE)	637-92-3	<5.0
tert-Butyl alcohol (TBA)	75-65-0	<50

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	93	48-143 %	5
Toluene-d8:	99	68-120 %	
4-Bromofluorobenzene:	91	64-120 %	

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-6	16641-003	8/5/2008	7/28/2008	8/6/2008	8/6/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	720
Ethylbenzene	100-41-4	410
Toluene	108-88-3	7.6
Total Xylenes	1330-20-7	540
Methyl t-butyl ether (MTBE)	1634-04-4	98
Diisopropyl ether (DIPE)	108-20-3	<10
t-Amyl methyl ether (TAME)	994-05-8	<10
Ethyl t-butyl ether (ETBE)	637-92-3	<10
tert-Butyl alcohol (TBA)	75-65-0	<100

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	92	48-143 %	10
Toluene-d8:	97	68-120 %	
4-Bromofluorobenzene:	92	64-120 %	

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-7	16641-004	8/5/2008	7/29/2008	8/6/2008	8/6/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<0.50
Ethylbenzene	100-41-4	<0.50
Toluene	108-88-3	<0.50
Total Xylenes	1330-20-7	<2.0
Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	<10

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	96	48-143 %	1
Toluene-d8:	97	68-120 %	
4-Bromofluorobenzene:	88	64-120 %	

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-8	16641-005	8/5/2008	7/29/2008	8/6/2008	8/6/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<0.50
Ethylbenzene	100-41-4	15
Toluene	108-88-3	<0.50
Total Xylenes	1330-20-7	<2.0
Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	<10

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	92	48-143 %	1
Toluene-d8:	98	68-120 %	
4-Bromofluorobenzene:	89	64-120 %	

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

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San Diego, CA, 92128

Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-9	16641-006	8/5/2008	7/29/2008	8/6/2008	8/6/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	230
Ethylbenzene	100-41-4	27
Toluene	108-88-3	27
Total Xylenes	1330-20-7	65
Methyl t-butyl ether (MTBE)	1634-04-4	74
Diisopropyl ether (DIPE)	108-20-3	<5.0
t-Amyl methyl ether (TAME)	994-05-8	<5.0
Ethyl t-butyl ether (ETBE)	637-92-3	<5.0
tert-Butyl alcohol (TBA)	75-65-0	<50

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	92	48-143 %	5
Toluene-d8:	96	68-120 %	
4-Bromofluorobenzene:	94	64-120 %	

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

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San Diego, CA, 92128

Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-10	16641-007	8/5/2008	7/29/2008	8/6/2008	8/6/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<0.50
Ethylbenzene	100-41-4	<0.50
Toluene	108-88-3	<0.50
Total Xylenes	1330-20-7	<2.0
Methyl t-butyl ether (MTBE)	1634-04-4	1.0
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	<10

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	96	48-143 %	1
Toluene-d8:	98	68-120 %	
4-Bromofluorobenzene:	86	64-120 %	

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Mr. Doug Stephenson
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12225 World Trade Drive P
San Diego, CA, 92128

Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-11	16641-008	8/5/2008	7/29/2008	8/6/2008	8/6/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	4.2
Ethylbenzene	100-41-4	39
Toluene	108-88-3	0.81
Total Xylenes	1330-20-7	<2.0
Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	<10

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	89	48-143 %	1
Toluene-d8:	100	68-120 %	
4-Bromofluorobenzene:	88	64-120 %	

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Project Name: Wigington Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-12	16641-009	8/5/2008	7/29/2008	8/6/2008	8/6/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<0.50
Ethylbenzene	100-41-4	<0.50
Toluene	108-88-3	<0.50
Total Xylenes	1330-20-7	<2.0
Methyl t-butyl ether (MTBE)	1634-04-4	11
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	<10

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	97	48-143 %	1
Toluene-d8:	100	68-120 %	
4-Bromofluorobenzene:	84	64-120 %	

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Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-13	16641-010	8/5/2008	7/30/2008	8/6/2008	8/6/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<0.50
Ethylbenzene	100-41-4	<0.50
Toluene	108-88-3	<0.50
Total Xylenes	1330-20-7	<2.0
Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	<10

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	97	48-143 %	1
Toluene-d8:	97	68-120 %	
4-Bromofluorobenzene:	89	64-120 %	

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Project Name: Wigington Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-14	16641-011	8/5/2008	7/30/2008	8/7/2008	8/7/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	6600
Ethylbenzene	100-41-4	2400
Toluene	108-88-3	170
Total Xylenes	1330-20-7	3700
Methyl t-butyl ether (MTBE)	1634-04-4	270
Diisopropyl ether (DIPE)	108-20-3	<100
t-Amyl methyl ether (TAME)	994-05-8	<100
Ethyl t-butyl ether (ETBE)	637-92-3	<100
tert-Butyl alcohol (TBA)	75-65-0	<1000

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	103	48-143 %	100
Toluene-d8:	98	68-120 %	
4-Bromofluorobenzene:	93	64-120 %	

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Project Name: Wigington Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-15	16641-012	8/5/2008	7/30/2008	8/7/2008	8/7/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	2100 ✓
Ethylbenzene	100-41-4	3700
Toluene	108-88-3	250
Total Xylenes	1330-20-7	10000
Methyl t-butyl ether (MTBE)	1634-04-4	<50
Diisopropyl ether (DIPE)	108-20-3	<50
t-Amyl methyl ether (TAME)	994-05-8	<50
Ethyl t-butyl ether (ETBE)	637-92-3	<50
tert-Butyl alcohol (TBA)	75-65-0	<500

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	95	48-143 %	50
Toluene-d8:	100	68-120 %	
4-Bromofluorobenzene:	95	64-120 %	

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Project Name: Wigington Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-16	16641-013	8/5/2008	7/30/2008	8/7/2008	8/7/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	110
Ethylbenzene	100-41-4	210
Toluene	108-88-3	1.7
Total Xylenes	1330-20-7	<4.0
Methyl t-butyl ether (MTBE)	1634-04-4	160
Diisopropyl ether (DIPE)	108-20-3	<2.0
t-Amyl methyl ether (TAME)	994-05-8	<2.0
Ethyl t-butyl ether (ETBE)	637-92-3	<2.0
tert-Butyl alcohol (TBA)	75-65-0	<20

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	91	48-143 %
Toluene-d8:	96	68-120 %
4-Bromofluorobenzene:	91	64-120 %

Dilution Factor: 2

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Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-17	16641-014	8/5/2008	7/30/2008	8/6/2008	8/6/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<5.0
Ethylbenzene	100-41-4	<5.0
Toluene	108-88-3	<5.0
Total Xylenes	1330-20-7	<20
Methyl t-butyl ether (MTBE)	1634-04-4	<10
Diisopropyl ether (DIPE)	108-20-3	<10
t-Amyl methyl ether (TAME)	994-05-8	<10
Ethyl t-butyl ether (ETBE)	637-92-3	<10
tert-Butyl alcohol (TBA)	75-65-0	<100

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	92	48-143 %	10
Toluene-d8:	98	68-120 %	
4-Bromofluorobenzene:	93	64-120 %	

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Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBHN0807081			8/7/2008	8/7/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<0.50
Ethylbenzene	100-41-4	<0.50
Toluene	108-88-3	<0.50
Total Xylenes	1330-20-7	<2.0
Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	<10

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	100	48-143 %	1
Toluene-d8:	98	68-120 %	
4-Bromofluorobenzene:	83	64-120 %	

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBMN080608I			8/6/2008	8/6/2008	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<0.50
Ethylbenzene	100-41-4	<0.50
Toluene	108-88-3	<0.50
Total Xylenes	1330-20-7	<2.0
Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	<10

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	99	48-143 %	1
Toluene-d8:	102	68-120 %	
4-Bromofluorobenzene:	83	64-120 %	

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Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

Volatile Fuel Hydrocarbons (EPA 8015B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-1	16641-001	8/5/2008	7/28/2008	8/6/2008	8/6/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	420	1

* Acceptable Surrogate Recovery: 53-148 %

Surrogate:	% RC*
α-α-α-Trifluorotoluene	144

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-4	16641-002	8/5/2008	7/28/2008	8/6/2008	8/6/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	2100	10

* Acceptable Surrogate Recovery: 53-148 %

Surrogate:	% RC*
α-α-α-Trifluorotoluene	108

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-6	16641-003	8/5/2008	7/28/2008	8/6/2008	8/6/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	6900	10

* Acceptable Surrogate Recovery: 53-148 %

Surrogate:	% RC*
α-α-α-Trifluorotoluene	143

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-7	16641-004	8/5/2008	7/29/2008	8/6/2008	8/6/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	<50	1

* Acceptable Surrogate Recovery: 53-148 %

Surrogate:	% RC*
α-α-α-Trifluorotoluene	103

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

[1] Volatile Fuel Hydrocarbons (VFH) are quantitated against a gasoline standard.

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Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

Volatile Fuel Hydrocarbons (EPA 8015B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-8	16641-005	8/5/2008	7/29/2008	8/7/2008	8/7/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	660	1

* Acceptable Surrogate Recovery: 53-148 %

Surrogate:	% RC*
α-α-α-Trifluorotoluene	203

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-9	16641-006	8/5/2008	7/29/2008	8/7/2008	8/7/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	1100	2

* Acceptable Surrogate Recovery: 53-148 %

Surrogate:	% RC*
α-α-α-Trifluorotoluene	152

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-10	16641-007	8/5/2008	7/29/2008	8/6/2008	8/6/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	<50	1

* Acceptable Surrogate Recovery: 53-148 %

Surrogate:	% RC*
α-α-α-Trifluorotoluene	87

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-11	16641-008	8/5/2008	7/29/2008	8/6/2008	8/6/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	690	1

* Acceptable Surrogate Recovery: 53-148 %

Surrogate:	% RC*
α-α-α-Trifluorotoluene	173

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

[1] Volatile Fuel Hydrocarbons (VFH) are quantitated against a gasoline standard.

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Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

Volatile Fuel Hydrocarbons (EPA 8015B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-12	16641-009	8/5/2008	7/29/2008	8/6/2008	8/6/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	<50	1

* Acceptable Surrogate Recovery: 53-148 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	95

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-13	16641-010	8/5/2008	7/30/2008	8/6/2008	8/6/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	<50	1

* Acceptable Surrogate Recovery: 53-148 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	92

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-14	16641-011	8/5/2008	7/30/2008	8/7/2008	8/7/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	25000	50

* Acceptable Surrogate Recovery: 53-148 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	89

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-15	16641-012	8/5/2008	7/30/2008	8/7/2008	8/7/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	46000	100

* Acceptable Surrogate Recovery: 53-148 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	106

[1] Volatile Fuel Hydrocarbons (VFH) are quantitated against a gasoline standard.

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Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

Volatile Fuel Hydrocarbons (EPA 8015B)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-16	16641-013	8/5/2008	7/30/2008	8/7/2008	8/7/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	1300	5

* Acceptable Surrogate Recovery: 53-148 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	110

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-17	16641-014	8/5/2008	7/30/2008	8/7/2008	8/7/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	780	1

* Acceptable Surrogate Recovery: 53-148 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	303

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTT0806081			8/6/2008	8/6/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	<50	1

* Acceptable Surrogate Recovery: 53-148 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	100

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTT0807081			8/7/2008	8/7/2008	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	<50	1

* Acceptable Surrogate Recovery: 53-148 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	96

[1] Volatile Fuel Hydrocarbons (VFH) are quantitated against a gasoline standard.

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Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

C10-C32 Diesel (CADHS LUFT)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-1	16641-001	8/5/2008	7/28/2008	8/7/2008	8/7/2008	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	<0.5	Octacosane	127	1

* Acceptable Surrogate Recovery: D-134 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-4	16641-002	8/5/2008	7/28/2008	8/7/2008	8/7/2008	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	1.3	Octacosane	84	1

* Acceptable Surrogate Recovery: D-134 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-6	16641-003	8/5/2008	7/28/2008	8/7/2008	8/7/2008	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	0.98	Octacosane	65	1

* Acceptable Surrogate Recovery: D-134 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-7	16641-004	8/5/2008	7/29/2008	8/7/2008	8/7/2008	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	<0.5	Octacosane	122	1

* Acceptable Surrogate Recovery: D-134 %

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Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

C10-C32 Diesel (CADHS LUFT)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-8	16641-005	8/5/2008	7/29/2008	8/7/2008	8/7/2008	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	2.1	Octacosane	123	1

* Acceptable Surrogate Recovery: D-134 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-9	16641-006	8/5/2008	7/29/2008	8/7/2008	8/7/2008	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	0.57	Octacosane	140	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-10	16641-007	8/5/2008	7/29/2008	8/7/2008	8/7/2008	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	<0.5	Octacosane	166	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-11	16641-008	8/5/2008	7/29/2008	8/7/2008	8/7/2008	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	0.72	Octacosane	123	1

* Acceptable Surrogate Recovery: D-134 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

C10-C32 Diesel (CADHS LUFT)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-12	16641-009	8/5/2008	7/29/2008	8/7/2008	8/7/2008	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	<0.5	Octacosane	151	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-13	16641-010	8/5/2008	7/30/2008	8/7/2008	8/7/2008	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	<0.5	Octacosane	157	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-14	16641-011	8/5/2008	7/30/2008	8/7/2008	8/7/2008	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	12	Octacosane	163	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-15	16641-012	8/5/2008	7/30/2008	8/7/2008	8/7/2008	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	17	Octacosane	184	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Mr. Doug Stephenson
Petra Geotechnical
12225 World Trade Drive P
San Diego, CA, 92128

Lab Reference # PTE 16641
Project Name: Wigington Oil
Project #: 252-06

C10-C32 Diesel (CADHS LUFT)

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-16	16641-013	8/5/2008	7/30/2008	8/7/2008	8/7/2008	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	0.78	Octacosane	122	1

* Acceptable Surrogate Recovery: D-134 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-17	16641-014	8/5/2008	7/30/2008	8/7/2008	8/7/2008	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	11	Octacosane	147	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample Number	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBME0807081			8/7/2008	8/7/2008	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	<0.5	Octacosane	120	1

* Acceptable Surrogate Recovery: D-134 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

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QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 8/6/2008
Date of Analysis: 8/6/2008
Dup Date of Analysis: 8/6/2008
Laboratory Sample #: 16641-004
Reference #: PTE 16641

Analyte	*R1*	*SP CONC*	*MS*	*MSD*	*%MS*	*%MSD*	*RPD*	*ACP %MS*	*ACP RPD*	*Qual*
1,1-Dichloroethene	0.0	50	55	49	110	98	12	41-120	23	☐
Benzene	0.0	50	55	56	110	112	2	80-120	15	☐
Trichloroethene	0.0	50	54	54	108	108	0	79-128	15	☐
Toluene	0.0	50	51	52	102	104	2	72-137	17	☐
Chlorobenzene	0.0	50	53	54	106	108	2	80-123	16	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	*MS*	*MSD*	*Qual*	*LCS*	*Qual*	*ACP % RC*
Dibromofluoromethane	98	98	☐	101	☐	48-143 %
Toluene-d8	96	97	☐	94	☐	68-120 %
4-Bromofluorobenzene	89	89	☐	84	☐	64-120 %

Laboratory Control Sample

Date of Extraction: 8/6/2008
Date of Analysis: 8/6/2008
Laboratory Sample #: MN0806081

Analyte	*SP CONC*	*Results*	*% Recovery*	*Acceptable %*	*Qual*
1,1-Dichloroethene	50	54	108	47-120	☐
Benzene	50	56	112	79-120	☐
Trichloroethene	50	53	106	80-120	☐
Toluene	50	50	100	80-126	☐
Chlorobenzene	50	52	104	80-123	☐

QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 8/7/2008
Date of Analysis: 8/7/2008
Dup Date of Analysis: 8/7/2008
Laboratory Sample #: 16641-012
Reference #: PTE 16641

Analyte	*R1*	*SP CONC*	*MS*	*MSD*	*%MS*	*%MSD*	*RPD*	*ACP %MS*	*ACP RPD*	*Qual*
1,1-Dichloroethene	0.0	50	47	45	94	90	4	41-120	23	☐
Benzene	42.0	50	94	95	104	106	1	80-120	15	☐
Trichloroethene	0.0	50	50	51	100	102	2	79-128	15	☐
Toluene	5.0	50	52	54	94	98	4	72-137	17	☐
Chlorobenzene	0.0	50	48	50	96	100	4	80-123	16	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	*MS*	*MSD*	*Qual*
Dibromofluoromethane	95	94	☐
Toluene-d8	93	98	☐
4-Bromofluorobenzene	89	92	☐

LCS	*Qual*
99	☐
97	☐
81	☐

ACP % RC
48-143 %
68-120 %
64-120 %

Laboratory Control Sample

Date of Extraction: 8/7/2008
Date of Analysis: 8/7/2008
Laboratory Sample #: HN08070081

Analyte	*SP CONC*	*Results*	*% Recovery*	*Acceptable %*	*Qual*
1,1-Dichloroethene	50	46	92	47-120	☐
Benzene	50	52	104	79-120	☐
Trichloroethene	50	50	100	80-120	☐
Toluene	50	49	98	80-126	☐
Chlorobenzene	50	51	102	80-123	☐

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QA/QC Report
for
Volatile Fuel Hydrocarbons (EPA 8015B)

Reporting units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 8/6/2008
Date of Analysis: 8/6/2008
Dup Date of Analysis: 8/6/2008
Laboratory Sample #: 16641-004
Reference #: PTE 16641

Analyte	*R1*	*SP CONC*	*MS*	*MSD*	*%MS*	*%MSD*	*RPD*	*ACP %MS*	*ACP RPD*	*Qual*
VFH	0	250	277	265	111	106	4	52-140	28	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)*	*MS*	*MSD*	*Qual*	*LCS*	*Qual*
α-α-α-Trifluorotoluene	116	109	☐	118	☐

* Acceptable Surrogate Recovery: 53-148 %

Laboratory Control Sample

Date of Extraction: 8/6/2008
Date of Analysis: 8/6/2008
Laboratory Sample #: TT0806081

Analyte	*SP CONC*	*Results*	*% Recovery*	*Acceptable %*	*Qual*
VFH	250	272	109	60-133	☐

QA/QC Report
for
Volatile Fuel Hydrocarbons (EPA 8015B)

Reporting units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 8/7/2008
Date of Analysis: 8/7/2008
Dup Date of Analysis: 8/7/2008
Laboratory Sample #: 16641-010
Reference #: PTE 16641

Analyte	*R1*	*SP CONC*	*MS*	*MSD*	*%MS*	*%MSD*	*RPD*	*ACP %MS*	*ACP RPD*	*Qual*
VFH	0	250	293	239	117	96	20	52-140	28	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)*	*MS*	*MSD*	*Qual*	*LCS*	*Qual*
α-α-α-Trifluorotoluene	117	105	☐	119	☐

* Acceptable Surrogate Recovery: 53-148 %

Laboratory Control Sample

Date of Extraction: 8/7/2008
Date of Analysis: 8/7/2008
Laboratory Sample #: TT0807081

Analyte	*SP CONC*	*Results*	*% Recovery*	*Acceptable %*	*Qual*
VFH	250	279	112	60-133	☐

QA/QC Report
for
Extractable Fuel Hydrocarbons (CADHS LUFT)
Reporting units: ppm

Laboratory Control Sample (LCS) / Laboratory Control Sample Duplicate (LCSD)

Date of Extraction: 8/7/2008
LCS Date of Analysis: 8/7/2008
LCSD Date of Analysis: 8/7/2008
Laboratory Sample #: ME0807081
Reference #: PTE 16641

Analyte	*R1*	*SP CONC*	*LCS*	*LCSD*	*%LCS*	*%LCSD*	*RPD*	*ACP%*	*ACP RPD*	*Qual*
C10-C32 Diesel	0.0	5.0	5.6	5.3	112	106	6	37-125	34	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)*	*LCS*	*LCSD*	*Qual*
Octacosane	126	131	☐

* Acceptable Surrogate Recovery: D-134 %

Sample Data Qualifiers

Client Sample Number	Lab Sample #	Analysis
MW-4	16641-002	8260B

Qualifier

D2= Sample required dilution due to high concentration of target analyte.

MW-4	16641-002	VFH

Qualifier

D1 = Sample required dilution due to matrix.

MW-6	16641-003	8260B

Qualifier

D2= Sample required dilution due to high concentration of target analyte.

MW-6	16641-003	VFH

Qualifier

D2= Sample required dilution due to high concentration of target analyte.

MW-8	16641-005	VFH

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-9	16641-006	8260B

Qualifier

D2= Sample required dilution due to high concentration of target analyte.

MW-9	16641-006	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits.

MW-9	16641-006	VFH

Qualifier

D1 = Sample required dilution due to matrix.

S1 = Surrogate recovery was above laboratory acceptance limits

MW-10	16641-007	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits.

MW-11	16641-008	VFH

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-12	16641-009	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits.

Sample Data Qualifiers

Client Sample Number	Lab Sample #	Analysis
MW-13	16641-010	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits.

MW-14	16641-011	8260B

Qualifier

D2= Sample required dilution due to high concentration of target analyte.

MW-14	16641-011	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits.

MW-14	16641-011	VFH

Qualifier

D2= Sample required dilution due to high concentration of target analyte.

MW-15	16641-012	8260B

Qualifier

D2= Sample required dilution due to high concentration of target analyte.

MW-15	16641-012	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits.

MW-15	16641-012	VFH

Qualifier

D2= Sample required dilution due to high concentration of target analyte.

MW-16	16641-013	VFH

Qualifier

D1 = Sample required dilution due to matrix.

MW-17	16641-014	8260B

Qualifier

D1 = Sample required dilution due to matrix.

MW-17	16641-014	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits.

MW-17	16641-014	VFH

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

Definition of terms:

R1	Results Of Laboratory Sample Number
SP CONC	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
%MS	Percent Recovery Of MS: {(MS-R1) / SP} x100
%MSD	Percent Recovery Of MSD: {(MSD-R1) / SP} x 100
RPD	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2
LCS	Laboratory Control Sample Results
LCSD	Laboratory Control Sample Duplicate Results
%LCS	Percent Recovery Of LCS: {(LCS-R1) / SP} x100
%LCSD	Percent Recovery Of LCSD: {(LCSD-R1) / SP} x 100
RPD (for LCS/LCSD)	Relative Percent Difference: {(LCS-LCSD) / (LCS+LCSD)} x 100 x 2
ACP %MS(MSD)	Acceptable Range of Percent
ACP RPD	Acceptable Relative Percent Difference
D	Detectable, result must be greater than zero
Qual	A checked box indicates a data qualifier was required for this analyte; see attached explanation.
N.D.	Analyte Not Detected

Analysis Request and Chain of Custody Record

Lab Job No: 1641
Page _____ of _____

ORANGE COAST ANALYTICAL, INC. www.ocalab.com
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Tustin, CA 92780
(714) 832-0064 Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY:	PETRA GEOTECH	PROJECT NAME:	WILMINGTON OIL
SEND REPORT TO:	DOUG STEPHENSON	NUMBER:	252-06
ADDRESS:	12225 WORLD TRADE DR #P SAN DIEGO, CA 92128	ADDRESS:	11427 WOODSIDE AVE SANTEE, CA
EMAIL:	dstephenson@petra-inc.com	P.O. #:	08-1228
PHONE:	(858) 485-5530	FAX: (858) 485-8215	SAMPLED BY: LH/DES

REQUIRED TAT: _____

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	ANALYSIS / CONTAINER / PRESERVATIVE: 8015 TPH gas & diesel	8260B BTEX/OXYGENATES	REMARKS / PRECAUTIONS
MW-1	5	7/28/08	12:15	GW	X	X	cc: jjones@petra-inc.com
MW-4		↓	1:18				
MW-6		↓	2:52				
MW-7		7/29/08	10:05				
MW-8		7/29/08	9:40				
MW-9		7/28/08	3:47				
MW-10		7/29/08	11:15				
MW-11		7/29/08	3:05				
MW-12		↓	1:45				
MW-13		7/30/08	1:40				
MW-14		7/30/08	11:00				
MW-15		↓	8:40				
MW-16		↓	9:40				
MW-17	↓	↓	1:55	↓	↓	↓	

Total No. of Samples: 14 Method of Shipment: ON TRAC

Preservative: 1 = Ice (2 = HCl) 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	08-04-08 9:00	[signature]	8/4/08 9:00
[signature]	8/4/08 11:30	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received For Lab By: [signature]	Date/Time: 8/5/08 1000

Sample Matrix:
DW - Drinking Water
(GW) - Groundwater
WW - Wastewater
SS - Soil/Solid
OT- Other

Sample Integrity:
Intact _____ On Ice _____ °C

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.

APPENDIX C

HISTORIC GROUNDWATER TABLES

PETRA

MW-1
Historical Groundwater Data Table
Through Third Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.17	0.6	NA	NA	0.7	<0.5	NA	<0.05	NA
03/10/98	336.87	NA	2,500	910	340	200	18	240	190
05/18/98	NR	NA	704	<500	326	89.5	<50	<100	<50
04/05/00	334.28	NA	1,800	NA	250	14	34	380	200
04/26/02	332.63	NA	1,100	1,100	230	14	36	220	190
12/03/02	332.65	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA
01/17/08	--	NA	--	--	--	--	--	--	--
04/18/08	332.98	NA	2,800	980	370	6.6	170	227.8	610
07/28/08	331.86	NA	420	<500	57	<0.5	19	15	55

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-2
Historical Groundwater Data Table
Through Third Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.37	<0.5	NA	NA	<0.5	<0.5	NA	<0.5	NA
03/10/98	336.65	NA	330	<500	20	3.3	25	47	2,000
04/05/00	333.17	NA	7,600	NA	7.6	3.3	30	59	3,500
04/26/02	333.36	NA	6,000	160,000	9.2	3.9	16	17	2,600
12/03/02	333.24	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	FP	--	--	--	--	--	--	--	--
01/17/08	FP	--	--	--	--	--	--	--	--
04/18/08	334.02	NA	510	6,400	<10	<10	<10	<30	1,300
07/28/08	332.56	NA	--	--	--	--	--	--	--

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-3
Historical Groundwater Data Table
Through Third Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.24	140	NA	NA	19	3.4	NA	1.3	NA
03/10/98	337.82	NA	2,300	5,100	3.6	0.7	0.7	4.1	2,000
05/18/98	NR	NA	115	<500	98.5	<12.5	<12.5	<25.0	226
04/05/00	329.42	NA	420	NA	18	1.7	3.9	12	190
04/26/02	332.79	NA	9,700	190,000	92	<3.0	56	62	590
12/03/02	332.84	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	FP	--	--	--	--	--	--	--	--
01/17/08	FP	--	--	--	--	--	--	--	--
04/18/08	333.25	NA	<500	1,800	2.8	<1.0	<1.0	<3.0	99
07/28/08	332.13	--	--	--	--	--	--	--	--

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-4
Historical Groundwater Data Table
Through Third Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.22	6.3	NA	NA	<0.5	<0.5	NA	<0.5	NA
03/10/98	336.44	NA	9,600	3,700	2,400	250	50	430	4,100
04/05/00	332.92	NA	8,700	NA	1,800	<12	110	790	900
04/26/02	332.78	NA	15,000	95,000	4,500	150	450	1,900	1,500
12/03/02	332.95	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	FP	--	--	--	--	--	--	--	--
01/17/08	FP	--	--	--	--	--	--	--	--
04/18/08	333.13	NA	2,000	4,500	380	2.9	95	41	110
07/28/08	331.97	NA	2,100	1,300	410	<2.5	72	<10	70

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-5

Historical Groundwater Data Table

Through Third Quarter Monitoring Event, 2008

Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
03/10/98	NA	NA	730	1,700	20	0.6	<0.3	39	92
04/26/02	333.03	NA	500	2,000	7.3	1.7	2.8	6.8	230
12/03/02	332.92	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	331.70	NA	NA	NA	NA	NA	NA	NA	NA
01/17/08	--	--	--	--	--	--	--	--	--
04/18/08	332.35	--	--	--	--	--	--	--	--
07/28/08	--	--	--	--	--	--	--	--	--

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (per SAM Approval)

MW-6
Historical Groundwater Data Table
Through Third Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/26/02	332.67	NA	25,000	9,100	5,300	1,400	1,200	5,900	850
12/03/02	332.69	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	331.43	NA	570	<500	21	0.7	48	14	17
01/17/08	333.00	NA	1,400	<500	9.6	0.6	4.8	8.5	3.5
04/18/08	332.97	NA	2,000	750	500	<20	210	150	180
07/28/08	331.84	NA	6,900	980	720	7.6	410	540	98

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-7

Historical Groundwater Data Table

Through Third Quarter Monitoring Event, 2008

Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/26/02	333.10	NA	1,900	13,000	3.7	1.1	4.0	7.9	19
12/03/02	333.12	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	332.12	NA	<500	<500	<0.5	<0.5	<0.5	<0.5	<1.0
01/17/08	333.40	NA	<500	<500	<0.5	<0.5	<0.5	<1.5	<1.0
04/21/08	333.41	NA	<500	<500	<0.5	<0.5	<0.5	<1.5	<1.0
07/29/08	332.49	NA	<50	<500	<0.5	<0.5	<0.5	<2.0	<1.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-8
Historical Groundwater Data Table
Through Third Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/26/02	332.80	NA	4,800	6,500	50	9.2	170	210	64
12/03/02	332.81	NR	NR	NR	NR	NR	NR	NR	NR
10/26/07	331.49	NA	1,100	790	<0.5	<0.5	23	<0.5	<1.0
01/17/08	333.17	NA	1,100	570	<0.5	<0.5	27	<1.5	<1.0
04/21/08	333.09	NA	980	1,200	<0.5	<0.5	23	<1.5	<1.0
07/29/08	331.91	NA	660	2,100	<0.5	<0.5	15	<2.0	<1.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-9
Historical Groundwater Data Table
Through Third Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/18/08	332.84	NA	1,700	560	740	250	270	1,010	170
07/28/08	331.75	NA	1,100	570	230	27	27	65	74

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-10
Historical Groundwater Data Table
Through Third Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/18/08	334.76	NA	<500	<500	<0.5	<0.5	<0.5	<1.5	4.2
07/29/08	333.63	NA	<50	<500	<0.5	<0.5	<0.5	<2.0	1.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-11
Historical Groundwater Data Table
Through Third Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/18/08	332.50	NA	1,800	<500	22	<1.0	170	<3.0	<2.0
07/29/08	331.49	NA	690	720	4.2	0.81	39	<2.0	<1.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
– = Not Sampled (free product in well)

MW-12
Historical Groundwater Data Table
Through Third Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/18/08	332.33	NA	<500	<500	<1.0	<1.0	2.0	<3.0	65
07/29/08	331.39	NA	<50	<500	<0.5	<0.5	<0.5	<2.0	11

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
– = Not Sampled (free product in well)

MW-13
Historical Groundwater Data Table
Through Third Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/21/08	334.14	NA	<500	<500	<0.5	<0.5	<0.5	<1.5	<1.0
07/30/08	332.83	NA	<50	<500	<0.5	<0.5	<0.5	<2.0	<1.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-14
Historical Groundwater Data Table
Through Third Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/21/08	332.70	NA	27,000	3,800	5,300	290	2,400	6,460	650
07/30/08	331.65	NA	25,000	12,000	6,600	170	2,400	3,700	270

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-15
Historical Groundwater Data Table
Through Third Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/21/08	332.65	NA	32,000	3,500	2,400	510	4,100	13,380	<200
07/30/08	331.60	NA	46,000	17,000	2,100	250	3,700	10,000	<50

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
– = Not Sampled (free product in well)

MW-16
Historical Groundwater Data Table
Through Third Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/21/08	332.44	NA	<500	<500	53	<2.5	77	<7.5	110
07/30/08	331.46	NA	1,300	780	110	1.7	210	<4.0	160

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
– = Not Sampled (free product in well)

MW-17
Historical Groundwater Data Table
Through Third Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/21/08	333.00	NA	990	3,100	<0.5	<0.5	<0.5	<1.5	<1.0
07/30/08	331.89	NA	780	11,000	<5.0	<5.0	<5.0	<1.5	<10

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

San Diego County

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858-485-5530

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Engineers, Geologists
Environmental Scientists

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ENVIRONMENTAL HEALTH

July 25, 2008
J.N. 252-06

Ms. Linda Wigington
WIGINGTON PETROLEUM, INC.
c/o William L. Fischbeck, Esq.
Fischbeck & Oberndorfer
5464 Grossmont Center Drive, Third Floor
La Mesa, California 91942

Subject: **Workplan for Well Maintenance and Well Destruction, El Capitan Oil Company, 11427 Woodside Avenue, Santee, California. DEH Unauthorized Release No. H19469-001**

Dear Ms. Wigington:

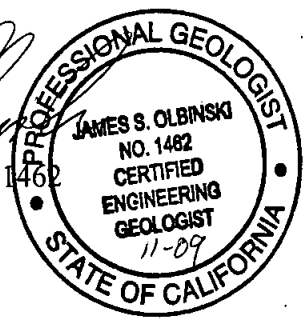
Petra Geotechnical, Inc. (Petra) is pleased to present this work plan for wellhead reconstruction and well destruction at El Capitan Oil Company, a fuel service facility located at 11427 Woodside Avenue in Santee, California (Figure 1). This work plan has been prepared pursuant to the requirements of the San Diego County Department of Environmental Health, Site Assessment and Mitigation (SAM) Program and at the request and authorization of Ms. Linda Wigington (client).

Should you have any questions regarding this work plan, please call the undersigned at (858) 485-5530.

Respectfully submitted,
Petra Geotechnical, Inc.

Douglas B. Stephenson
Senior Staff Geologist
7/24/08

James S. Olbinski, CEG 1462
Associate Geologist
7-24-08



DBS/JSO/JJ/br

C:\MyFiles\2006\200\252-06\650 (Phase II Environ Invest)\252-06 Work Plan.Well Maintenance.doc

Distribution: (1) Addressee c/o William L. Fischbeck, Esq. Fischbeck & Oberndorfer, via U.S. Mail
(1) San Diego County, SAM Program, Ms. Teresa E. Sherman, via Hand Delivery
(1) UST Cleanup Fund with Reimbursement Request, via Ontrac

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FIGURES
Figure 1- Site Location Map
Figure 2- Site Plan

WORKPLAN FOR WELL MAINTENANCE AND WELL DESTRUCTION, EL CAPITAN OIL COMPANY, 11427 WOODSIDE AVENUE, SANTEE, CALIFORNIA DEH UNAUTHORIZED RELEASE NO. H19469-001

INTRODUCTION

Petra Geotechnical, Inc., (Petra) is pleased to submit this workplan for additional well maintenance and well destruction activities at El Capitan Oil Company fuel services facility located in Santee, California (Figure 1). This workplan has been prepared pursuant to the requirements of the San Diego County Site Assessment and Mitigation (SAM) Program (2008c, attached), and in accordance with the contract between Petra and Ms. Linda Wigington (client).

SITE DESCRIPTION

Site Identification

Site Name:	Former El Capitan Oil Company
Site Address:	11427 Woodside Avenue, Santee, California
A.P.N.:	382-320-06
DEH Case:	H19469-001

Site History

The site is located in central San Diego County in the community of Santee (Figure 1). A reported total of 13 underground storage tanks (USTs) have been removed from the site between 1987 and 1998. Results of sampling conducted during UST removal activities indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) issued a letter requiring corrective action relative to the release (HMMD, 1993).

During 1988 through 2005, EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the site (EnecoTech, 2002, 2003 & 2005). A total of 18 borings and 8 groundwater monitoring wells have been drilled and sampled at the site. The 8 existing wells are depicted on Figure 2. Based on the results of assessment activities performed by EnecoTech, the extent of petroleum hydrocarbon-impacted groundwater has not been fully delineated. Additional delineation was required to the southwest, south and east of the former UST system.

On March 25, 2005, EnecoTech submitted a workplan for additional site assessment (EnecoTech, 2005). In a letter date October 10, 2007, the SAM Program approved this workplan. Petra discussed adding a well to the proposed and approved work with SAM Program personnel. The SAM Program agreed that another well was warranted and requested a revised workplan for installation of that well. The workplan was submitted on December 21, 2007 (Petra, 2007a) and the SAM Program approved the workplan in a letter dated January 15, 2008 (SAM, 2008a).

Additional assessment activities performed by Petra were completed in February 2008 to the southwest, south and east of the former UST system. Part of Petra's assessment included the installation of nine new monitoring wells. The results of these assessment activities and logs of these nine new borings, including and well construction/completion details will be provided in a site assessment report, now in progress.

In late October 2007, Petra personnel were on site to resume quarterly monitoring and sampling. Petra submitted a complete report on fourth quarter 2007 monitoring and sampling activities to the SAM Program on April 15, 2008 (Petra, 2008a). In this report, Petra recommended that wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-7, and MW-8 have their respective wellheads repaired or reconstructed to comply with SAM Program standards (SAM, 2004). The report also recommended the destruction of MW-5, an approximately 12" diameter, concrete cased well located in the main office on site. In a letter dated July 10, 2008, the SAM Program approved these recommendations and requested a workplan be submitted for these well maintenance and destruction activities (SAM, 2008c).

During the groundwater monitoring and sampling activities conducted by Petra on October 25, 2007, phase-separated petroleum hydrocarbons (free product) were detected in wells MW-2, MW-3 and MW-4 (Petra, 2008a). A workplan to conduct a high vacuum, dual-phase extraction (HVDPE) pilot test and interim remediation to evaluate the feasibility of using this technology

for mitigation of the free product at the site was submitted to the SAM Program on December 24, 2007 (Petra, 2007b). This workplan was approved by the SAM Program in a letter dated January 16, 2008 (SAM, 2008b).

The HVDPE pilot test was conducted for a period of 33 days between January 22 and February 24, 2008. A mobile extraction system, provided by CalClean, Inc., was used to conduct the test. Approximately 128,620 gallons of hydrocarbon-affected groundwater were extracted from which 3,256.17 pounds (520 gallons) of petroleum hydrocarbons were removed and treated. Complete results from the HVDPE pilot test will be provided in a HVDPE pilot test report, now in progress.

GEOLOGY

Regional Geology

The site is located in the Peninsular Ranges Geomorphic Province of Southern California. This province is typified by northwest to southeast-trending mountain ranges approximately parallel to the San Andreas and related regional fault systems. The plutonic rocks of the Peninsular Ranges are generally characterized as granitic rocks of the Southern California batholith (Norris & Webb, 1990) in association with lesser amounts of metamorphic rocks. Sedimentary rocks ranging in age from Cretaceous to Pleistocene form the San Diego embayment and coastal terraces west of the batholith.

As interpreted from regional geologic maps (Strand, 1962, Tan, 2002 and Todd, 2004), geologic materials underlying the site may include Quaternary-aged alluvium and colluvium. The more detailed geologic map of Tan (Tan, 2002) identifies Pleistocene alluvial deposits underlying the site and describes these sediments as "moderately consolidated, poorly sorted flood plain deposits consisting of gravelly, sandy silt and clay." These sediments are in unconformable contact with underlying bedrock.

The regional geologic maps have identified bedrock in the near vicinity as being "granitoid" (Todd, 2004). Tan (Tan, 2002) has mapped Cretaceous-aged tonalite immediately south of the site. The tonalite was described as including "some granodiorite and quartz diorite, medium-grained, generally dark colored and severely weathered." Based upon the referenced regional mapping, the site is most likely to be underlain by Cretaceous-aged tonalite. The top of the granitic composition bedrock is typically highly weathered to an as yet undetermined depth.

Past reports regarding this site have incorrectly referenced CDMG Bulletin 200 (Kennedy and Peterson, 1972) in the "Area Geology" sections of their reports (EnecoTech, 2002 & 2003). The site is located in the El Cajon, 7½-minute Quadrangle, which is not a part of CDMG Bulletin 200.

Site-Specific Geology

Based on a review of EnecoTech reports and our site assessment activities, it appears the site is underlain by alluvium and slopewash. These materials appear to be, in turn, underlain by weathered granitic bedrock which also comprises the highlands to the south of the site.

HYDROGEOLOGY

Based on review of a document titled *Water Quality Control Plan, San Diego Basin - Region 9*, (approved by the California Regional Water Quality Control Board September 8, 1994), the site is interpreted to lie within the Regional Water Quality Control Board (RWQCB), San Diego Basin Region 9, Santee Hydrologic Sub Area (7.12) of the Lower San Diego Hydrologic Area (7.10) of the San Diego Hydrologic Unit (7.00). According to the RWQCB, surface water in the area has existing beneficial use for industrial and agricultural, purposes and exempted potential use for municipal purposes. According to this RWQCB document, the groundwater in the Santee Hydrologic Sub Area has been classified as having existing beneficial uses for municipal, agricultural, industrial and industrial process supply purposes.

According to the most recent quarterly groundwater monitoring report, groundwater is present at depths ranging from approximately 29 to 35 feet below grade (Petra, 2008b). The groundwater flow direction has been interpreted, in the above referenced report (Petra, 2008b), to be generally toward the west-southwest.

OBJECTIVES

The objective of the proposed scope of services is to remove and replace or repair selected well heads to comply with County specifications (SAM, 2004), and abandon and destroy well MW-5 located inside the office structure on site as approved by the SAM Program (SAM, 2008c).

SCOPE OF SERVICES

TASK I—PREPARATION FOR FIELDWORK

Soil Boring Permit Application

As required by San Diego County, Department of Environmental Health (DEH), a permit application for the well abandonment will be prepared and submitted to the DEH with the proper fee. The permit application will be signed by an appropriately licensed professional.

Site Health and Safety Plan

A site health and safety plan (Plan) is required for the work conducted at the site by workers within the "exclusion zone" pursuant to the regulations in 29 Code of Federal Regulations (CFR) Part 1910.120 and Title 8 California Code of Regulations (CCR) Section 5192. A Plan shall be prepared which outlines the potential chemical and physical hazards that may be encountered during the drilling and sampling activities. The appropriate personal protective equipment and emergency response procedures for the site-specific chemical and physical hazards will be detailed in this Plan. All field personnel involved with the fieldwork will be required to read and sign the document in order to encourage proper health and safety practices.

Utility Search and Markout

Prior to well abandonment, Petra will contact Underground Service Alert (USA) to attempt to locate subsurface utilities and improvements at the site to minimize the likelihood of hitting an underground utility.

TASK II—FIELDWORK

Well Abandonment

Well MW-5, located in the main office structure on site, is a concrete cased, approximately 12" diameter well to a reported depth of over 70 feet below grade (EnecoTech, 2003). In the most recent monitoring of this well, Petra personnel measured the total depth at approximately 36 feet below grade. This indicates that the well is most likely uncased at some depth below the unknown length of concrete casing, and has most likely caved to its current depth. Well construction varies from current County specifications (SAM, 2004).

2-5' of concrete would be better than the grout

Well abandonment activities will include grouting the well with a tremi-pipe to five feet below grade, excavating the existing concrete casing to the top of the grout (five feet below existing grade), and backfilling the excavated upper five feet with native materials. The existing slab will be patched, and as understood by Petra, a new floor will be installed in the office space.

Well Repairs and Reconstruction

MW-7 and MW-8 - just repairs per Petra

As recommended by Petra (Petra, 2008a), and approved by the SAM Program (SAM, 2008c), the well heads for wells MW-1, MW-2, MW-3, MW-4, and MW-6 will be removed and reconstructed according to County specifications (SAM, 2004). The locations of these wells are depicted in Figure 2. In each case, the surface seal will be saw-cut and/or broken out with a demolition hammer, the security vault removed and replaced, and a new concrete surface seal will be constructed with positive drainage according to Appendix B of the SAM Manual (SAM, 2004). Photo documentation of the reconstruction activities will be performed.

TASK III—REPORT OF ACTIVITIES

At the completion of field activities, the SAM Program will be notified of well abandonment and wellhead reconstruction activities.

REFERENCES

California Regional Water Quality Control Board, San Diego Region, 1994, *Water Quality Control Plan for the San Diego Basin (9)*, dated September 8.

County of San Diego, Department of Environmental Health, Hazardous Materials Management Division (HMMD), 1993, Letter entitled: *Notice of Violation, El Capitan Oil Company, 11427 S. Woodside Avenue, Santee, CA 92071*, dated August 19.

County of San Diego Site Assessment and Mitigation (SAM) Program, 2004, *SAM Manual*, dated February 18.

SAM Program, 2007, Letter entitled: *Approval for Additional Monitoring Well, Unauthorized Release #H19469-001, El Capitan Oil Company, 11427 Woodside Avenue, Santee, CA 92071*, dated October 10.

SAM Program, 2008a, Letter entitled: *Workplan Approval for Addendum to Revised Work Plan for Additional Site Assessment, Unauthorized Release #H19469-001, El Capitan Oil Company, 11427 Woodside Avenue, Santee, CA 92071*, dated January 15.

SAM Program, 2008b, Letter entitled: *Workplan Approval, Unauthorized Release #H19469-001, El Capitan Oil Company, 11427 Woodside Avenue, Santee, CA 92071,* dated January 16.

SAM Program, 2008c, Letter entitled: *Report Response, Unauthorized Release #H19469-001, El Capitan Oil Company, 11427 Woodside Avenue, Santee, CA 92071*, dated July 10.

EnecoTech Southwest, Inc. (EnecoTech), 2002, *Additional Site Assessment, Wigington Petroleum, 11427 Woodside Avenue, Santee, California, T0948/H19469-001/APN 382-320-06, Project No. 1689-001 (BG 007),* dated June 21.

EnecoTech, 2003, *Comprehensive Site Assessment, Wigington Petroleum, 11427 Woodside Avenue, Santee, California 92071, H19469-001/T0948/APN 382-320-06, Project No. 1689-001 (BG 015),* dated March 7.

EnecoTech, 2005, *Revised Work Plan for Additional Site Assessment, 11427 Woodside Avenue, Santee, California, H19469-001/T0948/APN 382-320-06, Project No. 1689-001 (BG 020)*, dated March 25.

Harden, D. R., 1997, *California Geology*, Prentice-Hall, Inc.

Kennedy, M. P. and Peterson, G. L., 1975, *Geology of the San Diego Metropolitan Area, California, Del Mar, La Jolla, Point Loma, La Mesa, Poway, and SW ¼ Escondido 7½ Minute Quadrangles*, California Division of Mines and Geology, Bulletin 200.

Petra Geotechnical, Inc., 2007a, *Addendum to Revised Work Plan for Additional Site Assessment, El Capitan Oil Company, 11427 Woodside Avenue, Santee, California, DEH Unauthorized Release No. H19469-001, J.N. 252-06*, dated December 21.

Petra, 2007b, *Work Plan for High Vacuum, Dual-Phase Extraction Pilot Test and Interim Remediation, El Capitan Oil Company, 11427 Woodside Avenue, Santee, California, DEH Unauthorized Release No. H19469-001*, dated December 21.

Petra, 2008a, *Fourth Quarter 2007 Groundwater Monitoring Report, Wigington Petroleum, 11427 Woodside Avenue, Santee, California, T0948/H19469-001/APN 382-320-06, J.N. 252-06*, dated April 15.

Petra, 2008b, *Second Quarter 2008 Groundwater Monitoring Report, Wigington Petroleum, 11427 Woodside Avenue, Santee, California, T0948/H19469-001/APN 382-320-06, J.N. 252-06*, dated July 18.

Southern California Survey, Inc., 2008, Well Location Survey, Wigington Petroleum, 11427 Woodside Avenue, Santee, California, three sheets, dated March 28.

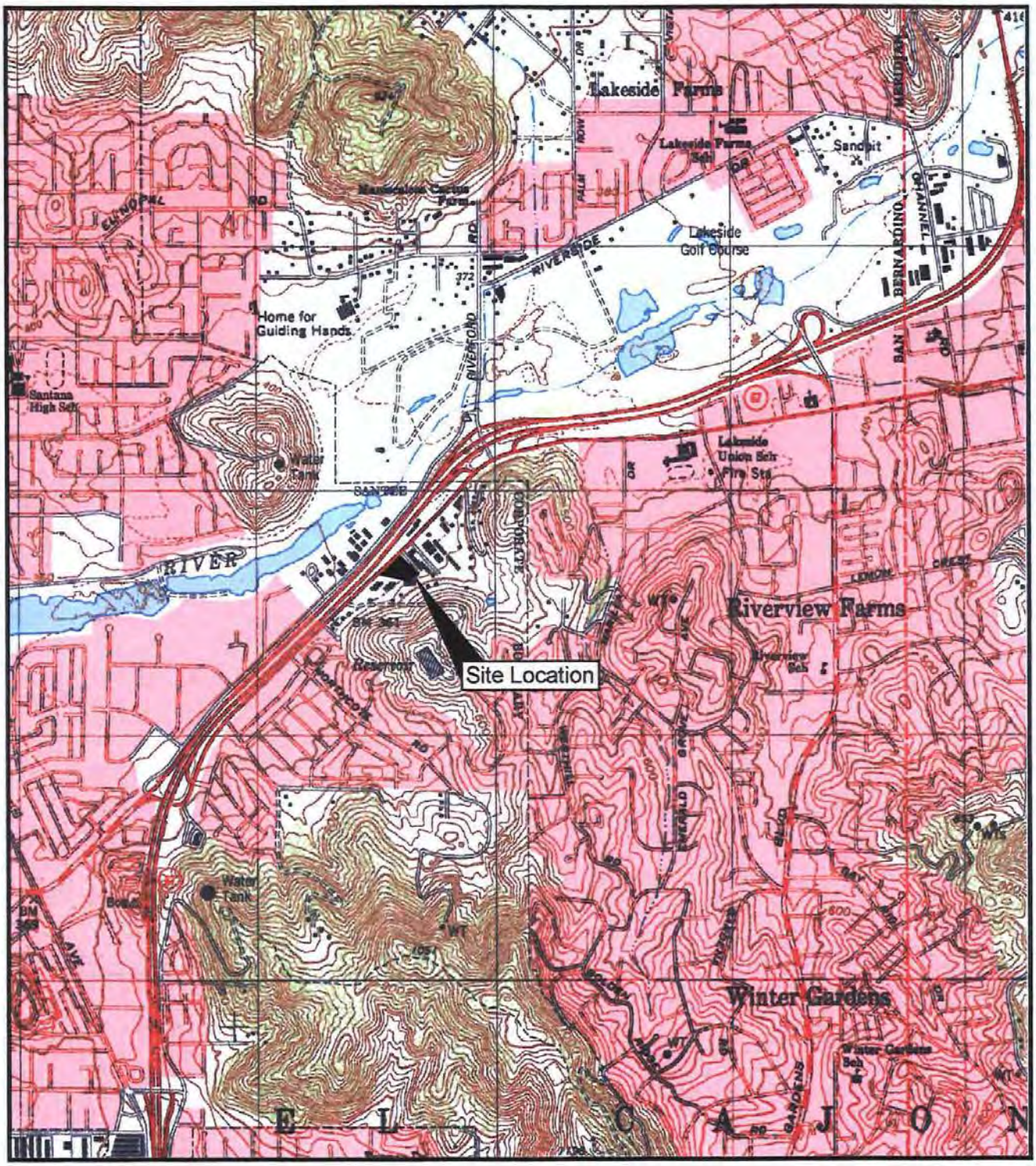
Strand, R. G., 1962, *Geologic Map of California, Olaf P. Jenkins Edition, San Diego-El Centro Sheet*, California Division of Mines and Geology, Scale 1:250,000, (Fourth printing 1992).

Tan, S. S., 2002, *Geologic Map of the El Cajon 7.5' Quadrangle, San Diego County, California: a Digital Database*, Department of Conservation, California Geological Survey, scale indicated 1:24,000.

Todd, Victoria R., 2004, *Preliminary Geologic Map of the El Cajon 30"X60' Quadrangle, Southern California, Version 1.0*, U. S. Department of the Interior, U. S. Geologic Survey, Open File Report 2004-1361, scale indicated 1:100,000.

FIGURES

PETRA



Base Map: USGS 7.5-Minute Topographic Map, El Cajon Quadrangle, 1996.

0 0.5
GRAPHIC SCALE
(in miles)

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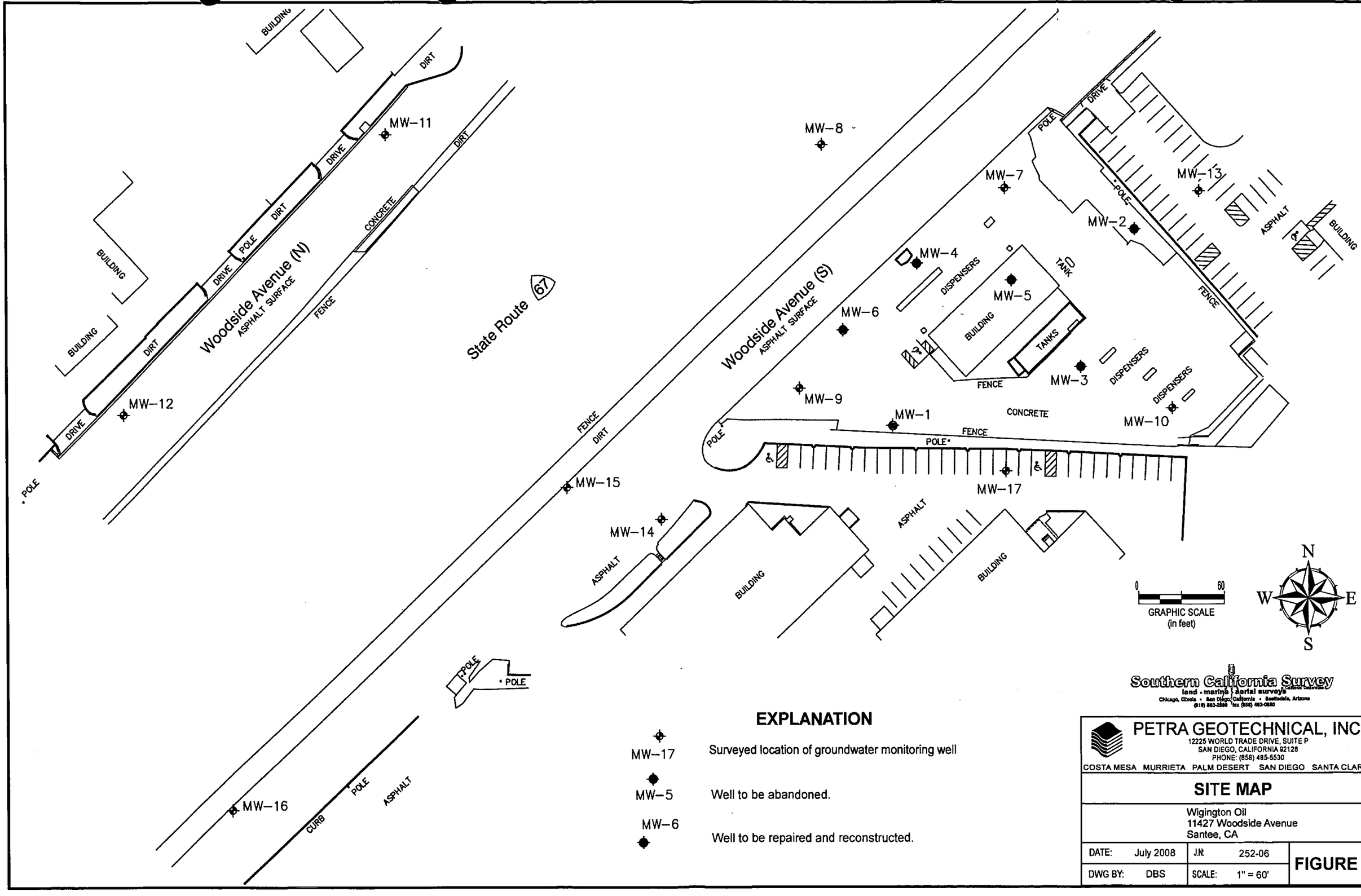
W E
S

PETRA GEOTECHNICAL, INC.
12225 WORLD TRADE DRIVE, SUITE P
SAN DIEGO, CALIFORNIA 92128
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

SITE LOCATION MAP

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE: July 2008	J.N.: 252-06	FIGURE 1
DWG BY: DBS	SCALE: See Left	



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EXPLANATION

MW-17 — Surveyed location of groundwater monitoring well

MW-5 — Well to be abandoned.

MW-6 — Well to be repaired and reconstructed.

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COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

SITE MAP

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	July 2008	J.N:	252-06	FIGURE 2
DWG BY:	DBS	SCALE:	1" = 60'	

APPENDIX A

COUNTY CORRESPONDENCE

J.N. 252-06

County of San Diego

GARY W. ERBECK
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
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http://www.sdcdeh.org

JACK MILLER
ASSISTANT DIRECTOR

July 10, 2008

Ms. Linda Wigington
Wigington Petroleum, Inc.
c/o William L. Fischbeck, Esq.
Fischbeck & Oberndorfer
5464 Grossmont Center Drive, Third Floor
La Mesa, California 91942

Dear Ms. Wigington:

REPORT RESPONSE
UNAUTHORIZED RELEASE #H19469-001
EL CAPITAN OIL COMPANY
11427 WOODSIDE AVENUE, SANTEE, CA 92071

This letter has been prepared in accordance with the requirements set forth in Title 23 (State Underground Storage Tank Regulations), Division 3, Chapter 16, Article 11, Section 2722. The purpose of this letter is to notify the Responsible Party of the status of the report received by the County of San Diego, Department of Environmental Health (DEH), Site Assessment and Mitigation Program (SAM), on April 17, 2008.

SAM staff reviewed the *Fourth Quarter 2007 Groundwater Monitoring and Sampling Report* (Report), dated April 15, 2008, and prepared by Petra Geotechnical, Inc. The Report presents the results of groundwater monitoring and sampling activities conducted at the site on October 25, 2007, and describes the conditions of the eight existing monitoring wells. According to the Report, groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-7, and MW-8 have wellheads that do not meet County specifications. The Report also states that well MW-5, located inside the main office building, does not conform to specifications. MW-5 is an unpermitted, large diameter production well that is no longer in use.

The Report recommends that wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-7, and MW-8 have their respective wellheads removed or repaired to comply with County specifications and that well MW-5 be abandoned (destroyed). We concur with these recommendations and request the following:

1. Submit a workplan for the proposed wellhead reconstruction and well destruction activities by **August 22, 2008**.

2. Continue the quarterly groundwater monitoring program at the site and include the recently installed wells.

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This approval is valid for 6 months from the date of this letter. Keep this letter for your records as it may be required for corrective action cost reimbursement under Senate Bill 2004 (California Health and Safety Code, Division 20, Chapter 6.75, Article 6).

As a reminder, please continue submitting all of the soil and groundwater data electronically into GeoTracker based on our letter dated July 13, 2005. SAM will not be able to close your unauthorized release case until all required information has been submitted to GeoTracker.

If you have any questions, please call me at (619) 338-2258.

Sincerely,

Teresa E. Sherman

TERESA E. SHERMAN, Project Manager
Site Assessment and Mitigation Program

TES:kd

cc: Charles Houser, Petra Geotechnical, Inc.

San Diego County

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PETRA

past + present + future
it's in our science

Engineers, Geologists
Environmental Scientists

July 18, 2008
J.N. 252-06

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ENVIRONMENTAL HEALTH

Ms. Linda Wigington
WIGINGTON PETROLEUM, INC.
c/o William L. Fischbeck, Esq.
5464 Grossmont Center Drive, Third Floor
La Mesa, California 91942

Subject: **Second Quarter 2008 Groundwater Monitoring and Sampling Report, Wigington Petroleum, 11427 Woodside Avenue, Santee, California, T0948/H19469-001/APN 382-320-06.**

Dear Ms. Wigington:

The Environmental Division of **Petra Geotechnical, Inc. (Petra)** is pleased to present this quarterly groundwater monitoring and sampling report for the above-referenced site. The purpose of the investigation was to perform quarterly groundwater monitoring and sampling pursuant to the requirements of the San Diego County Site Assessment and Mitigation (SAM) Program. The subject monitoring was conducted in accordance with our original proposal (P.N. 1177-06, April 19, 2006) and subsequent change order (J.N. 252-06, February 12, 2008).

If there are any questions or comments regarding the scope of work performed or methodology, please call the undersigned at (858) 485-5530.

Respectfully submitted,

Petra Geotechnical, Inc.
ENVIRONMENTAL DIVISION

PROFESSIONAL GEOLOGIST
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STATE OF CALIFORNIA

Charles E. Houser, CEG 2206
Associate Geologist
7/18/08

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SECOND QUARTER 2008
GROUNDWATER MONITORING AND SAMPLING REPORT

Wigington Petroleum
11427 Woodside Avenue, Santee, California
T0948/H19469-001/APN 382-320-06

SITE LOCATION AND BACKGROUND

The site is located at 11427 Woodside Avenue in Santee, California (Figure 1). The property occupies approximately 1.15 acres and is triangular in shape. The property is developed solely as a fueling and petroleum product sales facility.

Site Name:	*El Capitan Oil Company*
Site Address:	*11427 Woodside Avenue, Santee, California 92071*
APN:	*382-320-06*
DEH Case No.:	*H19469-001*

A total of 13 underground storage tanks (USTs) have reportedly been removed from the site between 1987 and 1998. Results of sampling conducted during UST removal activities indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) issued a letter requiring corrective action relative to the release (HMMD, August 19, 1993).

During 1988 through 2005, EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the site (EnecoTech, 2002, 2003 & 2005). A total of 18 borings and eight groundwater monitoring wells have been drilled and sampled at the site by EnecoTech. These eight monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7 and MW-8) are depicted on Figure 2. Based on the results of these past assessment activities, it appears the extent of petroleum hydrocarbon-impacted groundwater was not been fully delineated.

On March 25, 2005, EnecoTech submitted a workplan for additional site assessment (EnecoTech, 2005). In a letter dated October 10, 2007, the SAM Program approved this workplan. Petra Geotechnical Inc. (Petra) discussed adding a well to the proposed and approved work plan with SAM Program personnel. The SAM Program agreed that another well was

warranted and requested a revised workplan for installation of that well. The workplan was submitted on December 21, 2007 (Petra, 2007) and the SAM Program approved the workplan in a letter dated January 15, 2008 (SAM, 2008).

Additional assessment activities by Petra are underway to the southwest, south and east of the former UST system. Part of Petra's assessment included the installation of nine new monitoring wells. These nine new monitoring wells were used in this second quarter, 2008 monitoring event. The logs of these nine new borings, including and well construction/completion details will be provided in a site assessment report, now in progress.

OBJECTIVE

The objective of the scope of work was to comply with SAM Program requirements for quarterly groundwater monitoring and sampling. The scope of work designed to meet the project objective included the following tasks.

Task 1: Groundwater monitoring, purging, and sampling.

Task 2: Laboratory analysis of collected groundwater samples.

Task 3: Report preparation.

GROUNDWATER MONITORING, PURGING, AND SAMPLING

On April 18 and 21, 2008, sixteen wells were monitored. An electronic interface probe, with a manufacturer's reported accuracy of 1/100th of a foot, was used to measure the depth to water and check for the presence of phase-separated petroleum hydrocarbons (free product). Free product was not detected in any of the wells during this monitoring event. Eight of the wells (MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-9 and MW-10) were on site. Well MW-5 was monitored but not sampled due to the fact that the well appears to have caved to just below the water table. Monitoring wells MW-8, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16 and MW-17 are located offsite.

All sampled wells were purged and sampled in accordance with SAM Program guidelines. For fast recovering wells (wells that recover at least 80 percent within 2 hours), temperature, conductivity, and pH measurements (purging parameters) were taken after removal of the first borehole volume and each ½ borehole volume thereafter. Purging continued until at least one and one-half borehole volumes had been removed and purging parameters had stabilized to within 10 percent of the previous reading. Slow recovering wells (wells that recover less than 80 percent in two hours) were purged of one borehole volume. Purge water was placed in appropriate 55-gallon drums, labeled, and stored on-site pending disposal.

After purging was completed, the wells were allowed to recover. Fast recovering wells were allowed to recover at least 80 percent prior to sampling. Slow recovering wells were allowed to recover at least two hours prior to sampling. Groundwater samples were collected from each well with a single-use, disposable bailer and decanted into laboratory-supplied vials. The collected groundwater samples were labeled and placed in an ice-filled cooler pending delivery to the laboratory. Chain-of-custody procedures were implemented for sample tracking. Sampling data sheets are included in Appendix A.

LABORATORY ANALYSIS

Groundwater samples were submitted to a state-accredited laboratory for analysis. All samples were analyzed for total petroleum hydrocarbon as gasoline (TPHg) and as diesel fuel (TPHd) in general accordance with modified EPA Method 8015, and for benzene, toluene, ethylbenzene, and xylenes (BTEX), and oxygenates including methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA) in general accordance with EPA Method 8260B.

FINDINGS

GEOLOGY AND HYDROGEOLOGY

The following sections provide an overview of the regional and local geologic setting and include information pertaining to groundwater conditions in the vicinity of the study area.

Regional Geology

The site is located in the Peninsular Ranges Geomorphic Province of Southern California. This province is typified by northwest to southeast-trending mountain ranges approximately parallel to the San Andreas and related regional fault systems. The plutonic rocks of the western Peninsular Ranges are generally characterized as mafic (dark-colored) rocks, including gabbro, with granitic rocks of the Peninsular Ranges batholith (Harden, 1997) in association with lesser amounts of metamorphic rocks. Sedimentary rocks ranging in age from Cretaceous to Pleistocene form the San Diego embayment and coastal terraces west of the batholith.

As interpreted from regional geologic maps (Strand, 1962, Tan, 2002 and Todd, 2004), geologic materials underlying the site may include Quaternary-aged alluvium and colluvium. The more detailed geologic map of Tan (Tan, 2002) identifies Pleistocene alluvial deposits underlying the site and describes these sediments as "moderately consolidated, poorly sorted flood plain deposits consisting of gravelly, sandy silt and clay." These sediments are underlain by weathered granitic bedrock.

The regional geologic maps have identified bedrock in the near vicinity as being "granitoid" (Todd, 2004). Tan (2002) has mapped Cretaceous-aged tonalite immediately south of the site. The tonalite was described as including "some granodiorite and quartz diorite, medium-grained, generally dark colored and severely weathered." Based upon the referenced regional mapping, the site is most likely to be underlain by Cretaceous-aged tonalite.

Past reports by others regarding this site have incorrectly referenced CDMG Bulletin 200 (Kennedy and Peterson, 1975) in the "Area Geology" sections of their reports (EnecoTech, 2002 & 2003). The site is located in the El Cajon, 7½-minute Quadrangle, which is not a part of CDMG Bulletin 200.

Site-Specific Geology

Based on our experience at the site and in the site vicinity, the site is underlain by alluvium overlying weathered granitic bedrock. The granitic bedrock also comprises the highlands to the south of the site. The ground surface at the site slopes gently to the northwest, toward Woodside Avenue.

Hydrogeology

Based on review of a document titled *Water Quality Control Plan, San Diego Basin - Region 9*, (approved by the California Regional Water Quality Control Board September 8, 1994), the site is interpreted to lie within the Regional Water Quality Control Board (RWQCB), San Diego Basin Region 9, Santee Hydrologic Sub Area (7.12) of the Lower San Diego Hydrologic Area (7.10) of the San Diego Hydrologic Unit (7.00). According to the RWQCB, surface water in this subarea has existing beneficial use for industrial and agricultural supply purposes and potential use for municipal purposes. The groundwater in this subarea has been classified as having existing beneficial uses for municipal, agricultural, industrial service, and industrial process supply purposes.

According to EnecoTech reports, referenced above, groundwater has been present at depths ranging from approximately 29.45 to 31.90 feet below grade. The groundwater flow direction was interpreted, in the referenced reports (EnecoTech, 2002 and EnecoTech, 2003), to be generally toward the west-southwest.

On January 17, 2008, groundwater depths ranged from approximately 29.17 to 31.93 feet below grade (Petra, 2008b). The groundwater flow direction was interpreted to be generally toward the west with a gradient of approximately 0.0027.

The base map utilized for this monitoring event (Figure 3) is based upon a 2008-vintage well location survey by Southern California Survey, Inc. The 2008 survey was part of additional site assessment work by Petra (report in progress). Southern California Survey, Inc. originally surveyed the onsite wells for EnecoTech on April 26, 2002 (EnecoTech, 2002, pg. 5). The latest updated survey (Southern California Survey, 2008, Appendix D) was performed on March 28, 2008.

Groundwater Conditions

During the April, 2008 monitoring event, groundwater was encountered at depths ranging from approximately 29.25 to 34.97 feet below grade. The interpreted groundwater contours and gradients are depicted on Figure 3. Groundwater monitoring data is summarized in Table 1. Overall, the groundwater flow direction was interpreted to be generally toward the west-southwest with a gradient of approximately 0.0036. As depicted on Figure 3, the groundwater flow direction in the southern portion of the site is more northwest with a steeper gradient (approximately 0.0375).

ANALYTICAL RESULTS

Groundwater sample analytical results are summarized in Table 2 and on Figure 4. Wells MW-7 and MW-13 were reported to have no detectable concentrations of dissolved petroleum hydrocarbons. Detectable concentrations of petroleum hydrocarbon constituents were reported as follows:

TPHg- 32,000 ug/l (MW-15) to 510 ug/l (MW-2)
TPHd – 6,400 ug/l (MW-2) to 560 ug/l (MW-9)
Benzene – 5,300 ug/l (MW-14) to 2.8 ug/l (MW-3)
Toluene –510 ug/l (MW-15) to 2.9 ug/l (MW-4)

Ethylbenzene – 4,100 ug/l (MW-15) to 2.0 ug/l (MW-12)
Xylenes – 13,380 ug/l (MW-15) to 41 ug/l (MW-4)
MTBE – 1,300 ug/l (MW-2) to 4.2 ug/l (MW-10)

In addition to the above, TBA was detected in one sample at 240 ug/l for well MW-3. Detectable concentrations of DIPE, ETBE, and TAME were not reported in the sixteen samples analyzed for this quarterly event. Copies of laboratory reports are included in Appendix B. The interpreted extent of the dissolved benzene and dissolved MTBE plumes are depicted Figures 5 and 6 respectively.

DISCUSSION

Detectable concentrations of dissolved petroleum hydrocarbons were detected in wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-8, MW-9, MW-10, MW-11, MW-12, MW-14, MW-15, MW-16, and MW-17. Wells MW-7 and MW-13 were reported to have no detectable concentrations of dissolved petroleum hydrocarbons. Historic groundwater analytical results are included in Appendix C.

Petra is currently conducting additional assessment in the west and southeast portions of the site and offsite to the east, northwest, west, southwest and south. Results of the additional site assessment will be provided in an upcoming report. Petra has also completed a high-vacuum, duel-phase extraction (HVDPE) pilot test at the site. Results of our evaluation of the HVDPE, as a potential remediation option for the site, will be provided in an upcoming report. Recommendations for further site assessment activities and future monitoring will be made in the upcoming reports.

CONCLUSIONS AND RECOMMENDATIONS

Based on the data obtained and reviewed as part of this investigation, including but not limited to current regulatory guidelines, laboratory results, field observations and data evaluation by a registered geologist, it is our professional opinion that the extent of groundwater with dissolved

petroleum hydrocarbons has not been delineated. Additional conclusions and recommendations will be provided in the upcoming site assessment report (in progress). Petra recommends quarterly groundwater monitoring be continued at this site.

INVESTIGATION LIMITATIONS

This report is based on the project analytical data and findings as presented herein. The materials encountered on the project site, described in other literature, and used in the analytical testing program are believed to be representative of the project area, and the conclusions and recommendations in this report are presented on that basis. However, soil and bedrock materials can vary laterally and vertically within a project site and those variations, if present, could affect the conclusions and recommendations contained herein. In addition, chemicals could be present at the site that escaped detection by the project sampling and analytical testing program.

Although this investigation has attempted to delineate petroleum hydrocarbon-bearing groundwater relative to the site, potential sources of chemicals may have escaped detection for reasons which include, but are not limited to, the following:

- Our reliance on inadequate or inaccurate information provided to us by third parties such as public agencies and other outside sources;
- The limited scope of this investigation; and,
- The presence of undetected, unknown, or unreported environmental releases.

Should additional chemicals or other environmental conditions, beyond those already identified at the site, be detected during further progression of the project, Petra will be prepared to assist the client in evaluating the extent of and appropriate mitigation measures for such chemicals or conditions.

REPORT USAGE AND FUTURE SITE CONDITIONS

This report is intended for the sole usage of Wigington Petroleum, Inc. or its agents, and the San Diego County Site Assessment and Mitigation Program. The conclusions of this report are judged to be relevant at the time the work described in this report was conducted. Future site conditions may differ and this report should not be relied upon to represent future site conditions unless a qualified consultant familiar with the practice of similar environmental assessments is consulted to assess the necessity of updating this report.

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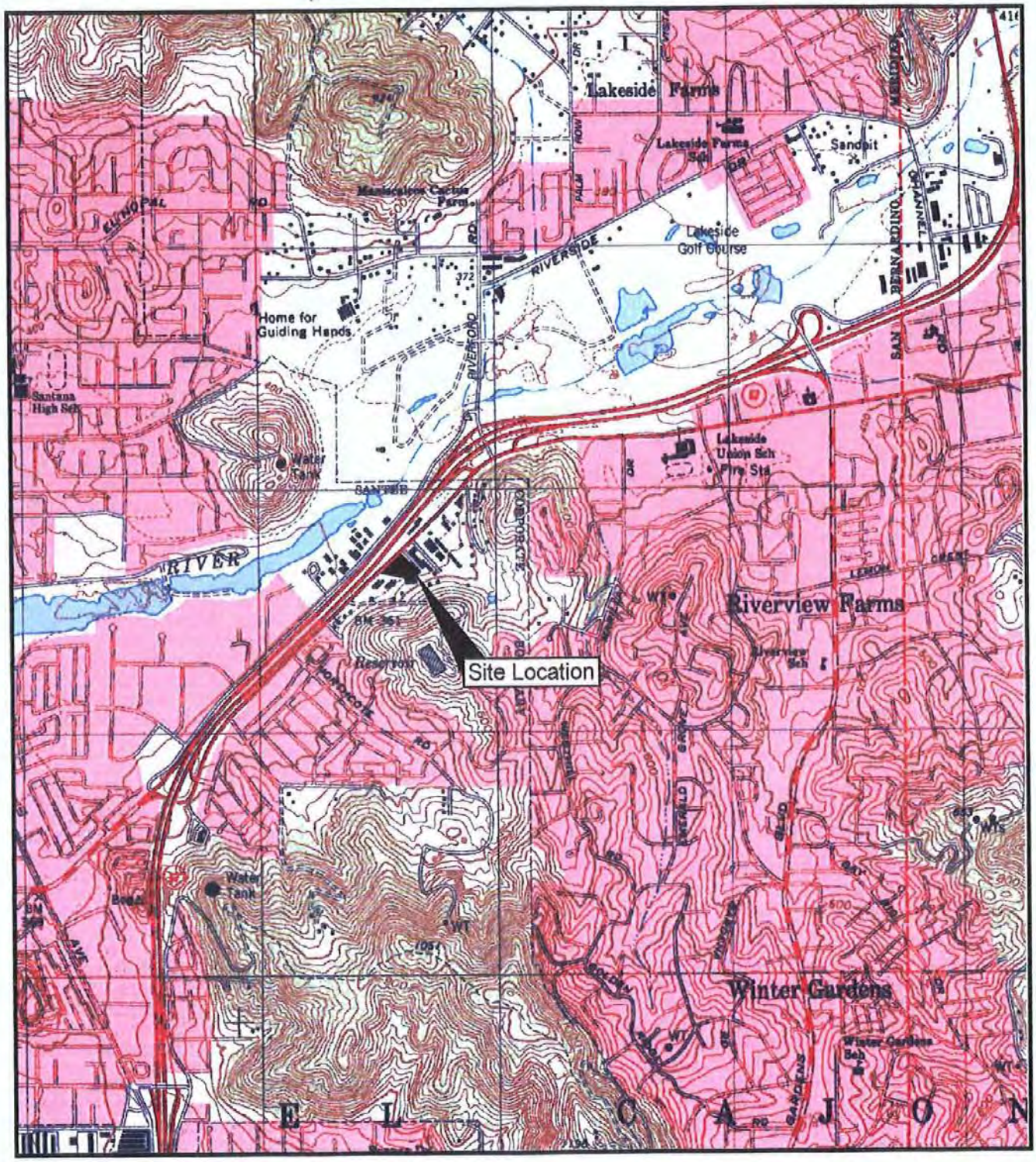
FIGURES

PETRA



Base Map: USGS 7.5-Minute Topographic Map, El Cajon Quadrangle, 1996.

0 0.5
GRAPHIC SCALE (in miles)

N
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S

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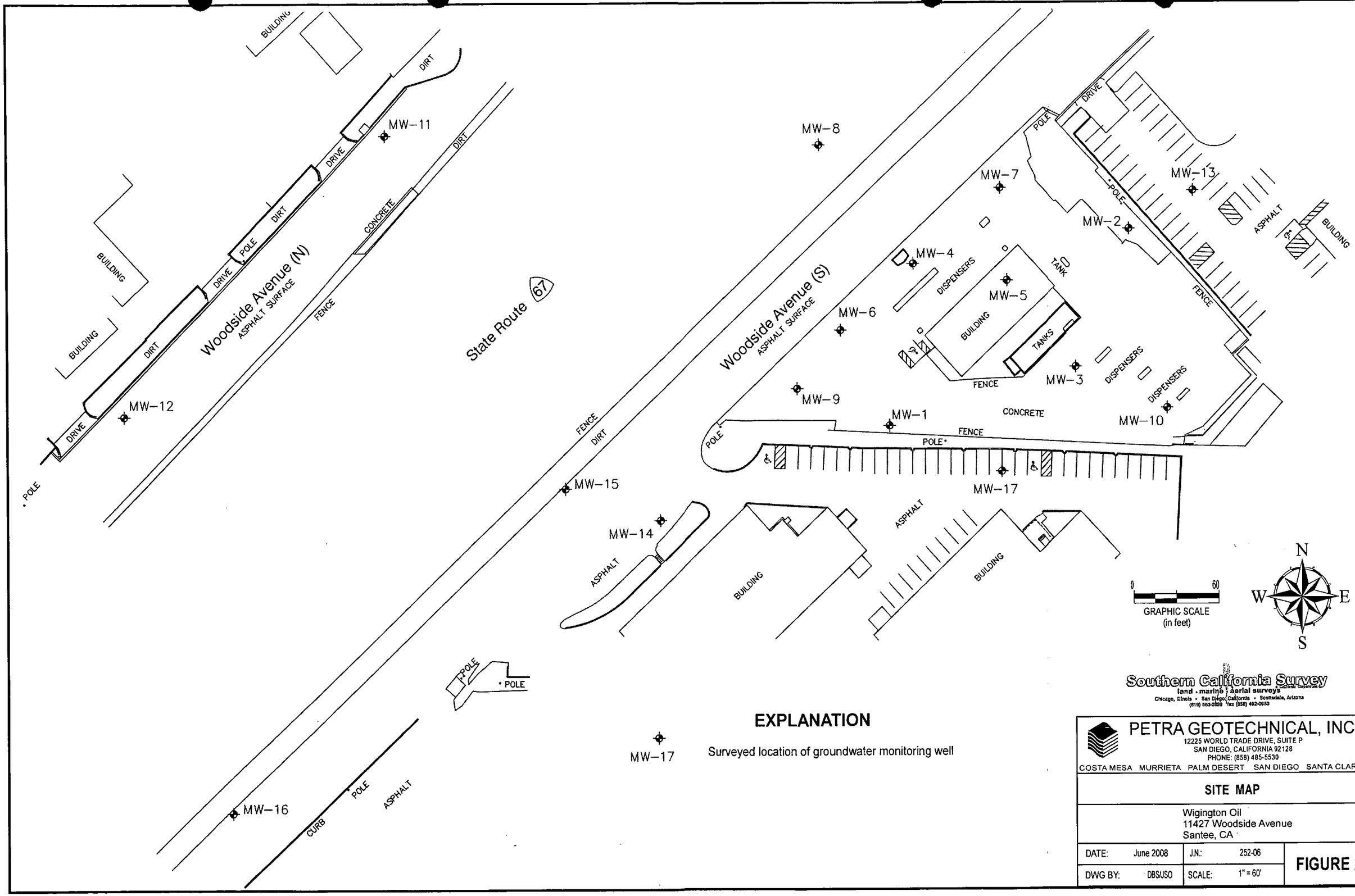
SITE LOCATION MAP

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	June 2008	J.N.:	252-06	**FIGURE 1**
DWG BY:	DBS	SCALE:	See Left	



EXPLANATION

MW-17 Surveyed location of groundwater monitoring well

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Chicago, Illinois • San Diego, California • Scottsdale, Arizona
(619) 863-2838 fax (858) 492-0950

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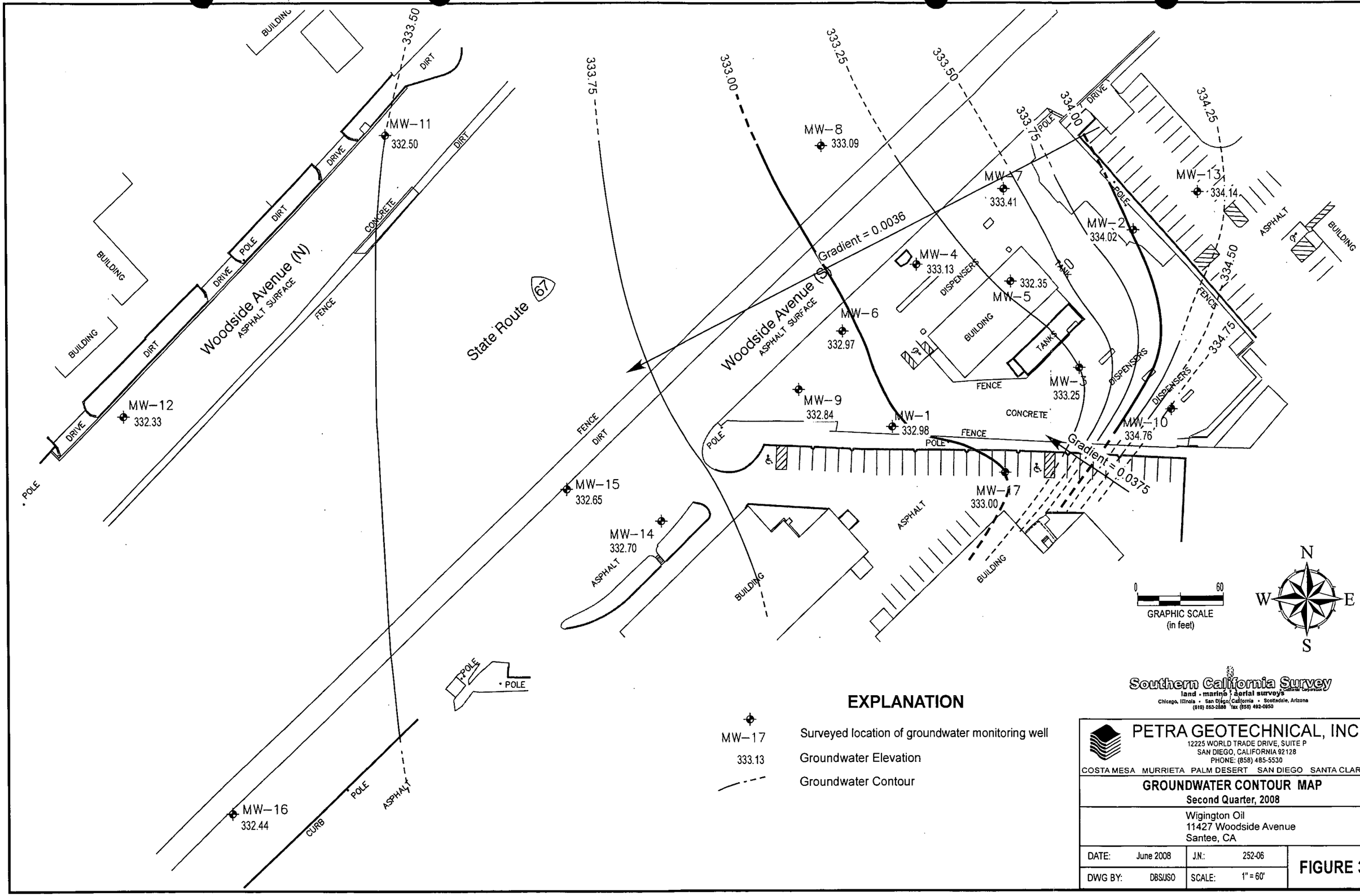
SITE MAP

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	June 2008	J.N.:	252-06	FIGURE 2
DWG BY:	DBS/JSO	SCALE:	1" = 60'	



EXPLANATION

MW-17	Surveyed location of groundwater monitoring well
333.13	Groundwater Elevation
	Groundwater Contour

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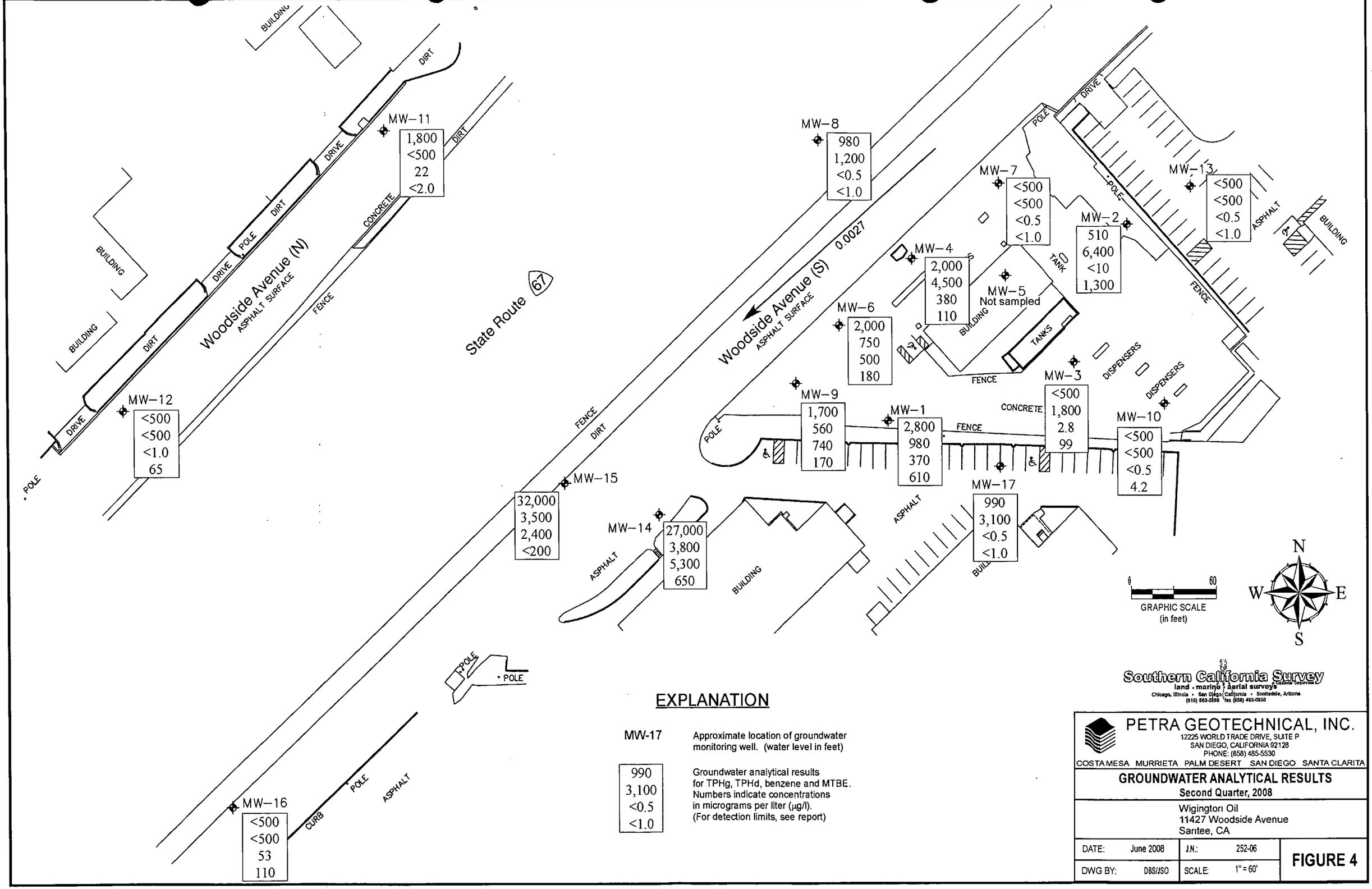
GROUNDWATER CONTOUR MAP

Second Quarter, 2008

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	June 2008	J.N.:	252-06	**FIGURE 3**
DWG BY:	DBS/JSO	SCALE:	1" = 60'	



EXPLANATION

MW-17	Approximate location of groundwater monitoring well. (water level in feet)
990 3,100 <0.5 <1.0	Groundwater analytical results for TPHg, TPHd, benzene and MTBE. Numbers indicate concentrations in micrograms per liter (µg/l). (For detection limits, see report)

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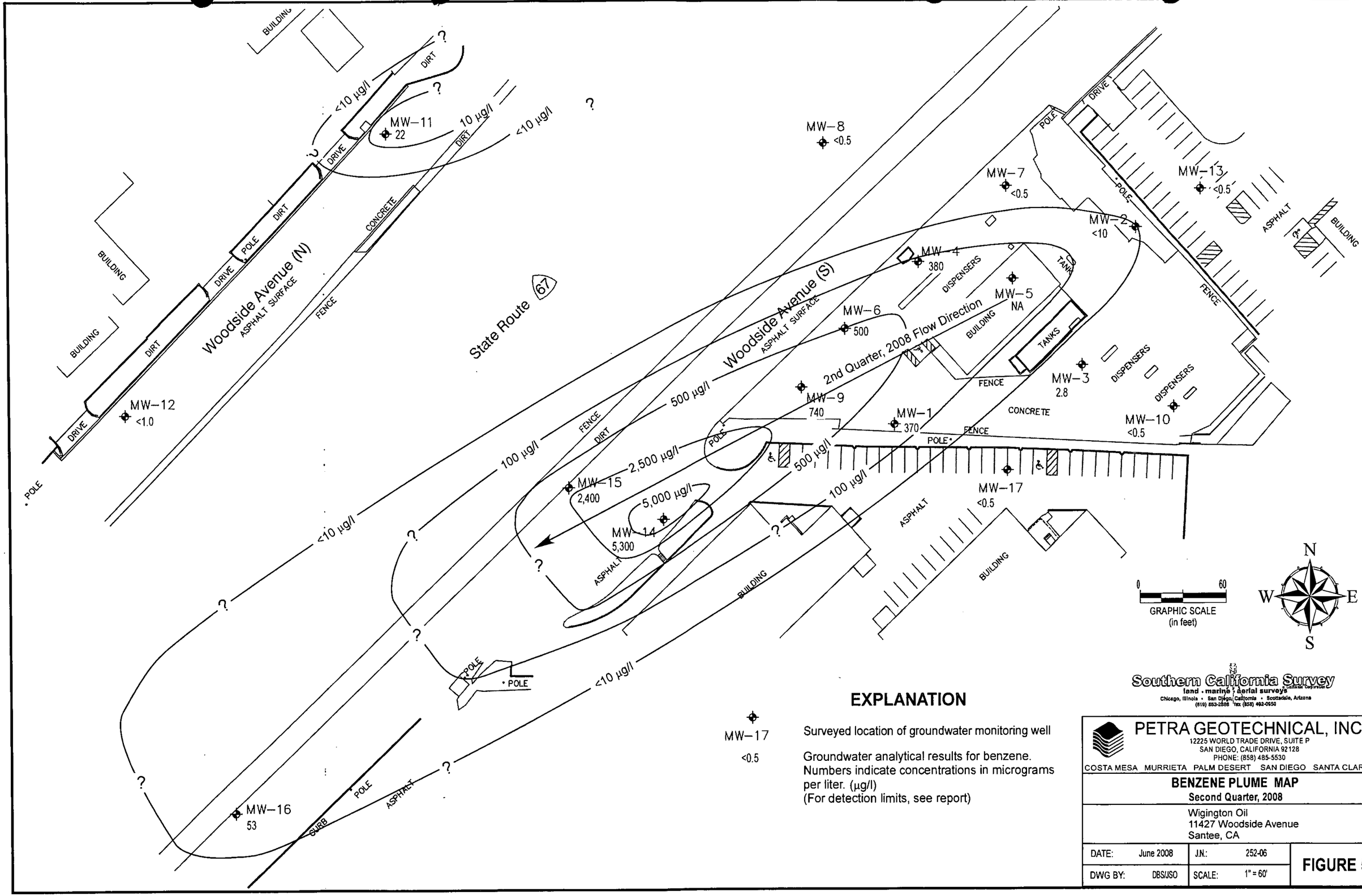
GROUNDWATER ANALYTICAL RESULTS
Second Quarter, 2008

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	June 2008	J.N.:	252-06
DWG BY:	DBS/JSO	SCALE:	1" = 60'

FIGURE 4



EXPLANATION

MW-17
<0.5

Surveyed location of groundwater monitoring well

Groundwater analytical results for benzene. Numbers indicate concentrations in micrograms per liter. (µg/l)
(For detection limits, see report)

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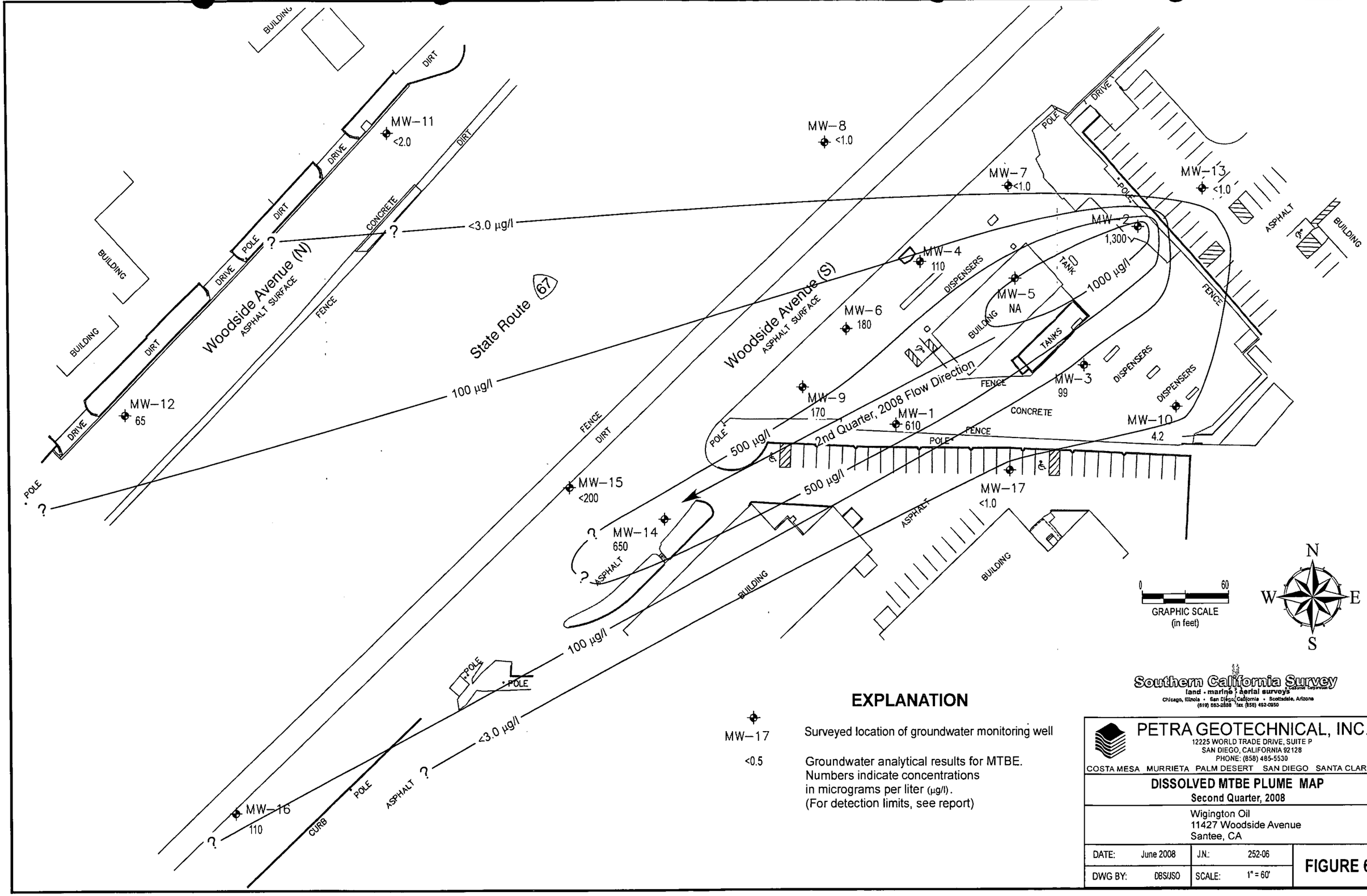
BENZENE PLUME MAP
Second Quarter, 2008

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	June 2008	J.N.:	252-06	**FIGURE 5**
DWG BY:	DBS/JSO	SCALE:	1" = 60'	



EXPLANATION

MW-17 — Surveyed location of groundwater monitoring well

<0.5 — Groundwater analytical results for MTBE. Numbers indicate concentrations in micrograms per liter (µg/l). (For detection limits, see report)

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DISSOLVED MTBE PLUME MAP

Second Quarter, 2008

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	June 2008	J.N.:	252-06
DWG BY:	DBS/JSO	SCALE:	1" = 60'

FIGURE 6

TABLES

PETRA

TABLE 1
Groundwater Monitoring Results
For Second Quarter Monitoring Event, 2008
Wigington Petroleum

Well	Top of Casing Elevation	Depth to Groundwater	Depth to Free Product	Free Product Thickness	Groundwater Elevation
MW-1	362.84	29.86			332.98
MW-2	365.08	31.06			334.02
MW-3	364.16	30.91			333.25
MW-4	362.38	29.25			333.13
MW-5	363.42	31.07			332.35
MW-6	362.44	29.47			332.97
MW-7	362.57	29.16			333.41
MW-8	364.51	31.42			333.09
MW-9	362.33	29.49			332.84
MW-10	367.28	32.52			334.76
MW-11	362.48	29.98			332.50
MW-12	361.88	29.55			332.33
MW-13	366.91	32.77			334.14
MW-14	362.79	30.09			332.70
MW-15	362.36	29.71			332.65
MW-16	362.48	30.04			332.44
MW-17	367.97	34.97			333.00

Note: -- Not Surveyed

TABLE 2
Groundwater Analytical Results
For Second Quarter Monitoring Event, 2008
Wigington Petroleum

Well Number	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	ETBE	TAME	TBA
MW-1	**2,800**	**980**	**370**	**6.6**	**170**	**227.8**	**610**	<10	<10	<10	<50
MW-2	**510**	**6,400**	<10	<10	<10	<30	**1,300**	<20	<20	<20	<100
MW-3	<500	**1,800**	**2.8**	<1.0	<1.0	<3.0	**99**	<2.0	<2.0	<2.0	**240**
MW-4	**2,000**	**4,500**	**380**	**2.9**	**95**	**41**	**110**	<5.0	<5.0	<5.0	<25
MW-5	--	--	--	--	--	--	--	--	--	--	--
MW-6	**2,000**	**750**	**500**	<20	**210**	**150**	**180**	<40	<40	<40	<200
MW-7	<500	<500	<0.5	<0.5	<0.5	<1.5	<1.0	<1.0	<1.0	<1.0	<5.0
MW-8	**980**	**1,200**	<0.5	<0.5	**23**	<1.5	<1.0	<1.0	<1.0	<1.0	<5.0
MW-9	**1,700**	**560**	**740**	**250**	**270**	**1,010**	**170**	<10	<10	<10	<50
MW-10	<500	<500	<0.5	<0.5	<0.5	<1.5	**4.2**	<1.0	<1.0	<1.0	<5.0
MW-11	**1,800**	<500	**22**	<1.0	**170**	<3.0	<2.0	<2.0	<2.0	<2.0	<10
MW-12	<500	<500	<1.0	<1.0	**2.0**	<3.0	**65**	<2.0	<2.0	<2.0	<10
MW-13	<500	<500	<0.5	<0.5	<0.5	<1.5	<1.0	<1.0	<1.0	<1.0	<5.0
MW-14	**27,000**	**3,800**	**5,300**	**290**	**2,400**	**6,460**	**650**	<200	<200	<200	<1,000
MW-15	**32,000**	**3,500**	**2,400**	**510**	**4,100**	**13,380**	<200	<200	<200	<200	<1,000
MW-16	<500	<500	**53**	<2.5	**77**	<7.5	**110**	<5.0	<5.0	<5.0	<25
MW-17	**990**	**3,100**	<0.5	<0.5	<0.5	<1.5	<1.0	<1.0	<1.0	<1.0	<5.0

Notes: -- = Not sampled.

APPENDIX A

GROUNDWATER MONITORING/SAMPLING DATA SHEETS

Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/18/08
Well ID: MW-1
Sampler: LL

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	2:05						
1.0 BHV		22.3	1623	6.8	30.32	19.8	
1.5 BHV		22.9	1616	6.9	30.44	10	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: _____

Total Vols. Purged: _____

Sample Collection Time: 3:00

Sample Collection Depth: 29.8

Well Data	
Bore OD:	10
Casing ID:	4
Well TD:	42
DTW:	29.86
Ft./Water:	12.14
80% Recovery:	29.97
Factor:	1.63
1 Vol:	19.8
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

29.97

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/18/08
Well ID: MW-2
Sampler: DBS

Purge Data	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV	1:14	23.8	2.54	6.82	43.63	20.0	purged dry @ ~20.0 gals.
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) Pump / Vac

Total Gals. Purged: 20.0

Total Vols. Purged: 1.0

Sample Collection Time: 3:15

Sample Collection Depth: 39.38

Well Data	
Bore OD:	10
Casing ID:	4
Well TD:	44
DTW:	31.06
Ft./Water:	12.94
80% Recovery:	33.57
Factor:	
1 Vol:	21.1
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/18/05
Well ID: MW-3
Sampler: DBS

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							sheen, odor
1.0 BHV	2:00	23.7	1333	6.91	34.85	22.2	
1.5 BHV	2:10	23.3	1332	6.71	37.45	11.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: 23.7

Total Vols. Purged: 1.5

Sample Collection Time: 2:30

Sample Collection Depth: 31.92

Well Data

Bore OD:	10
Casing ID:	4
Well TD:	44.5
DTW:	30.91
Ft./Water:	13.59
80% Recovery:	22.22
Factor:	
1 Vol:	22.2
3 Vol:	

Recharge Info: (F) S
Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/18/08
Well ID: MW-4
Sampler: DBS

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV	3:10	22.4	1902	7.07	29.54	21.0	
1.5 BHV	3:50	21.3	1873	7.00	29.65	10.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: _____

Total Vols. Purged: _____

Sample Collection Time: 418

Sample Collection Depth: 29.30

Well Data	
Bore OD:	10
Casing ID:	4
Well TD:	42
DTW:	29.25
Ft./Water:	12.75
80% Recovery:	29.53
Factor:	
1 Vol:	20.8
3 Vol:	

Recharge Info: (F) S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/18/08
Well ID: MW-5
Sampler: DBS

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV							
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: _____

Total Vols. Purged: _____

Sample Collection Time: _____

Sample Collection Depth: _____

Well Data	
Bore OD:	
Casing ID:	
Well TD:	
DTW:	31.07
Ft./Water:	
80% Recovery:	
Factor:	
1 Vol:	
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/18/08
Well ID: MW-6
Sampler: DBS

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV	11:16	22.1	1901	6.96	29.61	19.0	
1.5 BHV	11:27	21.9	1907	6.99	29.59	9.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: 28.5

Total Vols. Purged: 1.5

Sample Collection Time: 11:35

Sample Collection Depth: 29.48

Well Data	
Bore OD:	10
Casing ID:	4
Well TD:	41
DTW:	29.47
Ft./Water:	11.53
80% Recovery:	29.50
Factor:	
1 Vol:	8.8
3 Vol:	

Recharge Info: (F) / S
Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/21/08
Well ID: MW-7
Sampler: LH

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	10:30						
1.0 BHV		21.0	1981	6.97	29.5	19.5	
1.5 BHV		20.7	1.93 ms	6.95	29.5	10.0	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: _____

Total Vols. Purged: _____

Sample Collection Time: 11:10

Sample Collection Depth: 29.22

Well Data	
Bore OD:	10
Casing ID:	4
Well TD:	41
DTW:	29.16
Ft./Water:	11.84
80% Recovery:	29.22
Factor:	
1 Vol:	19.3
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/21/08
Well ID: MW-B
Sampler: DBS

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							odor
1.0 BHV	11:35	22.3	1865	6.93	31.50	14.0	
1.5 BHV	11:45	21.9	1875	6.96	31.54	7.0	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: 21.0

Total Vols. Purged: 1.5

Sample Collection Time: 12.00

Sample Collection Depth: 31.42

Well Data

Bore OD:	10
Casing ID:	4
Well TD:	40
DTW:	31.42
Ft./Water:	8.58
80% Recovery:	31.44
Factor:	
1 Vol:	14.0
3 Vol:	

Recharge Info: F / S
Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/18/08
Well ID: MW-9
Sampler: LH

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	11:05						
1.0 BHV		22.0	1890	7.1	29.7	15.5	
1.5 BHV		21.9	1888	7.3	29.4	7.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: _____

Total Vols. Purged: _____

Sample Collection Time: 11:50

Sample Collection Depth: 29.5

Well Data	
Bore OD:	10
Casing ID:	4
Well TD:	39
DTW:	29.49
Ft./Water:	9.51
80% Recovery:	29.53
Factor:	
1 Vol:	15.5
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/10/08
Well ID: MW-10
Sampler: LH

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	3:20						
1.0 BHV		23.2	1592	7.1	34.13	12.5	
1.5 BHV		22.7	1591	7.0	33.83	6.0	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: _____

Total Vols. Purged: _____

Sample Collection Time: 3:53

Sample Collection Depth: 32.8

Well Data

Bore OD:	10
Casing ID:	4
Well TD:	40
DTW:	32.52
Ft./Water:	7.48
80% Recovery:	32.84
Factor:	
1 Vol:	12.2
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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San Diego, CA 92128

Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/18/08
Well ID: MW-11
Sampler: DBS

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV	9:37	22.4	1260	6.61	30.02	7.1	odor
1.5 BHV	9:45	22.4	1272	6.56	30.02	3.7	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) Pump / Vac

Total Gals. Purged: 10.8

Total Vols. Purged: 1.5

Sample Collection Time: 10:10

Sample Collection Depth: 29.99

Well Data	
Bore OD:	8
Casing ID:	2
Well TD:	39
DTW:	29.99
Ft./Water:	8.02
80% Recovery:	29.99
Factor:	
1 Vol:	7.1
3 Vol:	

Recharge Info: (F) S
Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/18/06
Well ID: MW-12
Sampler: LH

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	9:35						
1.0 BHV		22.3	1234	6.56	29.64	8.0	
1.5 BHV		22.4	1277	6.52	29.61	4.0	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: _____

Total Vols. Purged: _____

Sample Collection Time: 10:30

Sample Collection Depth: 29.57

Well Data

Bore OD:	8
Casing ID:	2
Well TD:	39
DTW:	29.55
Ft./Water:	9.45
80% Recovery:	29.57
Factor:	
1 Vol:	9.3
3 Vol:	

Recharge Info: F (S)
Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/21/08
Well ID: MW-13
Sampler: DBS

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV	9:27	22.0	2.61	7.17	43.56	10.8	
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: _____

Total Vols. Purged: _____

Sample Collection Time: 10:40

Sample Collection Depth: 38.72

Well Data	
Bore OD:	8
Casing ID:	2
Well TD:	45
DTW:	32.77
Ft./Water:	12.23
80% Recovery:	34.93
Factor:	
1 Vol:	10.8
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/21/08
Well ID: MW-14
Sampler: DBS

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							hydrocarbon odor,
1.0 BHV	9:00	20.4	1773	6.79	32.60	13.0	
1.5 BHV	9:16	20.6	1776	6.71	32.51	6.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) Pump / Vac

Total Gals. Purged: 17.75

Total Vols. Purged: 1.5

Sample Collection Time: 9:30

Sample Collection Depth: 30.14

Well Data	
Bore OD:	10
Casing ID:	4
Well TD:	33
DTW:	30.09
Ft./Water:	7.91
80% Recovery:	30.60
Factor:	
1 Vol:	12.9
3 Vol:	

Recharge Info: F (S)

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
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San Diego, CA 92128

Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/21/08
Well ID: MW-15
Sampler: DBS

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons
Start:						
1.0 BHV	10:15	21.7	1378	6.65	29.80	7.8
1.5 BHV	10:34	21.5	1352	6.68	29.82	4.0
2.0 BHV						
2.5 BHV						
3.0 BHV						
Stop:						

Notes / Comments:

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 11.8

Total Vols. Purged: 1.5

Sample Collection Time: 11:00

Sample Collection Depth: 29.72

Well Data

Bore OD:	8
Casing ID:	2
Well TD:	38.5
DTW:	29.71
Ft./Water:	8.79
80% Recovery:	
Factor:	
1 Vol:	7.73
3 Vol:	

Recharge Info: (F) / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/21/08
Well ID: MW-16
Sampler: LH

Purge Data							
	Time	Temp	E.C	pH	DTW	Gallons	Notes / Comments
Start:	9:25						
1.0 BHV		20.6	1318	6.96	30.2	8.0	
1.5 BHV		20.4	1309	6.88	30.2	4.0	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: _____

Total Vols. Purged: _____

Sample Collection Time: 10:15

Sample Collection Depth: 30.07

Well Data	
Bore OD:	8
Casing ID:	2
Well TD:	39
DTW:	30.07
Ft./Water:	8.96
80% Recovery:	30.07
Factor:	
1 Vol:	7.9
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 4/21/08
Well ID: MW-17
Sampler: LH

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	11:35						
1.0 BHV		22.3	1950	7.11	40.94	8.5	
1.5 BHV		22.1	1981	6.97	42.4	4.0	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:	12:25						

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: _____

Total Vols. Purged: _____

Sample Collection Time: 12:20

Sample Collection Depth: 36.45

Well Data

Bore OD:	8
Casing ID:	2
Well TD:	44.5
DTW:	34.97
Ft./Water:	9.53
80% Recovery:	36.45
Factor:	
1 Vol:	8.4
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

APPENDIX B

LABORATORY REPORTS-GROUNDWATER SAMPLES

PETRA

MOBILE GEOCHEMISTRY

H&P

02 May 2008

Mr. Chuck Houser
Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

RE: PG041808-14

Enclosed are the results of analyses for samples received by the laboratory on 18-Apr-08 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

J Villarreal

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595.

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MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG041808-14	
12225 World Trade Drive, Suite P	Project Number: 252-06/ Wigington Oil	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	02-May-08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-11	E804073-01	Water	18-Apr-08	18-Apr-08
MW-6	E804073-02	Water	18-Apr-08	18-Apr-08
MW-9	E804073-03	Water	18-Apr-08	18-Apr-08
MW-12	E804073-04	Water	18-Apr-08	18-Apr-08

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG041808-14	
12225 World Trade Drive, Suite P	Project Number: 252-06/ Wigington Oil	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	02-May-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-11 (E804073-01) Water Sampled: 18-Apr-08 Received: 18-Apr-08									
Methyl tert-butyl ether	ND	2.0	ug/l	0.2	ED82503	25-Apr-08	25-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Benzene	22	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	170	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	2.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*62-139*		"	"	"	"	
Surrogate: Toluene-d8		*106 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*	*75-125*		"	"	"	"	
MW-6 (E804073-02) Water Sampled: 18-Apr-08 Received: 18-Apr-08									
Methyl tert-butyl ether	180	40	ug/l	4	ED82503	25-Apr-08	25-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	40	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	40	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	40	"	"	"	"	"	"	
Benzene	500	20	"	"	"	"	"	"	
Toluene	ND	20	"	"	"	"	"	"	
Ethylbenzene	210	20	"	"	"	"	"	"	
m,p-Xylene	150	40	"	"	"	"	"	"	
o-Xylene	ND	20	"	"	"	"	"	"	
Tert-butyl alcohol	ND	200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99.2 %*	*62-139*		"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG041808-14	
12225 World Trade Drive, Suite P	Project Number: 252-06/ Wigington Oil	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	02-May-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-9 (E804073-03) Water Sampled: 18-Apr-08 Received: 18-Apr-08									
Methyl tert-butyl ether	170	10	ug/l	1	ED82503	25-Apr-08	25-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	10	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	10	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	10	"	"	"	"	"	"	
Benzene	740	5.0	"	"	"	"	"	"	
Toluene	250	5.0	"	"	"	"	"	"	
Ethylbenzene	270	5.0	"	"	"	"	"	"	
m,p-Xylene	820	10	"	"	"	"	"	"	
o-Xylene	190	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	50	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*121 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*122 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*110 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*113 %*		*75-125*	"	"	"	"	
MW-12 (E804073-04) Water Sampled: 18-Apr-08 Received: 18-Apr-08									
Methyl tert-butyl ether	65	2.0	ug/l	0.2	ED82503	25-Apr-08	25-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	2.0	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	2.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*117 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*111 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*109 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG041808-14	
12225 World Trade Drive, Suite P	Project Number: 252-06/ Wigington Oil	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	02-May-08

TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-11 (E804073-01) Water Sampled: 18-Apr-08 Received: 18-Apr-08									
Gasoline (C5-C11)	1800	500	ug/l	1	ED81807	18-Apr-08	18-Apr-08	DHS LUFT	GC-25
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-6 (E804073-02) Water Sampled: 18-Apr-08 Received: 18-Apr-08									
Gasoline (C5-C11)	2000	500	ug/l	1	ED81807	18-Apr-08	18-Apr-08	DHS LUFT	GC-25
Diesel (C12-C24)	750	500	"	"	"	"	"	"	D-08
MW-9 (E804073-03) Water Sampled: 18-Apr-08 Received: 18-Apr-08									
Gasoline (C5-C11)	1700	500	ug/l	1	ED81807	18-Apr-08	18-Apr-08	DHS LUFT	GC-25
Diesel (C12-C24)	560	500	"	"	"	"	"	"	D-08
MW-12 (E804073-04) Water Sampled: 18-Apr-08 Received: 18-Apr-08									
Gasoline (C5-C11)	ND	500	ug/l	1	ED81807	18-Apr-08	18-Apr-08	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG041808-14	
12225 World Trade Drive, Suite P	Project Number: 252-06/ Wigington Oil	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	02-May-08

Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED82503 - EPA 5030										
Blank (ED82503-BLK1)				Prepared & Analyzed: 25-Apr-08						
Methyl tert-butyl ether	ND	1.0	ug/l							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
Tert-amyl methyl ether	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tert-butyl alcohol	ND	5.0	"							
Surrogate: Dibromofluoromethane	*5.47*		"	*5.00*		*109*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.90*		"	*5.00*		*118*	*62-139*			
Surrogate: Toluene-d8	*5.32*		"	*5.00*		*106*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*5.54*		"	*5.00*		*111*	*75-125*			
LCS (ED82503-BS1)				Prepared & Analyzed: 25-Apr-08						
Benzene	5.12	0.5	ug/l	5.00		102	75-125			
Toluene	5.27	0.5	"	5.00		105	74-125			
Surrogate: Dibromofluoromethane	*5.63*		"	*5.00*		*113*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.34*		"	*5.00*		*107*	*62-139*			
Surrogate: Toluene-d8	*5.05*		"	*5.00*		*101*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*5.29*		"	*5.00*		*106*	*75-125*			
LCS Dup (ED82503-BSD1)				Prepared & Analyzed: 25-Apr-08						
Benzene	4.85	0.5	ug/l	5.00		97.0	75-125	5.48	20	
Toluene	4.86	0.5	"	5.00		97.3	74-125	8.03	20	
Surrogate: Dibromofluoromethane	*5.53*		"	*5.00*		*111*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.44*		"	*5.00*		*109*	*62-139*			
Surrogate: Toluene-d8	*5.14*		"	*5.00*		*103*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*4.97*		"	*5.00*		*99.3*	*75-125*			

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG041808-14	
12225 World Trade Drive, Suite P	Project Number: 252-06/ Wigington Oil	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	02-May-08

TPH by GC FID - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED81807 - LUFT-DHS										
Blank (ED81807-BLK1)				Prepared & Analyzed: 18-Apr-08						
Gasoline (C5-C11)	ND	500	ug/l							
Diesel (C12-C24)	ND	500	"							
LCS (ED81807-BS1)				Prepared & Analyzed: 18-Apr-08						
Gasoline (C5-C11)	14700	500	ug/l	15100		97.6	75-125			
Diesel (C12-C24)	25400	500	"	25100		101	75-125			
LCS Dup (ED81807-BSD1)				Prepared & Analyzed: 18-Apr-08						
Gasoline (C5-C11)	14100	500	ug/l	15100		93.5	75-125	4.30	30	
Diesel (C12-C24)	25300	500	"	25100		101	75-125	0.497	30	

MOBILE GEOCHEMISTRY
H&P

Petra Geotechnical	Project: PG041808-14	
12225 World Trade Drive, Suite P	Project Number: 252-06/ Wigington Oil	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	02-May-08

Notes and Definitions

GC-25	Weathered gasoline.
D-08	Results in the diesel organics range are primarily due to overlap from a gasoline range product.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

Date: April 18, 2008

☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159

☐ 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

H&P Project # PG041808-14

Outside Lab:

Client: Petra Geotechnical

Address: ON FILE

Phone: Fax:

Collector: DBS/OLH

Client Project # 252-06

Location: Wigington Oil

Turn around time: STANDARD

Page: 1 Of 1

Project Manager CHouser

Global ID: EDF: Yes / No

Sample Receipt

Intact: ☒ Yes ☐ No

Seal Intact: ☐ Yes ☐ No ☒ N/A

Cold: ☒ Yes ☐ No

N/A (Received on Site)

Sample Name	Field Point Name	Depth	Time	Date	Sample Type	Container Type	TPH gasoline / diesel	TPH extended	8021 for BTEX/MTBE	8021 for Halogenated compounds	418.1 TRPH	8260B: BTEX / Oxygenates (MTBE)	8260B: Oxygenates	8260B: VOC's	8260B: VOC's and Oxygenates	Methane	Fixed Gases	Total # of containers
MW-11	E804073-01		10:10	4/18/08	H_2O	40mL VOA	X					X						5
MW-6	-02		11:35	4/18/08	"	"	X					X						5
MW-9	-03		11:50	4/18/08	"	"	X					X						5
MW-12	E804073-04		10:30	4/18/08	"	"	X					X						5

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)

Petra Geotechnical Inc — H&P Mobile

Date: 4/18/08 Time: 1305

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ *Disposal @ $2.00 each* ☐ *Return to client* ☐ *Pickup*

MOBILE GEOCHEMISTRY

H&P

08 May 2008

Mr. Chuck Houser
Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

RE: PG042208-11

Enclosed are the results of analyses for samples received by the laboratory on 22-Apr-08 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

J Villarreal

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595.

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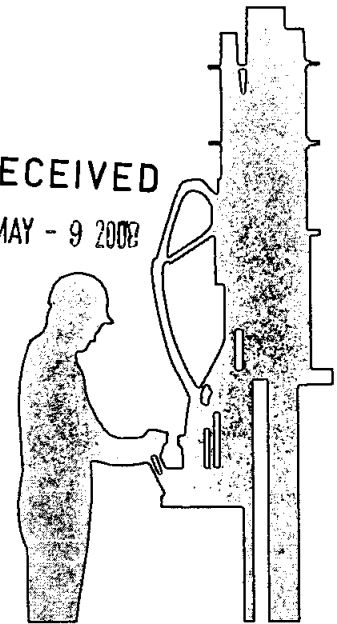

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MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG042208-11	
12225 World Trade Drive, Suite P	Project Number: 252-06/11427 Woodside Ave, Santee	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	08-May-08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	E804084-01	Water	18-Apr-08	22-Apr-08
MW-2	E804084-02	Water	18-Apr-08	22-Apr-08
MW-3	E804084-03	Water	18-Apr-08	22-Apr-08
MW-4	E804084-04	Water	18-Apr-08	22-Apr-08
MW-7	E804084-05	Water	21-Apr-08	22-Apr-08
MW-8	E804084-06	Water	21-Apr-08	22-Apr-08
MW-10	E804084-07	Water	18-Apr-08	22-Apr-08
MW-13	E804084-08	Water	21-Apr-08	22-Apr-08
MW-14	E804084-09	Water	21-Apr-08	22-Apr-08
MW-15	E804084-10	Water	21-Apr-08	22-Apr-08
MW-16	E804084-11	Water	21-Apr-08	22-Apr-08
MW-17	E804084-12	Water	21-Apr-08	22-Apr-08

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG042208-11	
12225 World Trade Drive, Suite P	Project Number: 252-06/11427 Woodside Ave, Santee	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	08-May-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-1 (E804084-01) Water Sampled: 18-Apr-08 Received: 22-Apr-08									
Methyl tert-butyl ether	610	10	ug/l	1	ED82806	28-Apr-08	28-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	10	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	10	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	10	"	"	"	"	"	"	
Benzene	370	5.0	"	"	"	"	"	"	
Toluene	6.6	5.0	"	"	"	"	"	"	
Ethylbenzene	170	5.0	"	"	"	"	"	"	
m,p-Xylene	220	10	"	"	"	"	"	"	
o-Xylene	7.8	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	50	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*105 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*104 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*		*75-125*	"	"	"	"	
MW-2 (E804084-02) Water Sampled: 18-Apr-08 Received: 22-Apr-08									
Methyl tert-butyl ether	1300	20	ug/l	2	EE80103	29-Apr-08	29-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	20	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	20	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	20	"	"	"	"	"	"	
Benzene	ND	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
m,p-Xylene	ND	20	"	"	"	"	"	"	
o-Xylene	ND	10	"	"	"	"	"	"	
Tert-butyl alcohol	ND	100	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*103 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*105 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY
H&P

Petra Geotechnical	Project: PG042208-11	
12225 World Trade Drive, Suite P	Project Number: 252-06/11427 Woodside Ave, Santee	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	08-May-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-3 (E804084-03) Water Sampled: 18-Apr-08 Received: 22-Apr-08									
Methyl tert-butyl ether	99	2.0	ug/l	0.2	ED82806	28-Apr-08	28-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Benzene	2.8	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	2.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
Tert-butyl alcohol	240	10	"	"	"	"	"	"	A
Surrogate: Dibromofluoromethane		*87.2 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*91.5 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*112 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.1 %*		*75-125*	"	"	"	"	
MW-4 (E804084-04) Water Sampled: 18-Apr-08 Received: 22-Apr-08									
Methyl tert-butyl ether	110	5.0	ug/l	0.5	ED82806	28-Apr-08	28-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	380	2.5	"	"	"	"	"	"	
Toluene	2.9	2.5	"	"	"	"	"	"	
Ethylbenzene	95	2.5	"	"	"	"	"	"	
m,p-Xylene	41	5.0	"	"	"	"	"	"	
o-Xylene	ND	2.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*104 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*107 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG042208-11	
12225 World Trade Drive, Suite P	Project Number: 252-06/11427 Woodside Ave, Santee	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	08-May-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-7 (E804084-05) Water Sampled: 21-Apr-08 Received: 22-Apr-08									
Methyl tert-butyl ether	ND	1.0	ug/l	0.1	ED82806	28-Apr-08	28-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*99.6 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*106 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*101 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*75-125*	"	"	"	"	
MW-8 (E804084-06) Water Sampled: 21-Apr-08 Received: 22-Apr-08									
Methyl tert-butyl ether	ND	1.0	ug/l	0.1	EE80103	29-Apr-08	29-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	23	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*103 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*100 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*107 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG042208-11	
12225 World Trade Drive, Suite P	Project Number: 252-06/11427 Woodside Ave, Santee	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	08-May-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-10 (E804084-07) Water Sampled: 18-Apr-08 Received: 22-Apr-08									
Methyl tert-butyl ether	4.2	1.0	ug/l	0.1	ED82806	28-Apr-08	28-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*101 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*97.3 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*99.2 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*110 %*		*75-125*	"	"	"	"	
MW-13 (E804084-08) Water Sampled: 21-Apr-08 Received: 22-Apr-08									
Methyl tert-butyl ether	ND	1.0	ug/l	0.1	ED82806	28-Apr-08	28-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*103 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*101 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY
H&P

Petra Geotechnical	Project: PG042208-11	
12225 World Trade Drive, Suite P	Project Number: 252-06/11427 Woodside Ave, Santee	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	08-May-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-14 (E804084-09) Water Sampled: 21-Apr-08 Received: 22-Apr-08									
Methyl tert-butyl ether	650	200	ug/l	20	ED82806	28-Apr-08	28-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	200	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	200	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	200	"	"	"	"	"	"	
Benzene	5300	100	"	"	"	"	"	"	
Toluene	290	100	"	"	"	"	"	"	
Ethylbenzene	2400	100	"	"	"	"	"	"	
m,p-Xylene	5700	200	"	"	"	"	"	"	
o-Xylene	760	100	"	"	"	"	"	"	
Tert-butyl alcohol	ND	1000	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*99.5 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*75-125*	"	"	"	"	
MW-15 (E804084-10) Water Sampled: 21-Apr-08 Received: 22-Apr-08									
Methyl tert-butyl ether	ND	200	ug/l	20	ED82806	28-Apr-08	28-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	200	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	200	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	200	"	"	"	"	"	"	
Benzene	2400	100	"	"	"	"	"	"	
Toluene	510	100	"	"	"	"	"	"	
Ethylbenzene	4100	100	"	"	"	"	"	"	
m,p-Xylene	13000	200	"	"	"	"	"	"	
o-Xylene	380	100	"	"	"	"	"	"	
Tert-butyl alcohol	ND	1000	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*98.7 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99.1 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*104 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG042208-11	
12225 World Trade Drive, Suite P	Project Number: 252-06/11427 Woodside Ave, Santee	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	08-May-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-16 (E804084-11) Water Sampled: 21-Apr-08 Received: 22-Apr-08									
Methyl tert-butyl ether	110	5.0	ug/l	0.5	ED82806	28-Apr-08	28-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Benzene	53	2.5	"	"	"	"	"	"	
Toluene	ND	2.5	"	"	"	"	"	"	
Ethylbenzene	77	2.5	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	2.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*95.7 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*92.9 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*104 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*		*75-125*	"	"	"	"	
MW-17 (E804084-12) Water Sampled: 21-Apr-08 Received: 22-Apr-08									
Methyl tert-butyl ether	ND	1.0	ug/l	0.1	EE80103	29-Apr-08	29-Apr-08	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*95.5 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*104 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG042208-11	
12225 World Trade Drive, Suite P	Project Number: 252-06/11427 Woodside Ave, Santee	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	08-May-08

TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-1 (E804084-01) Water Sampled: 18-Apr-08 Received: 22-Apr-08									
Gasoline (C5-C11)	2800	500	ug/l	1	ED82305	23-Apr-08	23-Apr-08	DHS LUFT	
Diesel (C12-C24)	980	500	"	"	"	"	"	"	D-08
MW-2 (E804084-02) Water Sampled: 18-Apr-08 Received: 22-Apr-08									
Gasoline (C5-C11)	510	500	ug/l	1	ED82305	23-Apr-08	23-Apr-08	DHS LUFT	D-12
Diesel (C12-C24)	6400	500	"	"	"	"	"	"	
MW-3 (E804084-03) Water Sampled: 18-Apr-08 Received: 22-Apr-08									
Gasoline (C5-C11)	ND	500	ug/l	1	ED82305	23-Apr-08	23-Apr-08	DHS LUFT	
Diesel (C12-C24)	1800	500	"	"	"	"	"	"	
MW-4 (E804084-04) Water Sampled: 18-Apr-08 Received: 22-Apr-08									
Gasoline (C5-C11)	2000	500	ug/l	1	ED82305	23-Apr-08	23-Apr-08	DHS LUFT	
Diesel (C12-C24)	4500	500	"	"	"	"	"	"	
MW-7 (E804084-05) Water Sampled: 21-Apr-08 Received: 22-Apr-08									
Gasoline (C5-C11)	ND	500	ug/l	1	ED82305	23-Apr-08	23-Apr-08	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-8 (E804084-06) Water Sampled: 21-Apr-08 Received: 22-Apr-08									
Gasoline (C5-C11)	980	500	ug/l	1	ED82305	23-Apr-08	23-Apr-08	DHS LUFT	
Diesel (C12-C24)	1200	500	"	"	"	"	"	"	D-08
MW-10 (E804084-07) Water Sampled: 18-Apr-08 Received: 22-Apr-08									
Gasoline (C5-C11)	ND	500	ug/l	1	ED82305	23-Apr-08	23-Apr-08	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG042208-11	
12225 World Trade Drive, Suite P	Project Number: 252-06/11427 Woodside Ave, Santee	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	08-May-08

TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-13 (E804084-08) Water Sampled: 21-Apr-08 Received: 22-Apr-08									
Gasoline (C5-C11)	ND	500	ug/l	1	ED82305	23-Apr-08	23-Apr-08	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-14 (E804084-09) Water Sampled: 21-Apr-08 Received: 22-Apr-08									
Gasoline (C5-C11)	27000	500	ug/l	1	ED82305	23-Apr-08	23-Apr-08	DHS LUFT	
Diesel (C12-C24)	3800	500	"	"	"	"	"	"	D-08
MW-15 (E804084-10) Water Sampled: 21-Apr-08 Received: 22-Apr-08									
Gasoline (C5-C11)	32000	500	ug/l	1	ED82305	23-Apr-08	23-Apr-08	DHS LUFT	
Diesel (C12-C24)	3500	500	"	"	"	"	"	"	D-08
MW-16 (E804084-11) Water Sampled: 21-Apr-08 Received: 22-Apr-08									
Gasoline (C5-C11)	ND	500	ug/l	1	ED82305	23-Apr-08	23-Apr-08	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-17 (E804084-12) Water Sampled: 21-Apr-08 Received: 22-Apr-08									
Gasoline (C5-C11)	990	500	ug/l	1	ED82305	23-Apr-08	23-Apr-08	DHS LUFT	
Diesel (C12-C24)	3100	500	"	"	"	"	"	"	

MOBILE GEOCHEMISTRY
H&P

Petra Geotechnical	Project: PG042208-11	
12225 World Trade Drive, Suite P	Project Number: 252-06/11427 Woodside Ave, Santee	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	08-May-08

Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control
H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED82806 - EPA 5030										
Blank (ED82806-BLK1)				Prepared & Analyzed: 28-Apr-08						
Methyl tert-butyl ether	ND	1.0	ug/l							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
Tert-amyl methyl ether	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tert-butyl alcohol	ND	5.0	"							
Surrogate: Dibromofluoromethane	*4.92*		"	*5.00*		*98.4*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*4.84*		"	*5.00*		*96.9*	*62-139*			
Surrogate: Toluene-d8	*5.32*		"	*5.00*		*106*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*5.49*		"	*5.00*		*110*	*75-125*			
Matrix Spike (ED82806-MS1)		**Source: E804084-08**		Prepared & Analyzed: 28-Apr-08						
Benzene	4.62	0.5	ug/l	5.00	ND	92.3	75-125			
Toluene	4.79	0.5	"	5.00	ND	95.8	74-125			
Surrogate: Dibromofluoromethane	*5.00*		"	*5.00*		*100*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.00*		"	*5.00*		*100*	*62-139*			
Surrogate: Toluene-d8	*5.23*		"	*5.00*		*105*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*5.27*		"	*5.00*		*105*	*75-125*			
Matrix Spike Dup (ED82806-MSD1)		**Source: E804084-08**		Prepared & Analyzed: 28-Apr-08						
Benzene	4.63	0.5	ug/l	5.00	ND	92.6	75-125	0.346	20	
Toluene	4.78	0.5	"	5.00	ND	95.7	74-125	0.146	20	
Surrogate: Dibromofluoromethane	*5.13*		"	*5.00*		*103*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.03*		"	*5.00*		*101*	*62-139*			
Surrogate: Toluene-d8	*5.24*		"	*5.00*		*105*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*5.76*		"	*5.00*		*115*	*75-125*			

MOBILE GEOCHEMISTRY
H&P

Petra Geotechnical	Project: PG042208-11	
12225 World Trade Drive, Suite P	Project Number: 252-06/11427 Woodside Ave, Santee	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	08-May-08

Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control
H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE80103 - EPA 5030										
Blank (EE80103-BLK1)				Prepared & Analyzed: 29-Apr-08						
Methyl tert-butyl ether	ND	1.0	ug/l							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
Tert-amyl methyl ether	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tert-butyl alcohol	ND	5.0	"							
Surrogate: Dibromofluoromethane	*5.02*		"	*5.00*		*100*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.22*		"	*5.00*		*104*	*62-139*			
Surrogate: Toluene-d8	*5.31*		"	*5.00*		*106*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*5.31*		"	*5.00*		*106*	*75-125*			
LCS (EE80103-BS1)				Prepared & Analyzed: 29-Apr-08						
Benzene	4.95	0.5	ug/l	5.00		98.9	75-125			
Toluene	5.19	0.5	"	5.00		104	74-125			
Surrogate: Dibromofluoromethane	*5.10*		"	*5.00*		*102*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.08*		"	*5.00*		*102*	*62-139*			
Surrogate: Toluene-d8	*5.14*		"	*5.00*		*103*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*5.39*		"	*5.00*		*108*	*75-125*			
LCS Dup (EE80103-BSD1)				Prepared & Analyzed: 29-Apr-08						
Benzene	4.73	0.5	ug/l	5.00		94.6	75-125	4.49	20	
Toluene	4.90	0.5	"	5.00		98.1	74-125	5.61	20	
Surrogate: Dibromofluoromethane	*5.14*		"	*5.00*		*103*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.06*		"	*5.00*		*101*	*62-139*			
Surrogate: Toluene-d8	*5.24*		"	*5.00*		*105*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*5.42*		"	*5.00*		*108*	*75-125*			

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG042208-11	
12225 World Trade Drive, Suite P	Project Number: 252-06/11427 Woodside Ave, Santee	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	08-May-08

TPH by GC FID - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED82305 - LUFT-DHS										
Blank (ED82305-BLK1)				Prepared & Analyzed: 23-Apr-08						
Gasoline (C5-C11)	ND	500	ug/l							
Diesel (C12-C24)	ND	500	"							
LCS (ED82305-BS1)				Prepared & Analyzed: 23-Apr-08						
Gasoline (C5-C11)	14600	500	ug/l	15100		96.8	75-125			
Diesel (C12-C24)	24200	500	"	25100		96.5	75-125			
LCS Dup (ED82305-BSD1)				Prepared & Analyzed: 23-Apr-08						
Gasoline (C5-C11)	14400	500	ug/l	15100		95.1	75-125	1.85	30	
Diesel (C12-C24)	25100	500	"	25100		100	75-125	3.67	30	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG042208-11	
12225 World Trade Drive, Suite P	Project Number: 252-06/11427 Woodside Ave, Santee	Reported:
San Diego, CA 92128	Project Manager: Mr. Chuck Houser	08-May-08

Notes and Definitions

D-12	Results in the Gasoline Range are primarily due to overlap from a heavier fuel hydrocarbon product.
D-08	Results in the diesel organics range are primarily due to overlap from a gasoline range product.
A	The initial calibration for this analyte did not meet the requirements set by the EPA 8260 method and is therefore flagged as an estimate.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

Date: APRIL 22, 2008

H&P Project # PG042208-11

Outside Lab:

☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159

☐ 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Client: PETRA GEOTECH

Address: 12225 WORLD TRADE DR. SUITE P.
S.D. CA 92128

Email: dstephenson@petra-inc.com Phone: (858) 485-5530

Collector: DBS / LH

Client Project # 252-06

Location: 11427 WOODSIDE AVE

Fax: (858) 485-8215

Page: 2 of 2

Project Contact: D. STEPHENSON

Turn around time: STD

EDF: Yes ☑ No ☐

Global ID:

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☒ Yes ☐ No
N/A (Received on Site)

Special Instructions:

cc: jjones@petra-inc.com

PO#: 08-1111

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☒ gasoline ☑ diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates / MTBE	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARWQCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify)	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2				Total # of containers
MW-16			10:15	4/21/08	W	VOA	X			X														
MW-17			12:20	4/21	W	VOA	X			X														

Relinquished by: (Signature) (company) PETRA

Relinquished by: (Signature) (company)

Relinquished by: (Signature) (company)

Received by: (Signature) James O. Cook (company) H&P MOBILE

Received by: (Signature) (company)

Received by: (Signature) (company)

Date: 4/22/08 Time: 0930

Date: Time:

Date: Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ *Disposal @ $2.00 each* ☐ *Return to client* ☐ *Pickup*

WO 8001007

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

Date: April 22, 2008

☑ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159

☐ 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

H&P Project # PG042208-11

Outside Lab:

Client: PETRA GEOTECH

Address: 12225 WORLD TRADE DR. SUITE P
S.D. CA 92128

Email: dstephenson@petra-inc.com Phone: (858) 405-5530

Collector: DBS/LH

Client Project # 252-06

Location: 11427 WOODSIDE AVE, SANTEE

Fax: (858) 405-8215

Page: 1 of 2

Project Contact: DOUG STEPHENSON

Turn around time: Std.

EDF: Yes ☑ No ☐

Global ID:

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☒ Yes ☐ No
N/A (Received on Site)

Special Instructions:

cc: jjones@petra-inc.com

PO # 08-1111

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☑ gasoline ☐ diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates / MTBE	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARWQCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify)	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2			Total # of containers
MW-1			3:00	4/18/08	W	VOA	X			X													
MW-2			3:15	4/18																			
MW-3			2:30	4/18																			
MW-4			4:18	4/18																			
MW-7			11:10	4/21																			
MW-8			12:00	4/21																			
MW-10			3:53	4/18																			
MW-13			10:40	4/21																			
MW-14			9:30	4/21																			
MW-15			11:00	4/21																			

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)

PETRA — H&P MOBILE

Date: 4/22/08 Time: 0930

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ Disposal @ $2.00 each ☐ Return to client ☐ Pickup

APPENDIX C

HISTORIC GROUNDWATER TABLES

PETRA

MW-1
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.17	0.6	NA	NA	0.7	<0.5	NA	<0.05	NA
03/10/98	336.87	NA	2,500	910	340	200	18	240	190
05/18/98	NR	NA	704	<500	326	89.5	<50	<100	<50
04/05/00	334.28	NA	1,800	NA	250	14	34	380	200
04/26/02	332.63	NA	1,100	1,100	230	14	36	220	190
12/03/02	332.65	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA
01/17/08	--	NA	--	--	--	--	--	--	--
04/18/08	332.98	NA	2,800	980	370	6.6	170	227.8	610

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-2
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.37	<0.5	NA	NA	<0.5	<0.5	NA	<0.5	NA
03/10/98	336.65	NA	330	<500	20	3.3	25	47	2,000
04/05/00	333.17	NA	7,600	NA	7.6	3.3	30	59	3,500
04/26/02	333.36	NA	6,000	160,000	9.2	3.9	16	17	2,600
12/03/02	333.24	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	FP	--	--	--	--	--	--	--	--
01/17/08	FP	--	--	--	--	--	--	--	--
04/18/08	334.02	NA	510	6,400	<10	<10	<10	<30	1,300

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-3
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.24	140	NA	NA	19	3.4	NA	1.3	NA
03/10/98	337.82	NA	2,300	5,100	3.6	0.7	0.7	4.1	2,000
05/18/98	NR	NA	115	<500	98.5	<12.5	<12.5	<25.0	226
04/05/00	329.42	NA	420	NA	18	1.7	3.9	12	190
04/26/02	332.79	NA	9,700	190,000	92	<3.0	56	62	590
12/03/02	332.84	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	FP	--	--	--	--	--	--	--	--
01/17/08	FP	--	--	--	--	--	--	--	--
04/18/08	333.25	NA	<500	1,800	2.8	<1.0	<1.0	<3.0	99

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-4
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.22	6.3	NA	NA	<0.5	M0.5	NA	<0.5	NA
03/10/98	336.44	NA	9,600	3,700	2,400	250	50	430	4,100
04/05/00	332.92	NA	8,700	NA	1,800	<12	110	790	900
04/26/02	332.78	NA	15,000	95,000	4,500	150	450	1,900	1,500
12/03/02	332.95	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	FP	--	--	--	--	--	--	--	--
01/17/08	FP	--	--	--	--	--	--	--	--
04/18/08	333.13	NA	2,000	4,500	380	2.9	95	41	110

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
– = Not Sampled (free product in well)

MW-5
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
03/10/98	NA	NA	730	1,700	20	0.6	<0.3	39	92
04/26/02	333.03	NA	500	2,000	7.3	1.7	2.8	6.8	230
12/03/02	332.92	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	331.70	NA	NA	NA	NA	NA	NA	NA	NA
01/17/08	--	--	--	--	--	--	--	--	--
04/18/08	332.35	NA	--	--	--	--	--	--	--

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-6
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/26/02	332.67	NA	25,000	9,100	5,300	1,400	1,200	5,900	850
12/03/02	332.69	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	331.43	NA	570	<500	21	0.7	48	14	17
01/17/08	333.00	NA	1,400	<500	9.6	0.6	4.8	8.5	3.5
04/18/08	332.97	NA	2,000	750	500	<20	210	150	180

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-7
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/26/02	333.10	NA	1,900	13,000	3.7	1.1	4.0	7.9	19
12/03/02	333.12	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	332.12	NA	<500	<500	<0.5	<0.5	<0.5	<0.5	<1.0
01/17/08	333.40	NA	<500	<500	<0.5	<0.5	<0.5	<1.5	<1.0
04/21/08	333.41	NA	<500	<500	<0.5	<0.5	<0.5	<1.5	<1.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-8
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/26/02	332.80	NA	4,800	6,500	50	9.2	170	210	64
12/03/02	332.81	NR	NR	NR	NR	NR	NR	NR	NR
10/26/07	331.49	NA	1,100	790	<0.5	<0.5	23	<0.5	<1.0
01/17/08	333.17	NA	1,100	570	<0.5	<0.5	27	<1.5	<1.0
04/21/08	333.09	NA	980	1,200	<0.5	<0.5	23	<1.5	<1.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-9
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/18/08	332.84	NA	1,700	560	740	250	270	1,010	170

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-10
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/18/08	334.76	NA	<500	<500	<0.5	<0.5	<0.5	<1.5	4.2

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-11 & 12 Sampling in February '08?

MW-11
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/18/08	332.50	NA	1,800	<500	22	<1.0	170	<3.0	<2.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
■ = Not Sampled (free product in well)

MW-12
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/18/08	332.33	NA	<500	<500	<1.0	<1.0	2.0	<3.0	65

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-13
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/21/08	334.14	NA	<500	<500	<0.5	<0.5	<0.5	<1.5	<1.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
– = Not Sampled (free product in well)

MW-14
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/21/08	332.70	NA	27,000	3,800	5,300	290	2,400	6,460	650

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
– = Not Sampled (free product in well)

MW-15
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/21/08	332.65	NA	32,000	3,500	2,400	510	4,100	13,380	<200

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-16
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/21/08	332.44	NA	<500	<500	53	<2.5	77	<7.5	110

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-17
Historical Groundwater Data Table
Through Second Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/21/08	333.00	NA	990	3,100	<0.5	<0.5	<0.5	<1.5	<1.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

PETRA

Environmental Division

FIRST QUARTER 2008 GROUNDWATER MONITORING AND SAMPLING REPORT

WIGINGTON PETROLEUM
11427 WOODSIDE AVENUE
SANTEE, CALIFORNIA
T0948TH19469-001/APN 382-320-06

PREPARED FOR

MS. LINDA WIGINGTON
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5464 GROSSMONT CENTER DRIVE
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May 14, 2008
J.N. 252-06

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Engineers, Geologists
Environmental Scientists

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May, 14, 2008
J.N. 252-06

Ms. Linda Wigington
WIGINGTON PETROLEUM, INC.
c/o William L. Fischbeck, Esq.
5464 Grossmont Center Drive, Third Floor
La Mesa, California 91942

Subject: **First Quarter 2008 Groundwater Monitoring Report, Wigington Petroleum, 11427 Woodside Avenue, Santee, California, T0948/H19469-001/APN 382-320-06.**

Dear Ms. Wigington:

The Environmental Division of **Petra Geotechnical, Inc. (Petra)** is pleased to present this quarterly groundwater monitoring and sampling report for the above-referenced site. The purpose of the investigation was to perform quarterly groundwater monitoring and sampling pursuant to the requirements of the San Diego County Site Assessment and Mitigation (SAM) Program. The subject monitoring was conducted in accordance with our original proposal (P.N. 1177-06, April 19, 2006) and subsequent change order (J.N. 252-06, February 12, 2008).

If there are any questions or comments regarding the scope of work performed or methodology, please call the undersigned at (858) 485-5530.

Respectfully submitted,
Petra Geotechnical, Inc.
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Distribution: 1) Addressee, via Hand Delivery
1) SAM Program, Attention: Ms. Teresa Sherman, via Hand Delivery
1) UST Cleanup Fund with Reimbursement Request #7, via CA Overnight

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FIRST QUARTER 2008
GROUNDWATER MONITORING AND SAMPLING REPORT

Wigington Petroleum
11427 Woodside Avenue, Santee, California
T0948/H19469-001/APN 382-320-06

SITE LOCATION AND BACKGROUND

The site is located at 11427 Woodside Avenue in Santee, California (Figure 1). The property occupies approximately 1.15 acres and is triangular in shape. The property is developed solely as a fueling and petroleum product sales facility.

Site Name:	*El Capitan Oil Company*
Site Address:	*11427 Woodside Avenue, Santee, California 92071*
APN:	*382-320-06*
DEH Case No.:	*H19469-001*

A total of 13 underground storage tanks (USTs) have reportedly been removed from the site between 1987 and 1998. Results of sampling conducted during UST removal activities indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) issued a letter requiring corrective action relative to the release (HMMD, August 19, 1993).

During 1988 through 2005, EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the site (EnecoTech, 2002, 2003 & 2005). A total of 18 borings and eight groundwater monitoring wells have been drilled and sampled at the site by EnecoTech. These eight existing wells are depicted on Figure 2.

Based on the results of assessment activities reported to date, it appears the extent of petroleum hydrocarbon-impacted groundwater has not been fully delineated. Additional delineation by Petra is underway to the southwest, south and east of the former UST system and a site assessment report is in progress.

On March 25, 2005, EnecoTech submitted a workplan for additional site assessment (EnecoTech, 2005). In a letter dated October 10, 2007, the SAM Program approved this

workplan. Petra discussed adding a well to the proposed and approved work plan with SAM Program personnel. The SAM Program agreed that another well was warranted and requested a revised workplan for installation of that well. The workplan was submitted on December 21, 2007 (Petra, 2007) and the SAM Program approved the workplan in a letter dated January 15, 2008 (SAM, 2008). A references list is present on page 11.

OBJECTIVE

The objective of the scope of work was to comply with SAM Program requirements for quarterly groundwater monitoring and sampling. The scope of work designed to meet the project objective included the following tasks.

Task 1: Groundwater monitoring, purging, and sampling.

Task 2: Laboratory analysis of collected groundwater samples.

Task 3: Report preparation.

GROUNDWATER MONITORING, PURGING, AND SAMPLING

On January 17, 2008, seven wells were monitored. Six of these wells (MW-2, MW-3, MW-4, MW-5, MW-6, and MW-7) were on site. Monitoring well MW-8 is located offsite and north of Woodside Avenue. An electronic interface probe, with a manufacturer's reported accuracy of 1/100th of a foot, was used to measure the depth to water and check for the presence of phase-separated petroleum hydrocarbons (free product). Monitoring well MW-1 was not accessible during this monitoring event due to an inoperable truck positioned over the well cover. Free product was detected in three of the wells (MW-2, MW-3 and MW-4) and samples were not collected from these wells. Well MW-5 was not sampled per the SAM Program.

Wells MW-6, MW-7 and MW-8 were purged and sampled in general accordance with SAM Program guidelines. For fast recovering wells (wells that recover at least 80 percent within 2 hours), temperature, conductivity, and pH measurements (purging parameters) were taken after

removal of the first borehole volume and each ½ borehole volume thereafter. Purging continued until at least one and one-half borehole volumes had been removed and purging parameters had stabilized to within 10 percent of the previous reading. Slow recovering wells (wells that recover less than 80 percent in two hours) were purged of one borehole volume. Purge water was placed in appropriate 55-gallon drums, labeled, and stored on-site pending disposal.

After purging was completed, the wells were allowed to recover. Fast recovering wells were allowed to recover at least 80 percent prior to sampling. Slow recovering wells were allowed to recover at least two hours prior to sampling. Groundwater samples were collected from each well with a single-use, disposable bailer and decanted into laboratory-supplied vials. The collected groundwater samples were labeled and placed in an ice-filled cooler pending delivery to the laboratory. Chain-of-custody procedures were implemented for sample tracking. Sampling data sheets are included in Appendix A.

LABORATORY ANALYSIS

Groundwater samples were submitted to a state-accredited laboratory for analysis. All samples were analyzed for total petroleum hydrocarbon ~~and~~ or gasoline (TPHg) and as diesel fuel (TPHd) in general accordance with modified EPA Method 8015, and for benzene, toluene, ethylbenzene, and xylenes (BTEX), and oxygenates including methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA) in general accordance with EPA Method 8260B.

FINDINGS

GEOLOGY AND HYDROGEOLOGY

The following sections provide an overview of the regional and local geologic setting and include information pertaining to groundwater conditions in the vicinity of the study area.

Regional Geology

The site is located in the Peninsular Ranges Geomorphic Province of Southern California. This province is typified by northwest to southeast-trending mountain ranges approximately parallel to the San Andreas and related regional fault systems. The plutonic rocks of the western Peninsular Ranges are generally characterized as mafic (dark-colored) rocks, including gabbro, with granitic rocks of the Peninsular Ranges batholith (Harden, 1997) in association with lesser amounts of metamorphic rocks. Sedimentary rocks ranging in age from Cretaceous to Pleistocene form the San Diego embayment and coastal terraces west of the batholith.

As interpreted from regional geologic maps (Strand, 1962, Tan, 2002 and Todd, 2004), geologic materials underlying the site may include Quaternary-aged alluvium and colluvium. The more detailed geologic map of Tan (Tan, 2002) identifies Pleistocene alluvial deposits underlying the site and describes these sediments as "moderately consolidated, poorly sorted flood plain deposits consisting of gravelly, sandy silt and clay." These sediments are in unconformable contact with underlying bedrock.

The regional geologic maps have identified bedrock in the near vicinity as being "granitoid" (Todd, 2004). Tan (2002) has mapped Cretaceous-aged tonalite immediately south of the site. The tonalite was described as including "some granodiorite and quartz diorite, medium-grained, generally dark colored and severely weathered." Based upon the referenced regional mapping, the site is most likely to be underlain by Cretaceous-aged tonalite.

Past reports by others regarding this site have incorrectly referenced CDMG Bulletin 200 (Kennedy and Peterson, 1975) in the "Area Geology" sections of their reports (EnecoTech, 2002 & 2003). The site is located in the El Cajon, 7½-minute Quadrangle, which is not a part of CDMG Bulletin 200.

Site-Specific Geology

Based on our experience at the site and in the site vicinity, the site is underlain by alluvium overlying granitic bedrock. The granitic bedrock also comprises the highlands to the south of the site. The ground surface at the site slopes gently to the northwest, toward Woodside Avenue.

EnecoTech's site assessment (EnecoTech, 2003) described the site geology as consisting of "alluvial interbedded with colluvial material transported and deposited via stream flow and slope wash. Alluvial/colluvial material encountered consisted of angular, fine to medium sands with occasional increases in grain size to very coarse sand with scattered gravels to two inches in diameter. Classification was based on the United Soil Classification Scheme (USCS) ranges from SW, SP, and SC to GP. Based on local topography, the majority of the alluvial material originated from drainages to the southeast, which are minor first order tributaries of the San Diego River to the north. These materials generally consist of well-sorted sands with occasional clay. These materials have been deposited unconformably on granitic bedrock, which displays weathering. The bedrock was encountered in borings at the rear (southeast) portion of the site during the 1988 site assessment and in B5 at 28 feet bgs *(below ground surface)*."

Hydrogeology

Based on review of a document titled *Water Quality Control Plan, San Diego Basin - Region 9*, (approved by the California Regional Water Quality Control Board September 8, 1994), the site is interpreted to lie within the Regional Water Quality Control Board (RWQCB), San Diego Basin Region 9, Santee Hydrologic Sub Area (7.12) of the Lower San Diego Hydrologic Area (7.10) of the San Diego Hydrologic Unit (7.00). According to the RWQCB, surface water in this subarea has existing beneficial use for industrial and agricultural supply purposes and potential use for municipal purposes. The groundwater in this subarea has been classified as having existing beneficial uses for municipal, agricultural, industrial service and industrial process supply purposes.

According to EnecoTech reports, referenced above, groundwater has been present at depths ranging from approximately 29.45 to 31.90 feet below grade. The groundwater flow direction was interpreted, in the referenced reports (EnecoTech, 2002 and EnecoTech, 2003), to be generally toward the west-southwest.

Prior to the event reported herein, the most recent groundwater monitoring took place in the fourth quarter of 2007 (Petra, 2008). In October, 2007, groundwater depths ranged from approximately 30.85 to 33.22 feet below grade. The groundwater flow direction was interpreted to be generally toward the west with a gradient of approximately 0.0023.

The base map utilized for this monitoring event (Figure 3) is based upon a 2008-vintage well location survey by Southern California Survey, Inc. The 2008 survey was part of additional site assessment work by Petra (report in progress). Southern California Survey, Inc. originally surveyed the onsite wells for EnecoTech on April 26, 2002 (EnecoTech, 2002, pg. 5). The latest updated survey (Southern California Survey, 2008, Appendix D) was performed on March 28, 2008. ✓

Groundwater Conditions

During the January 17, 2008 monitoring event, groundwater was encountered at depths ranging from approximately 29.17 to 31.93 feet below grade. The groundwater flow direction was interpreted to be generally toward the west with a gradient of approximately 0.0027. The interpreted groundwater contours and gradient are depicted on Figure 3. Groundwater monitoring data is summarized in Table 1.

ANALYTICAL RESULTS

Groundwater sample analytical results are summarized in Table 2 and on Figure 4. Wells MW-2, MW-3 and MW-4 contained free product and were not sampled. Well MW-7 was reported to

have no detectable concentrations of dissolved petroleum hydrocarbons. Detectable concentrations of petroleum hydrocarbon constituents were reported as follows: 1.1.c-6

TPHg- 1,400 ug/l (MW-6) to 1,100 ug/l (MW-8)
TPHd – 570 ug/l (MW-8)
Benzene – 9.6 ug/l (MW-6)
Toluene –0.6 ug/l (MW-6)
Ethylbenzene – 27 ug/l (MW-8) to 4.8 ug/l (MW-6)
Xylenes – 8.5 ug/l (MW-6)
MTBE – 3.5 ug/l (MW-6)

Detectable concentrations of DIPE, ETBE, TAME and TBA were not reported in the three samples analyzed for this quarterly event. Copies of laboratory reports are included in Appendix B. The interpreted extent of the dissolved benzene and dissolved MTBE plumes are not depicted in this report due to the limited amount of available data. These data will be reported in the upcoming site assessment report (report in progress) and subsequent quarterly monitoring reports.

WELL CONDITIONS

As first reported in our fourth quarter, 2007 monitoring report (Petra, 2008) monitoring wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-7 and MW-8 have wellheads that are below county specifications. The reconstruction of these wellheads is necessary for the following reasons:

- MW-1 – Vault cover is broken; two bolts (hex-allen) missing; less than 3 inches clearance between top of casing and grout; threads to vault box have been stripped.
- MW-2 – Vault needs new gasket; threads have been striped; large crack grout completion; and there is insufficient relief on the east side of vault.
- MW-3 – Distance between grout and top of casing is 3 inches; no bolts (hex-allen) on cap; no gasket; and vault box is depressed.
- MW-4 – Unable to secure vault cover.
- MW-6 – One of three bolts (hex-allen) is present; threads in box are stripped; vault is not water tight; and gasket needs replacing.

- MW-7 – Needs new well cap and lock; threads are near stripped and need to be rethreaded; grout surrounding box has chipped away.
- MW-8 – All bolts are missing; box is not water tight and filled with water; needs gasket.

Well MW-5 is located inside the main on-site office structure and has contained free product in the past. It is our understanding that this well was installed as a groundwater production well. It is likely that the well screen interval is not located at a depth that would allow this well to yield representative groundwater samples for this assessment due to requirements for a minimum surface seal of at least 50 feet. In addition, the well screen probably does not intercept the uppermost saturated zone where hydrocarbons would tend to concentrate.

DISCUSSION

Detectable concentrations of dissolved petroleum hydrocarbons were detected in wells MW-6 and MW-8. Free product was detected in wells MW-2, MW-3 and MW-4. Historic groundwater analytical results are included in Appendix C.

Petra is currently conducting additional assessment in the west and southeast portions of the site and offsite to the northeast, northwest, west, and southwest. Results of the additional site assessment will be provided in an upcoming report. Petra has also completed a high-vacuum, duel-phase extraction (HVDPE) pilot test at the site. Results of our evaluation of the HVDPE as a potential remediation option for the site will be presented in a pilot test report. Recommendations for further site assessment activities and future monitoring will be made in the upcoming reports.

CONCLUSIONS AND RECOMMENDATIONS

Based on the data obtained and reviewed as part of this investigation, including but not limited to current regulatory guidelines, laboratory results, field observations and data evaluation by a

registered geologist, it is our professional opinion that the extent of groundwater with dissolved petroleum hydrocarbons has not been delineated via the eight monitoring wells of this report. An assessment of the groundwater conditions will be updated as results from recently installed wells become available. Petra recommends quarterly groundwater monitoring be continued at this site. Continued monitoring should include the nine additional monitoring wells recently installed, but not reported to date.

Based on the present condition of existing wellheads, Petra recommends that wells MW-1, MW-2, MW-3, MW-4, MW-6 MW-7 and MW-8 have their respective well heads removed or repaired to comply with county specifications. Furthermore, well MW-5 is an undocumented water well no longer in use and not conforming to SAM specifications. This well should be abandoned. If the County SAM program agrees to these recommendations, Petra will prepare a workplan specifying the wellhead-reconstruction and well-destruction scope of work.

INVESTIGATION LIMITATIONS

This report is based on the project analytical data and findings as presented herein. The materials encountered on the project site, described in other literature, and used in the analytical testing program are believed to be representative of the project area, and the conclusions and recommendations in this report are presented on that basis. However, soil and bedrock materials can vary laterally and vertically within a project site and those variations, if present, could affect the conclusions and recommendations contained herein. In addition, chemicals could be present at the site that escaped detection by the project sampling and analytical testing program.

Although this investigation has attempted to delineate petroleum hydrocarbon-bearing groundwater relative to the site, potential sources of chemicals may have escaped detection for reasons which include, but are not limited to, the following:

- Our reliance on inadequate or inaccurate information provided to us by third parties such as public agencies and other outside sources;

- The limited scope of this investigation; and,
- The presence of undetected, unknown, or unreported environmental releases.

Should additional chemicals or other environmental conditions, beyond those already identified at the site, be detected during further progression of the project, Petra will be prepared to assist the client in evaluating the extent of and appropriate mitigation measures for such chemicals or conditions.

REPORT USAGE AND FUTURE SITE CONDITIONS

This report is intended for the sole usage of Wigington Petroleum, Inc. or its agents, and the San Diego County Site Assessment and Mitigation Program. The conclusions of this report are judged to be relevant at the time the work described in this report was conducted. Future site conditions may differ and this report should not be relied upon to represent future site conditions unless a qualified consultant familiar with the practice of similar environmental assessments is consulted to assess the necessity of updating this report.

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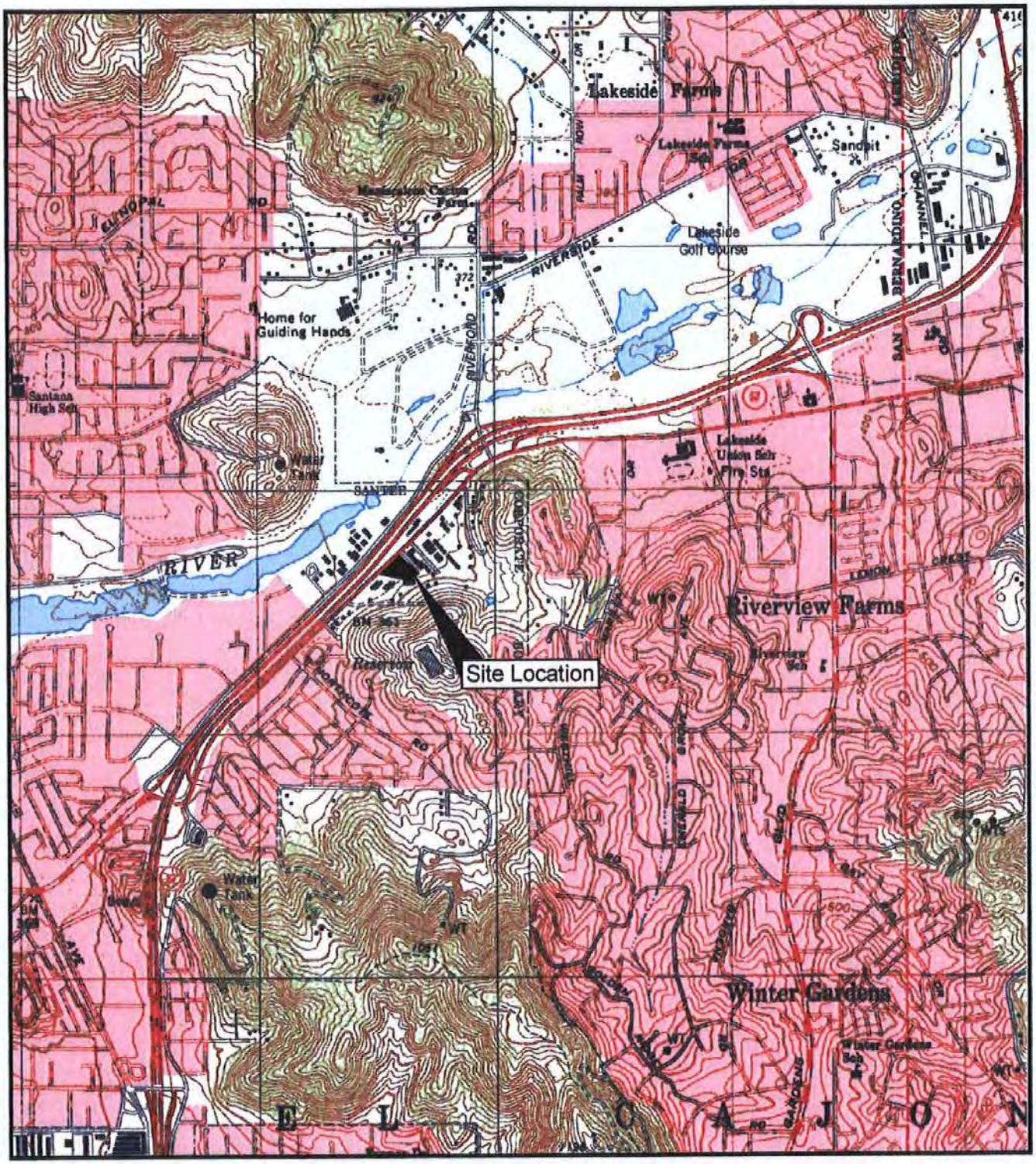
FIGURES

PETRA



Base Map: USGS 7.5-Minute Topographic Map,
El Cajon Quadrangle, 1996.

0 0.5
GRAPHIC SCALE
(in miles)

N
W E
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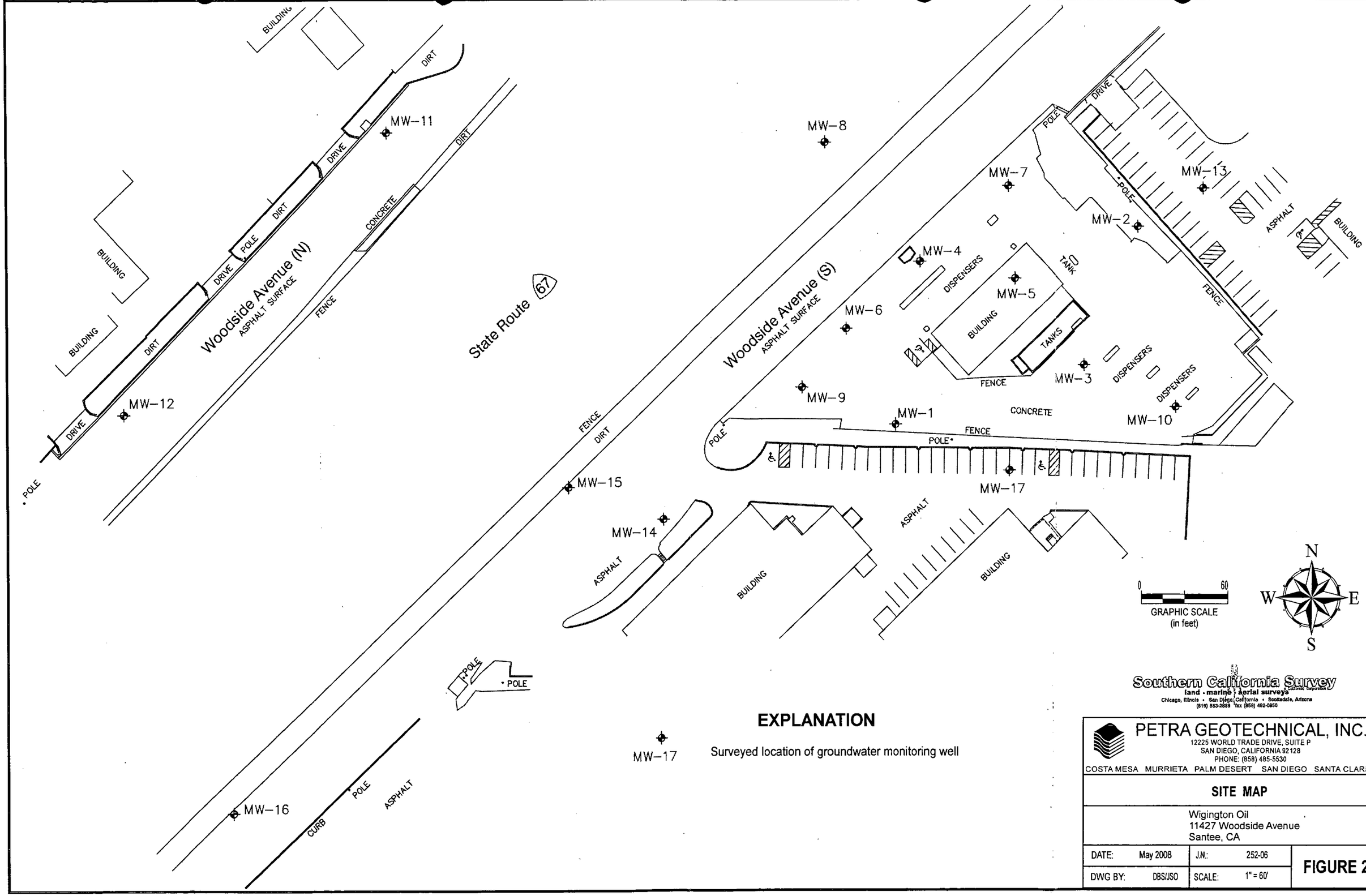
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

SITE LOCATION MAP

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE: May, 2008	J.N.: 252-06	**FIGURE 1**
DWG BY: DBS	SCALE: See Left	



EXPLANATION

MW-17 Surveyed location of groundwater monitoring well

Southern California Survey
land - marine - aerial surveys
Chicago, Illinois • San Diego, California • Scottsdale, Arizona
(619) 553-2889 fax (858) 492-0950

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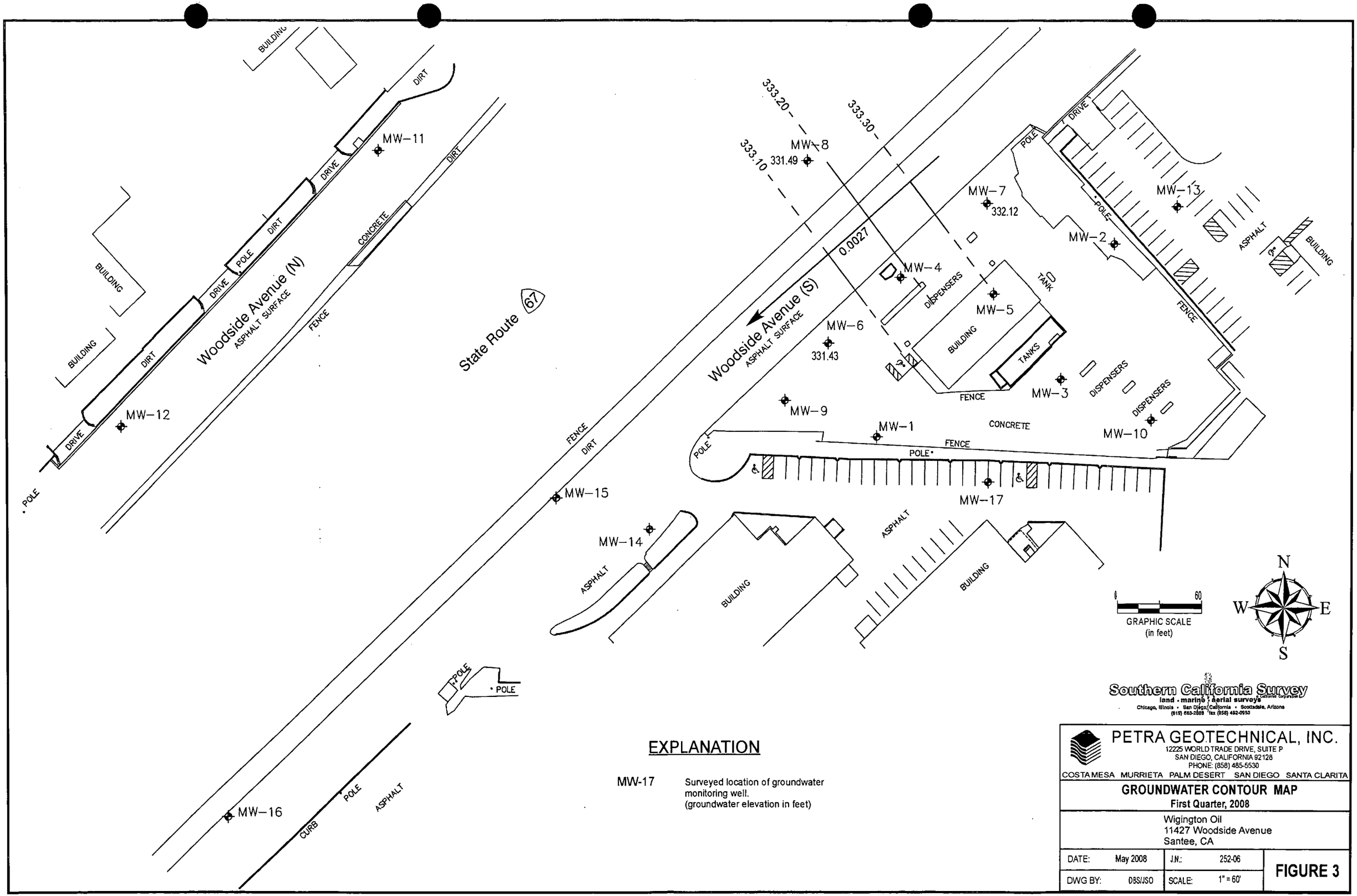
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

SITE MAP

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	May 2008	J.N.:	252-06	FIGURE 2
DWG BY:	DBS/JSO	SCALE:	1" = 60'	



EXPLANATION

MW-17 Surveyed location of groundwater monitoring well.
(groundwater elevation in feet)

Southern California Survey
land • marine • aerial surveys
A California Corporation
Chicago, Illinois • San Diego, California • Scottsdale, Arizona
(619) 583-2888 fax (858) 492-0950

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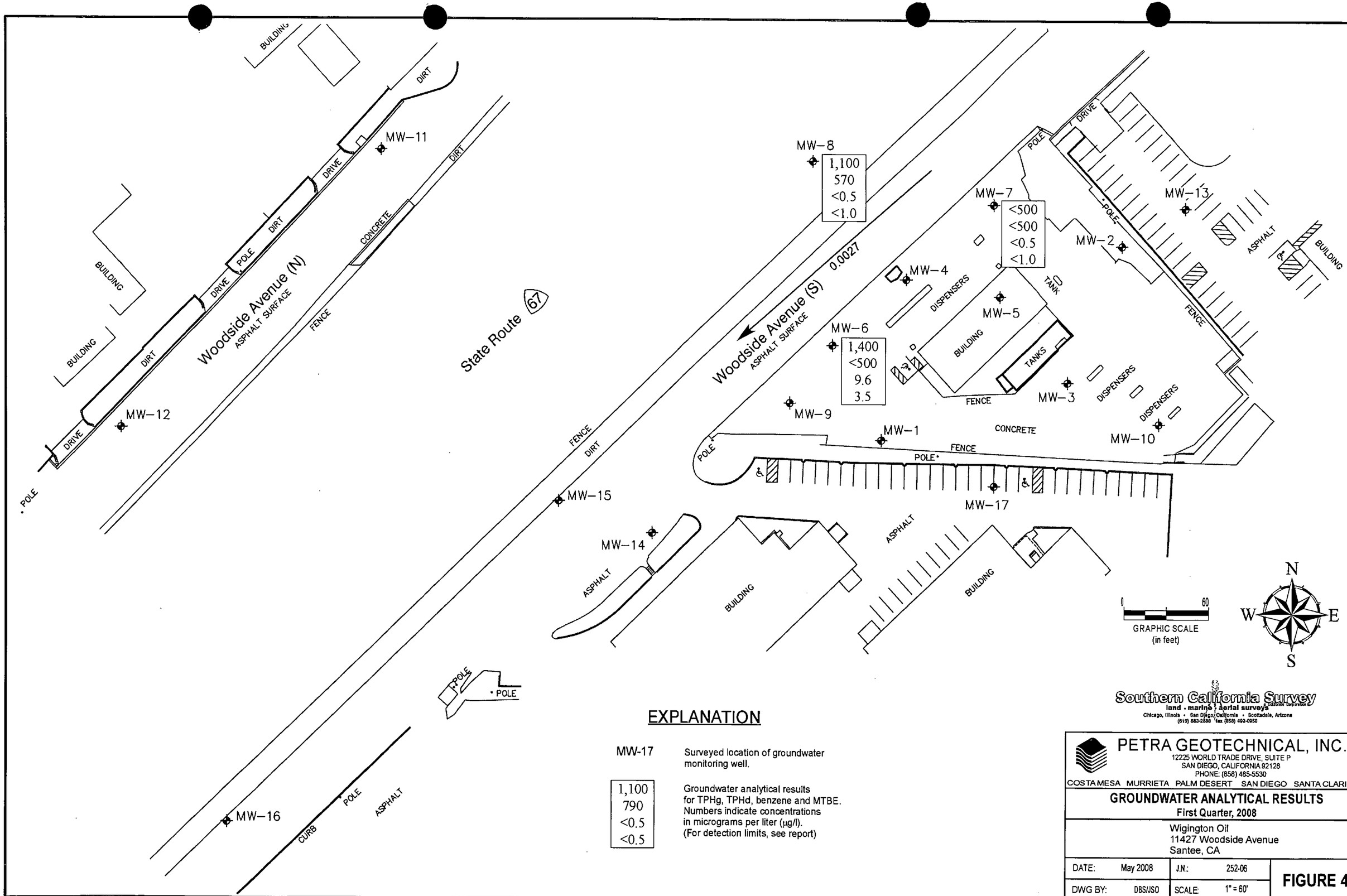
SAN DIEGO, CALIFORNIA 92128
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

GROUNDWATER CONTOUR MAP
First Quarter, 2008

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	May 2008	J.N.:	252-06
DWG BY:	DBS/JSO	SCALE:	1" = 60'

FIGURE 3



EXPLANATION

MW-17	Surveyed location of groundwater monitoring well.
1,100 790 <0.5 <0.5	Groundwater analytical results for TPHg, TPHd, benzene and MTBE. Numbers indicate concentrations in micrograms per liter (µg/l). (For detection limits, see report)

Southern California Survey
land • marine • aerial surveys
Chicago, Illinois • San Diego, California • Scottsdale, Arizona
(619) 583-2888 fax (858) 492-0950

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SAN DIEGO, CALIFORNIA 92128
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

GROUNDWATER ANALYTICAL RESULTS
First Quarter, 2008

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	May 2008	J.N.:	252-06
DWG BY:	DBS/JSO	SCALE:	1" = 60'

FIGURE 4

TABLES

PETRA

TABLE 1
Groundwater Monitoring Results
For First Quarter Monitoring Event, 2008
Wigington Petroleum

Well	Top of Casing Elevation	Depth to Groundwater	Depth to Free Product	Free Product Thickness	Groundwater Elevation
MW-1	362.84	--			
MW-2	365.08	31.93	31.87	0.06	--
MW-3	364.16	31.16	31.12	0.04	--
MW-4	362.38	29.24	29.23	0.01	--
MW-5	363.42	--			--
MW-6	362.44	29.44			333.00
MW-7	362.57	29.17			333.40
MW-8	364.51	31.34			333.17
MW-9	362.33	--			
MW-10	367.28	--			
MW-11	362.48	--			
MW-12	361.88	--			
MW-13	366.91	--			
MW-14	362.79	--			
MW-15	362.36	--			
MW-16	362.48	--			
MW-17	367.97	--			

Note: -- Not Surveyed

TABLE 2
Groundwater Analytical Results
For First Quarter Monitoring Event, 2008
Wigington Petroleum

Well Number	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	ETBE	TAME	TBA
MW-1	--	--	--	--	--	--	--	--	--	--	--
MW-2	--	--	--	--	--	--	--	--	--	--	--
MW-3	--	--	--	--	--	--	--	--	--	--	--
MW-4	--	--	--	--	--	--	--	--	--	--	--
MW-5	--	--	--	--	--	--	--	--	--	--	--
MW-6	**1,400**	<500	**9.6**	**0.6**	**4.8**	**8.5**	**3.5**	<1.0	<1.0	<1.0	<5.0
MW-7	<500	<500	<0.5	<0.5	<0.5	<1.5	<1.0	<1.0	<1.0	<1.0	<5.0
MW-8	**1,100**	**570**	<0.5	<0.5	**27**	<1.5	<1.0	<1.0	<1.0	<1.0	<5.0

Notes: -- = Not sampled.

APPENDIX A

GROUNDWATER MONITORING/SAMPLING DATA SHEETS

Copies of MW-1 thru MW-8 for writing 1st Qtr, 2008 Monitoring Rpt.

Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 1/17/08
Well ID: MW-1
Sampler: DBS

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							NOT SAMPLED - OBSTRUCTED BY INOPERABLE VEHICLE
1.0 BHV							
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged:

Total Vols. Purged:

Sample Collection Time:

Sample Collection Depth:

Well Data

Bore OD:	
Casing ID:	
Well TD:	
DTW:	
Ft./Water:	
80% Recovery:	
Factor:	
1 Vol:	
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 1/17/08
Well ID: MW-2
Sampler: DBS

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							FREE PRODUCT @ 31.87'
1.0 BHV							H2O @ 31.93'
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: _____

Total Vols. Purged: _____

Sample Collection Time: _____

Sample Collection Depth: _____

Well Data	
Bore OD:	
Casing ID:	
Well TD:	
DTW:	
Ft./Water:	
80% Recovery:	
Factor:	
1 Vol:	
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 1/17/08
Well ID: MW-3
Sampler: DBS

Purge Data							
	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV							
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

FREE PRODUCT @ 31.12'
H_2O @ 31.16'

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: _____

Total Vols. Purged: _____

Sample Collection Time: _____

Sample Collection Depth: _____

Well Data

Bore OD:	
Casing ID:	
Well TD:	
DTW:	
Ft./Water:	
80% Recovery:	
Factor:	
1 Vol:	
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

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Sampling Data

Date: 1/17/08
Well ID: MW-4
Sampler: DBS

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							FREE PRODUCT @ 29.23
1.0 BHV							H_2O @ 29.24
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:
Bail / Pump / Vac

Total Gals. Purged:

Total Vols. Purged:

Sample Collection Time:

Sample Collection Depth:

Well Data	
Bore OD:	
Casing ID:	
Well TD:	
DTW:	
Ft./Water:	
80% Recovery:	
Factor:	
1 Vol:	
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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Site Name: WIGINGTON OIL/EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 1/17/07
Well ID: MW-5
Sampler: DBS

Purge Data	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							NOT SAMPLED PER S.D. Co. SAM PROGRAM
1.0 BHV							
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:
Bail / Pump / Vac

Total Gals. Purged:
Total Vols. Purged:
Sample Collection Time:
Sample Collection Depth:

Well Data	
Bore OD:	
Casing ID:	
Well TD:	
DTW:	
Ft./Water:	
80% Recovery:	
Factor:	
1 Vol:	
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

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20 min

Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 1/17/08
Well ID: MW-6
Sampler: DBS

Purge Data	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	3:00				29.44		
1.0 BHV	3:17	22.2	1700	7.60	29.52	21.0	STRONG ODOR, HYDROCARBON BLEBS, SL. SHEEN.
1.5 BHV	3:30	21.4	1699	7.61	29.53	10.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:
Bail / Pump / Vac

Total Gals. Purged: 31.5
Total Vols. Purged: 1.5
Sample Collection Time: 3:37
Sample Collection Depth: 29.46

Well Data	
Bore OD:	10"
Casing ID:	4"
Well TD:	42'
DTW:	29.44
Ft./Water:	12.56
80% Recovery:	
Factor:	
1 Vol:	20.5
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

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Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 1/17/08
Well ID: MW-7
Sampler: DBS

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	12:15				29.17		STRONG ODOR
1.0 BHV	12:36	21.4	1749	7.27	29.26	21.0	
1.5 BHV	12:40	21.5	1750	7.17	29.34	11.0	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 32.0
Total Vols. Purged: 1.5
Sample Collection Time: 12:50
Sample Collection Depth: 29.18

Well Data

Bore OD:	10"
Casing ID:	4"
Well TD:	42'
DTW:	29.17
Ft./Water:	12.83
80% Recovery:	29.20
Factor:	
1 Vol:	20.9
3 Vol:	

Recharge Info: (F) S

Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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San Diego, CA 92128

20 mm

Site Name: WIGINGTON OIL / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 1/17/08
Well ID: MW-8
Sampler: DBS

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	1:15				31.34		
1.0 BHV	1:25	22.3	1411	7.15	31.38	14.25	ODOR
1.5 BHV	1:33	22.1	1445	7.10	31.39	7.25	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 21.5

Total Vols. Purged: 1.5

Sample Collection Time: 1:45

Sample Collection Depth: 31.34'

Well Data

Bore OD:	10"
Casing ID:	4"
Well TD:	40'
DTW:	31.34
Ft./Water:	8.66
80% Recovery:	31.35
Factor:	
1 Vol:	14.1
3 Vol:	

Recharge Info: (F) / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bbv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

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San Diego, CA 92128

APPENDIX B

LABORATORY REPORTS – GROUNDWATER SAMPLES

PETRA

MOBILE GEOCHEMISTRY

H&P

24 January 2008

Mr. Jim Olbinski
Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

RE: PG011808-11

Enclosed are the results of analyses for samples received by the laboratory on 18-Jan-08 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595.

2470 Impala Drive, Carlsbad, California 92010 | 760.804.9678 — Fax 760.804.9159
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www.HandPmg.com | 1-800-834-9888

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MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG011808-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / Woodside Dr.	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	24-Jan-08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-6	E801058-01	Water	17-Jan-08	18-Jan-08
MW-7	E801058-02	Water	17-Jan-08	18-Jan-08
MW-8	E801058-03	Water	17-Jan-08	18-Jan-08

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG011808-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / Woodside Dr.	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	24-Jan-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-6 (E801058-01) Water Sampled: 17-Jan-08 Received: 18-Jan-08									
Methyl tert-butyl ether	3.5	1.0	ug/l	0.1	EA82212	22-Jan-08	22-Jan-08	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	9.6	0.5	"	"	"	"	"	"	
Toluene	0.6	0.5	"	"	"	"	"	"	
Ethylbenzene	4.8	0.5	"	"	"	"	"	"	
m,p-Xylene	8.5	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*89.4 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*94.4 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*92.2 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*79.8 %*		*75-125*	"	"	"	"	
MW-7 (E801058-02) Water Sampled: 17-Jan-08 Received: 18-Jan-08									
Methyl tert-butyl ether	ND	1.0	ug/l	0.1	EA82212	22-Jan-08	22-Jan-08	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*108 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*121 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*98.6 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*100 %*		*75-125*	"	"	"	"	

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San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	24-Jan-08

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-8 (E801058-03) Water Sampled: 17-Jan-08 Received: 18-Jan-08									
Methyl tert-butyl ether	ND	1.0	ug/l	0.1	EA82212	22-Jan-08	22-Jan-08	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	27	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*111 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*117 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*104 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG011808-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / Woodside Dr.	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	24-Jan-08

TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-6 (E801058-01) Water Sampled: 17-Jan-08 Received: 18-Jan-08									
Gasoline (C5-C11)	1400	500	ug/l	1	EA82108	21-Jan-08	21-Jan-08	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-7 (E801058-02) Water Sampled: 17-Jan-08 Received: 18-Jan-08									
Gasoline (C5-C11)	ND	500	ug/l	1	EA82108	21-Jan-08	21-Jan-08	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-8 (E801058-03) Water Sampled: 17-Jan-08 Received: 18-Jan-08									
Gasoline (C5-C11)	1100	500	ug/l	1	EA82108	21-Jan-08	21-Jan-08	DHS LUFT	
Diesel (C12-C24)	570	500	"	"	"	"	"	"	D-08

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG011808-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / Woodside Dr.	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	24-Jan-08

Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA82212 - EPA 5030										
Blank (EA82212-BLK1)				Prepared & Analyzed: 22-Jan-08						
Methyl tert-butyl ether	ND	1.0	ug/l							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
Tert-amyl methyl ether	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tert-butyl alcohol	ND	5.0	"							
Surrogate: Dibromofluoromethane	*4.76*		"	*5.00*		*95.2*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.01*		"	*5.00*		*100*	*62-139*			
Surrogate: Toluene-d8	*4.37*		"	*5.00*		*87.4*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*4.88*		"	*5.00*		*97.6*	*75-125*			
Matrix Spike (EA82212-MS1)		**Source: E801030-04**		Prepared & Analyzed: 22-Jan-08						
Benzene	5.88	0.5	ug/l	5.00	1.6	85.6	75-125			
Toluene	4.48	0.5	"	5.00	0.4	81.6	74-125			
Surrogate: Dibromofluoromethane	*5.05*		"	*5.00*		*101*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.74*		"	*5.00*		*115*	*62-139*			
Surrogate: Toluene-d8	*4.88*		"	*5.00*		*97.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*5.22*		"	*5.00*		*104*	*75-125*			
Matrix Spike Dup (EA82212-MSD1)		**Source: E801030-04**		Prepared & Analyzed: 22-Jan-08						
Benzene	5.59	0.5	ug/l	5.00	1.6	79.8	75-125	5.06	20	
Toluene	4.38	0.5	"	5.00	0.4	79.6	74-125	2.26	20	
Surrogate: Dibromofluoromethane	*5.23*		"	*5.00*		*105*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.90*		"	*5.00*		*118*	*62-139*			
Surrogate: Toluene-d8	*5.23*		"	*5.00*		*105*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*5.02*		"	*5.00*		*100*	*75-125*			

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG011808-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / Woodside Dr.	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	24-Jan-08

TPH by GC FID - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA82108 - LUFT-DHS										
Blank (EA82108-BLK1)				Prepared & Analyzed: 21-Jan-08						
Gasoline (C5-C11)	ND	500	ug/l							
Diesel (C12-C24)	ND	500	"							
LCS (EA82108-BS1)				Prepared & Analyzed: 21-Jan-08						
Gasoline (C5-C11)	1650	500	ug/l	1510		109	75-125			
Diesel (C12-C24)	2240	500	"	2510		89.2	75-125			
LCS Dup (EA82108-BSD1)				Prepared & Analyzed: 21-Jan-08						
Gasoline (C5-C11)	1580	500	ug/l	1510		105	75-125	4.33	30	
Diesel (C12-C24)	2340	500	"	2510		93.2	75-125	4.37	30	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG011808-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / Woodside Dr.	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	24-Jan-08

Notes and Definitions

D-08	Results in the diesel organics range are primarily due to overlap from a gasoline range product.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

☑ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159

☐ 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Date: _____

H&P Project # PG011808-11

Outside Lab: _____

Client: PETRA GEOTECHNICAL

Address: 12225 WORLD TRADE DR. SUITE P
S.D. CA 92128

Email: jolbinski@petra-inc Phone: (858) 485 5530

Collector: DBS. Page: 1 of 1

Client Project # 252-06 Project Contact: J. OLBINSKI

Location: WOODSIDE DR. SANTEE

Fax: (858) 485-8215 Turn around time: Std.

EDF: Yes☑ No☐

Global ID: _____

Sample Receipt
Intact: ☑Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☑N/A
Cold: ☑Yes ☐ No 2.8°C
N/A (Received on Site)

Special Instructions:

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☑gasoline ☑diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates /MTBE	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARWQCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify)	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2				Total # of containers
MW-6			3:37	1/17	W	VOA	X			X														5
MW-7			12:50	1/17	↓	↓	↓			↓														↓
MW-8			1:45	1/17	↓	↓	↓			↓														

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
[signature]	PETRA	[signature]	H&P	1/18/08	12:35 pm
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ *Disposal @ $2.00 each* ☐ *Return to client* ☐ *Pickup*

APPENDIX C

HISTORICAL GROUNDWATER DATA TABLES

PETRA

MW-1
Historical Groundwater Data Table

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.17	0.6	NA	NA	0.7	<0.5	NA	<0.05	NA
03/10/98	336.87	NA	2,500	910	340	200	18	240	190
05/18/98	NR	NA	704	<500	326	89.5	<50	<100	<50
04/05/00	334.28	NA	1,800	NA	250	14	34	380	200
04/26/02	332.63	NA	1,100	1,100	230	14	36	220	190
12/03/02	332.65	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA
01/17/08	--	NA	--	--	--	--	--	--	--

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-2
Historical Groundwater Data Table

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.37	<0.5	NA	NA	<0.5	<0.5	NA	<0.5	NA
03/10/98	336.65	NA	330	<500	20	3.3	25	47	2,000
04/05/00	333.17	NA	7,600	NA	7.6	3.3	30	59	3,500
04/26/02	333.36	NA	6,000	160,000	9.2	3.9	16	17	2,600
12/03/02	333.24	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	FP	--	--	--	--	--	--	--	--
01/17/08	FP		--	--	--	--	--	--	--

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-3
Historical Groundwater Data Table

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.24	140	NA	NA	19	3.4	NA	1.3	NA
03/10/98	337.82	NA	2,300	5,100	3.6	0.7	0.7	4.1	2,000
05/18/98	NR	NA	115	<500	98.5	<12.5	<12.5	<25.0	226
04/05/00	329.42	NA	420	NA	18	1.7	3.9	12	190
04/26/02	332.79	NA	9,700	190,000	92	<3.0	56	62	590
12/03/02	332.84	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	FP	--	--	--	--	--	--	--	--
01/17/08	FP		--	--	--	--	--	--	--

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-4
Historical Groundwater Data Table

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.22	6.3	NA	NA	<0.5	M0.5	NA	<0.5	NA
03/10/98	336.44	NA	9,600	3,700	2,400	250	50	430	4,100
04/05/00	332.92	NA	8,700	NA	1,800	<12	110	790	900
04/26/02	332.78	NA	15,000	95,000	4,500	150	450	1,900	1,500
12/03/02	332.95	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	FP	--	--	--	--	--	--	--	--
01/17/08	FP		--	--	--	--	--	--	--

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-5
Historical Groundwater Data Table

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
03/10/98	NA	NA	730	1,700	20	0.6	<0.3	39	92
04/26/02	333.03	NA	500	2,000	7.3	1.7	2.8	6.8	230
12/03/02	332.92	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	331.70	NA	NA	NA	NA	NA	NA	NA	NA
01/17/08	--		--	--	--	--	--	--	--

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-6
Historical Groundwater Data Table

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/26/02	332.67	NA	25,000	9,100	5,300	1,400	1,200	5,900	850
12/03/02	332.69	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	331.43	NA	570	<500	21	0.7	48	14	17
01/17/08	333.00	NA	1,400	<500	9.6	0.6	4.8	8.5	3.5

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-7
Historical Groundwater Data Table

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/26/02	333.10	NA	1,900	13,000	3.7	1.1	4.0	7.9	19
12/03/02	333.12	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	332.12	NA	<500	<500	<0.5	<0.5	<0.5	<0.5	<1.0
01/17/08	333.40	NA	<500	<500	<0.5	<0.5	<0.5	<1.5	<1.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-8
Historical Groundwater Data Table

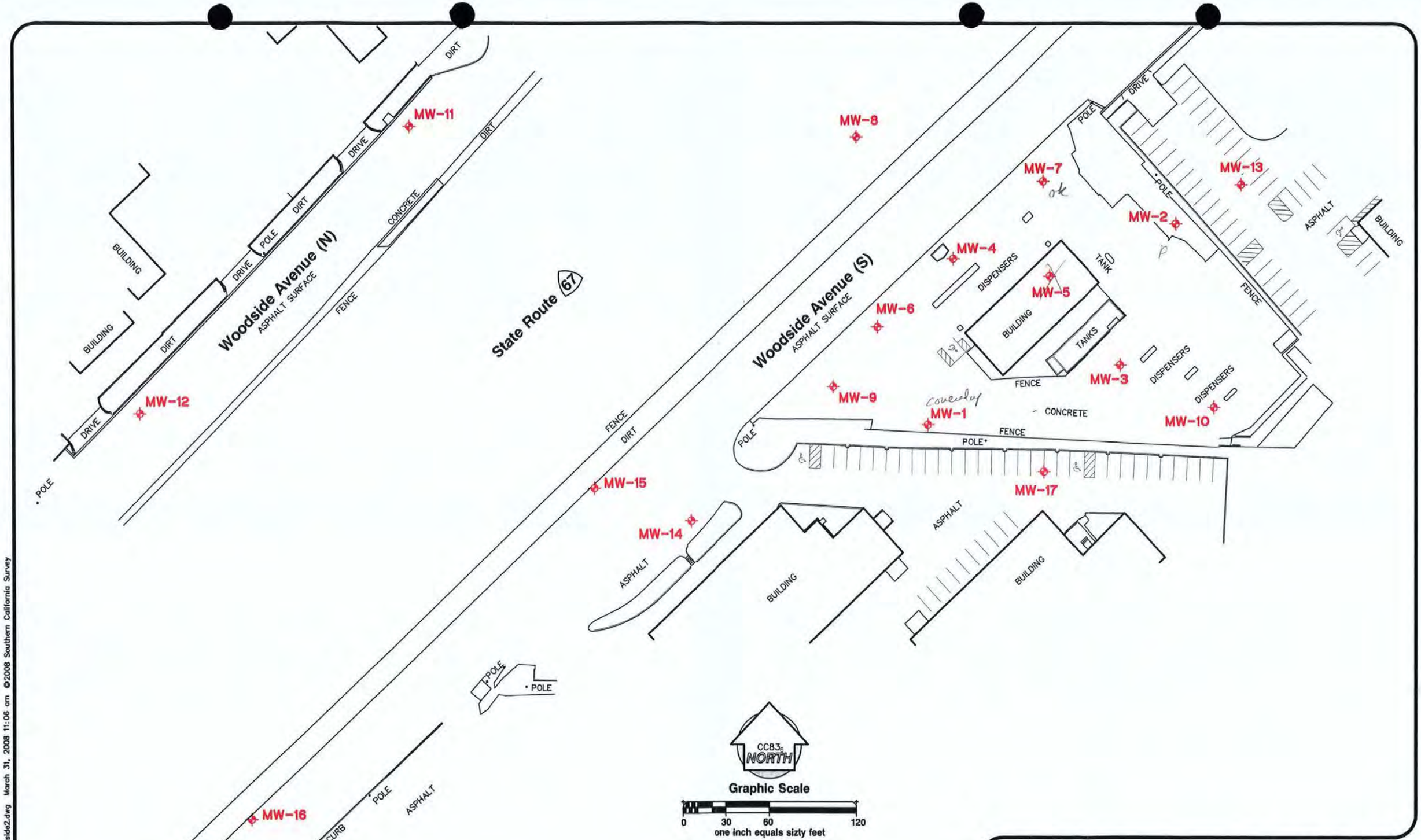
Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/26/02	332.80	NA	4,800	6,500	50	9.2	170	210	64
12/03/02	332.81	NR	NR	NR	NR	NR	NR	NR	NR
10/26/07	331.49	NA	1,100	790	<0.5	<0.5	23	<0.5	<1.0
01/17/08	333.17	NA	1,100	570	<0.5	<0.5	27	<1.5	<1.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

APPENDIX D

SOUTHERN CALIFORNIA SURVEY, INC, 2008

PETRA



Woodside2.dwg March 31, 2008 11:06 am ©2008 Southern California Survey

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(619) 563-2888 fax (858) 492-0950

PETRA

Sheet 1 of 3

Wigington Petroleum
11427 Woodside Avenue
Santee, California

MW-1
GRID N: 1889741.63
GRID E: 6346207.71
LATITUDE: 32°50'59.673"
LONGITUDE: 116°57'05.592"
362.84 S 4" PVC Casing
363.18 NE Rim

MW-2
GRID N: 1889874.93
GRID E: 6346377.76
LATITUDE: 32°51'01.003"
LONGITUDE: 116°57'03.609"
365.08 NW 4" PVC Casing
365.30 Rim

MW-3
GRID N: 1889781.20
GRID E: 6346340.03
LATITUDE: 32°51'00.073"
LONGITUDE: 116°57'04.044"
364.16 SW 4" PVC Casing
364.58 Rim

MW-4
GRID N: 1889851.62
GRID E: 6346225.01
LATITUDE: 32°51'00.762"
LONGITUDE: 116°57'05.398"
362.38 NW 4" PVC Casing
362.96 Rim

MW-5 (2002 data)
GRID N: 1889840.02
GRID E: 6346291.00
LATITUDE: 32°51'00.652"
LONGITUDE: 116°57'04.624"
363.42 Rim (Floor)

MW-6
GRID N: 1889806.24
GRID E: 6346173.11
LATITUDE: 32°51'00.310"
LONGITUDE: 116°57'06.003"
362.44 SE 4" PVC Casing
362.79 Rim

MW-7
GRID N: 1889903.04
GRID E: 6346286.51
LATITUDE: 32°51'01.275"
LONGITUDE: 116°57'04.681"
362.57 SW 4" PVC Casing
362.95 Rim

MW-8 (2002 data)
GRID N: 1889932.40
GRID E: 6346158.66
LATITUDE: 32°51'01.557"
LONGITUDE: 116°57'06.182"
364.51 4" PVC Casing
364.98 Rim

MW-9
GRID N: 1889766.75
GRID E: 6346142.50
LATITUDE: 32°50'59.917"
LONGITUDE: 116°57'06.359"
362.33 NW 4" PVC Casing
362.71 Rim

MW-10
GRID N: 1889753.15
GRID E: 6346403.83
LATITUDE: 32°50'59.800"
LONGITUDE: 116°57'03.294"
367.28 4" PVC Casing
367.73 Rim

MW-11
GRID N: 1889939.43
GRID E: 6345850.67
LATITUDE: 32°51'01.606"
LONGITUDE: 116°57'09.793"
362.48 2" PVC Casing
362.70 Rim

MW-12
GRID N: 1889748.87
GRID E: 6345667.65
LATITUDE: 32°50'59.709"
LONGITUDE: 116°57'11.923"
361.88 2" PVC Casing
362.32 Rim

MW-13
GRID N: 1889900.83
GRID E: 6346422.61
LATITUDE: 32°51'01.262"
LONGITUDE: 116°57'03.086"
366.91 2" PVC Casing
367.33 Rim

MW-14
GRID N: 1889678.09
GRID E: 6346044.47
LATITUDE: 32°50'59.033"
LONGITUDE: 116°57'07.501"
362.79 NW 4" PVC Casing
363.38 Rim

MW-15
GRID N: 1889699.69
GRID E: 6345977.68
LATITUDE: 32°50'59.243"
LONGITUDE: 116°57'08.285"
362.36 2" PVC Casing
362.71 Rim

MW-16
GRID N: 1889480.94
GRID E: 6345742.84
LATITUDE: 32°50'57.063"
LONGITUDE: 116°57'11.021"
362.48 2" PVC Casing
362.99 Rim

MW-17
GRID N: 1889710.71
GRID E: 6346286.97
LATITUDE: 32°50'59.372"
LONGITUDE: 116°57'04.661"
367.97 2" PVC Casing
368.32 Rim

Notes

Initial Field Survey performed on April 26, 2002, and updated on March 28, 2008. Well Id's per Petra Geotechnical Inc.

Survey Accuracies per Scope of Services letter dated March 11, 2008.

Horizontal Coordinates are California Coordinates Zone 6, NAD83, 1991.35 epoch.

All well rim and casing elevations are located on the northerly side, and are painted black, unless otherwise noted.

Selected planimetric features located per instruction by Petra Geotechnical Inc. personnel, additional utilities and/or planimetric features do exist.

Measurements shown are decimal feet and degrees, minutes, seconds of Latitude/Longitude (see enclosed spreadsheet for decimal degrees).

Benchmark

RUIS Benchmark No. ROS11252 PT#2160 Standard Street Survey centerline monument at the intersection of Woodside Avenue and Gauche Alley

Elevation = 362.39 NGVD29 Datum (add 2.00' for NAVD88 per VERTCON)

LICENSED LAND SURVEYOR
John E. Hank
L.S. 6165
expires 3/31/10
STATE OF CALIFORNIA

March 28, 2008
John E. Hank P.L.S. date
Professional Land Surveyor
License No. 6165 Expires March 31, 2010

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PETRA

Sheet 2 of 3
Wigington Petroleum
11427 Woodside Avenue
Santee, California

Woodside2.dwg March 31, 2008 11:06 am ©2008 Southern California Survey

Woodside2.dwg March 31, 2008 11:06 am ©2008 Southern California Survey

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Sheet 3 of 3
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San Diego County

12225 World Trade Drive, Suite P
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PETRA

past + present + future
it's in our science

Engineers, Geologists
Environmental Scientists

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ENVIRONMENTAL HEALTH

April 15, 2008
J.N. 252-06

Ms. Linda Wigington
WIGINGTON PETROLEUM, INC.
c/o William L. Fischbeck, Esq.
5464 Grossmont Center Drive, Third Floor
La Mesa, California 91942

Subject: **Fourth Quarter 2007 Groundwater Monitoring Report, Wigington Petroleum, 11427 Woodside Avenue, Santee, California, T0948/H19469-001/APN 382-320-06.**

Dear Ms. Wigington:

The Environmental Division of **Petra Geotechnical, Inc. (Petra)** is pleased to present this quarterly groundwater monitoring and sampling report for the above-referenced site. The purpose of the investigation was to perform quarterly groundwater monitoring and sampling pursuant to the requirements of the San Diego County Site Assessment and Mitigation (SAM) Program. The subject monitoring was conducted in accordance with our proposal (P.N. 1177-06) and dated April 19, 2006.

If there are any questions or comments regarding the scope of work performed or methodology, please call the undersigned at (858) 485-5530.

Respectfully submitted,

Petra Geotechnical, Inc.
ENVIRONMENTAL DIVISION

4-16-08

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JSO/CH/jlj
C:\MyFiles\2006\200\252-06\650 (Phase II Environ Invest)\Monitoring Rpts\2007 4th Qtr\252-06 4th Qtr 07 GW Monitoring.doc
Distribution: 1) Addressee, via Hand Delivery
1) SAM Program, Attention: Ms. Teresa Sherman, via Hand Delivery
1) UST Cleanup Fund with Reimbursement Request #6, via CA Overnight

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FOURTH QUARTER 2007
GROUNDWATER MONITORING AND SAMPLING REPORT

Wigington Petroleum
11427 Woodside Avenue, Santee, California
T0948/H19469-001/APN 382-320-06

SITE LOCATION AND BACKGROUND

The site is located at 11427 Woodside Avenue in Santee, California (Figure 1). The property occupies approximately 1.15 acres and is triangular in shape. The property is developed solely as a fueling and petroleum product sales facility.

Site Name:	*El Capitan Oil Company*
Site Address:	*11427 Woodside Avenue, Santee, California 92071*
APN:	*382-320-06*
DEH Case No.:	*H19469-001*

A total of 13 underground storage tanks (USTs) have reportedly been removed from the site between 1987 and 1998. Results of sampling conducted during UST removal activities indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) issued a letter requiring corrective action relative to the release (HMMD, August 19, 1993). 3/2/1988?

During 1988 through 2005, EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the site (EnecoTech, 2002, 2003 & 2005). A total of 18 borings and eight groundwater monitoring wells have been drilled and sampled at the site. Seven of the eight existing wells are depicted on Figure 2. Well MW-8 is off site, but its approximate location is indicated to be 45 feet northwest of the edge of pavement along Woodside Avenue (Figure 2). Based on the results of assessment activities conducted to date, it appears the extent of petroleum hydrocarbon-impacted groundwater has not been fully delineated. Additional delineation is required to the southwest, south and east of the former UST system.

include 8 recent MW-8 install ?

west NW

On March 25, 2005, EnecoTech submitted a workplan for additional site assessment (EnecoTech, 2005). In a letter dated October 10, 2007, the SAM Program approved this workplan. Petra discussed adding a well to the proposed and approved work plan with SAM

not accurate

Program personnel. The SAM Program agreed that another well was warranted and requested a revised workplan for installation of that well. The workplan was submitted on December 21, 2007 (Petra, 2007) and the SAM Program approved the workplan in a letter dated January 16, 2008 (SAM, 2008). A references list is present on page 11.

OBJECTIVE

The objective of the scope of work was to comply with SAM Program requirements for quarterly groundwater monitoring and sampling. The scope of work designed to meet the project objective included the following tasks.

Task 1: Groundwater monitoring, purging, and sampling.

Task 2: Laboratory analysis of collected groundwater samples.

Task 3: Report preparation.

GROUNDWATER MONITORING, PURGING, AND SAMPLING

On October 25, 2007, seven wells were monitored. Six of these wells (MW-2, MW-3, MW-4, MW-5, MW-6, and MW-7) were on site. Monitoring well MW-8 is located offsite and north of Woodside Avenue. An electronic interface probe, with a manufacturer's reported accuracy of 1/100th of a foot, was used to measure the depth to water and check for the presence of phase-separated petroleum hydrocarbons (free product). Monitoring well MW-1 was not accessible during this monitoring event due to an inoperable truck positioned over the well cover. Free product was detected in three of the wells (MW-2, MW-3 and MW-4) and samples were not collected from these wells. Well MW-5 was monitored but not sampled per the SAM Program.

Wells MW-6, MW-7 and MW-8 were purged and sampled in general accordance with SAM Program guidelines. For fast recovering wells (wells that recover at least 80 percent within 2 hours), temperature, conductivity, and pH measurements (purging parameters) were taken after removal of the first borehole volume and each ½ borehole volume thereafter. Purging continued

until at least one and one-half borehole volumes had been removed and purging parameters had stabilized to within 10 percent of the previous reading. Slow recovering wells (wells that recover less than 80 percent in two hours) were purged of one borehole volume. Purge water was placed in appropriate 55-gallon drums, labeled, and stored on-site pending disposal.

After purging was completed, the wells were allowed to recover. Fast recovering wells were allowed to recover at least 80 percent prior to sampling. Slow recovering wells were allowed to recover at least two hours prior to sampling. Groundwater samples were collected from each well with a single-use, disposable bailer and decanted into laboratory-supplied vials. The collected groundwater samples were labeled and placed in an ice-filled cooler pending delivery to the laboratory. Chain-of-custody procedures were implemented for sample tracking. Sampling data sheets are included in Appendix A.

LABORATORY ANALYSIS

Groundwater samples were submitted to a state-accredited laboratory for analysis. All samples were analyzed for total petroleum hydrocarbon as gasoline (TPHg) and as diesel fuel (TPHd) in general accordance with modified EPA Method 8015, and for benzene, toluene, ethylbenzene, and xylenes (BTEX), and oxygenates including methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA) in general accordance with EPA Method 8260B.

FINDINGS

GEOLOGY AND HYDROGEOLOGY

The following sections provide an overview of the regional and local geologic setting and include information pertaining to groundwater conditions in the vicinity of the study area.

Regional Geology

The site is located in the Peninsular Ranges Geomorphic Province of Southern California. This province is typified by northwest to southeast-trending mountain ranges approximately parallel to the San Andreas and related regional fault systems. The plutonic rocks of the western Peninsular Ranges are generally characterized as mafic (dark-colored) rocks, including gabbro, with granitic rocks of the Peninsular Ranges batholith (Harden, 1997) in association with lesser amounts of metamorphic rocks. Sedimentary rocks ranging in age from Cretaceous to Pleistocene form the San Diego embayment and coastal terraces west of the batholith.

As interpreted from regional geologic maps (Strand, 1962, Tan, 2002 and Todd, 2004), geologic materials underlying the site may include Quaternary-aged alluvium and colluvium. The more detailed geologic map of Tan (Tan, 2002) identifies Pleistocene alluvial deposits underlying the site and describes these sediments as "moderately consolidated, poorly sorted flood plain deposits consisting of gravelly, sandy silt and clay." These sediments are in unconformable contact with underlying bedrock.

The regional geologic maps have identified bedrock in the near vicinity as being "granitoid" (Todd, 2004). Tan (2002) has mapped Cretaceous-aged tonalite immediately south of the site. The tonalite was described as including "some granodiorite and quartz diorite, medium-grained, generally dark colored and severely weathered." Based upon the referenced regional mapping, the site is most likely to be underlain by Cretaceous-aged tonalite.

Past reports regarding this site have incorrectly referenced CDMG Bulletin 200 (Kennedy and Peterson, 1975) in the "Area Geology" sections of their reports (EnecoTech, 2002 & 2003). The site is located in the El Cajon, 7½-minute Quadrangle, which is not a part of CDMG Bulletin 200.

Site-Specific Geology

Based on our experience at the site and in the site vicinity, the site is underlain by alluvium overlying granitic bedrock. The granitic bedrock also comprises the highlands to the south of the site. The ground surface at the site slopes gently to the northwest, toward Woodside Avenue.

EnecoTech's site assessment (EnecoTech, 2003) described the site geology as consisting of "alluvial interbedded with colluvial material transported and deposited via stream flow and slope wash. Alluvial/colluvial material encountered consisted of angular, fine to medium sands with occasional increases in grain size to very coarse sand with scattered gravels to two-inches in diameter. Classification was based on the United Soil Classification Scheme (USCS) ranges from SW, SP, and SC to GP. Based on local topography, the majority of the alluvial material originated from drainages to the southeast, which are minor first order tributaries of the San Diego River to the north. These materials generally consist of well-sorted sands with occasional clay. These materials have been deposited unconformably on granitic bedrock, which displays weathering. The bedrock was encountered in borings at the rear (southeast) portion of the site during the 1988 site assessment and in B5 at 28 feet bgs *(below ground surface)*."

Hydrogeology

Based on review of a document titled *Water Quality Control Plan, San Diego Basin - Region 9*, (approved by the California Regional Water Quality Control Board September 8, 1994), the site is interpreted to lie within the Regional Water Quality Control Board (RWQCB), San Diego Basin Region 9, Santee Hydrologic Sub Area (7.12) of the Lower San Diego Hydrologic Area (7.10) of the San Diego Hydrologic Unit (7.00). According to the RWQCB, surface water in this subarea has existing beneficial use for industrial and agricultural supply purposes and potential use for municipal purposes. The groundwater in this subarea has been classified as having existing beneficial uses for municipal, agricultural, industrial service and industrial process supply purposes.

According to EnecoTech reports, referenced above, groundwater has been present at depths ranging from approximately 29.45 to 31.90 feet below grade. The groundwater flow direction was interpreted, in the referenced reports (EnecoTech, 2002 and EnecoTech, 2003), to be generally toward the west-southwest.

Groundwater Conditions

During the October 25, 2007 monitoring event, groundwater was encountered at depths ranging from approximately 30.85 to 33.22 feet below grade. The groundwater flow direction was interpreted to be generally toward the west with a gradient of approximately 0.0023. The interpreted groundwater contours and gradient are depicted on Figure 3. Groundwater monitoring data is summarized in Table 1.

The base map utilized for this monitoring event has been modified from prior reports. The available map indicates an approximate location for well MW-8. Having only an approximated location, MW-8 was not relied upon to depict groundwater contours and flow gradient conditions.

ANALYTICAL RESULTS

Groundwater sample analytical results are summarized in Table 2 and on Figure 4. Wells MW-2, MW-3 and MW-4 contained free product and were not sampled. Well MW-7 was reported to have no detectable concentrations of dissolved petroleum hydrocarbons. Detectable concentrations of petroleum hydrocarbon constituents were reported as follows:

TPHg- 1,100 ug/l (MW-8) to 570 ug/l (MW-6)
TPHd – 790 ug/l (MW-8)
Benzene – 21 ug/l (MW-6)
Toluene –0.7 ug/l (MW-6)
Ethylbenzene – 48 ug/l (MW-6) to 23 ug/l (MW-8)
Xylenes – 14 ug/l (MW-6)
MTBE – 17 ug/l (MW-6)

Detectable concentrations of DIPE, TAME and TBA were not reported in the three samples analyzed for this quarterly event. Copies of laboratory reports are included in Appendix B. The interpreted extent of the dissolved benzene and dissolved MTBE plumes are not depicted in this report due to the limited amount of available data. These data will be reported in the upcoming site assessment report (report in progress).

WELL CONDITIONS

Monitoring wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-7 and MW-8 have wellheads that are below county specifications. The reconstruction of these wellheads is necessary for the following reasons:

- MW-1 – Vault cover is broken; two bolts (hex-allen) missing; less than 3 inches clearance between top of casing and grout; threads to vault box have been stripped.
- MW-2 – Vault needs new gasket; threads have been striped; large crack grout completion; and there is insufficient relief on the east side of vault.
- MW-3 – Distance between grout and top of casing is 3 inches; no bolts (hex-allen) on cap; no gasket; and vault box is depressed.
- MW-4 – Unable to secure vault cover.
- MW-6 – One of three bolts (hex-allen) is present; threads in box are stripped; vault is not water tight; and gasket needs replacing.
- MW-7 – Needs new well cap and lock; threads are near stripped and need to be rethreaded; grout surrounding box has chipped away.
- MW-8 – All bolts are missing; box is not water tight and filled with water; needs gasket.

Well MW-5 is located inside the main on-site office structure and has contained free product in the past. It is our understanding that this well was installed as a groundwater production well. It is likely that the well screen interval is not located at a depth that would allow this well to yield representative groundwater samples for this assessment due to requirements for a minimum surface seal of at least 50 feet. In addition, the well screen probably does not intercept the uppermost saturated zone where hydrocarbons would tend to concentrate.

DISCUSSION

Detectable concentrations of dissolved petroleum hydrocarbons were reported detected in wells MW-6 and MW-8. Free product was detected in wells MW-2, MW-3 and MW-4. Historic groundwater analytical results are included in Appendix C.

Petra is currently conducting additional assessment in the west and southeast portions of the site and offsite to the northeast, northwest, west, and southwest. Results of the additional site assessment will be provided in an upcoming report. Petra has also completed a high-vacuum, duel-phase extraction (HVDPE) pilot test at the site. Results of our evaluation of the HVDPE as a potential remediation option for the site will be presented in a pilot test report. Recommendations for further site assessment activities and future monitoring will be made in the upcoming reports.

CONCLUSIONS AND RECOMMENDATIONS

Based on the data obtained and reviewed as part of this investigation, including but not limited to current regulatory guidelines, laboratory results, field observations and data evaluation by a registered geologist, it is our professional opinion that the extent of groundwater with dissolved petroleum hydrocarbons has not been delineated. An assessment of the groundwater conditions will be updated as results from recently installed wells become available. Petra recommends quarterly groundwater monitoring be continued at this site. Continued monitoring should include the nine additional monitoring wells recently installed, but not reported to date.

Based on the present condition of existing wellheads, Petra recommends that wells MW-1, MW-2, MW-3, MW-4, MW-6 MW-7 and MW-8 have their respective well heads removed or repaired to comply with county specifications. Furthermore, well MW-5 is an undocumented water well no longer in use and not conforming to SAM specifications. This well should be abandoned. If the County SAM program agrees to these recommendations, Petra will prepare a workplan specifying the wellhead-reconstruction and well-destruction scope of work.

INVESTIGATION LIMITATIONS

This report is based on the project analytical data and findings as presented herein. The materials encountered on the project site, described in other literature, and used in the analytical testing program are believed to be representative of the project area, and the conclusions and recommendations in this report are presented on that basis. However, soil and bedrock materials can vary laterally and vertically within a project site and those variations, if present, could affect the conclusions and recommendations contained herein. In addition, chemicals could be present at the site that escaped detection by the project sampling and analytical testing program.

Although this investigation has attempted to delineate petroleum hydrocarbon-bearing groundwater relative to the site, potential sources of chemicals may have escaped detection for reasons which include, but are not limited to, the following:

- Our reliance on inadequate or inaccurate information provided to us by third parties such as public agencies and other outside sources;
- The limited scope of this investigation; and
- The presence of undetected, unknown, or unreported environmental releases.

Should additional chemicals or other environmental conditions, beyond those already identified at the site, be detected during further progression of the project, Petra will be prepared to assist the client in evaluating the extent of and appropriate mitigation measures for such chemicals or conditions.

REPORT USAGE AND FUTURE SITE CONDITIONS

This report is intended for the sole usage of Wigington Petroleum, Inc. or its agents, and the San Diego County Site Assessment and Mitigation Program. The conclusions of this report are judged to be relevant at the time the work described in this report was conducted. Future site conditions may differ and this report should not be relied upon to represent future site conditions unless a qualified consultant familiar with the practice of similar environmental assessments is consulted to assess the necessity of updating this report.

REFERENCES

California Regional Water Quality Control Board, San Diego Region, 1994, *Water Quality Control Plan for the San Diego Basin (9)*, September 8.

County of San Diego, Department of Environmental Health, Site Assessment and Mitigation Program (SAM), 2007, *Approval for Additional Monitoring Well, Unauthorized Release #H19469-001, El Capitan Oil Company, 11427 Woodside Avenue, Santee, CA 92071*, October 10.

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EnecoTech, 2003, *Comprehensive Site Assessment, Wigington Petroleum, 11427 Woodside Avenue, Santee, California 92071, H19469-001/T0948/APN 382-320-06*, Project No. 1689-001 (BG 015), March 7.

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Kennedy, M. P. and Peterson, G. L., 1975, *Geology of the San Diego Metropolitan Area, California, Del Mar, La Jolla, Point Loma, La Mesa, Poway, and SW ¼ Escondido 7½ Minute Quadrangles*, California Division of Mines and Geology, Bulletin 200.

Petra Geotechnical, Inc. (Petra), 2007, *Addendum to Revised Work Plan for Additional Site Assessment, El Capitan Oil Company, 11427 Woodside Avenue, Santee, California, DEH Unauthorized Release No. H19469-001*, J.N. 252-06, December 21.

Strand, R. G., 1962, *Geologic Map of California, Olaf P. Jenkins Edition, San Diego-El Centro Sheet*, California Division of Mines and Geology, Scale 1:250,000, (Fourth printing 1992).

Tan, S. S., 2002, *Geologic Map of the El Cajon 7.5' Quadrangle, San Diego County, California: a Digital Database*, Department of Conservation, California Geological Survey, scale indicated 1:24,000.

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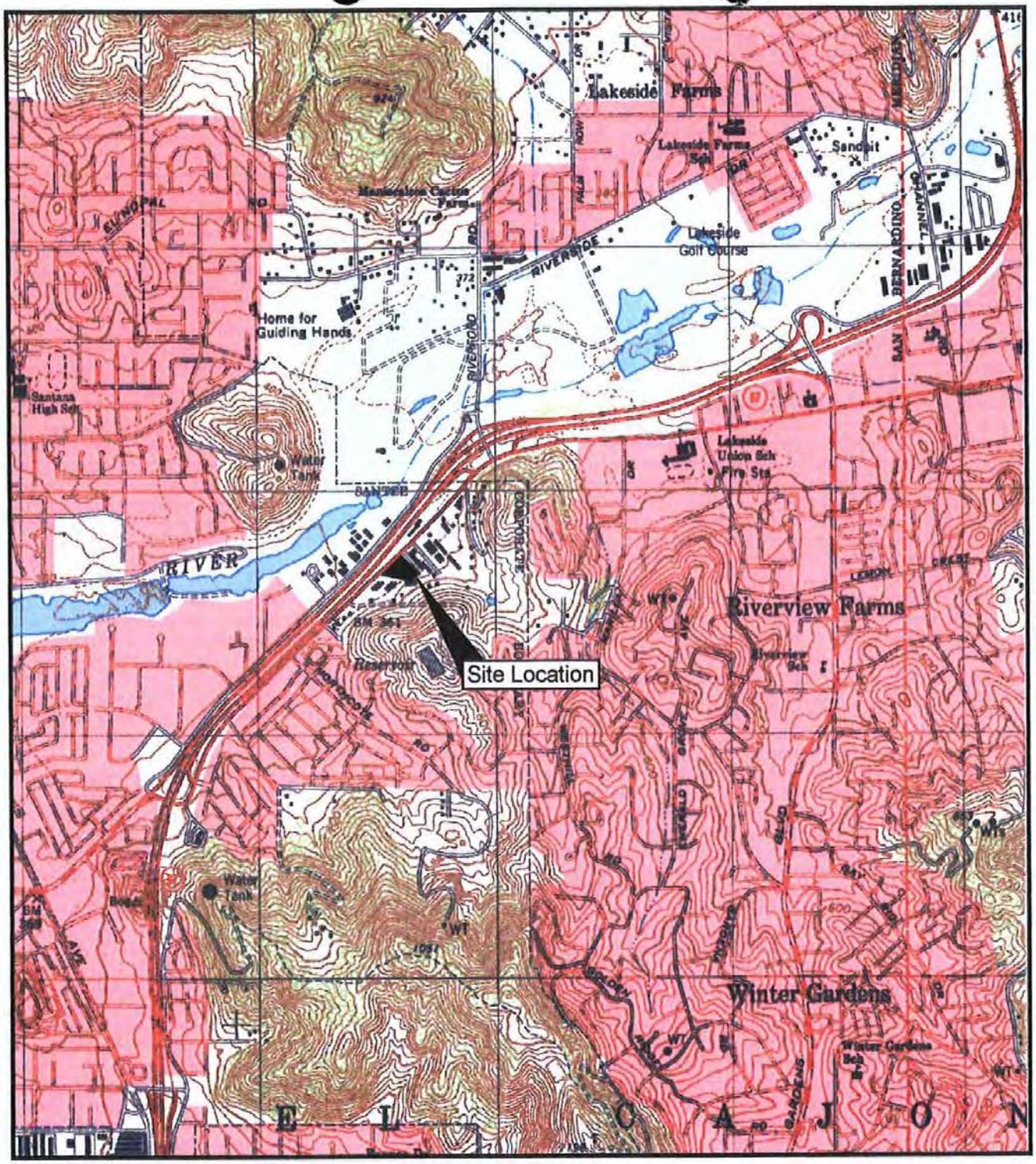
FIGURES

PETRA



Base Map: USGS 7.5-Minute Topographic Map,
El Cajon Quadrangle, 1996.

0 0.5
GRAPHIC SCALE
(in miles)

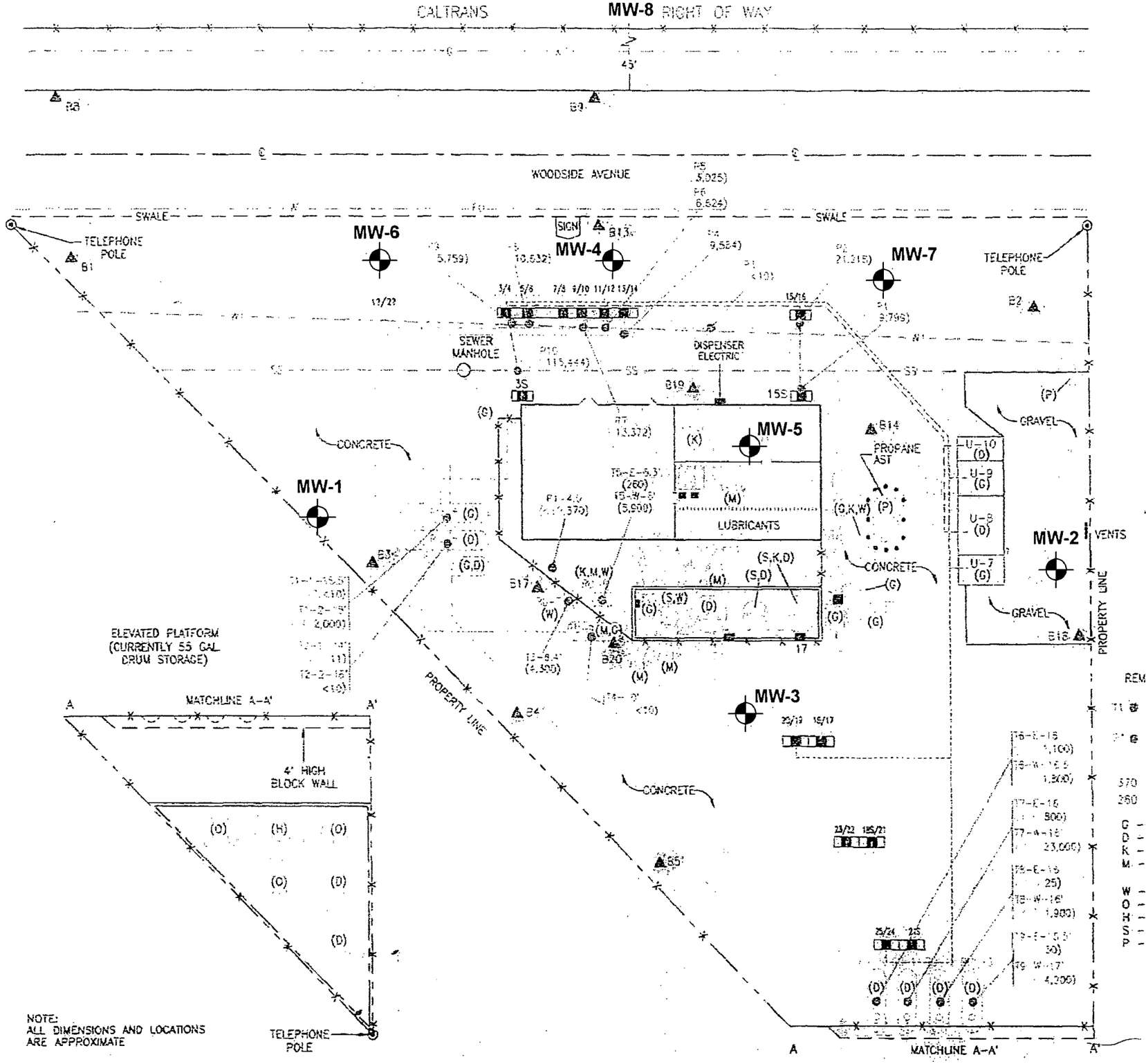
N
W E
S

PETRA GEOTECHNICAL, INC.
12225 WORLD TRADE DRIVE, SUITE P
SAN DIEGO, CALIFORNIA 92126
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

SITE LOCATION MAP

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE: April 2008	J.N.: 252-06	FIGURE 1
DWG BY: DBS	SCALE: See Left	



LEGEND

- MW-1 – MONITORING WELL WITH DESIGNATION
- B18 – BORING AND DESIGNATION
- 3/4 – DISPENSER ISLAND WITH DISPENSERS IN BLACK
- – FORMER DISPENSER
- – (4) UST's REMOVED IN MAY 1988 (LOCATION APPROXIMATE)
- – (1) UST's INSTALLED IN MAY 1988
- – (9) UST's REMOVED IN MAY 1998 (LOCATION APPROXIMATE)
- – (1) UST INSTALLED IN 1998 (4 COMPARTMENT)
- – ABOVE GROUND STORAGE TANK LOCATION. (APPROXIMATE)
- U-8 – UST DESIGNATION
- – AST DESIGNATION
- – CONVAULT-TYPE TANK
- – AST SECONDARY CONTAINMENT
- – REMOVED UST DESIGNATION
- – REMOVED AST DESIGNATION
- – FENCE

UTILITIES

- SS – SANITARY SEWER
- W1 – 6" WATER
- W2 – 4" WATER
- G – 2" + 6" NATURAL GAS
- W3 – 3" WATER
- FO – FIBER OPTICS

PRODUCT LINES

- – GASOLINE
- – DIESEL

REMOVED SAMPLES (mg/kg)

- T1 @ TANK REMOVAL SAMPLE
- P1 @ REMOVED PRODUCT LINE SAMPLE
- 570 TPHg
- 260 TRPH

- G – GASOLINE
- D – DIESEL
- K – KEROSINE
- M – MINERAL SPIRITS (SOLVENT)
- W – WASTE OIL
- O – FRESH OIL
- H – HYDRAULIC FLUID
- S – STOVE OIL
- P – PROPANE

N W E S

0 30

APPROXIMATE GRAPHIC SCALE (in feet)

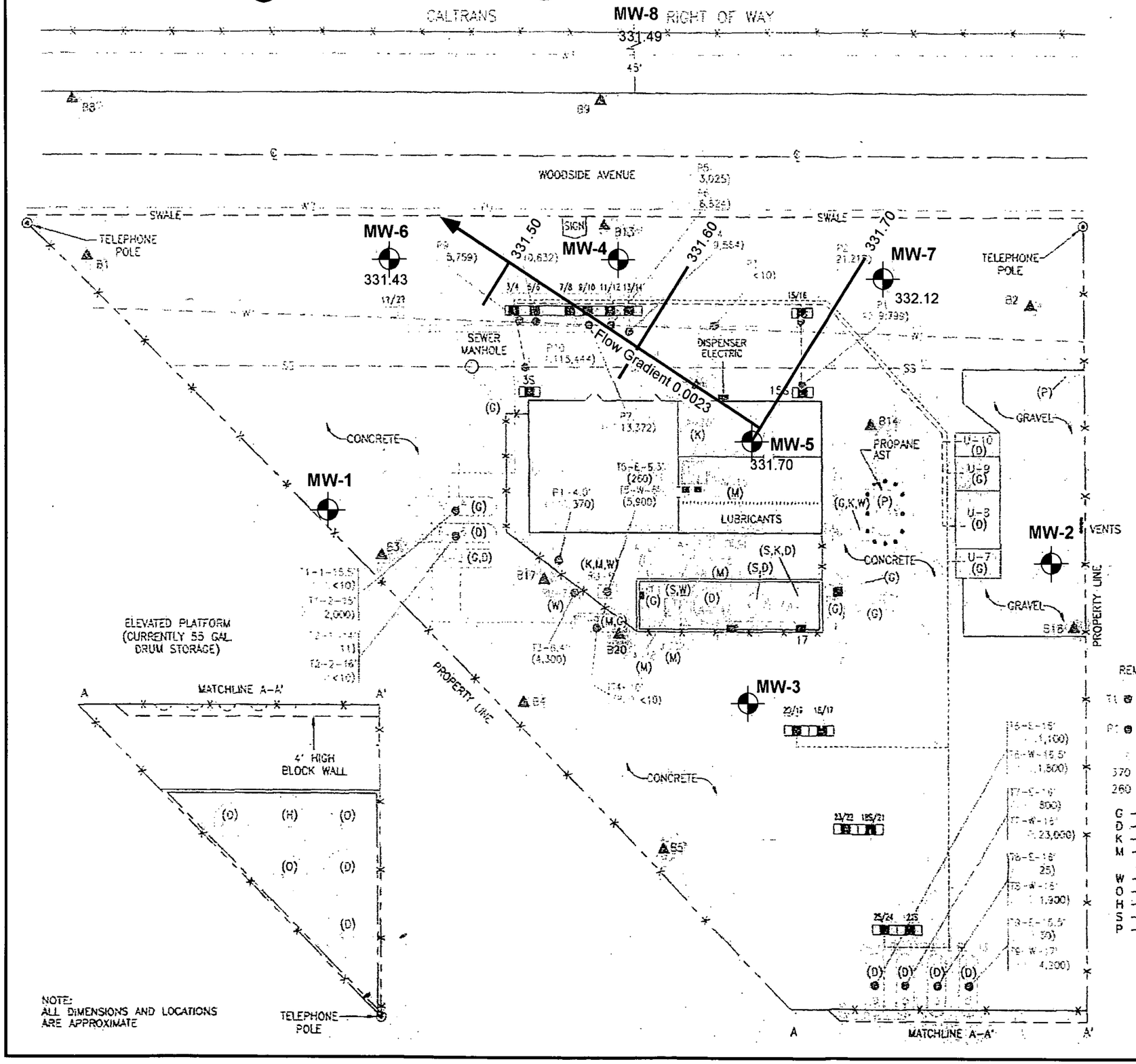
BASE MAP: EnecoTech ENVIRONMENTAL CONSULTANTS

PETRA GEOTECHNICAL, INC.
12225 WORLD TRADE DRIVE, SUITE P
SAN DIEGO, CALIFORNIA 92128
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

SITE PLAN

Wigington/El Capitan Oil
11427 Woodside Ave., Santee, CA

DATE:	April 2008	J.N.:	252-06	FIGURE 2
DWG BY:	DBS	SCALE:	1" = 30'	



LEGEND

- MW-1 – MONITORING WELL WITH DESIGNATION
- B18 – BORING AND DESIGNATION
- 3/4 – DISPENSER ISLAND WITH DISPENSERS IN BLACK
- – FORMER DISPENSER
- – (4) UST's REMOVED IN MAY 1988 (LOCATION APPROXIMATE)
- – (1) UST's INSTALLED IN MAY 1988
- – (9) UST's REMOVED IN MAY 1998 (LOCATION APPROXIMATE)
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- – AST DESIGNATION
- – CONVAULT-TYPE TANK
- – AST SECONDARY CONTAINMENT
- – REMOVED UST DESIGNATION
- – REMOVED AST DESIGNATION
- – FENCE

UTILITIES

- SS – SANITARY SEWER
- W1 – 6" WATER
- W2 – 4" WATER
- G – 2" ÷ 6" NATURAL GAS
- WD – 3" WATER
- FO – FIBER OPTICS

PRODUCT LINES

- – GASOLINE
- – DIESEL

REMOVED SAMPLES (mg/kg)

- T1 @ – TANK REMOVAL SAMPLE
- P1 @ – REMOVED PRODUCT LINE SAMPLE
- 370 TPHd
- 260 TRPH

- G – GASOLINE
- D – DIESEL
- K – KEROSINE
- M – MINERAL SPIRITS (SOLVENT)
- W – WASTE OIL
- O – FRESH OIL
- H – HYDRAULIC FLUID
- S – STOVE OIL
- P – PROPANE

N W E S

0 30

APPROXIMATE GRAPHIC SCALE (in feet)

BASE MAP: EnecoTech ENVIRONMENTAL CONSULTANTS

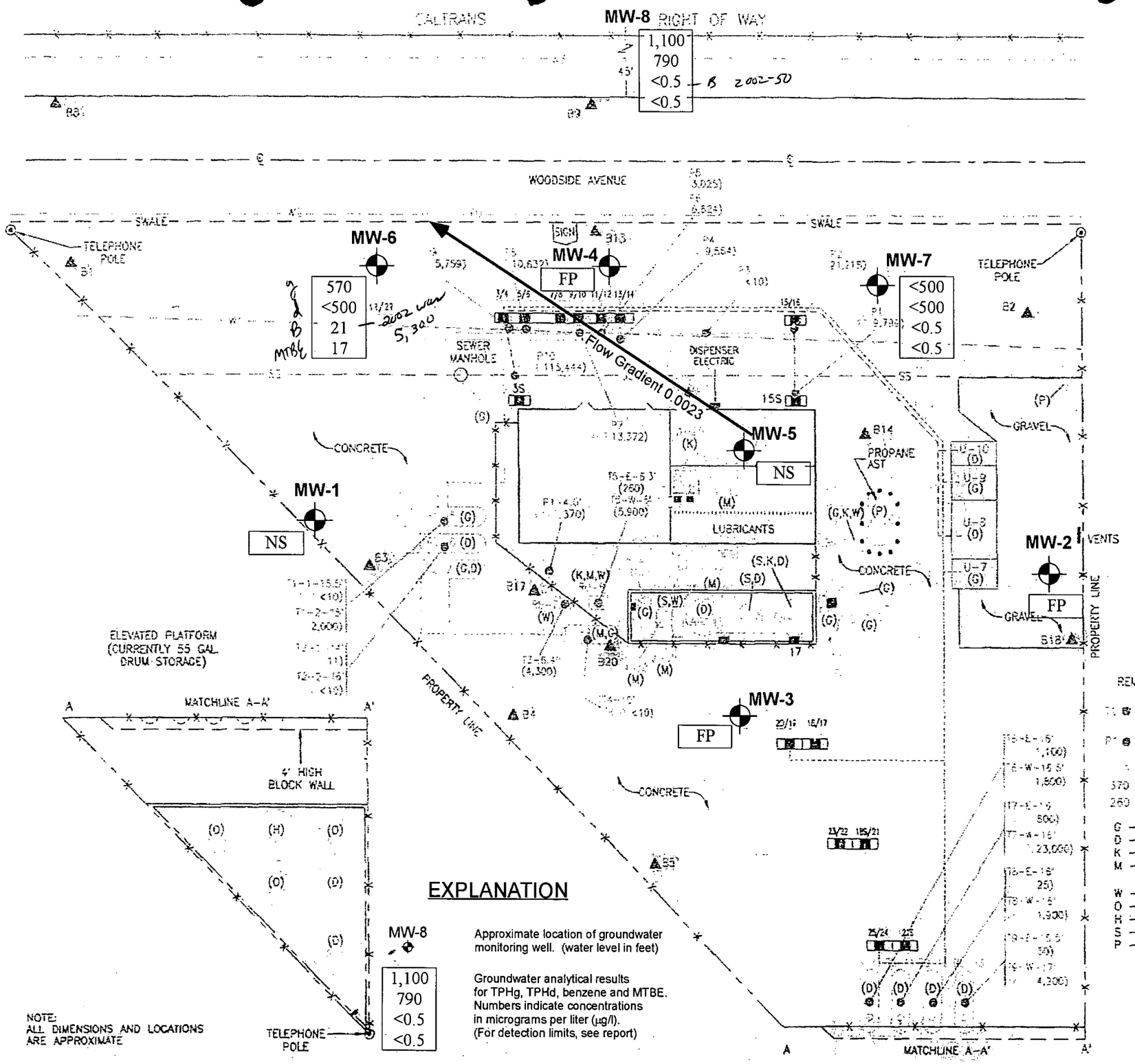
PETRA GEOTECHNICAL, INC.
12225 WORLD TRADE DRIVE, SUITE P
SAN DIEGO, CALIFORNIA 92128
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

GROUNDWATER CONTOUR MAP

4th Quarter, 2007

Wigington/El Capitan Oil
11427 Woodside Ave., Santee, CA

DATE: April 2008	J.N.: 252-06	**FIGURE 3**
DWG BY: DBS	SCALE: 1" = 30'	



EXPLANATION

MW-8
1,100
790
<0.5
<0.5

Approximate location of groundwater monitoring well. (water level in feet)

Groundwater analytical results for TPHg, TPHd, benzene and MTBE. Numbers indicate concentrations in micrograms per liter (µg/l). (For detection limits, see report)

NOTE:
ALL DIMENSIONS AND LOCATIONS ARE APPROXIMATE

LEGEND

- MW-1 – MONITORING WELL WITH DESIGNATION
- B18 – BORING AND DESIGNATION
- 3/4 – DISPENSER ISLAND WITH DISPENSERS IN BLACK
- – FORMER DISPENSER
- – (4) UST's REMOVED IN MAY 1983 (LOCATION APPROXIMATE)
- – (1) UST's INSTALLED IN MAY 1988
- – (9) UST's REMOVED IN MAY 1998 (LOCATION APPROXIMATE)
- – (1) UST INSTALLED IN 1998 (4 COMPARTMENT)
- – ABOVE GROUND STORAGE TANK LOCATION (APPROXIMATE)
- U-8 – UST DESIGNATION
- – AST DESIGNATION
- – CONVAULT-TYPE TANK
- – AST SECONDARY CONTAINMENT
- – REMOVED UST DESIGNATION
- – REMOVED AST DESIGNATION
- – FENCE

UTILITIES
- SS – SANITARY SEWER
- W1 – 6" WATER
- W2 – 4" WATER
- G – 2" + 6" NATURAL GAS
- W3 – 3" WATER
- FO – FIBER OPTICS

PRODUCT LINES
- – GASOLINE
- – DIESEL

REMOVED SAMPLES (mg/kg)
- T1 @ TANK REMOVAL SAMPLE
- P1 @ REMOVED PRODUCT LINE SAMPLE
- 570 TPHg
- 260 TPHd

G – GASOLINE
D – DIESEL
K – KEROSINE
M – MINERAL SPIRITS (SOLVENT)
W – WASTE OIL
O – FRESH OIL
H – HYDRAULIC FLUID
S – STOVE OIL
P – PROPANE

0 30
APPROXIMATE GRAPHIC SCALE (in feet)

BASE MAP: EnecoTech ENVIRONMENTAL CONSULTANTS

PETRA GEOTECHNICAL, INC.
12225 WORLD TRADE DRIVE, SUITE P
SAN DIEGO, CALIFORNIA 92128
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

Groundwater Analytical Results

4th Quarter, 2007

Wigington/El Capitan Oil
11427 Woodside Ave., Santee, CA

DATE:	April 2008	J.N.:	252-06	FIGURE 4
DWG BY:	DBS	SCALE:	1" = 30'	

TABLES

PETRA

TABLE 1

Groundwater Monitoring Results
For Fourth Quarter Monitoring Event, 2007
Wigington Petroleum

Well	Top of Casing Elevation	Depth to Groundwater	Depth to Free Product	Free Product Thickness	Groundwater Elevation
MW-1	362.84	--	--	--	--
MW-2	365.08	33.22	33.11	0.11	--
MW-3	364.16	33.04	32.32	0.72	--
MW-4	362.38	30.96	30.81	0.15	--
MW-5	363.42	31.72	--	--	331.70
MW-6	362.44	31.01	--	--	331.43
MW-7	362.57	30.85	--	--	331.72
MW-8	364.51	33.02	--	--	331.49

Note: -- Not Surveyed.

TABLE 2
Groundwater Analytical Results
For Fourth Quarter Monitoring Event, 2007
Wigington Petroleum

Well Number	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	ETBE	TAME	TBA
MW-1	--	--	--	--	--	--	--	--	--	--	--
MW-2	**FP**	--	--	--	--	--	--	--	--	--	--
MW-3	**FP**	--	--	--	--	--	--	--	--	--	--
MW-4	**FP**	--	--	--	--	--	--	--	--	--	--
MW-5	--	--	--	--	--	--	--	--	--	--	--
MW-6	**570**	<500	**21**	**0.7**	**48**	**14**	**17**	<1.0	<1.0	<1.0	<5.0
MW-7	<500	<500	<0.5	<0.5	<0.5	<1.5	<1.0	<1.0	<1.0	<1.0	<5.0
MW-8	**1,100**	**790**	<0.5	<0.5	**23**	<1.5	<1.0	<1.0	<1.0	<1.0	<5.0

Notes: -- = Not sampled.
FP = Free Product.

APPENDIX A

GROUNDWATER MONITORING/SAMPLING DATA SHEETS

Site Name:
Project Number:
Site Address:

Petra Geotechnical
Sampling Data

Date: 10/25/07
Well ID: MW-1
Sampler: DBS

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							COULD NOT SAMPLE - COVERED BY INOPERABLE TRUCK
1.0 BHV							
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged:_____

Total Vols. Purged:_____

Sample Collection Time:_____

Sample Collection Depth:_____

Well Data

Bore OD:
Casing ID:
Well TD:
DTW:
Ft./Water:
80% Recovery:
Factor:
1 Vol:
3 Vol:

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: WIGINGTON / EL CAP OIL
Project Number: 252-06
Site Address: WOODSIDE AVE, SANTEE

Petra Geotechnical
Sampling Data

Date: 10/25/07
Well ID: MW-2
Sampler: DBG

Purge Data	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							FREE PRODUCT @ 33.11' H2O @ 33.22'
1.0 BHV							
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: _____

Total Vols. Purged: _____

Sample Collection Time: _____

Sample Collection Depth: _____

Well Data		Recharge Info: F / S
Bore OD:		Fast or Slow Recovering Well
Casing ID:		
Well TD:		**Percent Recovery:**
DTW:		(MD - IWD) x 0.80 then subtract result from MD
Ft./Water:		
80% Recovery:		PR : Percent recovery
Factor:		IWD : Initial Water depth
1 Vol:		MD : Maximum drawdown
3 Vol:		

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name:
Project Number:
Site Address:

Petra Geotechnical
Sampling Data

Date: 10/25/07
Well ID: MW-3
Sampler: DBS

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							FREE PRODUCT @ 32.32'
1.0 BHV							H_2O @ 33.04'
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged:_____

Total Vols. Purged:_____

Sample Collection Time:_____

Sample Collection Depth:_____

Well Data

Bore OD:	
Casing ID:	
Well TD:	
DTW:	
Ft./Water:	
80% Recovery:	
Factor:	
1 Vol:	
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name:
Project Number:
Site Address:

Petra Geotechnical
Sampling Data

Date: 10/25/07
Well ID: MW-4
Sampler: DBG

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							FREE PRODUCT @ 30.81'
1.0 BHV							H_2O @ 30.96'
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged:_____

Total Vols. Purged:_____

Sample Collection Time:_____

Sample Collection Depth:_____

Well Data

Bore OD:	
Casing ID:	
Well TD:	
DTW:	
Ft./Water:	
80% Recovery:	
Factor:	
1 Vol:	
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name:
Project Number:
Site Address:

Petra Geotechnical
Sampling Data

Date:
Well ID: MW-5
Sampler:

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							NOT SAMPLED PER S.D. CO. SAM PROGRAM
1.0 BHV							
1.5 BHV							
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged:

Total Vols. Purged:

Sample Collection Time:

Sample Collection Depth:

Well Data

Bore OD:	16"
Casing ID:	12"
Well TD:	70'
DTW:	31.72
Ft./Water:	38.28
80% Recovery:	
Factor:	
1 Vol:	221.4
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bbv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name:
Project Number:
Site Address:

Petra Geotechnical
Sampling Data

Date: 10/25/07
Well ID: MW-6
Sampler: DBS

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	2:55				31.01		
1.0 BHV	3:15	22.3	1763	7.54	31.09	18.5	strong odor
1.5 BHV	3:25	22.4	1757	7.27	31.13	9.0	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 27.5

Total Vols. Purged: 1.5

Sample Collection Time: 3:45

Sample Collection Depth: 31.02'

Well Data

Bore OD:	10"
Casing ID:	4"
Well TD:	42'
DTW:	31.01
Ft./Water:	10.99
80% Recovery:	
Factor:	1.63
1 Vol:	17.9
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name:
Project Number:
Site Address:

Petra Geotechnical
Sampling Data

Date: 10/25/07
Well ID: MW-7
Sampler: DBS

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:					30.05		
1.0 BHV	1:33	22.7	1879	6.87	30.92	19.0	Hydrocarbon blebs, odor
1.5 BHV	1:45	21.7	1809	7.00	31.03	10.0	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 29.0

Total Vols. Purged: 1.5

Sample Collection Time: 2:40

Sample Collection Depth: 30.88

Well Data

Bore OD:	10"
Casing ID:	4"
Well TD:	42.0'
DTW:	30.85'
Ft./Water:	11.15
80% Recovery:	
Factor:	1.63
1 Vol:	18.2
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery

IWD : Initial Water depth

MD : Maximum drawdown

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name:
Project Number:
Site Address:

Petra Geotechnical
Sampling Data

Date: 10/26/07
Well ID: MW-8
Sampler: DBS

Purge Data

	Time	Temp	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	7:30				33.02'		
1.0 BHV	7:48	21.6	1607	7.16	33.08'	12.0	odor
1.5 BHV	8:06	21.9	1654	7.09	33.09'	7.0	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 19.0

Total Vols. Purged: 1.5

Sample Collection Time: 8:25

Sample Collection Depth: 33.02'

Well Data

Bore OD:	10"
Casing ID:	4"
Well TD:	40
DTW:	33.02'
Ft./Water:	6.98
80% Recovery:	
Factor:	1.63
1 Vol:	11.4
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%.

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

APPENDIX B

LABORATORY REPORTS – GROUNDWATER SAMPLES

PETRA

MOBILE GEOCHEMISTRY

H&P

02 November 2007

Mr. Jim Olbinski
Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

RE: PG102607-11

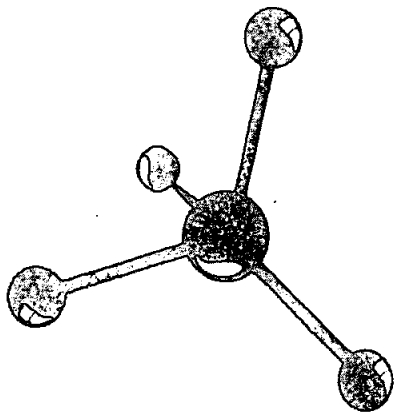
Enclosed are the results of analyses for samples received by the laboratory on 26-Oct-07 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Janis Villarreal
Laboratory Director

RECEIVED
NOV 06 2007

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595.



2470 Impala Drive, Carlsbad, California 92010 | 760.804.9678 — Fax 760.804.9159
3825 Industry Avenue, Lakewood, California 90712 | 562.426.6991 — Fax 562.426.6995
www.HandPmg.com | 1-800-834-9888

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG102607-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / EL CAP OIL	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	02-Nov-07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-6	E710092-01	Water	25-Oct-07	26-Oct-07
MW-7	E710092-02	Water	25-Oct-07	26-Oct-07
MW-8	E710092-03	Water	26-Oct-07	26-Oct-07

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG102607-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / EL CAP OIL	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	02-Nov-07

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-6 (E710092-01) Water Sampled: 25-Oct-07 Received: 26-Oct-07									
Methyl tert-butyl ether	17	1.0	ug/l	0.1	EJ72907	29-Oct-07	29-Oct-07	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	21	0.5	"	"	"	"	"	"	
Toluene	0.7	0.5	"	"	"	"	"	"	
Ethylbenzene	48	0.5	"	"	"	"	"	"	
m,p-Xylene	14	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*92.0 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*86.6 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*95.4 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*85.8 %*		*75-125*	"	"	"	"	
MW-7 (E710092-02) Water Sampled: 25-Oct-07 Received: 26-Oct-07									
Methyl tert-butyl ether	ND	1.0	ug/l	0.1	EJ72907	29-Oct-07	29-Oct-07	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*97.6 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*91.6 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*98.2 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY
H&P

Petra Geotechnical	Project: PG102607-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / EL CAP OIL	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	02-Nov-07

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-8 (E710092-03) Water Sampled: 26-Oct-07 Received: 26-Oct-07									
Methyl tert-butyl ether	ND	1.0	ug/l	0.1	EJ72907	29-Oct-07	29-Oct-07	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	23	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99.2 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*111 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG102607-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / EL CAP OIL	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	02-Nov-07

TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-6 (E710092-01) Water Sampled: 25-Oct-07 Received: 26-Oct-07									
Gasoline (C5-C11)	570	500	ug/l	1	EJ73003	30-Oct-07	30-Oct-07	DHS LUFT	D-06
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-7 (E710092-02) Water Sampled: 25-Oct-07 Received: 26-Oct-07									
Gasoline (C5-C11)	ND	500	ug/l	1	EJ73003	30-Oct-07	30-Oct-07	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-8 (E710092-03) Water Sampled: 26-Oct-07 Received: 26-Oct-07									
Gasoline (C5-C11)	1100	500	ug/l	1	EJ73003	30-Oct-07	30-Oct-07	DHS LUFT	D-06
Diesel (C12-C24)	790	500	"	"	"	"	"	"	D-06

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG102607-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / EL CAP OIL	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	02-Nov-07

Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ72907 - EPA 5030										
Blank (EJ72907-BLK1)				Prepared & Analyzed: 29-Oct-07						
Methyl tert-butyl ether	ND	1.0	ug/l							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
Tert-amyl methyl ether	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tert-butyl alcohol	ND	5.0	"							
Surrogate: Dibromofluoromethane	*4.96*		"	*5.00*		*99.2*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*4.56*		"	*5.00*		*91.2*	*62-139*			
Surrogate: Toluene-d8	*5.01*		"	*5.00*		*100*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*6.24*		"	*5.00*		*125*	*75-125*			
LCS (EJ72907-BS1)				Prepared & Analyzed: 29-Oct-07						
Benzene	4.90	0.5	ug/l	5.00		98.0	75-125			
Toluene	5.08	0.5	"	5.00		102	74-125			
Surrogate: Dibromofluoromethane	*4.83*		"	*5.00*		*96.6*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*4.95*		"	*5.00*		*99.0*	*62-139*			
Surrogate: Toluene-d8	*4.93*		"	*5.00*		*98.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*5.02*		"	*5.00*		*100*	*75-125*			
LCS Dup (EJ72907-BSD1)				Prepared & Analyzed: 29-Oct-07						
Benzene	4.65	0.5	ug/l	5.00		93.0	75-125	5.24	20	
Toluene	4.71	0.5	"	5.00		94.2	74-125	7.56	20	
Surrogate: Dibromofluoromethane	*5.01*		"	*5.00*		*100*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.08*		"	*5.00*		*102*	*62-139*			
Surrogate: Toluene-d8	*5.20*		"	*5.00*		*104*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*7.41*		"	*5.00*		*148*	*75-125*			*S-10*

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical	Project: PG102607-11	
12225 World Trade Drive, Suite P	Project Number: 252-06 / EL CAP OIL	Reported:
San Diego, CA 92128	Project Manager: Mr. Jim Olbinski	02-Nov-07

TPH by GC FID - Quality Control
H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ73003 - LUFT-DHS										
Blank (EJ73003-BLK1)				Prepared & Analyzed: 30-Oct-07						
Gasoline (C5-C11)	ND	500	ug/l							
Diesel (C12-C24)	ND	500	"							
LCS (EJ73003-BS1)				Prepared & Analyzed: 30-Oct-07						
Gasoline (C5-C11)	1870	500	ug/l	1510		124	75-125			
Diesel (C12-C24)	2630	500	"	2510		105	75-125			
LCS Dup (EJ73003-BSD1)				Prepared & Analyzed: 30-Oct-07						
Gasoline (C5-C11)	1790	500	ug/l	1510		119	75-125	4.37	30	
Diesel (C12-C24)	1980	500	"	2510		78.9	75-125	28.2	30	

MOBILE GEOCHEMISTRY

H&P

Petra Geotechnical 12225 World Trade Drive, Suite P San Diego, CA 92128	Project: PG102607-11 Project Number: 252-06 / EL CAP OIL Project Manager: Mr. Jim Olbinski	Reported: 02-Nov-07

Notes and Definitions

S-10	Surrogate recovery is outside of established control limits. Corrective action was not taken.
D-06	The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159

☐ 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Date: _____

H&P Project # 861026 07-11

Outside Lab: _____

Client: PETRA GEOTECHNICAL

Address: 12225 WORLD TRADE DR SUITE P
SAN DIEGO CA 92128

Email: dstephenson@petra-inc.com Phone: (858) 485-3530

Collector: DBS

Client Project # 252-06

Location: EL CAP OIL, WOODSIDE AVE, SANTEE

Fax: (858) 485 8215

Page: 1 of 1

Project Contact: JIM OLBINSKI

Turn around time: STD

EDF: Yes ☑ No ☐

Global ID: _____

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☑ N/A
Cold: ☑ Yes ☐ No
N/A (Received on Site)

Special Instructions:

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☒ gasoline ☐ diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates / MTBE	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARWQCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify)	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2	Total # of containers
MW-6			3:45	10/25	W	VOA	X			X											5
MW-7			2:40	10/25	W	VOA	↓			↓											4
MW-8			8:25	10/26	↓	↓	↓			↓											

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
	PETRA		H&P	10/26/07	10:12am
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ *Disposal @ $2.00 each* ☐ *Return to client* ☐ *Pickup*

APPENDIX C

HISTORICAL GROUNDWATER DATA TABLES

PETRA

MW-1
Historical Groundwater Data Table

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.17	0.6	NA	NA	0.7	<0.5	NA	<0.05	NA
03/10/98	336.87	NA	2,500	910	340	200	18	240	190
05/18/98	NR	NA	704	<500	326	89.5	<50	<100	<50
04/05/00	334.28	NA	1,800	NA	250	14	34	380	200
04/26/02	332.63	NA	1,100	1,100	230	14	36	220	190
12/03/02	332.65	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-2
Historical Data Table

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.37	<0.5	NA	NA	<0.5	<0.5	NA	<0.5	NA
03/10/98	336.65	NA	330	<500	20	3.3	25	47	2,000
04/05/00	333.17	NA	7,600	NA	7.6	3.3	30	59	3,500
04/26/02	333.36	NA	6,000	160,000	9.2	3.9	16	17	2,600
12/03/02	333.24	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	FP	--	--	--	--	--	--	--	--

NA = Not Analyzed
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-3
Historical Data Table

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.24	140	NA	NA	19	3.4	NA	1.3	NA
03/10/98	337.82	NA	2,300	5,100	3.6	0.7	0.7	4.1	2,000
05/18/98	NR	NA	115	<500	98.5	<12.5	<12.5	<25.0	226
04/05/00	329.42	NA	420	NA	18	1.7	3.9	12	190
04/26/02	332.79	NA	9,700	190,000	92	<3.0	56	62	590
12/03/02	332.84	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	FP	--	--	--	--	--	--	--	--

NA = Not Analyzed
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-4
Historical Data Table

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.22	6.3	NA	NA	<0.5	M0.5	NA	<0.5	NA
03/10/98	336.44	NA	9,600	3,700	2,400	250	50	430	4,100
04/05/00	332.92	NA	8,700	NA	1,800	<12	110	790	900
04/26/02	332.78	NA	15,000	95,000	4,500	150	450	1,900	1,500
12/03/02	332.95	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	FP	--	--	--	--	--	--	--	--

NA = Not Analyzed
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-5
Historical Data Table

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
03/10/98	NA	NA	730	1,700	20	0.6	<0.3	39	92
04/26/02	333.03	NA	500	2,000	7.3	1.7	2.8	6.8	230
12/03/02	332.92	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	331.70	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not Analyzed

MW-6
Historical Data Table

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/26/02	332.67	NA	25,000	9,100	5,300	1,400	1,200	5,900	850
12/03/02	332.69	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	331.43	NA	570	<500	21	0.7	48	14	17

NA = Not Analyzed

MW-7
Historical Data Table

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/26/02	333.10	NA	1,900	13,000	3.7	1.1	4.0	7.9	19
12/03/02	333.12	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	332.12	NA	<500	<500	<0.5	<0.5	<0.5	<0.5	<1.0

NA = Not Analyzed

MW-8
Historical Data Table

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/26/02	332.80	NA	4,800	6,500	50	9.2	170	210	64
12/03/02	332.81	NR	NR	NR	NR	NR	NR	NR	NR
10/26/07	331.49	NA	1,100	790	<0.5	<0.5	23	<0.5	<1.0

NA = Not Analyzed

SCS ENGINEERS

RECEIVED
NOV 23 2009
ENVIRONMENTAL HEALTH

GeoTracker report missing?

Quarterly Groundwater Monitoring
Second Quarter 2009

11427 Woodside Avenue

Santee, California

(DEH CASE #H19469-001)

EB 3/10/10

Presented to:

Ms. Teresa Sherman
County of San Diego
Department of Environment Health
P.O. Box 129261
San Diego, California 92112-9261

Presented by:

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123
(858) 571-5500

November 20, 2009
Project Number: 01208473.00

November 20, 2009
Project No. 01208473.00

Ms. Teresa Sherman
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Subject: Quarterly Groundwater Monitoring Event Conducted During June 2009 (2Q2009)

DEH File Number: H19469-001

Site: 11427 Woodside Avenue
Santee, California

Dear Ms. Sherman:

SCS Engineers (SCS), is pleased to present this report (Report) of the June 2009 quarterly groundwater monitoring (Assessment) of petroleum hydrocarbon-bearing groundwater in the vicinity of a former underground storage tank (UST) system at the referenced Site (Figures 1 and 2). During the current assessment, 16 Site monitoring wells were monitored for depth to water, and all monitoring wells were purged and sampled pursuant to the requirements of the County of San Diego, Department of Environmental Health (DEH), Site Assessment and Mitigation (SAM) Program. This work was conducted in accordance with Exhibit 00 to the Contract between SCS and Wigington Petroleum, Inc. (Client), fully executed on March 30, 2009.

Should you have any questions regarding this Report, please do not hesitate to call the undersigned at (858) 571-5500.

Sincerely,

Chris Crosby
Associate Professional
SCS ENGINEERS

Charles E. Houser, CEG 2206
Senior Project Professional
SCS ENGINEERS

PROFESSIONAL GEOLOGIST
CHARLES E. HOUSER
NO. 2206
CERTIFIED
ENGINEERING
GEOLOGIST
9/11
STATE OF CALIFORNIA

Chuck Pryatel, MBA, REHS
Senior Project Advisor
SCS ENGINEERS

cc: Ms. Linda Wigington

State UST Cleanup Fund (with reimbursement request)

Enclosures

F:\Projects\208\451-530\01208473.00 (Wigington Petroleum, Inc.)\701 (El Cap Oil)\01208473.00 Groundwater Monitoring 2Q2009\01208473.00.QTR.GW.RPT (2Q2009).doc

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Appendices

Appendix A Groundwater Purging and Sampling Forms
Appendix B Non-Hazardous Waste Manifest
Appendix C Analytical Data and Chain-of-Custody Documentation
Appendix D Hydrographs

1 BACKGROUND

The Site is located at 11427 Woodside Avenue in the town of Santee, San Diego County, California. The Site is currently occupied by a gasoline service station. Between 1987 and 1998 thirteen underground storage tanks (USTs) were reported to be removed from the Site. Analysis of samples collected during the UST removals indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) directed that corrective measures be taken regarding the release.

A summary of the previous environmental assessments conducted at the Site follows:

- EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the Site between 1988 and 2005. A total of eighteen borings and eight groundwater monitoring wells (MW-1 through MW-8) were drilled and sampled by EnecoTech.

- In 1988, EnecoTech reported that four USTs were removed from the Site. A site assessment was performed immediately following the tank removal activities where eleven soil borings were drilled and sampled and four of the borings were completed as groundwater monitoring wells (MW-1 through MW-4).

- On August 19, 1993, the HMMD issued a Notice of Violation to El Capitan Oil Co. requiring corrective action relative to the release. The SAM Program reportedly assumed oversight responsibility of the UST assessment and mitigation in mid-1993.

- EnecoTech reported single-walled product piping was removed from the Site in October 1997.

- In April 1998, nine USTs were reportedly removed from the Site where samples collected by EnecoTech indicated a release of petroleum hydrocarbons.

- On March 14, 2000, EnecoTech produced a workplan titled *Work Plan for Environmental Services*, which proposed the installation of two additional groundwater monitoring wells. The SAM Program reportedly directed that four groundwater monitoring wells be installed in a letter dated, May 8, 2000. EnecoTech installed two groundwater monitoring wells (MW-6 and MW-7) on February 26, 2001 and one groundwater monitoring well (MW-8) on April 19, 2002. An existing twelve-inch diameter concrete water production well, inside the Site building, was labeled MW-5 and sampled during the monitoring events in March 1998 and April 2002.

- Based on the results of EnecoTech's Site assessment activities indicated that groundwater beneath the Site was impacted by petroleum hydrocarbons from on-Site releases.

- On March 25, 2005, EnecoTech submitted a workplan for additional Site assessment, which proposed the installation of nine additional groundwater monitoring wells both on-Site and off-Site.

April 21, 2005

- In 2006, Petra Geotechnical Inc. (Petra) was retained to conduct the site assessment work. The SAM Program approved EnecoTech's workplan in a letter dated October 10, 2007. Petra proposed one well be installed in addition to the nine wells proposed by EnecoTech. The SAM Program agreed that an additional well was needed and requested a revised workplan. Petra submitted an addendum to the revised workplan, dated December 21, 2007, to include a tenth groundwater monitoring well to be installed. The SAM Program approved the revised workplan in a letter, dated January 15, 2008.

- On October 25, 2007, Petra observed phase-separated hydrocarbons (PSH) in monitoring wells MW-2, MW-3, and MW-4. Petra submitted a workplan titled, *Workplan for High Vacuum Dual Phase Extraction Pilot Test and Interim Remediation*, to the SAM Program, dated December 24, 2007. The SAM Program approved the workplan in a letter dated, January 16, 2008.

- Petra conducted a 33-day high vacuum dual phase extraction (HVDPE) pilot test between January 22, 2008 and February 24, 2008. Approximately 3,256.17 pounds of petroleum hydrocarbons were removed and treated during the pilot test. During the pilot test, nine new monitoring wells (MW-9 through MW-17) were installed. In April 2008, monitoring wells MW-1 through MW-4 and MW-6 through MW-17 were sampled during the second quarter 2008 (2Q2008) groundwater monitoring event.

- On July 25, 2008, Petra submitted a *Workplan for Well Maintenance and Well Destruction* to the SAM Program to destroy well MW-5 and reconstruct the well heads for several monitoring wells. The SAM Program approved this workplan in a letter dated September 4, 2008.

- In 2009, SCS Engineers was retained to conduct further groundwater monitoring and site assessment beginning with the second quarter 2009 (2Q2009) groundwater monitoring event.

- On July 13, 2009, a letter was issued from the SAM Program to reduce the frequency of groundwater monitoring from quarterly to semi-annually during the second and fourth quarters.

The current Report describes the groundwater monitoring event conducted during June 2009 (2Q2009).

2 SITE DESCRIPTION SUMMARY

Site Name:	Wigington Petroleum
Site Owner:	Wigington Petroleum, Inc.
Site Address:	11427 Woodside Avenue, Santee, California
DEH Case Number:	H19469-001
Cleanup Fund Claim Number:	912
Global ID:	T0607303173

3 OBJECTIVES

The objectives of the scope of services described in this Report were to:

- Assess the possible presence of phase-separated hydrocarbons (PSH) in groundwater at the Site.
- Assess the presence and extent of petroleum hydrocarbons and associated volatile organic compounds (VOCs) dissolved in groundwater at the Site.
- Assess the groundwater elevation and the hydraulic gradient at the Site.

4 SCOPE OF SERVICES

FIELD ACTIVITIES—GROUNDWATER SAMPLING AND ANALYSIS

Groundwater Monitoring and Sampling

On June 18, 2009, all 16 Site groundwater monitoring wells were monitored for depth to groundwater and for the presence of PSH. On June 18 and 19, 2009, groundwater monitoring wells MW-1 through MW-4 and MW-6 through MW-17, were purged and sampled in accordance with SAM Program guidelines. It is SCS's understanding that well MW-5 was destroyed by Petra.

Depth-to-groundwater measurements were taken using an interface probe with a manufacturer's reported accuracy of 0.01 foot and are presented in Table 1. PSH was not observed in the groundwater monitoring wells prior to or during groundwater purging activities.

Wells to be sampled were purged and sampled in accordance with SAM Program guidelines. For fast recovering wells (recovering at least 80 percent within 2 hours), temperature, conductivity, and pH measurements (purging parameters) were taken after removal of the first borehole volume and each ½ borehole volume thereafter. Purging continued until at least one and one-half

borehole volumes had been removed and purging parameters had stabilized to within 10 percent of the previous reading. Slow recovering wells (recovering less than 80 percent in two hours) were purged of one borehole volume. Purge water was placed in appropriate 55-gallon drums, labeled, and stored on Site pending disposal.

After purging was completed, the wells were allowed to recover. Fast recovering wells (MW-1, MW-3, MW-4, MW-6 through MW-12, and MW-14 through MW-17) were sampled after at least 80 percent recovery. Slow recovering wells (MW-2 and MW-13) were sampled after at least two hours from the time purging was completed. Groundwater samples were collected from each well with a single-use, disposable bailer and decanted into laboratory-supplied vials. The groundwater sample containers were labeled and placed in an ice-filled cooler pending delivery to the laboratory. Chain-of-custody procedures were implemented for sample tracking. Copies of groundwater monitoring/sampling data sheets are included in Appendix A.

Groundwater Sample Analysis

Groundwater samples were analyzed by H&P Mobile Geochemistry, a state-accredited environmental testing laboratory, in Carlsbad, California, for the following:

- Total petroleum hydrocarbons (TPH) as gasoline (TPHg) and TPH as diesel fuel (TPHd) in general accordance with the EPA Method 8015B Modified.
- Benzene, toluene, ethylbenzene, and xylenes (BTEX), and fuel oxygenates including methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA) in general accordance with EPA Method 8260B.

Disposal of Drummed Purged Groundwater and Rinsate Water

SCS submitted the necessary documentation to Soclaris Contracting (Soclaris) for the disposal of the drummed rinsate water and purged groundwater. On July 23, 2009, the drums were transported to the Siemens Water Technologies Corporation facility in Vernon, California, for treatment and recycling. A copy of the Non-Hazardous Waste Manifest is included in Appendix B.

5 FINDINGS

GEOLOGY

Regional Geology

The Site is located in the Peninsular Ranges Geomorphic Province of Southern California. This province is typified by northwest to southeast-trending mountain ranges approximately parallel to the San Andreas Fault and related regional fault systems. The Peninsular Ranges are generally characterized by granitic rocks of the Southern California batholith and associated metamorphic rocks. Sedimentary rocks ranging in age from Cretaceous to Pleistocene form the San Diego embayment and coastal terraces west of the batholith.

Based on SCS's review of previous Site assessments, materials encountered at the Site generally included fill soil, alluvium, residual soil, and weathered granitic rock. Following is a brief description of these units.

Site Geology

Fill Soil

This unit was encountered in wells MW-13, MW-15, and MW-16 and was interpreted by Petra to be derived from the local alluvial soils. This unit generally consisted of loose, brown to olive-brown to dark yellow-brown, dry to moist, fine to very coarse grained sands with some small gravels and few asphalt fragments.

Alluvium

This unit generally consisted of brown to olive-brown, moist to wet, interbedded silty to clayey, fine to very coarse grained sands, with some gravels. This unit was interpreted to extend from the surface to depths ranging from approximately 10 feet (well MW-10) to 51.5 feet (well MW-13) below ground surface (bgs).

Residual Soil

This unit generally consisted of earth material derived from in-situ weathering of granitic bedrock, and consisted of dark brown to dark reddish brown, moist, fine to medium grained clayey sand with some coarse grained sand and gravel. This unit was encountered in MW-10 and MW-17 at depths of approximately 10 to 30 feet bgs and 20 to 45 feet bgs, respectively.

Weathered Granitic Rock

This unit generally consisted of dark yellowish brown to dark olive-brown, hard to very hard, weathered crystalline granitic rock. This unit was encountered in MW-10 and MW-17 at depths of approximately 30 feet bgs and 45 feet bgs, respectively.

HYDROGEOLOGY

Based on review of a document titled, *Water Quality Control Plan, San Diego Basin - Region 9*, prepared by the San Diego Regional Water Quality Control Board (RWQCB), dated September 1994, the Site is interpreted to be located within the Santee Hydrologic Sub Area (7.12) of the Lower San Diego Hydrologic Area (7.10) of the San Diego Hydrolic Unit (7.00). According to the RWQCB, the groundwater in this hydrologic unit has been classified as having existing beneficial uses for municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply purposes.

Groundwater Conditions

Groundwater elevations were calculated based on the surveyed top-of-well casing elevations and the measured depth to groundwater obtained from the sixteen Site wells (Table 1). Groundwater was encountered at depths ranging from approximately 29.56 to 35.38 feet below top-of-well casings. The groundwater flow direction was interpreted to be generally toward the

west-southwest, with a gradient ranging from approximately 0.001 to 0.02 ft/ft. The interpreted groundwater contours and flow directions are depicted on Figure 3. PSH was not detected in any Site well during the current sampling event.

Analytical Results

Groundwater analytical results for TPH and VOCs from the quarterly sampling event are summarized in Table 2 and on Figure 4. Based on laboratory analytical results from the quarterly sampling event, well MW-17 was the only site well reported to have detectable concentrations[1] of TPH. TPH and VOCs were reported as follows.

TPH

Total petroleum hydrocarbons as gasoline (TPHg) and TPH as diesel (TPHd) were reported at a concentration of 1,600 micrograms per liter (µg/L) and 730 µg/L in well MW-17, respectively, and were not detected in any of the remaining groundwater samples analyzed during the current event.

BTEX

Benzene was reported at detectable concentrations in wells MW-1, MW-3, MW-4, MW-6, MW-9, MW-11, MW-14, MW-15, and MW-16. The reported benzene concentrations ranged from 0.5 µg/L in MW-3 to 3,600 µg/L in MW-14.

Toluene was reported at detectable concentrations in wells MW-1, MW-4, MW-6, MW-9, MW-11, MW-14, MW-15, MW-16, and MW-17. The reported toluene concentrations ranged from 0.6 µg/L in MW-11 to 250 µg/L in MW-15.

Ethylbenzene was reported at detectable concentrations in wells MW-1, MW-2, MW-4, MW-6, MW-8, MW-9, MW-11, MW-14, MW-15, and MW-16. The reported ethylbenzene concentrations ranged from 4.9 µg/L in MW-2 to 2,800 µg/L in MW-15.

Xylenes were reported at detectable concentrations in wells MW-1, MW-4, MW-6, MW-9, MW-14, MW-15, and MW-16. The reported xylenes concentrations ranged from 11.6 µg/L in MW-4 to 6,930 µg/L in MW-15.

Oxygenates

MTBE was reported at detectable concentrations in all Site wells except MW-7, MW-8, and MW-13. The reported MTBE concentrations ranged from 1.6 µg/L in MW-11 to 540 µg/L in MW-14.

TBA was reported at detectable concentrations in all Site wells except MW-15. The reported TBA concentrations ranged from 11 µg/L in MW-13 to 2,000 µg/L in MW-2.

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[1] For the purposes of this Report "detectable concentrations" means concentrations above the laboratory reporting limits for the analytical method used.

Detectable concentrations of ETBE, TAME, and DIPE were not reported in any Site well during the current sampling event.

Copies of the laboratory analytical reports are included in Appendix C.

Hydrographs

Hydrographs depicting groundwater elevations and concentrations of dissolved-phase benzene and MTBE in groundwater versus time for wells MW-1 through MW-4 and MW-6 through MW-17 are included in Appendix D and discussed in the table below. A linear regression trendline of the benzene and MTBE concentrations are depicted on each hydrograph as appropriate with the calculated R-squared (R^2) value. The R^2 value indicates the *goodness-of-fit* of the trendline to the data set. In general, an R^2 value between 0.7 and 1.0 would be a *good* fit, between 0.4 and 0.7 a *moderate* fit, and below 0.4 would be a *poor* fit. Over time, significant data gaps are present which limit the ability to calculate representative data trends from several wells. Two significant data gaps occur between samplings events May 1988 and March 1998 and between April 2002 and October 2007. More data is needed to develop a more robust dataset for analysis. For illustration purposes, samples with no detectable concentration of benzene and MTBE were plotted at one half of the laboratory reporting limit. The laboratory reporting limit has changed for benzene and MTBE over time and therefore wells MW-11, MW-15, and MW-17 show values which are below the previous laboratory reporting limit, but are greater than the detected values from this sampling event.

Well	Benzene Trendline	MTBE Trendline	Correlation with GW Elevation	Benzene/MTBE Above MCL	Comment
MW-1	Stable R^2=0.0	Slightly Increasing R^2=0.0	No	Yes	Benzene and MTBE within historical range.
MW-2	Decreasing R^2=0.1	Decreasing R^2=0.0	Benzene – Yes MTBE – Inverse	No	ND for benzene since Dec. 2008. MTBE within historical range.
MW-3	Decreasing R^2=0.1	Decreasing R^2=0.1	Yes	No/Yes	Historical low for benzene and MTBE.
MW-4	Decreasing R^2=0.1	Decreasing R^2=0.1	No	Yes	Benzene and MTBE within historical range.
MW-6	Decreasing R^2=0.3	Decreasing R^2=0.4	Inverse	Yes	Benzene and MTBE within historical range.
MW-7	Decreasing R^2=0.8	Decreasing R^2=0.9	NA	No	Below MCLs since Oct. 2007.
MW-8	Decreasing R^2=0.9	Decreasing R^2=0.9	NA	No	Below MCLs since Oct. 2007.
MW-9	Decreasing R^2=0.9	Decreasing R^2=0.4	No	Yes	Decreasing trend for benzene. MTBE within historical range.
MW-10	NA	Decreasing R^2=0.1	No	No	ND for benzene since installation. MTBE within historical range.

Well	Benzene Trendline	MTBE Trendline	Correlation with GW Elevation	Benzene/MTBE Above MCL	Comment
MW-11	Decreasing R^2=0.0	NA	Yes	Yes/No	Benzene within historical range. First detection of MTBE since installation.
MW-12	NA	Decreasing R^2=0.3	Yes	No/Yes	ND for benzene since installation. MTBE within historical range.
MW-13	NA	NA	NA	No	Below MCLs since installation in April 2008.
MW-14	Decreasing R^2=0.6	Increasing R^2=0.0	Benzene – Inverse MTBE – Yes	Yes	Historical low for benzene. MTBE within historical range.
MW-15	Decreasing R^2=0.7	NA	Inverse	Yes	Benzene within historical range. First detectable concentration of MTBE.
MW-16	Increasing R^2=0.2	Decreasing R^2=0.1	Benzene – Yes MTBE – Inverse	Yes	Benzene and MTBE within historical range.
MW-17	NA	NA	NA	No	Benzene below MCLs since installation in April 2008. First detectable concentration of MTBE.

Notes:
MCL's = Maximum contaminant levels, California Code of Regulations, Section 64444.5, dated September 29, 2009. Benzene = 1 ug/L; MTBE = 13 ug/L.
GW = Groundwater
NA = Not applicable due to values below laboratory reporting limits
ND = Not detected above laboratory reporting limit
MTBE = Methyl tertiary butyl ether
ug/L = Micrograms per liter

6 DISCUSSION

Analytical results from the June 2009 sampling event were compared to those obtained during previous monitoring events conducted at the Site beginning in May 1988. Groundwater sample analytical results are summarized in Table 2 and Figure 4. Hydrographs for wells MW-1 through MW-4 and MW-6 through MW-17 are included in Appendix D. The following is a summary of trends on Site since the last quarterly monitoring and sampling event. Please note that the discussion of recent trends in groundwater elevations and conditions may apply to more than just the interval between the fourth quarter 2008 monitoring event and this second quarter 2009 event.

- The hydrographs indicate that water levels have seasonal fluctuations with water levels increasing in the winter months and decreasing during the summer months. Benzene and MTBE concentrations have been observed to exhibit seasonal fluctuations in some of the Site wells.

- PSH was not detected in any Site well during this event. Historically MW-1 through MW-4 had PSH at least once, since installation.

- Reported TPHg concentrations during this event have decreased below laboratory reporting limits in wells MW-1 through MW-4, MW-6, MW-8, MW-9, MW-11, MW-14, MW-15, and MW-16. Reported TPHg concentrations during this event in wells MW-4, MW-6, MW-8, MW-9, MW-11, MW-14, and MW-15 are historical lows. The reported TPHg concentration in well MW-17 increased to a historical high. All remaining wells have historically been below the laboratory reporting limit during one or more previous sampling event.

- Reported TPHd concentrations during this event have decreased below laboratory reporting limits in wells MW-1 through MW-4, MW-6, MW-8, MW-11, MW-14, MW-15, and MW-16. Reported TPHd concentrations during this event in wells MW-4, MW-8, MW-14, MW-15, and MW-17 are historical lows. All remaining wells have historically been below the laboratory reporting limit during one or more previous sampling event.

- Reported benzene concentrations during this event have decreased in wells MW-3, MW-9, MW-11, MW-14 and MW-16, and remain stable at or below the laboratory reporting limit in wells MW-2, MW-7, MW-8, MW-10, MW-12, MW-13, and MW-17. The reported benzene concentrations have increased in wells MW-1, MW-4, MW-6, and MW-15. Reported benzene concentrations in wells MW-3, MW-9, and MW-14 are historical lows. All remaining wells exhibited benzene concentrations within historical ranges.

- Reported MTBE concentrations during this event have decreased in wells MW-3, MW-12, and MW-14, and remain stable at or below the detection limit in wells MW-7, MW-8, and MW-13. The reported MTBE concentrations during this event have increased in wells MW-1, MW-2, MW-4, MW-6, MW-9, MW-10, MW-15, and MW-16. Reported benzene concentrations in well MW-3 were a historical low. MTBE was detected for the first time in wells MW-11, MW-15, and MW-17 during this event. All remaining wells exhibited MTBE concentrations within historical ranges.

The interpreted extent of dissolved benzene and MTBE in groundwater, based on the quarterly sampling conducted during June 2009, is depicted on Figure 5 and 6. Dissolved petroleum hydrocarbon concentrations reported in wells located within and around the plume appear to be generally stable or decreasing with the exception of well MW-17.

7 CONCLUSIONS

Based on the data collected during this Assessment, including but not limited to laboratory results, field observations and data evaluation by a professional geologist, and current regulatory guidelines, the following conclusions are made:

- Although phase-separated hydrocarbons (PSH) were not observed in any Site wells during the second quarter 2009 sampling event, PSH has been observed in two Site wells (MW-2 up to 0.03 feet and MW-3 up to 0.23 feet) during PSH monitoring conducted since the sampling event, therefore, PSH is still present in groundwater at the Site.

- On June 18, 2009, depth-to-groundwater was observed to be between 29.56 (MW-7) to 35.38 (MW-17) feet below top-of-well casings. The groundwater flow direction was interpreted to be generally toward the west-southwest, with a gradient ranging from approximately 0.001 to 0.02 ft/ft.

- The horizontal extent of dissolved benzene and MTBE concentrations in groundwater have not been delineated. Benzene and MTBE concentrations have migrated off Site toward the west and southwest.

8 RECOMMENDATIONS

Based on SCS's assessment of the Site, the following recommendations are made:

- Continue semi-annual monitoring and sampling during the fourth quarter 2009 and second and fourth quarters 2010 to evaluate the contaminant trends in the monitoring wells at the Site.

- Continue bi-weekly PSH monitoring.

- Install an additional groundwater monitoring well to assess down gradient migration of constituents-of-concern. The proposed groundwater monitoring well (MW-18) is to be located approximately 250 feet southwest of well MW-16 along the north side of S. Woodside Avenue (Figure 7). A workplan to install the monitoring well will be prepared utilizing the methods outlined in the previously approved Workplan, dated December 21, 2007, for the Site and SAM Manual guidelines.

- Prepare a sensitive receptor survey to assess potential impacts to nearby groundwater production wells, surface water, and potential receptors.

- Prepare a utility survey to locate underground utilities to assess potential preferential pathways for contaminants-of-concern to migrate.

- Prepare a site conceptual model.

9 REPORT USAGE AND FUTURE SITE CONDITIONS

This Report is intended for the sole usage of the Client and the parties designated by SCS. Use of this Report is subject to the provisions of the fully executed Contract between the Client and SCS. Any third party usage of this Report shall be subject to the provisions of the Contract and any unauthorized misuse of or reliance upon the Report shall be without risk or liability to SCS.

The conclusions of this Report are judged to be relevant at the time the work described in this Report was conducted. Future conditions may differ and this Report should not be relied upon to represent future Site conditions unless a qualified consultant familiar with the practice of Phase II environmental assessments in San Diego County is consulted to assess the necessity of updating this Report.

Although this Assessment has attempted to assess the likelihood that the Site has been impacted by a hazardous material/waste release, potential sources of impact may have escaped detection for reasons which include, but are not limited to: 1) inadequate or inaccurate information rightfully provided to SCS by third parties, such as public agencies and other outside sources; 2) the limited scope of this Assessment; and 3) the presence of undetected, unknown, or unreported environmental releases.

10 LIKELIHOOD STATEMENTS

Statements of "likelihood" have been made in this report. Likelihood statements are based on professional judgments of SCS. The term "likelihood," as used herein, pertains to the probability of a match between the prediction for an event and its actual occurrence. The likelihood statement assigns a measure for a "degree of belief" for the match between the prediction for the event and the actual occurrence of the event.

The likelihood statements in this Report are made qualitatively (expressed in words). The qualitative terms can be approximately related to quantitative percentages. The term "low likelihood" is used by SCS to approximate a range of 10 to 20 percent; the term "moderate likelihood" refers to an approximate range of 40 to 60 percent; and the term "high likelihood" refers to an approximate range of 80 to 90 percent.

TABLES

Table 1

(Page 1 of 3)

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-1	363.90 (22-42)	05/25/88	28.73	335.17
		03/10/98	27.03	336.87
		04/05/00	29.62	334.28
	362.84 (22-42)	04/26/02	30.21	332.63
		12/03/02	30.19	332.65
		10/26/07	NM	NM
		01/17/08	PSH	PSH
		04/18/08	29.86	332.98
		07/28/08	30.98	331.86
		12/29/08	29.14	333.70
		06/18/09	30.29	332.55
MW-2	365.40 (24-44)	05/25/88	30.03	335.37
		03/10/98	28.75	336.65
		04/05/00	32.23	333.17
	365.08 (24-44)	04/26/02	31.72	333.36
		12/03/02	31.84	333.24
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	31.06	334.02
		07/28/08	PSH	PSH
		12/29/08	31.50	333.58
		06/18/09	31.56	333.52
MW-3	366.07 (24.5-44.5)	05/25/88	30.83	335.24
		03/10/98	28.25	337.82
		04/05/00	36.65	329.42
	364.16 (24.5-44.5)	04/26/02	31.37	332.79
		12/03/02	31.32	332.84
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	30.91	333.25
		07/28/08	PSH	PSH
		12/29/08	30.54	333.62
		06/18/09	31.33	332.83
MW-4	362.90 (22-42)	05/25/88	27.68	335.22
		03/10/98	26.46	336.44
		04/05/00	29.98	332.92
	362.38 (22-42)	04/26/02	29.60	332.78
		12/03/02	29.43	332.95
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	29.25	333.13
		07/28/08	30.41	331.97
		12/29/08	28.53	333.85
		06/18/09	29.65	332.73

Table 1

(Page 2 of 3)

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-5	NM	03/10/98	27.50	NM
	363.42 (unknown)	04/26/02	30.39	333.03
		12/03/02	30.50	332.92
		10/26/07	31.72	331.70
		01/17/08	NM	NM
		04/18/08	31.07	332.35
		07/28/08	NM	NM
		12/29/08	NM	NM
		Well Destroyed		
MW-6	362.44 (17-42)	04/26/02	29.77	332.67
		12/03/02	29.75	332.69
		10/26/07	31.01	331.43
		01/17/08	29.44	333.00
		04/18/08	29.47	332.97
		07/28/08	30.60	331.84
		12/29/08	28.71	333.73
		06/18/09	29.90	332.54
MW-7	362.57 (17-42)	04/26/02	29.47	333.10
		12/03/02	29.45	333.12
		10/26/07	30.45	332.12
		01/17/08	29.17	333.40
		04/18/08	29.16	333.41
		07/28/08	30.08	332.49
		12/29/08	28.48	334.09
		06/18/09	29.56	333.01
MW-8	364.51 (20.5-40.5)	04/26/02	31.71	332.80
		12/03/02	31.70	332.81
		10/26/07	33.02	331.49
		01/17/08	31.34	333.17
		04/18/08	31.42	333.09
		07/28/08	32.60	331.91
		12/29/08	30.60	333.91
		06/18/09	31.82	332.69
MW-9	362.33 (34-39)	04/18/08	29.49	332.84
		07/28/08	30.58	331.75
		12/29/08	28.68	333.65
		06/18/09	29.90	332.43
MW-10	367.28 (25-40)	04/18/08	32.52	334.76
		07/29/08	33.65	333.63
		12/29/08	32.62	334.66
		06/18/09	32.75	334.53

Table 1

(Page 3 of 3)

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-11	362.48 (23-38)	04/18/08	29.98	332.50
		07/29/08	30.99	331.49
		12/29/08	28.96	333.52
		06/18/09	30.36	332.12
MW-12	361.88 (24-39)	04/18/08	29.55	332.33
		07/29/08	30.49	331.39
		12/29/08	28.45	333.43
		06/18/09	29.94	331.94
MW-13	366.91 (25-45)	04/21/08	32.77	334.14
		07/30/08	34.08	332.83
		12/29/08	32.54	334.37
		06/18/09	33.17	333.74
MW-14	362.79 (23-38)	04/21/08	30.09	332.70
		07/30/08	31.14	331.65
		12/29/08	29.22	333.57
		06/18/09	30.51	332.28
MW-15	362.36 (23.5-38.5)	04/21/08	29.91	332.65
		07/30/08	30.96	331.60
		12/29/08	28.80	333.56
		06/18/09	30.13	332.23
MW-16	362.48 (24-39)	04/21/08	30.04	332.44
		07/30/08	31.02	331.46
		12/29/08	28.95	333.53
		06/18/09	30.47	332.01
MW-17	367.97 (24.5-44.5)	04/21/08	34.97	333.00
		07/30/08	36.08	331.89
		12/29/08	34.34	333.63
		06/18/09	35.38	332.59

Notes:

MSL = mean sea level

TOC = top of well casing

PSH = phase-separated hydrocarbons present in well, therefore groundwater elevation was not calculated

NM = well not measured

Wells were surveyed by Southern California Survey initially on April 26, 2002 and updated on March 28, 2008.

Table 2
(Page 1 of 4)
Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-1 (installed 5/11/88)	05/25/88	0.6	NA	NA	0.7	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	2,500	910	340	200	18	240	190	NA	NA	NA	NA
	05/18/98	NA	704	< 500	326	89.5	< 50.0	< 100	< 50.0	NA	NA	NA	NA
	04/05/00	NA	1,800	NA	250	14	34	380	200	NA	NA	NA	NA
	04/26/02	NA	1,100	1,100	230	14	36	220	190	< 40	< 40	500	< 40
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/17/08	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP
	04/18/08	NA	2,800	980	370	6.6	170	227.8	610	NA	NA	NA	NA
	07/28/08	NA	420	< 500	57	< 0.5	19.0	15	55	NA	NA	NA	NA
	12/29/08	NA	440	720	57	< 1.0	30	26	< 2.0	< 2.0	< 2.0	27	< 2.0
	06/18/09	NA	< 500	< 500	210	1.0	38	17.7	220	< 1.0	< 1.0	140	< 1.0
MW-2 (installed 5/12/88)	05/25/88	< 0.5	NA	NA	< 0.5	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	330	< 500	20	3.3	25	47	53	NA	NA	NA	NA
	04/04/00	NA	7,600	NA	7.6	3.3	30	59	3,500	NA	NA	NA	NA
	04/26/02	NA	6,000	160,000	9.2	3.9	16	17	3,100	< 40	< 40	500	< 40
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP
	01/17/08	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP
	04/18/08	NA	510	6,400	< 10	< 10	< 10	< 30	1,300	NA	NA	NA	NA
	07/28/08	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP
	12/30/08	NA	440	22,000	< 2.5	< 2.5	4.0	< 10	< 5.0	< 5.0	< 5.0	2,100	< 5.0
	06/19/09	NA	< 500	< 500	< 0.5	< 0.5	4.9	< 1.5	8.3	< 1.0	< 1.0	2,000	< 1.0
MW-3 (installed 5/13/88)	05/25/88	140	NA	NA	19	3.4	NA	1.3	NA	NA	NA	NA	NA
	03/10/98	NA	2,300	5,100	3.6	0.7	0.7	4.1	2,000	NA	NA	NA	NA
	05/18/98	NA	115	< 500	98.5	< 12.5	< 12.5	< 25.0	226	NA	NA	NA	NA
	04/05/00	NA	420	NA	18	1.7	3.9	12	230	NA	NA	NA	NA
	04/26/02	NA	9,700	190,000	92	< 3.0	56	62	590	< 100	< 100	< 1,200	< 100
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP
	01/17/08	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP
	04/18/08	NA	< 500	1,800	2.8	< 1.0	< 1.0	< 3.0	99	NA	NA	NA	NA
	07/28/08	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP
	12/30/08	NA	230	3,200	1.7	< 0.5	0.61	< 2.0	110	< 1.0	< 1.0	59	< 1.0
	06/19/09	NA	< 500	< 500	0.5	< 0.5	< 0.5	< 1.5	77	< 1.0	< 1.0	400	< 1.0

Table 2
(Page 2 of 4)
Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-4 (installed 5/13/88)	05/25/88	6.3	NA	NA	< 0.5	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	9,600	3,700	2,400	250	50	430	4,100	NA	NA	NA	NA
	04/04/00	NA	8,700	NA	1,800	< 12	110	790	900	NA	NA	NA	NA
	04/26/02	NA	15,000	95,000	4,500	150	450	1,900	1,500	< 100	< 100	< 1,200	< 100
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP
	01/17/08	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP
	04/18/08	NA	2,000	4,500	380	2.9	95	41.0	110.0	NA	NA	NA	NA
	07/28/08	NA	2,100	1,300	410	< 2.5	72.0	< 10	70	NA	NA	NA	NA
	12/30/08	NA	4,900	3,400	88	< 10	20	53	< 20	< 20	< 20	< 200	< 20
	06/18/09	NA	< 500	< 500	370	2.0	58	11.6	89	< 1.0	< 1.0	24	< 1.0
MW-5 (instalation unknown)	03/10/98	NA	730	1,700	20	0.6	< 0.30	39	92	NA	NA	NA	NA
	04/26/02	NA	500	2,000	7.3	1.7	2.8	6.8	230	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/17/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	07/28/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/30/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Well Destroyed												
MW-6 (installed 2/26/01)	04/26/02	NA	25,000	9,100	5,300	1,400	1,200	5,900	850	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	570	< 500	21	0.7	48	14	17	NA	NA	NA	NA
	01/17/08	NA	1,400	< 500	9.6	0.6	4.8	8.5	3.5	NA	NA	NA	NA
	04/18/08	NA	2,000	750	500	< 20	210	150	180	NA	NA	NA	NA
	07/28/08	NA	6,900	980	720	7.6	410	540	98	NA	NA	NA	NA
	12/30/08	NA	950	650	55	< 1.0	34	30	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/19/09	NA	< 500	< 500	350	3.1	250	182.3	54	< 1.0	< 1.0	22	< 1.0
MW-7 (installed 2/26/01)	04/26/02	NA	1,900	13,000	3.7	1.1	4	7.9	19	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	01/17/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	04/21/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 1.0	< 1.0	< 1.0	< 3.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	15	< 1.0

Table 2
(Page 3 of 4)
Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-8 (installed 4/19/02)	04/26/02	NA	4,800	6,500	50	9.2	170	210	64	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/26/07	NA	1,100	790	< 0.5	< 0.5	23	< 0.5	< 1.0	NA	NA	NA	NA
	01/17/08	NA	1,100	570	< 0.5	< 0.5	27	< 1.5	< 1.0	NA	NA	NA	NA
	04/21/08	NA	980	1,200	< 0.5	< 0.5	23	< 1.5	< 1.0	NA	NA	NA	NA
	07/29/08	NA	660	2,100	< 0.5	< 0.5	15	< 2.0	< 1.0	NA	NA	NA	NA
	12/30/08	NA	890	3,000	< 1.0	< 1.0	16	< 4.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	13	< 1.5	< 1.0	< 1.0	< 1.0	13	< 1.0
MW-9 (installed 2/4/08)	04/18/08	NA	1,700	560	740	250	270	1,010	170	NA	NA	NA	NA
	07/28/08	NA	1,100	570	230	27	27	65	74	NA	NA	NA	NA
	12/30/08	NA	1,300	< 500	140	10	71	200	21	< 5.0	< 5.0	< 50	< 5.0
	06/19/09	NA	< 500	< 500	50	6.1	34	49.3	55	< 1.0	< 1.0	34	< 1.0
MW-10 (installed 2/5/08)	04/18/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	4.2	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	1.8	< 1.0	< 1.0	20	< 1.0
MW-11 (installed 2/8/08)	04/18/08	NA	1,800	< 500	22	< 1.0	170	< 3.0	< 2.0	NA	NA	NA	NA
	07/29/08	NA	690	720	4.2	0.81	39	< 2.0	< 1.0	NA	NA	NA	NA
	12/31/08	NA	2,000	1,600	52	6.8	230	11	< 5.0	< 5.0	< 5.0	< 50	< 5.0
	06/18/09	NA	< 500	< 500	5.9	0.6	19	< 1.5	1.6	< 1.0	< 1.0	12	< 1.0
MW-12 (installed 2/8/08)	04/18/08	NA	< 500	< 500	< 1.0	< 1.0	2.0	< 3.0	65	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	11	NA	NA	NA	NA
	12/31/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	16	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	14	< 1.0	< 1.0	32	< 1.0
MW-13 (installed 2/18/08)	04/21/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	NA	NA	NA	NA
	07/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	11	< 1.0
MW-14 (installed 2/18/08)	04/21/08	NA	27,000	3,800	5,300	290	2,400	6,460	650	NA	NA	NA	NA
	07/30/08	NA	25,000	12,000	6,600	170	2,400	3,700	270	NA	NA	NA	NA
	12/31/08	NA	18,000	1,000	3,700	< 50	1,500	2,000	570	< 100	< 100	< 1,000	< 100
	06/19/09	NA	< 500	< 500	3,600	160	1,900	2,990	540	< 20	< 20	110	< 20
MW-15 (installed 2/19/08)	04/21/08	NA	32,000	3,500	2,400	510	4,100	13,380	< 200	NA	NA	NA	NA
	07/30/08	NA	46,000	17,000	2,100	250	3,700	10,000	< 50	NA	NA	NA	NA
	12/31/08	NA	8,400	2,100	620	12	1,500	160	< 20	< 20	< 20	< 200	< 20
	06/19/09	NA	< 500	< 500	820	250	2,800	6,930	35	< 20	< 20	< 100	< 20

Table 2
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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-16 (installed 2/16/08)	04/21/08	NA	< 500	< 500	**53**	< 2.5	**77**	< 7.5	**110**	NA	NA	NA	NA
	07/30/08	NA	**1,300**	**780**	**110**	**1.7**	**210**	< 4.0	**160**	NA	NA	NA	NA
	12/31/08	NA	**2,500**	**790**	**470**	**6**	**390**	< 20	< 10	< 10	< 10	< 100	< 10
	06/19/09	NA	< 500	< 500	**120**	**16**	**220**	**33**	**100**	< 20	< 20	**170**	< 20
MW-17 (installed 2/19/08)	04/21/08	NA	**990**	**3,100**	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	07/30/08	NA	**780**	**11,000**	< 5.0	< 5.0	< 5.0	< 1.5	< 1.0	NA	NA	NA	NA
	12/30/08	NA	**520**	**55,000**	< 5.0	< 5.0	< 5.0	< 20	< 10	< 10	< 10	< 100	< 10
	06/19/09	NA	**1,600**	**730**	< 0.5	**0.7**	< 0.5	< 1.5	**2.4**	< 1.0	< 1.0	**15**	< 1.0

Notes:

Groundwater samples collected by SCS Engineers on June 18 and 19, 2009.

Groundwater samples collected by Petra Geotechnical, Inc. from October 25, 2007 to December 31, 2008.

Groundwater samples collected by EnecoTech Southwest, Inc. from May 25, 1988 to December 3, 2002.

Results presented in micrograms per liter (µg/L).

Samples were analyzed for gasoline-range (TPHg), and diesel-range (TPHd) total petroleum hydrocarbons in general accordance with EPA Method 8015B modified; and benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), tert-amyl methyl ether (TAME), and t-butanol (TBA) in general accordance with EPA Method 8260B.

< indicates not reported at a concentration above laboratory detection limit.

NS indicates well not sampled.

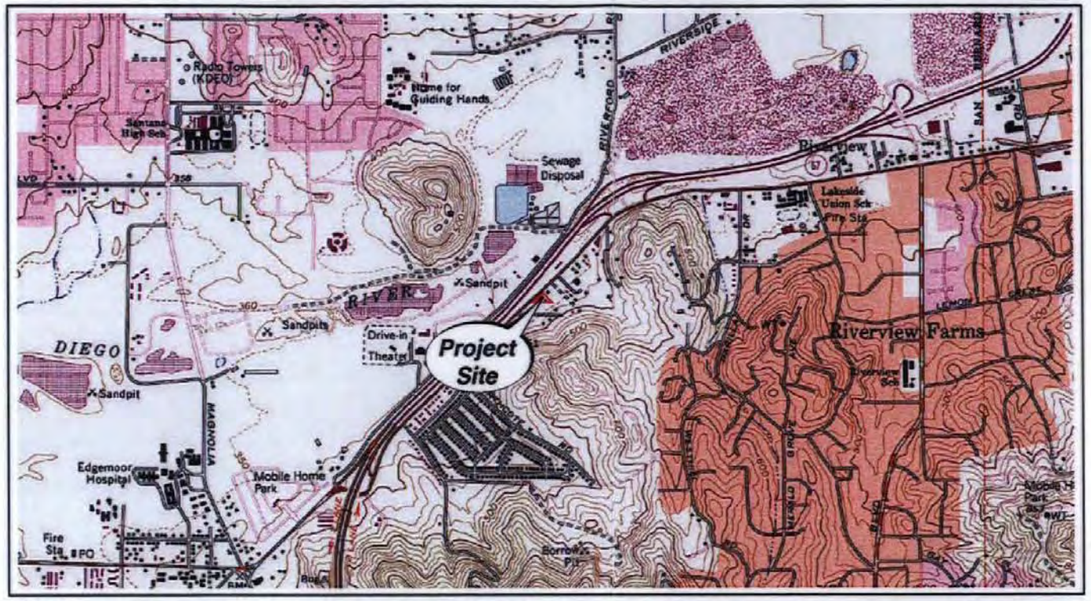
NA indicates not analyzed for particular constituent-of-concern.

* indicates samples were analyzed by EPA Method 418.1 for total extractable hydrocarbons.

FIGURES

North (Not to scale)

REGIONAL SITE LOCATION



North

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

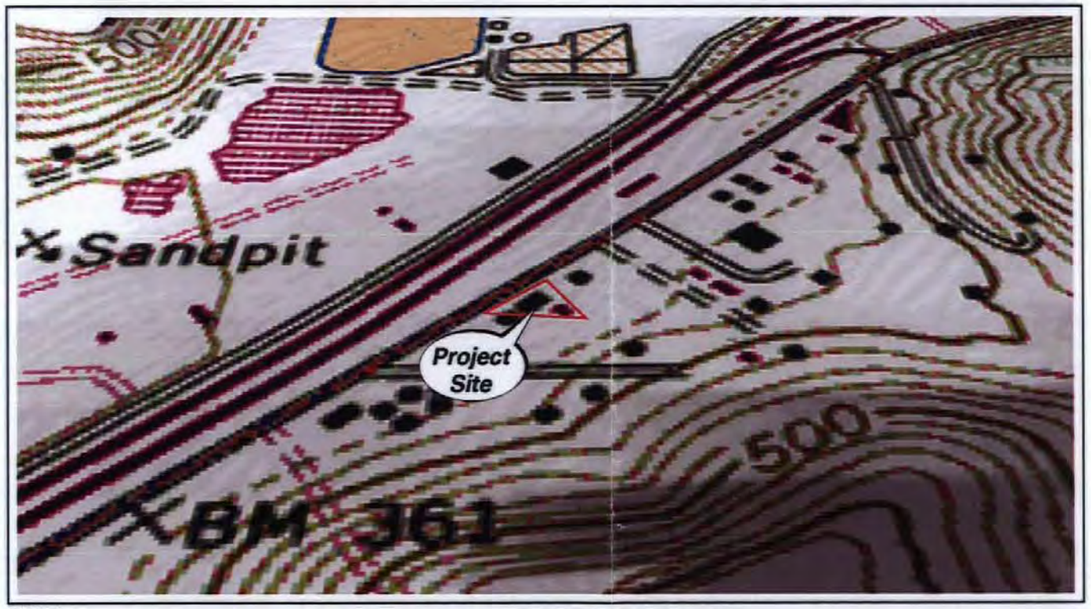
2-DIMENSIONAL SITE LOCATION

0 1,000 2,000 3,000
Approximate Graphic Scale in Feet

North (Not to scale)

Reference:
Google Earth Aerial Photograph
Santee, California - February 2008

SITE AERIAL PHOTOGRAPH



North (Not to scale)

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

3-DIMENSIONAL SITE LOCATION

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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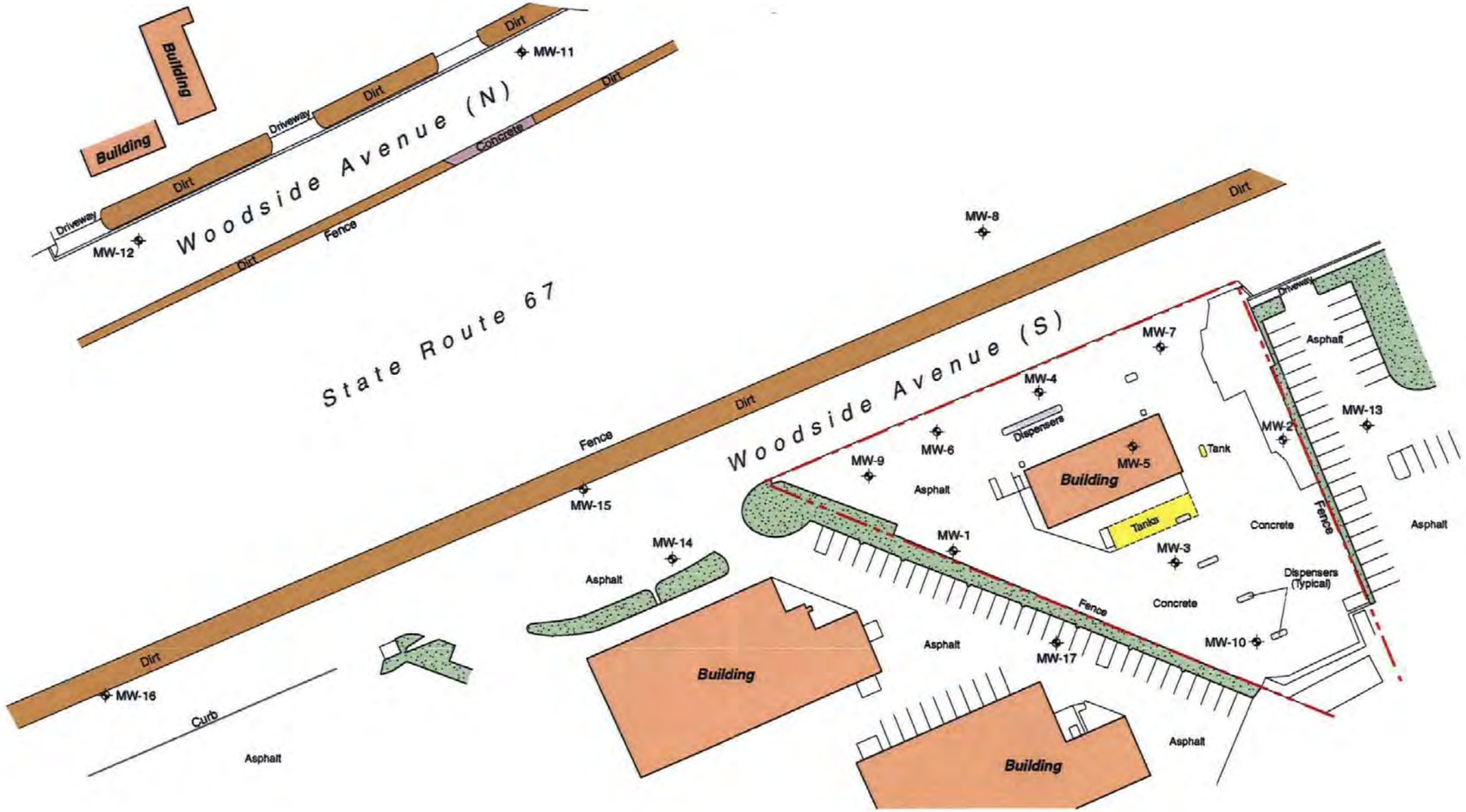
4-WAY SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 1

Date Drafted: 11/4/09



EXPLANATION

MW-16 Groundwater monitoring well location

Approximate Site boundary

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

0 40 80 120

Approximate Graphic Scale: One Inch Equals 80 Feet

North

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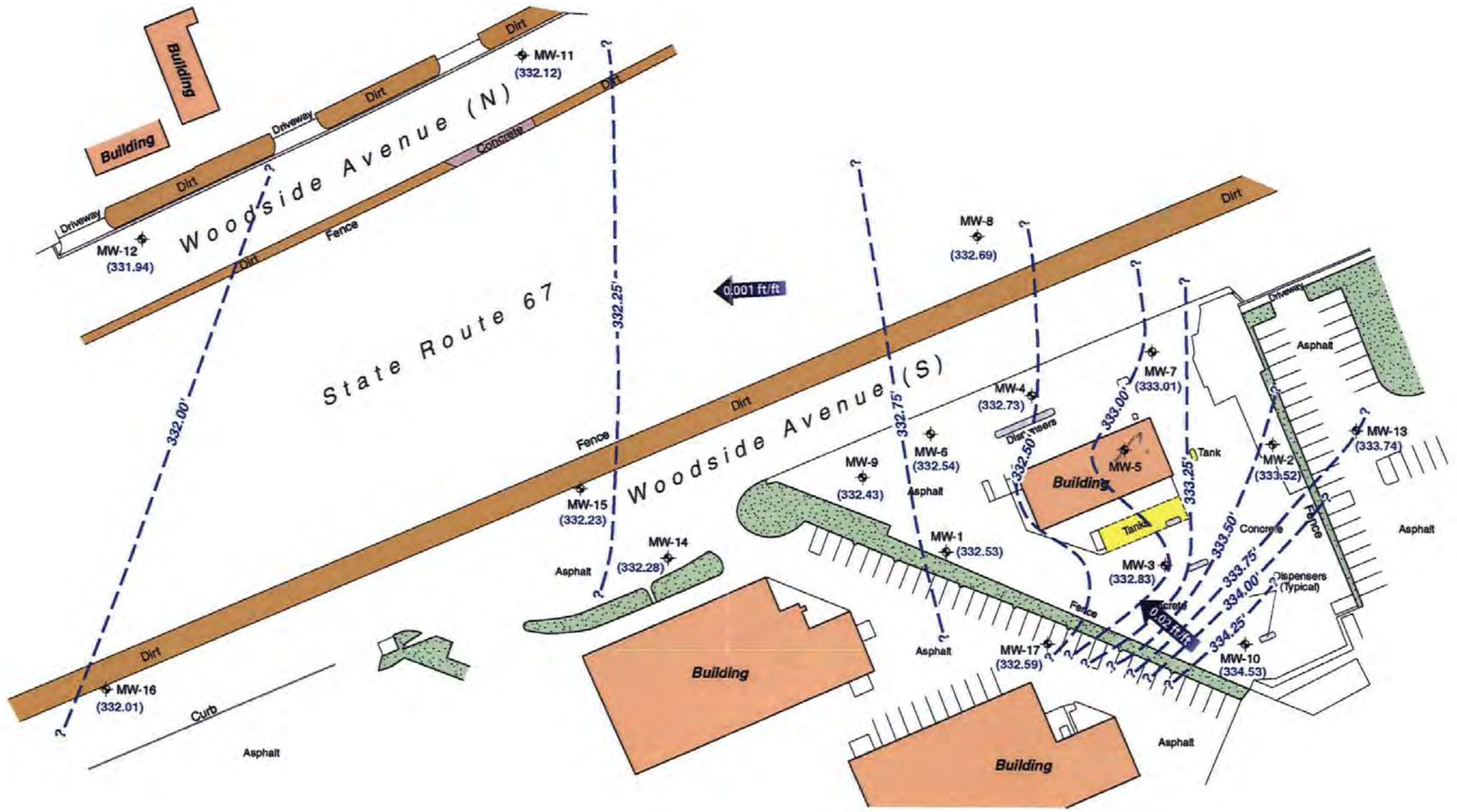
SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 2

Date Drafted: 11/4/09



EXPLANATION

MW-16 (332.01) — Groundwater monitoring well location with groundwater elevation in feet above mean sea level.

332.25 — Estimated groundwater contour in feet above mean sea level.

0.001 ft/ft — Interpreted direction of groundwater flow and estimated groundwater gradient in feet/foot.

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

0 40 80 120

Approximate Graphic Scale: One Inch Equals 80 Feet

North

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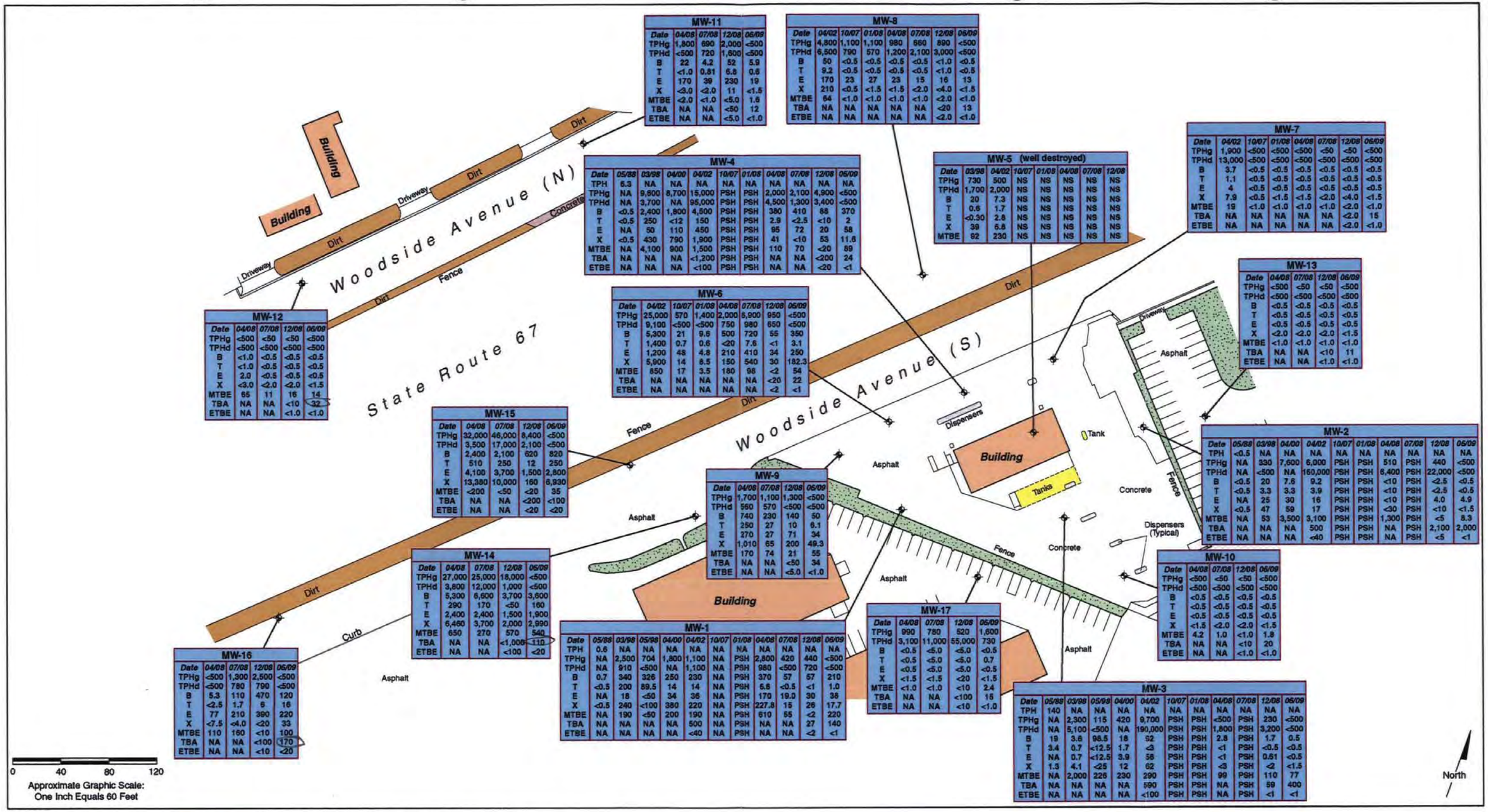
GROUNDWATER ELEVATION MAP
JUNE 2009
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 3

Date Drafted: 11/4/09



MW-11

Date	04/08	07/08	12/08	06/09
TPHg	1,800	690	2,000	<500
TPHd	<500	720	1,600	<500
B	22	4.2	52	5.9
T	<1.0	0.81	6.8	0.6
E	170	39	230	19
X	<3.0	<2.0	11	<1.5
MTBE	<2.0	<1.0	<5.0	1.6
TBA	NA	NA	<50	12
ETBE	NA	NA	<5.0	<1.0

MW-8

Date	04/02	10/07	01/08	04/08	07/08	12/08	06/09
TPHg	4,800	1,100	1,100	980	560	890	<500
TPHd	6,500	790	570	1,200	2,100	3,000	<500
B	50	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
T	9.2	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
E	170	23	27	23	15	16	13
X	210	<0.5	<1.5	<1.5	<2.0	<4.0	<1.5
MTBE	64	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
TBA	NA	NA	NA	NA	NA	<20	13
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0

MW-4

Date	05/98	03/98	04/00	04/02	10/07	01/08	04/08	07/08	12/08	06/09
TPH	5.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	9,600	8,700	15,000	PSH	PSH	2,000	2,100	4,900	<500
TPHd	NA	3,700	NA	95,000	PSH	PSH	4,500	1,300	3,400	<500
B	<0.5	2,400	1,800	4,500	PSH	PSH	380	410	88	370
T	<0.5	250	<12	150	PSH	PSH	2.9	<2.5	<10	2
E	NA	50	110	450	PSH	PSH	95	72	20	58
X	<0.5	430	790	1,900	PSH	PSH	41	<10	53	11.6
MTBE	NA	4,100	900	1,500	PSH	PSH	110	70	<20	89
TBA	NA	NA	NA	<1,200	PSH	PSH	NA	NA	<200	24
ETBE	NA	NA	NA	<100	PSH	PSH	NA	NA	<20	<1

MW-5 (well destroyed)

Date	03/98	04/02	10/07	01/08	04/08	07/08	12/08
TPHg	730	500	NS	NS	NS	NS	NS
TPHd	1,700	2,000	NS	NS	NS	NS	NS
B	20	7.3	NS	NS	NS	NS	NS
T	0.6	1.7	NS	NS	NS	NS	NS
E	<0.30	2.8	NS	NS	NS	NS	NS
X	39	6.8	NS	NS	NS	NS	NS
MTBE	92	230	NS	NS	NS	NS	NS

MW-7

Date	04/02	10/07	01/08	04/08	07/08	12/08	06/09
TPHg	1,900	<500	<500	<500	<50	<50	<500
TPHd	13,000	<500	<500	<500	<500	<500	<500
B	3.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
T	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
E	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
X	7.9	<0.5	<1.5	<1.5	<2.0	<4.0	<1.5
MTBE	19	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
TBA	NA	NA	NA	NA	NA	<2.0	15
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0

MW-12

Date	04/08	07/08	12/08	06/09
TPHg	<500	<50	<50	<500
TPHd	<500	<500	<500	<500
B	<1.0	<0.5	<0.5	<0.5
T	<1.0	<0.5	<0.5	<0.5
E	2.0	<0.5	<0.5	<0.5
X	<3.0	<2.0	<2.0	<1.5
MTBE	65	11	16	14
TBA	NA	NA	<10	32
ETBE	NA	NA	<1.0	<1.0

MW-6

Date	04/02	10/07	01/08	04/08	07/08	12/08	06/09
TPHg	25,000	570	1,400	2,000	5,900	950	<500
TPHd	9,100	<500	<500	750	980	650	<500
B	5,300	21	9.6	500	720	55	350
T	1,400	0.7	0.6	<20	7.6	<1	3.1
E	1,200	48	4.8	210	410	34	250
X	5,900	14	8.5	150	540	30	182.3
MTBE	850	17	3.5	180	98	<2	54
TBA	NA	NA	NA	NA	NA	<20	22
ETBE	NA	NA	NA	NA	NA	<2	<1

MW-13

Date	04/08	07/08	12/08	06/09
TPHg	<500	<50	<50	<500
TPHd	<500	<500	<500	<500
B	<0.5	<0.5	<0.5	<0.5
T	<0.5	<0.5	<0.5	<0.5
E	<0.5	<0.5	<0.5	<0.5
X	<2.0	<2.0	<2.0	<1.5
MTBE	<1.0	<1.0	<1.0	<1.0
TBA	NA	NA	<10	11
ETBE	NA	NA	<1.0	<1.0

MW-15

Date	04/08	07/08	12/08	06/09
TPHg	32,000	46,000	8,400	<500
TPHd	3,500	17,000	2,100	<500
B	2,400	2,100	620	820
T	510	250	12	250
E	4,100	3,700	1,500	2,800
X	13,380	10,000	160	6,930
MTBE	<200	<50	<20	35
TBA	NA	NA	<200	<100
ETBE	NA	NA	<20	<20

MW-9

Date	04/08	07/08	12/08	06/09
TPHg	1,700	1,100	1,300	<500
TPHd	560	570	<500	<500
B	740	230	140	50
T	250	27	10	6.1
E	270	27	71	34
X	1,010	65	200	49.3
MTBE	170	74	21	55
TBA	NA	NA	<50	34
ETBE	NA	NA	<5.0	<1.0

MW-2

Date	05/98	03/98	04/00	04/02	10/07	01/08	04/08	07/08	12/08	06/09
TPH	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	330	7,600	6,000	PSH	PSH	510	PSH	440	<500
TPHd	NA	<500	NA	160,000	PSH	PSH	6,400	PSH	22,000	<500
B	<0.5	20	7.6	9.2	PSH	PSH	<10	PSH	<2.5	<0.5
T	<0.5	3.3	3.3	3.9	PSH	PSH	<10	PSH	<2.5	<0.5
E	NA	25	30	16	PSH	PSH	<10	PSH	4.0	4.9
X	<0.5	47	59	17	PSH	PSH	<30	PSH	<10	<1.5
MTBE	NA	53	3,500	3,100	PSH	PSH	1,300	PSH	<5	8.3
TBA	NA	NA	NA	500	PSH	PSH	NA	PSH	2,100	2,000
ETBE	NA	NA	NA	<40	PSH	PSH	NA	PSH	<5	<1

MW-14

Date	04/08	07/08	12/08	06/09
TPHg	27,000	25,000	18,000	<500
TPHd	3,800	12,000	1,000	<500
B	5,300	6,600	3,700	3,600
T	290	170	<50	160
E	2,400	2,400	1,500	1,900
X	6,460	3,700	2,000	2,990
MTBE	650	270	570	540
TBA	NA	NA	<1,000	110
ETBE	NA	NA	<100	<20

MW-10

Date	04/08	07/08	12/08	06/09
TPHg	<500	<50	<50	<500
TPHd	<500	<500	<500	<500
B	<0.5	<0.5	<0.5	<0.5
T	<0.5	<0.5	<0.5	<0.5
E	<0.5	<0.5	<0.5	<0.5
X	<1.5	<2.0	<2.0	<1.5
MTBE	4.2	1.0	<1.0	1.8
TBA	NA	NA	<10	20
ETBE	NA	NA	<1.0	<1.0

MW-16

Date	04/08	07/08	12/08	06/09
TPHg	<500	1,300	2,500	<500
TPHd	<500	780	790	<500
B	5.3	110	470	120
T	<2.5	1.7	6	16
E	77	210	390	220
X	<7.5	<4.0	<20	33
MTBE	110	160	<10	100
TBA	NA	NA	<100	170
ETBE	NA	NA	<10	<20

MW-1

Date	05/98	03/98	05/98	04/00	04/02	10/07	01/08	04/08	07/08	12/08	06/09
TPH	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	2,500	704	1,800	1,100	NA	PSH	2,800	420	440	<500
TPHd	NA	910	<500	NA	1,100	NA	PSH	980	<500	720	<500
B	0.7	340	326	250	230	NA	PSH	370	57	57	210
T	<0.5	200	89.5	14	14	NA	PSH	5.6	<0.5	<1	1.0
E	NA	18	<50	34	36	NA	PSH	170	19.0	30	38
X	<0.5	240	<100	380	220	NA	PSH	227.8	15	26	17.7
MTBE	NA	190	<50	200	190	NA	PSH	610	55	<2	220
TBA	NA	NA	NA	NA	500	NA	PSH	NA	NA	27	140
ETBE	NA	NA	NA	NA	<40	NA	PSH	NA	NA	<2	<1

MW-17

Date	04/08	07/08	12/08	06/09
TPHg	990	780	520	1,600
TPHd	3,100	11,000	55,000	730
B	<0.5	<5.0	<5.0	<0.5
T	<0.5	<5.0	<5.0	0.7
E	<0.5	<5.0	<5.0	<0.5
X	<1.5	<1.5	<20	<1.5
MTBE	<1.0	<1.0	<10	2.4
TBA	NA	NA	<100	15
ETBE	NA	NA	<10	<1.0

MW-3

Date	05/98	03/98	05/98	04/00	04/02	10/07	01/08	04/08	07/08	12/08	06/09
TPH	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	2,300	115	420	9,700	PSH	PSH	<500	PSH	230	<500
TPHd	NA	5,100	<500	NA	190,000	PSH	PSH	1,800	PSH	3,200	<500
B	19	3.6	98.5	18	92	PSH	PSH	2.8	PSH	1.7	0.5
T	3.4	0.7	<12.5	1.7	<3	PSH	PSH	<1	PSH	<0.5	<0.5
E	NA	0.7	<12.5	3.9	58	PSH	PSH	<1	PSH	0.51	<0.5
X	1.3	4.1	<25	12	62	PSH	PSH	<3	PSH	<2	<1.5
MTBE	NA	2,000	226	230	290	PSH	PSH	99	PSH	110	77
TBA	NA	NA	NA	NA	590	PSH	PSH	NA	PSH	59	400
ETBE	NA	NA	NA	NA	<100	PSH	PSH	NA	PSH	<1	<1

EXPLANATION

MW-17 — Groundwater monitoring well location

Groundwater samples collected by SCS Engineers on June 18 and 19, 2009; Petra Geotechnical, Inc. from October 2007 to December 2008; and Eneco Tech Southwest, Inc. from May 1988 to December 2002. Groundwater samples analyzed for total petroleum hydrocarbons by EPA Method 8015B; volatile organic compounds (VOCs) by EPA Method 8260B. All results reported in micrograms per liter (ug/L). < indicates concentration not reported above indicated reporting limit for relevant analyte and analytical method. NA indicates sample not analyzed. PSH indicates phase-separated hydrocarbons. Only VOCs with detectable concentrations are listed here; refer to laboratory reports for full listing of VOCs analyzed.

TPH = total petroleum hydrocarbons
TPHg = total petroleum hydrocarbons as gasoline
TPHd = total petroleum hydrocarbons as diesel
B = benzene
T = toluene
E = ethylbenzene
X = xylenes
MTBE = methyl tertiary buty ether
TBA = tertiary butyl alcohol
ETBE = Ethyl tertiary butyl ether

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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San Diego, California 92123

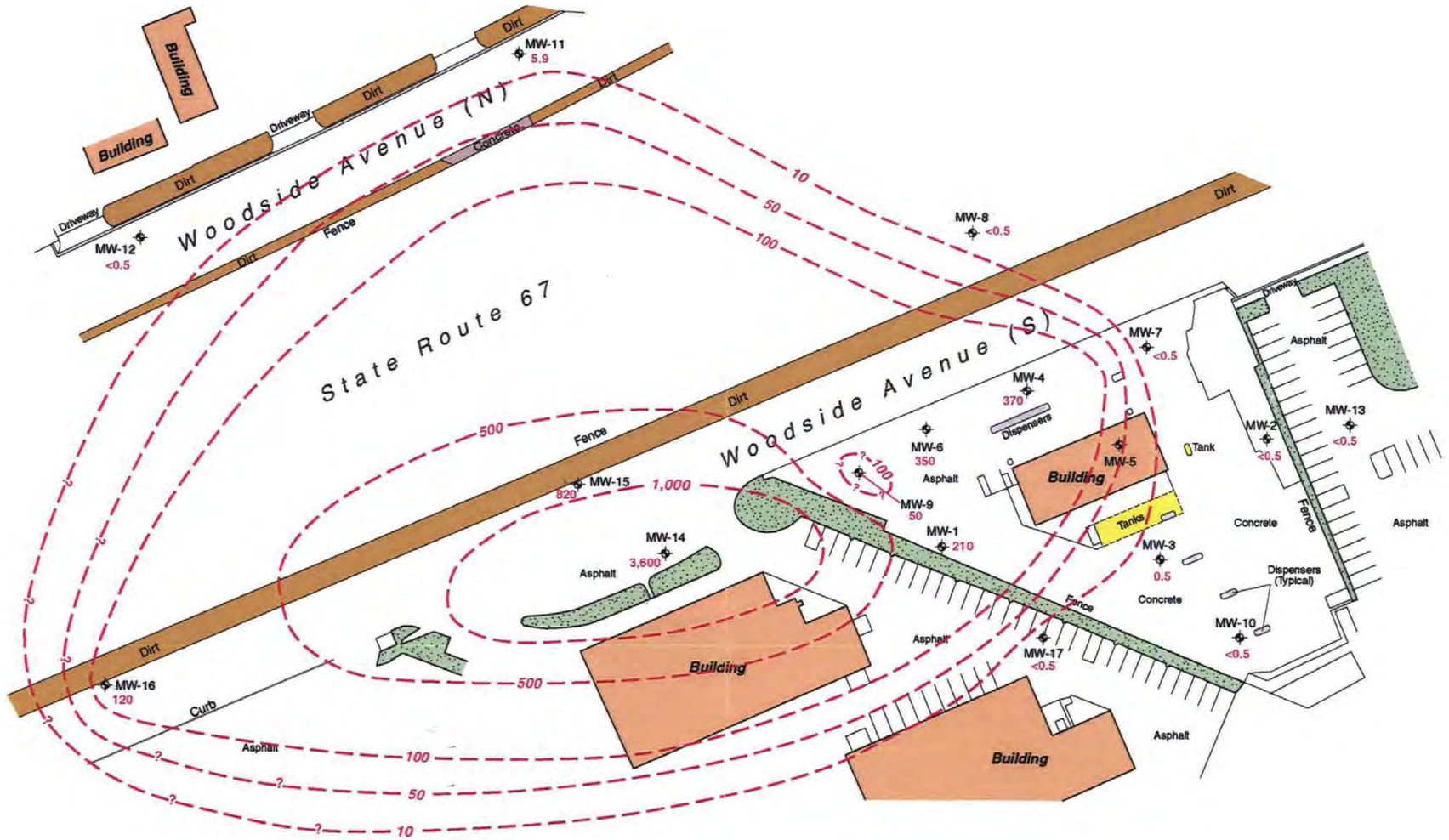
GROUNDWATER SAMPLE ANALYTICAL RESULTS

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 4

Date Drafted: 11/12/09



EXPLANATION

MW-16 ◈ 120 — Groundwater monitoring well location with reported concentrations of benzene reported in micrograms per liter (µg/L). < indicates not reported above laboratory reporting limit for given analyte.

100 — Iso-concentration of benzene reported in µg/L. Dashed where estimated, querried where inferred.

0 40 80 120
Approximate Graphic Scale:
One Inch Equals 80 Feet

North

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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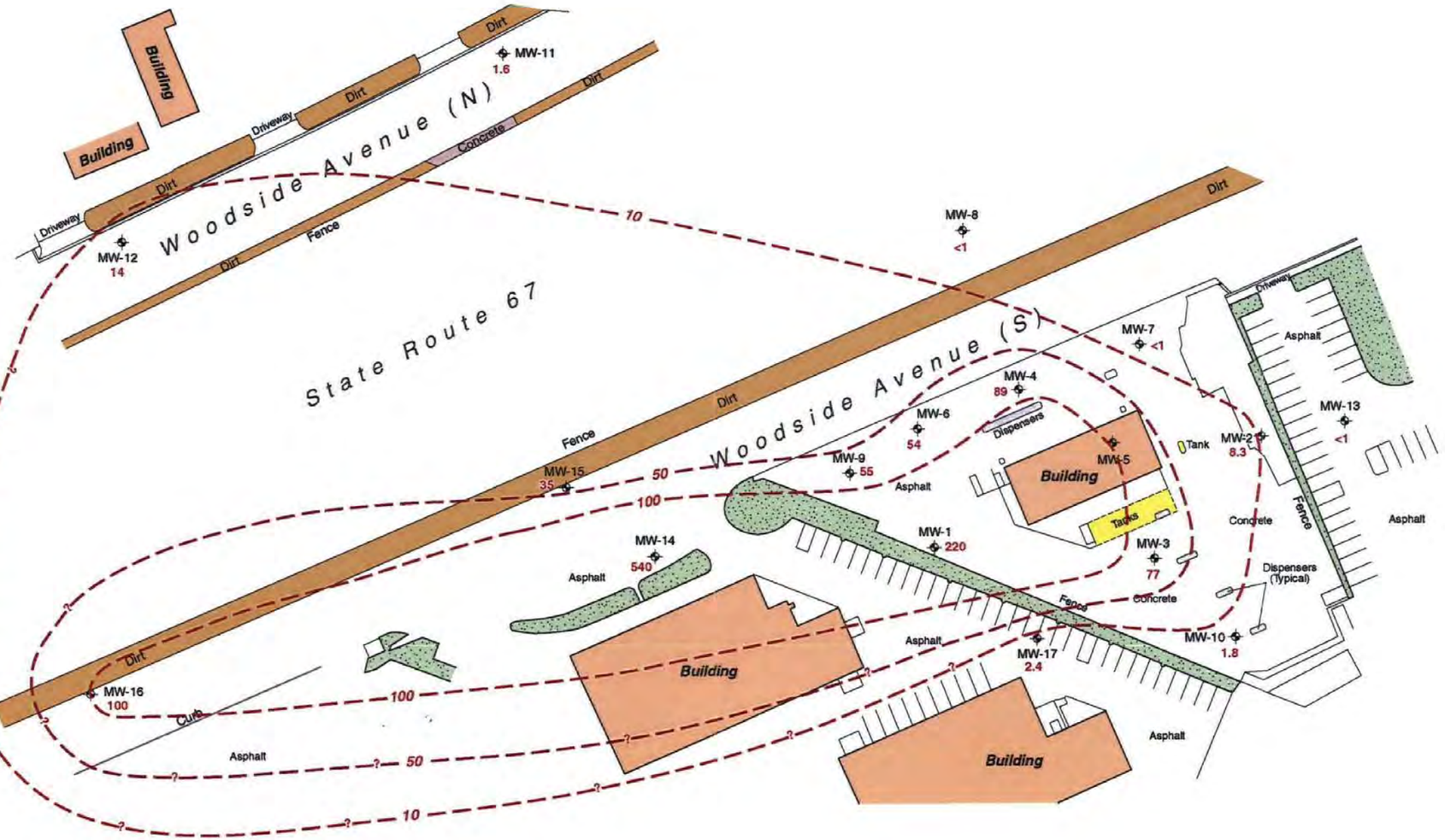
ISO-CONCENTRATION CONTOURS OF BENZENE IN SHALLOW GROUNDWATER - JUNE 2009

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 5

Date Drafted: 10/1/09



EXPLANATION

MW-16 ◈ 100 — Groundwater monitoring well location with reported concentrations of MTBE reported in micrograms per liter (µg/L). < indicates not reported above laboratory reporting limit for given analyte.

100 — Iso-concentration of MTBE reported in µg/L. Dashed where estimated, querried where inferred.

0 40 80 120
Approximate Graphic Scale:
One Inch Equals 80 Feet

North

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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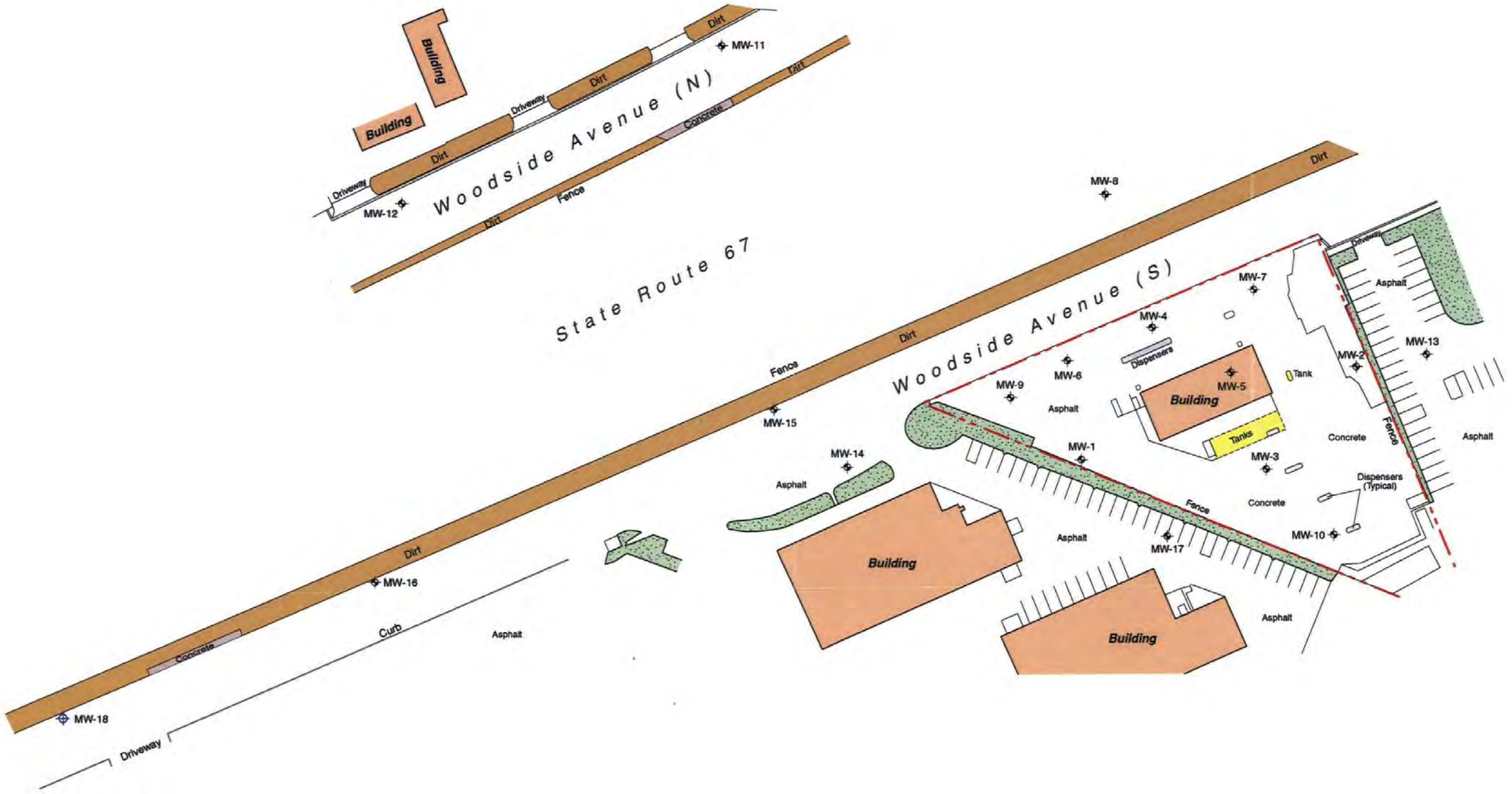
ISO-CONCENTRATION CONTOURS OF MTBE IN SHALLOW GROUNDWATER - JUNE 2009

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 6

Date Drafted: 10/1/09



EXPLANATION

MW-16 — Groundwater monitoring well location

MW-18 — Proposed groundwater monitoring well location

Approximate Site boundary

0 40 80 120

Approximate Graphic Scale:
One Inch Equals 80 Feet

North

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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SITE LOCATION MAP WITH PROPOSED DOWN GRADIENT GROUNDWATER MONITORING WELL

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 7

Date Drafted: 11/19/09

APPENDICES

APPENDIX A

GROUNDWATER PURGING AND SAMPLING FORMS

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San Diego, California 92123

Client: Wigington Petroleum	Project No: 01208473.00	Recorded by: CC/SR
Site Address: 11427 Woodside Ave., Santee, CA	Date: 6/18/09	

WELL MONITORING DATA

WELL NO.	DTB	DTW	DTP	PT	SWE	ELEV-W	ELEV-P
MW1	41.6	30.29	--	--	362.84	332.55	--
MW2	44.6	31.56	--	--	365.08	333.52	--
MW3	43.2	31.33	--	--	364.16	332.83	--
MW4	41.6	29.65	--	--	362.38	332.73	--
MW6	41.8	29.90	--	--	362.44	332.54	--
MW7	41.9	29.56	--	--	362.57	333.01	--
MW8	39.5	31.82	--	--	364.51	332.69	--
MW9	38.3	29.90	--	--	362.33	332.43	--
MW10	38.3	32.75	--	--	367.28	334.53	--
MW11	37.35	30.36	--	--	362.48	332.12	--
MW12	36.2	29.94	--	--	361.88	331.94	--
MW13	44.7	33.17	--	--	366.91	333.74	--
MW14	36.8	30.51	--	--	362.79	332.28	--
MW15	37.2	30.13	--	--	362.36	332.23	--
MW16	38.3	30.47	--	--	362.48	332.01	--
MW17	44.4	35.38	--	--	367.97	332.59	--

NOTES

WELL NO. - Monitoring well number
DTW - Depth to water from datum
DTP - Depth to product from datum
PT - Product Thickness

DTB - Depth to bottom of well
SWE - Surveyed well elevation in feet
ELEV-W - Relative elevation of water
ELEV-P - Relative elevation of product

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San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum | Well No.: MW-1
Project Number: 01208473.00 | Date: 6/18/09
Project Address: 11427 Woodside Ave., Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: SR | Checked by: | License #:

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 10
Casing Diameter (in.) (CD): 2 (4) 6 8 4
Total Well Depth (ft.) (WD): 41.60 | Product thickness (ft.):
Static Water Level (ft.) (SWL): 30.29 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 11.31 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 19.1 gallons 1.69 x WC

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ___ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___ Teflon Bailer ✓ Disposable Bailer ___ Bladder Pump ___ Centrifugal Pump ___ Other: ___
Decontamination Method: ___ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ___ Other: ___

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1535	30.42		9.5	845		7.35		27.6
1605	30.50		19.1	939		7.30		24.0
1615	30.70		28.7	1001		7.19		22.3
1628	30.65		38.2	981		7.36		21.7
			47.6					

Sheen

Borehole Volume: 19.1 (gal) | Total Volume Purge Water: 40 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 6/18/09 @ 16:45 | Depth to water at time of sampling (feet): 30.32

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum | Well No.: MW-2
Project Number: 01208473.00 | Date: 6/19/09
Project Address: 11427 Woodside Ave., Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: CC | Checked by: | License #:

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____
Casing Diameter (in.) (CD): 2 (4) 6 8 ____
Total Well Depth (ft.) (WD): 44.6 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 31.56 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 13.04 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 22.2 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ___ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___ Centrifugal Pump ___Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

___ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ✓ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
___Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
✓Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1158	44.43	12.87	20	1844	—	6.96	—	25.1

Borehole Volume: 22.2 (gal) | Total Volume Purge Water: 20 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 6/19/09 @ 1400 | Depth to water at time of sampling (feet): 40.50

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum		Well No.: MW-3
Project Number: 01208473.00		Date: 6/19/09
Project Address: 11427 Woodside Ave, Santee, CA		
Well GPS: Latitude:	Longitude:	
Sampled by: SR	Checked by:	License #:

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____	
Casing Diameter (in.) (CD): 2 (4) 6 8 ____	
Total Well Depth (ft.) (WD): 43.2	Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 31.33	Time measured: —
Water Column (ft.) (WC=WD-SWL): 11.87	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 20.2 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ___ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___Centrifugal Pump ___Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
11:00	36.70		10	780		7.47		26.9
11:15	37.75		20	860		7.16		24.1
11:30	38.20	6.95	31	887		7.06		22.9
—	—	—	—	—		—		—

Borehole Volume: 20.2 (gal) | Total Volume Purge Water: 31 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) = 32.72

SAMPLING INFORMATION

Date & Time Sampled: 6/19/09 @ 12:05 | Depth to water at time of sampling (feet): 31.70

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

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San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum | Well No.: MW-4
Project Number: 01208473.00 | Date: 6/18/09
Project Address: 11427 Woodside Ave., Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C C | Checked by: | License #:

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____
Casing Diameter (in.) (CD): 2 (4) 6 8 ____
Total Well Depth (ft.) (WD): 41.6 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 29.65 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 11.95 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 20.3 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
____ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
____ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
____ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1358	30.38	0.73	21.0	1616	—	7.00	—	24.7
1410	30.22	0.57	31.0	1637	—	7.04	—	24.4

Borehole Volume: 20.3 (gal) | Total Volume Purge Water: 31 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.79

SAMPLING INFORMATION

Date & Time Sampled: 6/18/09 1420 | Depth to water at time of sampling (feet): 29.65

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum		Well No.: MW-6	
Project Number: 01208473.00		Date: 6/19/09	
Project Address: 11427 Woodside Ave., Santee, CA			
Well GPS: Latitude:	Longitude:		
Sampled by: SR	Checked by:	License #:	

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 — 10
Casing Diameter (in.) (CD): 2 (4) 6 8 — 4
Total Well Depth (ft.) (WD): 41.8
Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 29.90
Time measured: —
Water Column (ft.) (WC=WD-SWL): 11.90
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2\text{-}CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 20.2 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ___ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___ Centrifugal Pump ___Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
945	29.95	.05	10	1305		7.54		20.1
958	29.95	.05	20	1307		7.19		20.6
1012	29.95	.05	31	1313		7.26		20.4
—	—	—	~~41~~	—		—		—

Borehole Volume: 20.2 (gal) Total Volume Purge Water: 31 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 6/19/09 @ 10:20 Depth to water at time of sampling (feet): ____

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum | Well No.: MW-7
Project Number: 01208473.00 | Date: 6/18/09
Project Address: 11427 Woodside Ave., Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: CC | Checked by: | License #:

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____
Casing Diameter (in.) (CD): 2 (4) 6 8 ____
Total Well Depth (ft.) (WD): 41.9 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 29.56 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 12.34 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 21.0 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
____ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
____ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
____ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1221	29.84	0.28	21.0	1740	—	6.89	—	25.7
1232	29.78	0.22	32.0	1700	—	6.91	—	24.7

Borehole Volume: 21 (gal) | Total Volume Purge Water: 32 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 6/18/09 1240 | Depth to water at time of sampling (feet): 29.58

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum | Well No.: MW-8
Project Number: 01208473.00 | Date: 6/18/09
Project Address: 11427 Woodside Ave., Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: CC | Checked by: | License #:

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____
Casing Diameter (in.) (CD): 2 (4) 6 8 ____
Total Well Depth (ft.) (WD): 39.5 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 31.82 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 7.61 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 12.9 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___Centrifugal Pump ___Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
0942	31.93	0.11	13	1451	—	7.16	—	25.7
0948	31.88	0.06	20	1571	—	7.02	—	24.0
0955	31.91	0.09	26	1514	—	6.98	—	24.4

Borehole Volume: 12.9 (gal) | Total Volume Purge Water: 26 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 6/18/09 1005 | Depth to water at time of sampling (feet): 31.82

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum | Well No.: MW-9
Project Number: 01208473.00 | Date: 6/19/09
Project Address: 11427 Woodside Ave., Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: SR | Checked by: | License #:

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____
Casing Diameter (in.) (CD): 2 (4) 6 8 ____
Total Well Depth (ft.) (WD): 38.3 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 29.90 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 8.40 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 14.3 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
____ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
____ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
____ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
855	29.92		7.0	1336		7.70		18.1
905	29.95		14.0	1304		7.34		18.9
915	29.93		22.0	1337		7.39		18.9
—	—	—	~~29.0~~	—	—	—	—	—

Borehole Volume: 14.3 (gal) | Total Volume Purge Water: 22.0 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 6/19/06 @ 0920 | Depth to water at time of sampling (feet): 29.91

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum | Well No.: MW-10
Project Number: 01208473.00 | Date: 6/18/09
Project Address: 11427 Woodside Ave., Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: CC | Checked by: | License #:

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____
Casing Diameter (in.) (CD): 2 (4) 6 8 ____
Total Well Depth (ft.) (WD): 38.3 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 32.75 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 5.55 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 9.4 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ____Teflon Bailer ✓ Disposable Bailer ____Bladder Pump ____ Centrifugal Pump ____Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
____Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
____Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
____Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1526	35.36	2.61	10.0	1358	—	6.97	—	25.6
1534	34.38	1.63	15.0	1343	—	6.94	—	24.9

Borehole Volume: 9.4 (gal) | Total Volume Purge Water: 15 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 33.27

SAMPLING INFORMATION

Date & Time Sampled: 6/18/09 1545 | Depth to water at time of sampling (feet): 32.82

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum | Well No.: MW-11
Project Number: 01208473.00 | Date: 6/18/09
Project Address: 11427 Woodside Ave., Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: SR | Checked by: | License #:

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 5
Casing Diameter (in.) (CD): (2) 4 6 8 2
Total Well Depth (ft.) (WD): 37.35 | Product thickness (ft.):
Static Water Level (ft.) (SWL): 30.36 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 6.99 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 6.3 gallons .902

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ___ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___ Teflon Bailer ✓ Disposable Bailer ___ Bladder Pump ___ Centrifugal Pump ___ Other: ___
Decontamination Method: ___ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ___ Other: ___

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

✓ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
___ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1403	30.36		3.0	618		7.45		35.2
1412	30.36		6.3	750		6.83		26.3
1421	30.36		9.0	792		6.84		23.6
1430	30.36		12.6	815		6.79		22.4
1439	30.37		15.0	853		6.90		22.1
1446	30.38		19.0	834		6.83		21.9

Borehole Volume: 6.3 (gal) | Total Volume Purge Water: 19.0 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 6/18/09 @ 1451 | Depth to water at time of sampling (feet): 30.38

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum | Well No.: MW-12
Project Number: 01208473.00 | Date: 6/18/09
Project Address: 11427 Woodside Ave., Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: SR | Checked by: | License #:

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 8
Casing Diameter (in.) (CD): (2) 4 6 8 2
Total Well Depth (ft.) (WD): 36.17 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 29.94 | Time measured: 11:05
Water Column (ft.) (WC=WD-SWL): 6.23 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 5.6 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ___ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___ Teflon Bailer ✓ Disposable Bailer ___ Bladder Pump ___ Centrifugal Pump ___ Other:
Decontamination Method: ___ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ___ Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
11:18	29.94							
11:27	29.94	0.00	2.8	816		7.09		27.2
	29.94	0.00	5.6	839		6.83		23.7
11:46	29.94		8.4	871		6.86		22.4
	29.94		11.2	885		6.86		22.1
12:09	29.94	✓	14.0	892		6.85		21.7
—	—	—	~~16.8~~	—	—	—	—	—

Borehole Volume: 5.6 (gal) | Total Volume Purge Water: 14.0 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 6/18/09 @ 12:17 | Depth to water at time of sampling (feet):

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum | Well No.: MW-13
Project Number: 01208473.00 | Date: 6/18/09
Project Address: 11427 Woodside Ave., Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: CC | Checked by: | License #:

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 ____
Casing Diameter (in.) (CD): (2) 4 6 8 ____
Total Well Depth (ft.) (WD): 44.7 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 33.13 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 11.57 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 10.4 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ____Teflon Bailer ✓ Disposable Bailer ____Bladder Pump ____ Centrifugal Pump ____Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

___ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ✓ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
___Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
✓Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1126	43.83	10.70	10.5	2.18	—	6.92	—	24.2
			~~#~~		—		—	

Borehole Volume: 10.4 (gal) | Total Volume Purge Water: 10.5 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 35.27

SAMPLING INFORMATION

Date & Time Sampled: 6/18/09 1330 | Depth to water at time of sampling (feet): 39.46

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum | Well No.: MW-14
Project Number: 01208473.00 | Date: 6/19/09
Project Address: 11427 Woodside Ave., Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: CC | Checked by: | License #:

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____
Casing Diameter (in.) (CD): 2 (4) 6 8 ____
Total Well Depth (ft.) (WD): 36.8 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 30.51 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 6.29 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 10.7 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
____ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
____ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
____ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
0949	33.58	3.07	11.0	1369	—	6.72	—	22.0
0956	33.62	3.11	16.0	1354	—	6.74	—	21.9

Borehole Volume: 10.7 (gal) | Total Volume Purge Water: 16 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 31.13

SAMPLING INFORMATION

Date & Time Sampled: 6/19/09 1010 | Depth to water at time of sampling (feet): 30.52

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name:	Wigington Petroleum	Well No.:	MW-15
Project Number:	01208473.00	Date:	6/19/09
Project Address:	11427 Woodside Ave., Santee, CA		
Well GPS:	Latitude:	Longitude:	
Sampled by:	CC	Checked by:	License #:

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD):	6 (8) 10 12 ____
Casing Diameter (in.) (CD):	(2) 4 6 8 ____
Total Well Depth (ft.) (WD): 37.2	Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 30.13	Time measured: —
Water Column (ft.) (WC=WD-SWL): 7.07	Filter Pack Porosity (P): 0.30

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 6.4 gallons

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

____ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:____ Time:____

____ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

____ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
0844	30.13	0.00	6.5	1063	—	6.68	—	22.4
0855	30.13	0.00	10.0	1013	—	6.68	—	22.8

Borehole Volume: 6.4 (gal) Total Volume Purge Water: 10 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 6/19/09 0905 Depth to water at time of sampling (feet): 30.13

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum | Well No.: MW-16
Project Number: 01208473.00 | Date: 6/19/09
Project Address: 11427 Woodside Ave, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: CC | Checked by: | License #:

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 _____
Casing Diameter (in.) (CD): (2) 4 6 8 _____
Total Well Depth (ft.) (WD): 38.3 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 30.47 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 7.83 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 7.0 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump _____ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___ Centrifugal Pump ___Other: _____
Decontamination Method: _____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) _____ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
0745	30.48	0.01	7.0	1177	—	7.09	—	20.9
0755	30.48	0.01	10.5	1165	—	6.96	—	21.4

Borehole Volume: 7.0 (gal) | Total Volume Purge Water: 10.5 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 6/19/09 0810 | Depth to water at time of sampling (feet): 30.47

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum		Well No.: MW-17
Project Number: 01208473.00		Date: 6/19/09
Project Address: 11427 Woodside Ave., Santee, CA		
Well GPS: Latitude:	Longitude:	
Sampled by: SR	Checked by:	License #:

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 8

Casing Diameter (in.) (CD): (2) 4 6 8 2

Total Well Depth (ft.) (WD): 44.4 | Product thickness (ft.): NA

Static Water Level (ft.) (SWL): 35.38 | Time measured: —

Water Column (ft.) (WC=WD-SWL): 9.02 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 8.1 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ___ Bailer ✓ Centrifugal Pump ___ Other ___

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ___ Teflon Bailer ✓ Disposable Bailer ___ Bladder Pump ___ Centrifugal Pump ___ Other: ___

Decontamination Method: ___ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ___ Other: ___

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

___ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µS / µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)	
0735	38.82	2.94	4.0	1394		7.30		18.2	"Sheen"
0747	42.02	6.64	8.0	1,301		7.18		20.0	
0807	42.05	6.67	12.5	~~1390~~ 1381		7.06		20.3	
—	—	—	~~14.5~~	—	—	—	—	—	

Borehole Volume: 8.1 (gal) | Total Volume Purge Water: 12.5 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) = 36.71

SAMPLING INFORMATION

Date & Time Sampled: 6/19/09 @ 0845 | Depth to water at time of sampling (feet): 36.68

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy/MTBE

APPENDIX B

NON-HAZARDOUS WASTE MANIFEST

NON-HAZARDOUS WASTE MANIFEST

Please print or type. (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 12506-NH

2. Page 1 of 1

3. Generator's Name and Mailing Address
WIGINTON PETROLEUM
11427 WOODSIDE AVE
SANTEE, CA 92071

4. Generator's Phone ( )

5. Transporter 1 Company Name: ENVIRO-GUARD
6. US EPA ID Number: CAR000075424
A. State Transporter's ID
B. Transporter 1 Phone: 714-526-2510

7. Transporter 2 Company Name
8. US EPA ID Number
C. State Transporter's ID
D. Transporter 2 Phone

9. Designated Facility Name and Site Address
SIEMENS WATER TECHNOLOGIES CORP.
5375 SOUTH BOYLE AVENUE
VERNON, CA 90058
10. US EPA ID Number: CAD097030993
E. State Facility's ID
F. Facility's Phone: 323-277-1500

11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non HAZARDOUS WASTE ~~SOLID~~ (SOIL) (purge water) Liquid	15	DM	750	G
b. Non HAZARDOUS WASTE LIQUID (WATER) w/CONCRETE PIECES	01	DM	50	G
c.				
d.				

GENERATOR

G. Additional Descriptions for Materials Listed Above
D136033

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
1) ~~SOIL~~ water - APPROVAL # AP184764 (15 M55) 2) WATER - APPROVAL #AP184766 (1 w/concrete M55)

NON-HAZARDOUS WASTE

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name	Signature	Date (Month Day Year)
Chris Crosby (SCS)	Chris Crosby	07 23 09

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
Tom Cobos		07 23 09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name	Signature	Date (Month Day Year)
Manuel Mendoza		07 23 09

PRINTED ON RECYCLED PAPER USING SOYBEAN INK

APPENDIX C

ANALYTICAL DATA AND CHAIN-OF-CUSTODY DOCUMENTATION

26 June 2009

Mr. Chuck Houser
SCS Engineers - San Diego
8799 Balboa Avenue, Suite 290
San Diego, CA 92123
RE: SCS062209-10

Enclosed are the results of analyses for samples received by the laboratory on 22-Jun-09 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS062209-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-09 17:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DRAFT: MW-1	E906076-01	Water	18-Jun-09	22-Jun-09
DRAFT: MW-2	E906076-02	Water	19-Jun-09	22-Jun-09
DRAFT: MW-3	E906076-03	Water	19-Jun-09	22-Jun-09
DRAFT: MW-4	E906076-04	Water	18-Jun-09	22-Jun-09
DRAFT: MW-6	E906076-05	Water	19-Jun-09	22-Jun-09
DRAFT: MW-7	E906076-06	Water	18-Jun-09	22-Jun-09
DRAFT: MW-8	E906076-07	Water	18-Jun-09	22-Jun-09
DRAFT: MW-9	E906076-08	Water	19-Jun-09	22-Jun-09
DRAFT: MW-10	E906076-09	Water	18-Jun-09	22-Jun-09
DRAFT: MW-11	E906076-10	Water	18-Jun-09	22-Jun-09
DRAFT: MW-12	E906076-11	Water	18-Jun-09	22-Jun-09
DRAFT: MW-13	E906076-12	Water	18-Jun-09	22-Jun-09
DRAFT: MW-14	E906076-13	Water	19-Jun-09	22-Jun-09
DRAFT: MW-15	E906076-14	Water	19-Jun-09	22-Jun-09
DRAFT: MW-16	E906076-15	Water	19-Jun-09	22-Jun-09
DRAFT: MW-17	E906076-16	Water	19-Jun-09	22-Jun-09

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS062209-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-09 17:08

DRAFT: Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DRAFT: MW-1 (E906076-01) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	220	10	ug/l	1	EF92403	24-Jun-09	24-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	0.1	"	"	24-Jun-09	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	210	5.0	"	1	"	"	24-Jun-09	"	
Toluene	1.0	0.5	"	0.1	"	"	24-Jun-09	"	
Ethylbenzene	38	0.5	"	"	"	"	"	"	
m,p-Xylene	17	1.0	"	"	"	"	"	"	
o-Xylene	0.7	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	140	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*104 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*95.6 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*107 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*75-125*	"	"	"	"	
DRAFT: MW-2 (E906076-02) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	8.3	1.0	ug/l	0.1	EF92403	24-Jun-09	24-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	4.9	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	2000	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*93.9 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*114 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.0 %*		*75-125*	"	"	"	"	

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS062209-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-09 17:08

DRAFT: Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DRAFT: MW-3 (E906076-03) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	77	1.0	ug/l	0.1	EF92403	24-Jun-09	24-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	0.5	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	400	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*99.3 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*92.4 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*105 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*		*75-125*	"	"	"	"	
DRAFT: MW-4 (E906076-04) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	89	1.0	ug/l	0.1	EF92403	24-Jun-09	24-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	370	5.0	"	1	"	"	24-Jun-09	"	
Toluene	2.0	0.5	"	0.1	"	"	24-Jun-09	"	
Ethylbenzene	58	0.5	"	"	"	"	"	"	
m,p-Xylene	11	1.0	"	"	"	"	"	"	
o-Xylene	0.6	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	24	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*97.1 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*96.5 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*104 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*		*75-125*	"	"	"	"	

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS062209-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-09 17:08

DRAFT: Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DRAFT: MW-6 (E906076-05) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	54	1.0	ug/l	0.1	EF92403	24-Jun-09	24-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	350	5.0	"	1	"	"	24-Jun-09	"	
Toluene	3.1	0.5	"	0.1	"	"	24-Jun-09	"	
Ethylbenzene	250	5.0	"	1	"	"	24-Jun-09	"	
m,p-Xylene	180	10	"	"	"	"	24-Jun-09	"	
o-Xylene	2.3	0.5	"	0.1	"	"	"	"	
Tert-butyl alcohol	22	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*101 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*96.1 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*112 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*		*75-125*		"	"	"	
DRAFT: MW-7 (E906076-06) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	ND	1.0	ug/l	0.1	EF92403	24-Jun-09	24-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	15	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*99.7 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*91.4 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*104 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*		*75-125*		"	"	"	

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SCS Engineers - San Diego	Project: SCS062209-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-09 17:08

DRAFT: Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DRAFT: MW-8 (E906076-07) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	ND	1.0	ug/l	0.1	EF92403	24-Jun-09	24-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	13	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	13	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*109 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*116 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*110 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*75-125*	"	"	"	"	
DRAFT: MW-9 (E906076-08) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	55	1.0	ug/l	0.1	EF92403	24-Jun-09	24-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	50	0.5	"	"	"	"	"	"	
Toluene	6.1	0.5	"	"	"	"	"	"	
Ethylbenzene	34	0.5	"	"	"	"	"	"	
m,p-Xylene	41	1.0	"	"	"	"	"	"	
o-Xylene	8.3	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	34	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99.0 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*108 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*		*75-125*	"	"	"	"	

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SCS Engineers - San Diego	Project: SCS062209-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-09 17:08

DRAFT: Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DRAFT: MW-10 (E906076-09) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	1.8	1.0	ug/l	0.1	EF92403	24-Jun-09	24-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	20	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*95.2 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*104 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*		*75-125*		"	"	"	
DRAFT: MW-11 (E906076-10) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	1.6	1.0	ug/l	0.1	EF92403	24-Jun-09	24-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	5.9	0.5	"	"	"	"	"	"	
Toluene	0.6	0.5	"	"	"	"	"	"	
Ethylbenzene	19	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	12	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*112 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*119 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*107 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*75-125*		"	"	"	

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SCS Engineers - San Diego	Project: SCS062209-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-09 17:08

DRAFT: Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DRAFT: MW-12 (E906076-11) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	14	1.0	ug/l	0.1	EF92403	24-Jun-09	24-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	32	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*108 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*114 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.3 %*		*75-125*	"	"	"	"	
DRAFT: MW-13 (E906076-12) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	ND	1.0	ug/l	0.1	EF92403	24-Jun-09	24-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	11	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*100 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.3 %*		*75-125*	"	"	"	"	

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SCS Engineers - San Diego	Project: SCS062209-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-09 17:08

DRAFT: Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DRAFT: MW-14 (E906076-13) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	540	20	ug/l	2	EF92507	25-Jun-09	25-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	20	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	20	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	20	"	"	"	"	"	"	
Benzene	3600	10	"	"	"	"	"	"	
Toluene	160	10	"	"	"	"	"	"	
Ethylbenzene	1900	10	"	"	"	"	"	"	
m,p-Xylene	2800	20	"	"	"	"	"	"	
o-Xylene	190	10	"	"	"	"	"	"	
Tert-butyl alcohol	110	100	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*122 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*102 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.9 %*		*75-125*		"	"	"	
DRAFT: MW-15 (E906076-14) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	35	20	ug/l	2	EF92507	25-Jun-09	25-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	20	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	20	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	20	"	"	"	"	"	"	
Benzene	820	10	"	"	"	"	"	"	
Toluene	250	10	"	"	"	"	"	"	
Ethylbenzene	2800	10	"	"	"	"	"	"	
m,p-Xylene	6100	100	"	10	"	"	"	"	
o-Xylene	830	10	"	2	"	"	"	"	
Tert-butyl alcohol	ND	100	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*103 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*115 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*102 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.1 %*		*75-125*		"	"	"	

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS062209-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
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DRAFT: Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DRAFT: MW-16 (E906076-15) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	100	20	ug/l	2	EF92507	25-Jun-09	25-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	20	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	20	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	20	"	"	"	"	"	"	
Benzene	120	10	"	"	"	"	"	"	
Toluene	16	10	"	"	"	"	"	"	
Ethylbenzene	220	10	"	"	"	"	"	"	
m,p-Xylene	33	20	"	"	"	"	"	"	
o-Xylene	ND	10	"	"	"	"	"	"	
Tert-butyl alcohol	170	100	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*99.0 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*112 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*101 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.7 %*		*75-125*	"	"	"	"	
DRAFT: MW-17 (E906076-16) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Methyl tert-butyl ether	2.4	1.0	ug/l	0.05	EF92605	26-Jun-09	26-Jun-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	0.7	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	15	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*98.5 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99.2 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*112 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.6 %*		*75-125*	"	"	"	"	

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS062209-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-09 17:08

DRAFT: TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DRAFT: MW-9 (E906076-08) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
DRAFT: MW-10 (E906076-09) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
DRAFT: MW-11 (E906076-10) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
DRAFT: MW-12 (E906076-11) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
DRAFT: MW-13 (E906076-12) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
DRAFT: MW-14 (E906076-13) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
DRAFT: MW-15 (E906076-14) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS062209-10	
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DRAFT: TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DRAFT: MW-1 (E906076-01) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
DRAFT: MW-2 (E906076-02) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
DRAFT: MW-3 (E906076-03) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
DRAFT: MW-4 (E906076-04) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
DRAFT: MW-6 (E906076-05) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
DRAFT: MW-7 (E906076-06) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
DRAFT: MW-8 (E906076-07) Water Sampled: 18-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego 8799 Balboa Avenue, Suite 290 San Diego, CA 92123	Project: SCS062209-10 Project Number: 01208473.00 / Wigington Petroleum Project Manager: Mr. Chuck Houser	Reported: 26-Jun-09 17:08

DRAFT: TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DRAFT: MW-16 (E906076-15) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
DRAFT: MW-17 (E906076-16) Water Sampled: 19-Jun-09 Received: 22-Jun-09									
Gasoline (C5-C11)	1600	500	ug/l	1	EF92304	23-Jun-09	23-Jun-09	DHS LUFT	G-25
Diesel (C12-C24)	730	500	"	"	"	"	"	"	G-25

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS062209-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-09 17:08

DRAFT: Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF92403 - EPA 5030										
Blank (EF92403-BLK1)				Prepared & Analyzed: 24-Jun-09						
Methyl tert-butyl ether	ND	1.0	ug/l							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
Tert-amyl methyl ether	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tert-butyl alcohol	ND	5.0	"							
Surrogate: Dibromofluoromethane	*5.34*		"	*5.00*		*107*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*4.95*		"	*5.00*		*99.0*	*62-139*			
Surrogate: Toluene-d8	*5.18*		"	*5.00*		*104*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*5.07*		"	*5.00*		*101*	*75-125*			
LCS (EF92403-BS1)				Prepared & Analyzed: 24-Jun-09						
Benzene	4.44	0.5	ug/l	5.00		88.8	75-125			
Toluene	4.25	0.5	"	5.00		84.9	74-125			
Surrogate: Dibromofluoromethane	*5.01*		"	*5.00*		*100*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*4.56*		"	*5.00*		*91.3*	*62-139*			
Surrogate: Toluene-d8	*4.97*		"	*5.00*		*99.4*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*4.95*		"	*5.00*		*99.0*	*75-125*			
LCS Dup (EF92403-BSD1)				Prepared & Analyzed: 24-Jun-09						
Benzene	4.50	0.5	ug/l	5.00		90.0	75-125	1.41	20	
Toluene	4.33	0.5	"	5.00		86.7	74-125	2.03	20	
Surrogate: Dibromofluoromethane	*5.25*		"	*5.00*		*105*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*4.92*		"	*5.00*		*98.4*	*62-139*			
Surrogate: Toluene-d8	*5.14*		"	*5.00*		*103*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*4.70*		"	*5.00*		*93.9*	*75-125*			

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS062209-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-09 17:08

DRAFT: Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF92507 - EPA 5030										
Blank (EF92507-BLK1)				Prepared & Analyzed: 25-Jun-09						
Methyl tert-butyl ether	ND	1.0	ug/l							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
Tert-amyl methyl ether	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tert-butyl alcohol	ND	5.0	"							
Surrogate: Dibromofluoromethane	*2.56*		"	*2.50*		*102*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.95*		"	*2.50*		*118*	*62-139*			
Surrogate: Toluene-d8	*2.46*		"	*2.50*		*98.2*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.55*		"	*2.50*		*102*	*75-125*			
LCS (EF92507-BS1)				Prepared & Analyzed: 25-Jun-09						
Benzene	2.49	0.5	ug/l	2.50		99.6	75-125			
Toluene	2.50	0.5	"	2.50		99.9	74-125			
Surrogate: Dibromofluoromethane	*2.56*		"	*2.50*		*102*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.88*		"	*2.50*		*115*	*62-139*			
Surrogate: Toluene-d8	*2.50*		"	*2.50*		*100*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.38*		"	*2.50*		*95.3*	*75-125*			
LCS Dup (EF92507-BSD1)				Prepared & Analyzed: 25-Jun-09						
Benzene	2.53	0.5	ug/l	2.50		101	75-125	1.38	20	
Toluene	2.48	0.5	"	2.50		99.4	74-125	0.522	20	
Surrogate: Dibromofluoromethane	*2.55*		"	*2.50*		*102*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.98*		"	*2.50*		*119*	*62-139*			
Surrogate: Toluene-d8	*2.47*		"	*2.50*		*98.9*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.42*		"	*2.50*		*96.8*	*75-125*			

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS062209-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-09 17:08

DRAFT: Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF92605 - EPA 5030										
Blank (EF92605-BLK1)				Prepared & Analyzed: 26-Jun-09						
Methyl tert-butyl ether	ND	1.0	ug/l							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
Tert-amyl methyl ether	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tert-butyl alcohol	ND	5.0	"							
Surrogate: Dibromofluoromethane	*2.51*		"	*2.50*		*100*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.69*		"	*2.50*		*108*	*62-139*			
Surrogate: Toluene-d8	*2.47*		"	*2.50*		*98.8*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.40*		"	*2.50*		*95.9*	*75-125*			
LCS (EF92605-BS1)				Prepared & Analyzed: 26-Jun-09						
Benzene	2.46	0.5	ug/l	2.50		98.6	75-125			
Toluene	2.41	0.5	"	2.50		96.6	74-125			
Surrogate: Dibromofluoromethane	*2.51*		"	*2.50*		*100*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.65*		"	*2.50*		*106*	*62-139*			
Surrogate: Toluene-d8	*2.46*		"	*2.50*		*98.3*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.36*		"	*2.50*		*94.2*	*75-125*			
LCS Dup (EF92605-BSD1)				Prepared & Analyzed: 26-Jun-09						
Benzene	2.45	0.5	ug/l	2.50		97.9	75-125	0.733	20	
Toluene	2.36	0.5	"	2.50		94.5	74-125	2.11	20	
Surrogate: Dibromofluoromethane	*2.58*		"	*2.50*		*103*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.65*		"	*2.50*		*106*	*62-139*			
Surrogate: Toluene-d8	*2.43*		"	*2.50*		*97.1*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.40*		"	*2.50*		*96.0*	*75-125*			

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS062209-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-09 17:08

DRAFT: TPH by GC FID - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF92304 - LUFT-DHS										
Blank (EF92304-BLK1)				Prepared & Analyzed: 23-Jun-09						
Gasoline (C5-C11)	ND	500	ug/l							
Diesel (C12-C24)	ND	500	"							
Matrix Spike (EF92304-MS1)		Source: E906076-10		Prepared & Analyzed: 23-Jun-09						
Gasoline (C5-C11)	1970	500	ug/l	2000	ND	98.6	75-125			
Diesel (C12-C24)	4150	500	"	5000	ND	83.1	75-125			
Matrix Spike Dup (EF92304-MSD1)		Source: E906076-10		Prepared & Analyzed: 23-Jun-09						
Gasoline (C5-C11)	1960	500	ug/l	2000	ND	97.8	75-125	0.815	30	
Diesel (C12-C24)	4140	500	"	5000	ND	82.7	75-125	0.410	30	

Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS062209-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-09 17:08

Notes and Definitions

G-25	The hydrocarbon resembles weathered gasoline.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Chain of Custody Record

Date: 6/19/09

H&P Mobile Geochemistry Inc
☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

H&P Project #:
Outside Lab:

Client: SCS Engineers
Address: 8799 Balboa Ave, Suite 290
San Diego, CA 92123
Email: ccrosby@scsengineers.com

Collector: Chris Crosby / Sean Roy
Client Project #: 01208473.00
Location: Wilmington Petroleum; 11427 Woodside Ave, Santee, CA
Phone: 858-571-5500 Fax: 858-571-5357

Page: 1 of 2
Project Contact: Chuck Hauser
Turn around time: Normal

Geotracker EDF: Yes ☒ No ☐
Global ID:
Excel EDD: Yes ☐ No ☐

Sample Receipt
Intact: ☐ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☐ N/A
Cold: ☐ Yes ☐ No ☐ N/A
Temperature:

Special Instructions:

Lab Work Order #:

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B MTBE ☒ BTEX/OXY ☐ TPH gas	8015M TPH ☒ g ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☐ TO-15	VOC's: Short List/DISC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS										
MW-1			1645	6/18/09	GW	VOA	6		X	X												
MW-2			1400	6/19/09					X	X												
MW-3			1205	↓					X	X												
MW-4			1420	6/18/09					X	X												
MW-6			1020	6/19/09					X	X												
MW-7			1240	6/18/09					X	X												
MW-8			1005	↓					X	X												
MW-9			0920	6/19/09					X	X												
MW-10			1545	6/18/09					X	X												
MW-11			1451	↓	↓	↓	↓		X	X												

Relinquished by: (Signature) Sean Roy	6/22/09	(company) SCS Engineers	Received by: (Signature)	(company) H&P	Date: 6/22/09	Time: 1015
Relinquished by: (Signature)		(company)	Received by: (Signature)	(company)	Date:	Time:
Relinquished by: (Signature)		(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☒ Disposal ☐ Return to client ☐ Pickup

Chain of Custody Record

H&P Mobile Geochemistry Inc.

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☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 6/19/09
H&P Project #:
Outside Lab:

Client: SCS Engineers
Address: 8799 Balboa Ave., Ste 290
San Diego, CA 92123
Email: ccrosby@scsengineers.com

Collector: Chris Crosby / Sean Roy
Client Project #: 01208473.00
Location: Wigmaton Petroleum 11427 Woodside Ave., Santee CA
Phone: 858-571-5500 Fax: 858-571-5557

Page: 2 of 2
Project Contact: Chuck Houser
Turn around time: Normal

Geotracker EDF: Yes ☑ No ☐
Global ID:
Excel EDD: Yes ☐ No ☐

Sample Receipt
Intact: ☐ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☐ N/A
Cold: ☐ Yes ☐ No ☐ N/A
Temperature:

Special Instructions:

Lab Work Order #:

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	SOIL/GW: 8260B Full List	8260B MTBE ☒ BTEX/OXY ☐ TPH gas	8015M TPH ☒ g ☐ ext	418.1 TRPH	SOIL VAPOR/AIR ANALYSIS: VOC's: Full List ☐ 8260B ☐ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1-DFA ☐ OTHER	Methane	Fixed Gases ☐ CO2 ☐ O2 ☐ N2	
MW-12			1217	6/18/09	GW	VOA	6		X	X												
MW-13			1330	↓					X	X												
MW-14			1010	6/19/09					X	X												
MW-15			0905						X	X												
MW-16			0810						X	X												
MW-17			0845	↓	↓	↓	↓		X	X												

Relinquished by: (Signature) Sean Roy	6/22/09	(company) SCS Engineers	Received by: (Signature)	(company) H&P	Date: 6/22/09 Time: 1745
Relinquished by: (Signature)		(company)	Received by: (Signature)	(company)	Date: Time:
Relinquished by: (Signature)		(company)	Received by: (Signature)	(company)	Date: Time:

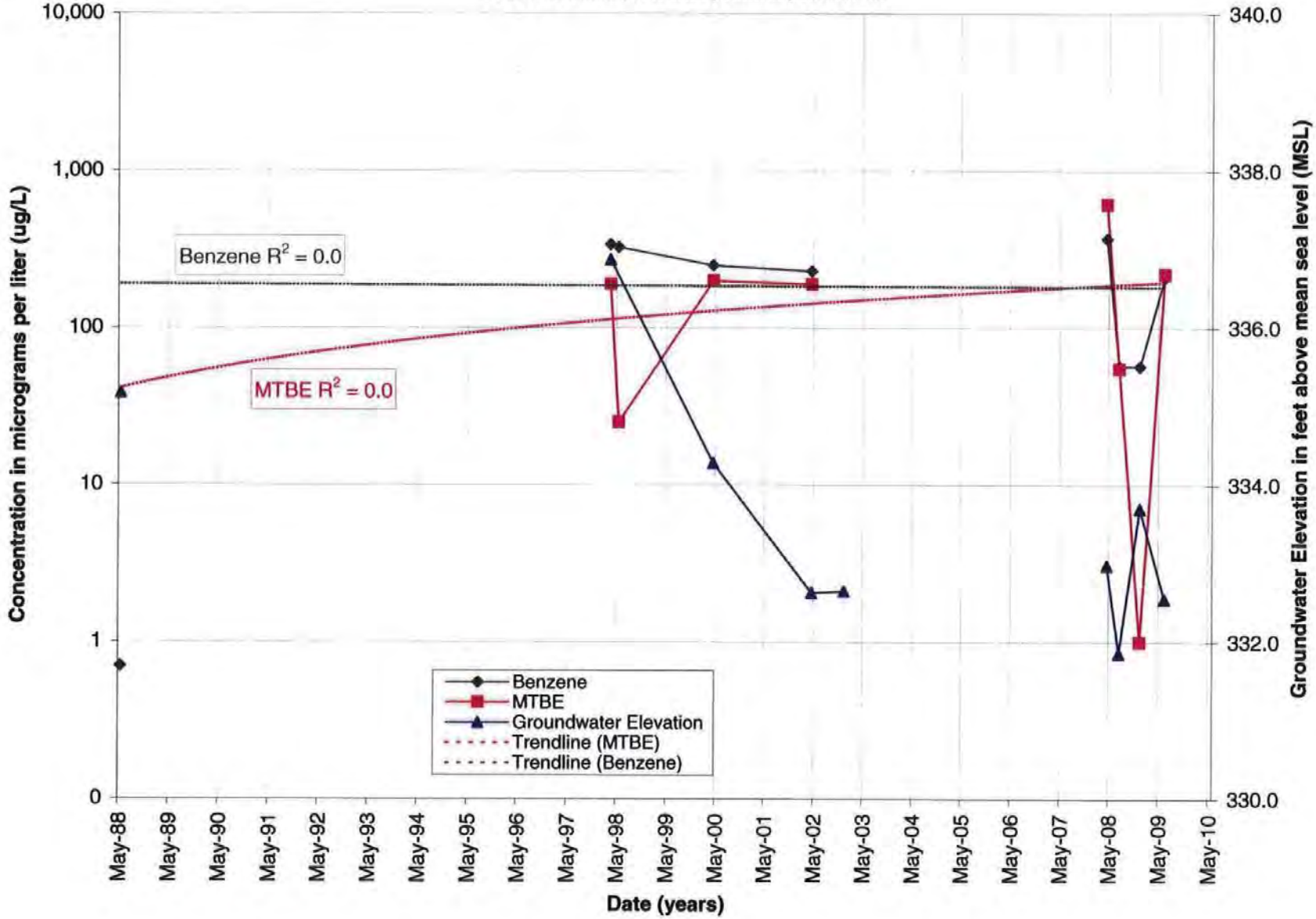
*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☒ Disposal ☐ Return to client ☐ Pickup

APPENDIX D

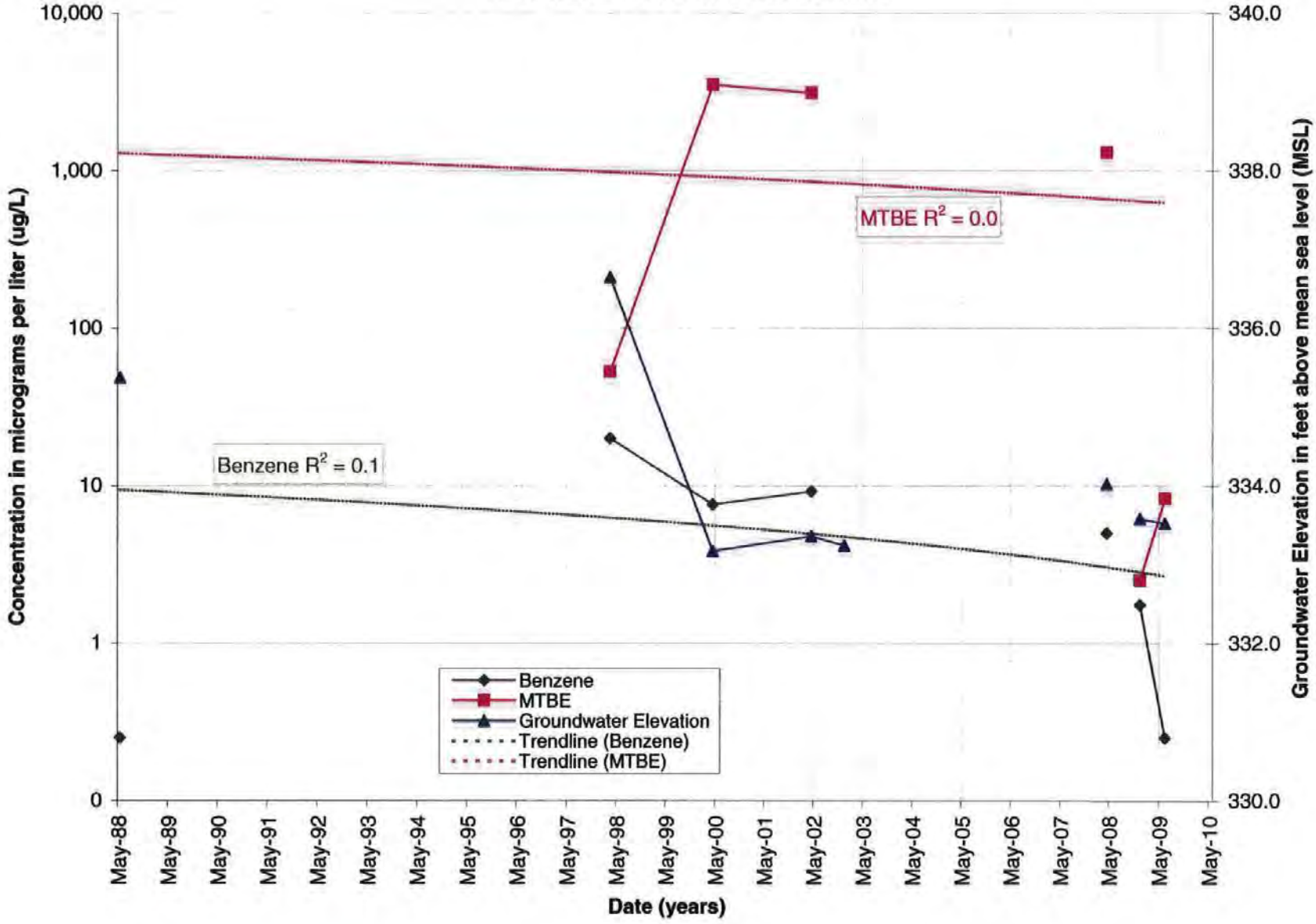
HYDROGRAPHS

MW-1
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



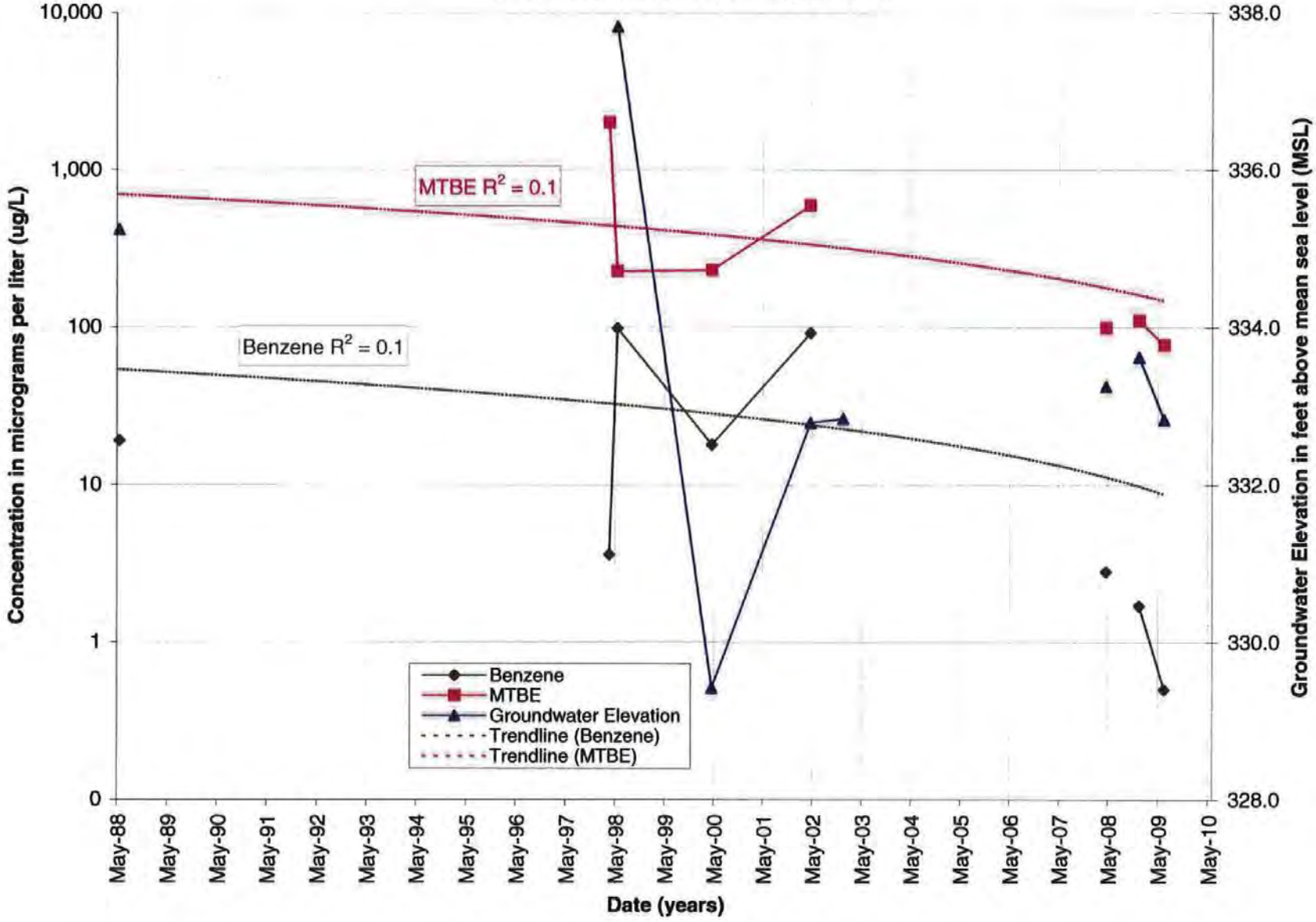
SCS ENGINEERS

MW-2
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



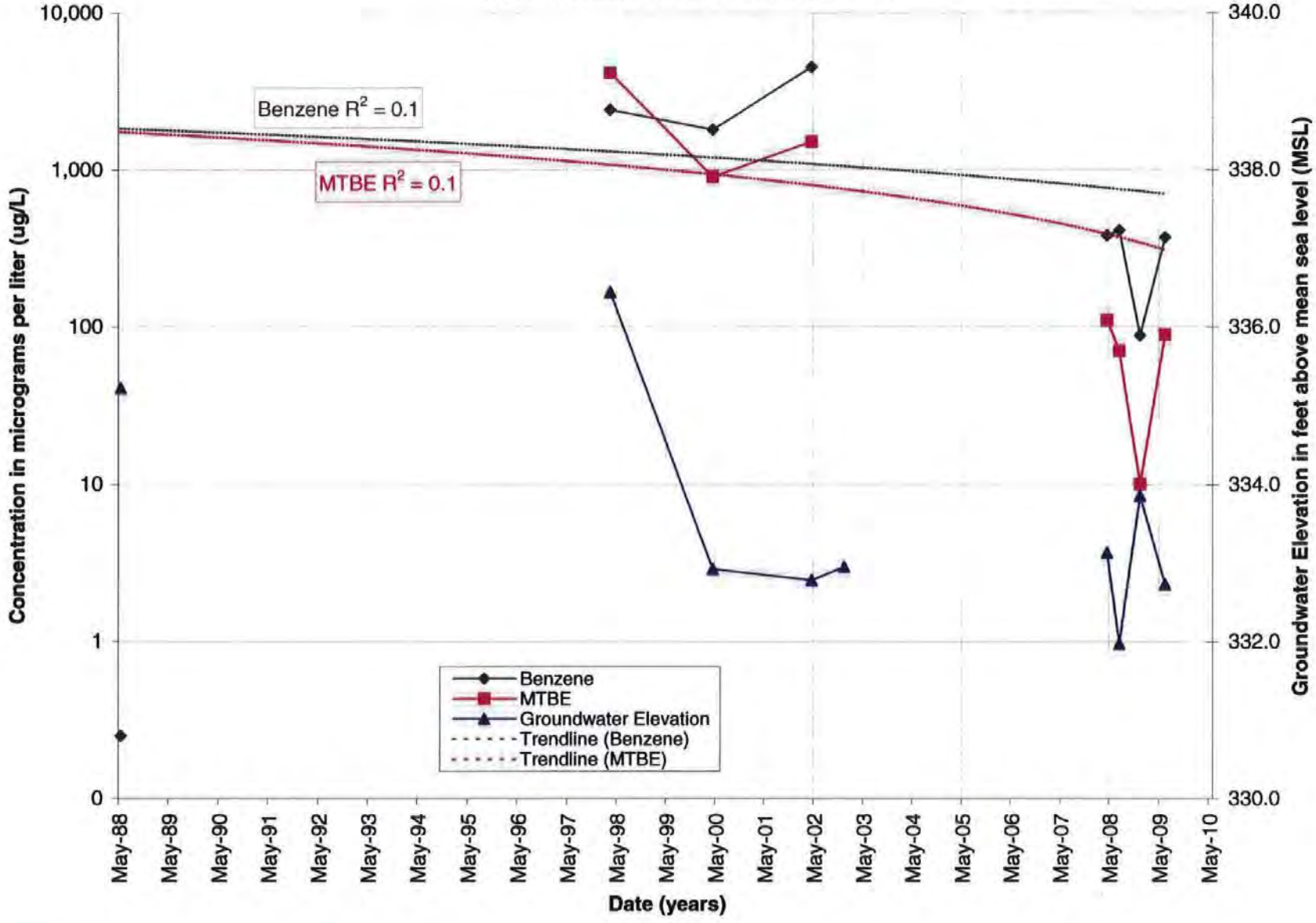
SCS ENGINEERS

MW-3
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



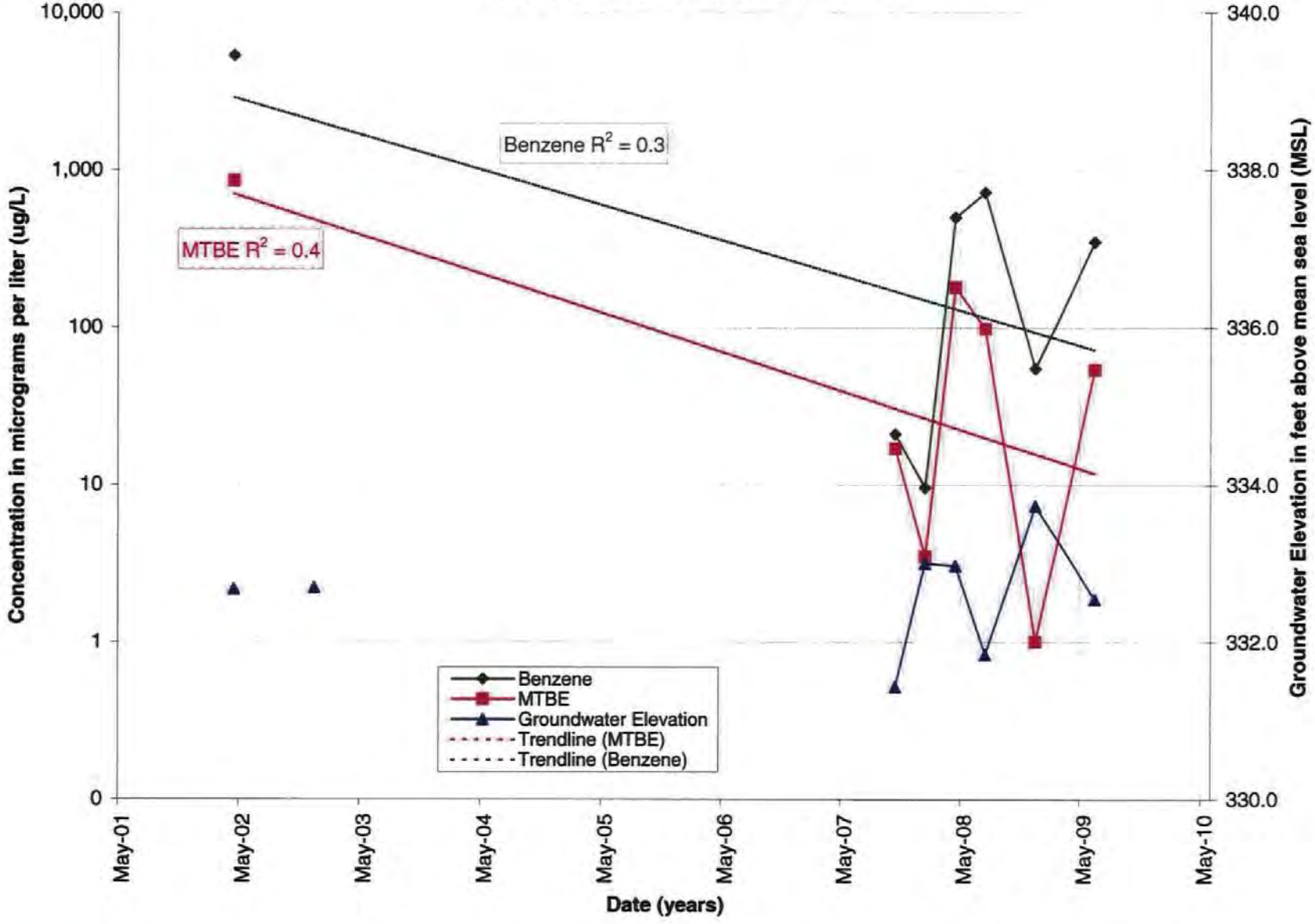
SCS ENGINEERS

MW-4
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



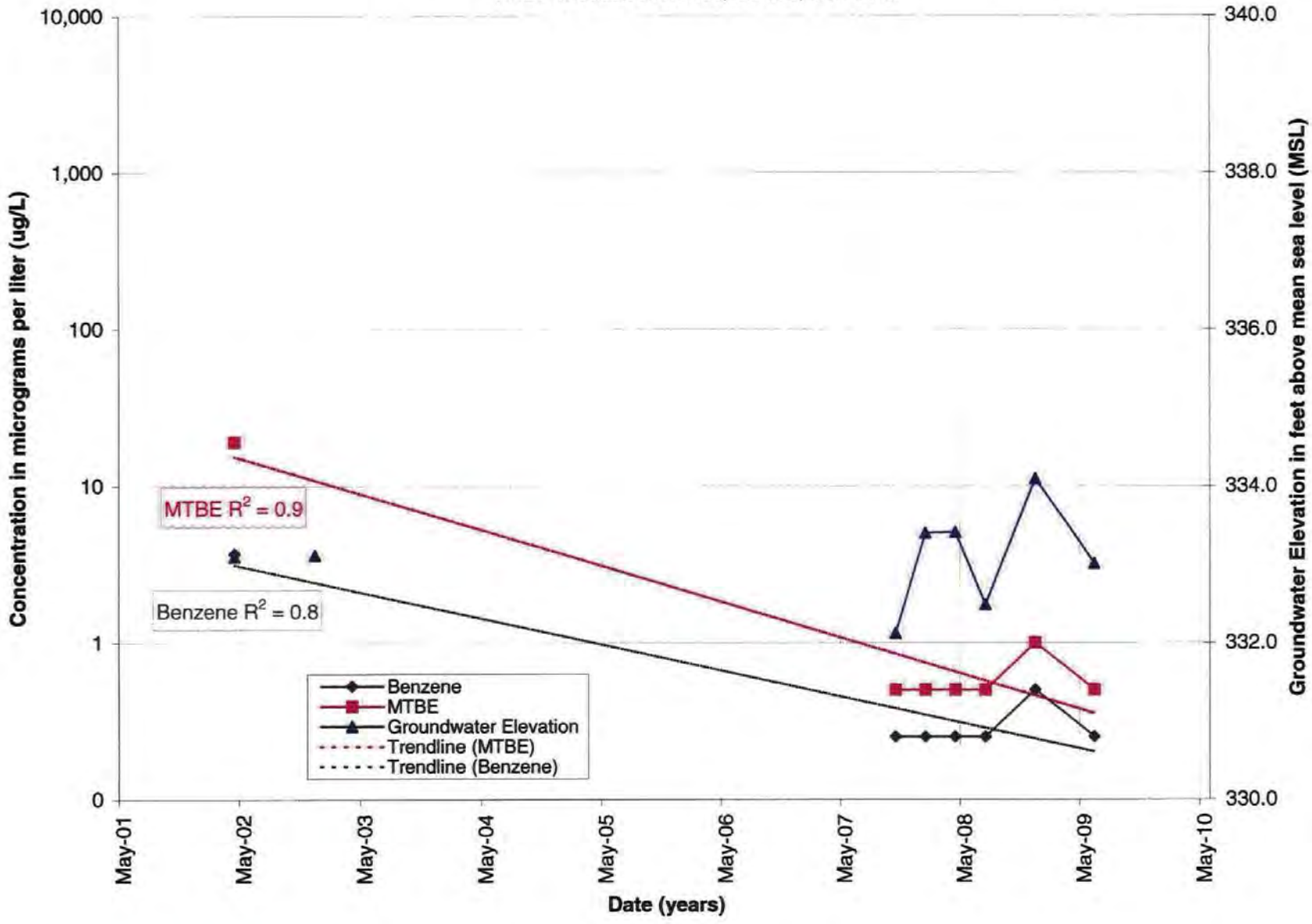
SCS ENGINEERS

MW-6
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



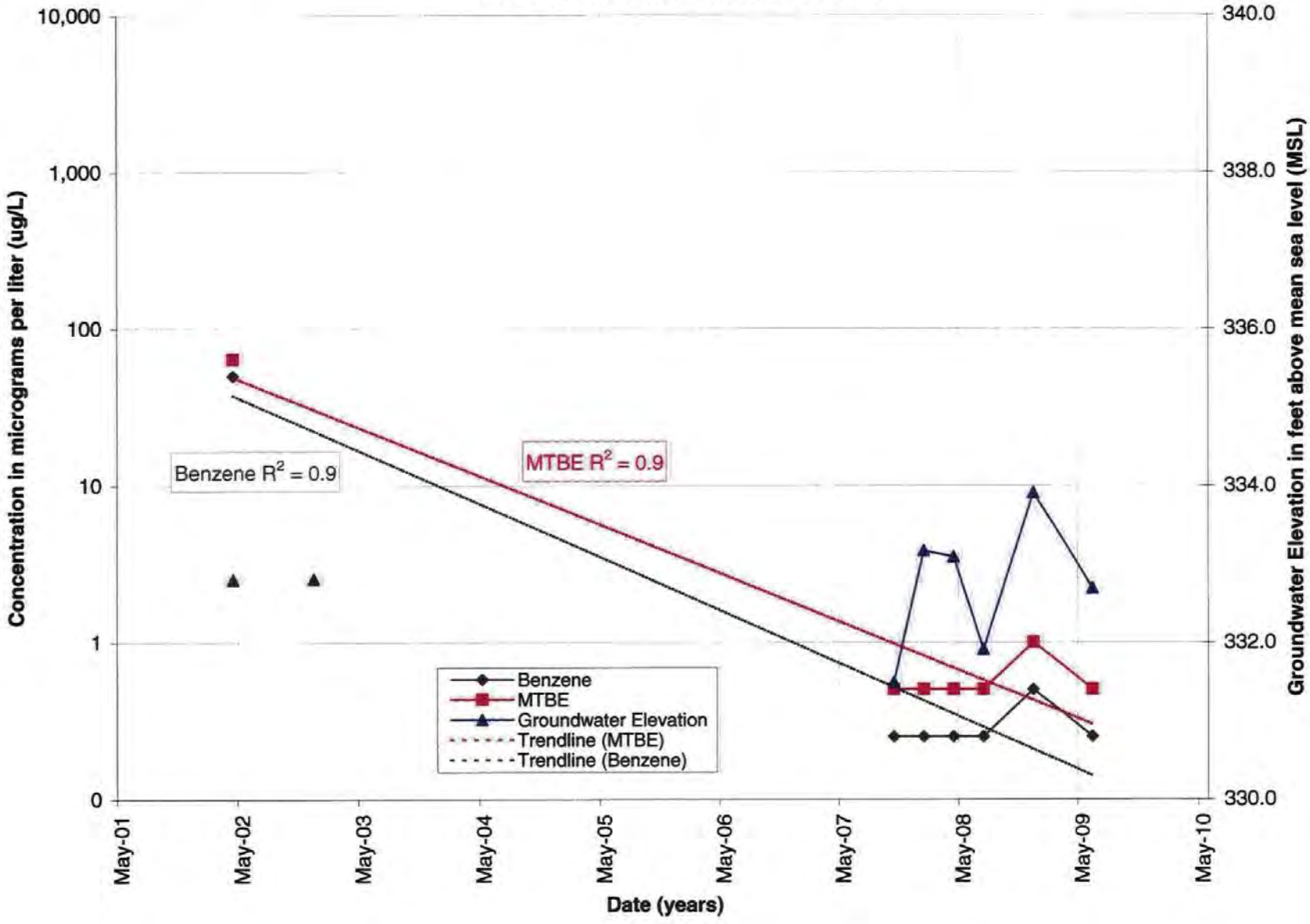
SCS ENGINEERS

MW-7
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



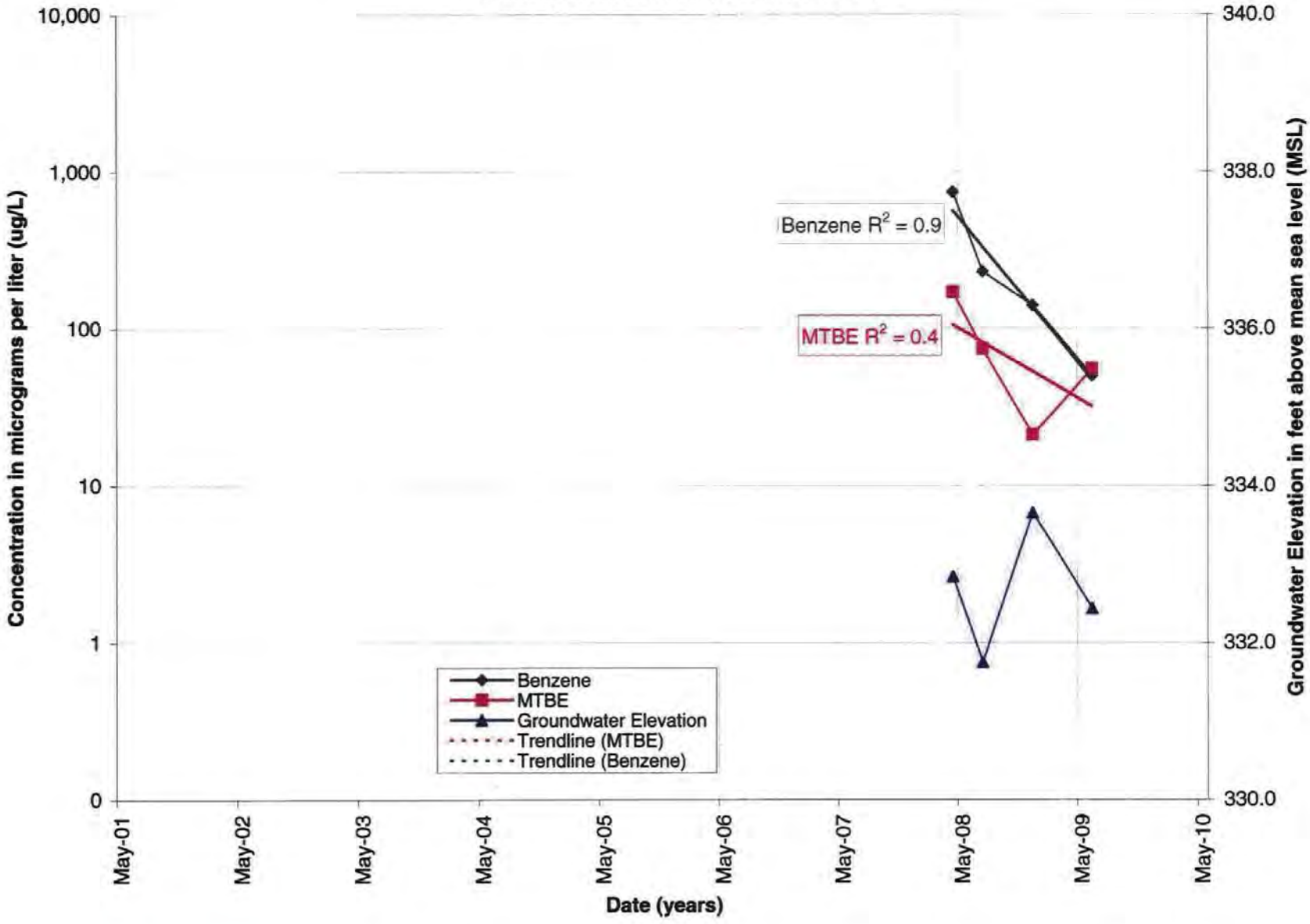
SCS ENGINEERS

MW-8
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



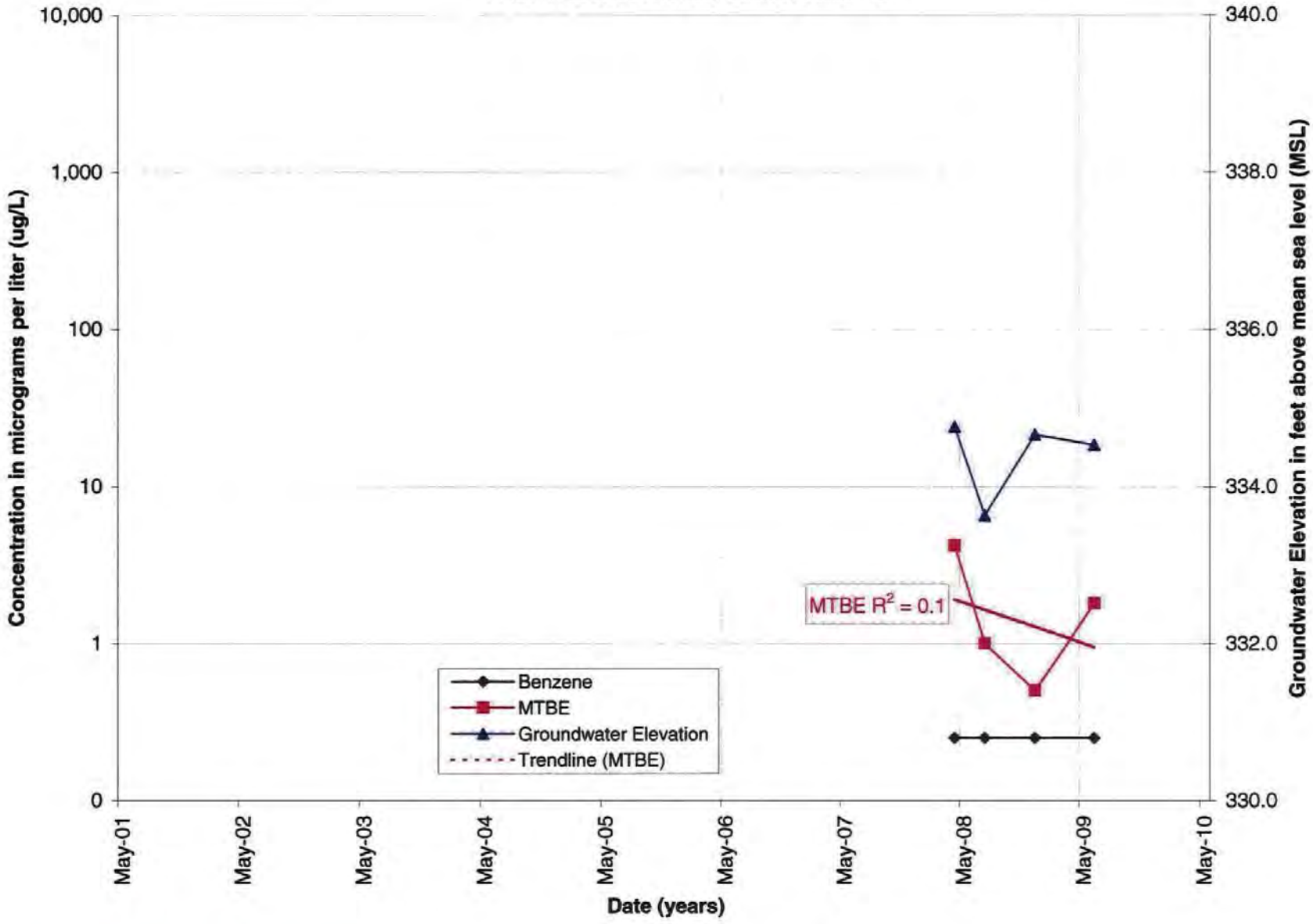
SCS ENGINEERS

MW-9
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



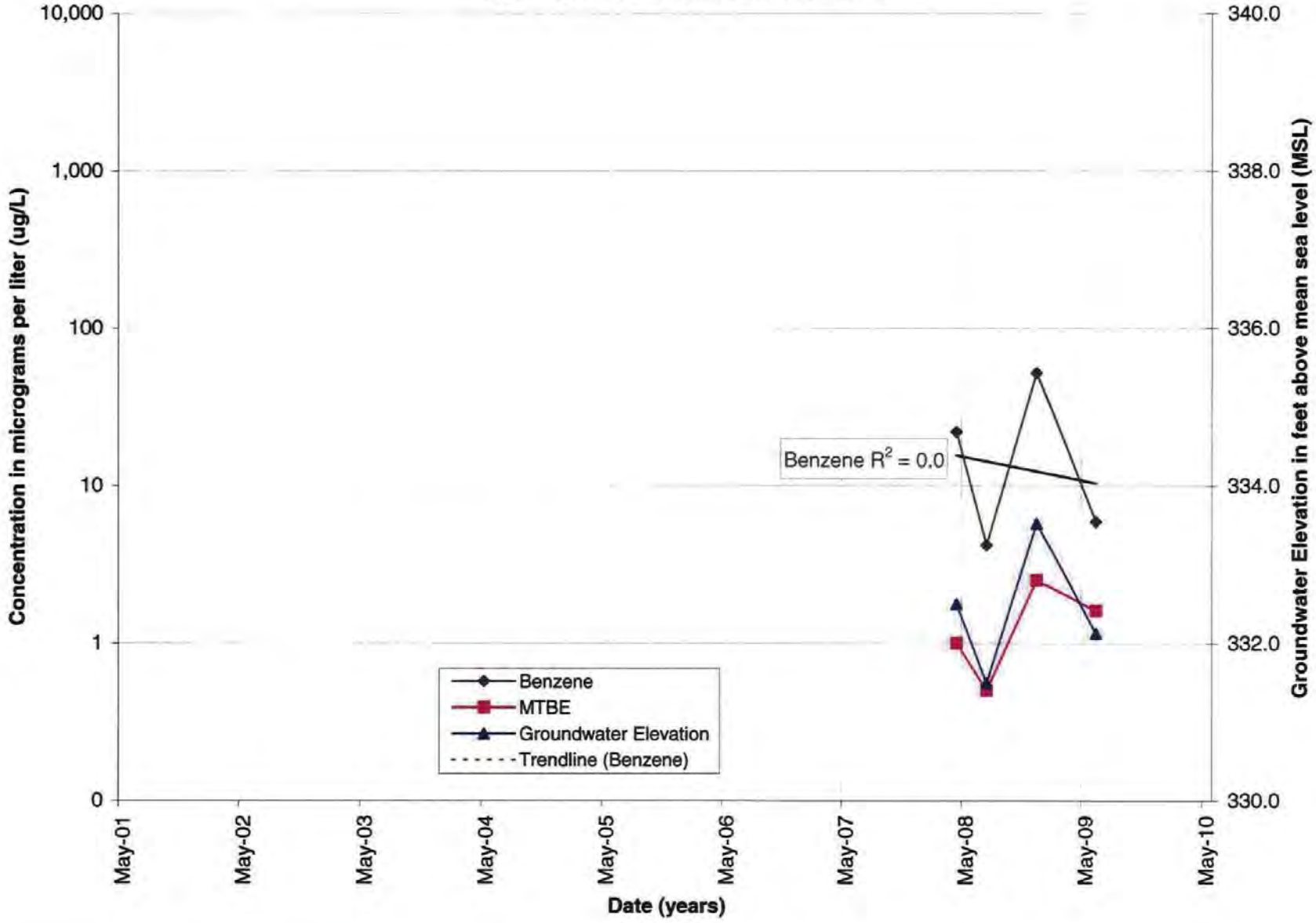
SCS ENGINEERS

MW-10
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



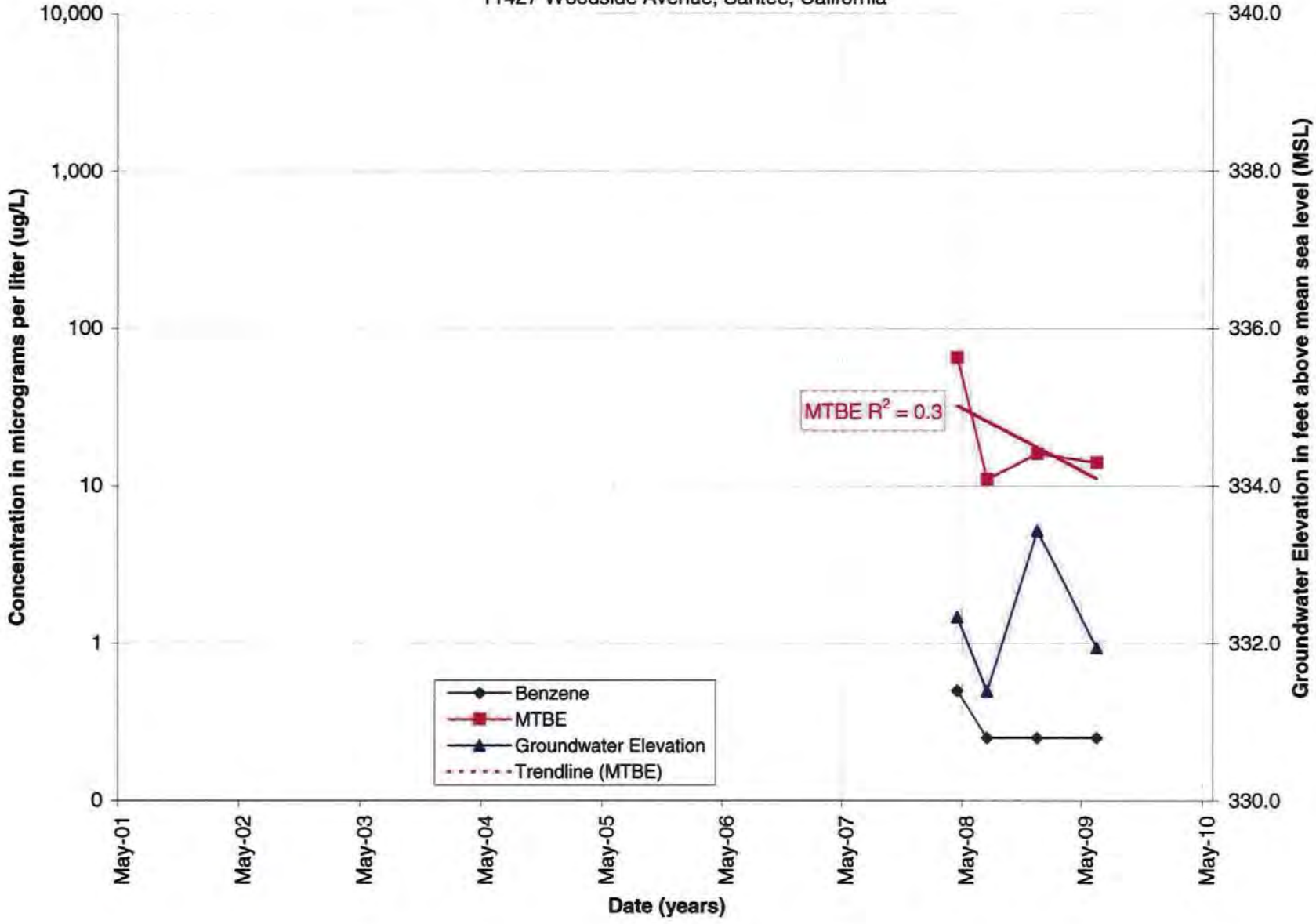
SCS ENGINEERS

MW-11
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



SCS ENGINEERS

MW-12
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



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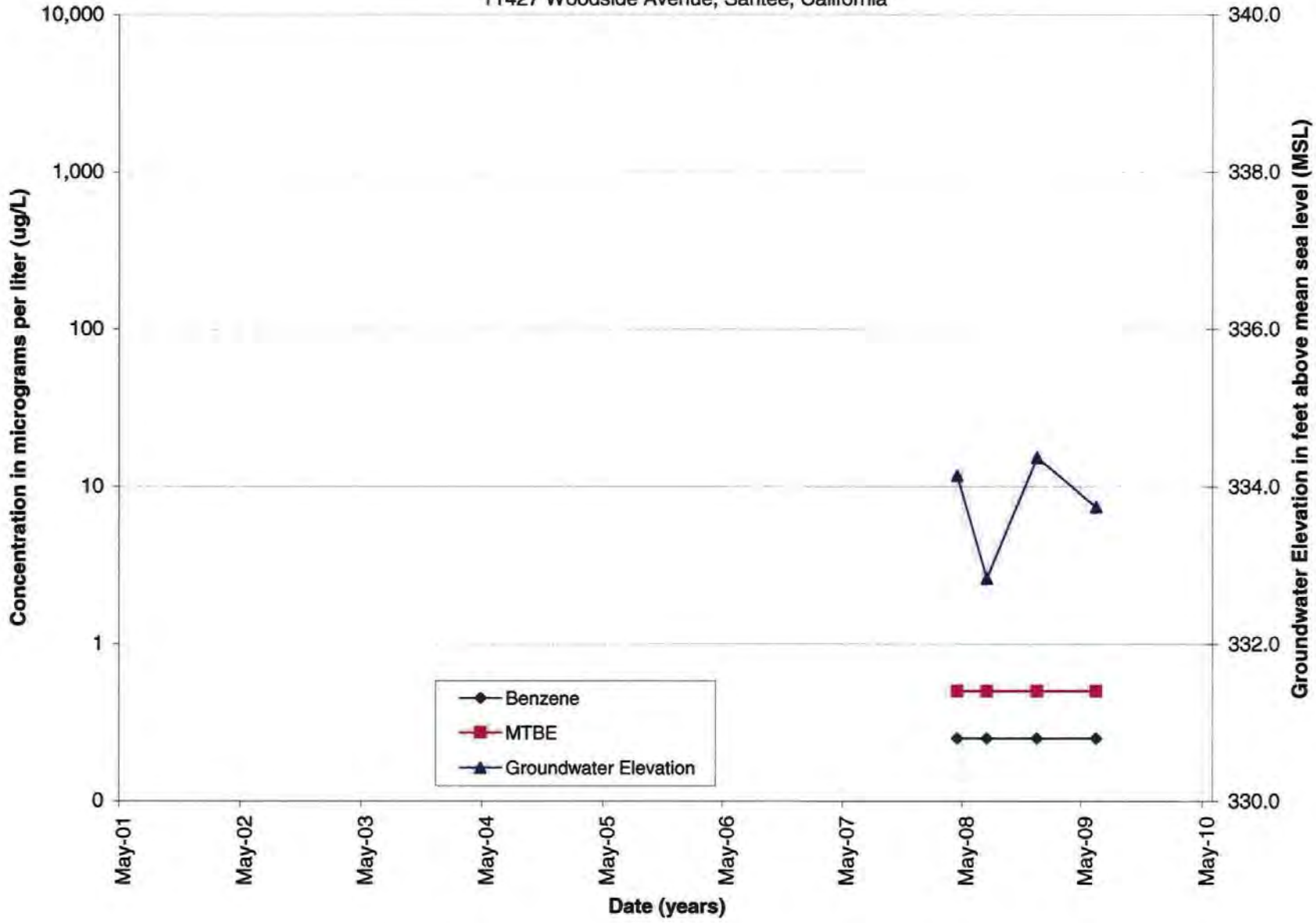
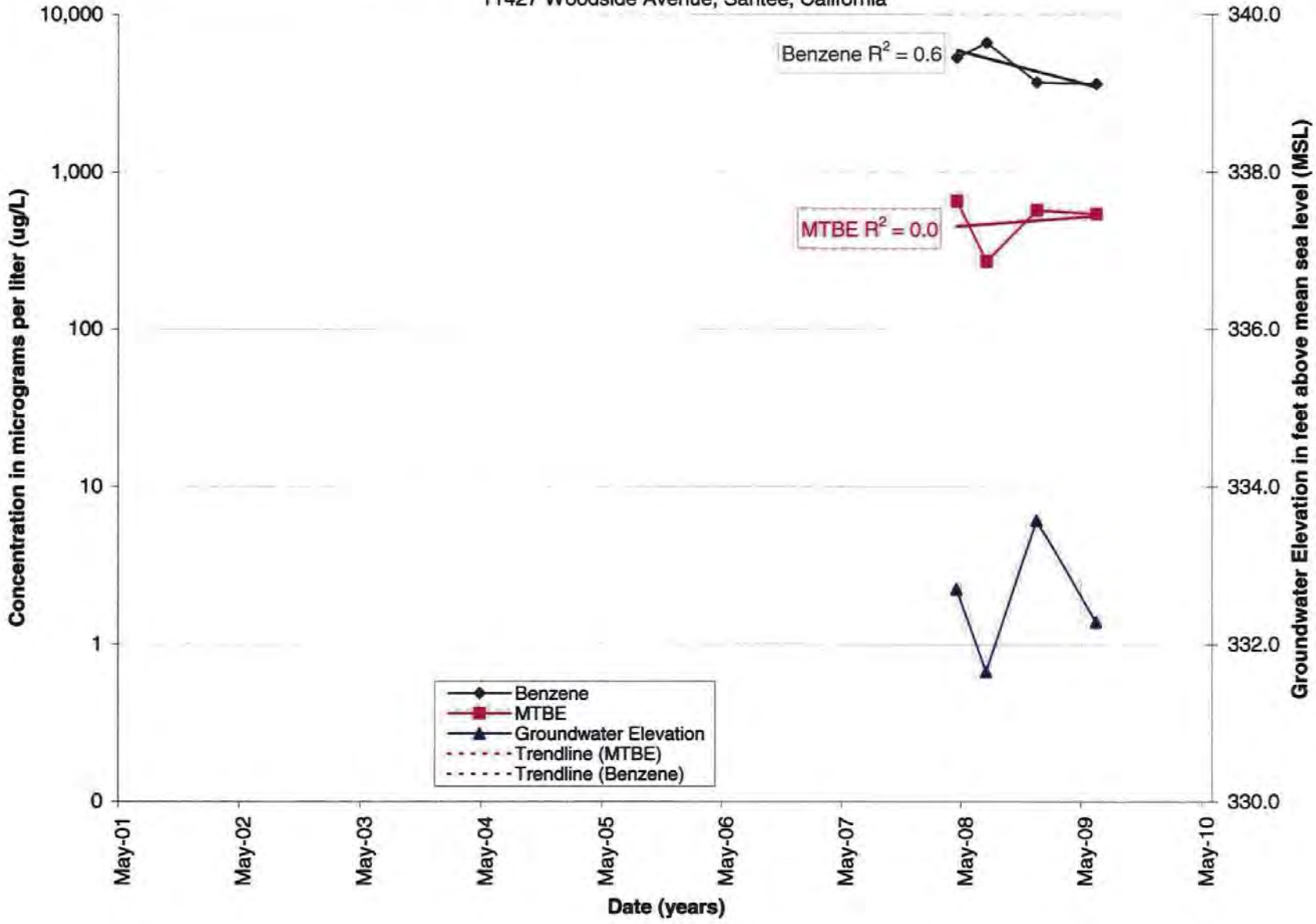
MW-13
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



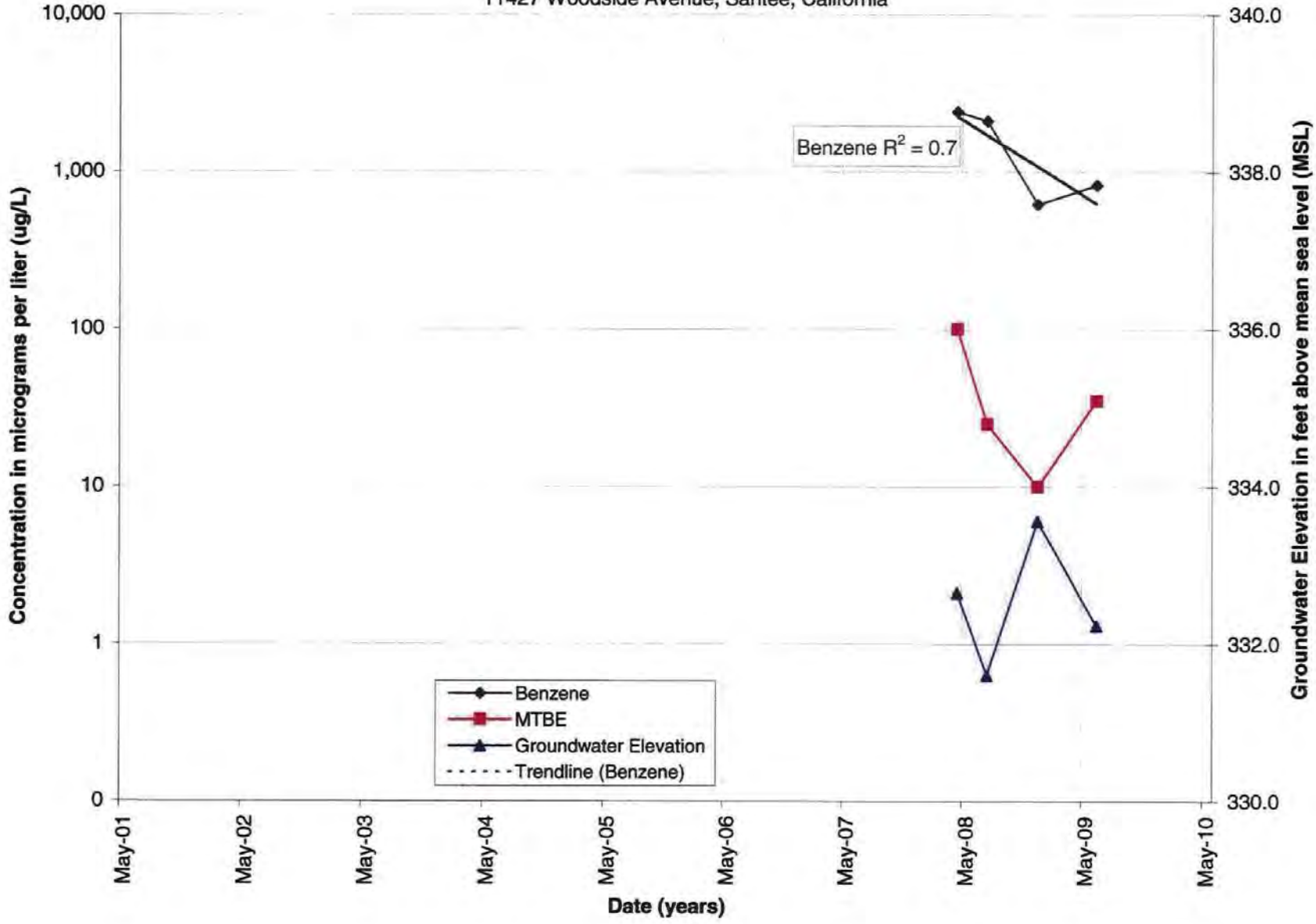
SCS ENGINEERS

MW-14
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



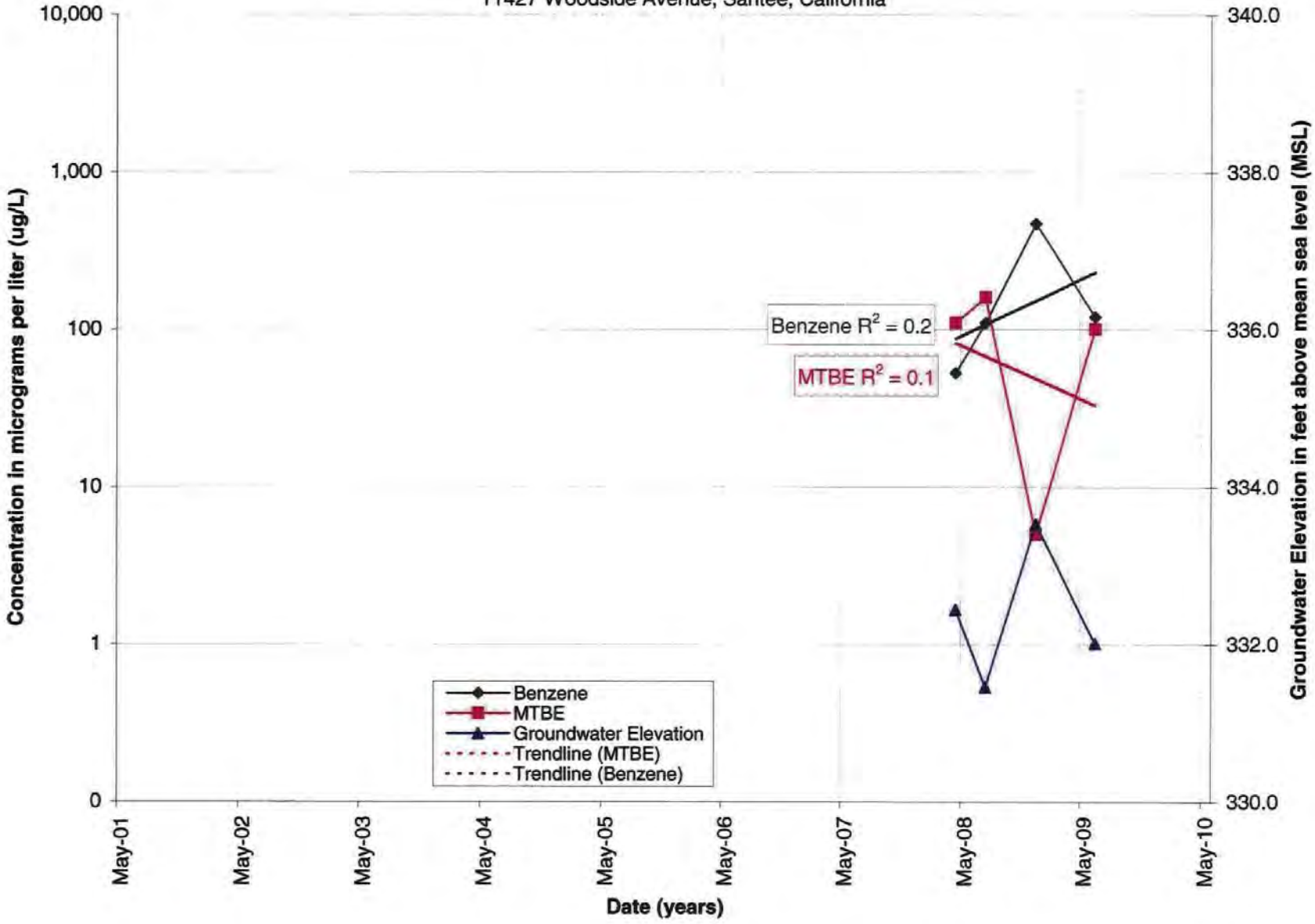
SCS ENGINEERS

MW-15
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



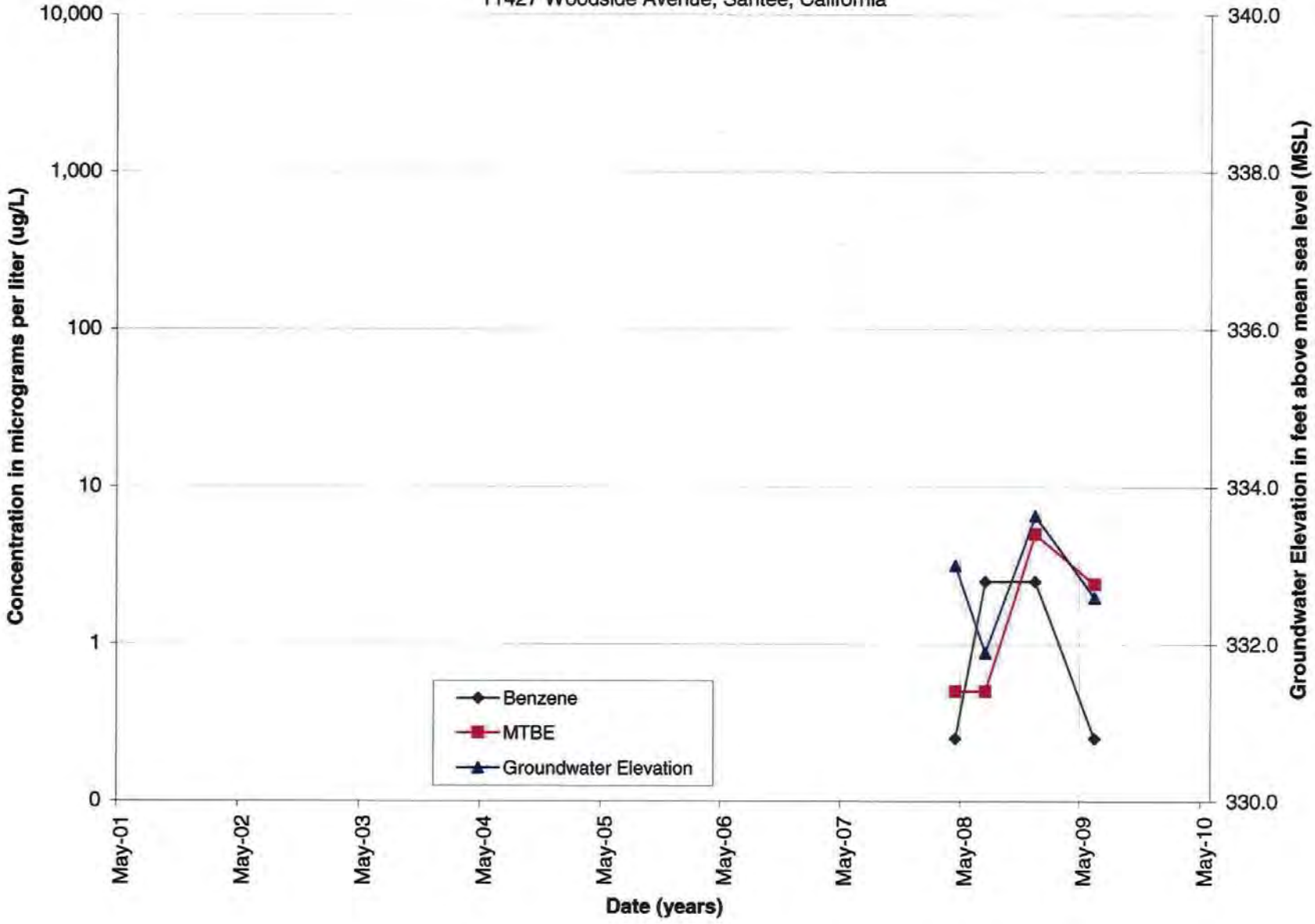
SCS ENGINEERS

MW-16
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



SCS ENGINEERS

MW-17
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



SCS ENGINEERS

PETRA

GEOLOGISTS □ ENGINEERS

COSTA MESA □ LOS ANGELES □ SAN DIEGO □ MURRIETA

ENVIRONMENTAL SCIENTISTS

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RECEIVED
FEB 23 2009
ENVIRONMENTAL HEALTH

LETTER OF TRANSMITTAL

DATE: February 19, 2009 **JN NO.** 252-06

COMPANY: WIGINGTON PETROLEUM, INC.
c/o William L. Fischbeck, Esq.
5464 Grossmont Center Drive, Third Floor
La Mesa, California 91942

ATTN: Ms. Linda Wigington

FROM: James S. Olbinski/kms

COPIES: 1 **DATED**: February 19, 2009

SUBJECT: Fourth Quarter 2008 Groundwater Monitoring and Sampling Report, Wigington Petroleum, 11427 Woodside Avenue, Santee, California, T0948/H19469-001/APN 382-320-06.

TRANSMITTED VIA: UPS

ADDITIONAL COPIES:

1) SAM Program, Attention: Ms. Teresa Sherman
1) UST Cleanup Fund with Reimbursement Request

COMMENTS:

Riverside County

38655 Sky Canyon Drive, Suite A
Murrieta, California 92563
951-600-9271

PETRA

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Engineers, Geologists
Environmental Scientists

February 19, 2009
J.N. 252-06

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FEB 23 2009
ENVIRONMENTAL HEALTH

Ms. Linda Wigington
WIGINGTON PETROLEUM, INC.
c/o William L. Fischbeck, Esq.
5464 Grossmont Center Drive, Third Floor
La Mesa, California 91942

Subject: **Fourth Quarter 2008 Groundwater Monitoring and Sampling Report, Wigington Petroleum, 11427 Woodside Avenue, Santee, California, T0948/H19469-001/APN 382-320-06.**

Dear Ms. Wigington:

The Environmental Division of **Petra Geotechnical, Inc. (Petra)** is pleased to present this quarterly groundwater monitoring and sampling report for the above-referenced site. The purpose of the investigation was to perform quarterly groundwater monitoring and sampling pursuant to the requirements of the San Diego County Site Assessment and Mitigation (SAM) Program. The subject monitoring was conducted in accordance with our original proposal (P.N. 1177-06, April 19, 2006) and subsequent change order (J.N. 252-06, February 12, 2008).

If there are any questions or comments regarding the scope of work performed or methodology, please call the undersigned at (951) 600-9271.

Respectfully submitted,

Petra Geotechnical, Inc.
ENVIRONMENTAL DIVISION

PROFESSIONAL GEOLOGIST
JAMES S. OLBINSKI
NO. 1462
CERTIFIED
ENGINEERING
GEOLOGIST
11-09
STATE OF CALIFORNIA

James S. Olbinski, CEG 1462
Associate Geologist

JSO/GRW/JL/kms

Distribution: 1) Addressee
1) SAM Program, Attention: Ms. Teresa Sherman
1) UST Cleanup Fund with Reimbursement Request

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FOURTH QUARTER 2008
GROUNDWATER MONITORING AND SAMPLING REPORT

Wigington Petroleum
11427 Woodside Avenue, Santee, California
T0948/H19469-001/APN 382-320-06

SITE LOCATION AND BACKGROUND

The site is located at 11427 Woodside Avenue in Santee, California (Figure 1). The property occupies approximately 1.15 acres and is triangular in shape. The property is developed solely as a fueling and petroleum product sales facility.

Site Name:	*El Capitan Oil Company*
Site Address:	*11427 Woodside Avenue, Santee, California 92071*
APN:	*382-320-06*
DEH Case No.:	*H19469-001*

A total of 13 underground storage tanks (USTs) have reportedly been removed from the site between 1987 and 1998. Results of sampling conducted during UST removal activities indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) issued a letter requiring corrective action relative to the release (HMMD, August 19, 1993).

During 1988 through 2005, EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the site (EnecoTech, 2002, 2003 & 2005). A total of 18 borings and eight groundwater monitoring wells have been drilled and sampled at the site by EnecoTech. These eight monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7 and MW-8) are depicted on Figure 2. Based on the results of these past assessment activities, it appears the extent of petroleum hydrocarbon-impacted groundwater was not been fully delineated.

On March 25, 2005, EnecoTech submitted a workplan for additional site assessment (EnecoTech, 2005). In a letter dated October 10, 2007, the SAM Program approved this workplan. Petra Geotechnical Inc. (Petra) discussed adding a well to the proposed and approved

work plan with SAM Program personnel. The SAM Program agreed that another well was warranted and requested a revised workplan for installation of that well. The workplan was submitted on December 21, 2007 (Petra, 2007), and the SAM Program approved the workplan in a letter dated January 15, 2008 (SAM, 2008).

Additional assessment activities by Petra have been completed to the southwest, south and east of the former UST system. Part of Petra's assessment included the installation of nine new monitoring wells. These nine new monitoring wells were used in this fourth quarter, 2008 monitoring event. The logs of these nine borings, including well construction/completion details, were provided in our site assessment report (Petra, 2008e).

OBJECTIVE

The objective of the scope of work was to comply with SAM Program requirements for quarterly groundwater monitoring and sampling. The scope of work designed to meet the project objective included the following tasks.

Task 1: Groundwater monitoring, purging, and sampling.

Task 2: Laboratory analysis of collected groundwater samples.

Task 3: Report preparation.

GROUNDWATER MONITORING, PURGING, AND SAMPLING

On December 29, 30 and 31, 2008, sixteen wells were monitored. An electronic interface probe, with a manufacturer's reported accuracy of 1/100th of a foot, was used to measure the depth to water and check for the presence of phase-separated petroleum hydrocarbons (free product). Free product was not detected in any of the wells during this monitoring event. Eight of the wells (MW-1, MW-2, MW-3, MW-4, MW-6, MW-7, MW-9 and MW-10) were on site. Well

MW-5 has been destroyed and therefore is not available for monitoring. Monitoring wells MW-8, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16 and MW-17 are located offsite.

All sampled wells were purged and sampled in accordance with SAM Program guidelines. For fast recovering wells (wells that recover at least 80 percent of drawdown within 2 hours), temperature, conductivity, and pH measurements (purging parameters) were taken after removal of the first borehole volume and each ½ borehole volume thereafter. Purging continued until at least one and one-half borehole volumes had been removed and purging parameters had stabilized to within 10 percent of the previous reading. Slow recovering wells (wells that recover less than 80 percent in two hours) were purged of one borehole volume. Purge water was placed in appropriate 55-gallon drums, labeled, and stored on-site pending disposal.

After purging was completed, the wells were allowed to recover. Fast recovering wells were allowed to recover at least 80 percent prior to sampling. Slow recovering wells were allowed to recover at least two hours prior to sampling. Groundwater samples were collected from each well with a single-use, disposable bailer and decanted into laboratory-supplied vials. The collected groundwater samples were labeled and placed in an ice-filled cooler pending delivery to the laboratory. Chain-of-custody procedures were implemented for sample tracking. Sampling data sheets are included in Appendix A.

LABORATORY ANALYSIS

Groundwater samples were submitted to a state-accredited laboratory for analysis. All samples were analyzed for total petroleum hydrocarbon as gasoline (TPHg) and as diesel fuel (TPHd) in general accordance with modified EPA Method 8015, and for benzene, toluene, ethylbenzene, and xylenes (BTEX), and oxygenates including methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA) in general accordance with EPA Method 8260B.

FINDINGS

GEOLOGY AND HYDROGEOLOGY

The following sections provide an overview of the regional and local geologic setting and include information pertaining to groundwater conditions in the vicinity of the study area.

Regional Geology

The site is located in the Peninsular Ranges Geomorphic Province of Southern California. This province is typified by northwest to southeast-trending mountain ranges approximately parallel to the San Andreas and related regional fault systems. The plutonic rocks of the western Peninsular Ranges are generally characterized as mafic (dark-colored) rocks, including gabbro, with granitic rocks of the Peninsular Ranges batholith (Harden, 1997) in association with lesser amounts of metamorphic rocks. Sedimentary rocks ranging in age from Cretaceous to Pleistocene form the San Diego embayment and coastal terraces west of the batholith.

As interpreted from regional geologic maps (Strand, 1962, Tan, 2002 and Todd, 2004), geologic materials underlying the site may include Quaternary-aged alluvium and colluvium. The more detailed geologic map of Tan (Tan, 2002) identifies Pleistocene alluvial deposits underlying the site and describes these sediments as "moderately consolidated, poorly sorted flood plain deposits consisting of gravelly, sandy silt and clay." These sediments are underlain by weathered granitic bedrock.

The regional geologic maps have identified bedrock in the near vicinity as being "granitoid" (Todd, 2004). Tan (2002) has mapped Cretaceous-aged tonalite immediately south of the site. The tonalite was described as including "some granodiorite and quartz diorite, medium-grained, generally dark colored and severely weathered." Based upon the referenced regional mapping, the site is most likely to be underlain by Cretaceous-aged tonalite. The site is located in the El Cajon Quadrangle Map (USGS, 1996).

Site-Specific Geology

Based on our experience at the site and in the site vicinity, the site is underlain by alluvium overlying weathered granitic bedrock. The granitic bedrock also comprises the highlands to the south of the site. The ground surface at the site slopes gently to the northwest, toward Woodside Avenue.

Hydrogeology

The site is located in the Santee Hydrologic Sub Area (7.12) of the Lower San Diego Hydrologic Area (7.10) of the San Diego Hydrologic Unit (7.00) as mapped by the California Regional Water Quality Control Board (RWQCB), San Diego Basin Region 9 (RWQCB, 1994). According to the RWQCB, surface water in this subarea has existing beneficial use for industrial and agricultural supply purposes and potential use for municipal purposes. The groundwater in this subarea has been classified as having existing beneficial uses for municipal, agricultural, industrial service, and industrial process supply purposes.

According to EnecoTech reports, referenced above, groundwater has been present at depths ranging from approximately 29.45 to 31.90 feet below grade. The groundwater flow direction was interpreted, in the referenced reports (EnecoTech, 2002 and EnecoTech, 2003), to be generally toward the west-southwest.

Since the fourth quarter, 2007, Petra has been reporting quarterly monitoring events. During the previous monitoring event of July, 2008, groundwater depths ranged from approximately 30.08 to 36.08 feet below grade (Petra, 2008c). The groundwater flow direction was interpreted to be generally toward the west-southwest with a gradient of approximately 0.0036.

The base map utilized for this monitoring event (Figure 3) is based upon a 2008-vintage well location survey by Southern California Survey, Inc. The 2008 survey was part of additional site assessment work by Petra (Petra, 2008e). Southern California Survey, Inc. originally surveyed

the onsite wells for EnecoTech on April 26, 2002 (EnecoTech, 2002, pg. 5). The latest updated survey was performed on March 28, 2008 (Southern California Survey, 2008).

Groundwater Conditions

During the December, 2008 monitoring event, groundwater was encountered at depths ranging from approximately 28.45 to 34.34 feet below grade. The interpreted groundwater contours and gradients are depicted on Figure 3. Groundwater monitoring data is summarized in Table 1. Overall, the groundwater flow direction was interpreted to be generally toward the west-southwest with a gradient of approximately 0.0006. As depicted on Figure 3, the groundwater flow direction in the southern portion of the site is more northwest with a steeper gradient (approximately 0.0163).

ANALYTICAL RESULTS

Groundwater sample analytical results are summarized in Table 2 and on Figure 4. Wells MW-7 and MW-13 were reported to have no detectable concentrations of dissolved petroleum hydrocarbons. Free product was not encountered in any well during this monitoring event. Detectable concentrations of petroleum hydrocarbon constituents were reported as follows:

TPHg	–	18,000 µg/l	(MW-14)	to	230 µg/l	(MW-3)
TPHd	–	55,000 µg/l	(MW-17)	to	650 µg/l	(MW-6)
Benzene	–	3,700 µg/l	(MW-14)	to	1.7 µg/l	(MW-3)
Toluene	–	12 µg/l	(MW-15)	to	6.0 µg/l	(MW-16)
Ethylbenzene	–	1,500 µg/l	(MW-14&15)	to	0.61 µg/l	(MW-3)
Xylenes	–	2,000 µg/l	(MW-14)	to	11 µg/l	(MW-11)
MTBE	–	570 µg/l	(MW-14)	to	16 µg/l	(MW-12)
TBA	–	2,100 µg/l	(MW-2)	to	27 µg/l	(MW-1)

Detection of DIPE, ETBE, and TAME was not reported in the sixteen samples analyzed for this quarterly event. Copies of laboratory reports are included in Appendix B. The interpreted extent of the dissolved benzene and dissolved MTBE plumes are depicted on Figures 5 and 6 respectively.

DISCUSSION

Detectable concentrations of dissolved petroleum hydrocarbons were detected in wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-8, MW-9, MW-10, MW-11, MW-12, MW-14, MW-15, MW-16, and MW-17. Wells MW-7 and MW-13 were reported to have no detectable concentrations of dissolved petroleum hydrocarbons. Historic groundwater analytical results are included in Appendix C.

CONCLUSIONS AND RECOMMENDATIONS

Based on the data obtained and reviewed as part of this investigation, including but not limited to current regulatory guidelines, laboratory results, field observations and data evaluation by a registered geologist, it is our professional opinion that the extent of groundwater with dissolved petroleum hydrocarbons has been delineated to the southeast and east by wells MW-10 and MW-13 respectively. The extent of groundwater with dissolved petroleum hydrocarbons has not been delineated to the southwest, west, north and northeast. Additional conclusions and recommendations have been provided in the site assessment report (Petra, 2008e). Petra recommends that quarterly groundwater monitoring continue at this site.

INVESTIGATION LIMITATIONS

This report is based on the project analytical data and findings as presented herein. The materials encountered on the project site, described in other literature, and used in the analytical testing program are believed to be representative of the project area, and the conclusions and recommendations in this report are presented on that basis. However, soil and bedrock materials can vary laterally and vertically within a project site and those variations, if present, could affect the conclusions and recommendations contained herein. In addition, chemicals could be present at the site that escaped detection by the project sampling and analytical testing program.

Although this investigation has attempted to delineate petroleum hydrocarbon-bearing groundwater relative to the site, potential sources of chemicals may have escaped detection for reasons which include, but are not limited to, the following:

- Our reliance on inadequate or inaccurate information provided to us by third parties such as public agencies and other outside sources;
- The limited scope of this investigation; and,
- The presence of undetected, unknown, or unreported environmental releases.

Should additional chemicals or other environmental conditions, beyond those already identified at the site, be detected during further progression of the project, Petra will be prepared to assist the client in evaluating the extent of and appropriate mitigation measures for such chemicals or conditions.

REPORT USAGE AND FUTURE SITE CONDITIONS

This report is intended for the sole usage of Wigington Petroleum, Inc. or its agents, and the San Diego County Site Assessment and Mitigation Program. The conclusions of this report are judged to be relevant at the time the work described in this report was conducted. Future site conditions may differ and this report should not be relied upon to represent future site conditions unless a qualified consultant familiar with the practice of similar environmental assessments is consulted to assess the necessity of updating this report.

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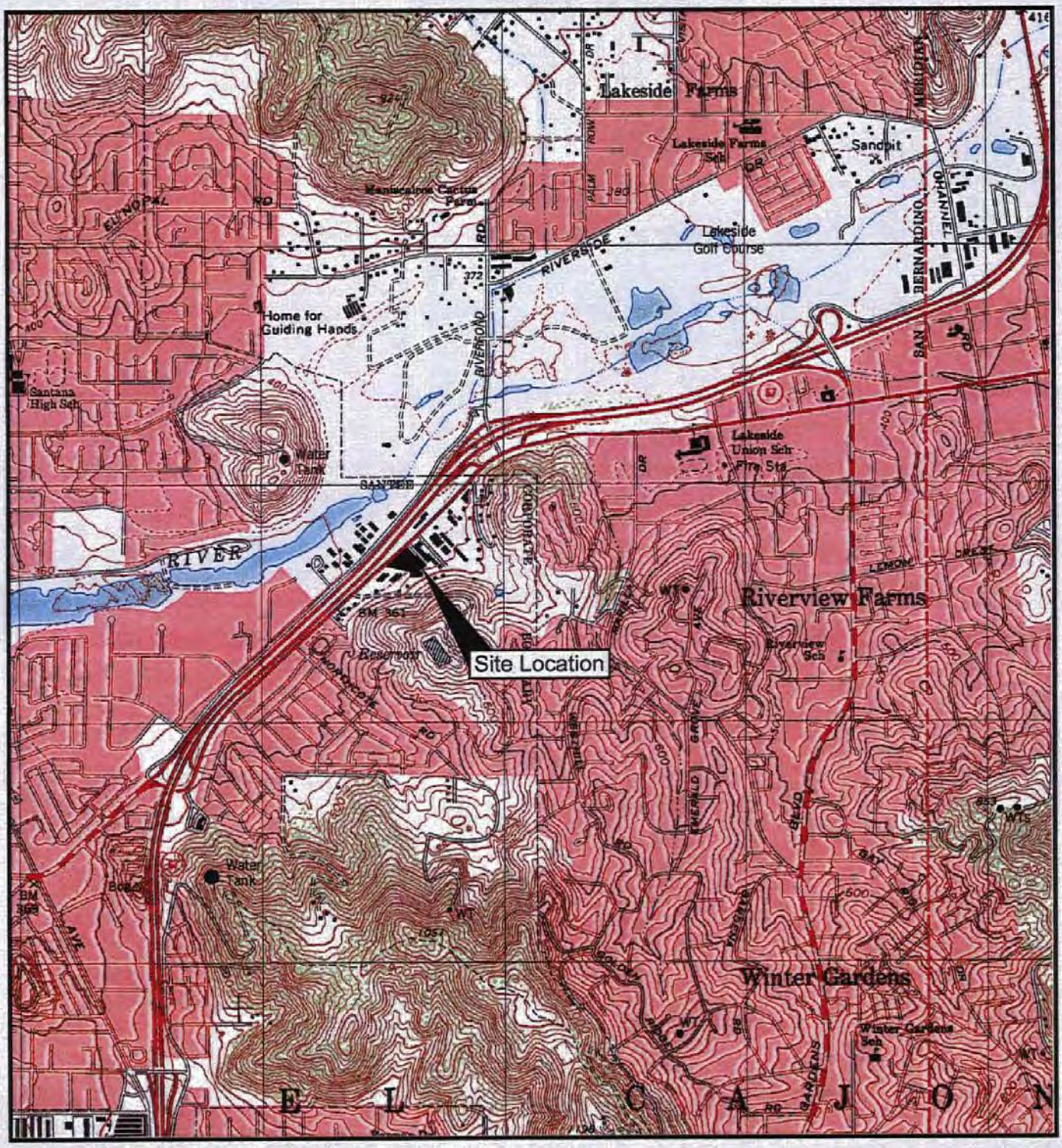


Base Map: USGS 7.5-Minute Topographic Map, El Cajon Quadrangle, 1996.

0 0.5
GRAPHIC SCALE
(in miles)

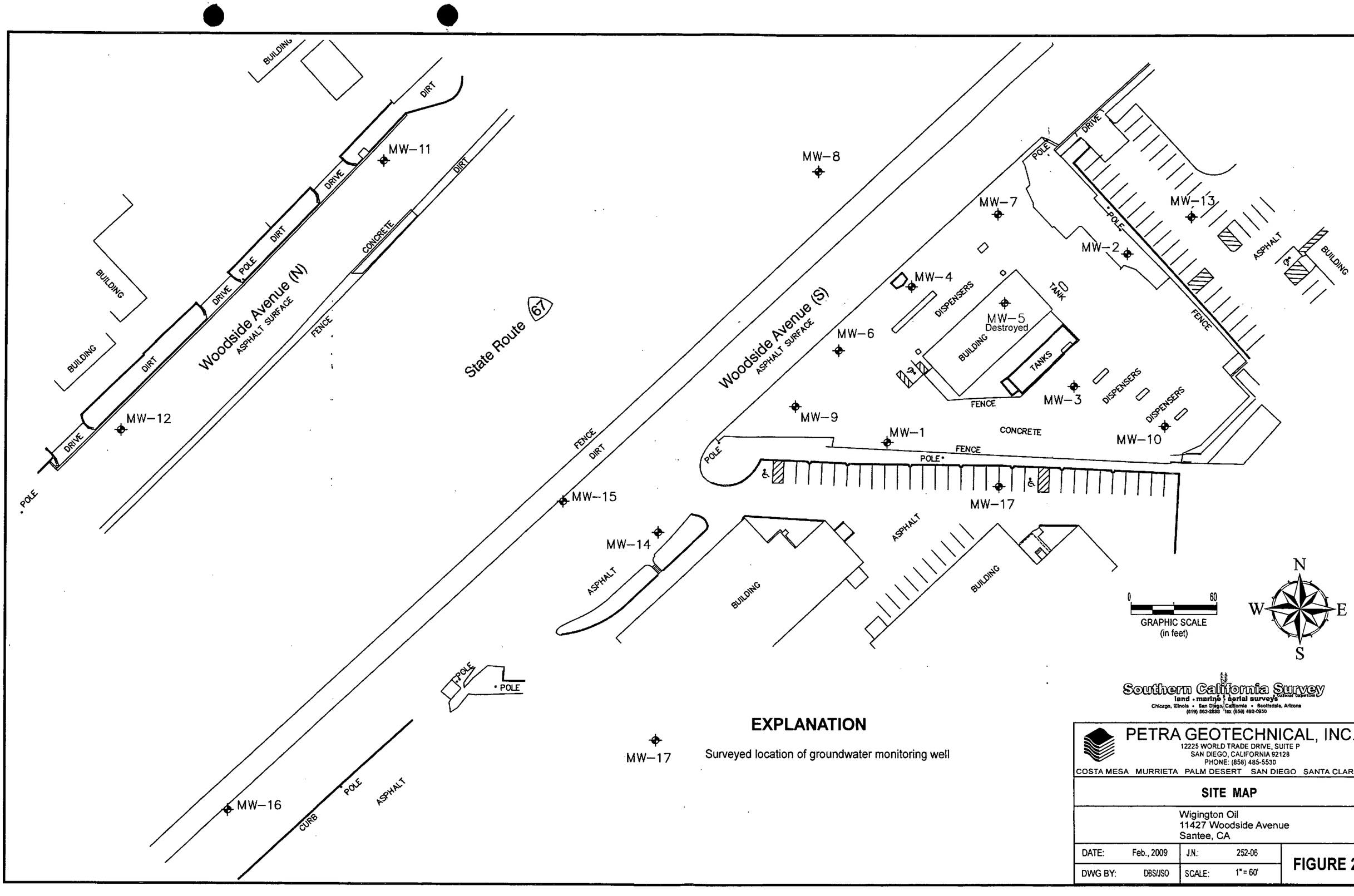
N
W E
S

PETRA GEOTECHNICAL, INC.
12225 WORLD TRADE DRIVE, SUITE P
SAN DIEGO, CALIFORNIA 92128
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

SITE LOCATION MAP

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE: Feb., 2009	J.N.: 252-06	**FIGURE 1**
DWG BY: DBS	SCALE: See Left	



EXPLANATION

MW-17 Surveyed location of groundwater monitoring well

Southern California Survey
land • marine • aerial surveys
Chicago, Illinois • San Diego, California • Scottsdale, Arizona
(619) 863-2888 fax (858) 492-0930

PETRA GEOTECHNICAL, INC.
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PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

SITE MAP

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	Feb., 2009	J.N.:	252-06	**FIGURE 2**
DWG BY:	DBS/JSO	SCALE:	1" = 60'	

APPENDIX C

Historic Groundwater Tables

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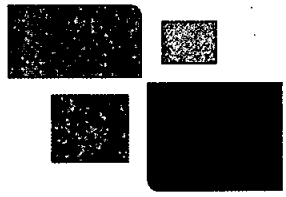

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Los Angeles County

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Ontario, California 91764
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42-240 Green Way, Suite E
Palm Desert, California 92211
T: 760-340-5303 F: 760-340-5096

TABLE 1
Groundwater Monitoring Results
For Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Well	Top of Casing Elevation	Depth to Groundwater	Depth to Free Product	Free Product Thickness	Groundwater Elevation
MW-1	362.84	29.14			333.70
MW-2	365.08	31.50			333.58
MW-3	364.16	30.54			333.62
MW-4	362.38	28.53			333.85
MW-5		Well Destroyed			
MW-6	362.44	28.71			333.73
MW-7	362.57	28.48			334.09
MW-8	364.51	30.60			333.91
MW-9	362.33	28.68			333.65
MW-10	367.28	32.62			334.66
MW-11	362.48	28.96			333.52
MW-12	361.88	28.45			333.43
MW-13	366.91	32.54			334.37
MW-14	362.79	29.22			333.57
MW-15	362.36	28.80			333.56
MW-16	362.48	28.95			333.53
MW-17	367.97	34.34			333.63

Note: -- Not Surveyed

TABLE 2
Groundwater Analytical Results
For Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

ug/L

Well Number	TPHg /VFH	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	ETBE	TAME	TBA
MW-1	440	720	57	<1.0	30	26	<2.0	<2.0	<2.0	<2.0	27
MW-2	440	22,000	<2.5	<2.5	4.0	<10	<5.0	<5.0	<5.0	<5.0	2,100
MW-3	230	3,200	1.7	<0.50	0.61	<2.0	110	<1.0	<1.0	<1.0	59
MW-4	4,900	3,400	88	<10	20	53	<20	<20	<20	<20	<200
MW-5	Well Destroyed										
MW-6	950	650	55	<1.0	34	30	<2.0	<2.0	<2.0	<2.0	<20
MW-7	<50	<500	<1.0	<1.0	<1.0	<4.0	<2.0	<2.0	<2.0	<2.0	<20
MW-8	890	3,000	<1.0	<1.0	16	<4.0	<2.0	<2.0	<2.0	<2.0	<20
MW-9	1,300	<500	140	10	71	200	21	<5.0	<5.0	<5.0	<50
MW-10	<50	<500	<0.5	<0.5	<0.5	<2.0	<1.0	<1.0	<1.0	<1.0	<10
MW-11	2,000	1,600	52	6.8	230	11	<5.0	<5.0	<5.0	<5.0	<50
MW-12	<50	<500	<0.5	<0.5	<0.5	<2.0	16	<1.0	<1.0	<1.0	<10
MW-13	<50	<500	<0.5	<0.5	<0.5	<2.0	<1.0	<1.0	<1.0	<1.0	<10
MW-14	18,000	1,000	3,700	<50	1,500	2,000	570	<100	<100	<100	<1,000
MW-15	8,400	2,100	620	12	1,500	160	<20	<20	<20	<20	<200
MW-16	2,500	790	470	6.0	390	<20	<10	<10	<10	<10	<100
MW-17	520	55,000	<5.0	<5.0	<5.0	<20	<10	<10	<10	<10	<100

Notes: -- = Not sampled.
FP + Free Product
All results in µg/l

APPENDIX A

Groundwater Monitoring/Sampling Data Sheets

PETRA

Analysis Request and Chain of Custody Record

Lab Job No: _____
Page 1 of 2

ORANGE COAST ANALYTICAL, INC. www.ocalab.com
3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064 Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY:	Petra Geotechnical	PROJECT NAME:	Wigington Oil / ExxonMobil
SEND REPORT TO:	jolbinski@petra-inc.com	NUMBER:	252-06
ADDRESS:	38655 Sky Canyon Dr	ADDRESS:	Woodside AVE Santee
	Murrieta CA 92563		
EMAIL:	ABOVE	P.O. #:	08-1280
PHONE:	951-600-9271 FAX: 951-600-9215	SAMPLED BY:	L.H & DLT

REQUIRED TAT: 5/1

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	ANALYSIS/CONTAINER/PRESERVATIVE: TPH ☒ gasoline ☒ diesel	BTEX/Oxygenates 8260B	REMARKS / PRECAUTIONS
MW-1	5	12-27-08	2:55	W	X	X	
MW-2	5	12-30-08	3:05	W			
MW-3	5	12-30-08	2:15				
MW-4	5	12-30-08	2:09				
MW-6	5	12-30-08	12:58				
MW-7	5	12-30-08	10:15				
MW-8	5	12-30-08	11:40				
MW-9	5	12-30-08	11:18				
MW-10	5	12-30-08	10:11				
MW-11	5	12-31-08	11:45				
MW-12	5	12-31-08	1:55				
MW-13	5	12-30-08	11:02				
MW-14	5	12-31-08	8:23				
MW-15	5	12-31-08	9:30	↓	↓	↓	

Total No. of Samples: Method of Shipment:

Preservative: 1 = Ice 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By:	Date/Time: 01-05-09 1:35 PM	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received For Lab By: Mark Mann	Date/Time: 1-5-09 1335

Sample Matrix: DW - Drinking Water; GW - Groundwater; WW - Wastewater; SS - Soil/Solid; OT- Other

Sample Integrity: Intact _____ On Ice ✓ 6 °C

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.

Analysis Request and Chain of Custody Record

Lab Job No: _____
Page 2 of 2

ORANGE COAST ANALYTICAL, INC. www.ocalab.com

3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064 Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

CUSTOMER INFORMATION	
COMPANY:	Petra Geotechnical Inc.
SEND REPORT TO:	Jim Olbinski
ADDRESS:	38655 Sky Canyon Dr. Murrieta CA 92563
EMAIL:	jolbinski@petra-inc.com
PHONE:	FAX:

PROJECT INFORMATION	
PROJECT NAME:	Wigington Oil El Cap Oil
NUMBER:	252-06
ADDRESS:	Woodside AVE Santee
P.O.#:	08-1280
SAMPLED BY:	L.H. and DLJ

REQUIRED TAT: STD

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	ANALYSIS / CONTAINER / PRESERVATIVE: TPH ☒ gasoline ☒ diesel	BTEX / Oxygenates 8260 B							REMARKS / PRECAUTIONS
MW-16	5	12/30/08	10:30	W	X	X							
MW-17	5	12-30-08	9:00	W	X	X							
cc: jjones@cleanupfundservices.com													

Total No. of Samples: Method of Shipment: Preservative: 1 = Ice 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By: Olbinski	Date/Time: 01-05-09 1:35 PM	Received By:	Date/Time:	Sample Matrix: DW - Drinking Water; GW - Groundwater; WW - Wastewater; SS - Soil/Solid; OT- Other
Relinquished By:	Date/Time:	Received By:	Date/Time:	
Relinquished By:	Date/Time:	Received For Lab By: Mark Thomas	Date/Time: 1-5-09 1335	Sample Integrity: Intact _____ On Ice ✓ 6 °C

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.

Site Name: Wigington Oil / El Cap Oil
Project Number: 252-06
Site Address: Woodside AVE, Santee

Petra Geotechnical
Sampling Data

Date: 12-29-08
Well ID: MW-1
Sampler: L.H

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							Strong odor
1.0 BHV	2:05	21.1	945	3.98	29.75	21.0	
1.5 BHV	2:23	21.9	954	3.94	29.65	10.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:
(Bail) / Pump / Vac

Total Gals. Purged: 31.5
Total Vols. Purged: 1.5
Sample Collection Time: 2:55
Sample Collection Depth: 29.15

Well Data

Bore OD:	10"
Casing ID:	4"
Well TD:	42'
DTW:	29.14
Ft./Water:	12.86
80% Recovery:	29.26
Factor:	1.63
1 Vol:	20.96
3 Vol:	

Recharge Info: (F) / S
Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: Wigington Oil/El CAP 0.1
Project Number: 252-06
Site Address: Woodside AVE, Santee

Petra Geotechnical
Sampling Data

Date: 12-30-08
Well ID: MW-2
Sampler: L.H

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV	12:54	21.6	2.12	3.81	42.98	21.0	Bailed dry @ 44.12
1.5 BHV	1:05	22.5	2.11	3.93	44.12	2.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: 23.5

Total Vols. Purged: 1.0

Sample Collection Time: 3:05

Sample Collection Depth: 40.77

Well Data

Bore OD:	10"
Casing ID:	4"
Well TD:	44.50
DTW:	31.50
Ft./Water:	13.00
80% Recovery:	34.02
Factor:	1.63
1 Vol:	21.19
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: Wigington 0.1 /EI CAP 0.1
Project Number: 252-06
Site Address: Woodside AVE, Santee

Petra Geotechnical
Sampling Data

Date: 12-30-08
Well ID: MW-3
Sampler: L.H

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV	1:40	22.5	1152	3.54	36.28	21.0	
1.5 BHV	1:50	22.8	1145	3.58	37.35	10.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) Pump / Vac

Total Gals. Purged: 31.5

Total Vols. Purged: 1.5

Sample Collection Time: 2:15

Sample Collection Depth: 31.06

Well Data

Bore OD:	10"
Casing ID:	4"
Well TD:	43.30
DTW:	30.54
Ft./Water:	12.76
80% Recovery:	31.90
Factor:	1.63
1 Vol:	20.79
3 Vol:	

Recharge Info: (F) / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: Wigington Oil/El CAP Oil
Project Number: 252-06
Site Address: Woodside AVE, Santee

Petra Geotechnical
Sampling Data

Date: 12/30/08
Well ID: MW-4
Sampler: DCJ

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV	1:44	21.5	1607	3.71	28.75	22	
1.5 BHV	2:01	21.1	~~1592~~ 1603	3.78	28.85	11	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 33
Total Vols. Purged: 1.5
Sample Collection Time: 2:09
Sample Collection Depth: ~~28.58~~

Well Data

Bore OD:	10"
Casing ID:	4"
Well TD:	42'
DTW:	28.53
Ft./Water:	13.47
80% Recovery:	~~28.59~~
Factor:	1.63
1 Vol:	21.95
3 Vol:	

Recharge Info: (F) S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: Wigington 0.1/El CAP 0.1
Project Number: 252-06
Site Address: Woodside AVE, Santee

Petra Geotechnical
Sampling Data

Date: 12/30/04
Well ID: MW-6
Sampler: DCJ

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons
Start:						
1.0 BHV	12:39	21.0	1590	3.74	28.80	20
1.5 BHV	12:49	20.9	1594	3.78	28.79	10
2.0 BHV						
2.5 BHV						
3.0 BHV						
Stop:						

Notes / Comments:

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 30

Total Vols. Purged: 1.5

Sample Collection Time: 12:58

Sample Collection Depth: 28.72

Well Data

Bore OD:	10"
Casing ID:	4"
Well TD:	41'
DTW:	28.71
Ft./Water:	12.29
80% Recovery:	28.72
Factor:	1.63
1 Vol:	20.03
3 Vol:	

Recharge Info: (F) / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: Wigington Oil/ELCAP 0.1
Project Number: 252-06
Site Address: Woodside AVE, Santee

Petra Geotechnical
Sampling Data

Date: 12-30-08
Well ID: MW-7
Sampler: L.H.

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV	9:40	20.4	1643	3.80	28.58	20.00	
1.5 BHV	9:50	19.8	1620	3.59	28.51	10.00	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: 30.0

Total Vols. Purged: 1.5

Sample Collection Time: 10:15

Sample Collection Depth: 28.45

Well Data

Bore OD:	10"
Casing ID:	4"
Well TD:	41
DTW:	28.48
Ft./Water:	12.52
80% Recovery:	28.50
Factor:	1.63
1 Vol:	20.40
3 Vol:	

Recharge Info: F / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: Wigington Oil/El Cap Oil
Project Number: 252-06
Site Address: Woodside AVE, Santee

Petra Geotechnical
Sampling Data

Date: 12-30-08
Well ID: MW-8
Sampler: L.H

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV	10:52	21.4	871	3.66	30.61	15.25	Strong odor
1.5 BHV	11:35	22.2	886	3.40	30.60	7.50	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) Pump / Vac

Total Gals. Purged: 22.75
Total Vols. Purged: 1.5
Sample Collection Time: 11:40
Sample Collection Depth: 30.58

Well Data

Bore OD:	10"
Casing ID:	4"
Well TD:	40
DTW:	30.60
Ft./Water:	9.4
80% Recovery:	30.59
Factor:	1.63
1 Vol:	15.32
3 Vol:	

Recharge Info: (F) / S

Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: Wigington Oil / El Cap Oil
Project Number: 252-06
Site Address: Woodside AVE, Santee

Petra Geotechnical
Sampling Data

Date: 12/30/03
Well ID: MW-9
Sampler: Dan T.

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							Bailed GW out of well Box.
1.0 BHV	11:00	21.0	1605	3.78	28.90	17	
1.5 BHV	11:06	21.0	1595	3.80	28.90	8.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 25.5

Total Vols. Purged: 1.5

Sample Collection Time: 11:18

Sample Collection Depth: 23.72

Well Data

Bore OD:	10"
Casing ID:	4"
Well TD:	39
DTW:	28.68
Ft./Water:	10.32
80% Recovery:	23.7
Factor:	1.63
1 Vol:	16.82
3 Vol:	

Recharge Info: (F) / S

Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: Wigington 0.1/EI CAP 0.1
Project Number: 252-06
Site Address: Woodside AVE, Santee

Petra Geotechnical
Sampling Data

Date: 12/30/05
Well ID: MW-10
Sampler: Lee, J.

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV	9:42	21.9	1257	3.59	33.15	13	
1.5 BHV	9:50	22.2	1210	3.45	34.10	6	
2.0 BHV	10:02	22.3	1212	3.35	34.10	6	
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: 25

Total Vols. Purged: 1.5

Sample Collection Time: 10:11

Sample Collection Depth: 32.80

Well Data

Bore OD:	10"
Casing ID:	4"
Well TD:	40
DTW:	32.62
Ft./Water:	7.38
80% Recovery:	32.91
Factor:	1.63
1 Vol:	12.02
3 Vol:	

Recharge Info: (F)/S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: Wigington 0.1 / El CAP 0.1
Project Number: 252-06
Site Address: Woodside AVE, Santee

Petra Geotechnical
Sampling Data

Date: 12-31-08
Well ID: MW-11
Sampler: L.A

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons
Start:						
1.0 BHV	11:15	22.1	927	3.37	29.03	8.0
1.5 BHV	11:24	22.1	925	3.35	29.03	4.0
2.0 BHV						
2.5 BHV						
3.0 BHV						
Stop:						

Notes / Comments: Bailed Run-off water out of well box. Strong ODOR

Purge Method:
(Bail) / Pump / Vac

Total Gals. Purged: 12.0
Total Vols. Purged: 1.5
Sample Collection Time: 11:45
Sample Collection Depth: 28.97

Well Data

Bore OD:	8"
Casing ID:	2"
Well TD:	38'
DTW:	28.96
Ft./Water:	9.04
80% Recovery:	28.97
Factor:	.88
1 Vol:	7.95
3 Vol:	

Recharge Info: (F) / S
Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: Wigington 0.1/ECAP 0.1 | **Petra Geotechnical** | Date: 12-31-08
Project Number: 252-06 | **Sampling Data** | Well ID: MW-12
Site Address: Woodside AVE, Santee | Sampler: L.H.

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							Bailed water from well Box completed submerged
1.0 BHV	12:53	21.7	1054	3.38	28.53	9.50	
1.5 BHV	1:05	21.8	1053	3.36	28.53	9.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:
(Bail) / Pump / Vac
Total Gals. Purged: 14.00
Total Vols. Purged: 1.5
Sample Collection Time: 1:55
Sample Collection Depth: 28.47

Well Data

Bore OD:	8"
Casing ID:	2"
Well TD:	39
DTW:	28.45
Ft./Water:	10.55
80% Recovery:	28.47
Factor:	.88
1 Vol:	9.28
3 Vol:	

Recharge Info: (F) / S
Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: Wigington 0:1/E1 CAP 0:1
Project Number: 252-06
Site Address: Woodside AVE, Santee

Petra Geotechnical
Sampling Data

Date: 12-30-08
Well ID: MW-13
Sampler: LH

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV	8:28	19.6	2.42	3.86	41.65	11.0	Bailed Dry @ 43.67
1.5 BHV	9:02	21.9	2.36	4.15	43.67	3.5	Bailed water from well box
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 14.5
Total Vols. Purged: 1.0
Sample Collection Time: 11:02
Sample Collection Depth: 39.01

Well Data

Bore OD:	8"
Casing ID:	2"
Well TD:	45'
DTW:	32.54
Ft./Water:	12.46
80% Recovery:	
Factor:	.88
1 Vol:	10.96
3 Vol:	

Recharge Info: F (S)

Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: Wigington Oil/El Cap Oil
Project Number: 252-06
Site Address: Woodside AVE, Santee

Petra Geotechnical
Sampling Data

Date: 12-31-08
Well ID: MW-14
Sampler: L.H

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							Bailed Runoff water out of well box
1.0 BHV	8:05	19.5	1331	3.98	30.11	14.50	
1.5 BHV	8:11	20.3	1324	3.85	30.13	7.25	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) / Pump / Vac

Total Gals. Purged: 21.75
Total Vols. Purged: 1.5
Sample Collection Time: 8:23
Sample Collection Depth: 29.20

Well Data

Bore OD:	10"
Casing ID:	4"
Well TD:	38
DTW:	29.22
Ft./Water:	8.78
80% Recovery:	29.90
Factor:	1.63
1 Vol:	14.31
3 Vol:	

Recharge Info: (F) / S
Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: Wigington Oil / EI CAP 0.1 **Petra Geotechnical**
Project Number: 252-06 **Sampling Data**
Site Address: Woodside AVE, Santee

Date: 12-31-08
Well ID: MW-15
Sampler: L.H

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							Strong odor, Dark grey to black water
1.0 BHV	9:10	20.5	1204	3.73	30.80	8.50	
1.5 BHV	9:20	21.0	1211	3.74	28.80	4.25	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

Bail / Pump / Vac

Total Gals. Purged: 12.75

Total Vols. Purged: 1.5

Sample Collection Time: 9:30

Sample Collection Depth: 28.80

Well Data

Bore OD:	8"
Casing ID:	2"
Well TD:	38.5
DTW:	28.80
Ft./Water:	9.70
80% Recovery:	29.2
Factor:	.88
1 Vol:	8.53
3 Vol:	

Recharge Info: (F) / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: Wigington O.U. / ELCAP O.U. **Petra Geotechnical**
Project Number: 252-06 **Sampling Data**
Site Address: Woodside AVE, Santee

Date: 12-31-08
Well ID: MW-16
Sampler: L.H.

Purge Data

	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:							
1.0 BHV	10:09	20.6	1118	3.61	29.03	9.0	
1.5 BHV	10:18	20.5	1116	3.63	29.02	4.5	
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:

(Bail) Pump / Vac

Total Gals. Purged: 13.5

Total Vols. Purged: 1.5

Sample Collection Time: 10:30

Sample Collection Depth: 29.01

Well Data

Bore OD:	8"
Casing ID:	2"
Well TD:	39
DTW:	28.95
Ft./Water:	10.05
80% Recovery:	28.97
Factor:	.88
1 Vol:	8.84
3 Vol:	

Recharge Info: (F) / S

Fast or Slow Recovering Well

Percent Recovery:

(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:

WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

Site Name: Wigington Oil / El Cap Oil
Project Number: 252-06
Site Address: Woodside AVE, Santee

Petra Geotechnical
Sampling Data

Date: 12/30/08
Well ID: MW-17
Sampler: Doug J.

Purge Data	Time	Temp.	E.C.	pH	DTW	Gallons	Notes / Comments
Start:	8:00						Bailed GW
1.0 BHV	8:20	21.3	1658	3.87	39.90	9	GW in well
1.5 BHV	8:32	21.5	1668	3.83	41.20	4.5	BOX 12-29-08
2.0 BHV							
2.5 BHV							
3.0 BHV							
Stop:							

Purge Method:
Bail / Pump / Vac
Total Gals. Purged: 13.5
Total Vols. Purged: 1.5
Sample Collection Time: 9:06
Sample Collection Depth: 35.70

Well Data	
Bore OD:	8"
Casing ID:	2"
Well TD:	44.5
DTW:	34.34
Ft./Water:	10.16
80% Recovery:	35.71
Factor:	.88
1 Vol:	8.94
3 Vol:	

Recharge Info: F / S
Fast or Slow Recovering Well

Percent Recovery:
(MD - IWD) x 0.80 then subtract result from MD

PR : Percent recovery
IWD : Initial Water depth
MD : Maximum drawdown

Special Notes:

Fast well - 80% recovered in less than 2 hrs.
- Remove 1 bhv, conduct P.H., cond., and temp.,
- Remove 1/2 bhv, check parameters, if results vary by <10% purging is adequate
- Collect sample when well recovers 80%

Slow well - recovers less than 80% in 2 hrs.
- Remove 1 bhv
- Collect sample after 2 hrs

Legend:
WD = Well depth
TD = Total depth
BHV = Borehole Volume
BD = Borehole diameter
OD = Outside diameter

Standard borehole volume constants for 0.3 filter pack porosity:

Casing/Bore diameter:	Bore Vol. Factors:	Casing Vol. Factors:
2"/8"	0.88	0.17 Gal/Ft.
4"/8"	1.19	0.66 Gal/Ft.
4"/10"	1.63	0.66 Gal/Ft.
6"/10"	2.16	1.5 Gal/Ft.
6"/12"	3.07	1.5 Gal/Ft.

Petra Geotechnical
12225 World Trade Drive, Suite P
San Diego, CA 92128

APPENDIX B

Laboratory Reports-Groundwater Samples

PETRA

ORANGE COAST ANALYTICAL, INC.
3002 Dow Ave., Suite 532, Tustin CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

ORANGE COAST ANALYTICAL, INC.

3002 Dow Suite 532 Tustin, CA 92780

(714) 832-0064

Laboratory Certification (ELAP) No.: 2576
Expiration Date: 2009
Los Angeles County Sanitation District Lab ID# 10206

Laboratory Director's Name:
Mark Noorani

Client: Petra Geotechnical

Laboratory Reference: PTE 16845

Project Name: Wigington Oil El CAP Oil

Project Number: 252-06

Date Received: 1/5/2009

Date Reported: 1/15/2009

Chain of Custody Received: ☑

Analytical Method: 8015B, CADHS LUFT, 8260B,

Mark Noorani, Laboratory Director

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Mr. Jim Olbinski
Petra Geotechnical
38655 Sky Canyon Dr Ste A
Murrieta, CA, 92563

Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-1	16845-001	1/5/2009	12/29/2008	1/12/2009	1/12/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	57
Ethylbenzene	100-41-4	30
Toluene	108-88-3	<1.0
Total Xylenes	1330-20-7	26
Methyl t-butyl ether (MTBE)	1634-04-4	<2.0
Diisopropyl ether (DIPE)	108-20-3	<2.0
t-Amyl methyl ether (TAME)	994-05-8	<2.0
Ethyl t-butyl ether (ETBE)	637-92-3	<2.0
tert-Butyl alcohol (TBA)	75-65-0	27

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	100	48-143 %	2
Toluene-d8:	91	68-130 %	
4-Bromofluorobenzene:	117	64-130 %	

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Mr. Jim Olbinski
Petra Geotechnical
38655 Sky Canyon Dr Ste A
Murrieta, CA, 92563

Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-2	16845-002	1/5/2009	12/30/2008	1/13/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<2.5
Ethylbenzene	100-41-4	4.0
Toluene	108-88-3	<2.5
Total Xylenes	1330-20-7	<10
Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
Diisopropyl ether (DIPE)	108-20-3	<5.0
t-Amyl methyl ether (TAME)	994-05-8	<5.0
Ethyl t-butyl ether (ETBE)	637-92-3	<5.0
tert-Butyl alcohol (TBA)	75-65-0	2100

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	107	48-143 %
Toluene-d8:	83	68-130 %
4-Bromofluorobenzene:	120	64-130 %

Dilution Factor: 5

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Mr. Jim Olbinski
Petra Geotechnical
38655 Sky Canyon Dr Ste A
Murrieta, CA, 92563

Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-3	16845-003	1/5/2009	12/30/2008	1/12/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	1.7
Ethylbenzene	100-41-4	0.61
Toluene	108-88-3	<0.50
Total Xylenes	1330-20-7	<2.0
Methyl t-butyl ether (MTBE)	1634-04-4	110
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	59

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	105	48-143 %
Toluene-d8:	85	68-130 %
4-Bromofluorobenzene:	120	64-130 %

Dilution Factor: 1

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Mr. Jim Olbinski
Petra Geotechnical
38655 Sky Canyon Dr Ste A
Murrieta, CA, 92563

Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-4	16845-004	1/5/2009	12/30/2008	1/12/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	88
Ethylbenzene	100-41-4	20
Toluene	108-88-3	<10
Total Xylenes	1330-20-7	53
Methyl t-butyl ether (MTBE)	1634-04-4	<20
Diisopropyl ether (DIPE)	108-20-3	<20
t-Amyl methyl ether (TAME)	994-05-8	<20
Ethyl t-butyl ether (ETBE)	637-92-3	<20
tert-Butyl alcohol (TBA)	75-65-0	<200

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	102	48-143 %
Toluene-d8:	86	68-130 %
4-Bromofluorobenzene:	117	64-130 %

Dilution Factor: 20

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Mr. Jim Olbinski
Petra Geotechnical
38655 Sky Canyon Dr Ste A
Murrieta, CA, 92563

Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-6	16845-005	1/5/2009	12/30/2008	1/12/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	55
Ethylbenzene	100-41-4	34
Toluene	108-88-3	<1.0
Total Xylenes	1330-20-7	30
Methyl t-butyl ether (MTBE)	1634-04-4	<2.0
Diisopropyl ether (DIPE)	108-20-3	<2.0
t-Amyl methyl ether (TAME)	994-05-8	<2.0
Ethyl t-butyl ether (ETBE)	637-92-3	<2.0
tert-Butyl alcohol (TBA)	75-65-0	<20

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	103	48-143 %	2
Toluene-d8:	86	68-130 %	
4-Bromofluorobenzene:	118	64-130 %	

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-7	16845-006	1/5/2009	12/30/2008	1/12/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<1.0
Ethylbenzene	100-41-4	<1.0
Toluene	108-88-3	<1.0
Total Xylenes	1330-20-7	<4.0
Methyl t-butyl ether (MTBE)	1634-04-4	<2.0
Diisopropyl ether (DIPE)	108-20-3	<2.0
t-Amyl methyl ether (TAME)	994-05-8	<2.0
Ethyl t-butyl ether (ETBE)	637-92-3	<2.0
tert-Butyl alcohol (TBA)	75-65-0	<20

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	109	48-143 %	2
Toluene-d8:	88	68-130 %	
4-Bromofluorobenzene:	112	64-130 %	

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Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-8	16845-007	1/5/2009	12/30/2008	1/12/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<1.0
Ethylbenzene	100-41-4	16
Toluene	108-88-3	<1.0
Total Xylenes	1330-20-7	<4.0
Methyl t-butyl ether (MTBE)	1634-04-4	<2.0
Diisopropyl ether (DIPE)	108-20-3	<2.0
t-Amyl methyl ether (TAME)	994-05-8	<2.0
Ethyl t-butyl ether (ETBE)	637-92-3	<2.0
tert-Butyl alcohol (TBA)	75-65-0	<20

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	97	48-143 %
Toluene-d8:	89	68-130 %
4-Bromofluorobenzene:	112	64-130 %

Dilution Factor: 2

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Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-9	16845-008	1/5/2009	12/30/2008	1/13/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	140
Ethylbenzene	100-41-4	71
Toluene	108-88-3	10
Total Xylenes	1330-20-7	200
Methyl t-butyl ether (MTBE)	1634-04-4	21
Diisopropyl ether (DIPE)	108-20-3	<5.0
t-Amyl methyl ether (TAME)	994-05-8	<5.0
Ethyl t-butyl ether (ETBE)	637-92-3	<5.0
tert-Butyl alcohol (TBA)	75-65-0	<50

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	103	48-143 %	5
Toluene-d8:	90	68-130 %	
4-Bromofluorobenzene:	111	64-130 %	

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Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-10	16845-009	1/5/2009	12/30/2008	1/13/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<0.50
Ethylbenzene	100-41-4	<0.50
Toluene	108-88-3	<0.50
Total Xylenes	1330-20-7	<2.0
Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	<10

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	106	48-143 %	1
Toluene-d8:	89	68-130 %	
4-Bromofluorobenzene:	109	64-130 %	

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Lab Reference # PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-11	16845-010	1/5/2009	12/31/2009	1/13/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	52
Ethylbenzene	100-41-4	230
Toluene	108-88-3	6.8
Total Xylenes	1330-20-7	11
Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
Diisopropyl ether (DIPE)	108-20-3	<5.0
t-Amyl methyl ether (TAME)	994-05-8	<5.0
Ethyl t-butyl ether (ETBE)	637-92-3	<5.0
tert-Butyl alcohol (TBA)	75-65-0	<50

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	99	48-143 %
Toluene-d8:	90	68-130 %
4-Bromofluorobenzene:	116	64-130 %

Dilution Factor: 5

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Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-12	16845-011	1/5/2009	12/31/2008	1/13/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<0.50
Ethylbenzene	100-41-4	<0.50
Toluene	108-88-3	<0.50
Total Xylenes	1330-20-7	<2.0
Methyl t-butyl ether (MTBE)	1634-04-4	16
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	<10

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	101	48-143 %	1
Toluene-d8:	91	68-130 %	
4-Bromofluorobenzene:	110	64-130 %	

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Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-13	16845-012	1/5/2009	12/30/2008	1/13/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<0.50
Ethylbenzene	100-41-4	<0.50
Toluene	108-88-3	<0.50
Total Xylenes	1330-20-7	<2.0
Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	<10

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	106	48-143 %	1
Toluene-d8:	93	68-130 %	
4-Bromofluorobenzene:	109	64-130 %	

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Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-14	16845-013	1/5/2009	12/31/2008	1/13/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	3700
Ethylbenzene	100-41-4	1500
Toluene	108-88-3	<50
Total Xylenes	1330-20-7	2000
Methyl t-butyl ether (MTBE)	1634-04-4	570
Diisopropyl ether (DIPE)	108-20-3	<100
t-Amyl methyl ether (TAME)	994-05-8	<100
Ethyl t-butyl ether (ETBE)	637-92-3	<100
tert-Butyl alcohol (TBA)	75-65-0	<1000

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	95	48-143 %	100
Toluene-d8:	95	68-130 %	
4-Bromofluorobenzene:	109	64-130 %	

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Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-15	16845-014	1/5/2009	12/31/2008	1/13/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	620
Ethylbenzene	100-41-4	1500
Toluene	108-88-3	12
Total Xylenes	1330-20-7	160
Methyl t-butyl ether (MTBE)	1634-04-4	<20
Diisopropyl ether (DIPE)	108-20-3	<20
t-Amyl methyl ether (TAME)	994-05-8	<20
Ethyl t-butyl ether (ETBE)	637-92-3	<20
tert-Butyl alcohol (TBA)	75-65-0	<200

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	101	48-143 %	20
Toluene-d8:	89	68-130 %	
4-Bromofluorobenzene:	115	64-130 %	

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Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-16	16845-015	1/5/2009	12/31/2008	1/13/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	470
Ethylbenzene	100-41-4	390
Toluene	108-88-3	6.0
Total Xylenes	1330-20-7	<20
Methyl t-butyl ether (MTBE)	1634-04-4	<10
Diisopropyl ether (DIPE)	108-20-3	<10
t-Amyl methyl ether (TAME)	994-05-8	<10
Ethyl t-butyl ether (ETBE)	637-92-3	<10
tert-Butyl alcohol (TBA)	75-65-0	<100

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	97	48-143 %	10
Toluene-d8:	88	68-130 %	
4-Bromofluorobenzene:	117	64-130 %	

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Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-17	16845-016	1/5/2009	12/30/2008	1/12/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<5.0
Ethylbenzene	100-41-4	<5.0
Toluene	108-88-3	<5.0
Total Xylenes	1330-20-7	<20
Methyl t-butyl ether (MTBE)	1634-04-4	<10
Diisopropyl ether (DIPE)	108-20-3	<10
t-Amyl methyl ether (TAME)	994-05-8	<10
Ethyl t-butyl ether (ETBE)	637-92-3	<10
tert-Butyl alcohol (TBA)	75-65-0	<100

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	99	48-143 %	10
Toluene-d8:	92	68-130 %	
4-Bromofluorobenzene:	118	64-130 %	

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Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBHN0112091			1/12/2009	1/12/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<0.50
Ethylbenzene	100-41-4	<0.50
Toluene	108-88-3	<0.50
Total Xylenes	1330-20-7	<2.0
Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	<10

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	106	48-143 %	1
Toluene-d8:	95	68-130 %	
4-Bromofluorobenzene:	105	64-130 %	

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Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBHN0113091			1/13/2009	1/13/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<0.50
Ethylbenzene	100-41-4	<0.50
Toluene	108-88-3	<0.50
Total Xylenes	1330-20-7	<2.0
Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	<10

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	102	48-143 %	1
Toluene-d8:	89	68-130 %	
4-Bromofluorobenzene:	108	64-130 %	

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Project #: 252-06

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBMN0112091			1/12/2009	1/12/2009	Water

ANALYTE	CAS #	µg/L
Benzene	71-43-2	<0.50
Ethylbenzene	100-41-4	<0.50
Toluene	108-88-3	<0.50
Total Xylenes	1330-20-7	<2.0
Methyl t-butyl ether (MTBE)	1634-04-4	<1.0
Diisopropyl ether (DIPE)	108-20-3	<1.0
t-Amyl methyl ether (TAME)	994-05-8	<1.0
Ethyl t-butyl ether (ETBE)	637-92-3	<1.0
tert-Butyl alcohol (TBA)	75-65-0	<10

Surrogate:	% RC	Acceptable % RC	Dilution Factor
Dibromofluoromethane:	101	48-143 %	1
Toluene-d8:	90	68-130 %	
4-Bromofluorobenzene:	106	64-130 %	

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Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Fuel Hydrocarbons (EPA 8015B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-1	16845-001	1/5/2009	12/29/2008	1/8/2009	1/8/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	440	2

* Acceptable Surrogate Recovery: 53-148 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-2	16845-002	1/5/2009	12/30/2008	1/8/2009	1/8/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	440	1

* Acceptable Surrogate Recovery: 53-148 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	156

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-3	16845-003	1/5/2009	12/30/2008	1/8/2009	1/8/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	230	1

* Acceptable Surrogate Recovery: 53-148 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	132

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-4	16845-004	1/5/2009	12/30/2008	1/7/2009	1/7/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	4900	5

* Acceptable Surrogate Recovery: 53-148 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	284

[1] Volatile Fuel Hydrocarbons (VFH) are quantitated against a gasoline standard.

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Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Fuel Hydrocarbons (EPA 8015B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-6	16845-006	1/5/2009	12/30/2008	1/7/2009	1/7/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	950	1

* Acceptable Surrogate Recovery: 53-148 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	272

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-7	16845-006	1/5/2009	12/30/2008	1/7/2009	1/7/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	<50	1

* Acceptable Surrogate Recovery: 53-148 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	96

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-8	16845-007	1/5/2009	12/30/2008	1/8/2009	1/8/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	890	1

* Acceptable Surrogate Recovery: 53-148 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	287

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-9	16845-008	1/5/2009	12/30/2008	1/9/2009	1/9/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	1300	2

* Acceptable Surrogate Recovery: 53-148 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	161

[1] Volatile Fuel Hydrocarbons (VFH) are quantitated against a gasoline standard.

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Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Fuel Hydrocarbons (EPA 8015B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-10	16845-009	1/5/2009	12/30/2008	1/8/2009	1/8/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	<50	1

* Acceptable Surrogate Recovery: 53-148 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	101

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-11	16845-010	1/5/2009	12/31/2009	1/8/2009	1/8/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	2000	5

* Acceptable Surrogate Recovery: 53-148 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	144

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-12	16845-011	1/5/2009	12/31/2008	1/8/2009	1/8/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	<50	1

* Acceptable Surrogate Recovery: 53-148 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	102

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-13	16845-012	1/5/2009	12/30/2008	1/9/2009	1/9/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	<50	1

* Acceptable Surrogate Recovery: 53-148 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	97

[1] Volatile Fuel Hydrocarbons (VFH) are quantitated against a gasoline standard.

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Murrieta, CA, 92563

Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Fuel Hydrocarbons (EPA 8015B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-14	16845-013	1/5/2009	12/31/2008	1/9/2009	1/9/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	18000	50

* Acceptable Surrogate Recovery: 53-148 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	116

MW-15	16845-014	1/5/2009	12/31/2008	1/8/2009	1/8/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	8400	20

* Acceptable Surrogate Recovery: 53-148 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	131

MW-16	16845-015	1/5/2009	12/31/2008	1/8/2009	1/8/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	2500	5

* Acceptable Surrogate Recovery: 53-148 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	158

MW-17	16845-016	1/5/2009	12/30/2008	1/9/2009	1/9/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	520	1

* Acceptable Surrogate Recovery: 53-148 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	231

[1] Volatile Fuel Hydrocarbons (VFH) are quantitated against a gasoline standard.

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Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

Volatile Fuel Hydrocarbons (EPA 8015B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTT0107091			1/7/2009	1/7/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	<50	1

* Acceptable Surrogate Recovery: 53-148 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	71

Method Blank	MBTT0108093			1/8/2009	1/8/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	<50	1

* Acceptable Surrogate Recovery: 53-148 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	95

Method Blank	MBTT0109091			1/9/2009	1/9/2009	Water

ANALYTE	µg/L	Dilution Factor
VFH [1]	<50	1

* Acceptable Surrogate Recovery: 53-148 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

Surrogate:	% RC*
α-α-α-Trifluorotoluene	103

[1] Volatile Fuel Hydrocarbons (VFH) are quantitated against a gasoline standard.

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Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

C10-C32 (CADHS LUFT)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-1	16845-001	1/5/2009	12/29/2008	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	0.72	Octacosane	184	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-2	16845-002	1/5/2009	12/30/2008	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	22	Octacosane	334	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-3	16845-003	1/5/2009	12/30/2008	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	3.2	Octacosane	180	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-4	16845-004	1/5/2009	12/30/2008	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	3.4	Octacosane	366	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

C10-C32 (CADHS LUFT)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-6	16845-005	1/5/2009	12/30/2008	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	0.65	Octacosane	319	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-7	16845-006	1/5/2009	12/30/2008	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	<0.5	Octacosane	270	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-8	16845-007	1/5/2009	12/30/2008	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	3.0	Octacosane	255	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-9	16845-008	1/5/2009	12/30/2008	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	<0.5	Octacosane	376	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Lab Reference # PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

C10-C32 (CADHS LUFT)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-10	16845-009	1/5/2009	12/30/2008	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	<0.5	Octacosane	278	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-11	16845-010	1/5/2009	12/31/2009	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	1.6	Octacosane	302	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-12	16845-011	1/5/2009	12/31/2008	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	<0.5	Octacosane	227	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-13	16845-012	1/5/2009	12/30/2008	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	<0.5	Octacosane	251	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

C10-C32 (CADHS LUFT)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-14	16845-013	1/5/2009	12/31/2008	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	1.0	Octacosane	178	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-15	16845-014	1/5/2009	12/31/2008	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	2.1	Octacosane	234	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-16	16845-015	1/5/2009	12/31/2008	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	0.79	Octacosane	180	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MW-17	16845-016	1/5/2009	12/30/2008	1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	55	Octacosane	224	1

* Acceptable Surrogate Recovery: D-134 %

☑ A data qualifier was required for this sample if the box is checked; see attached explanation.

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Lab Reference #: PTE 16845
Project Name: Wigington Oil El CAP Oil
Project #: 252-06

C10-C32 (CADHS LUFT)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBME0105092			1/5/2009	1/6/2009	Water

ANALYTE	mg/L	Surrogate:	% RC*	Dilution Factor
C10-C32 Diesel	<0.5	Octacosane	60	1

* Acceptable Surrogate Recovery: D-134 %

☐ A data qualifier was required for this sample if the box is checked; see attached explanation.

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QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 1/12/2009
Date of Analysis: 1/12/2009
Dup Date of Analysis: 1/12/2009
Laboratory Sample #: 16839-009
Reference #: PTE 16845

Analyte	*R1*	*SP CONC*	*MS*	*MSD*	*%MS*	*%MSD*	*RPD*	*ACP %MS*	*ACP RPD*	*Qual*
1,1-Dichloroethene	0.0	50	45	49	90	98	9	41-130	23	☐
Benzene	0.0	50	53	51	106	102	4	70-130	15	☐
Trichloroethene	3.2	50	60	58	114	110	3	70-130	15	☐
Toluene	0.0	50	32	29	64	58	10	70-137	17	☑
Chlorobenzene	0.0	50	51	49	102	98	4	70-130	16	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	*MS*	*MSD*	*Qual*
Dibromofluoromethane	110	113	☐
Toluene-d8	63	58	☑
4-Bromofluorobenzene	111	110	☐

LCS	*Qual*
115	☐
94	☐
108	☐

ACP % RC
48-143 %
68-130 %
64-130 %

Laboratory Control Sample

Date of Extraction: 1/12/2009
Date of Analysis: 1/12/2009
Laboratory Sample #: HN0112091

Analyte	*SP CONC*	*Results*	*% Recovery*	*Acceptable %*	*Qual*
1,1-Dichloroethene	50	61	122	47-130	☐
Benzene	50	55	110	70-130	☐
Trichloroethene	50	61	122	70-130	☐
Toluene	50	53	106	70-130	☐
Chlorobenzene	50	55	110	70-130	☐

QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 1/12/2009
Date of Analysis: 1/13/2009
Dup Date of Analysis: 1/13/2009
Laboratory Sample #: AZ5586-006
Reference #: PTE 16845

Analyte	R1	SP CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
1,1-Dichloroethene	0.0	50	43	61	86	122	35	41-130	23	☑
Benzene	0.0	50	48	49	96	98	2	70-130	15	☐
Trichloroethene	0.0	50	54	54	108	108	0	70-130	15	☐
Toluene	0.0	50	46	46	92	92	0	70-137	17	☐
Chlorobenzene	0.0	50	52	50	104	100	4	70-130	16	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual
Dibromofluoromethane	108	109	☐
Toluene-d8	91	87	☐
4-Bromofluorobenzene	108	101	☐

LCS	Qual
108	☐
89	☐
106	☐

ACP % RC
48-143 %
68-130 %
64-130 %

Laboratory Control Sample

Date of Extraction: 1/12/2009
Date of Analysis: 1/12/2009
Laboratory Sample #: MN0112091

Analyte	SP CONC	Results	% Recovery	Acceptable %	Qual
1,1-Dichloroethene	50	49	98	47-130	☐
Benzene	50	50	100	70-130	☐
Trichloroethene	50	57	114	70-130	☐
Toluene	50	48	96	70-130	☐
Chlorobenzene	50	52	104	70-130	☐

QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 1/13/2009
Date of Analysis: 1/13/2009
Dup Date of Analysis: 1/13/2009
Laboratory Sample #: 16845-011
Reference #: PTE 16845

Analyte	*R1*	*SP CONC*	*MS*	*MSD*	*%MS*	*%MSD*	*RPD*	*ACP %MS*	*ACP RPD*	*Qual*
1,1-Dichloroethene	0.0	50	56	65	112	130	15	41-130	23	☐
Benzene	0.0	50	50	50	100	100	0	70-130	15	☐
Trichloroethene	0.0	50	55	57	110	114	4	70-130	15	☐
Toluene	0.0	50	46	47	92	94	2	70-137	17	☐
Chlorobenzene	0.0	50	49	50	98	100	2	70-130	16	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	*MS*	*MSD*	*Qual*
Dibromofluoromethane	102	107	☐
Toluene-d8	89	88	☐
4-Bromofluorobenzene	106	105	☐

LCS	*Qual*
106	☐
88	☐
107	☐

ACP % RC
48-143 %
68-130 %
64-130 %

Laboratory Control Sample

Date of Extraction: 1/13/2009
Date of Analysis: 1/13/2009
Laboratory Sample #: HN0113091

Analyte	*SP CONC*	*Results*	*% Recovery*	*Acceptable %*	*Qual*
1,1-Dichloroethene	50	51	102	47-130	☐
Benzene	50	51	102	70-130	☐
Trichloroethene	50	57	114	70-130	☐
Toluene	50	47	94	70-130	☐
Chlorobenzene	50	50	100	70-130	☐

QA/QC Report
for
Volatile Fuel Hydrocarbons (EPA 8015B)

Reporting units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 1/7/2009
Date of Analysis: 1/7/2009
Dup Date of Analysis: 1/7/2009
Laboratory Sample #: 16845-006
Reference #: PTE 16845

Analyte	*R1*	*SP CONC*	*MS*	*MSD*	*%MS*	*%MSD*	*RPD*	*ACP %MS*	*ACP RPD*	*Qual*
VFH	0	250	253	259	101	104	2	52-140	28	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)*	*MS*	*MSD*	*Qual*	*LCS*	*Qual*
α-α-α-Trifluorotoluene	120	119	☐	127	☐

* Acceptable Surrogate Recovery: 53-148 %

Laboratory Control Sample

Date of Extraction: 1/7/2009
Date of Analysis: 1/7/2009
Laboratory Sample #: TT0107091

Analyte	*SP CONC*	*Results*	*% Recovery*	*Acceptable %*	*Qual*
VFH	250	279	112	60-133	☐

QA/QC Report
for
Volatile Fuel Hydrocarbons (EPA 8015B)

Reporting units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 1/8/2009
Date of Analysis: 1/8/2009
Dup Date of Analysis: 1/8/2009
Laboratory Sample #: 16845-011
Reference #: PTE 16845

Analyte	*R1*	*SP CONC*	*MS*	*MSD*	*%MS*	*%MSD*	*RPD*	*ACP %MS*	*ACP RPD*	*Qual*
VFH	0	250	281	284	112	114	1	52-140	28	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)*	*MS*	*MSD*	*Qual*	*LCS*	*Qual*
α-α-α-Trifluorotoluene	119	125	☐	107	☐

* Acceptable Surrogate Recovery: 53-148 %

Laboratory Control Sample

Date of Extraction: 1/8/2009
Date of Analysis: 1/8/2009
Laboratory Sample #: TT0108093

Analyte	*SP CONC*	*Results*	*% Recovery*	*Acceptable %*	*Qual*
VFH	250	230	92	60-133	☐

QA/QC Report
for
Volatile Fuel Hydrocarbons (EPA 8015B)

Reporting units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 1/9/2009
Date of Analysis: 1/9/2009
Dup Date of Analysis: 1/9/2009
Laboratory Sample #: 16845-012
Reference #: PTE 16845

Analyte	*R1*	*SP CONC*	*MS*	*MSD*	*%MS*	*%MSD*	*RPD*	*ACP %MS*	*ACP RPD*	*Qual*
VFH	0	250	290	212	116	85	31	52-140	28	☑

Surrogate Recoveries for Spike Samples

Surrogate (%RC)*	*MS*	*MSD*	*Qual*	*LCS*	*Qual*
α-α-α-Trifluorotoluene	119	93	☐	119	☐

* Acceptable Surrogate Recovery: 53-148 %

Laboratory Control Sample

Date of Extraction: 1/9/2009
Date of Analysis: 1/9/2009
Laboratory Sample #: TT0109091

Analyte	*SP CONC*	*Results*	*% Recovery*	*Acceptable %*	*Qual*
VFH	250	250	100	60-133	☐

QA/QC Report
for
Extractable Fuel Hydrocarbons (CADHS LUFT)
Reporting units: ppm

Laboratory Control Sample (LCS) / Laboratory Control Sample Duplicate (LCSD)

Date of Extraction: 1/5/2009
LCS Date of Analysis: 1/6/2009
LCSD Date of Analysis: 1/6/2009
Laboratory Sample #: ME0105092
Reference #: PTE 16845

Analyte	*R1*	*SP CONC*	*LCS*	*LCSD*	*%LCS*	*%LCSD*	*RPD*	*ACP%*	*ACP RPD*	*Qual*
C10-C32 Diesel	0.0	5.0	4.7	4.0	94	80	16	37-125	34	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)*	*LCS*	*LCSD*	*Qual*
Octacosane	136	128	☑

* Acceptable Surrogate Recovery: D-134 %

Sample Data Qualifiers

Client Sample Number	Lab Sample #	Analysis
MW-1	16845-001	8260B

Qualifier

D1 = Sample required dilution due to matrix.

MW-1	16845-001	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-1	16845-001	VFH

Qualifier

D1 = Sample required dilution due to matrix.

MW-2	16845-002	8260B

Qualifier

D1 = Sample required dilution due to matrix.

MW-2	16845-002	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-2	16845-002	VFH

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-3	16845-003	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-4	16845-004	8260B

Qualifier

D1 = Sample required dilution due to matrix.

MW-4	16845-004	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-4	16845-004	VFH

Qualifier

D2 = Sample required dilution due to high concentration of target analyte.

S1 = Surrogate recovery was above laboratory acceptance limits

MW-6	16845-005	8260B

Qualifier

D1 = Sample required dilution due to matrix.

Sample Data Qualifiers

Client Sample Number	Lab Sample #	Analysis
MW-6	16845-005	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-6	16845-005	VFH

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-7	16845-006	8260B

Qualifier

D1 = Sample required dilution due to matrix.

MW-7	16845-006	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-8	16845-007	8260B

Qualifier

D1 = Sample required dilution due to matrix.

MW-8	16845-007	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-8	16845-007	VFH

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-9	16845-008	8260B

Qualifier

D2 = Sample required dilution due to high concentration of target analyte.

MW-9	16845-008	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-9	16845-008	VFH

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

D1 = Sample required dilution due to matrix.

MW-10	16845-009	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

Sample Data Qualifiers

Client Sample Number	Lab Sample #	Analysis
MW-11	16845-010	8260B

Qualifier

D2 = Sample required dilution due to high concentration of target analyte.

MW-11	16845-010	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-11	16845-010	VFH

Qualifier

D2 = Sample required dilution due to high concentration of target analyte.

MW-12	16845-011	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-13	16845-012	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-14	16845-013	8260B

Qualifier

D2 = Sample required dilution due to high concentration of target analyte.

MW-14	16845-013	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-14	16845-013	VFH

Qualifier

D1 = Sample required dilution due to matrix.

MW-15	16845-014	8260B

Qualifier

D2 = Sample required dilution due to high concentration of target analyte.

MW-15	16845-014	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-15	16845-014	VFH

Qualifier

D2 = Sample required dilution due to high concentration of target analyte.

Sample Data Qualifiers

Client Sample Number	Lab Sample #	Analysis
MW-16	16845-015	8260B

Qualifier

D2 = Sample required dilution due to high concentration of target analyte.

MW-16	16845-015	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-16	16845-015	VFH

Qualifier

D2 = Sample required dilution due to high concentration of target analyte.

S1 = Surrogate recovery was above laboratory acceptance limits

MW-17	16845-016	8260B

Qualifier

D1 = Sample required dilution due to matrix.

MW-17	16845-016	CADHS LUFT

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

MW-17	16845-016	VFH

Qualifier

S1 = Surrogate recovery was above laboratory acceptance limits

QA/QC Data Qualifiers

QA/QC Sample #	QA/QC Sample Description	Analysis
16839-009	MS	8260B

Analyte	Qualifier
Toluene-d8	S6 = Surrogate recovery was below laboratory and method acceptance limits. Reextraction and/or reanalysis confirms low recovery caused by matrix effect.
Toluene	M2 = Matrix spike recovery was low, the associated blank spike recovery was acceptable.

16839-009	MSD	8260B

Analyte	Qualifier
Toluene-d8	S6 = Surrogate recovery was below laboratory and method acceptance limits. Reextraction and/or reanalysis confirms low recovery caused by matrix effect.
Toluene	M2 = Matrix spike recovery was low, the associated blank spike recovery was acceptable.

AZ5586-006	MSD	8260B

Analyte	Qualifier
1,1-Dichloroethene	R5 = MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

ME0105092	LCS	CADHS LUFT

Analyte	Qualifier
Octacosane	S1 = Surrogate recovery was above laboratory acceptance limits

16845-012	MS	VFH

Analyte	Qualifier
VFH	R4 = MS/MSD RPD exceeded the method acceptance limit. Recovery met acceptance criteria.

Definition of terms:

R1	Results Of Laboratory Sample Number
SP CONC	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
%MS	Percent Recovery Of MS: {(MS-R1) / SP} x100
%MSD	Percent Recovery Of MSD: {(MSD-R1) / SP} x 100
RPD	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2
LCS	Laboratory Control Sample Results
LCSD	Laboratory Control Sample Duplicate Results
%LCS	Percent Recovery Of LCS: {(LCS-R1) / SP} x100
%LCSD	Percent Recovery Of LCSD: {(LCSD-R1) / SP} x 100
RPD (for LCS/LCSD)	Relative Percent Difference: {(LCS-LCSD) / (LCS+LCSD)} x 100 x 2
ACP %MS(MSD)	Acceptable Range of Percent
ACP RPD	Acceptable Relative Percent Difference
D	Detectable, result must be greater than zero
Qual	A checked box indicates a data qualifier was required for this analyte; see attached explanation.
N.D.	Analyte Not Detected

Analysis Request and Chain of Custody Record

Lab Job No: 16845
Page 1 of 2

ORANGE COAST ANALYTICAL, INC. www.ocalab.com
3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064 Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

CUSTOMER INFORMATION

COMPANY: Petra Geotechnical
SEND REPORT TO: jolbinski@petra-inc.com
ADDRESS: 38655 Sky Canyon Dr
Murrieta CA 92563
EMAIL: ABOVE
PHONE: 951-600-9271 FAX: 951-600-9215

PROJECT INFORMATION

PROJECT NAME: Wigington Oil ECAP O.I
NUMBER: 252-06
ADDRESS: Woodside AVE Santee
P.O. #: OB-1280
SAMPLED BY: L.H & DLJ

REQUIRED TAT: Std

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	ANAYSIS / CONTAINER / PRESERVATIVE: TPH ☒ gasoline ☒ diesel	BTEX/Oxygenates 8260B	REMARKS / PRECAUTIONS
MW-1	5	12-29-08	2:55	W	X	X	
MW-2	5	12-30-08	3:05	W			
MW-3	5	12-30-08	2:15				
MW-4	5	12-30-08	2:09				
MW-6	5	12-30-08	12:58				
MW-7	5	12-30-08	10:15				
MW-8	5	12-30-08	11:40				
MW-9	5	12-30-08	11:18				
MW-10	5	12-30-08	10:11				
MW-11	5	12-31-08	11:45				
MW-12	5	12-31-08	1:55				
MW-13	5	12-30-08	11:02				
MW-14	5	12-31-08	8:23				
MW-15	5	12-31-08	9:30				

Total No. of Samples: Method of Shipment:

Preservative: 1 = Ice 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	01-05-09 1:35 PM		
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received For Lab By: [Mark Noma]	Date/Time: 1-5-09 1335

Sample Matrix: DW - Drinking Water; GW - Groundwater; WW - Wastewater; SS - Soil/Solid; OT- Other

Sample Integrity: Intact _____ On Ice ✓ 6 °C

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.

Analysis Request and Chain of Custody Record

Lab Job No: 16845
Page 2 of 2

ORANGE COAST ANALYTICAL, INC. www.ocalab.com
3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064 Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

CUSTOMER INFORMATION

COMPANY: Petra Geotechnical Inc.
SEND REPORT TO: Jim Olbinski
ADDRESS: 38655 Sky Canyon Dr.
Murrieta CA 92563
EMAIL: jolbinski@petra-inc.com
PHONE: FAX:

PROJECT INFORMATION

PROJECT NAME: Wigington Oil El Cap Oil
NUMBER: 252-06
ADDRESS: Woodside AVE Santee
P.O.#: 08-1280
SAMPLED BY: L.H and DLJ

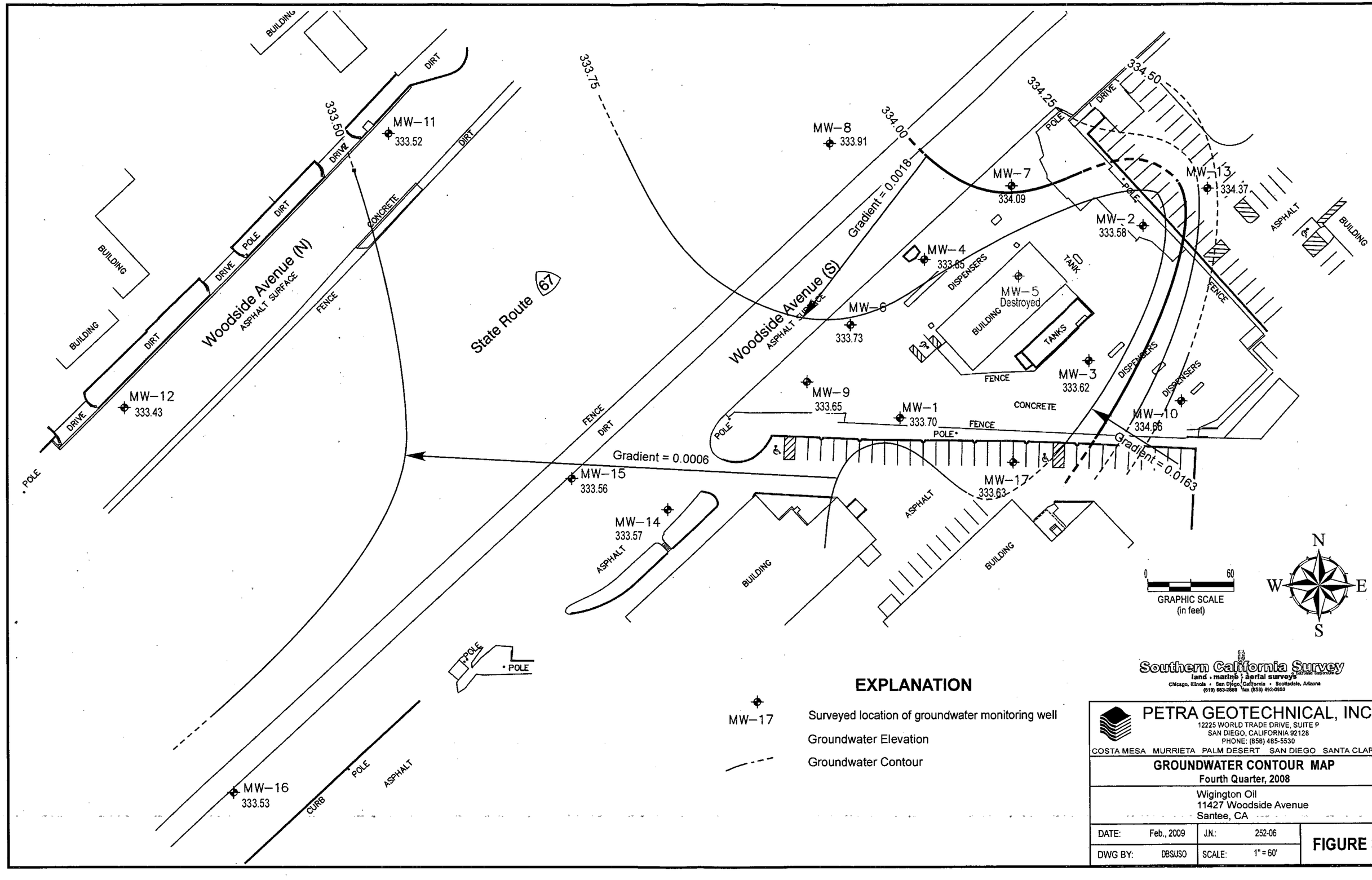
REQUIRED TAT: std

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	ANALYSIS/CONTAINER/PRESERVATIVE: TPH ☒ gasoline ☒ diesel	BTEX/Oxygenates 8260 B	REMARKS/PRECAUTIONS
MW-16	5	12/31-08	10:30	W	X	X	
MW-17	5	12-30-08	9:00	W	X	X	
cc: jjones@cleanupfundservices.com							

Total No. of Samples: Method of Shipment: Preservative: 1 = Ice 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By:	Date/Time:	Received By:	Date/Time:	Sample Matrix: DW - Drinking Water; GW - Groundwater; WW - Wastewater; SS - Soil/Solid; OT- Other
Oscar A	01-05-09 1:35 PM			
Relinquished By:	Date/Time:	Received By:	Date/Time:	
Relinquished By:	Date/Time:	Received For Lab By: Mark Noonan	Date/Time: 1-5-09 1335	Sample Integrity: Intact _____ On Ice ✓ 6 °C

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.



EXPLANATION

MW-17 — Surveyed location of groundwater monitoring well

Groundwater Elevation

Groundwater Contour

Southern California Survey
land • marine • aerial surveys
Chicago, Illinois • San Diego, California • Scottsdale, Arizona
(619) 583-2688 fax (858) 492-0850

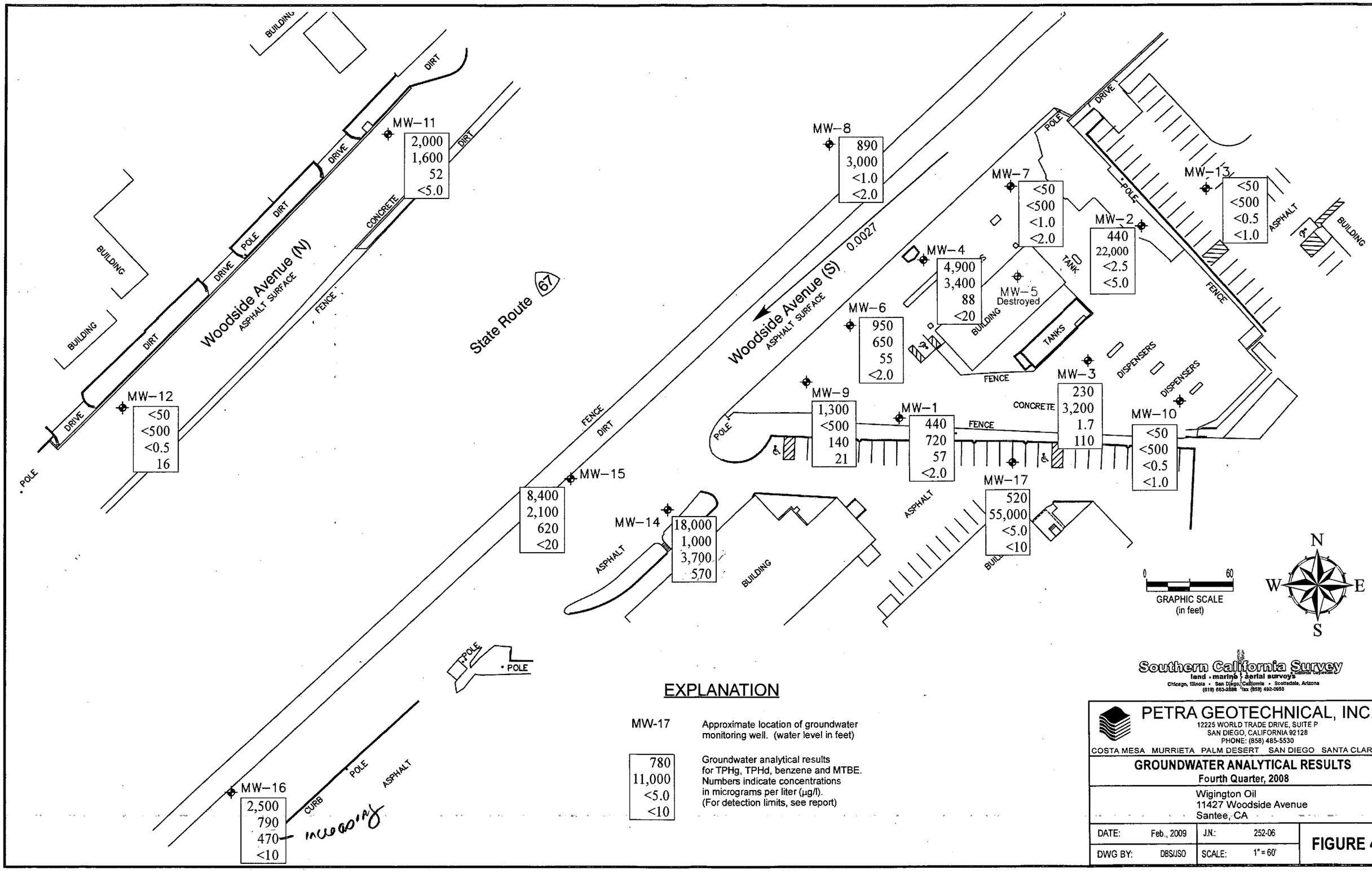
PETRA GEOTECHNICAL, INC.
12225 WORLD TRADE DRIVE, SUITE P
SAN DIEGO, CALIFORNIA 92128
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

GROUNDWATER CONTOUR MAP

Fourth Quarter, 2008

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	Feb., 2009	J.N.:	252-06	**FIGURE 3**
DWG BY:	DBS/JSO	SCALE:	1" = 60'	



EXPLANATION

MW-17 — Approximate location of groundwater monitoring well. (water level in feet)

780
11,000
<5.0
<10

Groundwater analytical results for TPHg, TPHd, benzene and MTBE. Numbers indicate concentrations in micrograms per liter (µg/l). (For detection limits, see report)

Southern California Survey
A California Corporation
land • marine • aerial surveys
Chicago, Illinois • San Diego, California • Scottsdale, Arizona
(619) 583-3888 fax (858) 492-0958

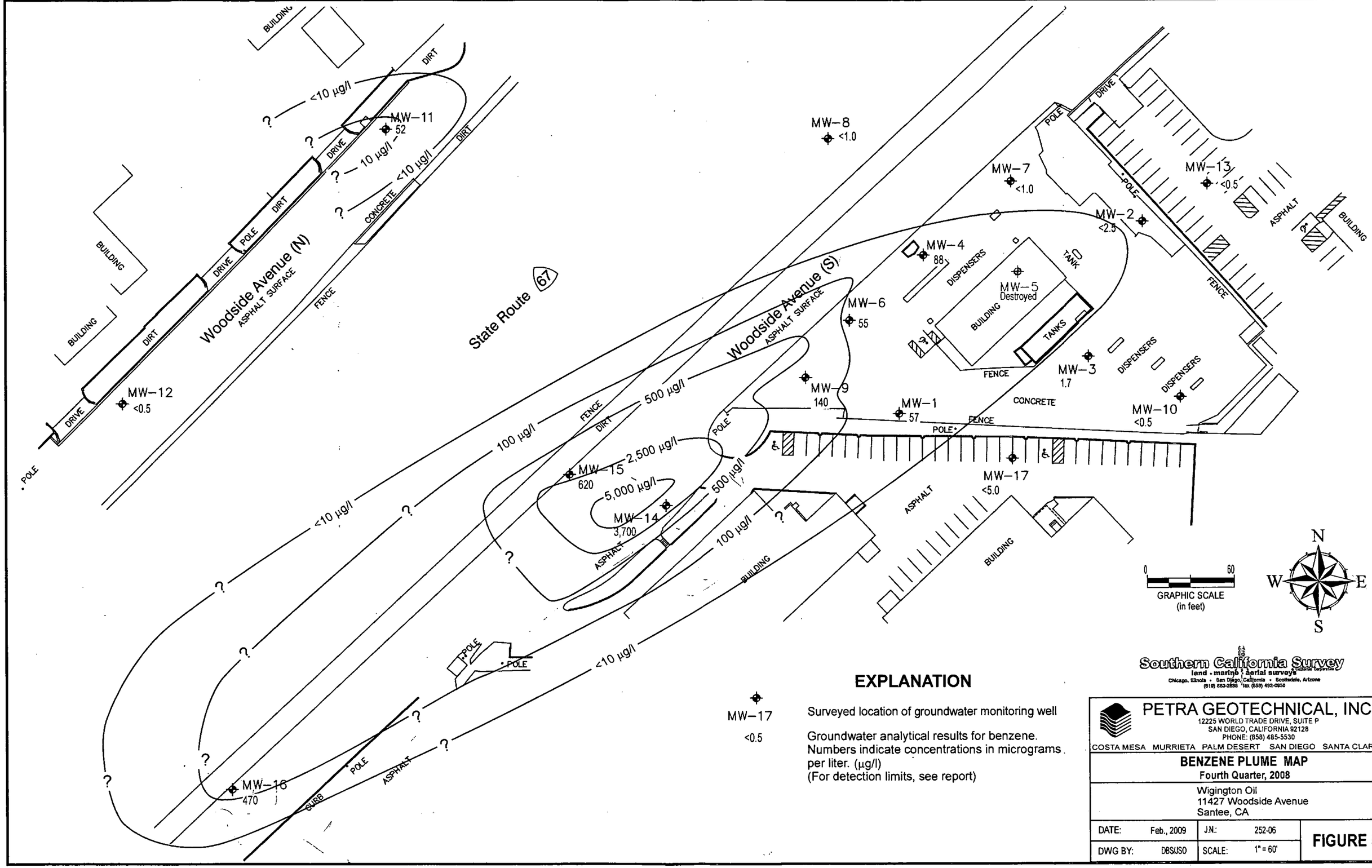
PETRA GEOTECHNICAL, INC.
12225 WORLD TRADE DRIVE, SUITE P
SAN DIEGO, CALIFORNIA 92128
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

GROUNDWATER ANALYTICAL RESULTS
Fourth Quarter, 2008

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	Feb., 2009	J.N.:	252-06
DWG BY:	DBS/JSO	SCALE:	1" = 60'

FIGURE 4



EXPLANATION

MW-17
<0.5

Surveyed location of groundwater monitoring well

Groundwater analytical results for benzene. Numbers indicate concentrations in micrograms per liter. (µg/l)
(For detection limits, see report)

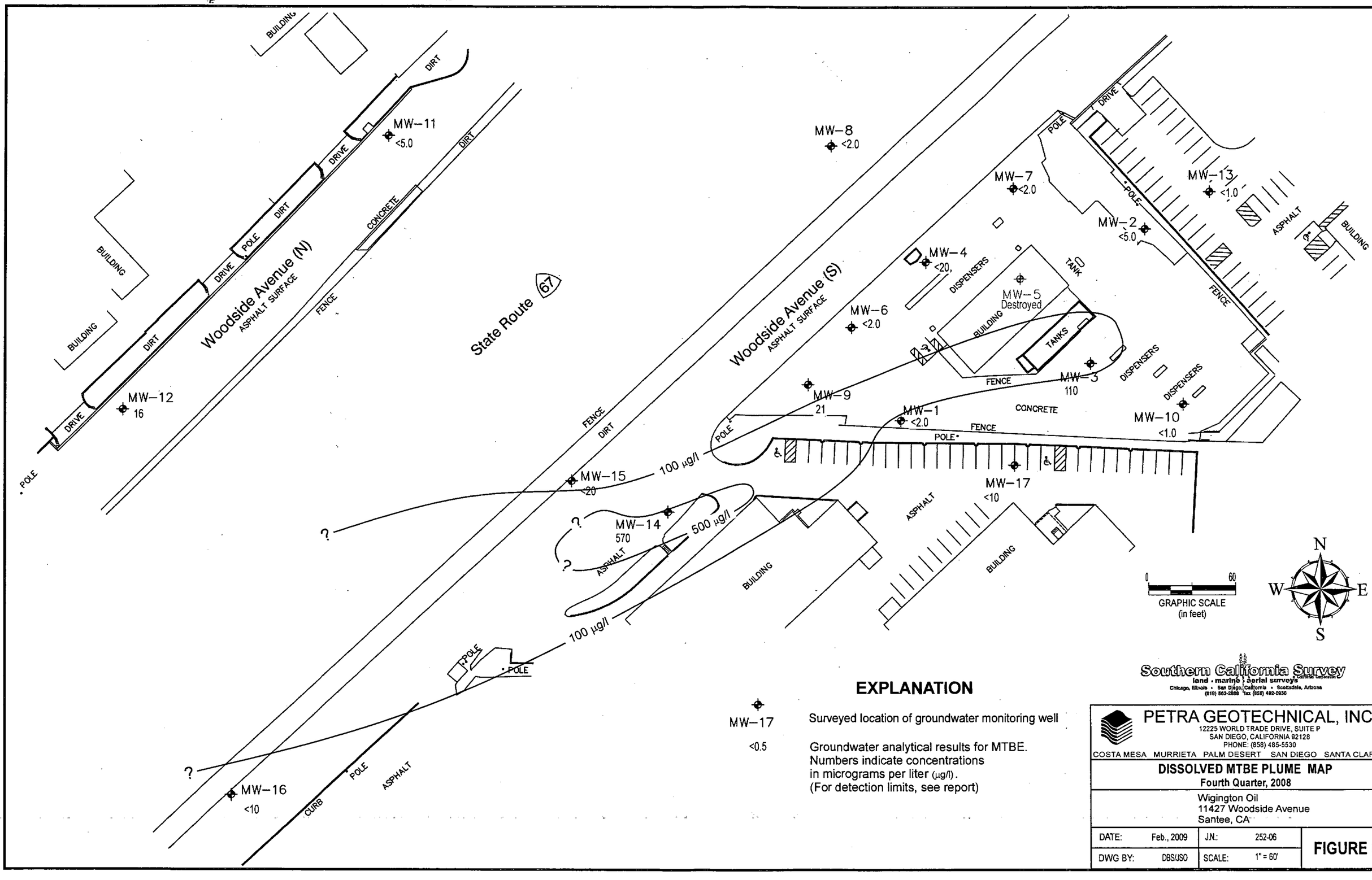
Southern California Survey
land • marine • aerial surveys
Chicago, Illinois • San Diego, California • Scottsdale, Arizona
(619) 652-2888 fax (858) 492-0830

PETRA GEOTECHNICAL, INC.
12225 WORLD TRADE DRIVE, SUITE P
SAN DIEGO, CALIFORNIA 92128
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

BENZENE PLUME MAP
Fourth Quarter, 2008

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	Feb., 2009	J.N.:	252-06	**FIGURE 5**
DWG BY:	DBS/JSO	SCALE:	1" = 60'	



EXPLANATION

MW-17
<0.5

Surveyed location of groundwater monitoring well

Groundwater analytical results for MTBE.
Numbers indicate concentrations
in micrograms per liter (µg/l).
(For detection limits, see report)

Southern California Survey
land • marine • aerial surveys
Chicago, Illinois • San Diego, California • Scottsdale, Arizona
(619) 863-2888 fax (858) 492-0950

PETRA GEOTECHNICAL, INC.
12225 WORLD TRADE DRIVE, SUITE P
SAN DIEGO, CALIFORNIA 92128
PHONE: (858) 485-5530
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

DISSOLVED MTBE PLUME MAP

Fourth Quarter, 2008

Wigington Oil
11427 Woodside Avenue
Santee, CA

DATE:	Feb., 2009	J.N.:	252-06	**FIGURE 6**
DWG BY:	DBS/JSO	SCALE:	1" = 60'	

MW-1
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.17	**0.6**	NA	NA	**0.7**	<0.5	NA	<0.05	NA
03/10/98	336.87	NA	**2,500**	**910**	**340**	**200**	**18**	**240**	**190**
05/18/98	NR	NA	**704**	<500	**326**	**89.5**	<50	<100	<50
04/05/00	334.28	NA	**1,800**	NA	**250**	**14**	**34**	**380**	**200**
04/26/02	332.63	NA	**1,100**	**1,100**	**230**	**14**	**36**	**220**	**190**
12/03/02	332.65	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA
01/17/08	--	NA	--	FREE-	DRO -DUCT	--	--	--	--
04/18/08	332.98	NA	**2,800**	**980**	**370**	**6.6**	**170**	**227.8**	**610**
07/28/08	331.86	NA	**420**	<500	**57**	<0.5	**19**	**15**	**55**
12/30/08	333.70	NA	**440**	**720**	**57**	<1.0	**30**	**26**	<2.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-2
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.37	<0.5	NA	NA	<0.5	<0.5	NA	<0.5	NA
03/10/98	336.65	NA	**330**	<500	**20**	**3.3**	**25**	**47**	**2,000**
04/05/00	333.17	NA	**7,600**	NA	**7.6**	**3.3**	**30**	**59**	**3,500**
04/26/02	333.36	NA	**6,000**	**160,000**	**9.2**	**3.9**	**16**	**17**	**2,600**
12/03/02	333.24	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	FP	--	--	FP --	--	--	--	--	--
01/17/08	FP	--	--	FP --	--	--	--	--	--
04/18/08	334.02	NA	**510**	**6,400**	<10	<10	<10	<30	**1,300**
07/28/08	332.56	NA	--	FP --	--	--	--	--	--
12/30/08	333.58	NA	**440**	**22,000**	<2.5	<2.5	**4.0**	<10	<5.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-3
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.24	**140**	NA	NA	**19**	**3.4**	NA	**1.3**	NA
03/10/98	337.82	NA	**2,300**	**5,100**	**3.6**	**0.7**	**0.7**	**4.1**	**2,000**
05/18/98	NR	NA	**115**	<500	98.5	<12.5	<12.5	<25.0	**226**
04/05/00	329.42	NA	**420**	NA	**18**	**1.7**	**3.9**	**12**	**190**
04/26/02	332.79	NA	**9,700**	**190,000**	**92**	<3.0	**56**	**62**	**590**
12/03/02	332.84	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	FP	--	--	--	FP --	--	--	--	--
01/17/08	FP	--	--	--	--	--	--	--	--
04/18/08	333.25	NA	<500	**1,800**	**2.8**	<1.0	<1.0	<3.0	**99**
07/28/08	332.13	--	--	--	FP --	--	--	--	--
12/30/08	333.62	NA	**230**	**3,200**	**1.7**	<0.50	**0.61**	<2.0	**110**

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-4
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
05/25/88	335.22	**6.3**	NA	NA	<0.5	<0.5	NA	<0.5	NA
03/10/98	336.44	NA	**9,600**	**3,700**	**2,400**	**250**	**50**	**430**	**4,100**
04/05/00	332.92	NA	**8,700**	NA	**1,800**	<12	**110**	**790**	**900**
04/26/02	332.78	NA	**15,000**	**95,000**	**4,500**	**150**	**450**	**1,900**	**1,500**
12/03/02	332.95	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	FP	--	--	FP	--	--	--	--	--
01/17/08	FP	--	--	--	--	--	--	--	--
04/18/08	333.13	NA	**2,000**	**4,500**	**380**	**2.9**	**95**	**41**	**110**
07/28/08	331.97	NA	**2,100**	**1,300**	**410**	<2.5	**72**	<10	**70**
12/30/08	333.85	NA	**4,900**	**3,400**	**88**	<10	**20**	**53**	<20

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-5
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
03/10/98	NA	NA	**730**	**1,700**	**20**	**0.6**	<0.3	**39**	**92**
04/26/02	333.03	NA	**500**	**2,000**	**7.3**	**1.7**	**2.8**	**6.8**	**230**
12/03/02	332.92	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	331.70	NA	NA	NA	NA	NA	NA	NA	NA
01/17/08	--	--	--	--	--	--	--	--	--
04/18/08	332.35	--	--	--	--	--	--	--	--
07/28/08	--	--	--	--	--	--	--	--	--
12/30/08		Destroyed							

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (per SAM Approval)

MW-6
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/26/02	332.67	NA	**25,000**	**9,100**	**5,300**	**1,400**	**1,200**	**5,900**	**850**
12/03/02	332.69	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	331.43	NA	**570**	<500	**21**	**0.7**	**48**	**14**	**17**
01/17/08	333.00	NA	**1,400**	<500	**9.6**	**0.6**	**4.8**	**8.5**	**3.5**
04/18/08	332.97	NA	**2,000**	**750**	**500**	<20	**210**	**150**	**180**
07/28/08	331.84	NA	**6,900**	**980**	**720**	**7.6**	**410**	**540**	**98**
12/30/08	333.73	NA	**950**	**650**	**55**	<1.0	**34**	**30**	<2.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-7
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/26/02	333.10	NA	**1,900**	**13,000**	**3.7**	**1.1**	**4.0**	**7.9**	**19**
12/03/02	333.12	NR	NR	NR	NR	NR	NR	NR	NR
10/25/07	332.12	NA	<500	<500	<0.5	<0.5	<0.5	<0.5	<1.0
01/17/08	333.40	NA	<500	<500	<0.5	<0.5	<0.5	<1.5	<1.0
04/21/08	333.41	NA	<500	<500	<0.5	<0.5	<0.5	<1.5	<1.0
07/29/08	332.49	NA	<50	<500	<0.5	<0.5	<0.5	<2.0	<1.0
12/30/08	334.09	NA	<50	<500	<1.0	<1.0	<1.0	<4.0	<2.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
– = Not Sampled (free product in well)

MW-8
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/26/02	332.80	NA	**4,800**	**6,500**	**50**	**9.2**	**170**	**210**	**64**
12/03/02	332.81	NR	NR	NR	NR	NR	NR	NR	NR
10/26/07	331.49	NA	**1,100**	**790**	<0.5	<0.5	**23**	<0.5	<1.0
01/17/08	333.17	NA	**1,100**	**570**	<0.5	<0.5	**27**	<1.5	<1.0
04/21/08	333.09	NA	**980**	**1,200**	<0.5	<0.5	**23**	<1.5	<1.0
07/29/08	331.91	NA	**660**	**2,100**	<0.5	<0.5	**15**	<2.0	<1.0
12/30/08	333.91	NA	**890**	**3,000**	<1.0	<1.0	**16**	<4.0	<2.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-9
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/18/08	332.84	NA	**1,700**	**560**	**740**	**250**	**270**	**1,010**	**170**
07/28/08	331.75	NA	**1,100**	**570**	**230**	**27**	**27**	**65**	**74**
12/30/08	333.65	NA	**1,300**	<500	**140**	**10**	**71**	**200**	**21**

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-10
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/18/08	334.76	NA	<500	<500	<0.5	<0.5	<0.5	<1.5	**4.2**
07/29/08	333.63	NA	<50	<500	<0.5	<0.5	<0.5	<2.0	**1.0**
12/30/08	334.66	NA	<50	<500	<0.5	<0.5	<0.5	<2.0	<1.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-11
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/18/08	332.50	NA	**1,800**	<500	**22**	<1.0	**170**	<3.0	<2.0
07/29/08	331.49	NA	**690**	**720**	**4.2**	**0.81**	**39**	<2.0	<1.0
12/30/08	333.52	NA	**2,000**	**1,600**	**52**	**6.8**	**230**	**11**	<5.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-12
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/18/08	332.33	NA	<500	<500	<1.0	<1.0	**2.0**	<3.0	**65**
07/29/08	331.39	NA	<50	<500	<0.5	<0.5	<0.5	<2.0	**11**
12/30/08	333.43	NA	<50	<500	<0.5	<0.5	<0.5	<2.0	**16**

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-13
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/21/08	334.14	NA	<500	<500	<0.5	<0.5	<0.5	<1.5	<1.0
07/30/08	332.83	NA	<50	<500	<0.5	<0.5	<0.5	<2.0	<1.0
12/30/08	334.37	NA	<50	<500	<0.5	<0.5	<0.5	<2.0	<1.0

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-14
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/21/08	332.70	NA	**27,000**	**3,800**	**5,300**	**290**	**2,400**	**6,460**	**650**
07/30/08	331.65	NA	**25,000**	**12,000**	**6,600**	**170**	**2,400**	**3,700**	**270**
12/30/08	333.57	NA	**18,000**	**1,000**	**3,700**	<50	**1,500**	**2,000**	**570**

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-15
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/21/08	332.65	NA	**32,000**	**3,500**	**2,400**	**510**	**4,100**	**13,380**	<200
07/30/08	331.60	NA	**46,000**	**17,000**	**2,100**	**250**	**3,700**	**10,000**	<50
12/30/08	333.56	NA	**8,400**	**2,100**	**620**	**12**	**1,500**	**160**	<20

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

MW-16
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/21/08	332.44	NA	<500	<500	**53**	<2.5	**77**	<7.5	**110**
07/30/08	331.46	NA	**1,300**	**780**	**110**	**1.7**	**210**	<4.0	**160**
12/30/08	333.53	NA	**2,500**	**790**	**470**	**6.0**	**390**	<20	<10

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
-- = Not Sampled (free product in well)

↑ Benzene

MW-17
Historical Groundwater Data Table
Through Fourth Quarter Monitoring Event, 2008
Wigington Petroleum

Date Sampled	GW Elevation	TPH	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/21/08	333.00	NA	**990**	**3,100**	<0.5	<0.5	<0.5	<1.5	<1.0
07/30/08	331.89	NA	**780**	**11,000**	<5.0	<5.0	<5.0	<1.5	<10
12/30/08	333.63	NA	**520**	**55,000**	<5.0	<5.0	<5.0	<20	<10

NA = Not Analyzed
NR = Not Reported
FP = Free Product, elevation not determined
– = Not Sampled (free product in well)

↑TPH-d

RECEIVED
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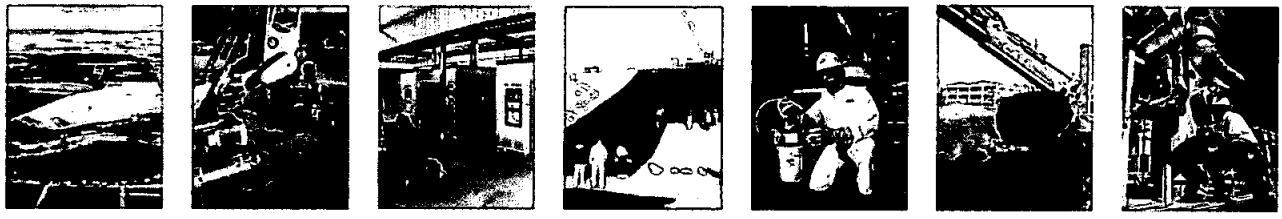
NC oeo well

SCS ENGINEERS



GB
8/27/10

Quarterly Groundwater Monitoring
Second Quarter 2010

11427 Woodside Avenue

Santee, California

(DEH CASE #H19469-001)

confirm TBA

Presented to:

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Presented by:

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August 24, 2010
Project Number: 01208473.00

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August 24, 2010
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Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Subject: Quarterly Groundwater Monitoring Event Conducted During April 2010 (2Q2010)

DEH File Number: H19469-001

Site: 11427 Woodside Avenue
Santee, California

Dear Ms. Beacon:

SCS Engineers (SCS) is pleased to present this report (Report) of the April 2010 quarterly groundwater monitoring (Assessment) of petroleum hydrocarbon-bearing groundwater in the vicinity of a former underground storage tank (UST) system at the referenced Site (Figures 1 and 2). During the current assessment, 16 Site monitoring wells were monitored for depth to water and the presence of phase-separated hydrocarbons (PSH). All 16 monitoring wells were purged and sampled pursuant to the requirements of the County of San Diego, Department of Environmental Health (DEH), Site Assessment and Mitigation (SAM) Program. This work was conducted in accordance with Exhibit 00 to the Contract between SCS and Wigington Petroleum, Inc. (Client), fully executed on March 30, 2009.

Should you have any questions regarding this Report, please do not hesitate to call the undersigned at (858) 571-5500.

Sincerely,

Chris Crosby
Staff Professional
SCS ENGINEERS

Charles E. Houser, CEG 2206
Senior Project Professional
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Vice President
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cc: Ms. Linda Wigington, c/o William Fischbeck, Esq.

State UST Cleanup Fund via upload to State Geotracker website

Enclosures
CC
F:\Projects\208\451-530\01208473.00 (Wigington Petroleum, Inc.)\701 (El Cap Oil)\01208473.00 Groundwater Monitoring 2Q2010\01208473.00.QTR.GW.RPT (2Q2010).doc

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Appendix A Groundwater Purging and Sampling Forms
Appendix B Non-Hazardous Waste Manifest
Appendix C Analytical Data and Chain-of-Custody Documentation
Appendix D Hydrographs

1 BACKGROUND

The Site is located at 11427 Woodside Avenue in the City of Santee, San Diego County, California (Figure 1). The Site is currently occupied by a commercial fuel and oil facility (Figure 2). Between 1987 and 1998, 13 underground storage tanks (USTs) were reportedly removed from the Site. Analysis of samples collected during the UST removals indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) directed that corrective measures be taken regarding the release.

A summary of the previous environmental assessments conducted at the Site follows:

- EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the Site between 1988 and 2005. A total of 18 borings and 7 groundwater monitoring wells (MW-1 through MW-4 and MW-6 through MW-8) were drilled and sampled by EnecoTech. An existing 12-inch diameter concrete water production well inside the Site building was labeled MW-5 and was also sampled during the monitoring events in March 1998 and April 2002.

- In 1988, EnecoTech reported that four USTs were removed from the Site. A site assessment was performed immediately following the tank removal activities, during which 11 soil borings were drilled and sampled and 4 of the borings were completed as groundwater monitoring wells (MW-1 through MW-4).

- On August 19, 1993, the HMMD issued a Notice of Violation to El Capitan Oil Co. requiring corrective action relative to the release. The SAM Program reportedly assumed oversight responsibility of the UST assessment and mitigation in mid-1993.

- EnecoTech reported that single-walled product piping was removed from the Site in October 1997.

- In April 1998, nine USTs were reportedly removed from the Site where samples collected by EnecoTech indicated a release of petroleum hydrocarbons.

- On March 14, 2000, EnecoTech produced a workplan titled *Work Plan for Environmental Services*, which proposed the installation of two additional groundwater monitoring wells. The SAM Program reportedly directed that 4 groundwater monitoring wells be installed in a letter dated, May 8, 2000. EnecoTech installed two groundwater monitoring wells (MW-6 and MW-7) on February 26, 2001 and one groundwater monitoring well (MW-8) on April 19, 2002.

- Based on the results of EnecoTech's Site assessment activities, groundwater beneath the Site was interpreted to have been impacted by petroleum hydrocarbons from on-Site releases.

- On March 25, 2005, EnecoTech submitted a workplan for additional Site assessment, which proposed the installation of nine additional groundwater monitoring wells both on-Site and off-Site.

- In 2006, Petra Geotechnical Inc. (Petra) was retained to conduct the Site assessment work. The SAM Program approved EnecoTech's workplan in a letter, dated October 10, 2007. Petra proposed one well be installed in addition to the nine wells proposed by EnecoTech. The SAM Program agreed that an additional well was needed and requested a revised workplan. Petra submitted an addendum to the revised workplan, dated December 21, 2007, to include a tenth groundwater monitoring well be installed. The SAM Program approved the revised workplan in a letter, dated January 15, 2008.

- On October 25, 2007, Petra assessed that phase-separated hydrocarbons (PSH) were present in monitoring wells MW-2, MW-3, and MW-4. Petra submitted a workplan titled, *Workplan for High Vacuum Dual Phase Extraction Pilot Test and Interim Remediation*, to the SAM Program, dated December 24, 2007. The SAM Program approved the workplan in a letter dated, January 16, 2008.

- Petra conducted a 33-day high-vacuum, dual-phase extraction (HVDPE) pilot test between January 22 and February 24, 2008. Approximately 3,256.17 pounds of petroleum hydrocarbons were removed and treated during the pilot test. During the pilot test, nine new monitoring wells (MW-9 through MW-17) were installed. The location of these wells (MW9 through MW-17) and previous wells (MW-1 through MW-8) are depicted on Figure 2. In April 2008, monitoring wells MW-1 through MW-4 and MW-6 through MW-17 were sampled during the second quarter 2008 (2Q2008) groundwater monitoring event.

- On July 25, 2008, Petra submitted a *Workplan for Well Maintenance and Well Destruction* to the SAM Program to destroy well MW-5 and reconstruct the well heads for several monitoring wells. The SAM Program approved this workplan in a letter dated September 4, 2008.

- In 2009, SCS Engineers was retained to conduct further groundwater monitoring and Site assessment beginning with the second quarter 2009 (2Q2009) groundwater monitoring event.

- On July 13, 2009, the SAM Program issued a letter that called for the reduction of the frequency of groundwater monitoring from quarterly to semi-annually, occurring during the second and fourth quarters.

- On April 26, 2010, SCS submitted a *Workplan for a Soil Vapor Survey and Health Risk Assessment* to the SAM Program. The SAM Program approved this workplan in a letter dated, May 18, 2010. Additionally, on April 26, 2010, SCS submitted a *Site Assessment Workplan* to the SAM Program to install two groundwater monitoring wells. The SAM Program approved this workplan in a letter dated, May 19, 2010.

The current Report describes the groundwater monitoring event conducted during April 2010 (2Q2010).

2 SITE DESCRIPTION SUMMARY

Site Name:	Wigington Petroleum
Site Owner:	Wigington Petroleum, Inc.
Site Address:	11427 Woodside Avenue, Santee, California
DEH Case Number:	H19469-001
Cleanup Fund Claim Number:	912
Global ID:	T0607303173

3 OBJECTIVES

The objectives of the scope of services described in this Report were to:

- Assess the possible presence of phase-separated hydrocarbons (PSH) in groundwater at the Site.
- Assess the presence and extent of petroleum hydrocarbons and associated volatile organic compounds (VOCs) dissolved in groundwater at the Site.
- Assess the groundwater elevation and the hydraulic gradient at the Site.

4 SCOPE OF SERVICES

FIELD ACTIVITIES—GROUNDWATER SAMPLING AND ANALYSIS

Groundwater Monitoring and Sampling

On April 20, 2010, all 16 Site groundwater monitoring wells were monitored for depth to groundwater and for the presence of phase separated hydrocarbons (PSH). On April 20 and 21, 2010, groundwater monitoring wells MW-1 through MW-4 and MW-6 through MW-17 were purged and sampled in accordance with SAM Program guidelines. It is SCS's understanding that well MW-5 was destroyed by Petra.

Depth-to-groundwater measurements were taken using an interface probe with a manufacturer's reported accuracy of 0.01 foot and are presented in Table 1. PSH were not measured in the groundwater monitoring wells prior to or during groundwater purging activities.

The purged wells were sampled in accordance with SAM Program guidelines. For fast recovering wells (i.e. those recovering at least 80 percent within 2 hours), temperature,

conductivity, and pH measurements (collectively referred to as purging parameters) were taken after the removal of the first borehole volume and each one-half borehole volume thereafter. Purging continued until at least one and one-half borehole volumes had been removed and purging parameters had stabilized to within 10 percent of the previous reading. Slow recovering wells (i.e. those recovering less than 80 percent in two hours) were purged of one borehole volume. Purge water was placed in appropriate 55-gallon drums, labeled, and stored on Site pending disposal.

After purging was completed, the wells were allowed to recover. The fast recovering wells (MW-1, MW-3, MW-4, MW-6 through MW-12, and MW-14 through MW-17) were sampled after at least 80 percent recovery. The slow recovering wells (MW-2 and MW-13) were sampled after at least two hours from the completion of the purging. Groundwater samples were collected from each well with a single-use, disposable bailer and decanted into laboratory-supplied vials. The groundwater sample containers were labeled and placed in an ice-filled cooler pending delivery to the laboratory. Chain-of-custody procedures were implemented for sample tracking. Copies of groundwater monitoring/sampling data sheets are included in Appendix A.

Groundwater Sample Analysis

Groundwater samples were analyzed by H&P Mobile Geochemistry, a state-accredited environmental testing laboratory, in Carlsbad, California, for the following:

- Total petroleum hydrocarbons (TPH) as gasoline (TPHg) and TPH as diesel fuel (TPHd) in general accordance with the California Department of Health Services Leaking Underground Fuel Tank (CA DHS LUFT) Method.

- Benzene, toluene, ethylbenzene, and xylenes (BTEX) and fuel oxygenates including methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA) in general accordance with EPA Method 8260B.

Disposal of Drummed Purged Groundwater and Rinsate Water

SCS submitted the necessary documentation to Soclaris Contracting (Soclaris) for the disposal of the drummed rinsate water and purged groundwater. On April 26, 2010, the drums were transported to the Western Environmental Inc. facility in Mecca, California, for treatment and recycling. A copy of the Non-Hazardous Waste Manifest is included in Appendix B.

Phase-Separated Hydrocarbon (PSH) Monitoring

Approximate bi-weekly phase-separated hydrocarbon (PSH) monitoring was conducted on Site at wells MW-1 through MW-4 from September 4, 2009 to the current sampling event. PSH has been measured in monitoring wells MW-2 and MW-3. Well MW-2 had a maximum PSH thickness of 0.03 feet on September 4, 2009. Well MW-3 had a maximum PSH thickness of 0.31 feet on November 30, 2009 (Table 2). PSH has not been measured in any Site well since March 5, 2010. As a result, PSH monitoring has been discontinued except during semi-annual sampling events.

5 FINDINGS

GEOLOGY

Regional Geology

The Site is located in the Peninsular Ranges Geomorphic Province of Southern California. This province is typified by northwest to southeast-trending mountain ranges approximately parallel to the San Andreas Fault and related regional fault systems. The Peninsular Ranges are generally characterized by granitic rocks of the Southern California batholith and associated metamorphic rocks. Sedimentary rocks ranging in age from Cretaceous to Pleistocene form the San Diego embayment and coastal terraces west of the batholith.

Based on SCS's review of previous Site assessments, materials encountered at the Site generally included fill soil, alluvium, residual soil, and weathered granitic rock. Following is a brief description of these units.

Site Geology

Fill Soil

This unit was encountered in wells MW-13, MW-15, and MW-16 and was interpreted by Petra to be derived from the local alluvial soils. This unit generally consisted of loose, brown to olive-brown to dark yellow-brown, dry to moist, fine to very coarse grained sand with some gravel and asphalt fragments.

Alluvium

This unit generally consisted of brown to olive-brown, moist to wet, interbedded silty to clayey, fine to very coarse grained sand, with some gravel. This unit was interpreted to extend from the surface to depths ranging from approximately 10 feet (well MW-10) to 51.5 feet (well MW-13) below ground surface (bgs).

Residual Soil

This unit generally consisted of earth material derived from in-situ weathering of granitic bedrock, and consisted of dark brown to dark reddish brown, moist, fine to medium grained clayey sand with some coarse grained sand and gravel. This unit was encountered in MW-10 and MW-17 at approximately 10 to 30 feet bgs and 20 to 45 feet bgs, respectively.

Weathered Granitic Rock

This unit generally consisted of dark yellowish brown to dark olive-brown, hard to very hard, weathered crystalline granitic rock. This unit was encountered in MW-10 and MW-17 at approximately 30 feet bgs and 45 feet bgs, respectively.

HYDROGEOLOGY

Based on review of a document titled, *Water Quality Control Plan, San Diego Basin - Region 9*, prepared by the San Diego Regional Water Quality Control Board (RWQCB), dated September 1994, the Site is interpreted to be located within the Santee Hydrologic Sub Area (7.12) of the

Lower San Diego Hydrologic Area (7.10) of the San Diego Hydrologic Unit (7.00). According to the RWQCB, the groundwater in this hydrologic unit has been classified as having existing beneficial uses for municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply purposes.

Groundwater Conditions

Groundwater elevations were calculated based on the surveyed top-of-well casing elevations and the measured depth to groundwater obtained from the 16 Site wells (Table 1). Groundwater was encountered at depths ranging from approximately 27.92 to 33.63 feet below top-of-well casings. The groundwater flow direction was interpreted to be generally toward the west-southwest, with a gradient ranging from approximately 0.0009 to 0.02 ft/ft. The interpreted groundwater contours and flow directions are depicted on Figure 3.

Analytical Results

Groundwater analytical results for TPH and VOCs from the quarterly sampling event are summarized in Table 3 and on Figure 4. Based on laboratory analytical results from the quarterly sampling event, wells MW-2, MW-3, MW-6, MW-14 and MW-15 had detectable concentrations[1] of TPH. TPH and VOCs were reported as follows.

TPH

Total petroleum hydrocarbons as gasoline (TPHg) were reported at detectable concentrations in wells MW-6, MW-14, and MW15. The reported TPHg concentrations ranged from 1,300 micrograms per liter (µg/L) in MW-6 to 3,700 µg/L in MW-14. Total petroleum hydrocarbons as diesel (TPHd) were reported at detectable concentrations in wells MW-2, MW-3, MW-6, and MW-15. The reported TPHd concentrations ranged from 1,500 µg/L in MW-6 and MW-15 to 7,400 µg/L in MW-2. No detectable concentrations of TPH were reported in the remainder of the groundwater samples analyzed.

BTEX

Benzene was reported at detectable concentrations in wells MW-1, MW-3, MW-4, MW-6, MW-9, MW-11, MW-12, MW-14, MW-15, and MW-17. The reported benzene concentrations ranged from 0.6 µg/L in MW-17 to 2,600 µg/L in MW-14. No detectable concentrations of benzene were reported in the remainder of the groundwater samples analyzed. Iso-concentration contours for benzene are depicted on Figure 5.

Toluene was reported at detectable concentrations in wells MW-4, MW-6, MW-9, MW-14, and MW-15. The reported toluene concentrations ranged from 0.5 µg/L in MW-4 to 210 µg/L in MW-14. No detectable concentrations of toluene were reported in the remainder of the groundwater samples analyzed.

---

1 For the purposes of this Report "detectable concentrations" means concentrations above the laboratory reporting limits for the analytical method used.

Ethylbenzene was reported at detectable concentrations in wells MW-1 through MW-4, MW-6, MW-8, MW-9, MW-11, MW-14, and MW-15. The reported ethylbenzene concentrations ranged from 0.7 µg/L in MW-11 to 3,700 µg/L in MW-15. No detectable concentrations of ethylbenzene were reported in the remainder of the groundwater samples analyzed.

Xylenes were reported at detectable concentrations in wells MW-1, MW-4, MW-6, MW-9, MW-14, and MW-15. The reported xylenes concentrations ranged from 1.0 µg/L in MW-4 to 10,090 µg/L in MW-15. No detectable concentrations of xylenes were reported in the remainder of the groundwater samples analyzed.

Oxygenates

MTBE was reported at detectable concentrations in all Site wells except MW-7, MW-8, MW-13, and MW-15. The reported MTBE concentrations ranged from 1.0 µg/L in MW-11 to 670 µg/L in MW-14. Iso-concentration contours for MTBE are depicted on Figure 6.

TBA was reported at detectable concentrations in wells MW-1 through MW-3, and MW-17. The reported TBA concentrations ranged from 35 µg/L in MW-17 to 170 µg/L in MW-2. No detectable concentrations of TBA were reported in the remainder of the groundwater samples analyzed.

Detectable concentrations of ETBE, TAME, and DIPE were not reported in any Site well during the current sampling event.

Copies of the laboratory analytical reports are included in Appendix C.

Hydrographs

Hydrographs depicting groundwater elevations and concentrations of dissolved-phase benzene and MTBE in groundwater versus time for wells MW-1, MW-2, MW-4 and MW-6 through MW-17 are included in Appendix C and discussed in the table below. A hydrograph for MW-3 was not included due to periodic presence of PSH beginning in October 2007. Linear regression trendlines of the benzene and MTBE concentrations are depicted on each hydrograph as appropriate with the calculated R-squared (R^2) value.

The R^2 value indicates the *goodness-of-fit* of the trendline to the data set. In general, an R^2 value between 0.7 and 1.0 would be a *good* fit, between 0.4 and 0.7 a *moderate* fit, and below 0.4 would be a *poor* fit. Over time, significant data gaps are present which limit the ability to calculate representative data trends from several wells. Two significant data gaps occur between samplings events May 1988 and March 1998 and between April 2002 and October 2007. More data is needed to develop a more continuous dataset for analysis. For illustration purposes, samples with no detectable concentration of benzene and MTBE were plotted at one half of the laboratory reporting limit. Please note that the laboratory reporting limits have changed for benzene and MTBE over time; therefore, some wells may show detectable concentrations that are below previous laboratory reporting limits.

Well	Benzene Trendline	MTBE Trendline	Correlation with GW Elevation	Benzene/MTBE Above MCL	Comment
MW-1	Increasing R^2=0.1	Decreasing R^2=0.1	No	Yes	Benzene and MTBE within historical range.
MW-2	Decreasing R^2=0.0	Decreasing R^2=0.4	No	No/Yes	Benzene concentration below reporting limit. MTBE within historic range.
MW-4	Increasing R^2=0.1	Decreasing R^2=0.1	Inverse	Yes	Lowest concentration of benzene since March 1998. MTBE within historical range.
MW-6	Decreasing R^2=0.2	Decreasing R^2=0.2	No	Yes	Benzene and MTBE within historical range.
MW-7	Decreasing R^2=0.8	Decreasing R^2=0.8	NA	No	Below MCLs since Oct. 2007.
MW-8	Decreasing R^2=0.9	Decreasing R^2=0.9	NA	No	Below MCLs since Oct. 2007.
MW-9	Decreasing R^2=0.4	Decreasing R^2=0.1	Benzene – Yes MTBE – Inverse	Yes	Benzene and MTBE within historical range.
MW-10	NA	Increasing R^2=0.1	Inverse since mid-2008	No	ND for benzene since installation. MTBE below MCL since installation.
MW-11	Decreasing R^2=0.3	Increasing R^2=0.1	No	Yes/No	Historical low for benzene. MTBE below MCL since installation.
MW-12	NA	Decreasing R^2=0.7	Yes	Yes/No	First detection of benzene. MTBE within historical range.
MW-13	NA	NA	NA	No	Below MCLs since installation in April 2008.
MW-14	Decreasing R^2=0.7	Increasing R^2=0.1	Benzene-No MTBE-Yes	Yes	Benzene within historical range. Historical high for MTBE.
MW-15	Decreasing R^2=0.3	Slightly decreasing R^2=0.0	No	Yes	Benzene within historical range. MTBE below reporting limits.
MW-16	Decreasing R^2=0.3	Decreasing R^2=0.0	Benzene – No MTBE – Inverse	Yes	Historical low for benzene. MTBE within historical range.
MW-17	NA	NA	NA	No/Yes	Second detectable concentration of benzene and MTBE.

Notes:
MCL's = Maximum contaminant levels, California Code of Regulations, Section 64444.5, dated September 29, 2009. Benzene = 1 ug/L; MTBE = 13 ug/L.
GW = Groundwater
NA = Not applicable due to values below laboratory reporting limits
ND = Not detected above laboratory reporting limit
MTBE = Methyl tertiary butyl ether
ug/L = Micrograms per liter

6 DISCUSSION

Analytical results from the April 2010 sampling event were compared to those obtained during previous monitoring events conducted at the Site beginning in May 1988. Groundwater sample analytical results are summarized in Table 3 and Figure 4. Hydrographs for wells MW-1, MW-2, MW-4 and MW-6 through MW-17 are included in Appendix D. The following is a summary of trends on Site since the last quarterly monitoring and sampling event. Please note that the discussion of recent trends in groundwater elevations and conditions may apply to more than just the interval between the fourth quarter 2009 monitoring event and this second quarter 2010 event.

- The hydrographs indicate that water levels have seasonal fluctuations with water levels generally appearing to increase in the winter months and decrease during the summer months.

- PSH was not detected in any Site well during this event, however historically MW-1 through MW-3 have had PSH at least once.

- Reported TPHg concentrations during this event were below laboratory reporting limits in wells MW-1 through MW-4, MW-7 through MW-13, MW-16, and MW-17. The reported TPHg concentrations during this event were within historical ranges in wells MW-6, MW-14, and MW-15.

- Reported TPHd concentrations during this event were below laboratory reporting limits in wells MW-1, MW-4, MW-7 through MW-14, MW-16, and MW-17. The TPHd concentrations in wells MW-2, MW-3, and MW-15 are within historic ranges for these wells. The reported detectable TPHd concentrations during this event in well MW-6 was flagged by the laboratory stating, "results in the diesel organics range are primarily due to overlap from a gasoline range product."

- Since the last sampling in November 2009, reported benzene concentrations during this event have decreased in wells MW-2, MW-4, MW-11, and MW-16. They remain stable at or below the laboratory reporting limit in wells MW-7, MW-8, MW-10, and MW-13. The reported benzene concentrations have increased in wells MW-1, MW-6, MW-9, MW-12, MW-14, MW-15, and MW-17.

- Since the last sampling in November 2009, reported MTBE concentrations during this event have decreased in wells MW-4, MW-9 through MW-11, and MW-16. They remain stable at or below the detection limit in wells MW-7, MW-8, and MW-13. The reported MTBE concentrations during this event have increased in wells MW-1, MW-2, MW-6, MW-12, MW-14, and MW-17.

The interpreted extent of dissolved benzene and MTBE in groundwater, based on the quarterly sampling conducted during April 2010, is depicted on Figure 5 and 6, respectively.

7 CONCLUSIONS

Based on the data collected during this Assessment, including but not limited to laboratory results, field observations and data evaluation by a professional geologist, and current regulatory guidelines, the following conclusions are made:

- Phase-separated hydrocarbons (PSH) were not observed in any well during the second quarter 2010 sampling event. Although PSH was not observed in well MW-3 during the current sampling event, PSH was measured in MW-3 during PSH monitoring conducted since the 4Q2009 sampling event.

- On April 20, 2010, depth to groundwater was observed to be between 27.92 (MW-7) to 33.63 (MW-17) feet below top-of-well casings. The groundwater flow direction was interpreted to be generally toward the west-southwest, with a gradient ranging from approximately 0.0009 to 0.02 ft/ft.

- The horizontal extent of dissolved benzene and MTBE concentrations in groundwater has not been delineated. Benzene and MTBE concentrations have migrated off Site toward the west-southwest.

8 RECOMMENDATIONS

Based on SCS's assessment of the Site, the following recommendations are made:

- Continue semi-annual monitoring and sampling to evaluate the TPH and VOC trends in the monitoring wells at the Site.

- SCS is currently implementing the approved workplans for additional downgradient groundwater assessment and for a soil vapor survey and human health risk assessment.

- Because the dissolved benzene and MTBE plumes are migrating off-Site, SCS recommends interim remediation to provide source control and control the spread of contamination off-Site to the west. Upon SAM Program concurrence with this recommendation, SCS will prepare and submit an Interim Remedial Action (IRA) Workplan for SAM Program approval.

9 REPORT USAGE AND FUTURE SITE CONDITIONS

This Report is intended for the sole usage of the Client and the parties designated by SCS. Use of this Report is subject to the provisions of the fully executed Contract between the Client and SCS. Any third party usage of this Report shall be subject to the provisions of the Contract and any unauthorized misuse of or reliance upon the Report shall be without risk or liability to SCS.

The conclusions of this Report are judged to be relevant at the time the work described in this Report was conducted. Future conditions may differ and this Report should not be relied upon to represent future Site conditions unless a qualified consultant familiar with the practice of Phase II environmental assessments in San Diego County is consulted to assess the necessity of updating this Report.

Although this Assessment has attempted to assess the likelihood that the Site has been impacted by a hazardous material/waste release, potential sources of impact may have escaped detection for reasons that include, but are not limited to: 1) inadequate or inaccurate information rightfully provided to SCS by third parties, such as public agencies and other outside sources; 2) the limited scope of this Assessment; and 3) the presence of undetected, unknown, or unreported environmental releases.

10 LIKELIHOOD STATEMENTS

Statements of "likelihood" have been made in this report. Likelihood statements are based on professional judgments of SCS. The term "likelihood," as used herein, pertains to the probability of a match between the prediction for an event and its actual occurrence. The likelihood statement assigns a measure for a "degree of belief" for the match between the prediction for the event and the actual occurrence of the event.

The likelihood statements in this Report are made qualitatively (expressed in words). The qualitative terms can be approximately related to quantitative percentages. The term "low likelihood" is used by SCS to approximate a range of 10 to 20 percent; the term "moderate likelihood" refers to an approximate range of 40 to 60 percent; and the term "high likelihood" refers to an approximate range of 80 to 90 percent.

TABLES

Table 1

(Page 1 of 4)

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-1	363.90 (22-42)	05/25/88	28.73	335.17
		03/10/98	27.03	336.87
		04/05/00	29.62	334.28
	362.84 (22-42)	04/26/02	30.21	332.63
		12/03/02	30.19	332.65
		10/26/07	NM	NM
		01/17/08	PSH	PSH
		04/18/08	29.86	332.98
		07/28/08	30.98	331.86
		12/29/08	29.14	333.70
		06/18/09	30.29	332.55
		11/17/09	31.15	331.69
		04/20/10	28.58	334.26
MW-2	365.40 (24-44)	05/25/88	30.03	335.37
		03/10/98	28.75	336.65
		04/05/00	32.23	333.17
	365.08 (24-44)	04/26/02	31.72	333.36
		12/03/02	31.84	333.24
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	31.06	334.02
		07/28/08	PSH	PSH
		12/29/08	31.50	333.58
		06/18/09	31.56	333.52
		11/17/09	32.86	332.22
		04/20/10	29.08	336.00
MW-3	366.07 (24.5-44.5)	05/25/88	30.83	335.24
		03/10/98	28.25	337.82
		04/05/00	36.65	329.42
	364.16 (24.5-44.5)	04/26/02	31.37	332.79
		12/03/02	31.32	332.84
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	30.91	333.25
		07/28/08	PSH	PSH
		12/29/08	30.54	333.62
		06/18/09	31.33	332.83
		11/17/09	PSH	PSH
		04/20/10	29.54	334.62

Table 1

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-4	362.90 (22-42)	05/25/88	27.68	335.22
		03/10/98	26.46	336.44
		04/05/00	29.98	332.92
	362.38 (22-42)	04/26/02	29.60	332.78
		12/03/02	29.43	332.95
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	29.25	333.13
		07/28/08	30.41	331.97
		12/29/08	28.53	333.85
		06/18/09	29.65	332.73
		11/17/09	30.58	331.80
		04/20/10	27.97	334.41
MW-5	NM	03/10/98	27.50	NM
	363.42 (unknown)	04/26/02	30.39	333.03
		12/03/02	30.50	332.92
		10/26/07	31.72	331.70
		01/17/08	NM	NM
		04/18/08	31.07	332.35
		07/28/08	NM	NM
		12/29/08	NM	NM
		Well Destroyed		
MW-6	362.44 (17-42)	04/26/02	29.77	332.67
		12/03/02	29.75	332.69
		10/26/07	31.01	331.43
		01/17/08	29.44	333.00
		04/18/08	29.47	332.97
		07/28/08	30.60	331.84
		12/29/08	28.71	333.73
		06/18/09	29.90	332.54
		11/17/09	30.78	331.66
		04/20/10	28.17	334.27
MW-7	362.57 (17-42)	04/26/02	29.47	333.10
		12/03/02	29.45	333.12
		10/26/07	30.45	332.12
		01/17/08	29.17	333.40
		04/18/08	29.16	333.41
		07/28/08	30.08	332.49
		12/29/08	28.48	334.09
		06/18/09	29.56	333.01
		11/17/09	30.59	331.98
		04/20/10	27.92	334.65

Table 1

(Page 3 of 4)

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-8	364.51 (20.5-40.5)	04/26/02	31.71	332.80
		12/03/02	31.70	332.81
		10/26/07	33.02	331.49
		01/17/08	31.34	333.17
		04/18/08	31.42	333.09
		07/28/08	32.60	331.91
		12/29/08	30.60	333.91
		06/18/09	31.82	332.69
		11/17/09	32.74	331.77
		04/20/10	30.12	334.39
MW-9	362.33 (34-39)	04/18/08	29.49	332.84
		07/28/08	30.58	331.75
		12/29/08	28.68	333.65
		06/18/09	29.90	332.43
		11/17/09	30.75	331.58
		04/20/10	28.15	334.18
MW-10	367.28 (25-40)	04/18/08	32.52	334.76
		07/29/08	33.65	333.63
		12/29/08	32.62	334.66
		06/18/09	32.75	334.53
		11/17/09	33.97	333.31
		04/20/10	30.83	336.45
MW-11	362.48 (23-38)	04/18/08	29.98	332.50
		07/29/08	30.99	331.49
		12/29/08	28.96	333.52
		06/18/09	30.36	332.12
		11/17/09	31.12	331.36
		04/20/10	28.61	333.87
MW-12	361.88 (24-39)	04/18/08	29.55	332.33
		07/29/08	30.49	331.39
		12/29/08	28.45	333.43
		06/18/09	29.94	331.94
		11/17/09	30.65	331.23
		04/20/10	28.17	333.71
MW-13	366.91 (25-45)	04/21/08	32.77	334.14
		07/30/08	34.08	332.83
		12/29/08	32.54	334.37
		06/18/09	33.17	333.74
		11/17/09	34.33	332.58
		04/20/10	31.35	335.56
MW-14	362.79 (23-38)	04/21/08	30.09	332.70
		07/30/08	31.14	331.65
		12/29/08	29.22	333.57
		06/18/09	30.51	332.28
		11/17/09	31.32	331.47
		04/20/10	28.74	334.05

Table 1

Groundwater Elevation Data
11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-15	362.36 (23.5-38.5)	04/21/08	29.91	332.65
		07/30/08	30.96	331.60
		12/29/08	28.80	333.56
		06/18/09	30.13	332.23
		11/17/09	30.92	331.44
		04/20/10	28.36	334.00
MW-16	362.48 (24-39)	04/21/08	30.04	332.44
		07/30/08	31.02	331.46
		12/29/08	28.95	333.53
		06/18/09	30.47	332.01
		11/17/09	31.18	331.30
		04/20/10	28.66	333.82
MW-17	367.97 (24.5-44.5)	04/21/08	34.97	333.00
		07/30/08	36.08	331.89
		12/29/08	34.34	333.63
		06/18/09	35.38	332.59
		11/17/09	36.23	331.74
		04/20/10	33.63	334.34

Notes:

MSL = mean sea level

TOC = top of well casing

PSH = phase-separated hydrocarbons present in well, therefore groundwater elevation was not calculated

NM = well not measured

Wells were surveyed by Southern California Survey initially on April 26, 2002 and updated on March 28, 2008.

Table 2
Phase-Separated Hydrocarbon Monitoring Data
11427 Woodside Avenue, Santee, CA

Date	MW-1			MW-2			MW-3			MW-4		
	DTP	DTW	PT	DTP	DTW	PT	DTP	DTW	PT	DTP	DTW	PT
6/18/2009	NP	30.29	NP	NP	31.56	NP	NP	31.33	NP	NP	29.65	NP
9/4/2009	NP	31.10	NP	32.62	32.65	0.03	32.15	32.18	0.03	NP	30.51	NP
9/18/2009	NP	31.16	NP	32.72	32.73	0.01	32.21	32.26	0.05	NP	30.57	NP
10/2/2009	NP	31.20	NP	NP	32.79	NP	32.26	32.36	0.10	NP	30.61	NP
10/16/2009	NP	31.23	NP	32.82	32.83	0.01	32.29	32.45	0.16	NP	30.64	NP
10/29/2009	NP	31.24	NP	NP	32.90	NP	32.29	32.52	0.23	NP	30.63	NP
11/17/2009	NP	31.15	NP	NP	32.86	NP	32.20	32.48	0.28	NP	30.58	NP
11/30/2009	NP	31.09	NP	NP	32.82	0.00	32.10	32.41	0.31	NP	30.48	NP
12/11/2009	NP	30.50	NP	NP	32.41	NP	31.64	31.80	0.16	NP	29.80	NP
12/24/2009	NP	29.42	NP	NP	31.62	NP	NP	30.72	NP	NP	28.79	NP
1/7/2010	NP	29.67	NP	NP	29.03	NP	31.78	31.79	0.01	NP	29.03	NP
1/26/2010	NP	28.69	NP	NP	31.04	NP	NP	30.11	NP	NP	27.98	NP
2/8/2010	NP	28.30	NP	NP	30.08	NP	NP	29.56*	NP	NP	27.68	NP
2/19/2010	NP	28.07	NP	NP	29.32	NP	29.26	29.27	0.01	NP	27.46	NP
3/5/2010	NP	27.83	NP	NP	28.94	NP	NP	29.07*	NP	NP	27.22	NP
3/19/2010	NP	28.12	NP	NP	28.31	NP	NP	29.22	NP	NP	27.51	NP
4/2/2010	NP	28.55	NP	NP	28.61	NP	NP	29.57	NP	NP	27.94	NP
4/20/2010	NP	28.58	NP	NP	29.08	NP	NP	29.54	NP	NP	27.97	NP

Notes:
DTP = Depth to PSH below top of casing
DTW = Depth to water below top of casing
PT = PSH thickness in feet
NP = No PSH
PSH = Phase-separated hydrocarbons
* = PSH sheen

Table 3
(Page 1 of 4)
Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-1 (installed 5/11/88)	05/25/88	0.6	NA	NA	0.7	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	2,500	910	340	200	18	240	190	NA	NA	NA	NA
	05/18/98	NA	704	< 500	326	89.5	< 50.0	< 100	< 50.0	NA	NA	NA	NA
	04/05/00	NA	1,800	NA	250	14	34	380	200	NA	NA	NA	NA
	04/26/02	NA	1,100	1,100	230	14	36	220	190	< 40	< 40	500	< 40
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	2,800	980	370	6.6	170	227.8	610	NA	NA	NA	NA
	07/28/08	NA	420	< 500	57	< 0.5	19.0	15	55	NA	NA	NA	NA
	12/29/08	NA	440	720	57	< 1.0	30	26	< 2.0	< 2.0	< 2.0	27	< 2.0
	06/18/09	NA	< 500	< 500	210	1.0	38	17.7	220	< 1.0	< 1.0	140	< 1.0
	11/17/09	NA	< 500	< 500	4.4	0.6	2.5	1.1	1.7	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	42	<0.5	3.7	1.1	81	< 1.0	< 1.0	49	< 1.0
MW-2 (installed 5/12/88)	05/25/88	< 0.5	NA	NA	< 0.5	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	330	< 500	20	3.3	25	47	53	NA	NA	NA	NA
	04/04/00	NA	7,600	NA	7.6	3.3	30	59	3,500	NA	NA	NA	NA
	04/26/02	NA	6,000	160,000	9.2	3.9	16	17	3,100	< 40	< 40	500	< 40
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	510	6,400	< 10	< 10	< 10	< 30	1,300	NA	NA	NA	NA
	07/28/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	12/30/08	NA	440	22,000	< 2.5	< 2.5	4.0	< 10	< 5.0	< 5.0	< 5.0	2,100	< 5.0
	06/19/09	NA	< 500	< 500	< 0.5	< 0.5	4.9	< 1.5	8.3	< 1.0	< 1.0	2,000	< 1.0
	11/18/09	NA	2,300	< 500	1.0	0.7	3.4	< 1.5	1.9	< 1.0	< 1.0	1,100	< 1.0
	04/21/10	NA	< 500	7,400	< 0.5	< 0.5	3.7	< 1.5	20	< 1.0	< 1.0	170	< 1.0
MW-3 (installed 5/13/88)	05/25/88	140	NA	NA	19	3.4	NA	1.3	NA	NA	NA	NA	NA
	03/10/98	NA	2,300	5,100	3.6	0.7	0.7	4.1	2,000	NA	NA	NA	NA
	05/18/98	NA	115	< 500	98.5	< 12.5	< 12.5	< 25.0	226	NA	NA	NA	NA
	04/05/00	NA	420	NA	18	1.7	3.9	12	230	NA	NA	NA	NA
	04/26/02	NA	9,700	190,000	92	< 3.0	56	62	590	< 100	< 100	< 1,200	< 100
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	< 500	1,800	2.8	< 1.0	< 1.0	< 3.0	99	NA	NA	NA	NA
	07/28/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	12/30/08	NA	230	3,200	1.7	< 0.5	0.61	< 2.0	110	< 1.0	< 1.0	59	< 1.0
	06/19/09	NA	< 500	< 500	0.5	< 0.5	< 0.5	< 1.5	77	< 1.0	< 1.0	400	< 1.0
	11/17/09	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/21/10	NA	< 500	5,900	1.3	< 0.5	1.2	< 1.5	90	< 1.0	< 1.0	43	< 1.0

Table 3
(Page 2 of 4)
Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-4 (installed 5/13/88)	05/25/88	6.3	NA	NA	< 0.5	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	9,600	3,700	2,400	250	50	430	4,100	NA	NA	NA	NA
	04/04/00	NA	8,700	NA	1,800	< 12	110	790	900	NA	NA	NA	NA
	04/26/02	NA	15,000	95,000	4,500	150	450	1,900	1,500	< 100	< 100	< 1,200	< 100
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	2,000	4,500	380	2.9	95	41.0	110.0	NA	NA	NA	NA
	07/28/08	NA	2,100	1,300	410	< 2.5	72.0	< 10	70	NA	NA	NA	NA
	12/30/08	NA	4,900	3,400	88	< 10	20	53	< 20	< 20	< 20	< 200	< 20
	06/18/09	NA	< 500	< 500	370	2.0	58	11.6	89	< 1.0	< 1.0	24	< 1.0
	11/18/09	NA	3,300	2,600	460	11	130	70.4	140	< 1.0	< 1.0	< 5.0	< 1.0
	04/21/10	NA	< 500	< 500	34	0.5	4.7	1.0	33	< 1.0	< 1.0	< 5.0	< 1.0
MW-5 (instalation unknown)	03/10/98	NA	730	1,700	20	0.6	< 0.30	39	92	NA	NA	NA	NA
	04/26/02	NA	500	2,000	7.3	1.7	2.8	6.8	230	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/17/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	07/28/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/30/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Well Destroyed												
MW-6 (installed 2/26/01)	04/26/02	NA	25,000	9,100	5,300	1,400	1,200	5,900	850	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	570	< 500	21	0.7	48	14	17	NA	NA	NA	NA
	01/17/08	NA	1,400	< 500	9.6	0.6	4.8	8.5	3.5	NA	NA	NA	NA
	04/18/08	NA	2,000	750	500	< 20	210	150	180	NA	NA	NA	NA
	07/28/08	NA	6,900	980	720	7.6	410	540	98	NA	NA	NA	NA
	12/30/08	NA	950	650	55	< 1.0	34	30	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/19/09	NA	< 500	< 500	350	3.1	250	182.3	54	< 1.0	< 1.0	22	< 1.0
	11/18/09	NA	< 500	< 500	90	2.0	75	73.0	25	< 1.0	< 1.0	< 5.0	< 1.0
	04/21/10	NA	1,300	1,500	750	4.1	320	29.7	110	< 1.0	< 1.0	< 5.0	< 1.0
MW-7 (installed 2/26/01)	04/26/02	NA	1,900	13,000	3.7	1.1	4	7.9	19	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	01/17/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	04/21/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 1.0	< 1.0	< 1.0	< 3.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	15	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	8.7	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0

Table 3
(Page 3 of 4)
Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-8 (installed 4/19/02)	04/26/02	NA	4,800	6,500	50	9.2	170	210	64	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/26/07	NA	1,100	790	< 0.5	< 0.5	23	< 0.5	< 1.0	NA	NA	NA	NA
	01/17/08	NA	1,100	570	< 0.5	< 0.5	27	< 1.5	< 1.0	NA	NA	NA	NA
	04/21/08	NA	980	1,200	< 0.5	< 0.5	23	< 1.5	< 1.0	NA	NA	NA	NA
	07/29/08	NA	660	2,100	< 0.5	< 0.5	15	< 2.0	< 1.0	NA	NA	NA	NA
	12/30/08	NA	890	3,000	< 1.0	< 1.0	16	< 4.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	13	< 1.5	< 1.0	< 1.0	< 1.0	13	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.7	10	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	6.1	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-9 (installed 2/4/08)	04/18/08	NA	1,700	560	740	250	270	1,010	170	NA	NA	NA	NA
	07/28/08	NA	1,100	570	230	27	27	65	74	NA	NA	NA	NA
	12/30/08	NA	1,300	< 500	140	10	71	200	21	< 5.0	< 5.0	< 50	< 5.0
	06/19/09	NA	< 500	< 500	50	6.1	34	49.3	55	< 1.0	< 1.0	34	< 1.0
	11/18/09	NA	< 500	< 500	62	8.9	51	89	67	< 1.0	< 1.0	< 5.0	< 1.0
	04/21/10	NA	< 500	< 500	170	28	86	164	64	< 1.0	< 1.0	< 5.0	< 1.0
MW-10 (installed 2/5/08)	04/18/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	4.2	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	1.8	< 1.0	< 1.0	20	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.5	< 0.5	< 1.5	6.3	< 1.0	< 1.0	6.3	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	2.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-11 (installed 2/8/08)	04/18/08	NA	1,800	< 500	22	< 1.0	170	< 3.0	< 2.0	NA	NA	NA	NA
	07/29/08	NA	690	720	4.2	0.81	39	< 2.0	< 1.0	NA	NA	NA	NA
	12/31/08	NA	2,000	1,600	52	6.8	230	11	< 5.0	< 5.0	< 5.0	< 50	< 5.0
	06/18/09	NA	< 500	< 500	5.9	0.6	19	< 1.5	1.6	< 1.0	< 1.0	12	< 1.0
	11/17/09	NA	900	< 500	6.5	1.5	5.5	1.2	2.3	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	3.1	< 0.5	0.7	< 1.5	1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-12 (installed 2/8/08)	04/18/08	NA	< 500	< 500	< 1.0	< 1.0	2.0	< 3.0	65	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	11	NA	NA	NA	NA
	12/31/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	16	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	14	< 1.0	< 1.0	32	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	2.5	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	2.7	< 0.5	< 0.5	< 1.5	4.6	< 1.0	< 1.0	< 5.0	< 1.0
MW-13 (installed 2/18/08)	04/21/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	NA	NA	NA	NA
	07/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	11	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.6	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0

Table 3
(Page 4 of 4)
Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-14 (installed 2/18/08)	04/21/08	NA	27,000	3,800	5,300	290	2,400	6,460	650	NA	NA	NA	NA
	07/30/08	NA	25,000	12,000	6,600	170	2,400	3,700	270	NA	NA	NA	NA
	12/31/08	NA	18,000	1,000	3,700	< 50	1,500	2,000	570	< 100	< 100	< 1,000	< 100
	06/19/09	NA	< 500	< 500	3,600	160	1,900	2,990	540	< 20	< 20	110	< 20
	11/18/09	NA	6,900	< 500	1,600	54	1,000	944	510	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	3,700	< 500	2,600	210	1,700	3,650	670	< 20	< 20	< 100	< 20
MW-15 (installed 2/19/08)	04/21/08	NA	32,000	3,500	2,400	510	4,100	13,380	< 200	NA	NA	NA	NA
	07/30/08	NA	46,000	17,000	2,100	250	3,700	10,000	< 50	NA	NA	NA	NA
	12/31/08	NA		2,100	620	12	1,500	160	< 20	< 20	< 20	< 200	< 20
	06/19/09	NA	< 500	< 500	820	250	2,800	6,930	35	< 20	< 20	< 100	< 20
	11/18/09	NA	19,000	< 500	910	77	3,700	4,308.9	19	< 10	< 10	< 50	< 10
	04/20/10	NA	1,800	1,500	1,100	130	3,700	10,090	< 100	< 100	< 100	< 500	< 100
MW-16 (installed 2/16/08)	04/21/08	NA	< 500	< 500	53	< 2.5	77	< 7.5	110	NA	NA	NA	NA
	07/30/08	NA	1,300	780	110	1.7	210	< 4.0	160	NA	NA	NA	NA
	12/31/08	NA	2,500	790	470	6	390	< 20	< 10	< 10	< 10	< 100	< 10
	06/19/09	NA	< 500	< 500	120	16	220	33	100	< 20	< 20	170	< 20
	11/18/09	NA	570	< 500	110	2.5	65	10.5	73	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	< 10	< 10	< 10	< 30	33	< 20	< 20	< 100	< 20
MW-17 (installed 2/19/08)	04/21/08	NA	990	3,100	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	07/30/08	NA	780	11,000	< 5.0	< 5.0	< 5.0	< 1.5	< 1.0	NA	NA	NA	NA
	12/30/08	NA	520	55,000	< 5.0	< 5.0	< 5.0	< 20	< 10	< 10	< 10	< 100	< 10
	06/19/09	NA	1,600	730	< 0.5	0.7	< 0.5	< 1.5	2.4	< 1.0	< 1.0	15	< 1.0
	11/17/09	NA	550	< 500	0.5	< 0.5	1.9	2.4	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	0.6	< 0.5	< 0.5	< 1.5	29	< 1.0	< 1.0	35	< 1.0

Notes:

Groundwater samples collected by SCS Engineers on November 17 and 18, 2009 and April 20 and 21, 2010.

Groundwater samples collected by Petra Geotechnical, Inc. from October 25, 2007 to December 31, 2008.

Groundwater samples collected by EnecoTech Southwest, Inc. from May 25, 1988 to December 3, 2002.

Results presented in micrograms per liter (µg/L).

Samples were analyzed for gasoline-range (TPHg), and diesel-range (TPHd) total petroleum hydrocarbons in general accordance with EPA Method 8015B modified; and benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), tert-amyl methyl ether (TAME), and t-butanol (TBA) in general accordance with EPA Method 8260B.

< indicates not reported at a concentration above laboratory detection limit.

NS indicates well not sampled.

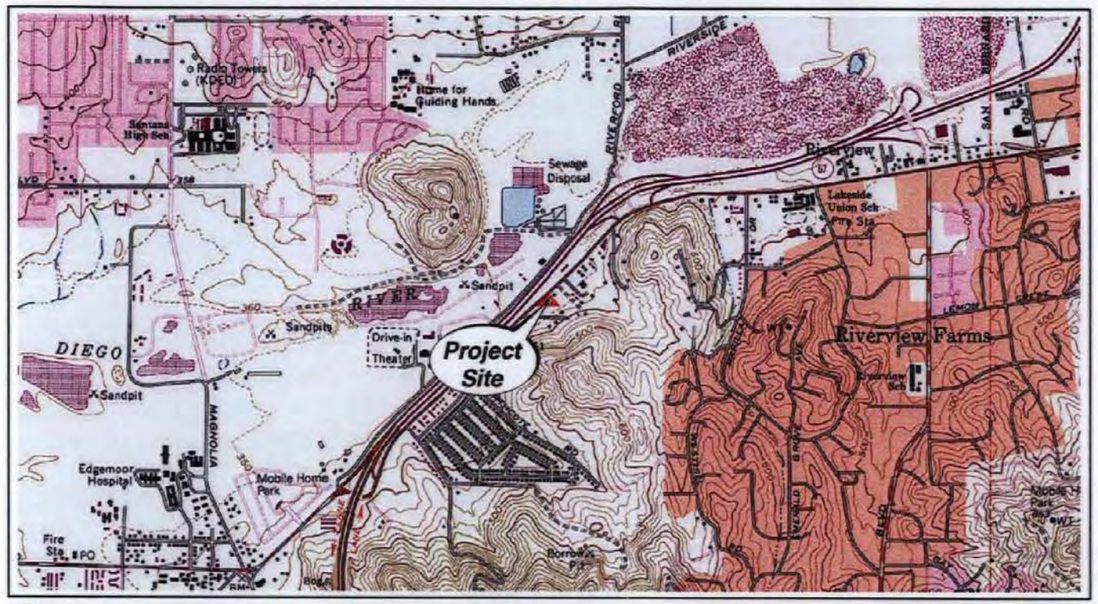
NA indicates not analyzed for particular constituent-of-concern.

* indicates samples were analyzed by EPA Method 418.1 for total extractable hydrocarbons.

FIGURES

North (Not to scale)

REGIONAL SITE LOCATION



North

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

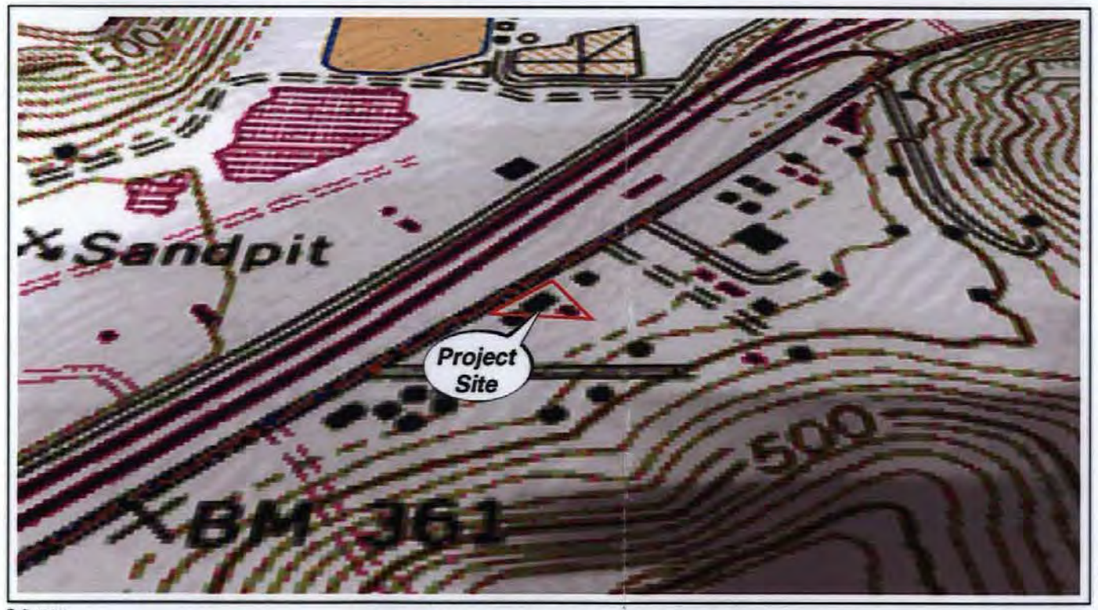
2-DIMENSIONAL SITE LOCATION

0 1,000 2,000 3,000
Approximate Graphic Scale in Feet

North (Not to scale)

Reference:
Google Earth Aerial Photograph
Santee, California - February 2008

SITE AERIAL PHOTOGRAPH



North (Not to scale)

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

3-DIMENSIONAL SITE LOCATION

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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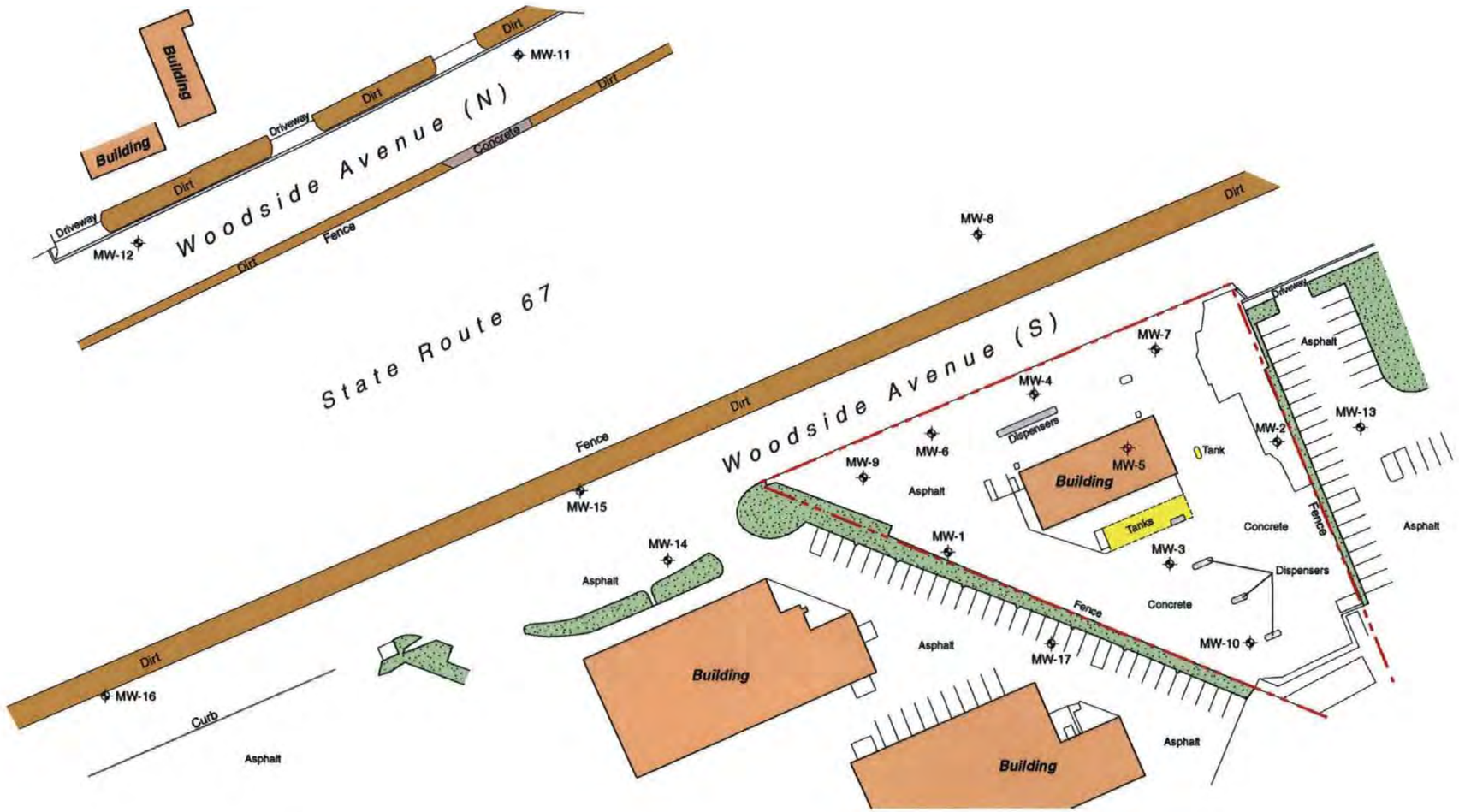
4-WAY SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 1

Date Drafted: 11/4/09



EXPLANATION

MW-16 — Groundwater monitoring well location

MW-5 — Well destroyed

Approximate Site boundary

0 40 80 120

Approximate Graphic Scale:
One Inch Equals 80 Feet

North

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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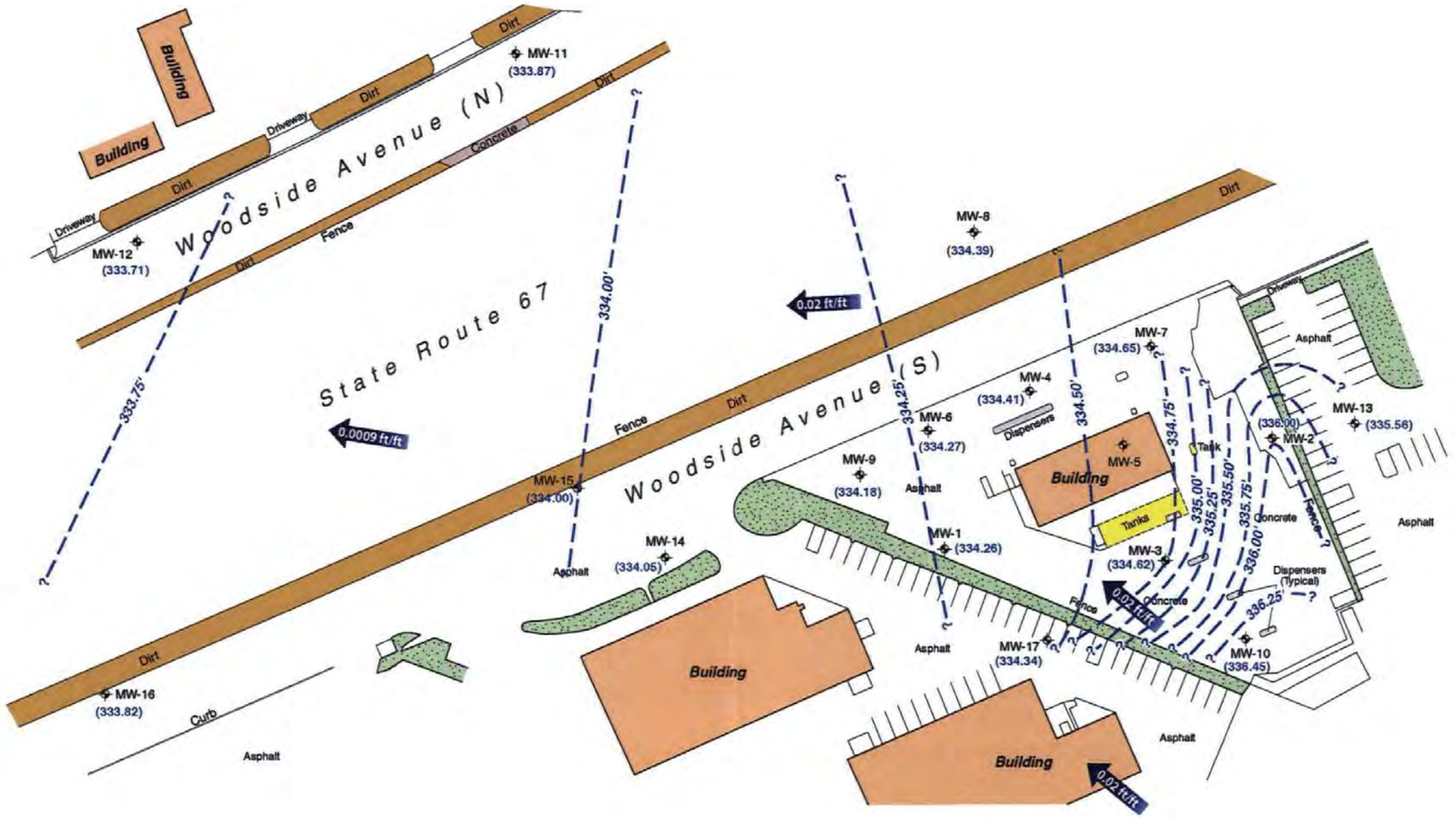
SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 2

Date Drafted: 2/19/10



EXPLANATION

MW-16 (333.82) — Groundwater monitoring well location with groundwater elevation in feet above mean sea level.

333.75' — Estimated groundwater contour in feet above mean sea level.

0.001 ft/ft — Interpreted direction of groundwater flow and estimated groundwater gradient in feet/foot.

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

0 40 80 120
Approximate Graphic Scale:
One Inch Equals 80 Feet

North

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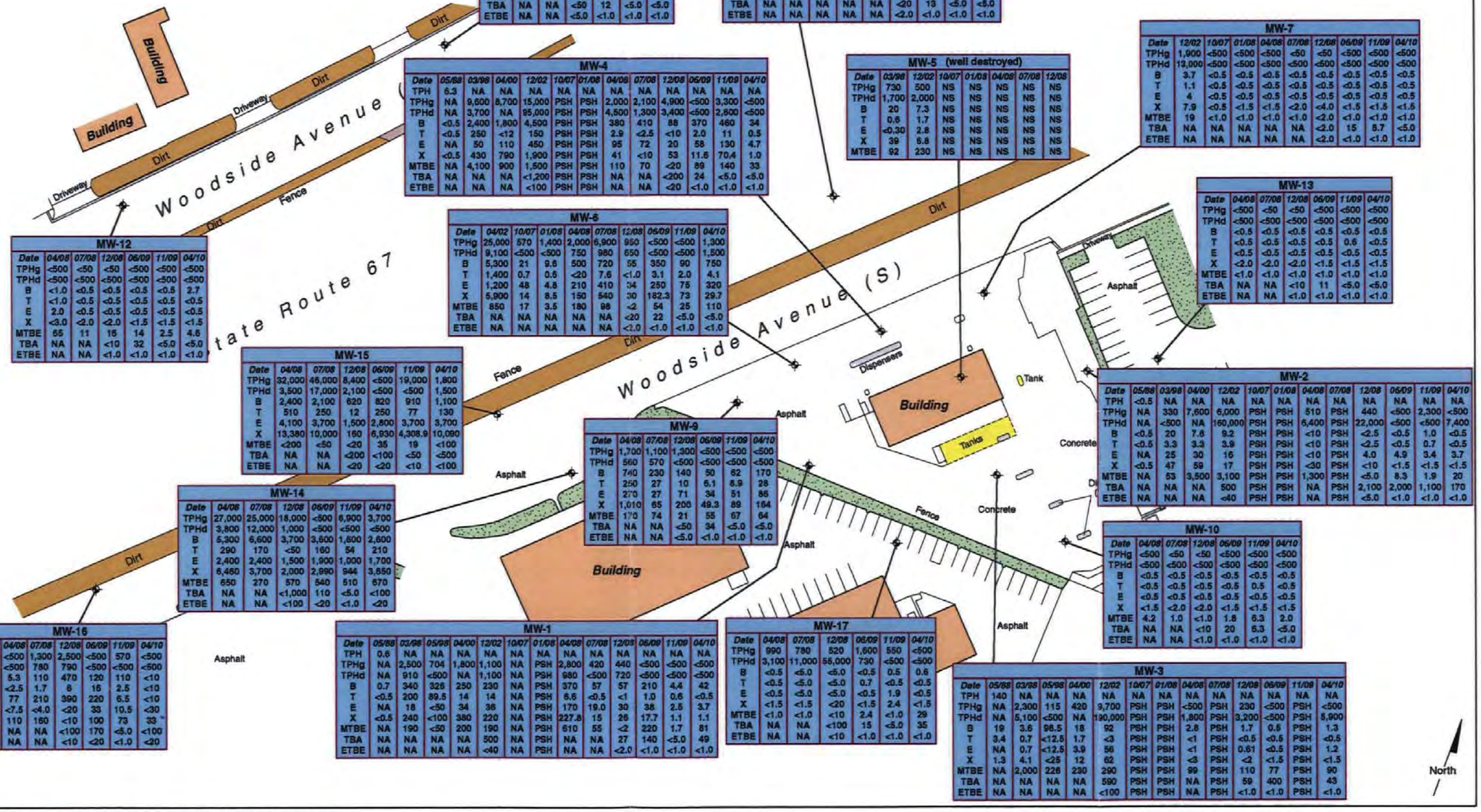
GROUNDWATER ELEVATION MAP
APRIL 2010
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 3

Date Drafted: 5/26/10



MW-11

Date	04/08	07/08	12/08	06/09	11/09	04/10
TPHg	1,800	690	2,000	<500	100	<500
TPHd	<500	720	1,600	<500	<500	<500
B	22	4.2	52	5.9	0.5	3.1
T	<1.0	0.81	6.8	0.5	1.5	<0.5
E	170	39	230	19	5.5	0.7
X	<3.0	<2.0	11	<1.5	1.2	<1.5
MTBE	<2.0	<1.0	<5.0	1.6	2.3	1.0
TBA	NA	NA	<50	12	<5.0	<5.0
ETBE	NA	NA	<5.0	<1.0	<1.0	<1.0

MW-8

Date	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10
TPHg	4,800	1,100	1,100	980	660	890	<500	<500	<500
TPHd	6,500	790	570	1,200	2,100	3,000	<500	<500	<500
B	50	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
T	9.2	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	0.7	<0.5
E	170	23	27	23	15	16	13	10	6.1
X	210	<0.5	<1.5	<1.5	<2.0	<4.0	<1.5	<1.5	<1.5
MTBE	54	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
TBA	NA	NA	NA	NA	NA	<20	13	<5.0	<5.0
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0	<1.0	<1.0

MW-7

Date	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10
TPHg	1,900	<500	<500	<500	<50	<50	<500	<500	<500
TPHd	13,000	<500	<500	<500	<500	<500	<500	<500	<500
B	3.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
T	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
E	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
X	7.9	<0.5	<1.5	<1.5	<2.0	<4.0	<1.5	<1.5	<1.5
MTBE	19	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
TBA	NA	NA	NA	NA	NA	<2.0	15	8.7	<5.0
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0	<1.0	<1.0

MW-4

Date	05/88	03/99	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10
TPH	6.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	9,600	8,700	15,000	PSH	PSH	2,000	2,100	4,900	<500	3,300	<500
TPHd	NA	3,700	NA	95,000	PSH	PSH	4,500	1,300	3,400	<500	2,600	<500
B	<0.5	2,400	1,800	4,500	PSH	PSH	380	410	88	370	460	34
T	<0.5	250	<12	150	PSH	PSH	2.9	<2.5	<10	2.0	11	0.5
E	NA	50	110	450	PSH	PSH	95	72	20	58	130	4.7
X	<0.5	430	790	1,900	PSH	PSH	41	<10	53	11.6	70.4	1.0
MTBE	NA	4,100	900	1,500	PSH	PSH	110	70	<20	89	140	33
TBA	NA	NA	NA	<1,200	PSH	PSH	NA	NA	<200	24	<5.0	<5.0
ETBE	NA	NA	NA	<100	PSH	PSH	NA	NA	<20	<1.0	<1.0	<1.0

MW-5 (well destroyed)

Date	03/99	12/02	10/07	01/08	04/08	07/08	12/08
TPHg	730	500	NS	NS	NS	NS	NS
TPHd	1,700	2,000	NS	NS	NS	NS	NS
B	20	7.3	NS	NS	NS	NS	NS
T	0.6	1.7	NS	NS	NS	NS	NS
E	<0.30	2.8	NS	NS	NS	NS	NS
X	39	6.8	NS	NS	NS	NS	NS
MTBE	92	230	NS	NS	NS	NS	NS

MW-13

Date	04/08	07/08	12/08	06/09	11/09	04/10
TPHg	<500	<50	<50	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500
B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
T	<0.5	<0.5	<0.5	<0.5	0.6	<0.5
E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
X	<2.0	<2.0	<2.0	<1.5	<1.5	<1.5
MTBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TBA	NA	NA	<10	11	<5.0	<5.0
ETBE	NA	NA	<1.0	<1.0	<1.0	<1.0

MW-12

Date	04/08	07/08	12/08	06/09	11/09	04/10
TPHg	<500	<50	<50	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500
B	<1.0	<0.5	<0.5	<0.5	<0.5	2.7
T	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5
E	2.0	<0.5	<0.5	<0.5	<0.5	<0.5
X	<3.0	<2.0	<2.0	<1.5	<1.5	<1.5
MTBE	55	11	15	14	2.5	4.6
TBA	NA	NA	<10	32	<5.0	<5.0
ETBE	NA	NA	<1.0	<1.0	<1.0	<1.0

MW-6

Date	04/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10
TPHg	25,000	570	1,400	2,000	6,900	950	<500	<500	1,300
TPHd	9,100	<500	<500	750	980	650	<500	<500	1,500
B	5,300	21	9.6	500	720	55	350	90	750
T	1,400	0.7	0.6	<20	7.6	<1.0	3.1	2.0	4.1
E	1,200	48	4.8	210	410	34	250	75	320
X	5,900	14	8.5	150	540	30	182.3	73	29.7
MTBE	850	17	3.5	180	98	<2	54	25	110
TBA	NA	NA	NA	NA	NA	<20	22	<5.0	<5.0
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0	<1.0	<1.0

MW-15

Date	04/08	07/08	12/08	06/09	11/09	04/10
TPHg	32,000	46,000	8,400	<500	19,000	1,800
TPHd	3,500	17,000	2,100	<500	<500	1,500
B	2,400	2,100	620	820	910	1,100
T	510	250	12	250	77	130
E	4,100	3,700	1,500	2,800	3,700	3,700
X	13,380	10,000	160	6,930	4,308.9	10,090
MTBE	<200	<50	<20	35	19	<100
TBA	NA	NA	<200	<100	<50	<500
ETBE	NA	NA	<20	<20	<10	<100

MW-9

Date	04/08	07/08	12/08	06/09	11/09	04/10
TPHg	1,700	1,100	1,300	<500	<500	<500
TPHd	560	570	<500	<500	<500	<500
B	740	230	140	50	62	170
T	250	27	10	6.1	6.9	28
E	270	27	71	34	51	86
X	1,010	65	200	49.3	89	164
MTBE	170	74	21	55	67	64
TBA	NA	NA	<50	34	<5.0	<5.0
ETBE	NA	NA	<5.0	<1.0	<1.0	<1.0

MW-2

Date	05/88	03/99	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10
TPH	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	330	7,600	6,000	PSH	PSH	510	PSH	440	<500	2,300	<500
TPHd	NA	<500	NA	160,000	PSH	PSH	6,400	PSH	22,000	<500	<500	7,400
B	<0.5	20	7.6	9.2	PSH	PSH	<10	PSH	<2.5	<0.5	1.0	<0.5
T	<0.5	3.3	3.9	3.9	PSH	PSH	<10	PSH	<2.5	<0.5	0.7	<0.5
E	NA	25	30	16	PSH	PSH	<10	PSH	4.0	4.9	3.4	3.7
X	<0.5	47	59	17	PSH	PSH	<30	PSH	<10	<1.5	<1.5	<1.5
MTBE	NA	53	3,500	3,100	PSH	PSH	1,300	PSH	<5.0	8.3	1.9	20
TBA	NA	NA	NA	500	PSH	PSH	NA	PSH	2,100	2,000	1,100	170
ETBE	NA	NA	NA	<40	PSH	PSH	NA	PSH	<5.0	<1.0	<1.0	<1.0

MW-14

Date	04/08	07/08	12/08	06/09	11/09	04/10
TPHg	27,000	25,000	18,000	<500	6,900	3,700
TPHd	3,800	12,000	1,000	<500	<500	<500
B	5,300	6,600	3,700	3,600	1,600	2,600
T	290	170	<50	160	54	210
E	2,400	2,400	1,500	1,900	1,000	1,700
X	6,460	3,700	2,000	2,990	944	3,650
MTBE	650	270	570	540	510	670
TBA	NA	NA	<1,000	110	<5.0	<100
ETBE	NA	NA	<100	<20	<1.0	<20

MW-10

Date	04/08	07/08	12/08	06/09	11/09	04/10
TPHg	<500	<50	<50	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500
B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
T	<0.5	<0.5	<0.5	<0.5	0.5	<0.5
E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
X	<1.5	<2.0	<2.0	<1.5	<1.5	<1.5
MTBE	4.2	1.0	<1.0	1.8	6.3	2.0
TBA	NA	NA	<10	20	6.3	<5.0
ETBE	NA	NA	<1.0	<1.0	<1.0	<1.0

MW-16

Date	04/08	07/08	12/08	06/09	11/09	04/10
TPHg	<500	1,300	2,500	<500	570	<500
TPHd	<500	780	790	<500	<500	<500
B	5.3	110	470	120	110	<10
T	<2.5	1.7	6	16	2.5	<10
E	77	210	390	220	6.5	<10
X	<7.5	<4.0	<20	33	10.5	<30
MTBE	110	160	<10	100	73	33
TBA	NA	NA	<100	170	<5.0	<100
ETBE	NA	NA	<10	<20	<1.0	<20

MW-1

Date	05/88	03/99	05/99	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10
TPH	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	2,500	704	1,800	1,100	NA	PSH	2,800	420	440	<500	<500	<500
TPHd	NA	910	<500	NA	1,100	NA	PSH	980	<500	720	<500	<500	<500
B	0.7	340	326	250	230	NA	PSH	370	57	57	210	4.4	42
T	<0.5	200	89.5	14	14	NA	PSH	6.6	<0.5	<1	1.0	0.6	<0.5
E	NA	18	<50	34	36	NA	PSH	170	19.0	30	38	2.8	3.7
X	<0.5	240	<100	380	220	NA	PSH	227.8	15	26	17.7	1.1	1.1
MTBE	NA	190	<50	200	190	NA	PSH	610	55	<2	220	1.7	81
TBA	NA	NA	NA	NA	500	NA	PSH	NA	NA	27	140	<5.0	49
ETBE	NA	NA	NA	NA	<40	NA	PSH	NA	NA	<2.0	<1.0	<1.0	<1.0

MW-17

Date	04/08	07/08	12/08	06/09	11/09	04/10
TPHg	990	780	520	1,600	550	<500
TPHd	3,100	11,000	58,000	730	<500	<500
B	<0.5	<5.0	<5.0	<0.5	0.5	0.6
T	<0.5	<5.0	<5.0	0.7	<0.5	<0.5
E	<0.5	<5.0	<5.0	<0.5	1.9	<0.5
X	<1.5	<1.5	<20	<1.5	2.4	<1.5
MTBE	<1.0	<1.0	<10	2.4	<1.0	29
TBA	NA	NA	<100	15	<5.0	35
ETBE	NA	NA	<10	<1.0	<1.0	<1.0

MW-3

Date	05/88	03/99	05/99	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10
TPH	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	2,300	115	420	9,700	PSH	PSH	<500	PSH	230	<500	PSH	<500
TPHd	NA	5,100	<500	NA	190,000	PSH	PSH	1,800	PSH	3,200	<500	PSH	5,900
B	19	3.6	98.5	18	92	PSH	PSH	2.8	PSH	1.7	0.5	PSH	1.3
T	3.4	0.7	<12.5	1.7	<3	PSH	PSH	<1	PSH	<0.5	<0.5	PSH	<0.5
E	NA	0.7	<12.5	3.9	56	PSH	PSH	<1	PSH	0.61	<0.5	PSH	1.2
X	1.3	4.1	<25	12	62	PSH	PSH	<3	PSH	<2	<1.5	PSH	<1.5
MTBE	NA	2,000	226	230	290	PSH	PSH	99	PSH	110	77	PSH	90
TBA	NA	NA	NA	NA	590	PSH	PSH	NA	PSH	59	400	PSH	43
ETBE	NA	NA	NA	NA	<100	PSH	PSH	NA	PSH	<1.0	<1.0	PSH	<1.0

EXPLANATION

MW-17 — Groundwater monitoring well location

Groundwater samples collected by SCS Engineers beginning in June 2009; Petra Geotechnical, Inc. from October 2007 to December 2008; and Eneco Tech Southwest, Inc. from May 1988 to December 2002. Groundwater samples analyzed for total petroleum hydrocarbons by EPA Method 8015B; volatile organic compounds (VOCs) by EPA Method 8260B. All results reported in micrograms per liter (ug/L). < indicates concentration not reported above indicated reporting limit for relevant analyte and analytical method. NA indicates sample not analyzed. PSH indicates phase-separated hydrocarbons. Only VOCs with detectable concentrations are listed here; refer to laboratory reports for full listing of VOCs analyzed.

TPH = total petroleum hydrocarbons
TPHg = total petroleum hydrocarbons as gasoline
TPHd = total petroleum hydrocarbons as diesel
B = benzene
T = toluene
E = ethylbenzene
X = xylenes
MTBE = methyl tertiary buty ether
TBA = tertiary butyl alcohol
ETBE = Ethyl tertiary butyl ether

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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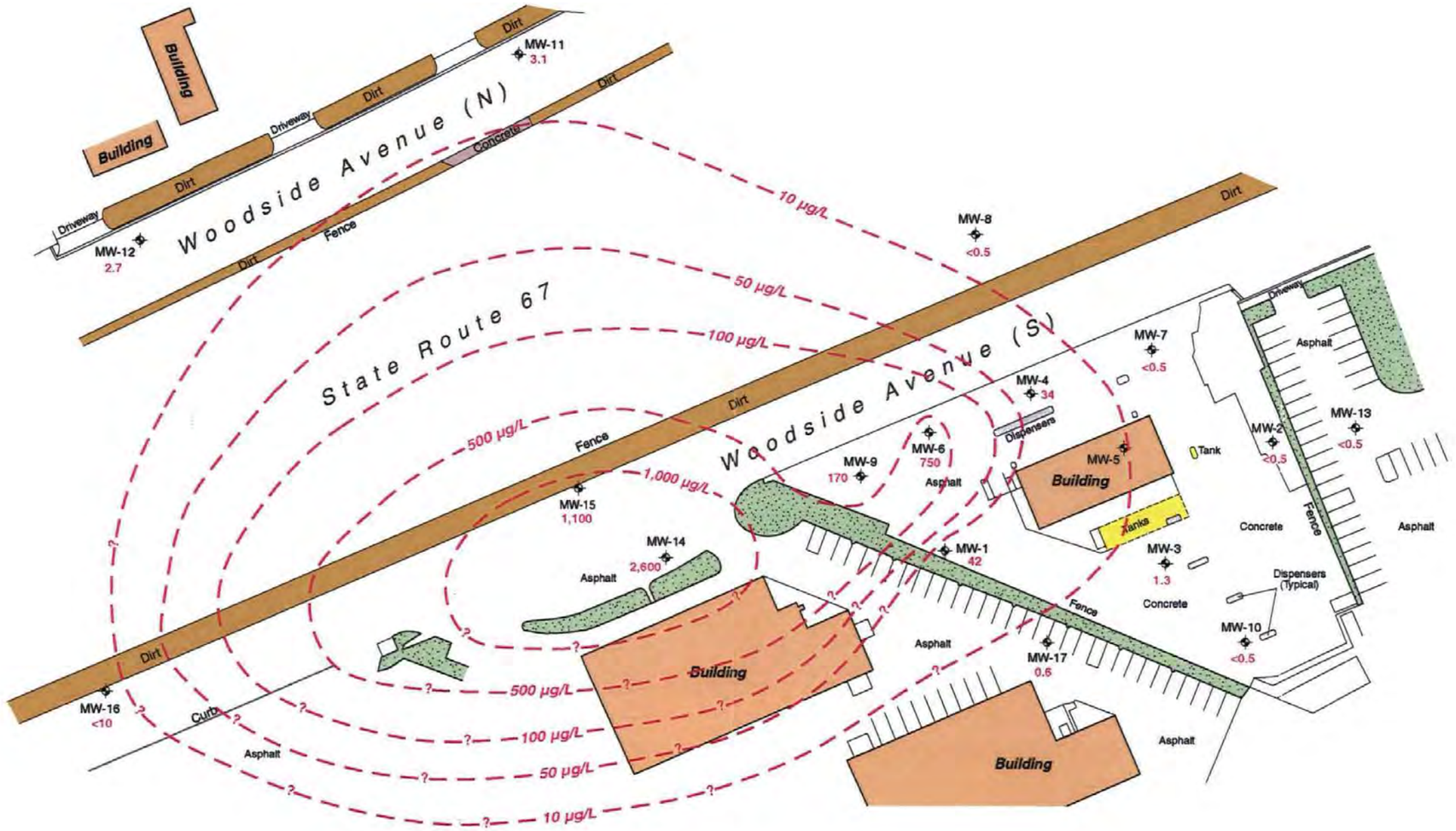
GROUNDWATER SAMPLE ANALYTICAL RESULTS

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 4

Date Drafted: 5/26/10



EXPLANATION

MW-16 <10 — Groundwater monitoring well location with reported concentrations of benzene reported in micrograms per liter (µg/L). < indicates not reported above laboratory reporting limit for given analyte.

100 µg/L — Iso-concentration of benzene reported in µg/L.. Dashed where estimated, querried where inferred.

0 40 80 120
Approximate Graphic Scale: One Inch Equals 80 Feet

North

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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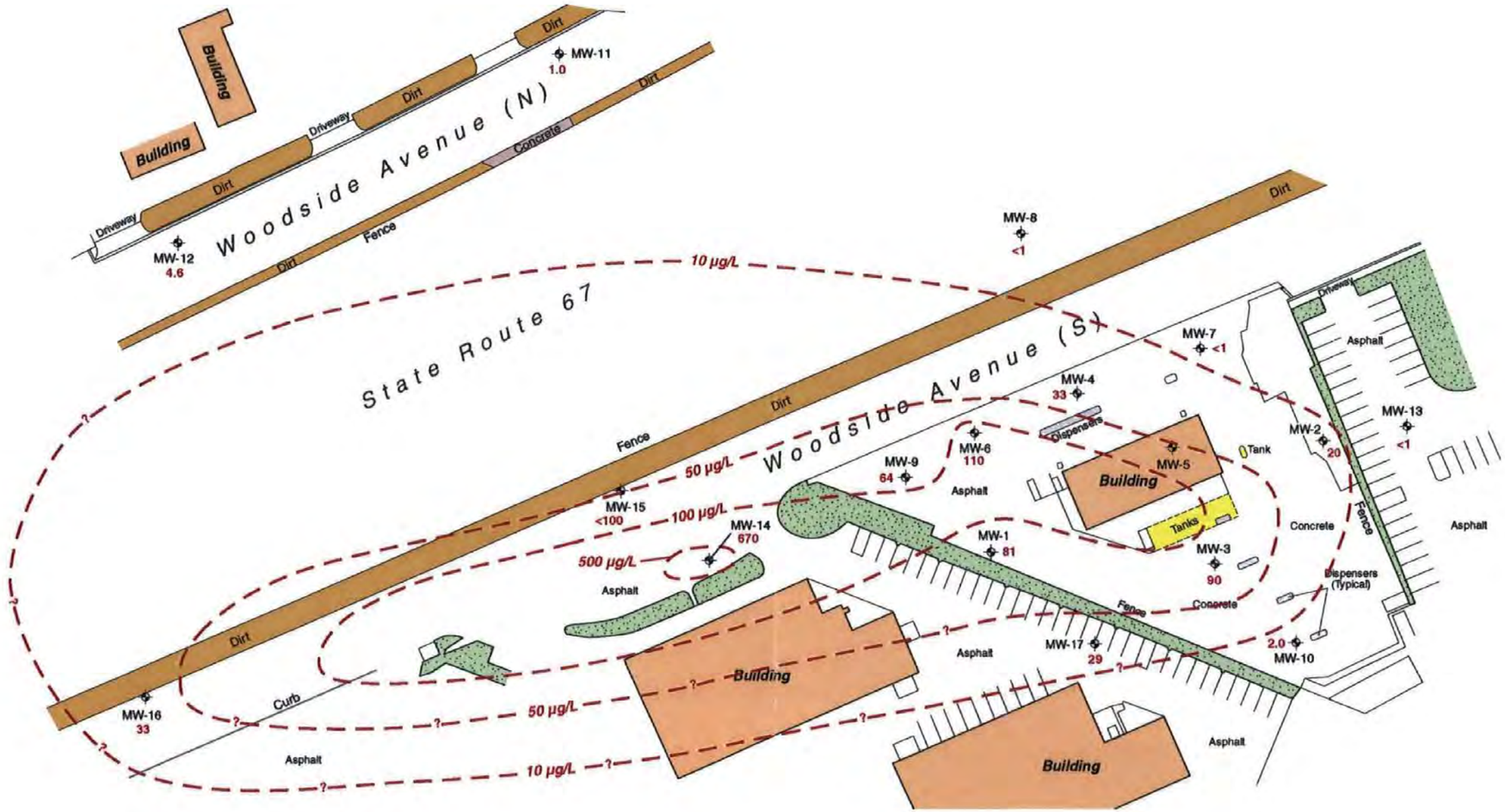
ISO-CONCENTRATION CONTOURS OF BENZENE IN SHALLOW GROUNDWATER - APRIL 2010

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 5

Date Drafted: 5/26/10



EXPLANATION

MW-16 / 33 — Groundwater monitoring well location with reported concentrations of MTBE reported in micrograms per liter (µg/L). < indicates not reported above laboratory reporting limit for given analyte.

100 — Iso-concentration of MTBE reported in µg/L. Dashed where estimated, querried where inferred.

0 40 80 120
Approximate Graphic Scale:
One Inch Equals 80 Feet

North

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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ISO-CONCENTRATION CONTOURS OF MTBE IN SHALLOW GROUNDWATER - APRIL 2010

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 6

Date Drafted: 5/26/10

APPENDICES

APPENDIX A

GROUNDWATER PURGING AND SAMPLING FORMS

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San Diego, California 92123

Client: Wigington Petroleum	Project No: 01208473.00	Recorded by: CC/SR
Site Address: 11427 Woodside Ave., Santee, CA	Date: 4/20/10	

WELL MONITORING DATA

WELL NO.	DTB	DTW	DTP	PT	SWE	ELEV-W	ELEV-P
MW1	41.6	28.58	--	--	362.84	334.26	--
MW2	44.6	29.08	--	--	365.08	336.00	--
MW3	43.2	29.54	--	--	364.16	334.62	--
MW4	41.6	27.97	--	--	362.38	334.41	--
MW6	41.8	28.17	--	--	362.44	334.27	--
MW7	41.9	27.92	--	--	362.57	334.65	--
MW8	39.5	30.12	--	--	364.51	334.39	--
MW9	38.3	28.15	--	--	362.33	334.18	--
MW10	38.3	30.83	--	--	367.28	336.45	--
MW11	37.35	28.61	--	--	362.48	333.87	--
MW12	36.2	28.17	--	--	361.88	333.71	--
MW13	44.7	31.35	--	--	366.91	335.56	--
MW14	36.8	28.74	--	--	362.79	334.05	--
MW15	37.2	28.36	--	--	362.36	334.00	--
MW16	38.3	28.66	--	--	362.48	333.82	--
MW17	44.4	33.63	--	--	367.97	334.34	--

NOTES

WELL NO. - Monitoring well number
DTW - Depth to water from datum
DTP - Depth to product from datum
PT - Product Thickness
DTB - Depth to bottom of well
SWE - Surveyed well elevation in feet
ELEV-W - Relative elevation of water
ELEV-P - Relative elevation of product

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San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington | Well No.: MW-1
Project Number: 01208473.00 | Date: 4/20/10
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: SR | Checked by: CEK | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 12
Casing Diameter (in.) (CD): 2 (4) 6 8 4
Total Well Depth (ft.) (WD): 41.6 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 29.58 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 13.02 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2-CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 2.2 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP 1235
Purging Equipment/Method: Bladder Pump ___ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton 16670
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___ Centrifugal Pump ___Other:
Decontamination Method: ___ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ___ Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µS / µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1455								
1526	28.89	0.31	11	914	—	7.06	—	24.8
1516	28.85	0.27	22	1034	—	6.77	—	22.0
1530	28.93	0.35	33	1059	—	6.75	—	21.2

Borehole Volume: 22 (gal) | Total Volume Purge Water: 33 (gal) | Average pumping rate: 0.94 (gpm)

RECOVERY CALCULATIONS

28.65 Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 4/20/10 @ 15:35 | Depth to water at time of sampling (feet): 29.60

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington | Well No.: MW-2
Project Number: 01208473.00 | Date: 4/21/10
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: SR | Checked by: CEH | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 — 10
Casing Diameter (in.) (CD): 2 (4) 6 8 — 4
Total Well Depth (ft.) (WD): 49.6 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 29.08 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 15.52 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 26 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP 1213-
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton 167-C
Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

___ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ✓ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
___ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
X Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1015	59.25	10.17	13	1967	—	6.67	—	16.2
1036	43.90	14.82	26	1925	—	6.75	—	16.6
—	—	—	39	—	—	—	—	—

Borehole Volume: 26 (gal) | Total Volume Purge Water: 26 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

32.04 | Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 4/21/10 @ 1236 | Depth to water at time of sampling (feet): 35.01

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington | Well No.: MW-3
Project Number: 01208473.00 | Date: 4/21/10
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: SR | Checked by: CGH | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 10 12 10
Casing Diameter (in.) (CD): 2 (4) 6 8 4
Total Well Depth (ft.) (WD): 43.2 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 29.54 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 13.7 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 2.3 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP 1235
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ___ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton 11670
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___ Centrifugal Pump ___Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
823				21 S				
838	34.80	5.26	12	1232	—	7.13	—	12.7
851	36.93	7.39	24	1142	—	7.01	—	13.7
903	36.65	7.11	36	1159	—	7.00	—	15.7

Borehole Volume: 2.3 (gal) | Total Volume Purge Water: 36 (gal) | Average pumping rate: _____ (gpm)

RECOVERY CALCULATIONS

31.02 Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 4/21/10 @ 922 | Depth to water at time of sampling (feet): 31.00

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington		Well No.: MW-4
Project Number: 01208473.00		Date: 4/21/10
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: CC	Checked by: CEH	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____	
Casing Diameter (in.) (CD): 2 (4) 6 8 ____	
Total Well Depth (ft.) (WD): 41.6	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 27.97	Time measured: —
Water Column (ft.) (WC=WD-SWL): 13.63	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 23.2 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

____ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:____ Time:____

____ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

____ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1038	28.78	0.81	24	1579	—	6.81	—	21.9
1052	28.69	0.72	35	1551	—	6.78	—	22.1

Borehole Volume: 23.2 (gal) Total Volume Purge Water: 35 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.13

SAMPLING INFORMATION

Date & Time Sampled: 4/21/10 1100 Depth to water at time of sampling (feet): 28.00

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington | Well No.: MW-6
Project Number: 01208473.00 | Date: 4/21/10
Project Address: 11427 Woodside Ave. Santee CA
Well GPS: Latitude: Longitude:
Sampled by: CC | Checked by: CEH | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____
Casing Diameter (in.) (CD): 2 (4) 6 8 ____
Total Well Depth (ft.) (WD): 41.8 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 28.17 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 13.63 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 23.2 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
____ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
____ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
____ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
0935	28.38	0.21	24	1532	—	7.09	—	22.4
0945	28.36	0.19	35	1532	—	7.10	—	22.2

Borehole Volume: 23.2 (gal) | Total Volume Purge Water: 35 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.21

SAMPLING INFORMATION

Date & Time Sampled: 4/21/10 0955 | Depth to water at time of sampling (feet): 28.18

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington | Well No.: MW-7
Project Number: 01208473.00 | Date: 4/20/10
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: SR | Checked by: CEH | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 10
Casing Diameter (in.) (CD): 2 (4) 6 8 4
Total Well Depth (ft.) (WD): 41.97 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 27.92 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 13.95 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC) \times 1.68$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 24 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP 1255
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton 166470
Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

X Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
X Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
____ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
____ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
____ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1245								
1258	28.04	0.12	12	1106	—	6.53	—	25.8
1315	28.01	0.09	24	1320	—	6.72	—	24.1
1323	28.00	0.08	36	1379	—	6.69	—	23.6

Borehole Volume: 24 (gal) | Total Volume Purge Water: 36 (gal) | Average pumping rate: 0.95 (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

1330

SAMPLING INFORMATION

Date & Time Sampled: 1320 4/20/10 | Depth to water at time of sampling (feet): 27.92

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington — Well No.: MW-8
Project Number: 01208473.00 — Date: 4/20/10
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: CC — Checked by: CEH — License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 _____
Casing Diameter (in.) (CD): 2 (4) 6 8 _____
Total Well Depth (ft.) (WD): 39.5 — Product thickness (ft.): —
Static Water Level (ft.) (SWL): 30.12 — Time measured: —
Water Column (ft.) (WC=WD-SWL): 9.38 — Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 15.9 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump _____ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___ Centrifugal Pump ___Other: _____
Decontamination Method: _____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) _____ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1003	30.22	0.10	16	1523	—	6.76	—	23.0
1012	30.24	0.12	24	1562	—	6.79	—	23.0

Borehole Volume: 15.9 (gal) — Total Volume Purge Water: 24 (gal) — Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 30.14

SAMPLING INFORMATION

Date & Time Sampled: 4/20/10 1020 — Depth to water at time of sampling (feet): 30.12

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington | Well No.: MW-9
Project Number: 01208473.00 | Date: 4/21/10
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: CC | Checked by: CEH | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 _____
Casing Diameter (in.) (CD): 2 (4) 6 8 _____
Total Well Depth (ft.) (WD): 38.3 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 28.15 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 10.15 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 17.3 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump _____ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___ Teflon Bailer ✓ Disposable Bailer ___ Bladder Pump ___ Centrifugal Pump ___ Other:
Decontamination Method: ___ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ___ Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
0844	28.60	0.45	18	1554	—	7.34	—	21.6
0852	28.68	0.53	26	1570	—	7.39	—	21.5

Borehole Volume: 17.3 (gal) | Total Volume Purge Water: 26 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.25

SAMPLING INFORMATION

Date & Time Sampled: 4/21/10 0900 | Depth to water at time of sampling (feet): 28.18

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington — Well No.: MW-10
Project Number: 01208473.00 — Date: 4/20/10
Project Address: 11427 Woodside Ave, Santee CA
Well GPS: Latitude: Longitude:
Sampled by: SR — Checked by: CEH — License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 16
Casing Diameter (in.) (CD): 2 (4) 6 8 4
Total Well Depth (ft.) (WD): 38.3 — Product thickness (ft.): —
Static Water Level (ft.) (SWL): 30.43 — Time measured: —
Water Column (ft.) (WC=WD-SWL): 7.47 — Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 12.5 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP12.35
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton/660.70
Sampler Type: ____Teflon Bailer ✓ Disposable Bailer ____Bladder Pump ____Centrifugal Pump ____Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
13:53								
14:01	31.75	0.92	7.0	1141	—	6.84	—	21.7
14:10	32.20	1.37	12.5	1152	—	6.72	—	23.6
14:17	31.90	0.92	19.0	1161	—	6.73	—	22.9

Borehole Volume: 12.5 (gal) — Total Volume Purge Water: 19 (gal) — Average pumping rate: 0.52 (gpm)

RECOVERY CALCULATIONS

31.10 = Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 1.37

SAMPLING INFORMATION

Date & Time Sampled: 4/20/10 @ 14:27 — Depth to water at time of sampling (feet): 31.00

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington | Well No.: MW-11
Project Number: 01208473.00 | Date: 4/20/10
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: SR | Checked by: CEH | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 _____
Casing Diameter (in.) (CD): (2) 4 6 8 _____
Total Well Depth (ft.) (WD): 37.35 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 28.64 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 8.71 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2-CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 8.0 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP 125'
Purging Equipment/Method: Bladder Pump _____ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton 16670
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___ Centrifugal Pump ___Other: _____
Decontamination Method: _____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) _____ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
11:13	28.62	0.01	4.0	837	—	6.37	—	23.9
11:55	28.61	0.01	8.0	904	—	6.32	—	22.6
12:05	28.62	0.01	12.0	916	—	6.42	—	22.3

Borehole Volume: 8.0 (gal) | Total Volume Purge Water: 12 (gal) | Average pumping rate: 0.54 (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 12:10 4/20/10 | Depth to water at time of sampling (feet): 28.61

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington		Well No.: MW-12
Project Number: 01208473.00		Date: 4/20/10
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: SR	Checked by: CEG	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 8	
Casing Diameter (in.) (CD): (2) 4 6 8 2	
Total Well Depth (ft.) (WD): 36.2	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 28.17	Time measured: —
Water Column (ft.) (WC=WD-SWL): 8.03	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 7.25 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP 1235

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton 1666

Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

___ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (umhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
10.18								
10.28	28.17	0	3.5	1057	—	6.48	—	20.8
10.43	28.17	0	7.0	1014	—	6.24	—	20.1
10.57	28.17	0	11.0	1008	—	6.40	—	19.8

Borehole Volume: 7.25 (gal) Total Volume Purge Water: 11 (gal) Average pumping rate: 0.25 (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 11:00 4/20/10 Depth to water at time of sampling (feet): 28.17

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington — Well No.: MW-13
Project Number: 01208473.00 — Date: 4/20/10
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: CC — Checked by: CEN — License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 _____
Casing Diameter (in.) (CD): (2) 4 6 8 _____
Total Well Depth (ft.) (WD): 44.7 — Product thickness (ft.): —
Static Water Level (ft.) (SWL): 31.35 — Time measured: —
Water Column (ft.) (WC=WD-SWL): 13.35 — Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 12.0 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump _____ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___ Centrifugal Pump ___Other: _____
Decontamination Method: _____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) _____ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

___Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5
✓ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
___Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
✓Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1040								
1134	43.91	12.56	12.0	3.00	—	7.01	—	24.3

Borehole Volume: 12 (gal) — Total Volume Purge Water: 12 (gal) — Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 33.86

SAMPLING INFORMATION

Date & Time Sampled: 4/20/10 1355 — Depth to water at time of sampling (feet): 32.46

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington — Well No.: MW-14
Project Number: 01208473.00 — Date: 4/20/10
Project Address: 11427 Woodside Ave, Santee CA
Well GPS: Latitude: — Longitude:
Sampled by: CC — Checked by: CEH — License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 _____
Casing Diameter (in.) (CD): 2 (4) 6 8 _____
Total Well Depth (ft.) (WD): 36.8 — Product thickness (ft.): —
Static Water Level (ft.) (SWL): 28.74 — Time measured: —
Water Column (ft.) (WC=WD-SWL): 8.06 — Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2-CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 13.7 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump _____ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___ Centrifugal Pump ___Other: _____
Decontamination Method: _____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) _____ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1615								
1625	30.73	1.99	14.0	1396	—	6.79	—	22.6
1631	30.95	2.21	21.0	1420	—	6.74	—	22.6

Borehole Volume: 13.7 (gal) — Total Volume Purge Water: 21 (gal) — Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.18

SAMPLING INFORMATION

Date & Time Sampled: 4/20/10 1640 — Depth to water at time of sampling (feet): 28.95

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington | Well No.: MW-15
Project Number: 01208473.00 | Date: 4/20/10
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: CC | Checked by: CEH | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 _____
Casing Diameter (in.) (CD): (2) 4 6 8 _____
Total Well Depth (ft.) (WD): 37.2 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 28.36 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 8.84 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 8.0 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump _____ Bailer ✓ Centrifugal Pump _____ Other _____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: _____ Teflon Bailer ✓ Disposable Bailer _____ Bladder Pump _____ Centrifugal Pump _____ Other: _____
Decontamination Method: _____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) _____ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1528	28.41	0.05	8.0	905	—	6.76	—	23.3
1542	28.40	0.04	12.0	904	—	6.78	—	23.0

Borehole Volume: 8.0 (gal) | Total Volume Purge Water: 12 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.37

SAMPLING INFORMATION

Date & Time Sampled: 4/20/10 1550 | Depth to water at time of sampling (feet): 28.36

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington — Well No.: MW-16
Project Number: 01208473.00 — Date: 4/20/10
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: CC — Checked by: CEH — License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 _____
Casing Diameter (in.) (CD): (2) 4 6 8 _____
Total Well Depth (ft.) (WD): 38.3 — Product thickness (ft.): —
Static Water Level (ft.) (SWL): 28.66 — Time measured: —
Water Column (ft.) (WC=WD-SWL): 9.64 — Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 8.7 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump _____ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___ Centrifugal Pump ___Other: _____
Decontamination Method: _____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) _____ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1428	28.68	0.02	9.0	1118	—	7.00	—	22.8
1442	28.72	0.06	13.5	1109	—	7.00	—	22.7

Borehole Volume: 8.7 (gal) — Total Volume Purge Water: 13.5 (gal) — Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.67

SAMPLING INFORMATION

Date & Time Sampled: 4/20/10 1450 — Depth to water at time of sampling (feet): 28.66

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington — Well No.: MW-17
Project Number: 01208473.00 — Date: 4/20/10
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: CC — Checked by: CEK — License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 ____
Casing Diameter (in.) (CD): (2) 4 6 8 ____
Total Well Depth (ft.) (WD): 44.4 — Product thickness (ft.): —
Static Water Level (ft.) (SWL): 33.63 — Time measured: —
Water Column (ft.) (WC=WD-SWL): 10.77 — Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 9.7 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
____ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
____ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
____ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1231	40.95	7.32	10	1446	—	7.04	—	24.1
1253	42.46	8.83	15	1461	—	7.05	—	24.1

Borehole Volume: 9.7 (gal) — Total Volume Purge Water: 15 (gal) — Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 35.39

SAMPLING INFORMATION

Date & Time Sampled: 4/20/10 1320 — Depth to water at time of sampling (feet): 35.15

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

APPENDIX B

NON-HAZARDOUS WASTE MANIFEST

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone 1-800-424-9300	4. Waste Tracking Number 34616

5. Generator's Name and Mailing Address
WIGINGTON OIL
11427 WOODSIDE AVE.
SANTEE, CA 92071
Generator's Phone: 619-465-3438 SONNY ROSENAL-SOCLARIS

Generator's Site Address (if different than mailing address)
SAME

6. Transporter 1 Company Name: EFR ENVIRONMENTAL SERVICES, INC. — U.S. EPA ID Number: CAR000011205

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
WESTERN ENVIRONMENTAL INC.
62-150 GENE WELMAS DRIVE
MECCA, CA 92254
Facility's Phone: 760-396-0222 — U.S. EPA ID Number: CAR000157206

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON-HAZARDOUS WASTE LIQUID (PURGE WATER)	16	DM	800	G	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
9B-1 PROFILE NO: 20101582/WET1583

ALWAYS WEAR APPROPRIATE PPE & USE SAFE HANDLING METHODS

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Chris Crosby (SCS) — Signature: Chris Crosby — Month 4 Day 26 Year 10

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Octavio Quintero — Signature: Octavio Quintero — Month 4 Day 26 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Sonia Murillo — Signature: Sonia Murillo — Month 4 Day 29 Year 10

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

APPENDIX C

ANALYTICAL DATA AND CHAIN-OF-CUSTODY DOCUMENTATION

H&P Mobile Geochemistry Inc.

28 April 2010

Mr. Chuck Houser
SCS Engineers - San Diego
8799 Balboa Avenue, Suite 290
San Diego, CA 92123

H&P Project: SCS042110-11
Client Project: 01208473.00 / Wigington Oil

Dear Client:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 21-Apr-10 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody

Unless otherwise noted, all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

Janis Villarreal
Laboratory Director

Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

SCS Engineers - San Diego	Project: SCS042110-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	28-Apr-10 11:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	E004055-01	Water	20-Apr-10	21-Apr-10
MW-2	E004055-02	Water	21-Apr-10	21-Apr-10
MW-3	E004055-03	Water	21-Apr-10	21-Apr-10
MW-4	E004055-04	Water	21-Apr-10	21-Apr-10
MW-6	E004055-05	Water	21-Apr-10	21-Apr-10
MW-7	E004055-06	Water	20-Apr-10	21-Apr-10
MW-8	E004055-07	Water	20-Apr-10	21-Apr-10
MW-9	E004055-08	Water	21-Apr-10	21-Apr-10
MW-10	E004055-09	Water	20-Apr-10	21-Apr-10
MW-11	E004055-10	Water	20-Apr-10	21-Apr-10
MW-12	E004055-11	Water	20-Apr-10	21-Apr-10
MW-13	E004055-12	Water	20-Apr-10	21-Apr-10
MW-14	E004055-13	Water	20-Apr-10	21-Apr-10
MW-15	E004055-14	Water	20-Apr-10	21-Apr-10
MW-16	E004055-15	Water	20-Apr-10	21-Apr-10
MW-17	E004055-16	Water	20-Apr-10	21-Apr-10

Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

SCS Engineers - San Diego	Project: SCS042110-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	28-Apr-10 11:41

Volatile Organic Compounds by EPA Metbod 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-1 (E004055-01) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	**81**	1.0	ug/l	0.1	ED02604	23-Apr-10	23-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**42**	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	**3.7**	0.5	"	"	"	"	"	"	
m,p-Xylene	**1.1**	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	**49**	5.0	"	"	"	"	"	"	
Surrogote: Dibromofluoromethane		*93.4 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*89.9 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*100 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.0 %*		*75-125*		"	"	"	
MW-2 (E004055-02) Water Sampled: 21-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	**20**	1.0	ug/l	0.1	ED02604	23-Apr-10	23-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	**3.7**	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	**170**	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*92.1 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*94.8 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*102 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.6 %*		*75-125*		"	"	"	

H&P Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

SCS Engineers - San Diego	Project: SCS042110-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	28-Apr-10 11:41

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-3 (E004055-03) Water Sampled: 21-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	**90**	1.0	ug/l	0.1	ED02604	23-Apr-10	23-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**1.3**	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	**1.2**	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	**43**	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*96.8 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*93.0 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*107 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*122 %*		*75-125*		"	"	"	
MW-4 (E004055-04) Water Sampled: 21-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	**33**	1.0	ug/l	0.1	ED02604	23-Apr-10	23-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**34**	0.5	"	"	"	"	"	"	
Toluene	**0.5**	0.5	"	"	"	"	"	"	
Ethylbenzene	**4.7**	0.5	"	"	"	"	"	"	
m,p-Xylene	**1.0**	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*96.4 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*89.3 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*103 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.4 %*		*75-125*		"	"	"	

H&P Mobile Geochemistry Inc.

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SCS Engineers - San Diego	Project: SCS042110-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	28-Apr-10 11:41

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-6 (E004055-05) Water Sampled: 21-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	**110**	1.0	ug/l	0.1	ED02604	23-Apr-10	23-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**750**	5.0	"	1	"	"	"	"	
Toluene	**4.1**	0.5	"	0.1	"	"	"	"	
Ethylbenzene	**320**	5.0	"	1	"	"	"	"	
m,p-Xylene	**28**	1.0	"	0.1	"	"	"	"	
o-Xylene	**1.7**	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*95.6 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*93.7 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*105 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.2 %*		*75-125*	"	"	"	"	
MW-7 (E004055-06) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	ND	1.0	ug/l	0.05	ED02604	23-Apr-10	23-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*90.9 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*91.5 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*98.2 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.4 %*		*75-125*	"	"	"	"	

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San Diego, CA 92123	Project Manager: Mr. Chuck Houser	28-Apr-10 11:41

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-8 (E004055-07) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	ND	1.0	ug/l	0.05	ED02604	23-Apr-10	23-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	**6.1**	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*95.7 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*90.8 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*108 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.0 %*		*75-125*		"	"	"	
MW-9 (E004055-08) Water Sampled: 21-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	**64**	1.0	ug/l	0.05	ED02604	23-Apr-10	23-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**170**	10	"	2	"	"	26-Apr-10	"	
Toluene	**28**	0.5	"	0.05	"	"	23-Apr-10	"	
Ethylbenzene	**86**	0.5	"	"	"	"	"	"	
m,p-Xylene	**140**	1.0	"	"	"	"	"	"	
o-Xylene	**24**	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*93.8 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*95.5 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*108 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.7 %*		*75-125*		"	"	"	

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Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-10 (E004055-09) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	**2.0**	1.0	ug/l	0.05	ED02604	23-Apr-10	23-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*89.9 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*88.4 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*98.8 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.4 %*		*75-125*		"	"	"	
MW-11 (E004055-10) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	**1.0**	1.0	ug/l	0.05	ED02604	23-Apr-10	23-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**3.1**	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	**0.7**	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*98.9 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*95.2 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*106 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*75-125*		"	"	"	

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Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-12 (E004055-11) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	**4.6**	1.0	ug/l	0.05	ED02604	23-Apr-10	23-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**2.7**	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*91.2 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*89.3 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*98.2 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.3 %*		*75-125*	"	"	"	"	
MW-13 (E004055-12) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	ND	1.0	ug/l	0.05	ED02604	23-Apr-10	23-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*93.0 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*85.1 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*97.0 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.1 %*		*75-125*	"	"	"	"	

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Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-14 (E004055-13) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	**670**	20	ug/l	2	ED02604	23-Apr-10	23-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	20	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	20	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	20	"	"	"	"	"	"	
Benzene	**2600**	10	"	"	"	"	"	"	
Toluene	**210**	10	"	"	"	"	"	"	
Ethylbenzene	**1700**	10	"	"	"	"	"	"	
m,p-Xylene	**3300**	20	"	"	"	"	"	"	
o-Xylene	**350**	10	"	"	"	"	"	"	
Tert-butyl alcohol	ND	100	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*92.5 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*89.5 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*101 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.8 %*		*75-125*	"	"	"	"	
MW-15 (E004055-14) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	ND	100	ug/l	10	ED02604	23-Apr-10	23-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	100	"	"	"	"	"	"	
Benzene	**1100**	50	"	"	"	"	"	"	
Toluene	**130**	50	"	"	"	"	"	"	
Ethylbenzene	**3700**	50	"	"	"	"	"	"	
m,p-Xylene	**7700**	100	"	"	"	"	"	"	
o-Xylene	**390**	50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	500	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*95.4 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*85.4 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*95.1 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*89.3 %*		*75-125*	"	"	"	"	

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San Diego, CA 92123	Project Manager: Mr. Chuck Houser	28-Apr-10 11:41

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-16 (E004055-15) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	**33**	20	ug/l	2	ED02604	23-Apr-10	23-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	20	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	20	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	20	"	"	"	"	"	"	
Benzene	ND	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
m,p-Xylene	ND	20	"	"	"	"	"	"	
o-Xylene	ND	10	"	"	"	"	"	"	
Tert-butyl alcohol	ND	100	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*92.1 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*93.5 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*98.8 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*110 %*		*75-125*		"	"	"	
MW-17 (E004055-16) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Methyl tert-butyl ether	**29**	1.0	ug/l	0.05	ED02703	26-Apr-10	26-Apr-10	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**0.6**	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	**35**	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*98.2 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*89.2 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*108 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*100 %*		*75-125*		"	"	"	

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8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	28-Apr-10 11:41

TPH by GC FID

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-1 (E004055-01) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	ND	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-2 (E004055-02) Water Sampled: 21-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	ND	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	**7400**	500	"	"	"	"	"	"	
MW-3 (E004055-03) Water Sampled: 21-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	ND	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	**5900**	500	"	"	"	"	"	"	
MW-4 (E004055-04) Water Sampled: 21-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	ND	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-6 (E004055-05) Water Sampled: 21-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	**1300**	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	**1500**	500	"	"	"	"	"	"	D-08
MW-7 (E004055-06) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	ND	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-8 (E004055-07) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	ND	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

SCS Engineers - San Diego	Project: SCS042110-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	28-Apr-10 11:41

TPH by GC FID

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-9 (E004055-08) Water Sampled: 21-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	ND	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-10 (E004055-09) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	ND	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-11 (E004055-10) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	ND	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-12 (E004055-11) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	ND	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-13 (E004055-12) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	ND	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-14 (E004055-13) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	**3700**	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-15 (E004055-14) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	**1800**	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	**1500**	500	"	"	"	"	"	"	

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SCS Engineers - San Diego	Project: SCS042110-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	28-Apr-10 11:41

TPH by GC FID

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-16 (E004055-15) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	ND	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	D-08
MW-17 (E004055-16) Water Sampled: 20-Apr-10 Received: 21-Apr-10									
Gasoline (C5-C11)	ND	500	ug/l	1	ED02601	25-Apr-10	25-Apr-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	

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SCS Engineers - San Diego	Project: SCS042110-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	28-Apr-10 11:41

Volatile Organic Compounds by EPA Metbod 8260B - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED02604 - EPA 5030										
Blank (ED02604-BLK1)				Prepared & Analyzed: 23-Apr-10						
Methyl tert-butyl ether	ND	1.0	ug/l							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
Tert-amyl methyl ether	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tert-butyl alcohol	ND	5.0	"							
Surrogate: Dibromofluoromethane	*2.49*		"	*2.50*		*99.6*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.29*		"	*2.50*		*91.5*	*62-139*			
Surrogate: Toluene-d8	*2.48*		"	*2.50*		*99.0*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.52*		"	*2.50*		*101*	*75-125*			
Matrix Spike (ED02604-MS1)		**Source: E004055-06**		Prepared & Analyzed: 23-Apr-10						
Benzene	2.36	0.5	ug/l	2.50	ND	94.5	75-125			
Toluene	2.21	0.5	"	2.50	ND	88.5	74-125			
Surrogate: Dibromofluoromethane	*2.32*		"	*2.50*		*92.9*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.15*		"	*2.50*		*86.1*	*62-139*			
Surrogate: Toluene-d8	*2.39*		"	*2.50*		*95.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.71*		"	*2.50*		*109*	*75-125*			
Matrix Spike Dup (ED02604-MSD1)		**Source: E004055-06**		Prepared & Analyzed: 23-Apr-10						
Benzene	2.39	0.5	ug/l	2.50	ND	95.7	75-125	1.28	20	
Toluene	2.38	0.5	"	2.50	ND	95.2	74-125	7.25	20	
Surrogate: Dibromofluoromethane	*2.30*		"	*2.50*		*92.1*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.23*		"	*2.50*		*89.1*	*62-139*			
Surrogate: Toluene-d8	*2.50*		"	*2.50*		*100*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.51*		"	*2.50*		*100*	*75-125*			

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SCS Engineers - San Diego	Project: SCS042110-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	28-Apr-10 11:41

Volatile Organic Compounds by EPA Method 8260B - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED02703 - EPA 5030										
Blank (ED02703-BLK1)				Prepared & Analyzed: 26-Apr-10						
Methyl tert-butyl ether	ND	1.0	ug/l							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
Tert-amyl methyl ether	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tert-butyl alcohol	ND	5.0	"							
Surrogate: Dibromofluoromethane	*2.34*		"	*2.50*		*93.7*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.37*		"	*2.50*		*94.8*	*62-139*			
Surrogate: Toluene-d8	*2.56*		"	*2.50*		*103*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.55*		"	*2.50*		*102*	*75-125*			
Matrix Spike (ED02703-MS1)	**Source: E004055-16**			Prepared & Analyzed: 26-Apr-10						
Benzene	3.04	0.5	ug/l	2.50	0.57	98.8	75-125			
Toluene	2.74	0.5	"	2.50	0.29	97.9	74-125			
Surrogate: Dibromofluoromethane	*2.47*		"	*2.50*		*98.8*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.45*		"	*2.50*		*98.2*	*62-139*			
Surrogate: Toluene-d8	*2.56*		"	*2.50*		*103*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.66*		"	*2.50*		*106*	*75-125*			
Matrix Spike Dup (ED02703-MSD1)	**Source: E004055-16**			Prepared & Analyzed: 26-Apr-10						
Benzene	3.00	0.5	ug/l	2.50	0.57	97.0	75-125	1.46	20	
Toluene	2.81	0.5	"	2.50	0.29	101	74-125	2.49	20	
Surrogate: Dibromofluoromethane	*2.39*		"	*2.50*		*95.6*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.14*		"	*2.50*		*85.5*	*62-139*			
Surrogate: Toluene-d8	*2.57*		"	*2.50*		*103*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.49*		"	*2.50*		*99.6*	*75-125*			

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SCS Engineers - San Diego	Project: SCS042110-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	28-Apr-10 11:41

TPH by GC FID - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED02601 - GC										
Blank (ED02601-BLK1)				Prepared & Analyzed: 25-Apr-10						
Gasoline (C5-C11)	ND	500	ug/l							
Diesel (C12-C24)	ND	500	"							
Matrix Spike (ED02601-MS1)		Source: E004055-16		Prepared & Analyzed: 25-Apr-10						
Gasoline (C5-C11)	3080	500	ug/l	3000	ND	102	75-125			
Diesel (C12-C24)	7350	500	"	7500	ND	98.0	75-125			
Matrix Spike Dup (ED02601-MSD1)		Source: E004055-16		Prepared & Analyzed: 25-Apr-10						
Gasoline (C5-C11)	3210	500	ug/l	3000	ND	107	75-125	4.39	30	
Diesel (C12-C24)	7650	500	"	7500	ND	102	75-125	4.00	30	

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SCS Engineers - San Diego	Project: SCS042110-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	28-Apr-10 11:41

Notes and Definitions

D-08	Results in the diesel organics range are primarily due to overlap from a gasoline range product.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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SCS Engineers - San Diego	Project: SCS042110-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	28-Apr-10 11:41

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the Environmental Laboratory Accreditation Program (CA) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste for the following methods:

Certificate# 2741, 2743, 2579, 2754 & 2740 approved for EPA 8260 and LUFT GC/MS
Certificate# 2742, 2745, & 2741 approved for LUFT
Certificate# 2745 & 2742 approved for EPA 418.1

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the National Environmental Accreditation Conference Standards for the category Environmental Analysis Air and Emissions for the following analytes and methods:

1,2,4-Trichlorobenzene by EPA TO-15 & TO-14A
Hexachlorobutadiene by EPA TO-15 & TO-14A
1,2,4-Trimethylbenzene by EPA TO -14A
1,2-Dichlorobenzene by EPA TO-15 & TO-14A
1,3,5-Trimethylbenzene by EPA TO -14A
1,4-Dichlorobenzene by EPA TO-15 & TO-14A
Benzene by EPA TO-15 & TO-14A
Chlorobenzene by EPA TO-15 & TO-14A
Ethyl benzene by EPA TO-15 & TO-14A
Styrene by EPA TO-15 & TO-14A
Toluene by EPA TO-15 & TO-14A
Total Xylenes by EPA TO-15 & TO-14A
1,1,1-Trichloroethane by EPA TO-15 & TO-14A
1,1,2,2-Tetrachloroethane by EPA TO-15 & TO-14A
1,1,2-Trichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethene by EPA TO-15 & TO-14A
1,2-Dichloroethane by EPA TO-15 & TO-14A
1,2-Dichloropropane by EPA TO-15 & TO-14A
Bromoform by EPA TO-15
Bromomethane by EPA TO-15 & TO-14A
Carbon tetrachloride by EPA TO-15 & TO-14A
Chloroethane by EPA TO-15
Chloroform by EPA TO-15 & TO-14A
Chloromethane by EPA TO-15 & TO-14A
cis-1,2-Dichloroethene by EPA TO-15
cis-1,2-Dichloropropene by EPA TO-15 & TO-14A
Methylene chloride by EPA TO -15 & TO-14A
Tetrachloroethane by EPA TO-15 & TO-14A
trans-1,2-Dichloroethene by EPA TO-15
trans-1,2-Dichloropropene by EPA TO-15 & TO-14A
Trichloroethene by EPA TO-15 & TO-14A
Vinyl chloride by EPA TO -15 & TO-14A
2-Butanone by EPA TO-15
4-Methyl-2-Pentanone by EPA TO-15
Hexane by EPA TO-15
Methyl tert-butyl ether by EPA TO-15
Vinyl acetate by EPA TO-15

This certification applies to samples analyzed in summa canisters.

Chain of Custody Record

H&P Mobile Geochemistry Inc.

☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159

☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 4/21/10

H&P Project #: SCS042110-1

Outside Lab:

Client: SCS Engineers | Collector: Chris Crosby / Sean Roy | Page: 1 of 2

Address: 8799 Balboa Ave., Suite 290, San Diego, CA 92123 | Client Project #: 01208473.00 | Project Contact: Chuck Hauser

Location: Wigington O.U.: 11427 Woodside Ave., Santee, CA

Email: ccrosby@scsengineers.com | Phone: 858-571-5500 | Fax: 858-571-5357 | Turn around time: Normal

Geotracker EDF: Yes ☑ No ☐

Global ID: T0607303173

Excel EDD: Yes ☐ No ☐

Sample Receipt

Intact: ☒ Yes ☐ No

Seal Intact: ☐ Yes ☐ No ☑ N/A

Cold: ☒ Yes ☐ No ☐ N/A

Temperature: 2°C

Special Instructions:

Please cc results to chouser@scsengineers.com

Lab Work Order #: E004055

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B ☒ BTEX/OXY ☐ TPH gas	8015M TPH ☒ g ☒ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☐ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS										
MW-1			1535	4/20/10	GW	VOA	6		☒	☒												
MW-2			1236	4/21/10					☒	☒												
MW-3			0922	↓					☒	☒												
MW-4			1100						☒	☒												
MW-6			0955						☒	☒												
MW-7			1330	4/20/10					☒	☒												
MW-8			1020	↓					☒	☒												
MW-9			0900	4/21/10					☒	☒												
MW-10			1427	4/20/10					☒	☒												
MW-11			1210	↓	↓	↓	↓		☒	☒												

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time
Chris Crosby	SCS		H&P	4/21/10	1445
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back

Sample disposal instruction: ☒ Disposal ☐ Return to client ☐ Pickup

Chain of Custody Record

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☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 4/21/10
H&P Project #: SCSOA2110-10
Outside Lab:

Client: SCS Engineers
Address: 8799 Balboa Ave., Suite 290
San Diego, CA 92123
Email: ccrosby@scsengineers.com

Collector: Chris Crosby / Sean Roy
Client Project #: 01208473.00
Location: Wigington O/I : 11427 Woodside Ave., Santee CA
Phone: 858-571-5500 Fax: 858-571-5357

Page: 2 of 2
Project Contact: Chuck Houser
Turn around time: Normal

Geotracker EDF: Yes ☑ No ☐
Global ID: T0607303173
Excel EDD: Yes ☐ No ☐

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☒ Yes ☐ No ☐ N/A
Temperature: 5.6°C

Special Instructions:
Please cc results to chouser@scsengineers.com

Lab Work Order #: E004055

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B	8015M TPH	418.1 TRPH	VOC's: Full List ☐ 8260B ☐ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2
									☒ BTEX/OXY ☐ TPH gas	☒ g ☐ d ☐ ext												
									SOIL/GW			SOIL VAPOR/AIR ANALYSIS										
MW-12			1100	4/20/10	GW	VOA	6		☒	☒												
MW-13			1355						☒	☒												
MW-14			1640						☒	☒												
MW-15			1550						☒	☒												
MW-16			1450						☒	☒												
MW-17			1320						☒	☒												

Relinquished by: (Signature) Chris Crosby	(company) SCS	Received by: (Signature)	(company) H&P
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)

Date: 4/21/10	Time: 1445
Date:	Time:
Date:	Time:

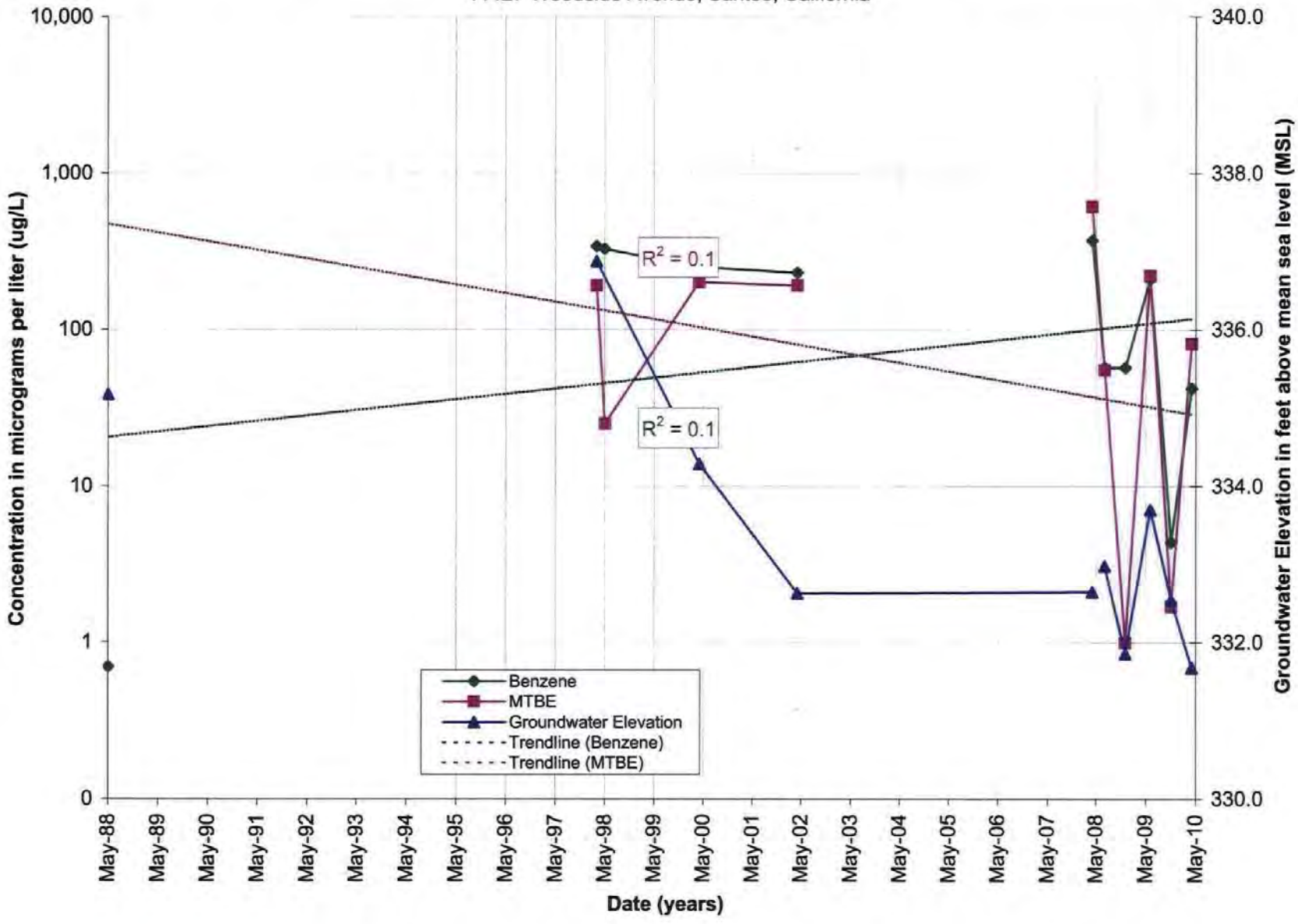
*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☒ Disposal ☐ Return to client ☐ Pickup

APPENDIX D

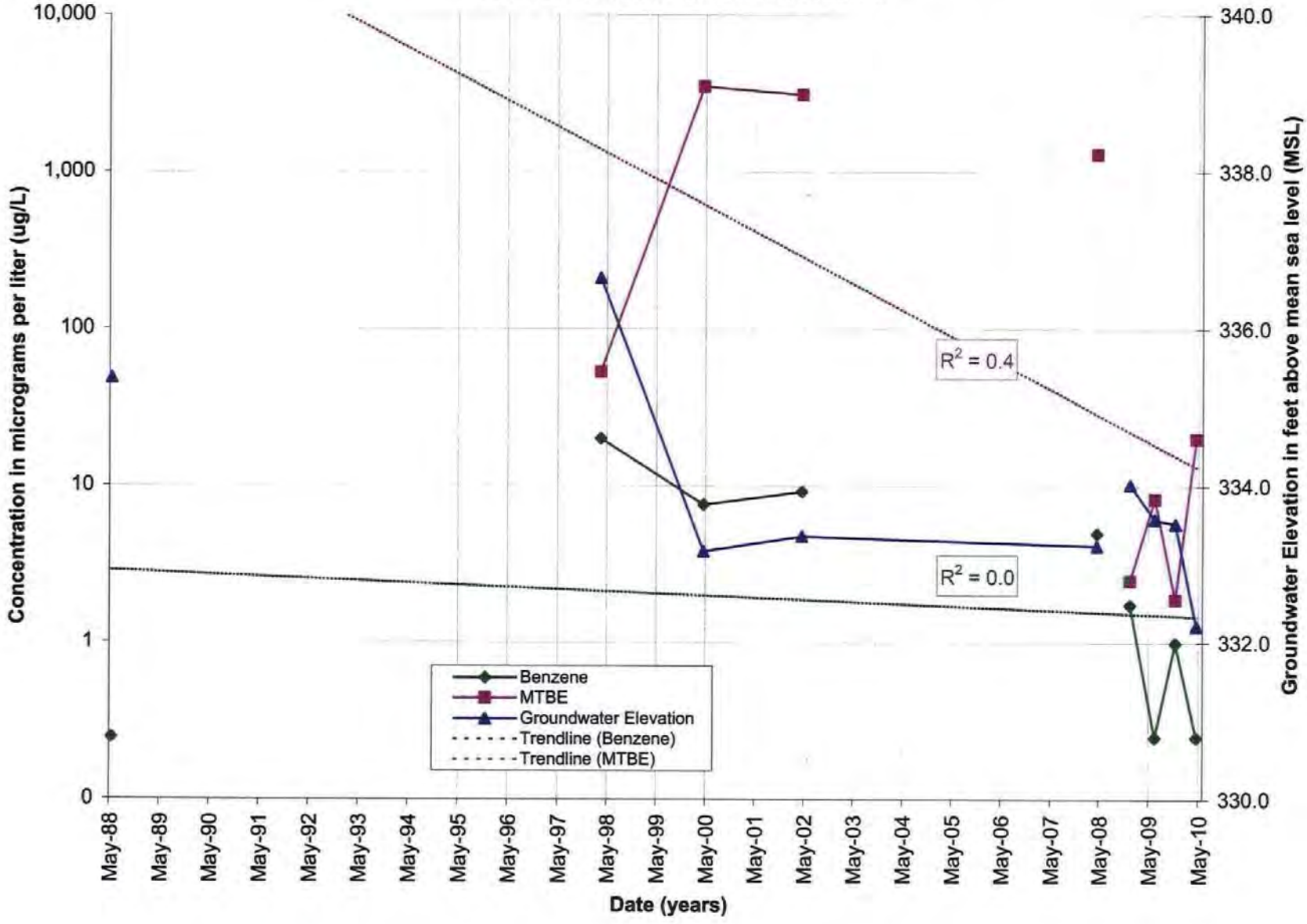
HYDROGRAPHS

MW-1
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



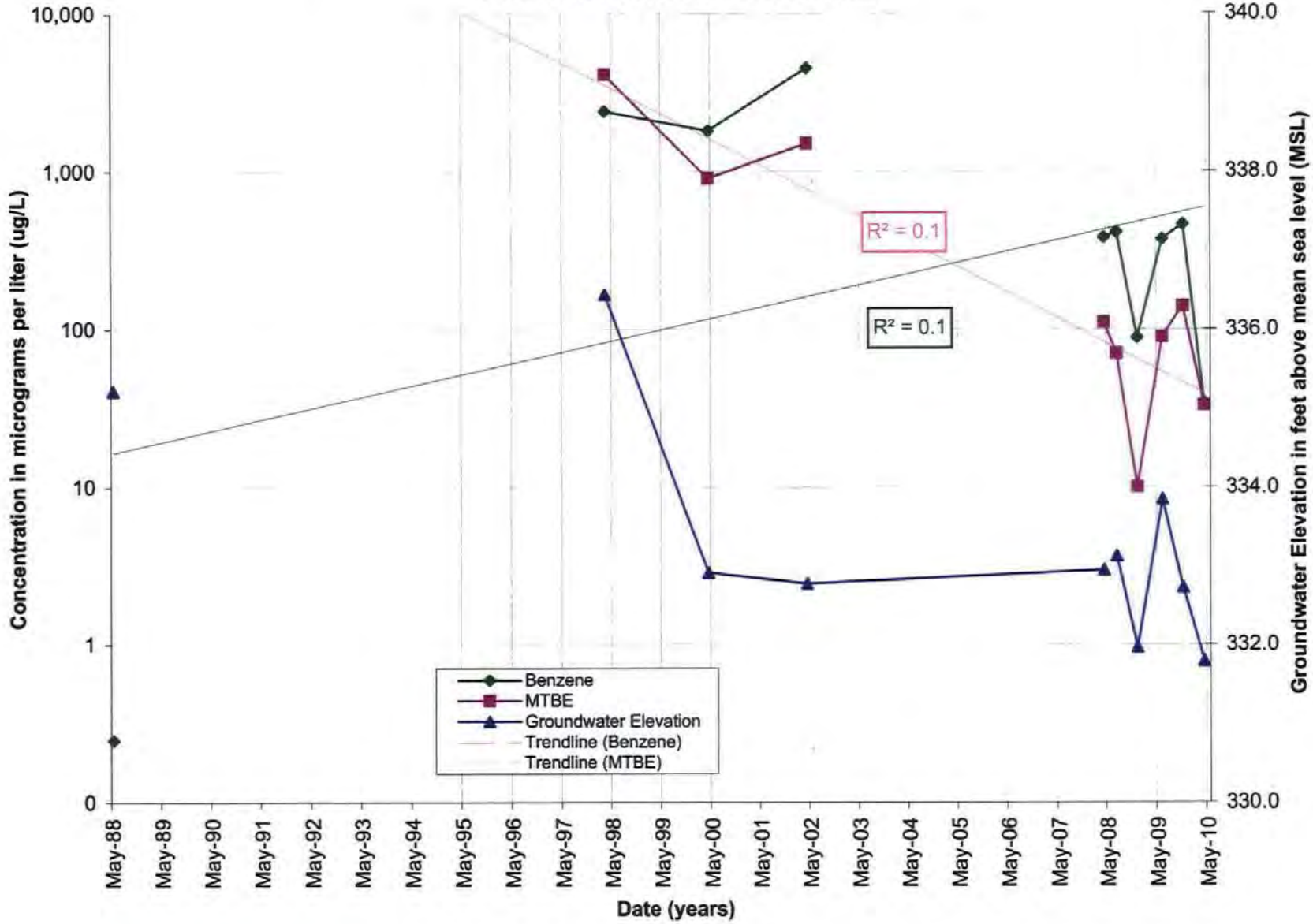
SCS ENGINEERS

MW-2
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



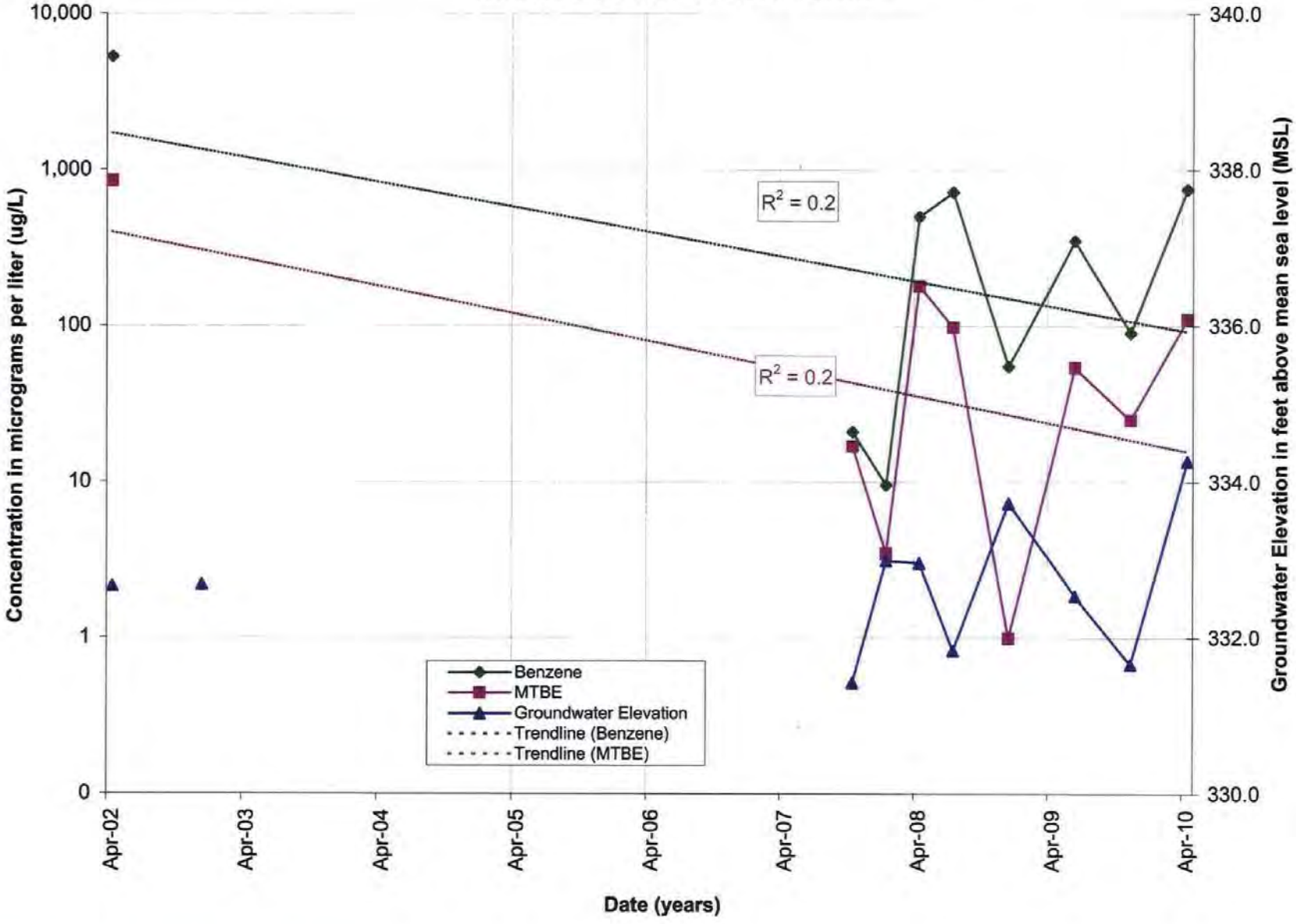
SCS ENGINEERS

MW-4
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



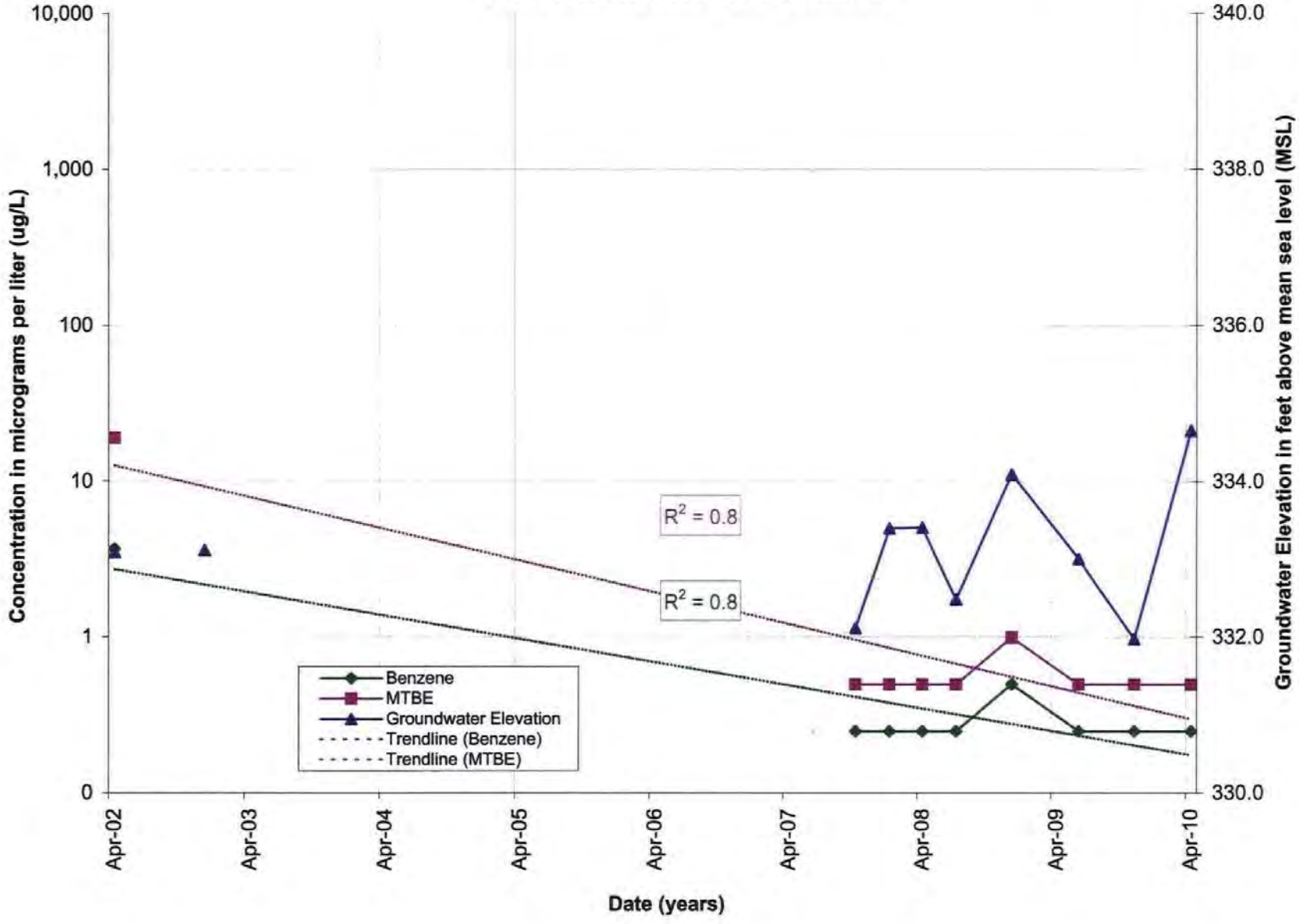
SCS ENGINEERS

MW-6
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



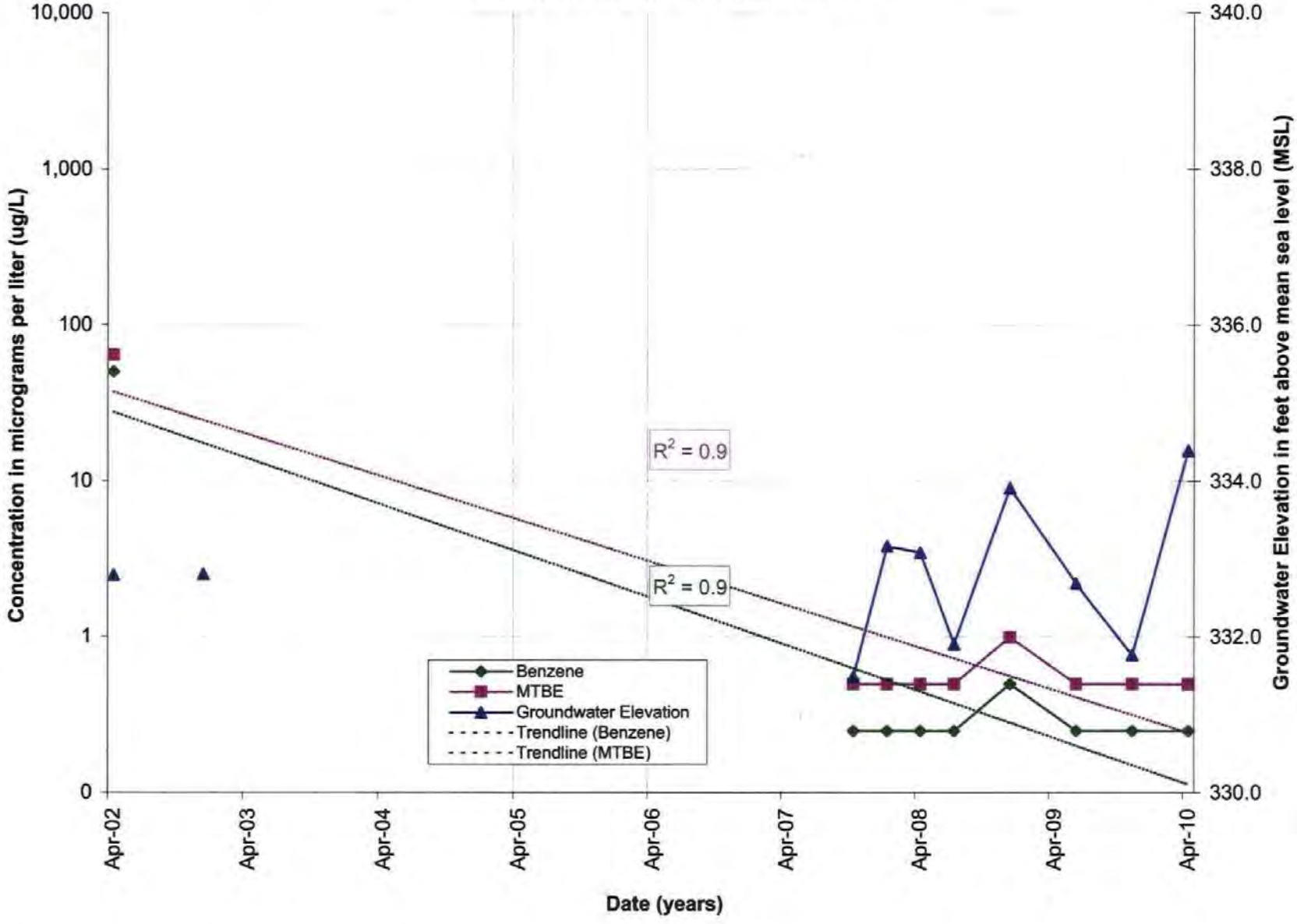
SCS ENGINEERS

MW-7
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



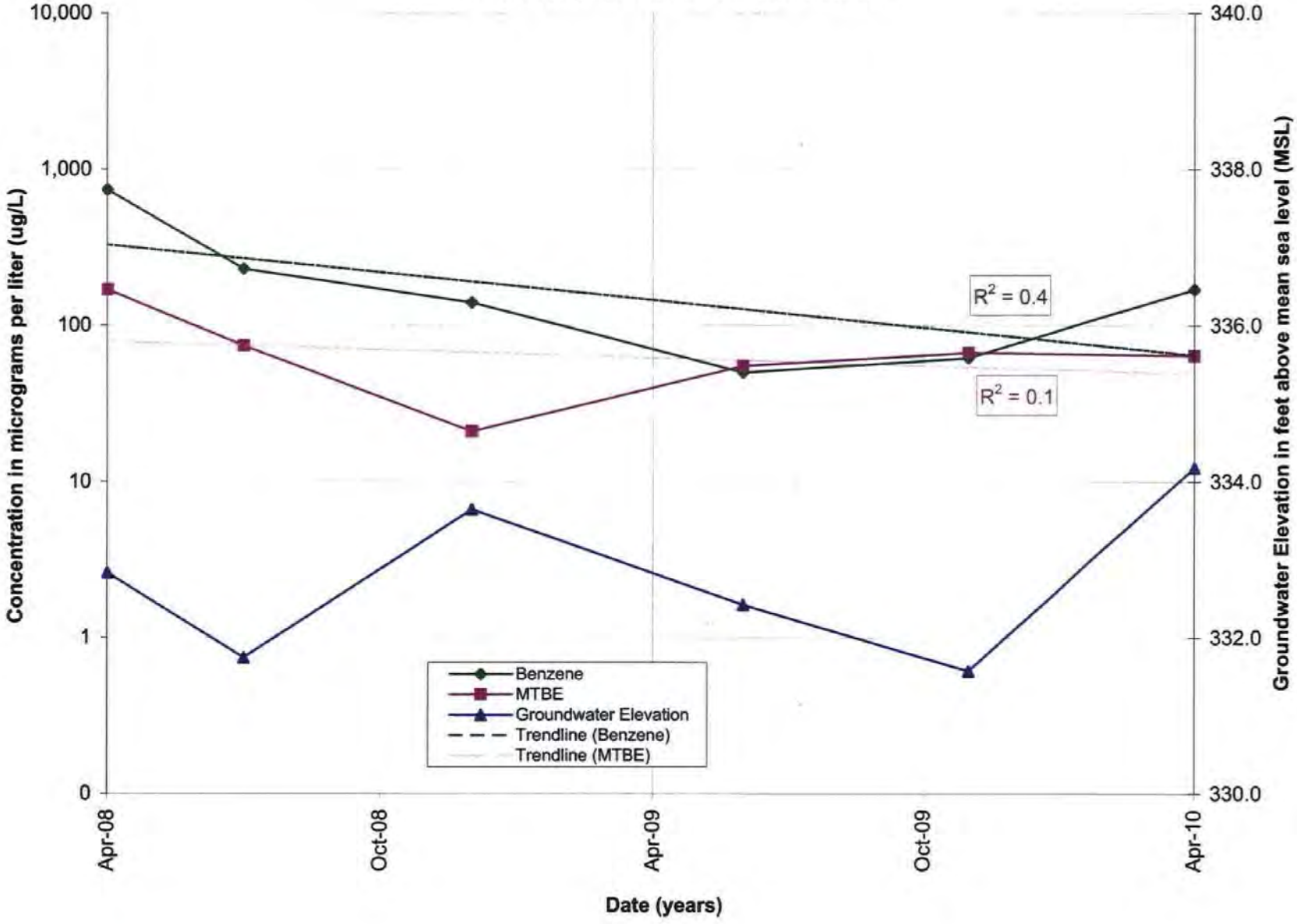
SCS ENGINEERS

MW-8
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



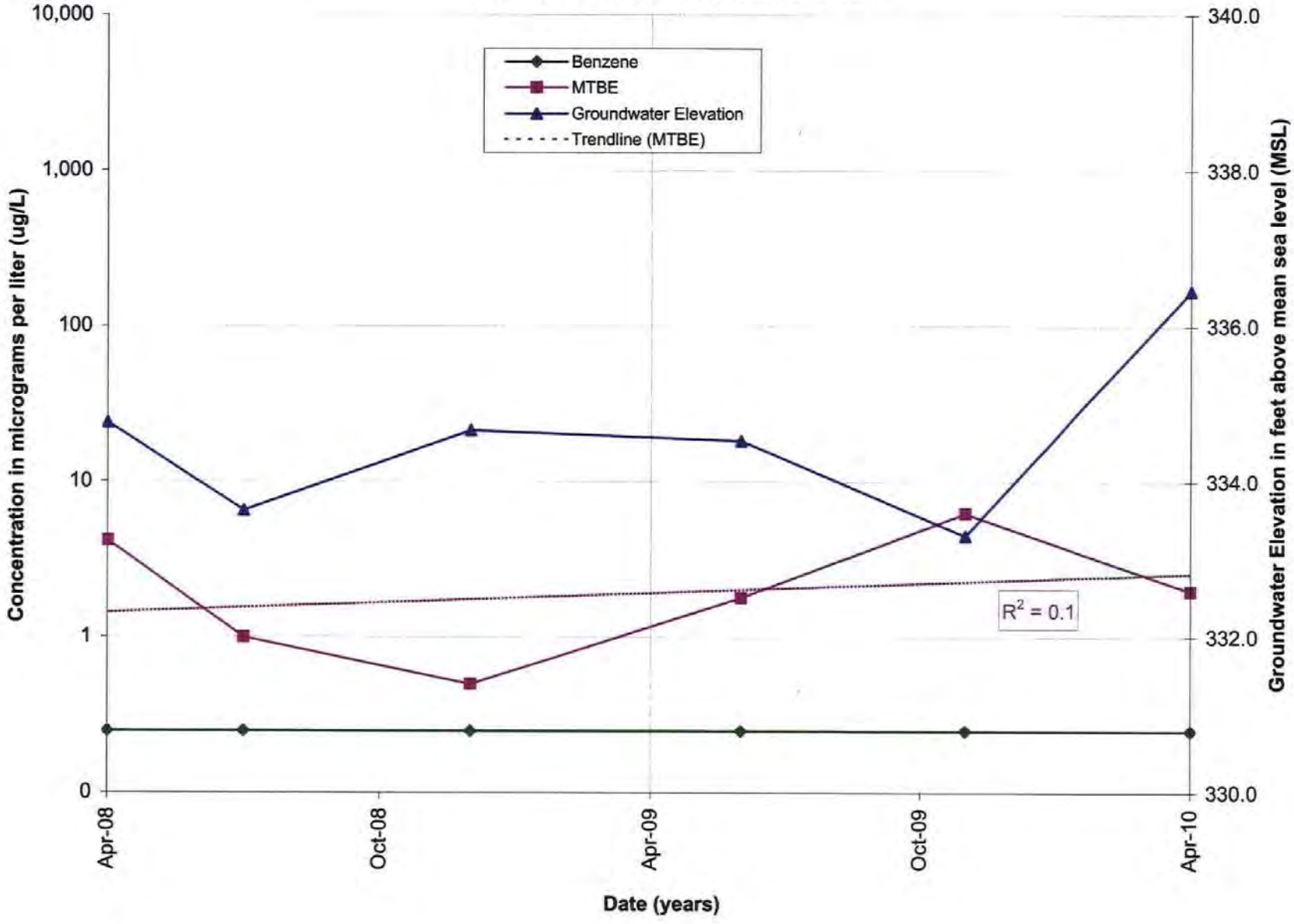
SCS ENGINEERS

MW-9
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



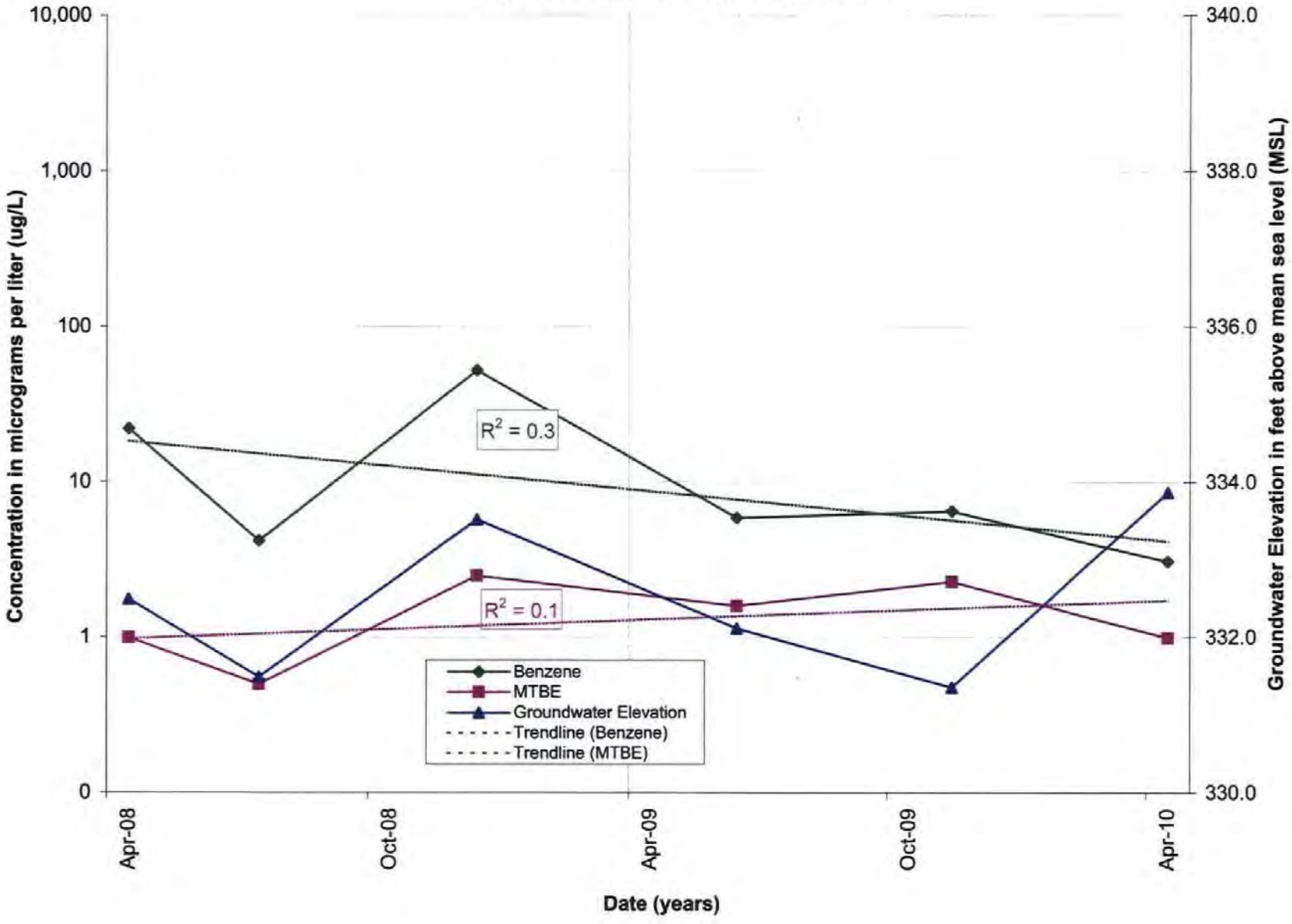
SCS ENGINEERS

MW-10
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



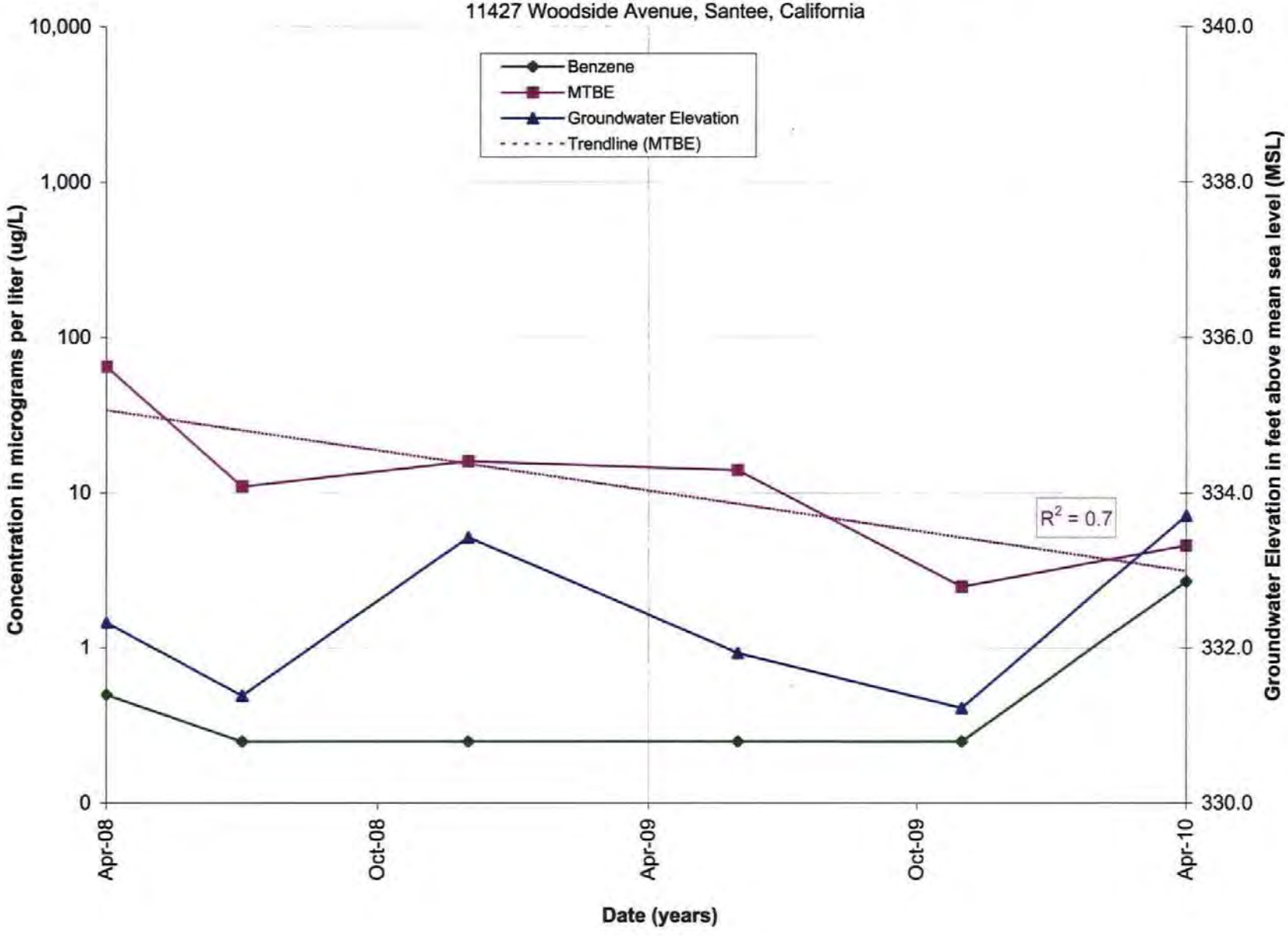
SCS ENGINEERS

MW-11
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



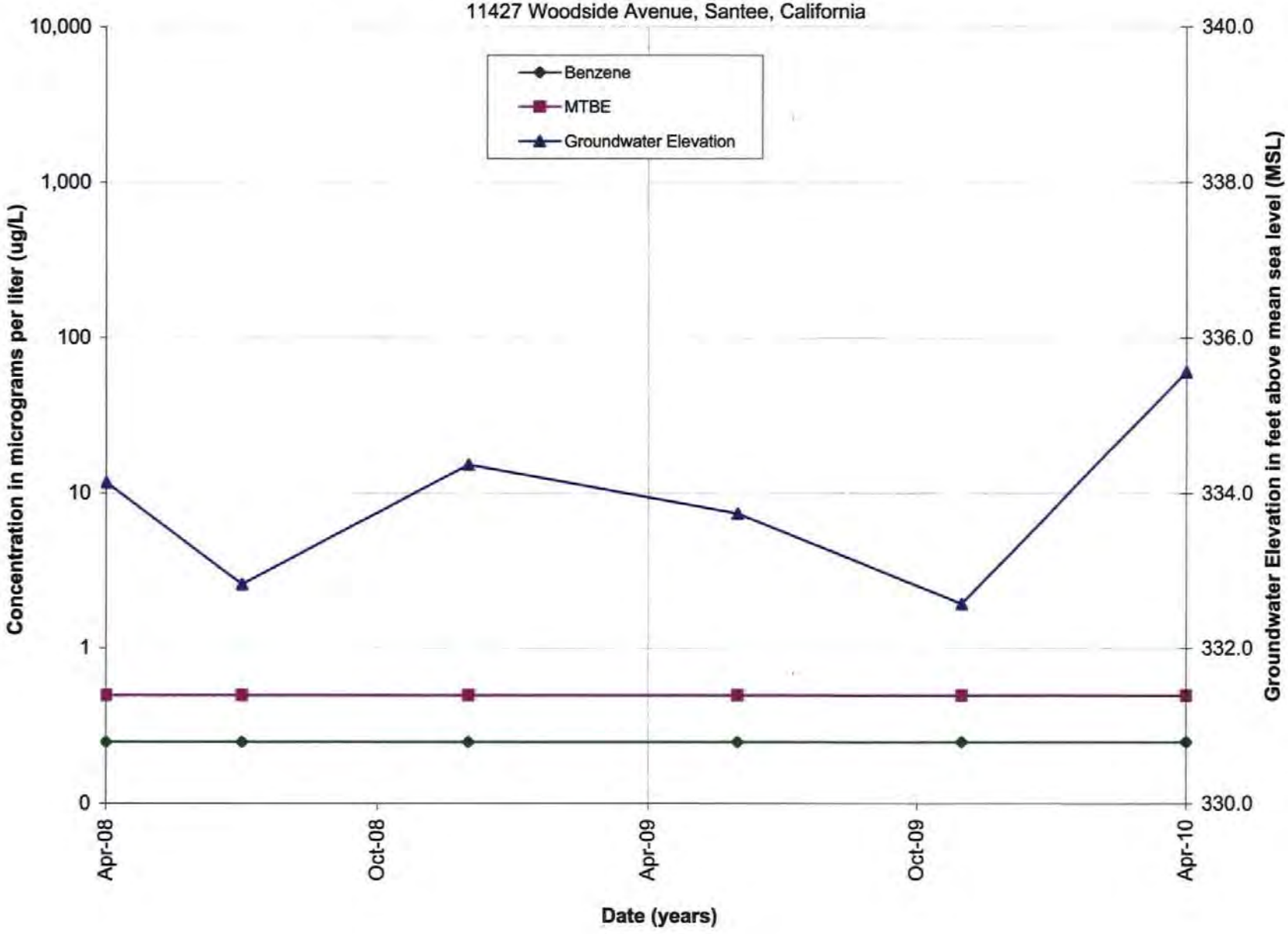
SCS ENGINEERS

MW-12
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



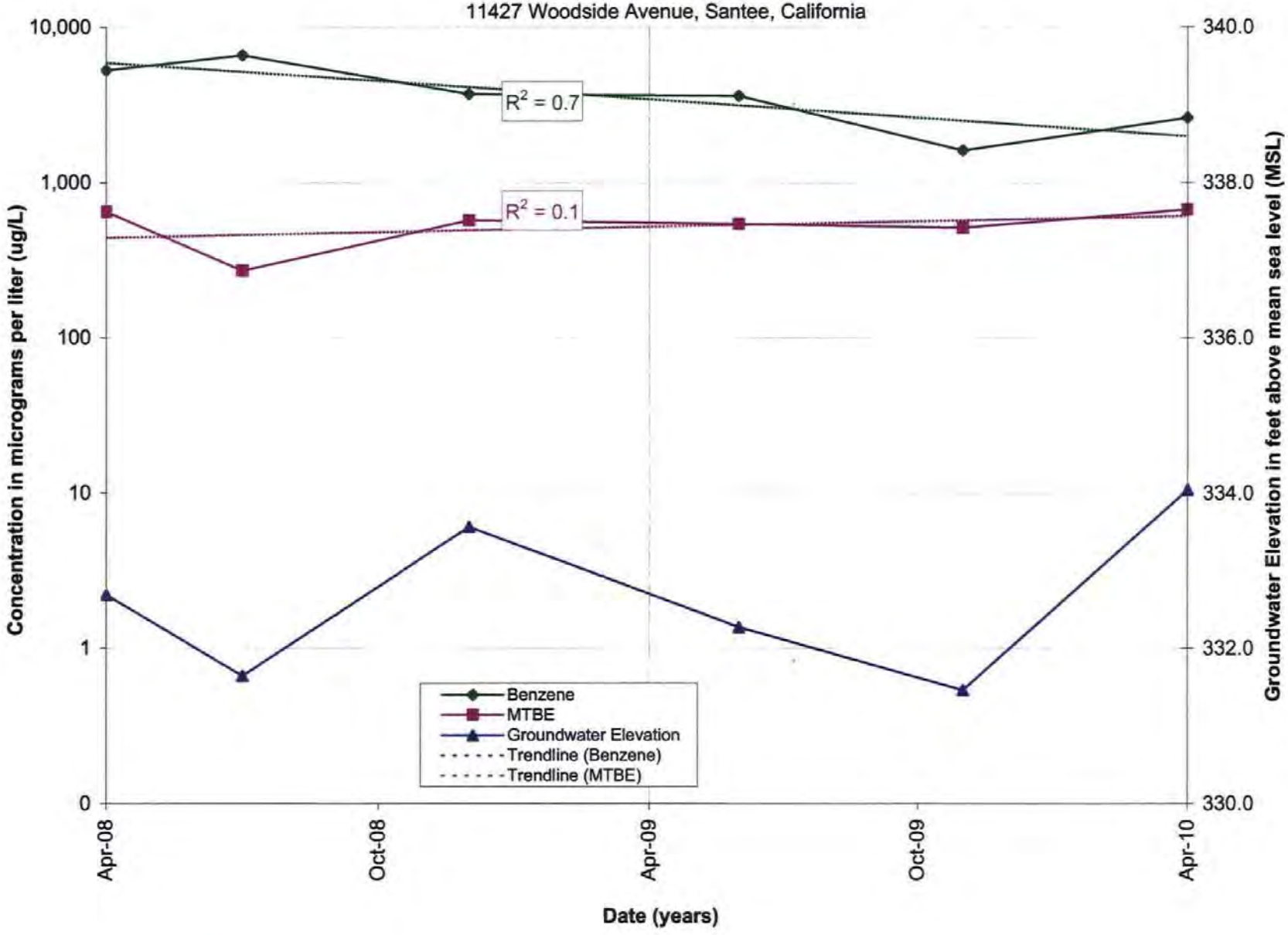
SCS ENGINEERS

MW-13
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



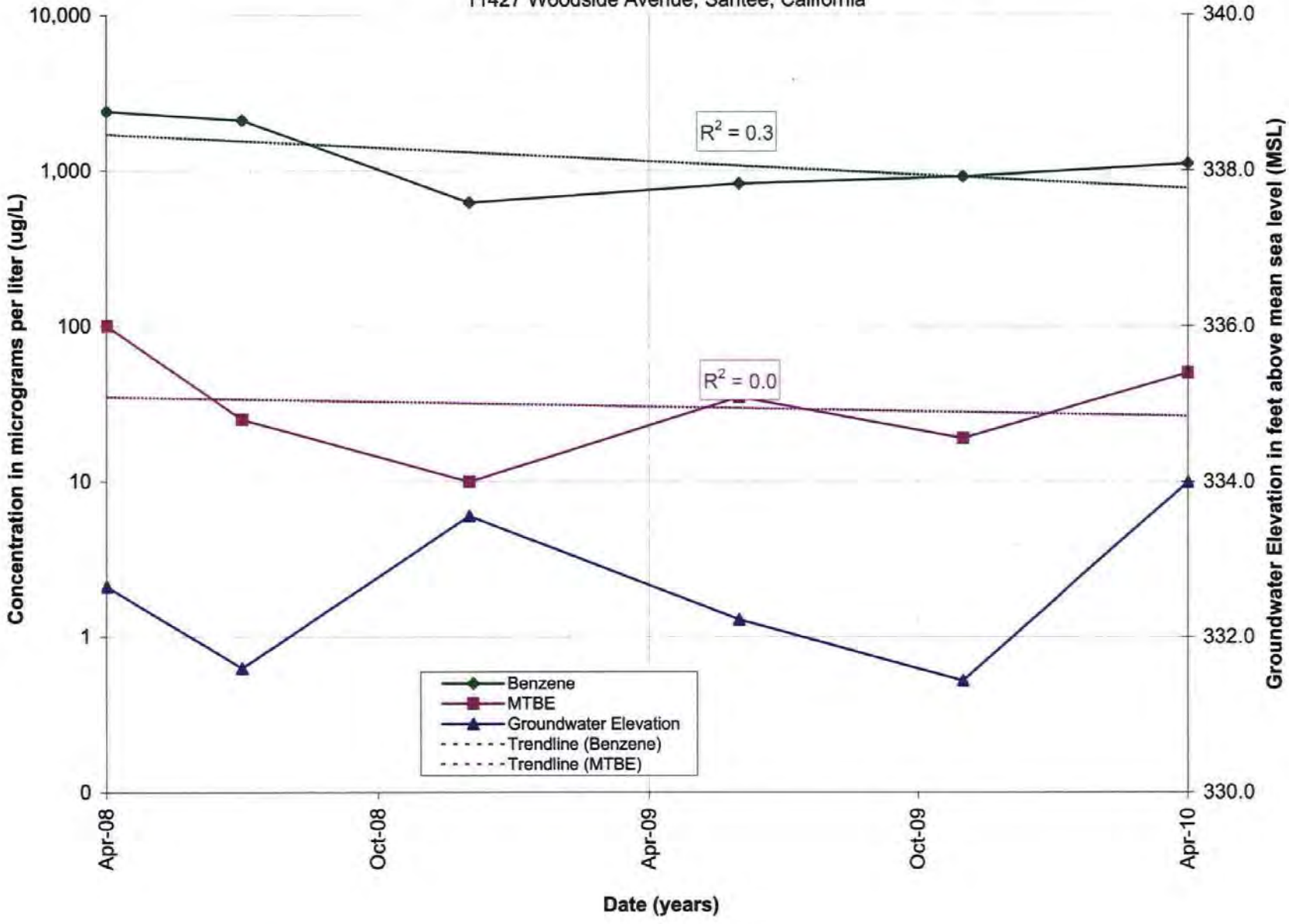
SCS ENGINEERS

MW-14
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



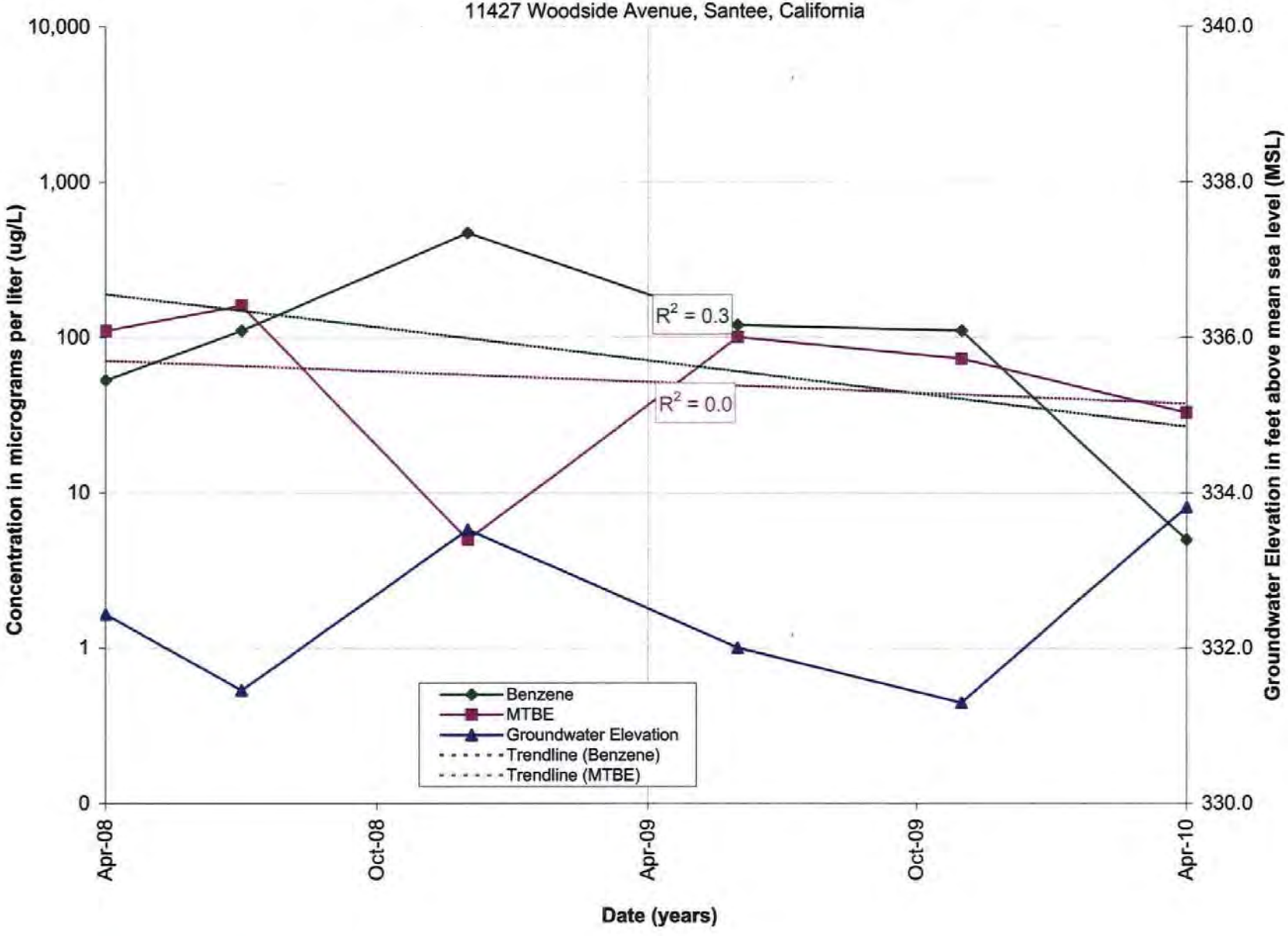
SCS ENGINEERS

MW-15
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



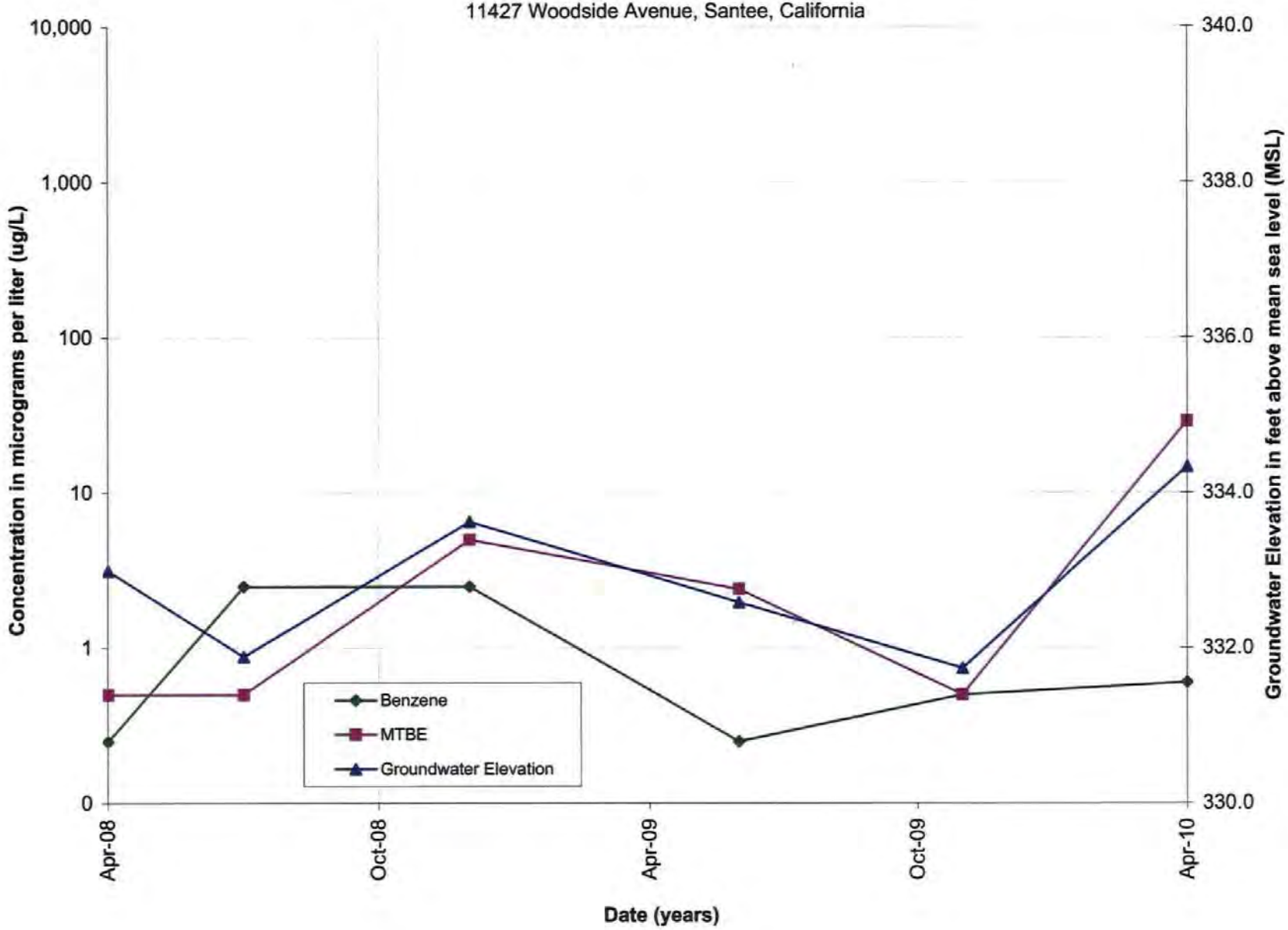
SCS ENGINEERS

MW-16
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



SCS ENGINEERS

MW-17
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



SCS ENGINEERS

Environmental Consultants
and Contractors

8799 Balboo Avenue
Suite 290
San Diego, CA 92123

858 571-5500
Fax 858 571-5357
www.scsengineers.com

SCS ENGINEERS

RECEIVED
APR 29 2010
ENVIRONMENTAL HEALTH

April 27, 2010
Project Number: 01208473.00

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Subject: ***Workplan for a Soil Vapor Survey and Health Risk Assessment***

Site: ***Wigington Petroleum***
11427 Woodside Avenue
Santee, California

DEH Case Number: ***H19469-001***

Dear Ms. Beacon:

Enclosed please find three replacement pages for the above-referenced Workplan. The previous Workplan, sent yesterday has an incorrect heading on the first two pages.

Please replace the incorrect pages with the ones enclosed.

Thank you and I apologize for any inconvenience this has caused.

Sincerely,
SCS Engineers
The San Diego Office

Robin Love

Robin Love
Administration

Enclosure

cc: Chuck E. Houser (w/out encl)

SCS ENGINEERS

Workplan for Soil Vapor Survey and Health Risk Assessment

11427 Woodside Avenue
Santee, California
H19469-001

Presented to:

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Prepared for:

Mrs. Linda Wigington
c/o Willian Fischbeck
Fischbeck and Oberndorfer
5464 Grossmont Center Drive, 3rd Floor
La Mesa, CA 91942

Presented by:

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123
(858) 571-5500

April 26, 2010
Project Number: 01208473.00

Offices Nationwide
www.scsengineers.com

April 26, 2010
Project Number: 01208473.00

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Subject: **Workplan for a Soil Vapor Survey and Health Risk Assessment**

Site: **Wigington Petroleum**
11427 Woodside Avenue
Santee, California

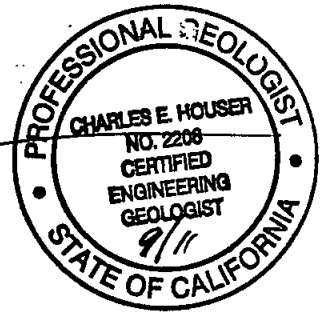
DEH Case Number: H19469-001

Dear Ms. Beacon:

SCS Engineers (SCS) is pleased to present this workplan (Workplan) for a soil vapor survey and health risk assessment (HRA) at the Site on behalf of Mrs. Linda Wigington (Client). This Workplan was prepared pursuant to the requirements of the County of San Diego Department of Environmental Health (DEH), Site Assessment and Mitigation Program (SAM), and in accordance with Exhibit 00 to the consulting agreement between SCS and the Client, fully executed on March 30, 2009.

Should you have any questions regarding this Workplan, please do not hesitate to call the undersigned at (858) 571-5500.

Sincerely,



Charles E. Houser, CEG 2206
Senior Project Professional
SCS ENGINEERS
4/27/10

Chuck Pryatel, MBA, REHS
Vice President
SCS ENGINEERS

cc: Mrs. Linda Wigington
William Fischbeck

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1	4-Way Site Location Map
2	DEH Correspondence

Appendices

March 16, 2010, SAM Program Letter
Soil Vapor Monitoring Well Construction Diagram

SCS ENGINEERS

RECEIVED
ENVIRONMENTAL HEALTH

Workplan for Soil Vapor Survey and Health Risk Assessment

11427 Woodside Avenue
Santee, California
H19469-001

Presented to:

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Prepared for:

Mrs. Linda Wigington
c/o Willian Fischbeck
Fischbeck and Oberndorfer
5464 Grossmont Center Drive, 3rd Floor
La Mesa, CA 91942

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Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
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Subject: **Workplan for a Soil Vapor Survey and Health Risk Assessment**

Site: **Wigington Petroleum**
11427 Woodside Avenue
Santee, California

DEH Case Number: H19469-001

Dear Ms. Beacon:

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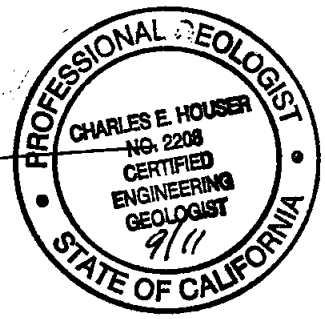

Charles E. Houser, CEG 2206
Senior Project Professional
SCS ENGINEERS

Chuck Pryatel, MBA, REHS
Vice President
SCS ENGINEERS

cc: Mrs. Linda Wigington
William Fischbeck

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1	4-Way Site Location Map
2	DEH Correspondence

Appendices

March 16, 2010, SAM Program Letter
Soil Vapor Monitoring Well Construction Diagram

1.0 BACKGROUND

The Site is located at 11427 Woodside Avenue in the town of Santee, San Diego County, California (Figure 1). The Site is currently occupied by a gasoline service station. Between 1987 and 1998 thirteen underground storage tanks (USTs) were reported to be removed from the Site. Analysis of samples collected during the UST removals indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) directed that corrective measures be taken regarding the release.

A summary of the previous environmental assessments conducted at the Site follows:

- EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the Site between 1988 and 2005. A total of eighteen borings and eight groundwater monitoring wells (MW-1 through MW-4 and MW-6 through MW-8) were drilled and sampled by EnecoTech. An existing twelve-inch diameter concrete water production well, inside the Site building, was labeled MW-5 and sampled during the monitoring events in March 1998 and April 2002.

- In 1988, EnecoTech reported that four USTs were removed from the Site. A site assessment was performed immediately following the tank removal activities where eleven soil borings were drilled and sampled and four of the borings were completed as groundwater monitoring wells (MW-1 through MW-4).

- On August 19, 1993, the HMMD issued a Notice of Violation to El Capitan Oil Co. requiring corrective action relative to the release. The SAM Program reportedly assumed oversight responsibility of the UST assessment and mitigation in mid-1993.

- EnecoTech reported single-walled product piping was removed from the Site in October 1997.

- In April 1998, nine USTs were reportedly removed from the Site where samples collected by EnecoTech indicated a release of petroleum hydrocarbons.

- On March 14, 2000, EnecoTech produced a workplan titled *Work Plan for Environmental Services*, which proposed the installation of two additional groundwater monitoring wells. The SAM Program reportedly directed that four groundwater monitoring wells be installed in a letter dated, May 8, 2000. EnecoTech installed two groundwater monitoring wells (MW-6 and MW-7) on February 26, 2001 and one groundwater monitoring well (MW-8) on April 19, 2002.

- Based on the results of EnecoTech's Site assessment activities, groundwater beneath the Site was impacted by petroleum hydrocarbons from on-Site releases.

- On March 25, 2005, EnecoTech submitted a workplan for additional Site assessment, which proposed the installation of nine additional groundwater monitoring wells both on-Site and off-Site.

- In 2006, Petra Geotechnical Inc. (Petra) was retained to conduct the site assessment work. The SAM Program approved EnecoTech's workplan in a letter dated October 10, 2007. Petra proposed one well be installed in addition to the nine wells proposed by EnecoTech. The SAM Program agreed that an additional well was needed and requested a revised workplan. Petra submitted an addendum to the revised workplan, dated December 21, 2007, to include a tenth groundwater monitoring well to be installed. The SAM Program approved the revised workplan in a letter, dated January 15, 2008.

- On October 25, 2007, Petra observed phase-separated hydrocarbons (PSH) in monitoring wells MW-2, MW-3, and MW-4. Petra submitted a workplan titled, *Workplan for High Vacuum Dual Phase Extraction Pilot Test and Interim Remediation*, to the SAM Program, dated December 24, 2007. The SAM Program approved the workplan in a letter dated, January 16, 2008.

- Petra conducted a 33-day high-vacuum, dual-phase extraction (HVDPE) pilot test between January 22, 2008 and February 24, 2008. Approximately 3,256.17 pounds of petroleum hydrocarbons were removed and treated during the pilot test. During the pilot test, nine new monitoring wells (MW-9 through MW-17) were installed. The location of these wells (MW9 through MW-17) and previous wells (MW-1 through MW-8) are depicted on Figure 2. In April 2008, monitoring wells MW-1 through MW-4 and MW-6 through MW-17 were sampled during the second quarter 2008 (2Q2008) groundwater monitoring event.

- On July 25, 2008, Petra submitted a *Workplan for Well Maintenance and Well Destruction* to the SAM Program to destroy well MW-5 and reconstruct the well heads for several monitoring wells. The SAM Program approved this workplan in a letter dated September 4, 2008.

- In 2009, SCS Engineers was retained to conduct further groundwater monitoring and Site assessment beginning with the second quarter 2009 (2Q2009) groundwater monitoring event.

- On July 13, 2009, a letter was issued from the SAM Program to reduce the frequency of groundwater monitoring from quarterly to semi-annually during the second and fourth quarters.

Currently, semi-annual groundwater monitoring and sampling is on-going at the Site. In a letter dated March 16, 2010, the SAM Program requested a workplan for a soil vapor survey and human health risk assessment. A copy of the letter is attached. This workplan has been prepared to address the request for a human health risk assessment.

2.0 SITE DESCRIPTION SUMMARY

Site Name:	Wigington Petroleum
Site Owner:	Linda Wigington
Site Address:	11427 Woodside Avenue, Santee, California
DEH Case Number:	H19469-001
Cleanup Fund Claim Number:	912
Global ID:	T0607303173

3.0 OBJECTIVES

The objectives of the proposed scope of services are to:

- Assess the extent and concentrations of petroleum hydrocarbons in subsurface soil vapor beneath the Site building.
- Assess the likelihood that Significant human health risk exists at the Site as a result of vapor-phase migration of petroleum hydrocarbons.

4.0 SCOPE OF SERVICES

The scope of services that has been developed to meet the Workplan objectives includes the following tasks.

PREPARATION FOR FIELD WORK

Preparation of Health and Safety Plan

A health and safety plan for work conducted at the Site and workers within the "exclusion zone" is required pursuant to the regulations found in 29 Code of Federal Regulations (CFR) Part 1910.120 and California Code of Regulations (CCR), Title 8, Section 5192. Therefore, the existing health and safety plan for the Site will be updated for the scope of services, and will outline the potential chemical and physical hazards that may be encountered during soil vapor probe installation activities. The appropriate personal protective equipment and emergency response procedures for the anticipated site-specific chemical and physical hazards will be detailed in this plan. SCS and contracted personnel involved with the proposed field work will be required to read and sign this document in order to encourage proper health and safety practices.

Monitoring Well Permit

Prior to conducting field work, a monitoring well permit application will be completed and submitted for the completion of four shallow vapor wells with the required fee to the DEH for approval. The permit application will reflect boring backfill methods and monitoring well design and construction methods. The permit application will be signed by the appropriately licensed professional and submitted to the DEH.

Utility Search and Markout

SCS will notify Underground Service Alert (USA), as required by state law, and SCS will retain a private utility locating service prior to advancing vapor probes at the Site. This procedure is designed to minimize the likelihood of drilling into a subsurface utility.

Subcontractor Management

The appropriate subcontractor services will be obtained such as laboratory, utility locating, and other required contractor services. This task also includes time to coordinate and manage subcontractors, such as the utility locator and analytical laboratory, secure the necessary specialized equipment, and prepare for field mobilization.

SOIL VAPOR SURVEY

Soil vapor sample wells will be installed at the Site. The wells will be placed next to the Site buildings. The proposed soil vapor well locations are presented on Figure 2. Based on a telephone conversation with Ms. Ellen Beacon on April 14, 2010, she requested that the vapor samples be collected from depths of approximately 5 feet and 10 feet in the vapor wells. A direct-push drill rig will be used to advance borings to a depth of approximately 10 feet at each of the proposed vapor well locations. Dual nested vapor sampling probes will be installed in each boring. The wells will be constructed so that the intake ports are set up to approximately 5 and 10 feet below grade. The vapor wells will be completed with 5-inch traffic-rated well boxes. A diagram depicting the construction is included in the Appendix. Vapor wells completed with well boxes will also have a 12-inch diameter concrete pad. The concrete will extend at least 12 inches in depth near the well.

The vapor wells will be sampled two times approximately two weeks apart. A mobile laboratory provided by H&P Mobile Geochemistry will be onsite to perform the analysis for each round of sampling. Samples will be collected by drawing soil vapor from the well. The collected samples will be immediately delivered to the onsite mobile laboratory for analysis.

The soil vapor samples will be analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary butyl ether (MTBE) and fuel oxygenates including di-iso propyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), and tertiary butyl alcohol (TBA) in accordance with EPA Method 8260B. Chain-of-custody procedures will be implemented for sample tracking. A written laboratory report will be provided by the laboratory upon the completion of the sample testing.

purge test
- leak detection compound each probe

Upon completion of the soil vapor sampling, the tubing and well boxes will be removed and the wells will be backfilled with bentonite granules, hydrated, and capped with asphalt or concrete.

HUMAN HEALTH RISK ASSESSMENT

If detectable[1] concentrations of petroleum hydrocarbons are reported in the soil vapor samples, then the results will be used to assess the potential human health risk to future Site occupants associated with possible vapor-phase migration of petroleum hydrocarbons. The highest reported concentrations will be used in the risk calculations. SCS will use the DEH's Vapor Risk 2000 vapor intrusion model and the default values for commercial land use except where Site-specific information is available. SCS will take in to consideration Site-specific information such as depth to contamination, the slab attenuation factor, and others as appropriate.

The potential human health risk associated with reported concentrations of petroleum hydrocarbon compounds in the soil vapor will be estimated based on the soil vapor measurements taken in the vadose zone.

REPORT PREPARATION

Based on the findings of the field investigation and laboratory results from the above scope of services, a Report will be prepared in accordance with DEH guidelines. The Report will describe the soil vapor sampling conducted at the Site and will include laboratory reports, chain-of-custody records, figures indicating the soil vapor well locations and sample analytical results, tabulated analytical results, Vapor Risk 2000 calculation sheets, and appropriate support documentation. The Report will be peer reviewed and signed by the appropriately licensed professional. The work conducted at the Site will be overseen by a professional geologist. The Report will be written in accordance with the guidelines presented in the current SAM Manual and the site assessment report checklist.

5.0 ESTIMATED SCHEDULE

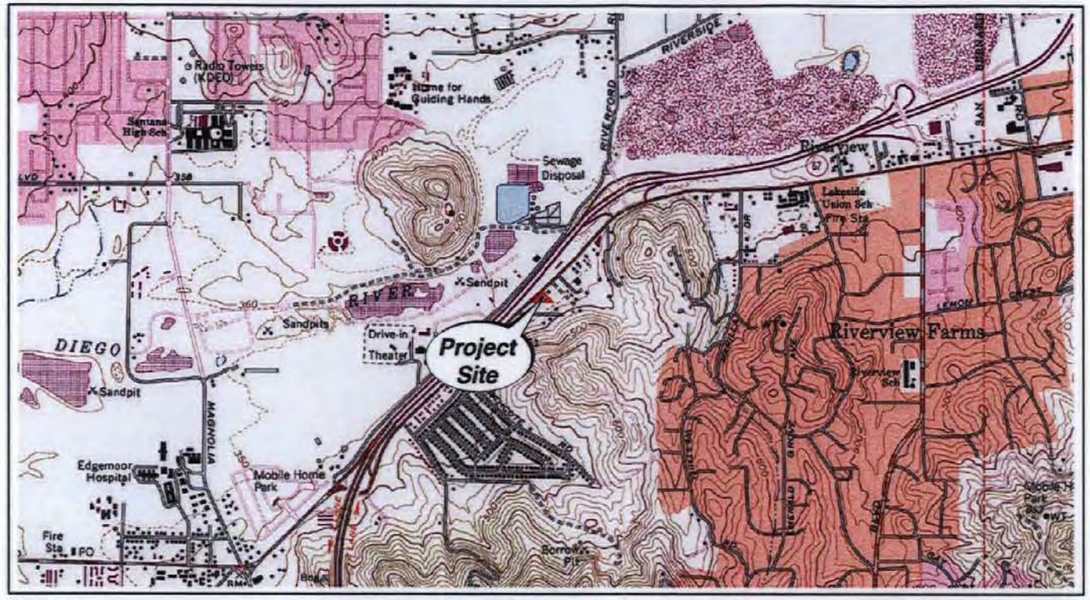
SCS estimates that the field preparation and fieldwork will require approximately 45 days to complete. The report will be submitted 30 to 45 days after receipt of laboratory analytical results.

1 "Detectable" concentrations are at or above the laboratory detection limit for the respective analysis.

FIGURES

North (Not to scale)

REGIONAL SITE LOCATION



North

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

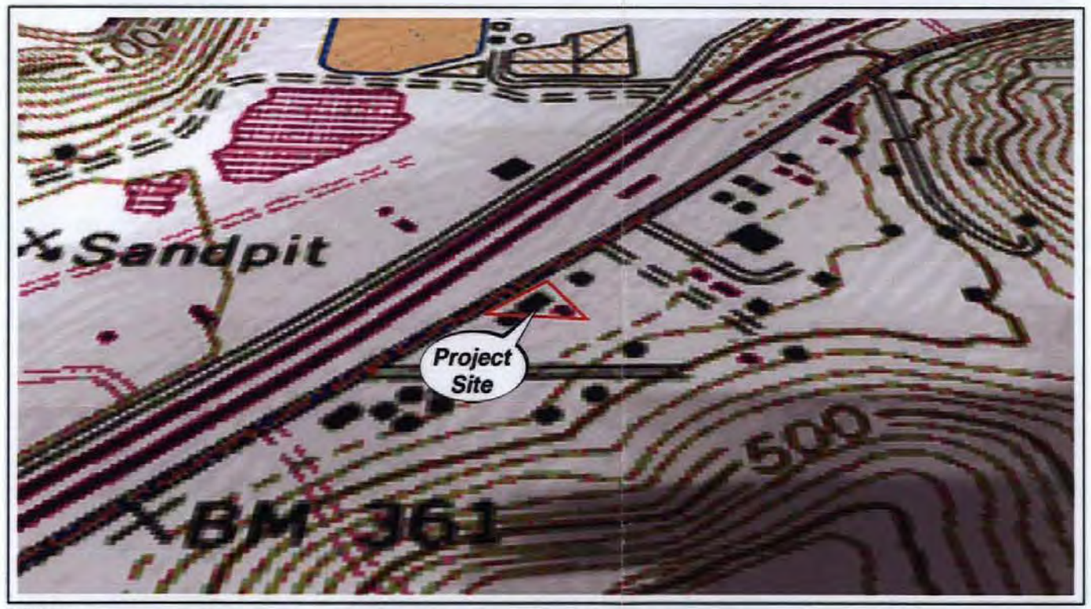
2-DIMENSIONAL SITE LOCATION

0 1,000 2,000 3,000
Approximate Graphic Scale in Feet

North (Not to scale)

Reference:
Google Earth Aerial Photograph
Santee, California - February 2008

SITE AERIAL PHOTOGRAPH



North (Not to scale)

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

3-DIMENSIONAL SITE LOCATION

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

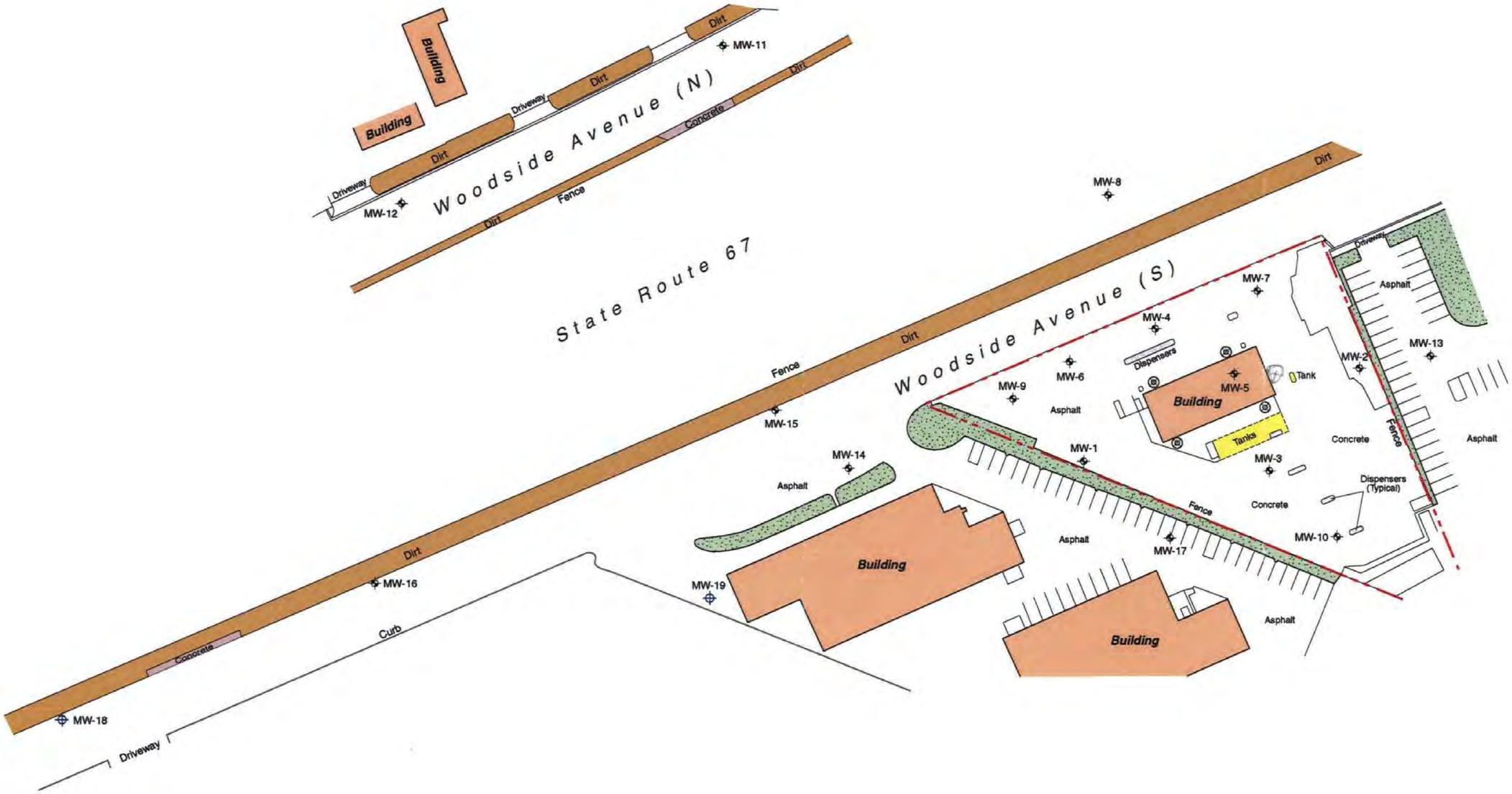
SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

4-WAY SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 1

Date Drafted: 4/22/10



EXPLANATION

- MW-16 — Existing groundwater monitoring wells
- MW-18 — Proposed groundwater monitoring well location
- Approximate Site boundary
- Proposed soil vapor sample wells

0 40 80 120
Approximate Graphic Scale:
One Inch Equals 80 Feet

North

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

SITE MAP WITH SOIL VAPOR SAMPLING WELL LOCATIONS

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 2

Date Drafted: 4/22/10

DEH CORRESPONDENCE

County of San Diego

JACK MILLER
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
619-338-2222/FAX 619-338-2315/1-800-253-9933
http://www.sdcdeh.org

RECEIVED
MAR 22 2010
SCS Engineers
San Diego Office

March 16, 2010

Ms. Linda Wigington
Wigington Petroleum, Inc.
c/o William L. Fischbeck, Esq.
5464 Grossmont Center Drive, Third Floor
La Mesa, CA 91942

Dear Ms. Wigington:

UNAUTHORIZED RELEASE #H19469-001
REPORT RESPONSE
WIGINGTON PETROLEUM, INC.
11427 WOODSIDE AVENUE, SANTEE, CA

The *Quarterly Groundwater Monitoring Report (Second Quarter 2009),* prepared by SCS Engineers for the above-referenced site, dated November 20, 2010, and received November 23, 2010, and the case files have been reviewed. We are also in receipt of a *Work Plan for Focused High-Vacuum, Dual-Phased Extraction Pilot Test;* however, this work plan has not been reviewed. Prior to conducting remedial testing, an on-site health risk assessment and delineation of the groundwater contamination should be completed.

Free product was first detected in the concrete-cased well also known as MW5 (which was reportedly destroyed without a permit) located inside the onsite building, in wells MW1, MW2, MW3, and MW4, and borings/temporary wells B3, B4, B13, and B17 in 2002. A soil vapor survey and human health risk assessment (HHRA) must be conducted to evaluate the potential for vapor intrusion into the onsite building. **Please submit a work plan to conduct a HHRA within 30 days of receipt of this letter.**

Additionally, the extent of benzene and fuel oxygenates in groundwater must be determined. Please submit a work plan for the installation of additional offsite wells, including a well located approximately midway between wells MW15 and 16 and 115 feet south of the dirt median shown on Figure 7 (*Site* Map with Proposed Down Gradient Monitoring Well) of the quarterly groundwater monitoring report referenced above. **The work plan for the off-site groundwater investigation must be submitted within 30 days of receipt of this letter.**

Please provide a table of well construction details and iso-concentration contour maps for tert- butyl alcohol in future groundwater monitoring reports.

Please call me at (619) 338-2243 if you have any questions.

Sincerely,

Ellen Beacon

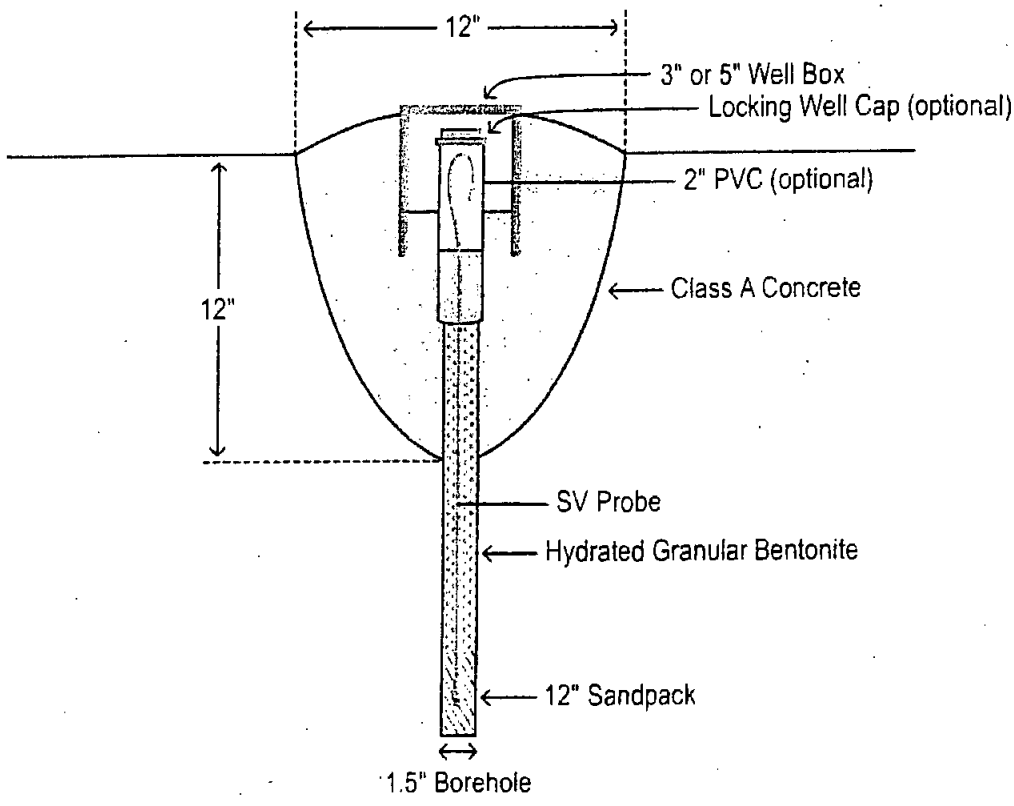
ELLEN BEACON, PG #7566
Project Manager
Site Assessment and Mitigation Program

EB:kd

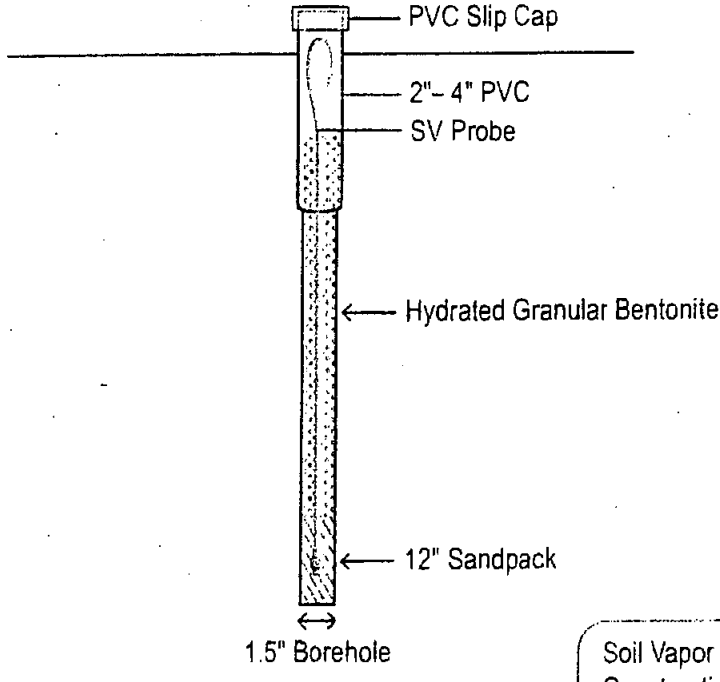
cc: Charles E. Houser, SCS Engineers

SOIL VAPOR WELL CONSTRUCTION DIAGRAM

Soil Vapor Monitoring Well Construction Diagram



Soil Vapor Semi-permanent Monitoring Well Construction Diagram



Soil Vapor Monitoring Well Construction Diagram

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SCS ENGINEERS

SITE ASSESSMENT WORKPLAN

11427 Woodside Avenue
Santee, California
H19469-001

EB
5/7/10

Presented to:

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Prepared for:

Mrs. Linda Wigington
c/o Willian Fischbeck
Fischbeck and Oberndorfer
5464 Grossmont Center Drive, 3rd Floor
La Mesa, CA 91942

Presented by:

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123
(858) 571-5500

April 26, 2010
Project Number: 01208473.00

April 26, 2010
Project No. 01208452.00

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Subject: Site Assessment Workplan
DEH File Number: H19469-001

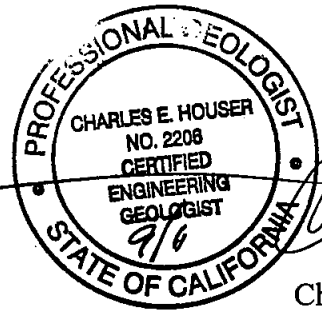
Site: Wigington Petroleum
11427 Woodside Avenue
Santee, California

Dear Ms. Beacon:

SCS Engineers (SCS) is pleased to present this Workplan for a subsurface Site assessment (Assessment) of petroleum hydrocarbon-bearing soil at the above referenced Site. This Assessment will be conducted pursuant to the requirements of the County of San Diego Department of Environmental Health (DEH), Site Assessment and Mitigation Program (SAM). This Workplan was prepared in accordance with the guidelines set forth by the DEH and Exhibit 00 to the Contract between SCS and Mrs. Linda Wigington (Client), fully executed on March 30, 2009.

Should you have any questions regarding this Workplan, please do not hesitate to call the undersigned at (858) 571-5500.

Sincerely,



Charles E. Houser, CEG 2206
Senior Project Professional
SCS ENGINEERS

Chuck Pryatel, MBA, REHS
Vice President
SCS ENGINEERS

cc: Dr. Alfred Salganick
State UST Cleanup Fund (with reimbursement request)

Enclosures
F:\Projects\208\451-530\01208473.00 (Wigington Petroleum)\701 (El Cap Oil)\Site Assessment\01208473.00.Site Assessment Workplan.doc

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Figure 2 Site Plan with Proposed Groundwater Monitoring Well Locations

Attachments

March 16, 2010, SAM Program Letter

1 BACKGROUND

The Site is located at 11427 Woodside Avenue in the town of Santee, San Diego County, California (Figure 1). The Site is currently occupied by a gasoline service station. Between 1987 and 1998 thirteen underground storage tanks (USTs) were reported to be removed from the Site. Analysis of samples collected during the UST removals indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) directed that corrective measures be taken regarding the release.

A summary of the previous environmental assessments conducted at the Site follows:

- EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the Site between 1988 and 2005. A total of eighteen borings and eight groundwater monitoring wells (MW-1 through MW-4 and MW-6 through MW-8) were drilled and sampled by EnecoTech. An existing twelve-inch diameter concrete water production well, inside the Site building, was labeled MW-5 and sampled during the monitoring events in March 1998 and April 2002.

- In 1988, EnecoTech reported that four USTs were removed from the Site. A site assessment was performed immediately following the tank removal activities where eleven soil borings were drilled and sampled and four of the borings were completed as groundwater monitoring wells (MW-1 through MW-4).

- On August 19, 1993, the HMMD issued a Notice of Violation to El Capitan Oil Co. requiring corrective action relative to the release. The SAM Program reportedly assumed oversight responsibility of the UST assessment and mitigation in mid-1993.

- EnecoTech reported single-walled product piping was removed from the Site in October 1997.

- In April 1998, nine USTs were reportedly removed from the Site where samples collected by EnecoTech indicated a release of petroleum hydrocarbons.

- On March 14, 2000, EnecoTech produced a workplan titled *Work Plan for Environmental Services*, which proposed the installation of two additional groundwater monitoring wells. The SAM Program reportedly directed that four groundwater monitoring wells be installed in a letter dated, May 8, 2000. EnecoTech installed two groundwater monitoring wells (MW-6 and MW-7) on February 26, 2001 and one groundwater monitoring well (MW-8) on April 19, 2002.

- Based on the results of EnecoTech's Site assessment activities, groundwater beneath the Site was impacted by petroleum hydrocarbons from on-Site releases.

- On March 25, 2005, EnecoTech submitted a workplan for additional Site assessment, which proposed the installation of nine additional groundwater monitoring wells both on-Site and off-Site.

- In 2006, Petra Geotechnical Inc. (Petra) was retained to conduct the site assessment work. The SAM Program approved EnecoTech's workplan in a letter dated October 10, 2007. Petra proposed one well be installed in addition to the nine wells proposed by EnecoTech. The SAM Program agreed that an additional well was needed and requested a revised workplan. Petra submitted an addendum to the revised workplan, dated December 21, 2007, to include a tenth groundwater monitoring well to be installed. The SAM Program approved the revised workplan in a letter, dated January 15, 2008.

- On October 25, 2007, Petra observed phase-separated hydrocarbons (PSH) in monitoring wells MW-2, MW-3, and MW-4. Petra submitted a workplan titled, *Workplan for High Vacuum Dual Phase Extraction Pilot Test and Interim Remediation*, to the SAM Program, dated December 24, 2007. The SAM Program approved the workplan in a letter dated, January 16, 2008.

- Petra conducted a 33-day high-vacuum, dual-phase extraction (HVDPE) pilot test between January 22, 2008 and February 24, 2008. Approximately 3,256.17 pounds of petroleum hydrocarbons were removed and treated during the pilot test. During the pilot test, nine new monitoring wells (MW-9 through MW-17) were installed. The location of these wells (MW9 through MW-17) and previous wells (MW-1 through MW-8) are depicted on Figure 2. In April 2008, monitoring wells MW-1 through MW-4 and MW-6 through MW-17 were sampled during the second quarter 2008 (2Q2008) groundwater monitoring event.

- On July 25, 2008, Petra submitted a *Workplan for Well Maintenance and Well Destruction* to the SAM Program to destroy well MW-5 and reconstruct the well heads for several monitoring wells. The SAM Program approved this workplan in a letter dated September 4, 2008.

- In 2009, SCS Engineers was retained to conduct further groundwater monitoring and Site assessment beginning with the second quarter 2009 (2Q2009) groundwater monitoring event.

- On July 13, 2009, a letter was issued from the SAM Program to reduce the frequency of groundwater monitoring from quarterly to semi-annually during the second and fourth quarters.

Currently, semi-annual groundwater monitoring and sampling is on-going at the Site. In a letter dated March 16, 2010, the SAM Program requested a workplan for additional Site assessment. A copy of the letter is attached. This workplan has been prepared to address the request for additional Site assessment.

2 SITE DESCRIPTION SUMMARY

Site Name:	Wigington Petroleum
Site Owner:	Linda Wigington
Site Address:	11427 Woodside Avenue, Santee, California
DEH Case Number:	H19469-001
Cleanup Fund Claim Number:	912
Global ID:	T0607303173

3 OBJECTIVE

The objective of the proposed scope of services is to assess the extent of petroleum hydrocarbon-bearing soil and groundwater with dissolved or phase-separated petroleum hydrocarbons associated with the release from the former USTs at the Site.

4 SCOPE OF SERVICES

APPROACH

SAM has requested this workplan propose complete delineation of the extent of petroleum hydrocarbon-impacted groundwater. The approach proposed in this workplan includes drilling, installation, and sampling of two new groundwater monitoring wells.

PREPARATION FOR FIELDWORK

Traffic Control Plan and Encroachment Permit

One of the proposed wells is located along the north side of South Woodside Avenue within the City of Santee (City) right-of-way. It is our understanding that installation of this well will require a traffic control plan and encroachment permit from the City. A traffic control plan will be prepared and submitted to the City, along with an encroachment permit application and fees.

Monitoring Well Permit

Prior to conducting field work, a monitoring well permit application will be completed and submitted for the completion of two wells with the required fee to the DEH for approval. The permit application will reflect boring backfill methods and monitoring well design and construction methods. The permit application will be signed by the appropriately licensed professional and submitted to the DEH.

Site Health and Safety Plan

A health and safety plan for work conducted at the Site and workers within the exclusion zone is required pursuant to the regulations found in 29 Code of Federal Regulations (CFR) Part 1910.120 and California Code of Regulations (CCR), Title 8, Section 5192. Therefore, the existing health and safety plan will be revised for the proposed work scope, and will outline the potential chemical and physical hazards that may be encountered during drilling and sampling activities. The appropriate personal protective equipment and emergency response procedures for the anticipated site-specific chemical and physical hazards will be detailed in this plan. SCS and contracted personnel involved with the proposed field work will be required to read and sign this document in order to encourage proper health and safety practices.

Utility Search and Markout

SCS will notify Underground Service Alert (USA), as required by state law, and retain a private utility locating service prior to commencement of field operations. This procedure is designed to minimize the likelihood of drilling into a subsurface utility.

Project Management, Subcontractor Management, Scheduling

Prior to mobilizing for field work, SCS will notify the DEH, and schedule the subcontractors including, but not limited to, the laboratory, the drilling company, the utility location company. This task also includes time to coordinate and manage subcontractors, such as the analytical laboratory and the drilling company, to secure the necessary specialized equipment, and to prepare for field mobilization.

GROUNDWATER MONITORING WELL DRILLING, INSTALLATION, AND SAMPLING

To further assess the extent of petroleum hydrocarbon impacts at the Site, SCS will attempt to advance two borings off-Site to the west-southwest of the Site (Figure 2). A truck-mounted drilling rig equipped with hollow stem augers will be used to advance the borings. We anticipate the borings will be advanced to a depth of approximately 40 feet below ground surface (bgs). Soil samples will be collected at approximate 5-foot intervals for logging purposes, at significant changes in lithology, and at the capillary fringe, but initially only samples from approximately 25, 30, 35, and 40 feet bgs, and at the capillary fringe will be analyzed. The borings will be converted into monitoring wells. Based on the previous subsurface assessment performed at the Site, groundwater is estimated to occur at approximately 30 feet bgs at the Site. Please note that many variables influence groundwater depth and actual depth at the Site may be different from the estimate presented herein. The locations of the proposed wells are presented in Figure 2.

A California Professional Geologist, or a qualified professional under the direct supervision of a Professional Geologist, will be on the Site to observe the drilling activity and describe collected soil samples in accordance with the Unified Soil Classification System.

As required by San Diego County guidelines, a steam cleaner will be on-site to steam clean the augers before drilling and between soil borings to minimize the likelihood of cross-

contaminating the borings and to minimize the potential for a false positive in the soil samples analyzed. The soil samples from each boring will be collected, when possible, with a split-spoon or similar type sampler. The split-spoon sampler will be cleaned between samples with a water-Alconox™ solution wash followed by a tap water rinse and a final rinse with deionized water.

Up to four samples for analysis will be collected from each soil boring. Soil samples will be driven into brass or stainless steel tubes. The ends of the sample tubes will be covered with Teflon™ sheeting, and tightly closed with end caps. The sample containers will be labeled and delivered directly to an on-Site laboratory. Chain-of-custody procedures will be implemented for sample tracking. A written analytical report will be provided by the laboratory upon completion of the sample testing. Soil cuttings will be placed in Department of Transportation (DOT)-rated 55-gallon drums, which will be labeled and left on-Site pending receipt of analytical results and evaluation of disposal options.

Soil Sample Analysis

A state-accredited laboratory will be used to analyze the collected samples. We estimate that eight soil samples will be analyzed for total petroleum hydrocarbons as gasoline (TPHg) and as diesel fuel (TPHd) in accordance with EPA Method 8015B. The sample with the highest reported TPHg concentration from each boring or the sample collected nearest the field interpreted water table will also be analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA) (DIPE, TAME, ETBE, and TBA collectively referred to as oxygenates) in accordance with EPA Method 8260B.

All samples BTEX?

Well Construction

The wells will be constructed with 2-inch-diameter polyvinyl chloride (PVC) casing, with the screened interval consisting of a 15-foot length of 0.020-inch slotted casing that extends approximately 10 feet below and 5 feet above the field-interpreted water table. Blank casing will be used to complete the casing interval. An appropriately graded sand filter pack will be installed to extend at least 2 feet above the screened interval. A minimum 3 foot hydrated bentonite seal will be placed above the sand filter pack, and the annular space above the seal will be backfilled with an appropriate grout. The upper 3 feet will be filled with concrete and the wells will be finished with traffic-rated, flush mounted well vaults and concrete in accordance with County guidelines.

The wells will be surged and developed in accordance with DEH guidelines to remove fines from the well casing and grade the filter pack around the screened interval of the well. After surging, the wells will be purged until water quality parameters (pH, temperature, conductivity) have stabilized within an acceptable range. Development water will be placed in DOT 55-gallon drums, which will be labeled and left on-Site pending receipt of analytical results and evaluation of disposal options.

Groundwater Monitoring and Sampling

At least 72 hours after development of the new wells, all Site wells will be purged and sampled in accordance with DEH guidelines. The wells will be monitored for depth to groundwater and for the presence of PSH. Wells with measurable PSH will not be sampled. Collected groundwater samples will be decanted into laboratory-supplied vials, labeled, and submitted to a State-accredited laboratory for analysis. Chain-of-custody procedures will be implemented for sample tracking. Samples will be analyzed for TPHg and TPHd in accordance with Modified EPA Method 8015B, and for BTEX, MTBE, and oxygenates in accordance with EPA Method 8260B. A written analytical report will be provided by the laboratory upon completion of the sample testing.

Monitoring Well Survey

The new wells will be surveyed for latitude, longitude, and elevation by a licensed land surveyor. The latitude and longitude will be measured to sub-meter accuracy using an approved datum with GPS equipment. The well elevation will be measured to a hundredth of a foot. This information is required to be collected for submittal to the State of California GeoTracker database.

ELECTRONIC DELIVERY FORMAT (EDF) REPORTING

Pursuant to State law, an electronic delivery format (EDF) report with the soil and groundwater sample analytical results and a PDF copy of the report will be prepared and submitted to the State of California GeoTracker database.

DISPOSAL OF SOIL CUTTINGS, PURGE WATER AND DECON WATER

Rinsate water generated during well construction and purged groundwater generated during well development and sampling will be placed in DOT 55-gallon drums, labeled, and stored on-Site pending evaluation of recycling options.

REPORT PREPARATION

Based on the results of the drilling, soil sampling, and groundwater sampling, a report (Report) will be prepared in accordance with DEH guidelines. The Report will include figures and cross-sections depicting the monitoring well and boring locations, subsurface geologic conditions, soil and groundwater sample analytical results, laboratory reports, chain-of-custody records, and appropriate support documentation. site conceptual model — &

In addition, pursuant to the DEH's direction the Report will also include a table of well construction details and a contour map of TBA.

The Report will be peer reviewed and signed by the appropriately licensed professionals. The work conducted at the Site will be overseen by a Professional Geologist. The report will be

written in accordance with the guidelines presented in the current SAM Manual and the site assessment report checklist. This Task also includes the preparation and submittal of a 60-day drilling report as required by the DEH.

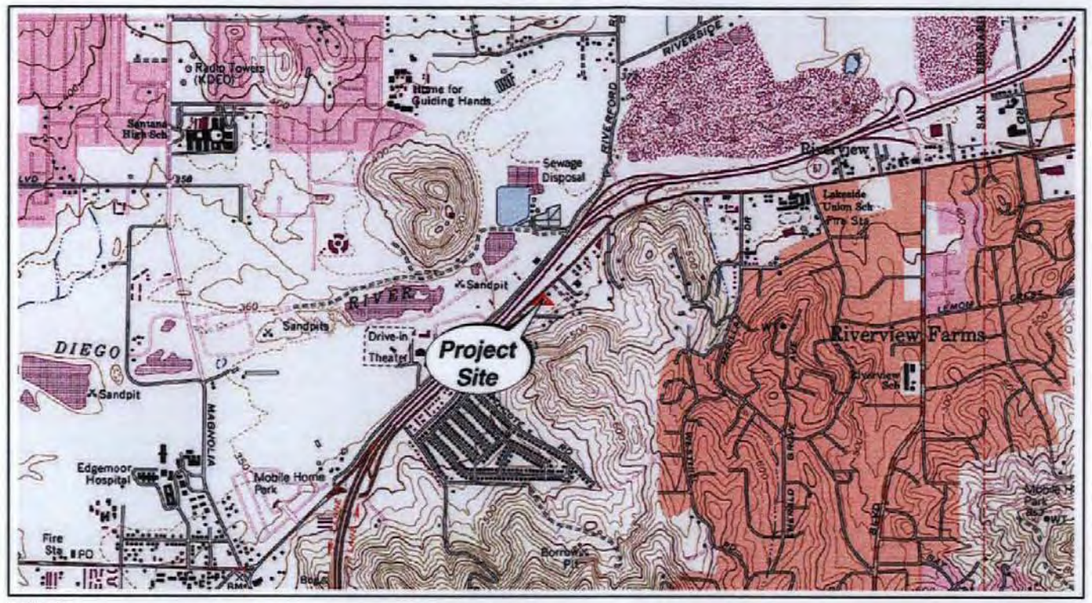
5 SCHEDULE OF ACTIVITIES

SCS will begin permitting after receiving written approval of this work plan from SAM and authorization from the Client to proceed. We anticipate drilling and well installation would commence approximately 30-days after we begin the permit process. A written site assessment report would be submitted 45 to 60 days after receipt of analytical results.

FIGURES

North (Not to scale)

REGIONAL SITE LOCATION



North

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

2-DIMENSIONAL SITE LOCATION

0 1,000 2,000 3,000
Approximate Graphic Scale in Feet

North (Not to scale)

Reference:
Google Earth Aerial Photograph
Santee, California - February 2008

SITE AERIAL PHOTOGRAPH

North (Not to scale)

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

3-DIMENSIONAL SITE LOCATION

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

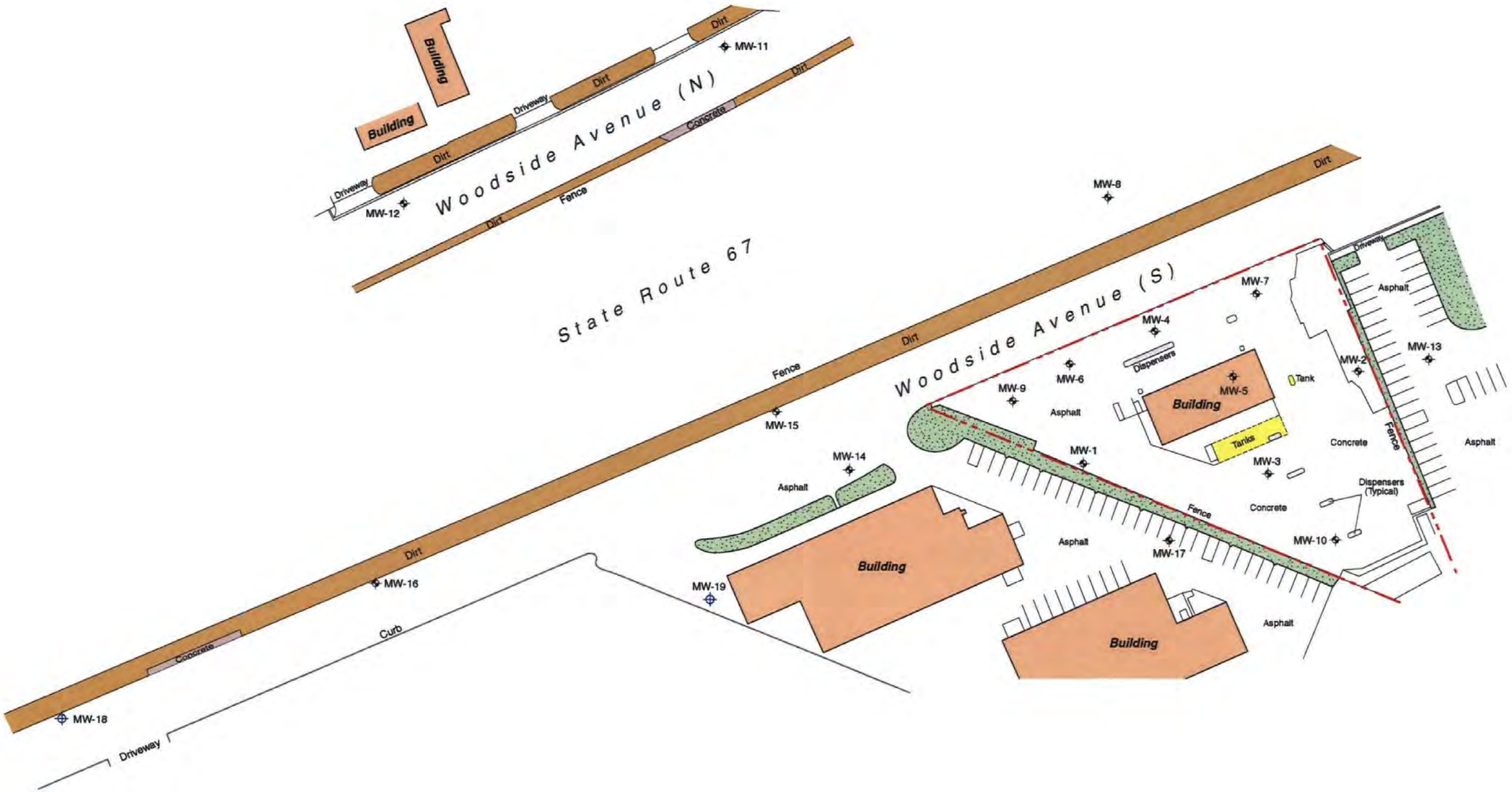
SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

4-WAY SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 1

Date Drafted: 4/22/10



EXPLANATION

MW-16 — Groundwater monitoring well location

MW-18 — Proposed groundwater monitoring well location

Approximate Site boundary

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

0 40 80 120

Approximate Graphic Scale: One Inch Equals 80 Feet

North

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

SITE LOCATION MAP WITH PROPOSED GROUNDWATER MONITORING WELL
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 2

Date Drafted: 4/22/10

DEH CORRESPONDENCE

County of San Diego

JACK MILLER
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
619-338-2222/FAX 619-338-2315/1-800-253-9933
http://www.sdcdeh.org

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MAR 22 2010
SCS Engineers
San Diego Office

March 16, 2010

Ms. Linda Wigington
Wigington Petroleum, Inc.
c/o William L. Fischbeck, Esq.
5464 Grossmont Center Drive, Third Floor
La Mesa, CA 91942

Dear Ms. Wigington:

UNAUTHORIZED RELEASE #H19469-001
REPORT RESPONSE
WIGINGTON PETROLEUM, INC.
11427 WOODSIDE AVENUE, SANTEE, CA

The *Quarterly Groundwater Monitoring Report (Second Quarter 2009),* prepared by SCS Engineers for the above-referenced site, dated November 20, 2010, and received November 23, 2010, and the case files have been reviewed. We are also in receipt of a *Work Plan for Focused High-Vacuum, Dual-Phased Extraction Pilot Test;* however, this work plan has not been reviewed. Prior to conducting remedial testing, an on-site health risk assessment and delineation of the groundwater contamination should be completed.

Free product was first detected in the concrete-cased well also known as MW5 (which was reportedly destroyed without a permit) located inside the onsite building, in wells MW1, MW2, MW3, and MW4, and borings/temporary wells B3, B4, B13, and B17 in 2002. A soil vapor survey and human health risk assessment (HHRA) must be conducted to evaluate the potential for vapor intrusion into the onsite building. **Please submit a work plan to conduct a HHRA within 30 days of receipt of this letter.**

Additionally, the extent of benzene and fuel oxygenates in groundwater must be determined. Please submit a work plan for the installation of additional offsite wells, including a well located approximately midway between wells MW15 and 16 and 115 feet south of the dirt median shown on Figure 7 (*Site* Map with Proposed Down Gradient Monitoring Well) of the quarterly groundwater monitoring report referenced above. **The work plan for the off-site groundwater investigation must be submitted within 30 days of receipt of this letter.**

Please provide a table of well construction details and iso-concentration contour maps for tert- butyl alcohol in future groundwater monitoring reports.

Please call me at (619) 338-2243 if you have any questions.

Sincerely,

Ellen Beacon

ELLEN BEACON, PG #7566
Project Manager
Site Assessment and Mitigation Program

EB:kd

cc: Charles E. Houser, SCS Engineers

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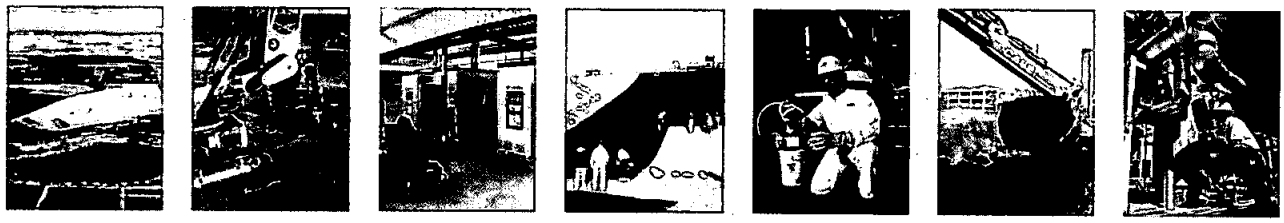

Quarterly Groundwater Monitoring
Fourth Quarter 2009

CB 4/23/10

11427 Woodside Avenue

Santee, California

(DEH CASE #H19469-001)

Presented to:

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Presented by:

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123
(858) 571-5500

April 15, 2010
Project Number: 01208473.00

Offices Nationwide
www.scsengineers.com

CELEBRATING 40 YEARS SCS ENGINEERS

April 15, 2010
Project No. 01208473.00

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Subject: Quarterly Groundwater Monitoring Event Conducted During November 2009 (4Q2009)

DEH File Number: H19469-001

Site: 11427 Woodside Avenue
Santee, California

Dear Ms. Beacon:

SCS Engineers (SCS), is pleased to present this report (Report) of the November 2009 quarterly groundwater monitoring (Assessment) of petroleum hydrocarbon-bearing groundwater in the vicinity of a former underground storage tank (UST) system at the referenced Site (Figures 1 and 2). During the current assessment, 15 Site monitoring wells were monitored for depth to water, and all monitoring wells were purged and sampled pursuant to the requirements of the County of San Diego, Department of Environmental Health (DEH), Site Assessment and Mitigation (SAM) Program. This work was conducted in accordance with Exhibit 00 to the Contract between SCS and Wigington Petroleum, Inc. (Client), fully executed on March 30, 2009.

Should you have any questions regarding this Report, please do not hesitate to call the undersigned at (858) 571-5500.

Sincerely,

Chris Crosby
Associate Professional
SCS ENGINEERS

Charles E. Houser, CEG 2206
Senior Project Professional
SCS ENGINEERS
4/16/10

PROFESSIONAL GEOLOGIST
CHARLES E. HOUSER
NO. 2206
CERTIFIED
ENGINEERING
GEOLOGIST
9/11
STATE OF CALIFORNIA

Chuck Pryatel, MBA, REHS
Vice President
SCS ENGINEERS

cc: Ms. Linda Wigington

State UST Cleanup Fund via upload to State Geotracker website

Enclosures

F:\Projects\208\451-530\01208473.00 (Wigington Petroleum, Inc.)\701 (El Cap Oil)\01208473.00 Groundwater Monitoring 4Q2009\01208473.00.QTR.GW.RPT (4Q2009).doc

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Figure 6	Iso-Concentration Contours of MTBE in Shallow Groundwater–November 2009

Appendices

Appendix A Groundwater Purging and Sampling Forms
Appendix B Analytical Data and Chain-of-Custody Documentation
Appendix C Hydrographs

1 BACKGROUND

The Site is located at 11427 Woodside Avenue in the city of Santee, San Diego County, California (Figure 1). The Site is currently occupied by a gasoline service station. Between 1987 and 1998 thirteen underground storage tanks (USTs) were reported to be removed from the Site. Analysis of samples collected during the UST removals indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) directed that corrective measures be taken regarding the release.

A summary of the previous environmental assessments conducted at the Site follows:

- EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the Site between 1988 and 2005. A total of eighteen borings and seven groundwater monitoring wells (MW-1 through MW-4 and MW-6 through MW-8) were drilled and sampled by EnecoTech. An existing twelve-inch diameter concrete water production well, inside the Site building, was labeled MW-5 and also sampled during the monitoring events in March 1998 and April 2002.

- In 1988, EnecoTech reported that four USTs were removed from the Site. A site assessment was performed immediately following the tank removal activities where eleven soil borings were drilled and sampled and four of the borings were completed as groundwater monitoring wells (MW-1 through MW-4).

- On August 19, 1993, the HMMD issued a Notice of Violation to El Capitan Oil Co. requiring corrective action relative to the release. The SAM Program reportedly assumed oversight responsibility of the UST assessment and mitigation in mid-1993.

- EnecoTech reported single-walled product piping was removed from the Site in October 1997.

- In April 1998, nine USTs were reportedly removed from the Site where samples collected by EnecoTech indicated a release of petroleum hydrocarbons.

- On March 14, 2000, EnecoTech produced a workplan titled *Work Plan for Environmental Services*, which proposed the installation of two additional groundwater monitoring wells. The SAM Program reportedly directed that four groundwater monitoring wells be installed in a letter dated, May 8, 2000. EnecoTech installed two groundwater monitoring wells (MW-6 and MW-7) on February 26, 2001 and one groundwater monitoring well (MW-8) on April 19, 2002.

- Based on the results of EnecoTech's Site assessment activities groundwater beneath the Site was impacted by petroleum hydrocarbons from on-Site releases.

- On March 25, 2005, EnecoTech submitted a workplan for additional Site assessment, which proposed the installation of nine additional groundwater monitoring wells both on-Site and off-Site.

- In 2006, Petra Geotechnical Inc. (Petra) was retained to conduct the site assessment work. The SAM Program approved EnecoTech's workplan in a letter dated October 10, 2007. Petra proposed one well be installed in addition to the nine wells proposed by EnecoTech. The SAM Program agreed that an additional well was needed and requested a revised workplan. Petra submitted an addendum to the revised workplan, dated December 21, 2007, to include a tenth groundwater monitoring well to be installed. The SAM Program approved the revised workplan in a letter, dated January 15, 2008.

- On October 25, 2007, Petra observed phase-separated hydrocarbons (PSH) in monitoring wells MW-2, MW-3, and MW-4. Petra submitted a workplan titled, *Workplan for High Vacuum Dual Phase Extraction Pilot Test and Interim Remediation*, to the SAM Program, dated December 24, 2007. The SAM Program approved the workplan in a letter dated, January 16, 2008.

- Petra conducted a 33-day high-vacuum, dual-phase extraction (HVDPE) pilot test between January 22, 2008 and February 24, 2008. Approximately 3,256.17 pounds of petroleum hydrocarbons were removed and treated during the pilot test. During the pilot test, nine new monitoring wells (MW-9 through MW-17) were installed. The location of these wells (MW9 through MW-17) and previous wells (MW-1 through MW-8) are depicted on Figure 2. In April 2008, monitoring wells MW-1 through MW-4 and MW-6 through MW-17 were sampled during the second quarter 2008 (2Q2008) groundwater monitoring event.

- On July 25, 2008, Petra submitted a *Workplan for Well Maintenance and Well Destruction* to the SAM Program to destroy well MW-5 and reconstruct the well heads for several monitoring wells. The SAM Program approved this workplan in a letter dated September 4, 2008.

- In 2009, SCS Engineers was retained to conduct further groundwater monitoring and Site assessment beginning with the second quarter 2009 (2Q2009) groundwater monitoring event.

- On July 13, 2009, a letter was issued from the SAM Program to reduce the frequency of groundwater monitoring from quarterly to semi-annually during the second and fourth quarters.

The current Report describes the groundwater monitoring event conducted during November 2009 (4Q2009).

2 SITE DESCRIPTION SUMMARY

Site Name:	Wigington Petroleum
Site Owner:	Wigington Petroleum, Inc.
Site Address:	11427 Woodside Avenue, Santee, California
DEH Case Number:	H19469-001
Cleanup Fund Claim Number:	912
Global ID:	T0607303173

3 OBJECTIVES

The objectives of the scope of services described in this Report were to:

- Assess the possible presence of phase-separated hydrocarbons (PSH) in groundwater at the Site.
- Assess the presence and extent of petroleum hydrocarbons and associated volatile organic compounds (VOCs) dissolved in groundwater at the Site.
- Assess the groundwater elevation and the hydraulic gradient at the Site.

4 SCOPE OF SERVICES

FIELD ACTIVITIES—GROUNDWATER SAMPLING AND ANALYSIS

Groundwater Monitoring and Sampling

On November 17, 2009, all 16 Site groundwater monitoring wells were monitored for depth to groundwater and for the presence of PSH. Well MW-3 was the only well to have measurable PSH at a thickness of 0.28 feet, and therefore was not sampled during the current sampling event. On November 17 and 18, 2009, groundwater monitoring wells MW-1, MW-2, MW-4 and MW-6 through MW-17, were purged and sampled in accordance with SAM Program guidelines. It is SCS's understanding that well MW-5 was destroyed by Petra.

Depth-to-groundwater measurements were taken using an interface probe with a manufacturer's reported accuracy of 0.01 foot and are presented in Table 1. With the exception of well MW-3, PSH was not observed in the groundwater monitoring wells prior to or during groundwater purging activities.

Wells to be sampled were purged and sampled in accordance with SAM Program guidelines. For fast recovering wells (recovering at least 80 percent within 2 hours), temperature, conductivity,

and pH measurements (purging parameters) were taken after removal of the first borehole volume and each ½ borehole volume thereafter. Purging continued until at least one and one-half borehole volumes had been removed and purging parameters had stabilized to within 10 percent of the previous reading. Slow recovering wells (recovering less than 80 percent in two hours) were purged of one borehole volume. Purge water was placed in appropriate 55-gallon drums, labeled, and stored on Site pending disposal.

After purging was completed, the wells were allowed to recover. Fast recovering wells (MW-1, MW-4, MW-6 through MW-12, and MW-14 through MW-17) were sampled after at least 80 percent recovery. Slow recovering wells (MW-2 and MW-13) were sampled after at least two hours from the time purging was completed. Groundwater samples were collected from each well with a single-use, disposable bailer and decanted into laboratory-supplied vials. The groundwater sample containers were labeled and placed in an ice-filled cooler pending delivery to the laboratory. Chain-of-custody procedures were implemented for sample tracking. Copies of groundwater monitoring/sampling data sheets are included in Appendix A.

Groundwater Sample Analysis

Groundwater samples were analyzed by H&P Mobile Geochemistry, a state-accredited environmental testing laboratory, in Carlsbad, California, for the following:

- Total petroleum hydrocarbons (TPH) as gasoline (TPHg) and TPH as diesel fuel (TPHd) in general accordance with the California Department of Health Services Leaking Underground Fuel Tank (CA DHS LUFT) Method.

- Benzene, toluene, ethylbenzene, and xylenes (BTEX), and fuel oxygenates including methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA) in general accordance with EPA Method 8260B.

Disposal of Drummed Purged Groundwater and Rinsate Water

Purged groundwater is currently being stored in department of transportation (DOT)-rated, 55-gallon drums on Site pending disposal. Copies of the Non-Hazardous Waste Manifest documenting the disposal will be provided following disposal.

Phase-Separated Hydrocarbon (PSH) Monitoring

Approximate bi-weekly phase-separated hydrocarbon (PSH) monitoring was conducted on Site at wells MW-1 through MW-4 from September 4, 2009 to the current sampling event. PSH has been observed in monitoring wells MW-2 and MW-3. Well MW-2 had a PSH thickness up to 0.03 feet. Well MW-3 had a PSH thickness up to 0.28 feet (Table 2).

5 FINDINGS

GEOLOGY

Regional Geology

The Site is located in the Peninsular Ranges Geomorphic Province of Southern California. This province is typified by northwest to southeast-trending mountain ranges approximately parallel to the San Andreas Fault and related regional fault systems. The Peninsular Ranges are generally characterized by granitic rocks of the Southern California batholith and associated metamorphic rocks. Sedimentary rocks ranging in age from Cretaceous to Pleistocene form the San Diego embayment and coastal terraces west of the batholith.

Based on SCS's review of previous Site assessments, materials encountered at the Site generally included fill soil, alluvium, residual soil, and weathered granitic rock. Following is a brief description of these units.

Site Geology

Fill Soil

This unit was encountered in wells MW-13, MW-15, and MW-16 and was interpreted by Petra to be derived from the local alluvial soils. This unit generally consisted of loose, brown to olive-brown to dark yellow-brown, dry to moist, fine to very coarse grained sand with some gravel and asphalt fragments.

Alluvium

This unit generally consisted of brown to olive-brown, moist to wet, interbedded silty to clayey, fine to very coarse grained sand, with some gravel. This unit was interpreted to extend from the surface to depths ranging from approximately 10 feet (well MW-10) to 51.5 feet (well MW-13) below ground surface (bgs).

Residual Soil

This unit generally consisted of earth material derived from in-situ weathering of granitic bedrock, and consisted of dark brown to dark reddish brown, moist, fine to medium grained clayey sand with some coarse grained sand and gravel. This unit was encountered in MW-10 and MW-17 at depths of approximately 10 to 30 feet bgs and 20 to 45 feet bgs, respectively.

Weathered Granitic Rock

This unit generally consisted of dark yellowish brown to dark olive-brown, hard to very hard, weathered crystalline granitic rock. This unit was encountered in MW-10 and MW-17 at depths of approximately 30 feet bgs and 45 feet bgs, respectively.

HYDROGEOLOGY

Based on review of a document titled, *Water Quality Control Plan, San Diego Basin - Region 9*, prepared by the San Diego Regional Water Quality Control Board (RWQCB), dated September

1994, the Site is interpreted to be located within the Santee Hydrologic Sub Area (7.12) of the Lower San Diego Hydrologic Area (7.10) of the San Diego Hydrolic Unit (7.00). According to the RWQCB, the groundwater in this hydrologic unit has been classified as having existing beneficial uses for municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply purposes.

Groundwater Conditions

Groundwater elevations were calculated based on the surveyed top-of-well casing elevations and the measured depth to groundwater obtained from the sixteen Site wells (Table 1). Groundwater was encountered at depths ranging from approximately 30.58 to 36.23 feet below top-of-well casings. The groundwater flow direction was interpreted to be generally toward the west-southwest, with a gradient ranging from approximately 0.0006 to 0.02 ft/ft. The interpreted groundwater contours and flow directions are depicted on Figure 3. PSH was detected in one Site well (MW-3) during the current sampling event.

Analytical Results

Groundwater analytical results for TPH and VOCs from the quarterly sampling event are summarized in Table 3 and on Figure 4. Based on laboratory analytical results from the quarterly sampling event, wells MW-2, MW-4, MW-11, and MW-14 through MW-17 had detectable concentrations[1] of TPH. TPH and VOCs were reported as follows.

TPH

Total petroleum hydrocarbons as gasoline (TPHg) were reported at detectable concentrations in wells MW-2, MW-4, MW-11, and MW14 through MW-17. The reported TPHg concentrations ranged from 550 micrograms per liter (µg/L) in MW-17 to 19,000 µg/L in MW-15. Total petroleum hydrocarbons as diesel (TPHd) was only detected in one Site well (MW-4) above the laboratory reporting limit at a concentration of 2,600 µg/L.

BTEX

Benzene was reported at detectable concentrations in wells MW-1, MW-2, MW-4, MW-6, MW-9, MW-11, and MW-14 through MW-17. The reported benzene concentrations ranged from 0.5 µg/L in MW-17 to 1,600 µg/L in MW-14.

Toluene was reported at detectable concentrations in wells MW-1, MW-2, MW-4, MW-6, MW-8 through MW-11, and MW-13 through MW-16. The reported toluene concentrations ranged from 0.5 µg/L in MW-10 to 77 µg/L in MW-15.

Ethylbenzene was reported at detectable concentrations in wells MW-1, MW-2, MW-4, MW-6, MW-8, MW-9, MW-11, and MW-14 through MW-17. The reported ethylbenzene concentrations ranged from 1.9 µg/L in MW-17 to 3,700 µg/L in MW-15.

[1] For the purposes of this Report "detectable concentrations" means concentrations above the laboratory reporting limits for the analytical method used.

Xylenes were reported at detectable concentrations in wells MW-1, MW-4, MW-6, MW-9, MW-11, and MW-14 through MW-17. The reported xylenes concentrations ranged from 1.1 µg/L in MW-1 to 4,308.9 µg/L in MW-15.

Oxygenates

MTBE was reported at detectable concentrations in all Site wells except MW-7, MW-8, MW-13, and MW-17. The reported MTBE concentrations ranged from 1.7 µg/L in MW-1 to 510 µg/L in MW-14.

TBA was reported at detectable concentrations in wells MW-2, MW-7, and MW-10. The reported TBA concentrations were 1,100 µg/L, 8.7 µg/L, and 6.3 µg/L, respectively.

Detectable concentrations of ETBE, TAME, and DIPE were not reported in any Site well during the current sampling event.

Copies of the laboratory analytical reports are included in Appendix B.

Hydrographs

Hydrographs depicting groundwater elevations and concentrations of dissolved-phase benzene and MTBE in groundwater versus time for wells MW-1, MW-2, MW-4 and MW-6 through MW-17 are included in Appendix C and discussed in the table below. A linear regression trendline of the benzene and MTBE concentrations are depicted on each hydrograph as appropriate with the calculated R-squared (R^2) value. The R^2 value indicates the *goodness-of-fit* of the trendline to the data set. In general, an R^2 value between 0.7 and 1.0 would be a *good* fit, between 0.4 and 0.7 a *moderate* fit, and below 0.4 would be a *poor* fit. Over time, significant data gaps are present which limit the ability to calculate representative data trends from several wells. Two significant data gaps occur between samplings events May 1988 and March 1998 and between April 2002 and October 2007. More data is needed to develop a more continuous dataset for analysis. For illustration purposes, samples with no detectable concentration of benzene and MTBE were plotted at one half of the laboratory reporting limit. The laboratory reporting limit has changed for benzene and MTBE over time and therefore wells MW-11, MW-15, and MW-17 show values which are below the previous laboratory reporting limit, but are greater than the laboratory reporting limits for this sampling event.

Well	Benzene Trendline	MTBE Trendline	Correlation with GW Elevation	Benzene/MTBE Above MCL	Comment
MW-1	Decreasing R^2=0.0	Increasing R^2=0.0	No	Yes/No	Benzene and MTBE within historical range.
MW-2	Decreasing R^2=0.1	Decreasing R^2=0.0	No	No	Benzene concentration reported at the MCL. MTBE at historic low.
MW-4	Decreasing R^2=0.1	Decreasing R^2=0.1	No	Yes	Benzene and MTBE within historical range.
MW-6	Decreasing R^2=0.3	Decreasing R^2=0.4	Inverse	Yes	Benzene and MTBE within historical range.

Well	Benzene Trendline	MTBE Trendline	Correlation with GW Elevation	Benzene/MTBE Above MCL	Comment
MW-7	Decreasing R^2=0.8	Decreasing R^2=0.9	NA	No	Below MCLs since Oct. 2007.
MW-8	Decreasing R^2=0.9	Decreasing R^2=0.9	NA	No	Below MCLs since Oct. 2007.
MW-9	Decreasing R^2=0.9	Decreasing R^2=0.4	Benzene – No MTBE – Inverse	Yes	Benzene and MTBE within historical range.
MW-10	NA	Increasing R^2=0.1	Inverse	No	ND for benzene since installation. Historical high for MTBE.
MW-11	Decreasing R^2=0.0	Increasing R^2=0.5	Yes	Yes/No	Benzene within historical range. Historical high for MTBE.
MW-12	NA	Decreasing R^2=0.3	Yes	No	ND for benzene since installation. Historical low for MTBE.
MW-13	NA	NA	NA	No	Below MCLs since installation in April 2008.
MW-14	Decreasing R^2=0.6	Increasing R^2=0.0	No	Yes	Historical low for benzene. MTBE within historical range.
MW-15	Decreasing R^2=0.7	Decreasing R^2=0.2	Inverse	Yes	Benzene within historical range. Second detectable concentration of MTBE.
MW-16	Increasing R^2=0.2	Decreasing R^2=0.1	Benzene – Yes MTBE – Inverse	Yes	Benzene and MTBE within historical range.
MW-17	NA	NA	NA	No	First detectable concentration of benzene. MTBE below reporting limit.

Notes:
MCL's = Maximum contaminant levels, California Code of Regulations, Section 64444.5, dated September 29, 2009. Benzene = 1 ug/L; MTBE = 13 ug/L.
GW = Groundwater
NA = Not applicable due to values below laboratory reporting limits
ND = Not detected above laboratory reporting limit
MTBE = Methyl tertiary butyl ether
ug/L = Micrograms per liter

6 DISCUSSION

Analytical results from the November 2009 sampling event were compared to those obtained during previous monitoring events conducted at the Site beginning in May 1988. Groundwater sample analytical results are summarized in Table 3 and Figure 4. Hydrographs for wells MW-1, MW-2, MW-4 and MW-6 through MW-17 are included in Appendix C. The following is a summary of trends on Site since the last quarterly monitoring and sampling event. Please note that the discussion of recent trends in groundwater elevations and conditions may apply to more than just the interval between the second quarter 2009 monitoring event and this fourth quarter 2009 event.

- The hydrographs indicate that water levels have seasonal fluctuations with water levels generally appearing to increase in the winter months and decrease during the summer months.

- PSH was not detected in any Site well during this event, except for MW-3. Historically MW-1 through MW-4 have had PSH at least once.

- Reported TPHg concentrations during this event were below laboratory reporting limits in wells MW-1, MW-6 through MW-10, MW-12, and MW-13. Reported TPHg concentrations during this event were within historical ranges in wells MW-2, MW-4, MW-11, and MW-14 through MW-17.

- Reported TPHd concentrations during this event were below laboratory reporting limits in wells MW-1, MW-2, and MW-6 through MW-17. Reported TPHd concentrations during this event in well MW-17 is a historical low. Well MW-4 was the only Site well to have concentrations of reported TPHd.

- Reported benzene concentrations during this event have decreased in wells MW-1, MW-6, MW-14 and MW-16, and remain stable at or below the laboratory reporting limit in wells MW-7, MW-8, MW-10, MW-12, MW-13, and MW-17. The reported benzene concentrations have increased in wells MW-2, MW-4, MW-9, MW-11, and MW-15.

- Reported MTBE concentrations during this event have decreased in wells MW-1, MW-2, MW-6, MW-12, MW-14 through MW-17, and remain stable at or below the detection limit in wells MW-7, MW-8, and MW-13. The reported MTBE concentrations during this event have increased in wells MW-4, MW-9, MW-10, and MW-11.

The interpreted extent of dissolved benzene and MTBE in groundwater, based on the quarterly sampling conducted during November 2009, is depicted on Figure 5 and 6.

7 CONCLUSIONS

Based on the data collected during this Assessment, including but not limited to laboratory results, field observations and data evaluation by a professional geologist, and current regulatory guidelines, the following conclusions are made:

- Phase-separated hydrocarbons (PSH) were observed in well MW-3 during the fourth quarter 2009 sampling event at a thickness of 0.28 feet. Although PSH was not observed in well MW-2 during the current sampling event, PSH was observed in MW-2 during PSH monitoring conducted since the 2Q2009 sampling event.

- On November 17, 2009, depth-to-groundwater was observed to be between 30.58 (MW-4) to 36.23 (MW-17) feet below top-of-well casings. The groundwater flow direction was interpreted to be generally toward the west-southwest, with a gradient ranging from approximately 0.0006 to 0.02 ft/ft.

- The horizontal extent of dissolved benzene and MTBE concentrations in groundwater have not been delineated. Benzene and MTBE concentrations have migrated off Site toward the west-southwest.

8 RECOMMENDATIONS

Based on SCS's assessment of the Site, the following recommendations are made:

- Continue semi-annual monitoring and sampling during the second and fourth quarters 2010 to evaluate the contaminant trends in the monitoring wells at the Site.
- Discontinue PSH monitoring except during semi-annual groundwater sampling.
- Install additional groundwater monitoring wells to assess down gradient migration of constituents-of-concern. A workplan to install the monitoring wells will be prepared and submitted to the SAM Program for approval.

9 REPORT USAGE AND FUTURE SITE CONDITIONS

This Report is intended for the sole usage of the Client and the parties designated by SCS. Use of this Report is subject to the provisions of the fully executed Contract between the Client and SCS. Any third party usage of this Report shall be subject to the provisions of the Contract and any unauthorized misuse of or reliance upon the Report shall be without risk or liability to SCS.

The conclusions of this Report are judged to be relevant at the time the work described in this Report was conducted. Future conditions may differ and this Report should not be relied upon to represent future Site conditions unless a qualified consultant familiar with the practice of Phase II environmental assessments in San Diego County is consulted to assess the necessity of updating this Report.

Although this Assessment has attempted to assess the likelihood that the Site has been impacted by a hazardous material/waste release, potential sources of impact may have escaped detection for reasons which include, but are not limited to: 1) inadequate or inaccurate information rightfully provided to SCS by third parties, such as public agencies and other outside sources; 2) the limited scope of this Assessment; and 3) the presence of undetected, unknown, or unreported environmental releases.

10 LIKELIHOOD STATEMENTS

Statements of "likelihood" have been made in this report. Likelihood statements are based on professional judgments of SCS. The term "likelihood," as used herein, pertains to the probability of a match between the prediction for an event and its actual occurrence. The likelihood statement assigns a measure for a "degree of belief" for the match between the prediction for the event and the actual occurrence of the event.

The likelihood statements in this Report are made qualitatively (expressed in words). The qualitative terms can be approximately related to quantitative percentages. The term "low likelihood" is used by SCS to approximate a range of 10 to 20 percent; the term "moderate likelihood" refers to an approximate range of 40 to 60 percent; and the term "high likelihood" refers to an approximate range of 80 to 90 percent.

TABLES

Table 1

(Page 1 of 4)

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-1	363.90 (22-42)	05/25/88	28.73	335.17
		03/10/98	27.03	336.87
		04/05/00	29.62	334.28
	362.84 (22-42)	04/26/02	30.21	332.63
		12/03/02	30.19	332.65
		10/26/07	NM	NM
		01/17/08	PSH	PSH
		04/18/08	29.86	332.98
		07/28/08	30.98	331.86
		12/29/08	29.14	333.70
		06/18/09	30.29	332.55
		11/17/09	31.15	331.69
MW-2	365.40 (24-44)	05/25/88	30.03	335.37
		03/10/98	28.75	336.65
		04/05/00	32.23	333.17
	365.08 (24-44)	04/26/02	31.72	333.36
		12/03/02	31.84	333.24
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	31.06	334.02
		07/28/08	PSH	PSH
		12/29/08	31.50	333.58
		06/18/09	31.56	333.52
		11/17/09	32.86	332.22
MW-3	366.07 (24.5-44.5)	05/25/88	30.83	335.24
		03/10/98	28.25	337.82
		04/05/00	36.65	329.42
	364.16 (24.5-44.5)	04/26/02	31.37	332.79
		12/03/02	31.32	332.84
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	30.91	333.25
		07/28/08	PSH	PSH
		12/29/08	30.54	333.62
		06/18/09	31.33	332.83
		11/17/09	PSH	PSH

Table 1

(Page 2 of 4)

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-4	362.90 (22-42)	05/25/88	27.68	335.22
		03/10/98	26.46	336.44
		04/05/00	29.98	332.92
	362.38 (22-42)	04/26/02	29.60	332.78
		12/03/02	29.43	332.95
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	29.25	333.13
		07/28/08	30.41	331.97
		12/29/08	28.53	333.85
		06/18/09	29.65	332.73
		11/17/09	30.58	331.80
MW-5	NM	03/10/98	27.50	NM
	363.42 (unknown)	04/26/02	30.39	333.03
		12/03/02	30.50	332.92
		10/26/07	31.72	331.70
		01/17/08	NM	NM
		04/18/08	31.07	332.35
		07/28/08	NM	NM
		12/29/08	NM	NM
		Well Destroyed		
MW-6	362.44 (17-42)	04/26/02	29.77	332.67
		12/03/02	29.75	332.69
		10/26/07	31.01	331.43
		01/17/08	29.44	333.00
		04/18/08	29.47	332.97
		07/28/08	30.60	331.84
		12/29/08	28.71	333.73
		06/18/09	29.90	332.54
		11/17/09	30.78	331.66
MW-7	362.57 (17-42)	04/26/02	29.47	333.10
		12/03/02	29.45	333.12
		10/26/07	30.45	332.12
		01/17/08	29.17	333.40
		04/18/08	29.16	333.41
		07/28/08	30.08	332.49
		12/29/08	28.48	334.09
		06/18/09	29.56	333.01
		11/17/09	30.59	331.98

Table 1

(Page 3 of 4)

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-8	364.51 (20.5-40.5)	04/26/02	31.71	332.80
		12/03/02	31.70	332.81
		10/26/07	33.02	331.49
		01/17/08	31.34	333.17
		04/18/08	31.42	333.09
		07/28/08	32.60	331.91
		12/29/08	30.60	333.91
		06/18/09	31.82	332.69
		11/17/09	32.74	331.77
MW-9	362.33 (34-39)	04/18/08	29.49	332.84
		07/28/08	30.58	331.75
		12/29/08	28.68	333.65
		06/18/09	29.90	332.43
		11/17/09	30.75	331.58
MW-10	367.28 (25-40)	04/18/08	32.52	334.76
		07/29/08	33.65	333.63
		12/29/08	32.62	334.66
		06/18/09	32.75	334.53
		11/17/09	33.97	333.31
MW-11	362.48 (23-38)	04/18/08	29.98	332.50
		07/29/08	30.99	331.49
		12/29/08	28.96	333.52
		06/18/09	30.36	332.12
		11/17/09	31.12	331.36
MW-12	361.88 (24-39)	04/18/08	29.55	332.33
		07/29/08	30.49	331.39
		12/29/08	28.45	333.43
		06/18/09	29.94	331.94
		11/17/09	30.65	331.23
MW-13	366.91 (25-45)	04/21/08	32.77	334.14
		07/30/08	34.08	332.83
		12/29/08	32.54	334.37
		06/18/09	33.17	333.74
		11/17/09	34.33	332.58
MW-14	362.79 (23-38)	04/21/08	30.09	332.70
		07/30/08	31.14	331.65
		12/29/08	29.22	333.57
		06/18/09	30.51	332.28
		11/17/09	31.32	331.47

Table 1

(Page 4 of 4)

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-15	362.36 (23.5-38.5)	04/21/08	29.91	332.65
		07/30/08	30.96	331.60
		12/29/08	28.80	333.56
		06/18/09	30.13	332.23
		11/17/09	30.92	331.44
MW-16	362.48 (24-39)	04/21/08	30.04	332.44
		07/30/08	31.02	331.46
		12/29/08	28.95	333.53
		06/18/09	30.47	332.01
		11/17/09	31.18	331.30
MW-17	367.97 (24.5-44.5)	04/21/08	34.97	333.00
		07/30/08	36.08	331.89
		12/29/08	34.34	333.63
		06/18/09	35.38	332.59
		11/17/09	36.23	331.74

Notes:

MSL = mean sea level

TOC = top of well casing

PSH = phase-separated hydrocarbons present in well, therefore groundwater elevation was not calculated

NM = well not measured

Wells were surveyed by Southern California Survey initially on April 26, 2002 and updated on March 28, 2008.

Table 2
Phase-Separated Hydrocarbon Monitoring Data
11427 Woodside Avenue, Santee, CA

Date	MW-1			MW-2			MW-3			MW-4		
	DTP	DTW	PT	DTP	DTW	PT	DTP	DTW	PT	DTP	DTW	PT
6/18/2009	NP	30.29	NP	NP	31.56	NP	NP	31.33	NP	NP	29.65	NP
9/4/2009	NP	31.10	NP	32.62	32.65	0.03	32.15	32.18	0.03	NP	30.51	NP
9/18/2009	NP	31.16	NP	32.72	32.73	0.01	32.21	32.26	0.05	NP	30.57	NP
10/2/2009	NP	31.20	NP	NP	32.79	NP	32.26	32.36	0.10	NP	30.61	NP
10/16/2009	NP	31.23	NP	32.82	32.83	0.01	32.29	32.45	0.16	NP	30.64	NP
10/29/2009	NP	31.24	NP	NP	32.90	NP	32.29	32.52	0.23	NP	30.63	NP
11/17/2009	NP	31.15	NP	NP	32.86	NP	32.20	32.48	0.28	NP	30.58	NP

Notes: DTP = Depth to PSH below top of casing
DTW = Depth to water below top of casing
PT = PSH thickness in feet
NP = No PSH
PSH = Phase-separated hydrocarbons

Table 3
(Page 1 of 4)
Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-1 (installed 5/11/88)	05/25/88	0.6	NA	NA	0.7	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	2,500	910	340	200	18	240	190	NA	NA	NA	NA
	05/18/98	NA	704	< 500	326	89.5	< 50.0	< 100	< 50.0	NA	NA	NA	NA
	04/05/00	NA	1,800	NA	250	14	34	380	200	NA	NA	NA	NA
	04/26/02	NA	1,100	1,100	230	14	36	220	190	< 40	< 40	500	< 40
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	2,800	980	370	6.6	170	227.8	610	NA	NA	NA	NA
	07/28/08	NA	420	< 500	57	< 0.5	19.0	15	55	NA	NA	NA	NA
	12/29/08	NA	440	720	57	< 1.0	30	26	< 2.0	< 2.0	< 2.0	27	< 2.0
	06/18/09	NA	< 500	< 500	210	1.0	38	17.7	220	< 1.0	< 1.0	140	< 1.0
	11/17/09	NA	< 500	< 500	4.4	0.6	2.5	1.1	1.7	< 1.0	< 1.0	< 5.0	< 1.0
MW-2 (installed 5/12/88)	05/25/88	< 0.5	NA	NA	< 0.5	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	330	< 500	20	3.3	25	47	53	NA	NA	NA	NA
	04/04/00	NA	7,600	NA	7.6	3.3	30	59	3,500	NA	NA	NA	NA
	04/26/02	NA	6,000	160,000	9.2	3.9	16	17	3,100	< 40	< 40	500	< 40
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	510	6,400	< 10	< 10	< 10	< 30	1,300	NA	NA	NA	NA
	07/28/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	12/30/08	NA	440	22,000	< 2.5	< 2.5	4.0	< 10	< 5.0	< 5.0	< 5.0	2,100	< 5.0
	06/19/09	NA	< 500	< 500	< 0.5	< 0.5	4.9	< 1.5	8.3	< 1.0	< 1.0	2,000	< 1.0
	11/18/09	NA	2,300	< 500	1.0	0.7	3.4	< 1.5	1.9	< 1.0	< 1.0	1,100	< 1.0
MW-3 (installed 5/13/88)	05/25/88	140	NA	NA	19	3.4	NA	1.3	NA	NA	NA	NA	NA
	03/10/98	NA	2,300	5,100	3.6	0.7	0.7	4.1	2,000	NA	NA	NA	NA
	05/18/98	NA	115	< 500	98.5	< 12.5	< 12.5	< 25.0	226	NA	NA	NA	NA
	04/05/00	NA	420	NA	18	1.7	3.9	12	230	NA	NA	NA	NA
	04/26/02	NA	9,700	190,000	92	< 3.0	56	62	590	< 100	< 100	< 1,200	< 100
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	< 500	1,800	2.8	< 1.0	< 1.0	< 3.0	99	NA	NA	NA	NA
	07/28/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	12/30/08	NA	230	3,200	1.7	< 0.5	0.61	< 2.0	110	< 1.0	< 1.0	59	< 1.0
	06/19/09	NA	< 500	< 500	0.5	< 0.5	< 0.5	< 1.5	77	< 1.0	< 1.0	400	< 1.0
	11/17/09	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH

Table 3
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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-4 (installed 5/13/88)	05/25/88	6.3	NA	NA	< 0.5	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	9,600	3,700	2,400	250	50	430	4,100	NA	NA	NA	NA
	04/04/00	NA	8,700	NA	1,800	< 12	110	790	900	NA	NA	NA	NA
	04/26/02	NA	15,000	95,000	4,500	150	450	1,900	1,500	< 100	< 100	< 1,200	< 100
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	2,000	4,500	380	2.9	95	41.0	110.0	NA	NA	NA	NA
	07/28/08	NA	2,100	1,300	410	< 2.5	72.0	< 10	70	NA	NA	NA	NA
	12/30/08	NA	4,900	3,400	88	< 10	20	53	< 20	< 20	< 20	< 200	< 20
	06/18/09	NA	< 500	< 500	370	2.0	58	11.6	89	< 1.0	< 1.0	24	< 1.0
	11/18/09	NA	3,300	2,600	460	11	130	70.4	140	< 1.0	< 1.0	< 5.0	< 1.0
MW-5 (instalation unknown)	03/10/98	NA	730	1,700	20	0.6	< 0.30	39	92	NA	NA	NA	NA
	04/26/02	NA	500	2,000	7.3	1.7	2.8	6.8	230	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/17/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	07/28/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/30/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Well Destroyed												
MW-6 (installed 2/26/01)	04/26/02	NA	25,000	9,100	5,300	1,400	1,200	5,900	850	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	570	< 500	21	0.7	48	14	17	NA	NA	NA	NA
	01/17/08	NA	1,400	< 500	9.6	0.6	4.8	8.5	3.5	NA	NA	NA	NA
	04/18/08	NA	2,000	750	500	< 20	210	150	180	NA	NA	NA	NA
	07/28/08	NA	6,900	980	720	7.6	410	540	98	NA	NA	NA	NA
	12/30/08	NA	950	650	55	< 1.0	34	30	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/19/09	NA	< 500	< 500	350	3.1	250	182.3	54	< 1.0	< 1.0	22	< 1.0
	11/18/09	NA	< 500	< 500	90	2.0	75	73.0	25	< 1.0	< 1.0	< 5.0	< 1.0
MW-7 (installed 2/26/01)	04/26/02	NA	1,900	13,000	3.7	1.1	4	7.9	19	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	01/17/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	04/21/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 1.0	< 1.0	< 1.0	< 3.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	15	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	8.7	< 1.0

Table 3
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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-8 (installed 4/19/02)	04/26/02	NA	4,800	6,500	50	9.2	170	210	64	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/26/07	NA	1,100	790	< 0.5	< 0.5	23	< 0.5	< 1.0	NA	NA	NA	NA
	01/17/08	NA	1,100	570	< 0.5	< 0.5	27	< 1.5	< 1.0	NA	NA	NA	NA
	04/21/08	NA	980	1,200	< 0.5	< 0.5	23	< 1.5	< 1.0	NA	NA	NA	NA
	07/29/08	NA	660	2,100	< 0.5	< 0.5	15	< 2.0	< 1.0	NA	NA	NA	NA
	12/30/08	NA	890	3,000	< 1.0	< 1.0	16	< 4.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	13	< 1.5	< 1.0	< 1.0	< 1.0	13	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.7	10	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-9 (installed 2/4/08)	04/18/08	NA	1,700	560	740	250	270	1,010	170	NA	NA	NA	NA
	07/28/08	NA	1,100	570	230	27	27	65	74	NA	NA	NA	NA
	12/30/08	NA	1,300	< 500	140	10	71	200	21	< 5.0	< 5.0	< 50	< 5.0
	06/19/09	NA	< 500	< 500	50	6.1	34	49.3	55	< 1.0	< 1.0	34	< 1.0
	11/18/09	NA	< 500	< 500	62	8.9	51	89	67	< 1.0	< 1.0	< 5.0	< 1.0
MW-10 (installed 2/5/08)	04/18/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	4.2	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	1.8	< 1.0	< 1.0	20	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.5	< 0.5	< 1.5	6.3	< 1.0	< 1.0	6.3	< 1.0
MW-11 (installed 2/8/08)	04/18/08	NA	1,800	< 500	22	< 1.0	170	< 3.0	< 2.0	NA	NA	NA	NA
	07/29/08	NA	690	720	4.2	0.81	39	< 2.0	< 1.0	NA	NA	NA	NA
	12/31/08	NA	2,000	1,600	52	6.8	230	11	< 5.0	< 5.0	< 5.0	< 50	< 5.0
	06/18/09	NA	< 500	< 500	5.9	0.6	19	< 1.5	1.6	< 1.0	< 1.0	12	< 1.0
	11/17/09	NA	900	< 500	6.5	1.5	5.5	1.2	2.3	< 1.0	< 1.0	< 5.0	< 1.0
MW-12 (installed 2/8/08)	04/18/08	NA	< 500	< 500	< 1.0	< 1.0	2.0	< 3.0	65	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	11	NA	NA	NA	NA
	12/31/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	16	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	14	< 1.0	< 1.0	32	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	2.5	< 1.0	< 1.0	< 5.0	< 1.0
MW-13 (installed 2/18/08)	04/21/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	NA	NA	NA	NA
	07/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	11	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.6	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-14 (installed 2/18/08)	04/21/08	NA	27,000	3,800	5,300	290	2,400	6,460	650	NA	NA	NA	NA
	07/30/08	NA	25,000	12,000	6,600	170	2,400	3,700	270	NA	NA	NA	NA
	12/31/08	NA	18,000	1,000	3,700	< 50	1,500	2,000	570	< 100	< 100	< 1,000	< 100
	06/19/09	NA	< 500	< 500	3,600	160	1,900	2,990	540	< 20	< 20	110	< 20
	11/18/09	NA	6,900	< 500	1,600	54	1,000	944	510	< 1.0	< 1.0	< 5.0	< 1.0

Table 3
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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH*	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-15 (installed 2/19/08)	04/21/08	NA	32,000	3,500	2,400	510	4,100	13,380	< 200	NA	NA	NA	NA
	07/30/08	NA	46,000	17,000	2,100	250	3,700	10,000	< 50	NA	NA	NA	NA
	12/31/08	NA	8,400	2,100	620	12	1,500	160	< 20	< 20	< 20	< 200	< 20
	06/19/09	NA	< 500	< 500	820	250	2,800	6,930	35	< 20	< 20	< 100	< 20
	11/18/09	NA	19,000	< 500	910	77	3,700	4,308.9	19	< 10	< 10	< 50	< 10
MW-16 (installed 2/16/08)	04/21/08	NA	< 500	< 500	53	< 2.5	77	< 7.5	110	NA	NA	NA	NA
	07/30/08	NA	1,300	780	110	1.7	210	< 4.0	160	NA	NA	NA	NA
	12/31/08	NA	2,500	790	470	6	390	< 20	< 10	< 10	< 10	< 100	< 10
	06/19/09	NA	< 500	< 500	120	16	220	33	100	< 20	< 20	170	< 20
	11/18/09	NA	570	< 500	110	2.5	65	10.5	73	< 1.0	< 1.0	< 5.0	< 1.0
MW-17 (installed 2/19/08)	04/21/08	NA	990	3,100	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	07/30/08	NA	780	11,000	< 5.0	< 5.0	< 5.0	< 1.5	< 1.0	NA	NA	NA	NA
	12/30/08	NA	520	55,000	< 5.0	< 5.0	< 5.0	< 20	< 10	< 10	< 10	< 100	< 10
	06/19/09	NA	1,600	730	< 0.5	0.7	< 0.5	< 1.5	2.4	< 1.0	< 1.0	15	< 1.0
	11/17/09	NA	550	< 500	0.5	< 0.5	1.9	2.4	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0

Notes:

Groundwater samples collected by SCS Engineers on November 17 and 18, 2009.

Groundwater samples collected by Petra Geotechnical, Inc. from October 25, 2007 to December 31, 2008.

Groundwater samples collected by EnecoTech Southwest, Inc. from May 25, 1988 to December 3, 2002.

Results presented in micrograms per liter (µg/L).

Samples were analyzed for gasoline-range (TPHg), and diesel-range (TPHd) total petroleum hydrocarbons in general accordance with EPA Method 8015B modified; and benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), tert-amyl methyl ether (TAME), and t-butanol (TBA) in general accordance with EPA Method 8260B.

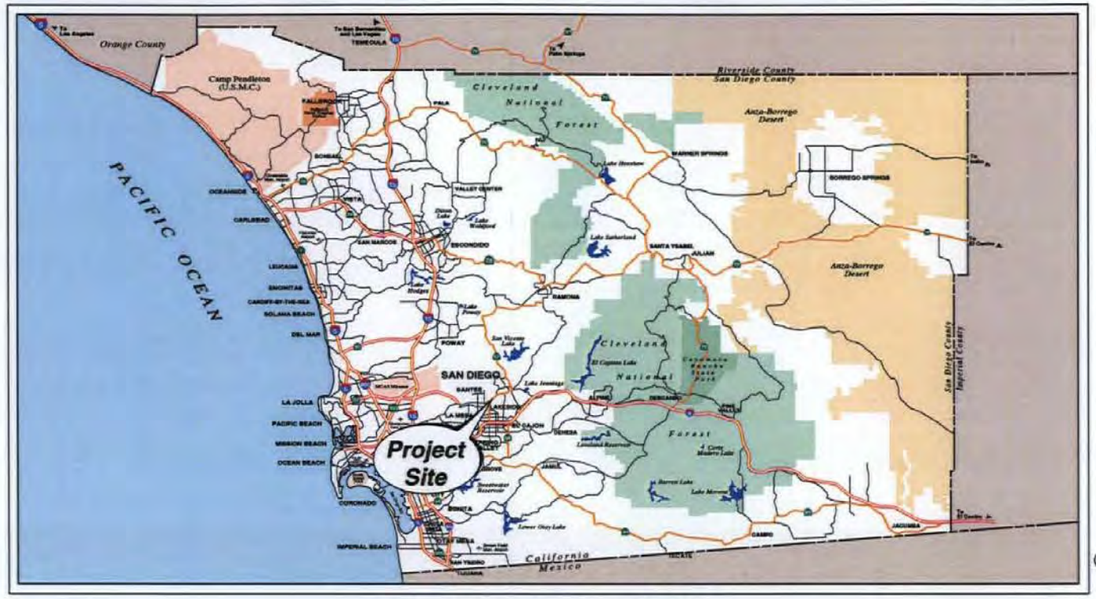
< indicates not reported at a concentration above laboratory detection limit.

NS indicates well not sampled.

NA indicates not analyzed for particular constituent-of-concern.

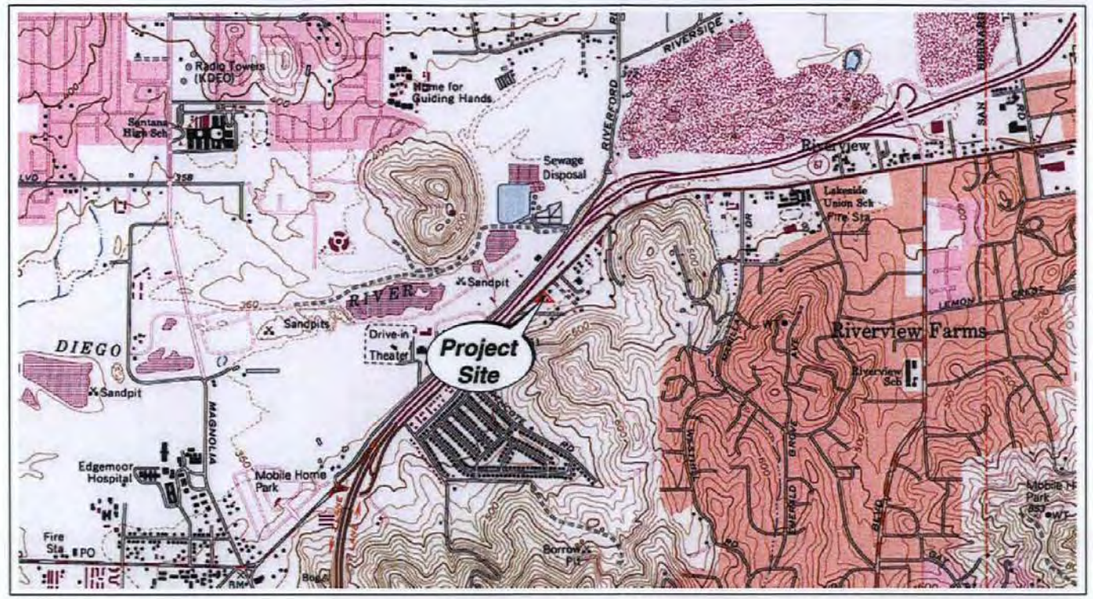
* indicates samples were analyzed by EPA Method 418.1 for total extractable hydrocarbons.

FIGURES



North (Not to scale)

REGIONAL SITE LOCATION



North

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

2-DIMENSIONAL SITE LOCATION

0 1,000 2,000 3,000
Approximate Graphic Scale in Feet

North (Not to scale)

Reference:
Google Earth Aerial Photograph
Santee, California - February 2008

SITE AERIAL PHOTOGRAPH

North (Not to scale)

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

3-DIMENSIONAL SITE LOCATION

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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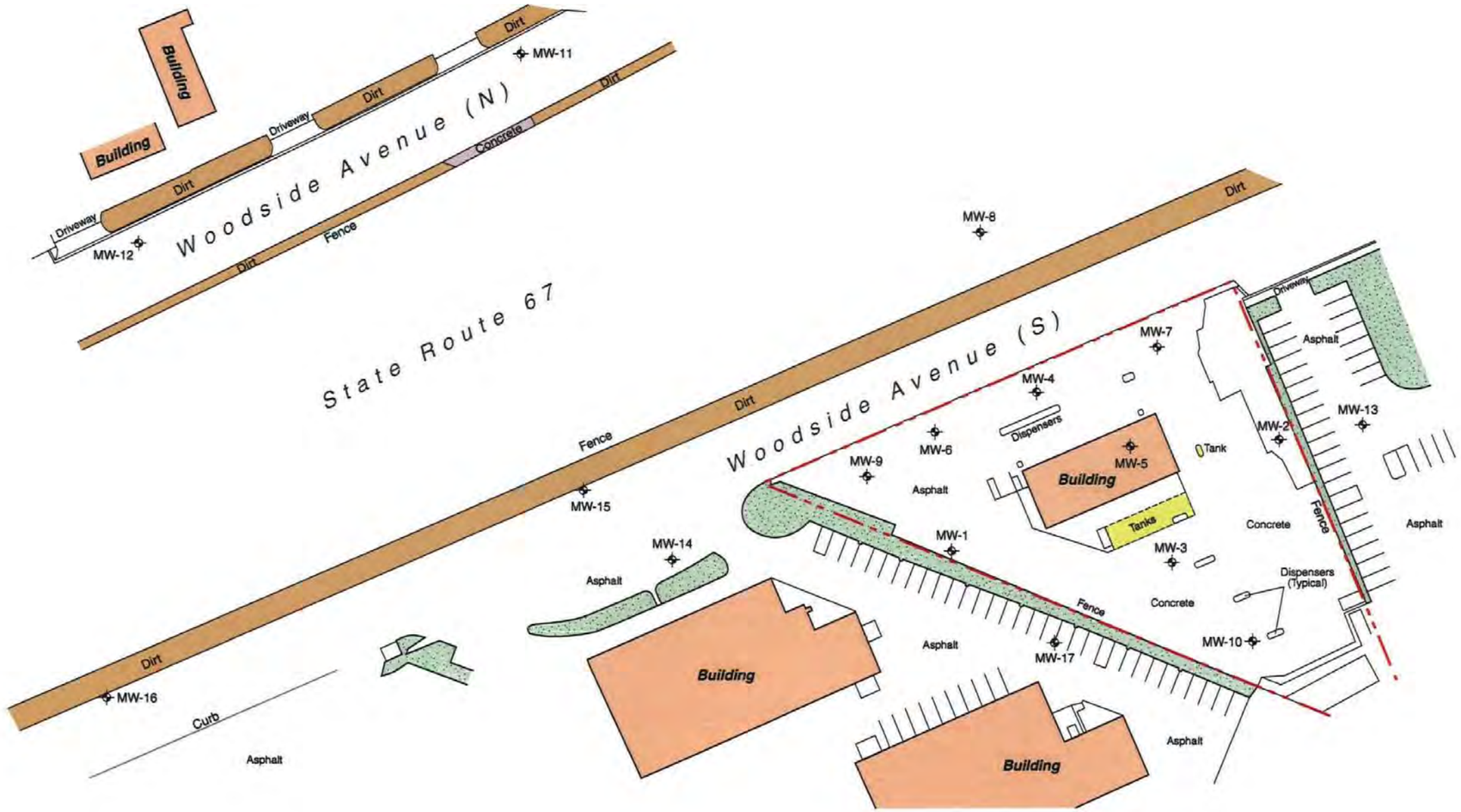
4-WAY SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 1

Date Drafted: 11/4/09



EXPLANATION

MW-16 — Groundwater monitoring well location

Approximate Site boundary

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

0 40 80 120
Approximate Graphic Scale:
One Inch Equals 80 Feet

North

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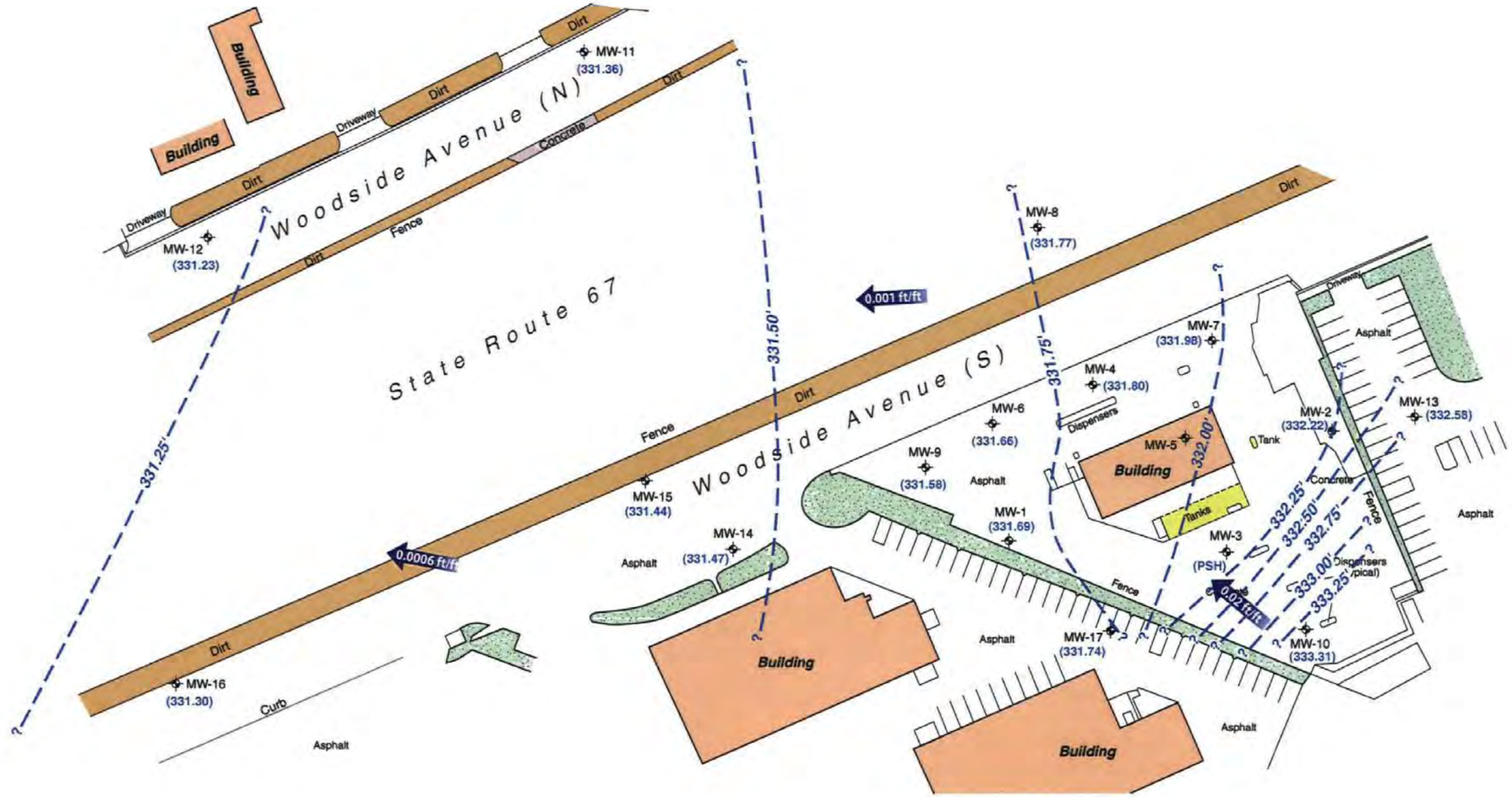
SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 2

Date Drafted: 11/4/09



EXPLANATION

MW-16 (331.30) — Groundwater monitoring well location with groundwater elevation in feet above mean sea level.

332.25' — Estimated groundwater contour in feet above mean sea level.

0.001 ft/ft — Interpreted direction of groundwater flow and estimated groundwater gradient in feet/foot.

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

0 40 80 120
Approximate Graphic Scale:
One Inch Equals 80 Feet

North

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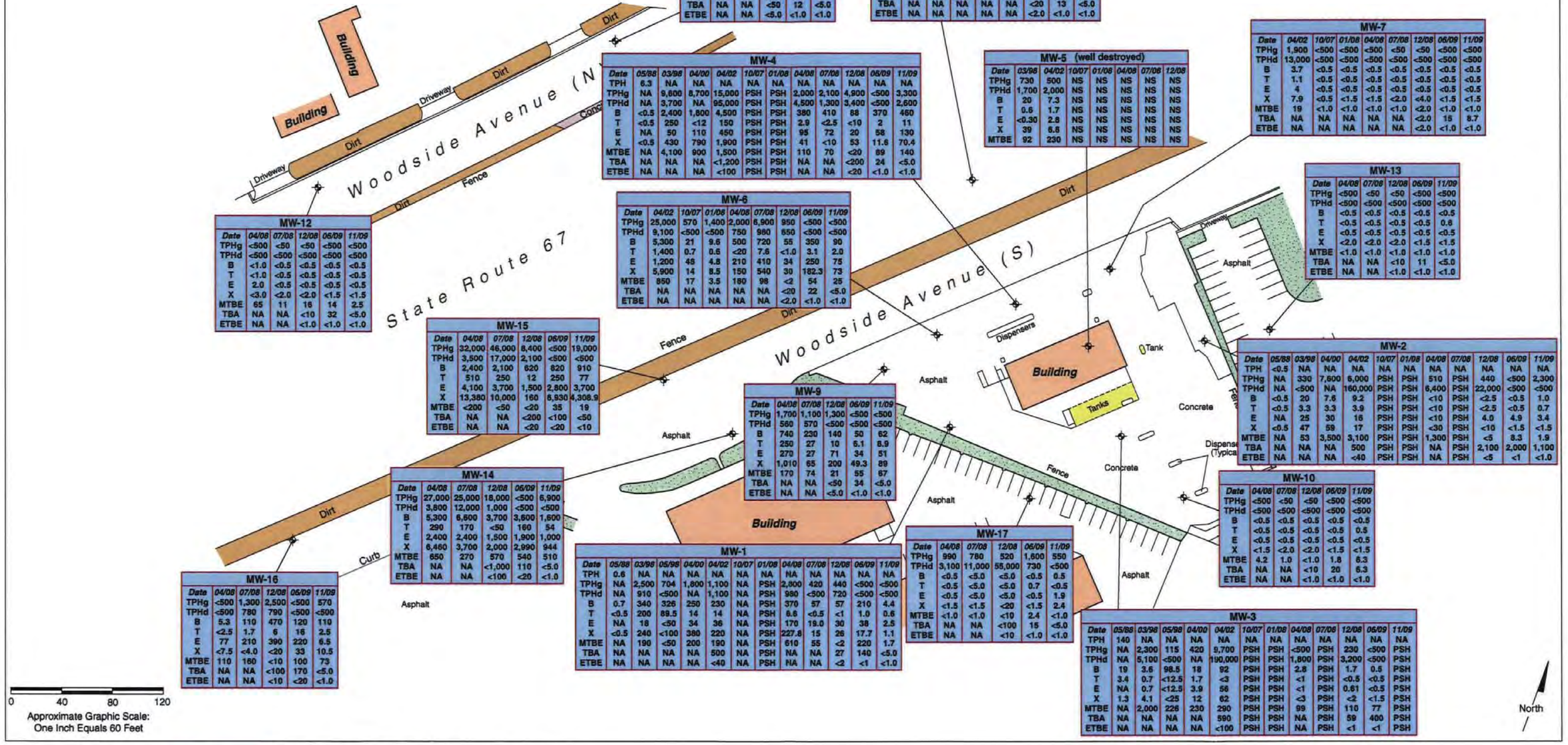
GROUNDWATER ELEVATION MAP
NOVEMBER 2009
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 3

Date Drafted: 1/28/10



MW-11

Date	04/08	07/08	12/08	06/09	11/09
TPHg	1,800	690	2,000	<500	900
TPHd	<500	720	1,600	<500	<500
B	22	4.2	52	5.9	6.5
T	<1.0	0.81	6.8	0.6	1.5
E	170	39	230	19	5.5
X	<3.0	<2.0	11	<1.5	1.2
MTBE	<2.0	<1.0	<5.0	1.6	2.3
TBA	NA	NA	<50	12	<5.0
ETBE	NA	NA	<5.0	<1.0	<1.0

MW-8

Date	04/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09
TPHg	4,600	1,100	1,100	980	660	890	<500	<500
TPHd	6,500	790	570	1,200	2,100	3,000	<500	<500
B	50	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5
T	9.2	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	0.7
E	170	23	27	23	15	16	13	10
X	210	<0.5	<1.5	<1.5	<2.0	<4.0	<1.5	<1.5
MTBE	64	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0
TBA	NA	NA	NA	NA	NA	<20	13	<5.0
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0	<1.0

MW-4

Date	05/88	03/98	04/00	04/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09
TPH	6.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	9,600	8,700	15,000	PSH	PSH	2,000	2,100	4,900	<500	3,300
TPHd	NA	3,700	NA	95,000	PSH	PSH	4,500	1,300	3,400	<500	2,600
B	<0.5	2,400	1,800	4,500	PSH	PSH	380	410	88	370	460
T	<0.5	250	<12	150	PSH	PSH	2.9	<2.5	<10	2	11
E	NA	50	110	450	PSH	PSH	95	72	20	58	130
X	<0.5	430	790	1,900	PSH	PSH	41	<10	53	11.6	70.4
MTBE	NA	4,100	900	1,500	PSH	PSH	110	70	<20	89	140
TBA	NA	NA	NA	<1,200	PSH	PSH	NA	NA	<200	24	<5.0
ETBE	NA	NA	NA	<100	PSH	PSH	NA	NA	<20	<1.0	<1.0

MW-5 (well destroyed)

Date	03/98	04/02	10/07	01/08	04/08	07/08	12/08
TPHg	730	500	NS	NS	NS	NS	NS
TPHd	1,700	2,000	NS	NS	NS	NS	NS
B	20	7.3	NS	NS	NS	NS	NS
T	0.6	1.7	NS	NS	NS	NS	NS
E	<0.30	2.8	NS	NS	NS	NS	NS
X	39	6.8	NS	NS	NS	NS	NS
MTBE	92	230	NS	NS	NS	NS	NS

MW-7

Date	04/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09
TPHg	1,900	<500	<500	<500	<50	<50	<500	<500
TPHd	13,000	<500	<500	<500	<500	<500	<500	<500
B	3.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
T	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
E	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
X	7.9	<0.5	<1.5	<1.5	<2.0	<4.0	<1.5	<1.5
MTBE	19	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0
TBA	NA	NA	NA	NA	NA	<2.0	15	8.7
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0	<1.0

MW-12

Date	04/08	07/08	12/08	06/09	11/09
TPHg	<500	<50	<50	<500	<500
TPHd	<500	<500	<500	<500	<500
B	<1.0	<0.5	<0.5	<0.5	<0.5
T	<1.0	<0.5	<0.5	<0.5	<0.5
E	2.0	<0.5	<0.5	<0.5	<0.5
X	<3.0	<2.0	<2.0	<1.5	<1.5
MTBE	65	11	18	14	2.5
TBA	NA	NA	<10	32	<5.0
ETBE	NA	NA	<1.0	<1.0	<1.0

MW-6

Date	04/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09
TPHg	25,000	570	1,400	2,000	6,900	950	<500	<500
TPHd	9,100	<500	<500	750	980	650	<500	<500
B	5,300	21	9.6	500	720	55	350	90
T	1,400	0.7	0.6	<20	7.6	<1.0	3.1	2.0
E	1,200	48	4.8	210	410	34	250	75
X	5,900	14	8.5	150	540	30	182.3	73
MTBE	850	17	3.5	180	98	<2	54	25
TBA	NA	NA	NA	NA	NA	<20	22	<5.0
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0	<1.0

MW-13

Date	04/08	07/08	12/08	06/09	11/09
TPHg	<500	<50	<50	<500	<500
TPHd	<500	<500	<500	<500	<500
B	<0.5	<0.5	<0.5	<0.5	<0.5
T	<0.5	<0.5	<0.5	<0.5	0.8
E	<0.5	<0.5	<0.5	<0.5	<0.5
X	<2.0	<2.0	<2.0	<1.5	<1.5
MTBE	<1.0	<1.0	<1.0	<1.0	<1.0
TBA	NA	NA	<10	11	<5.0
ETBE	NA	NA	<1.0	<1.0	<1.0

MW-15

Date	04/08	07/08	12/08	06/09	11/09
TPHg	32,000	46,000	8,400	<500	19,000
TPHd	3,500	17,000	2,100	<500	<500
B	2,400	2,100	620	820	910
T	510	250	12	250	77
E	4,100	3,700	1,500	2,800	3,700
X	13,380	10,000	160	6,930	4,308.9
MTBE	<200	<50	<20	35	19
TBA	NA	NA	<200	<100	<50
ETBE	NA	NA	<20	<20	<10

MW-9

Date	04/08	07/08	12/08	06/09	11/09
TPHg	1,700	1,100	1,300	<500	<500
TPHd	560	570	<500	<500	<500
B	740	230	140	50	62
T	250	27	10	6.1	8.9
E	270	27	71	34	51
X	1,010	65	200	49.3	89
MTBE	170	74	21	55	67
TBA	NA	NA	<50	34	<5.0
ETBE	NA	NA	<5.0	<1.0	<1.0

MW-2

Date	05/88	03/98	04/00	04/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09
TPH	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	330	7,600	6,000	PSH	PSH	510	PSH	440	<500	2,300
TPHd	NA	<500	NA	160,000	PSH	PSH	6,400	PSH	22,000	<500	<500
B	<0.5	20	7.6	9.2	PSH	PSH	<10	PSH	<2.5	<0.5	1.0
T	<0.5	3.3	3.3	3.9	PSH	PSH	<10	PSH	<2.5	<0.5	0.7
E	NA	25	30	16	PSH	PSH	<10	PSH	4.0	4.9	3.4
X	<0.5	47	59	17	PSH	PSH	<30	PSH	<10	<1.5	<1.5
MTBE	NA	53	3,500	3,100	PSH	PSH	1,300	PSH	<5	8.3	1.9
TBA	NA	NA	NA	500	PSH	PSH	NA	PSH	2,100	2,000	1,100
ETBE	NA	NA	NA	<40	PSH	PSH	NA	PSH	<5	<1	<1.0

MW-14

Date	04/08	07/08	12/08	06/09	11/09
TPHg	27,000	25,000	18,000	<500	6,900
TPHd	3,800	12,000	1,000	<500	<500
B	5,300	6,600	3,700	3,600	1,600
T	290	170	<50	160	54
E	2,400	2,400	1,500	1,900	1,000
X	6,460	3,700	2,000	2,990	944
MTBE	650	270	570	540	510
TBA	NA	NA	<1,000	110	<5.0
ETBE	NA	NA	<100	<20	<1.0

MW-10

Date	04/08	07/08	12/08	06/09	11/09
TPHg	<500	<50	<50	<500	<500
TPHd	<500	<500	<500	<500	<500
B	<0.5	<0.5	<0.5	<0.5	<0.5
T	<0.5	<0.5	<0.5	<0.5	0.5
E	<0.5	<0.5	<0.5	<0.5	<0.5
X	<1.5	<2.0	<2.0	<1.5	<1.5
MTBE	4.2	1.0	<1.0	1.8	6.3
TBA	NA	NA	<10	20	6.3
ETBE	NA	NA	<1.0	<1.0	<1.0

MW-1

Date	05/88	03/98	05/99	04/00	04/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09
TPH	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	2,500	704	1,800	1,100	NA	PSH	2,800	420	440	<500	<500
TPHd	NA	910	<500	NA	1,100	NA	PSH	980	<500	720	<500	<500
B	0.7	340	326	250	230	NA	PSH	370	57	57	210	4.4
T	<0.5	200	89.5	14	14	NA	PSH	8.6	<0.5	<1	1.0	0.6
E	NA	18	<50	34	36	NA	PSH	170	19.0	30	38	2.5
X	<0.5	240	<100	380	220	NA	PSH	227.8	15	26	17.7	1.1
MTBE	NA	190	<50	200	190	NA	PSH	610	55	<2	220	1.7
TBA	NA	NA	NA	NA	500	NA	PSH	NA	NA	27	140	<5.0
ETBE	NA	NA	NA	NA	<40	NA	PSH	NA	NA	<2	<1	<1.0

MW-17

Date	04/08	07/08	12/08	06/09	11/09
TPHg	990	780	520	1,600	550
TPHd	3,100	11,000	55,000	730	<500
B	<0.5	<5.0	<5.0	<0.5	0.5
T	<0.5	<5.0	<5.0	0.7	<0.5
E	<0.5	<5.0	<5.0	<0.5	1.9
X	<1.5	<1.5	<20	<1.5	2.4
MTBE	<1.0	<1.0	<10	2.4	<1.0
TBA	NA	NA	<100	15	<5.0
ETBE	NA	NA	<10	<1.0	<1.0

MW-3

Date	05/88	03/98	05/99	04/00	04/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09
TPH	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	2,300	115	420	9,700	PSH	PSH	<500	PSH	230	<500	PSH
TPHd	NA	5,100	<500	NA	190,000	PSH	PSH	1,800	PSH	3,200	<500	PSH
B	19	3.6	98.5	18	92	PSH	PSH	2.8	PSH	1.7	0.5	PSH
T	3.4	0.7	<12.5	1.7	<3	PSH	PSH	<1	PSH	<0.5	<0.5	PSH
E	NA	0.7	<12.5	3.9	56	PSH	PSH	<1	PSH	0.61	<0.5	PSH
X	1.3	4.1	<25	12	62	PSH	PSH	<3	PSH	<2	<1.5	PSH
MTBE	NA	2,000	226	230	290	PSH	PSH	99	PSH	110	77	PSH
TBA	NA	NA	NA	NA	590	PSH	PSH	NA	PSH	59	400	PSH
ETBE	NA	NA	NA	NA	<100	PSH	PSH	NA	PSH	<1	<1	PSH

MW-16

Date	04/08	07/08	12/08	06/09	11/09
TPHg	<500	1,300	2,500	<500	570
TPHd	<500	780	790	<500	<500
B	5.3	110	470	120	110
T	<2.5	1.7	6	16	2.5
E	77	210	390	220	6.5
X	<7.5	<4.0	<20	33	10.5
MTBE	110	160	<10	100	73
TBA	NA	NA	<100	170	<5.0
ETBE	NA	NA	<10	<20	<1.0

EXPLANATION

MW-17 — Groundwater monitoring well location

Groundwater samples collected by SCS Engineers on November 17 and 18, 2009; Petra Geotechnical, Inc. from October 2007 to December 2008; and Eneco Tech Southwest, Inc. from May 1988 to December 2002. Groundwater samples analyzed for total petroleum hydrocarbons by EPA Method 8015B; volatile organic compounds (VOCs) by EPA Method 8260B. All results reported in micrograms per liter (ug/L). < indicates concentration not reported above indicated reporting limit for relevant analyte and analytical method. NA indicates sample not analyzed. PSH indicates phase-separated hydrocarbons. Only VOCs with detectable concentrations are listed here; refer to laboratory reports for full listing of VOCs analyzed.

TPH = total petroleum hydrocarbons
TPHg = total petroleum hydrocarbons as gasoline
TPHd = total petroleum hydrocarbons as diesel
B = benzene
T = toluene
E = ethylbenzene
X = xylenes
MTBE = methyl tertiary buty ether
TBA = tertiary butyl alcohol
ETBE = Ethyl tertiary butyl ether

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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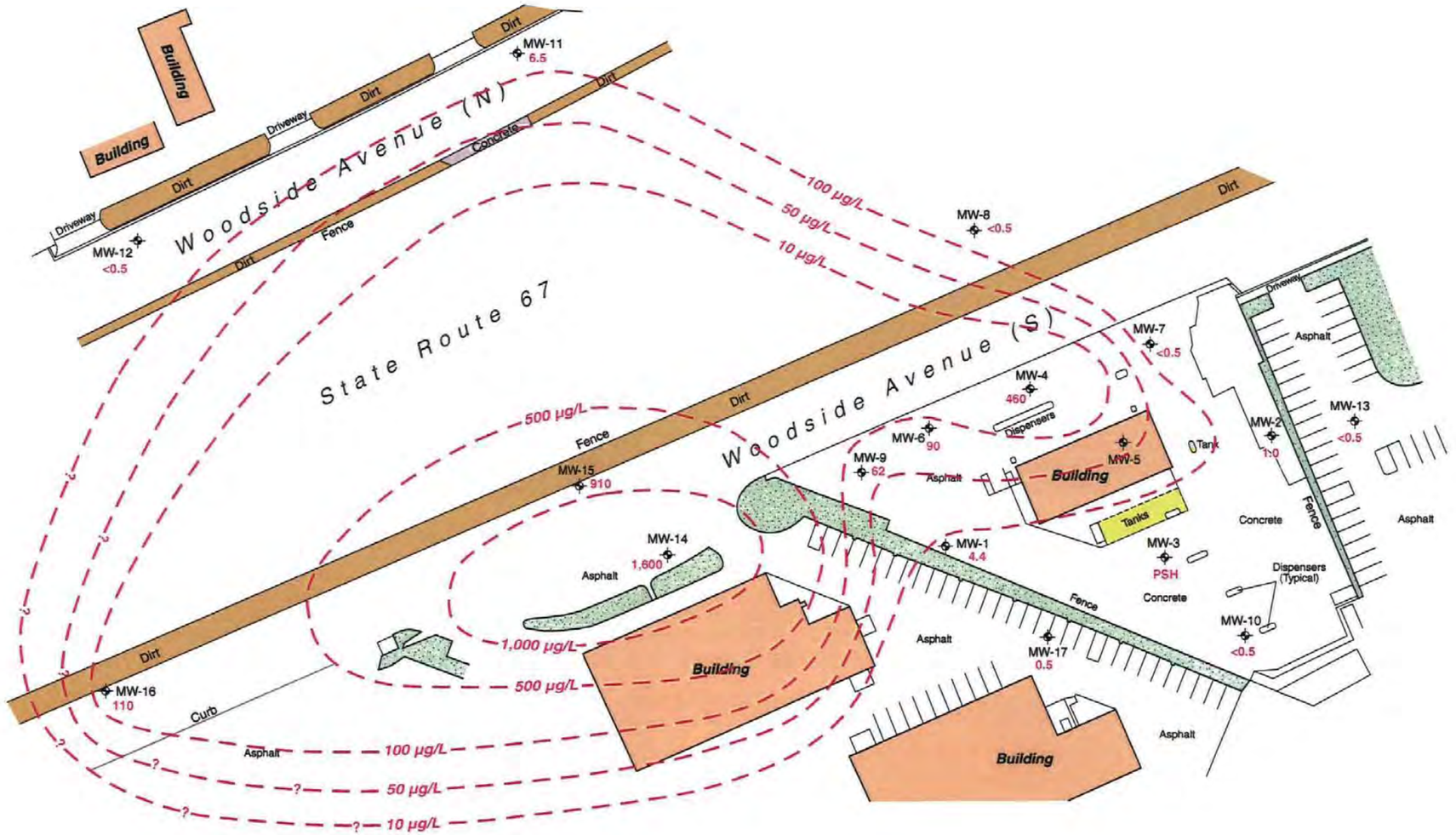
GROUNDWATER SAMPLE ANALYTICAL RESULTS

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 4

Date Drafted: 1/29/10



EXPLANATION

MW-16 / 110 — Groundwater monitoring well location with reported concentrations of benzene reported in micrograms per liter (µg/L). < indicates not reported above laboratory reporting limit for given analyte.

100 — Iso-concentration of benzene reported in µg/L. Dashed where estimated, querried where inferred.

0 40 80 120
Approximate Graphic Scale:
One Inch Equals 80 Feet

North

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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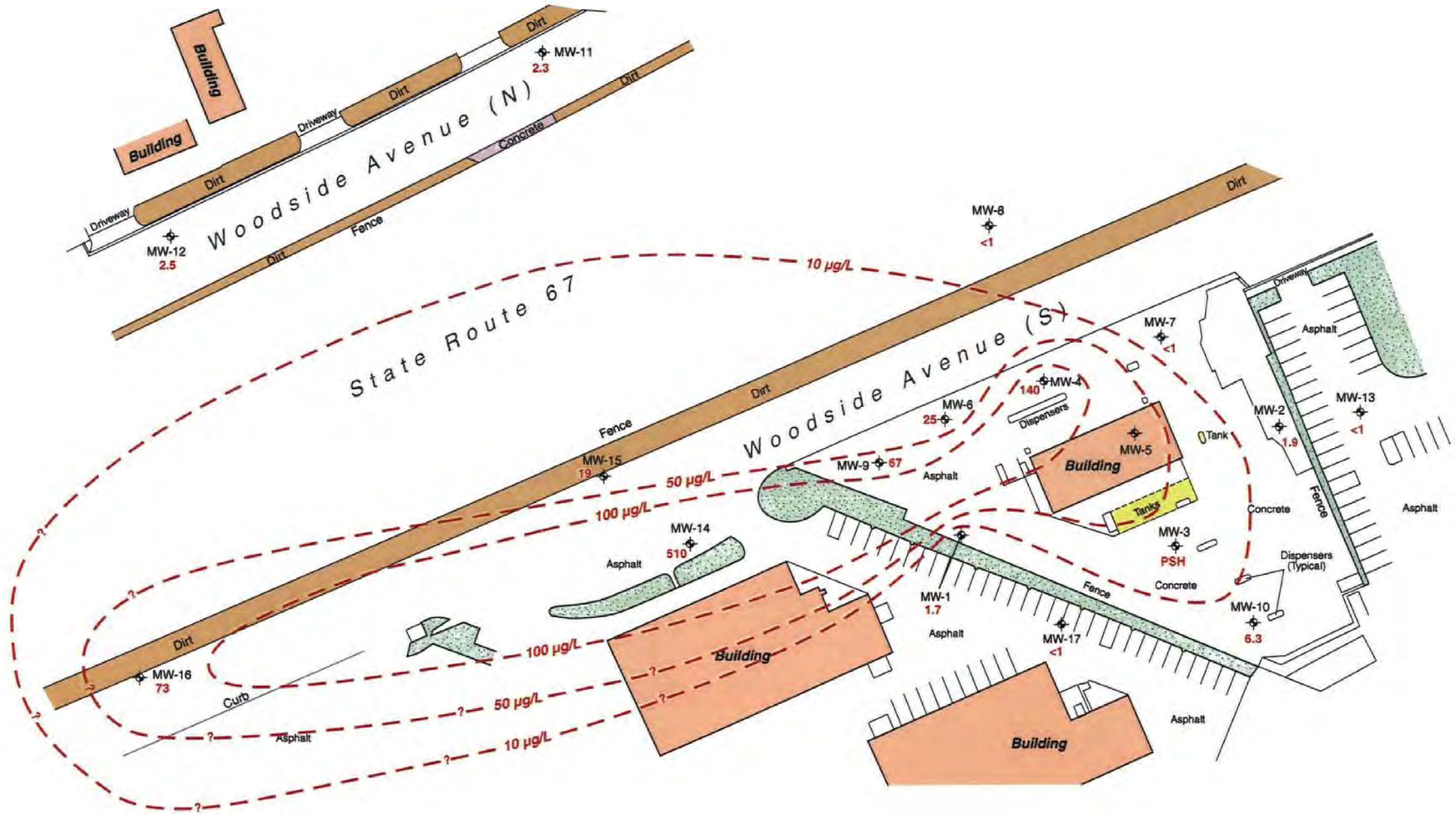
ISO-CONCENTRATION CONTOURS OF BENZENE IN SHALLOW GROUNDWATER - NOVEMBER 2009

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 5

Date Drafted: 1/29/10



EXPLANATION

MW-16 / 73 — Groundwater monitoring well location with reported concentrations of MTBE reported in micrograms per liter (µg/L). < indicates not reported above laboratory reporting limit for given analyte.

100 — Iso-concentration of MTBE reported in µg/L. Dashed where estimated, querried where inferred.

0 40 80 120
Approximate Graphic Scale:
One Inch Equals 80 Feet

North

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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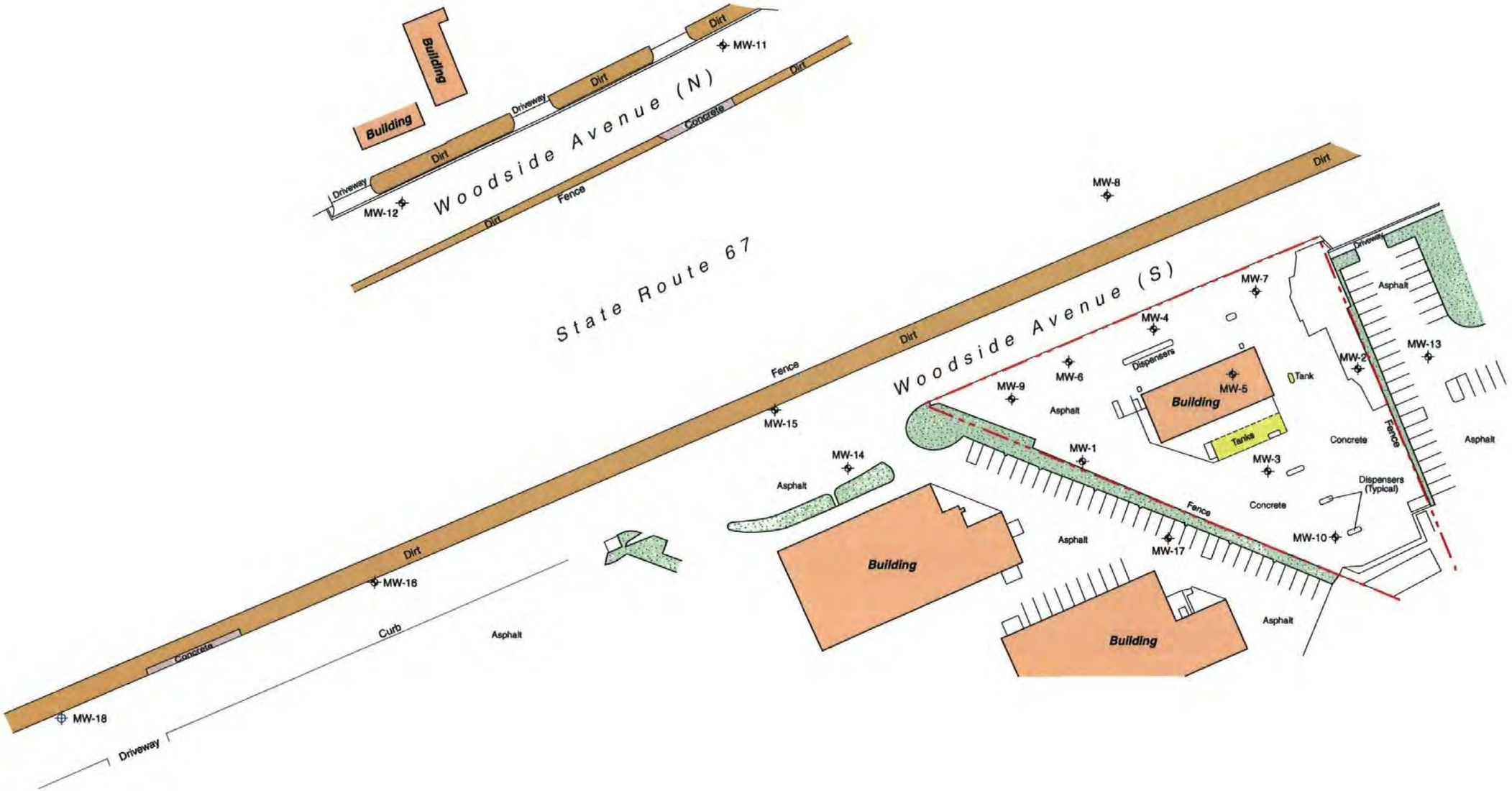
ISO-CONCENTRATION CONTOURS OF MTBE IN SHALLOW GROUNDWATER - NOVEMBER 2009
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 6

Date Drafted: 1/29/10



EXPLANATION

MW-16 — Groundwater monitoring well location

MW-16 — Proposed groundwater monitoring well location

Approximate Site boundary

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

0 40 80 120
Approximate Graphic Scale:
One Inch Equals 80 Feet

North

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SITE LOCATION MAP WITH PROPOSED DOWN GRADIENT GROUNDWATER MONITORING WELL
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 7

Date Drafted: 11/19/09

APPENDICES

APPENDIX A

GROUNDWATER PURGING AND SAMPLING FORMS

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123

Client: Wigington Petroleum	Project No: 01208473.00	Recorded by: CC/SR
Site Address: 11427 Woodside Ave., Santee, CA	Date: 11/17/09	

WELL MONITORING DATA

WELL NO.	DTB	DTW	DTP	PT	SWE	ELEV-W	ELEV-P
MW1	41.6	31.15	--	--	362.84	331.69	--
MW2	44.6	32.86	--	--	365.08	332.22	--
MW3	43.2	32.48	32.20	0.28	364.16	331.68	331.96
MW4	41.6	30.58	--	--	362.38	331.80	--
MW6	41.8	30.78	--	--	362.44	331.66	--
MW7	41.9	30.59	--	--	362.57	331.98	--
MW8	39.5	32.74	--	--	364.51	331.77	--
MW9	38.3	30.75	--	--	362.33	331.58	--
MW10	38.3	33.97	--	--	367.28	333.31	--
MW11	37.35	31.12	--	--	362.48	331.36	--
MW12	36.2	30.65	--	--	361.88	331.23	--
MW13	44.7	34.33	--	--	366.91	332.58	--
MW14	36.8	31.32	--	--	362.79	331.47	--
MW15	37.2	30.92	--	--	362.36	331.44	--
MW16	38.3	31.18	--	--	362.48	331.30	--
MW17	44.4	36.23	--	--	367.97	331.74	--

NOTES

WELL NO. - Monitoring well number
DTW - Depth to water from datum
DTP - Depth to product from datum
PT - Product Thickness

DTB - Depth to bottom of well
SWE - Surveyed well elevation in feet
ELEV-W - Relative elevation of water
ELEV-P - Relative elevation of product

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San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum | Well No.: MW1
Project Number: 01208473.00 | Date: 11/17/09
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: Sean Roy | Checked by: CEH | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 10
Casing Diameter (in.) (CD): 2 (4) 6 8 4
Total Well Depth (ft.) (WD): 41.6 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 31.15 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 10.45 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 17.7 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP 4234
Purging Equipment/Method: Bladder Pump ___ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___ Centrifugal Pump ___Other: ___
Decontamination Method: ___ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ___ Other: ___

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

✓ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
___ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos) µS	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1501	31.60	0.45	9	875		7.09		23.8
1510	31.31	0.16	18	871		7.02		23.8
1522	31.19	0.04	27	878		6.98		23.8
1531	31.24	0.09	36	886		7.12		23.4
1542	31.18	0.03	45	887		7.09		23.8
1553	31.68	0.53	54	892		7.14		23.8

Borehole Volume: 17.7 (gal) | Total Volume Purge Water: 54 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

0.53 Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) = 31.26

SAMPLING INFORMATION

Date & Time Sampled: 11/17/09 @ 1610 | Depth to water at time of sampling (feet): 31.16

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum		Well No.: MW2
Project Number: 01208473.00		Date: 11/18/09
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by:	Checked by: CEH	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 10	
Casing Diameter (in.) (CD): 2 (4) 6 8 4	
Total Well Depth (ft.) (WD): 44.6	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 32.86	Time measured: —
Water Column (ft.) (WC=WD-SWL): 11.74	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 19.8 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP 9234

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

___ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ✓ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

___ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

✓ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1307	39.80	6.94	10	2580		6.68		24.7
1322	43.76	10.90	17.5	1177		6.77		24.5

Borehole Volume: 19.8 (gal) Total Volume Purge Water: 17.5 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

35.04 Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 10.90

SAMPLING INFORMATION

Date & Time Sampled: 11/16/09 @ 1522 Depth to water at time of sampling (feet): 35.31

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum		Well No.: MW4
Project Number: 01208473.00		Date: 11/18/09
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: SR	Checked by: CEH	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 10	
Casing Diameter (in.) (CD): 2 (4) 6 8 4	
Total Well Depth (ft.) (WD): 41.6	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 30.58	Time measured: —
Water Column (ft.) (WC=WD-SWL): 11.02	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 18.6 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP 4234

Purging Equipment/Method: Bladder Pump ___ Bailer ✓ Centrifugal Pump ___ Other ___

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ___ Teflon Bailer ✓ Disposable Bailer ___ Bladder Pump ___ Centrifugal Pump ___ Other: ___

Decontamination Method: ___ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ___ Other: ___

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

___ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)	
11:28	30.62	.04	10.0	1358		6.92		22.9	Heavy Sheen!
11:38	30.61	.03	19.0	1342		6.98		23.0	
11:48	30.60	.02	28.0	1341		6.92		23.0	
			37.0						

Borehole Volume: 18.6 (gal) Total Volume Purge Water: 37 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 11/18/09 @ 12.02 Depth to water at time of sampling (feet): 30.58

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum		Well No.: MW6
Project Number: 01208473.00		Date: 11/18/09
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: SR	Checked by: CEH	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 10	
Casing Diameter (in.) (CD): 2 (4) 6 8 4	
Total Well Depth (ft.) (WD): 41.6	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 30.78	Time measured: —
Water Column (ft.) (WC=WD-SWL): 11.02	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 18.6 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP 4234

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

____ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:____ Time:____

____ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

____ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
10:16	30.82	.04	10.0	1353		7.17		22.7
10:25	30.81	.03	19.0	1348		7.18		23.1
10:34	30.81	.03	28.0	1344		7.22		22.8
			37.0					

Borehole Volume: 18.6 (gal) Total Volume Purge Water: 37 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) .04

SAMPLING INFORMATION

Date & Time Sampled: 11/18/09 @ 10:45 Depth to water at time of sampling (feet): 30.78

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum		Well No.: MW-7
Project Number: 01208473.00		Date: 11/17/09
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: CC	Checked by: CEH	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____	
Casing Diameter (in.) (CD): 2 (4) 6 8 ____	
Total Well Depth (ft.) (WD): 41.9	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 30.59	Time measured: —
Water Column (ft.) (WC=WD-SWL): 11.31	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 19.2 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

___ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1241	30.86		20	1206	—	6.27	—	20.5
1250	30.90	0.31	30	1188	—	6.25	—	20.8

Borehole Volume: 19.2 (gal) Total Volume Purge Water: 30 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 30.65

SAMPLING INFORMATION

Date & Time Sampled: 11/17/09 1300 Depth to water at time of sampling (feet): 30.59

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum		Well No.: MW-8
Project Number: 01208473.00		Date: 11/17/09
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: CC	Checked by: CEH	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____
Casing Diameter (in.) (CD): 2 (4) 6 8 ____
Total Well Depth (ft.) (WD): 39.5 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 32.74 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 6.76 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 11.5 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
____ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
____ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
____ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1005								
1017	32.78	0.04	12.0	1189	—	6.46	—	19.5
1024	32.81	0.07	18.0	1139	—	6.53	—	19.6

Borehole Volume: 11.5 (gal) | Total Volume Purge Water: 18 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 11/17/09 1030 | Depth to water at time of sampling (feet): 32.74

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum		Well No.: MW9
Project Number: 01208473.00		Date: 11/18/09
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: Sean Ray	Checked by: CEK	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 10
Casing Diameter (in.) (CD): 2 (4) 6 8 4
Total Well Depth (ft.) (WD): 38.3
Product thickness (ft.): —
Static Water Level (ft.) (SWL): 30.75
Time measured: —
Water Column (ft.) (WC=WD-SWL): 7.55
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2-CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 12.8 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP 4234
Purging Equipment/Method: Bladder Pump ___ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___ Teflon Bailer ✓ Disposable Bailer ___ Bladder Pump ___ Centrifugal Pump ___ Other: ___
Decontamination Method: ___ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ___ Other: ___

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
9:14	30.85	0.10	6.5	1402		7.01		21.7
9:21	30.85	0.10	13.0	1363		7.05		22.6
9:29	30.85	0.10	19.5	1373		7.07		22.4
9:38	30.85	0.10	26.0	1373		7.08		22.4
			32.5					

Borehole Volume: 12.8 (gal) Total Volume Purge Water: 32.5 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) = 30.77

SAMPLING INFORMATION

Date & Time Sampled: 11/18/09 @ 9:45 Depth to water at time of sampling (feet): 30.76

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum | Well No.: MW10
Project Number: 01208473.00 | Date: 11/17/09
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: Sean Ray | Checked by: CEH | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 — 10
Casing Diameter (in.) (CD): 2 (4) 6 8 — 4
Total Well Depth (ft.) (WD): 38.3 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 33.97 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 4.33 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

1.69 BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)
This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 7.3 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ____Teflon Bailer ✓ Disposable Bailer ____Bladder Pump ____ Centrifugal Pump ____Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

✓ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
___ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing) 33.92	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µS)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
13:41	35.05	1.08	3.5	1069		6.86		24.7
13:48	35.02	1.05	7.0	1094		6.91		24.5
13:58	34.96	0.99	10.5	1073		6.89		24.5
14:05	34.97	1.00	14.0	1057		6.89		24.4
14:12	34.99	~~1.02~~ 0.96	17.5	1049		6.93		24.4
14:19	34.94	0.97	22.0	1053		6.91		24.4

Borehole Volume: 7.3 (gal) | Total Volume Purge Water: 22 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

34.16 = Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 1.08

SAMPLING INFORMATION

Date & Time Sampled: 11/17/09 @ 14:29 | Depth to water at time of sampling (feet): 34.12

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum		Well No.: MW11
Project Number: 01208473.00		Date: 11/17/09
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: Sean Ray	Checked by: CEK	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 6	
Casing Diameter (in.) (CD): (2) 4 6 8 2	
Total Well Depth (ft.) (WD): 37.35	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 31.12	Time measured: —
Water Column (ft.) (WC=WD-SWL): 6.23	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

.902 BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 5.6 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___Centrifugal Pump ___Other: ____

Decontamination Method: ___ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ___ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

✓ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

___ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

___ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
10:28	31.15	.03	3.0	671		6.75		23.2
10:39	31.15	.03	6.0	845		6.84		23.4
10:51	31.15	.03	9.0	859		6.84		23.6
11.00	31.15	.03	12.0	874		6.85		23.6
11:10	31.15	.03	15.0	890		6.87		23.8
11:20	31.15	.03	18.0	888		6.88		23.7

Borehole Volume: 5.6 (gal) Total Volume Purge Water: 18 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 11/17/09 @ 11:30 Depth to water at time of sampling (feet): 31.13

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy.

WELL PURGING/SAMPLING LOG

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Environmental Consultants
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San Diego, California 92123

Project Name: Wigington Petroleum		Well No.: MW12
Project Number: 01208473.00		Date: 11/17/09
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: Sean Ray	Checked by: CEH	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 6	
Casing Diameter (in.) (CD): (2) 4 6 8 2	
Total Well Depth (ft.) (WD): 36.20	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 30.65	Time measured: —
Water Column (ft.) (WC=WD-SWL): 5.55	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 5 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___Centrifugal Pump ___Other: ____

Decontamination Method: ___ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ___ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

✓ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

___ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

___ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
12:11	30.67	.02	2.5	862		6.61		23.9
12:22	30.65	—	5.0	861		6.63		23.8
12:32	30.64	—	7.5	859		6.65		23.8
12:41	30.67	.02	10.0	860		6.67		23.8
12:50	30.66	.01	12.5	861		6.67		23.8
12:59	30.67	.02	15.0	866		6.68		23.8

Borehole Volume: 5 (gal) Total Volume Purge Water: 15 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 11/17/09 @ 13:10 Depth to water at time of sampling (feet): 30.65

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum | Well No.: MW-13
Project Number: 01208473.00 | Date: 11/17/09
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: CC | Checked by: CEN | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 _____
Casing Diameter (in.) (CD): (2) 4 6 8 _____
Total Well Depth (ft.) (WD): 44.7 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 34.33 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 10.37 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 9.3 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump _____ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___Centrifugal Pump ___Other: _____
Decontamination Method: ___Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ___Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

___ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ✓ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
___Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
✓ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1110								
1139	44.01	9.68	9.5	1712	—	6.35	—	22.1

Borehole Volume: 9.3 (gal) | Total Volume Purge Water: _____ (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 36.26

SAMPLING INFORMATION

Date & Time Sampled: 11/17/09 1340 | Depth to water at time of sampling (feet): 40.20

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum		Well No.: MW-14
Project Number: 01208473.00		Date: 11/18/09
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: CC	Checked by: CEH	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____	
Casing Diameter (in.) (CD): 2 (4) 6 8 ____	
Total Well Depth (ft.) (WD): 36.8	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 31.32	Time measured: —
Water Column (ft.) (WC=WD-SWL): 5.48	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 9.3 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

____ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:____ Time:____

____ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

____ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1150	34.94	3.62	10.0	999	—	6.50	—	19.8
1157	35.02	3.70	15.0	990	—	6.48	—	19.8

Borehole Volume: 9.3 (gal) Total Volume Purge Water: 15 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 32.06

SAMPLING INFORMATION

Date & Time Sampled: 11/18/09 1205 Depth to water at time of sampling (feet): 31.60

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy.

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Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum		Well No.: MW-15
Project Number: 01208473.00		Date: 11/17/09
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: CC	Checked by: CEH	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 _____
Casing Diameter (in.) (CD): (2) 4 6 8 _____
Total Well Depth (ft.) (WD): 37.2 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 30.92 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 6.28 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 5.7 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump _____ Bailer ✓ Centrifugal Pump ___ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___Centrifugal Pump ___Other: _____
Decontamination Method: ___Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ___Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1048	30.92	0.00	6.0	783	—	6.26	—	19.8
1058	30.93	0.01	9.0	772	—	6.23	—	20.2

Borehole Volume: 5.7 (gal) | Total Volume Purge Water: 9.0 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 11/18/09 1105 | Depth to water at time of sampling (feet): 30.92

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy.

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Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum		Well No.: MW-16
Project Number: 01208473.00		Date: 11/18/09
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: CC	Checked by: CEG	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 ____	
Casing Diameter (in.) (CD): (2) 4 6 8 ____	
Total Well Depth (ft.) (WD): 38.3	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 31.18	Time measured: —
Water Column (ft.) (WC=WD-SWL): 7.12	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 6.4 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

____ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:____ Time:____

____ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

____ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
0927	31.21	0.03	6.5	870	—	6.58	—	18.5
0936	31.20	0.02	10.0	851	—	6.54	—	19.1

Borehole Volume: 6.4 (gal) Total Volume Purge Water: 10 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 11/18/09 0945 Depth to water at time of sampling (feet): 31.18

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Petroleum		Well No.: MW-17
Project Number: 01208473.00		Date: 11/17/09
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: CC	Checked by: CEH	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 ____	
Casing Diameter (in.) (CD): (2) 4 6 8 ____	
Total Well Depth (ft.) (WD): 44.4	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 36.23	Time measured: —
Water Column (ft.) (WC=WD-SWL): 8.17	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2-CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 7.4 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___Centrifugal Pump ___Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1505	43.13	6.90	7.5	1103	—	6.70	—	21.6
1532	43.34	7.11	11.0	1100	—	6.77	—	21.1

Borehole Volume: 7.4 (gal) Total Volume Purge Water: 11 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 37.65

SAMPLING INFORMATION

Date & Time Sampled: 11/17/09 1600 Depth to water at time of sampling (feet): 37.50

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy.

APPENDIX B

ANALYTICAL DATA AND CHAIN-OF-CUSTODY DOCUMENTATION

H&P Mobile Geochemistry Inc.

02 December 2009

Mr. Chuck Houser
SCS Engineers - San Diego
8799 Balboa Avenue, Suite 290
San Diego, CA 92123
RE: SCS111909-12

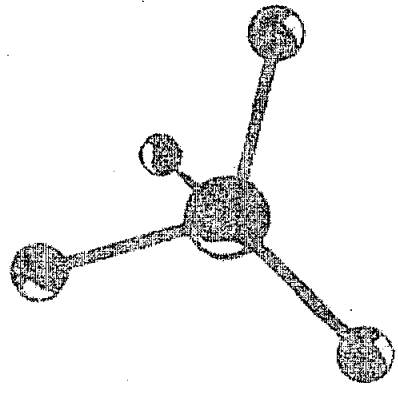
Enclosed are the results of analyses for samples received by the laboratory on 19-Nov-09 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845



2470 Impala Drive, Carlsbad , California 92010 ┌ 760.804.9678 — Fax 760.804.9159
1855 Coronado Avenue, Signal Hill, California 90755
www.HandPmg.com ┌ 1-800-834-9888

02 December 2009

Mr. Chuck Houser
SCS Engineers - San Diego
8799 Balboa Avenue, Suite 290
San Diego, CA 92123
RE: SCS111909-12

Enclosed are the results of analyses for samples received by the laboratory on 19-Nov-09 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS111909-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 /Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	02-Dec-09 11:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	E911090-01	Water	17-Nov-09	19-Nov-09
MW-2	E911090-02	Water	18-Nov-09	19-Nov-09
MW-4	E911090-03	Water	18-Nov-09	19-Nov-09
MW-6	E911090-04	Water	18-Nov-09	19-Nov-09
MW-7	E911090-05	Water	17-Nov-09	19-Nov-09
MW-8	E911090-06	Water	17-Nov-09	19-Nov-09
MW-9	E911090-07	Water	18-Nov-09	19-Nov-09
MW-10	E911090-08	Water	17-Nov-09	19-Nov-09
MW-11	E911090-09	Water	17-Nov-09	19-Nov-09
MW-12	E911090-10	Water	17-Nov-09	19-Nov-09
MW-13	E911090-11	Water	17-Nov-09	19-Nov-09
MW-14	E911090-12	Water	18-Nov-09	19-Nov-09
MW-15	E911090-13	Water	18-Nov-09	19-Nov-09
MW-16	E911090-14	Water	18-Nov-09	19-Nov-09
MW-17	E911090-15	Water	17-Nov-09	19-Nov-09

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS111909-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 /Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	02-Dec-09 11:20

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-1 (E911090-01) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Methyl tert-butyl ether	**1.7**	1.0	ug/l	0.1	EK92401	23-Nov-09	23-Nov-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**4.4**	0.5	"	"	"	"	"	"	
Toluene	**0.6**	0.5	"	"	"	"	"	"	
Ethylbenzene	**2.5**	0.5	"	"	"	"	"	"	
m,p-Xylene	**1.1**	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*112 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*99.2 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.7 %*		*75-125*	"	"	"	"	
MW-2 (E911090-02) Water Sampled: 18-Nov-09 Received: 19-Nov-09									
Methyl tert-butyl ether	**1.9**	1.0	ug/l	0.1	EK92401	23-Nov-09	23-Nov-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**1.0**	0.5	"	"	"	"	"	"	
Toluene	**0.7**	0.5	"	"	"	"	"	"	
Ethylbenzene	**3.4**	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	**1100**	50	"	1	"	"	24-Nov-09	"	
Surrogate: Dibromofluoromethane		*113 %*		*75-125*	"	"	*23-Nov-09*	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*110 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*89.3 %*		*75-125*	"	"	"	"	

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SCS Engineers - San Diego	Project: SCS111909-12	
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San Diego, CA 92123	Project Manager: Mr. Chuck Houser	02-Dec-09 11:20

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-4 (E911090-03) Water Sampled: 18-Nov-09 Received: 19-Nov-09									
Methyl tert-butyl ether	**140**	1.0	ug/l	0.1	EK92401	23-Nov-09	23-Nov-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**460**	5.0	"	1	"	"	24-Nov-09	"	
Toluene	**11**	0.5	"	0.1	"	"	23-Nov-09	"	
Ethylbenzene	**130**	0.5	"	"	"	"	"	"	
m,p-Xylene	**67**	1.0	"	"	"	"	"	"	
o-Xylene	**3.4**	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*103 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*117 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*119 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.5 %*		*75-125*	"	"	"	"	
MW-6 (E911090-04) Water Sampled: 18-Nov-09 Received: 19-Nov-09									
Methyl tert-butyl ether	**25**	1.0	ug/l	0.1	EK92401	23-Nov-09	23-Nov-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**90**	0.5	"	"	"	"	"	"	
Toluene	**2.0**	0.5	"	"	"	"	"	"	
Ethylbenzene	**75**	0.5	"	"	"	"	"	"	
m,p-Xylene	**72**	1.0	"	"	"	"	"	"	
o-Xylene	**1.0**	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*108 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*105 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*118 %*		*75-125*	"	"	"	"	

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SCS Engineers - San Diego	Project: SCS111909-12	
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Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-7 (E911090-05) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Methyl tert-butyl ether	ND	1.0	ug/l	0.1	EK92401	23-Nov-09	23-Nov-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	**8.7**	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*103 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.0 %*		*75-125*	"	"	"	"	
MW-8 (E911090-06) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Methyl tert-butyl ether	ND	1.0	ug/l	0.1	EK92401	23-Nov-09	23-Nov-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	**0.7**	0.5	"	"	"	"	"	"	
Ethylbenzene	**10**	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*109 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*108 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.9 %*		*75-125*	"	"	"	"	

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SCS Engineers - San Diego	Project: SCS111909-12	
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Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-9 (E911090-07) Water Sampled: 18-Nov-09 Received: 19-Nov-09									
Methyl tert-butyl ether	**67**	1.0	ug/l	0.1	EK92401	23-Nov-09	23-Nov-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**62**	0.5	"	"	"	"	"	"	
Toluene	**8.9**	0.5	"	"	"	"	"	"	
Ethylbenzene	**51**	0.5	"	"	"	"	"	"	
m,p-Xylene	**68**	1.0	"	"	"	"	"	"	
o-Xylene	**21**	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*106 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*109 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.6 %*		*75-125*		"	"	"	
MW-10 (E911090-08) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Methyl tert-butyl ether	**6.3**	1.0	ug/l	0.1	EK92401	23-Nov-09	23-Nov-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	**0.5**	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	**6.3**	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*93.6 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*103 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.3 %*		*75-125*		"	"	"	

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SCS Engineers - San Diego	Project: SCS111909-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 /Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	02-Dec-09 11:20

Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-11 (E911090-09) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Methyl tert-butyl ether	**2.3**	1.0	ug/l	0.1	EK92401	23-Nov-09	23-Nov-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**6.5**	0.5	"	"	"	"	"	"	
Toluene	**1.5**	0.5	"	"	"	"	"	"	
Ethylbenzene	**5.5**	0.5	"	"	"	"	"	"	
m,p-Xylene	**1.2**	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*94.6 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.7 %*		*75-125*	"	"	"	"	
MW-12 (E911090-10) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Methyl tert-butyl ether	**2.5**	1.0	ug/l	0.1	EK92401	23-Nov-09	23-Nov-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*103 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*106 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*104 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.3 %*		*75-125*	"	"	"	"	

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Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-13 (E911090-11) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Methyl tert-butyl ether	ND	1.0	ug/l	0.1	EK92401	23-Nov-09	23-Nov-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	**0.6**	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99.2 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*101 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.6 %*		*75-125*	"	"	"	"	
MW-14 (E911090-12) Water Sampled: 18-Nov-09 Received: 19-Nov-09									
Methyl tert-butyl ether	**510**	10	ug/l	1	EK92401	23-Nov-09	24-Nov-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	0.1	"	"	23-Nov-09	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**1600**	5.0	"	1	"	"	24-Nov-09	"	
Toluene	**54**	0.5	"	0.1	"	"	23-Nov-09	"	
Ethylbenzene	**1000**	5.0	"	1	"	"	24-Nov-09	"	
m,p-Xylene	**880**	10	"	"	"	"	"	"	
o-Xylene	**64**	0.5	"	0.1	"	"	23-Nov-09	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*106 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.0 %*		*75-125*	"	"	"	"	

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Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-15 (E911090-13) Water Sampled: 18-Nov-09 Received: 19-Nov-09									
Methyl tert-butyl ether	**19**	10	ug/l	1	EL90204	24-Nov-09	24-Nov-09	EPA 8260B	
Di-isopropyl ether	ND	10	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	10	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	10	"	"	"	"	"	"	
Benzene	**910**	5.0	"	"	"	"	"	"	
Toluene	**77**	5.0	"	"	"	"	"	"	
Ethylbenzene	**3700**	50	"	10	"	"	25-Nov-09	"	
m,p-Xylene	**4300**	100	"	"	"	"	"	"	
o-Xylene	**8.9**	5.0	"	1	"	"	24-Nov-09	"	
Tert-butyl alcohol	ND	50	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*100 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*94.5 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.6 %*		*75-125*	"	"	"	"	
MW-16 (E911090-14) Water Sampled: 18-Nov-09 Received: 19-Nov-09									
Methyl tert-butyl ether	**73**	1.0	ug/l	0.1	EK92401	23-Nov-09	23-Nov-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**110**	0.5	"	"	"	"	"	"	
Toluene	**2.5**	0.5	"	"	"	"	"	"	
Ethylbenzene	**65**	0.5	"	"	"	"	"	"	
m,p-Xylene	**9.7**	1.0	"	"	"	"	"	"	
o-Xylene	**0.8**	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*98.4 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*108 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.0 %*		*75-125*	"	"	"	"	

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Volatile Organic Compounds by EPA Method 8260B/5030

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-17 (E911090-15) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Methyl tert-butyl ether	ND	1.0	ug/l	0.1	EK92401	23-Nov-09	23-Nov-09	EPA 8260B	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	**0.5**	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	**1.9**	0.5	"	"	"	"	"	"	
m,p-Xylene	**2.4**	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*99.1 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*95.0 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*105 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.4 %*		*75-125*	"	"	"	"	

Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS111909-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 /Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	02-Dec-09 11:20

TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-1 (E911090-01) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EK92304	23-Nov-09	23-Nov-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-2 (E911090-02) Water Sampled: 18-Nov-09 Received: 19-Nov-09									
Gasoline (C5-C11)	**2300**	500	ug/l	1	EK92304	23-Nov-09	23-Nov-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-4 (E911090-03) Water Sampled: 18-Nov-09 Received: 19-Nov-09									
Gasoline (C5-C11)	**3300**	500	ug/l	1	EK92304	23-Nov-09	23-Nov-09	DHS LUFT	
Diesel (C12-C24)	**2600**	500	"	"	"	"	"	"	
MW-6 (E911090-04) Water Sampled: 18-Nov-09 Received: 19-Nov-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EK92304	23-Nov-09	23-Nov-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-7 (E911090-05) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EK92304	23-Nov-09	23-Nov-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-8 (E911090-06) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EK92304	23-Nov-09	23-Nov-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-9 (E911090-07) Water Sampled: 18-Nov-09 Received: 19-Nov-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EK92304	23-Nov-09	23-Nov-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS111909-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 /Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	02-Dec-09 11:20

TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-10 (E911090-08) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EK92304	23-Nov-09	23-Nov-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-11 (E911090-09) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Gasoline (C5-C11)	**900**	500	ug/l	1	EK92304	23-Nov-09	23-Nov-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-12 (E911090-10) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EK92304	23-Nov-09	23-Nov-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-13 (E911090-11) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Gasoline (C5-C11)	ND	500	ug/l	1	EK92304	23-Nov-09	23-Nov-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-14 (E911090-12) Water Sampled: 18-Nov-09 Received: 19-Nov-09									
Gasoline (C5-C11)	**6900**	500	ug/l	1	EK92304	23-Nov-09	23-Nov-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-15 (E911090-13) Water Sampled: 18-Nov-09 Received: 19-Nov-09									
Gasoline (C5-C11)	**19000**	500	ug/l	1	EK92304	23-Nov-09	23-Nov-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-16 (E911090-14) Water Sampled: 18-Nov-09 Received: 19-Nov-09									
Gasoline (C5-C11)	**570**	500	ug/l	1	EK92304	23-Nov-09	23-Nov-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS111909-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 /Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	02-Dec-09 11:20

TPH by GC FID

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-17 (E911090-15) Water Sampled: 17-Nov-09 Received: 19-Nov-09									
Gasoline (C5-C11)	**550**	500	ug/l	1	EK92304	23-Nov-09	23-Nov-09	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS111909-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 /Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	02-Dec-09 11:20

Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK92401 - EPA 5030										
Blank (EK92401-BLK1)				Prepared & Analyzed: 23-Nov-09						
Methyl tert-butyl ether	ND	1.0	ug/l							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
Tert-amyl methyl ether	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tert-butyl alcohol	ND	5.0	"							
Surrogate: Dibromofluoromethane	*5.29*		"	*5.00*		*106*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*4.67*		"	*5.00*		*93.5*	*62-139*			
Surrogate: Toluene-d8	*5.01*		"	*5.00*		*100*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*4.73*		"	*5.00*		*94.6*	*75-125*			
LCS (EK92401-BS1)				Prepared & Analyzed: 23-Nov-09						
Benzene	4.70	0.5	ug/l	5.00		94.1	75-125			
Toluene	4.86	0.5	"	5.00		97.1	74-125			
Surrogate: Dibromofluoromethane	*5.43*		"	*5.00*		*109*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.42*		"	*5.00*		*108*	*62-139*			
Surrogate: Toluene-d8	*5.18*		"	*5.00*		*104*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*4.84*		"	*5.00*		*96.7*	*75-125*			
LCS Dup (EK92401-BSD1)				Prepared & Analyzed: 23-Nov-09						
Benzene	4.81	0.5	ug/l	5.00		96.3	75-125	2.27	20	
Toluene	5.29	0.5	"	5.00		106	74-125	8.59	20	
Surrogate: Dibromofluoromethane	*5.09*		"	*5.00*		*102*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.13*		"	*5.00*		*103*	*62-139*			
Surrogate: Toluene-d8	*5.30*		"	*5.00*		*106*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*4.87*		"	*5.00*		*97.4*	*75-125*			

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS111909-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 /Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	02-Dec-09 11:20

Volatile Organic Compounds by EPA Method 8260B/5030 - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL90204 - EPA 5030										
Blank (EL90204-BLK1)				Prepared & Analyzed: 24-Nov-09						
Methyl tert-butyl ether	ND	1.0	ug/l							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
Tert-amyl methyl ether	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tert-butyl alcohol	ND	5.0	"							
Surrogate: Dibromofluoromethane	*5.16*		"	*5.00*		*103*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.43*		"	*5.00*		*109*	*62-139*			
Surrogate: Toluene-d8	*4.89*		"	*5.00*		*97.8*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*4.98*		"	*5.00*		*99.6*	*75-125*			
LCS (EL90204-BS1)				Prepared & Analyzed: 24-Nov-09						
Benzene	2.26	0.5	ug/l	2.00		113	75-125			
Toluene	2.51	0.5	"	2.00		125	74-125			
Surrogate: Dibromofluoromethane	*5.09*		"	*5.00*		*102*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*5.13*		"	*5.00*		*103*	*62-139*			
Surrogate: Toluene-d8	*4.92*		"	*5.00*		*98.5*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*4.78*		"	*5.00*		*95.6*	*75-125*			

H&P Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS111909-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 /Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	02-Dec-09 11:20

TPH by GC FID - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK92304 - LUFT-DHS										
Blank (EK92304-BLK1)				Prepared & Analyzed: 23-Nov-09						
Gasoline (C5-C11)	ND	500	ug/l							
Diesel (C12-C24)	ND	500	"							
Matrix Spike (EK92304-MS1)		Source: E911090-04		Prepared & Analyzed: 23-Nov-09						
Gasoline (C5-C11)	1920	500	ug/l	2000	ND	95.9	75-125			
Diesel (C12-C24)	4940	500	"	5000	ND	98.7	75-125			
Matrix Spike Dup (EK92304-MSD1)		Source: E911090-04		Prepared & Analyzed: 23-Nov-09						
Gasoline (C5-C11)	2160	500	ug/l	2000	ND	108	75-125	11.6	30	
Diesel (C12-C24)	5030	500	"	5000	ND	101	75-125	1.87	30	

Mobile Geochemistry Inc.

SCS Engineers - San Diego	Project: SCS111909-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 /Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	02-Dec-09 11:20

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Chain of Custody Record

H&P Mobile Geochemistry Inc.

☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 11/19/09
H&P Project #: SCS111909-12
Outside Lab:

Client: SCS Engineers
Address: 8799 Balboa Ave., Suite 290
San Diego, CA 91941
Email: ccrosby@scsengineers.com

Collector: Chris Crosby / Sean Roy
Client Project #: 01208473.00
Location: Wigington Petroleum : 11427 Woodside Ave., Santee CA
Phone: 858-571-5500 Fax: 858-571-5357

Page: 1 of 2
Project Contact: Chuck Houser
Turn around time: Normal

Geotracker EDF: Yes ☑ No ☐
Global ID:
Excel EDD: Yes ☐ No ☐

Sample Receipt
Intact: ☒ Yes ☐ No
Sent Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☑ Yes ☐ No ☐ N/A
Temperature: 3°C

Special Instructions:
Please cc results to chouser@scsengineers.com

Lab Work Order #: E911090

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	SOIL/GW: 8260B Full List	SOIL/GW: 8260B ☒ BTEX/OXY ☐ TPH gas	SOIL/GW: 8015M TPH ☒ g ☒ d ☐ ext	SOIL/GW: 418.1 TRPH	SOIL VAPOR/AIR ANALYSIS: VOCs: Full List ☐ 8260B ☐ TO-15	VOCs: Short List/DTSC ☐ 8260B ☐ TO-15	VOCs: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2
MW-1			1610	11/17/09	GW	VOA	6	☒														
MW-2			1528 ~~1202~~	11/18/09																		
MW-4			1202	↓																		
MW-6			1045	↓																		
MW-7			1300	11/17/09																		
MW-8			1030	↓																		
MW-9			0945	11/18/09																		
MW-10			1429	11/17/09																		
MW-11			1130	↓																		
MW-12			1310	↓																		

Relinquished by: (Signature) Sean Roy	11/18/09	(company) SCS Engrs.	Received by: (Signature)	(company) H&P	Date: 11/19/09 Time: 1131
Relinquished by: (Signature)		(company)	Received by: (Signature)	(company)	Date: Time:
Relinquished by: (Signature)		(company)	Received by: (Signature)	(company)	Date: Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☒ Disposal ☐ Return to client ☐ Pickup

Chain of Custody Record

H&P Mobile Geochemistry Inc.

☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 11/19/09
H&P Project #: SCS111909-12
Outside Lab:

Client: SCS Engineers
Collector: Chris Crosby / Sean Roy
Page: 2 of 2
Address: 8799 Balboa Ave, Suite 290
Client Project #: 01208473.00
Project Contact: Chuck Houser
San Diego, CA 92123
Location: Wigington Petroleum : 11427 Woodside Ave., Santee CA
Email: ccrosby@scsengineers.com
Phone: 858-571-5500
Fax: 858-571-5357
Turn around time: Normal

Geotracker EDF: Yes ☑ No ☐
Global ID:
Excel EDD: Yes ☐ No ☐

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☒ Yes ☐ No ☐ N/A
Temperature: 3°C

Special Instructions:

Lab Work Order # E911090

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B ☒ BTEX/OXY ☐ TPH gas	8015M TPH ☒ g ☒ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☐ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ____ ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS										
MW-13			1340	11/17/09	GW	VOA	6		☒	☒												
MW-14			1205	11/18/09					☒	☒												
MW-15			1105	↓					☒	☒												
MW-16			0945	↓					☒	☒												
MW-17			1600	11/17/09	↓	↓	↓		☒	☒												

Relinquished by: (Signature)		(company)	Received by: (Signature)	(company)	Date:	Time:
Sean Roy	11/16/09	SCS Engr.		H&P	11/19/09	1131
Relinquished by: (Signature)		(company)	Received by: (Signature)	(company)	Date:	Time:
Relinquished by: (Signature)		(company)	Received by: (Signature)	(company)	Date:	Time:

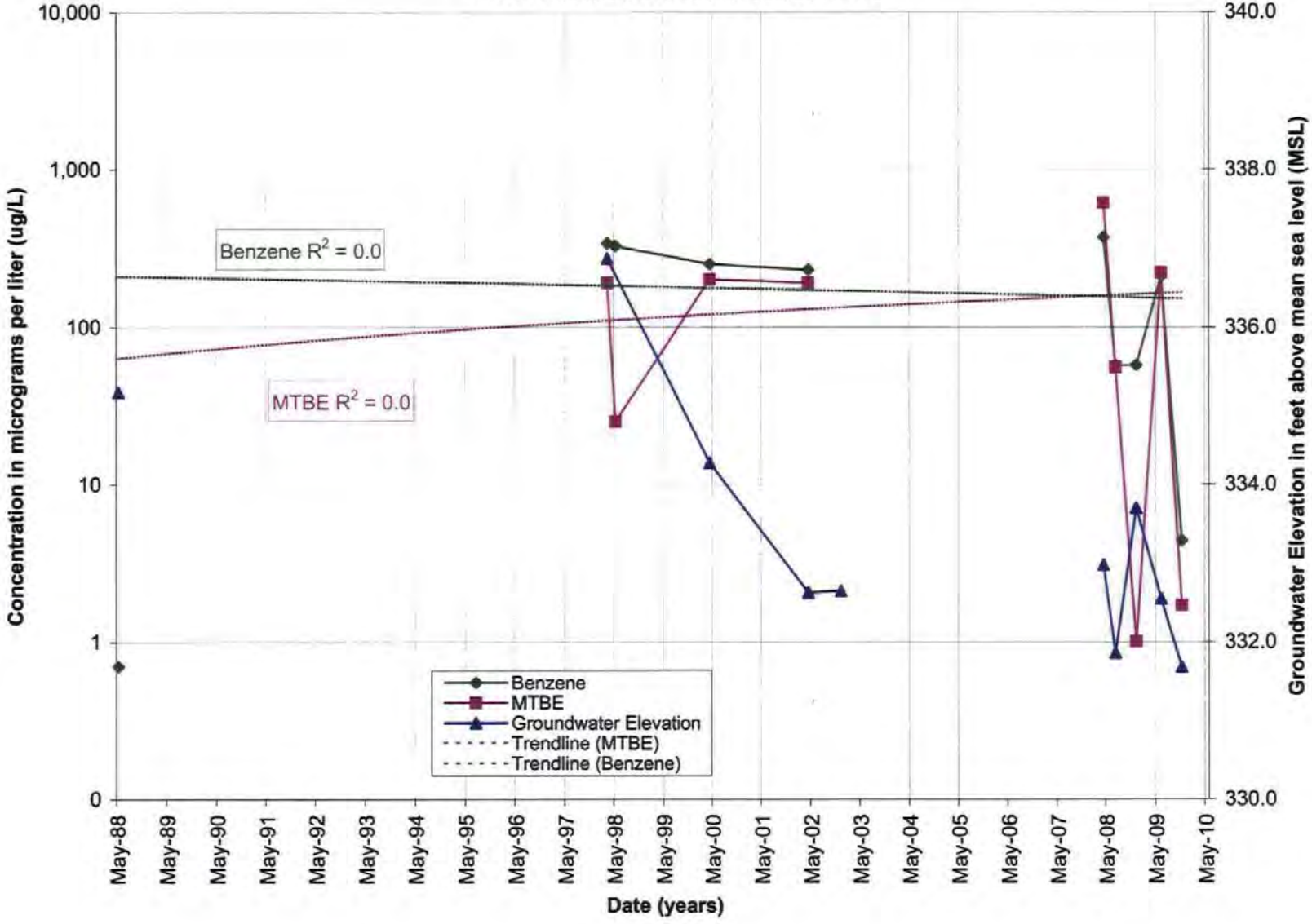
*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☒ Disposal ☐ Return to client ☐ Pickup

APPENDIX C

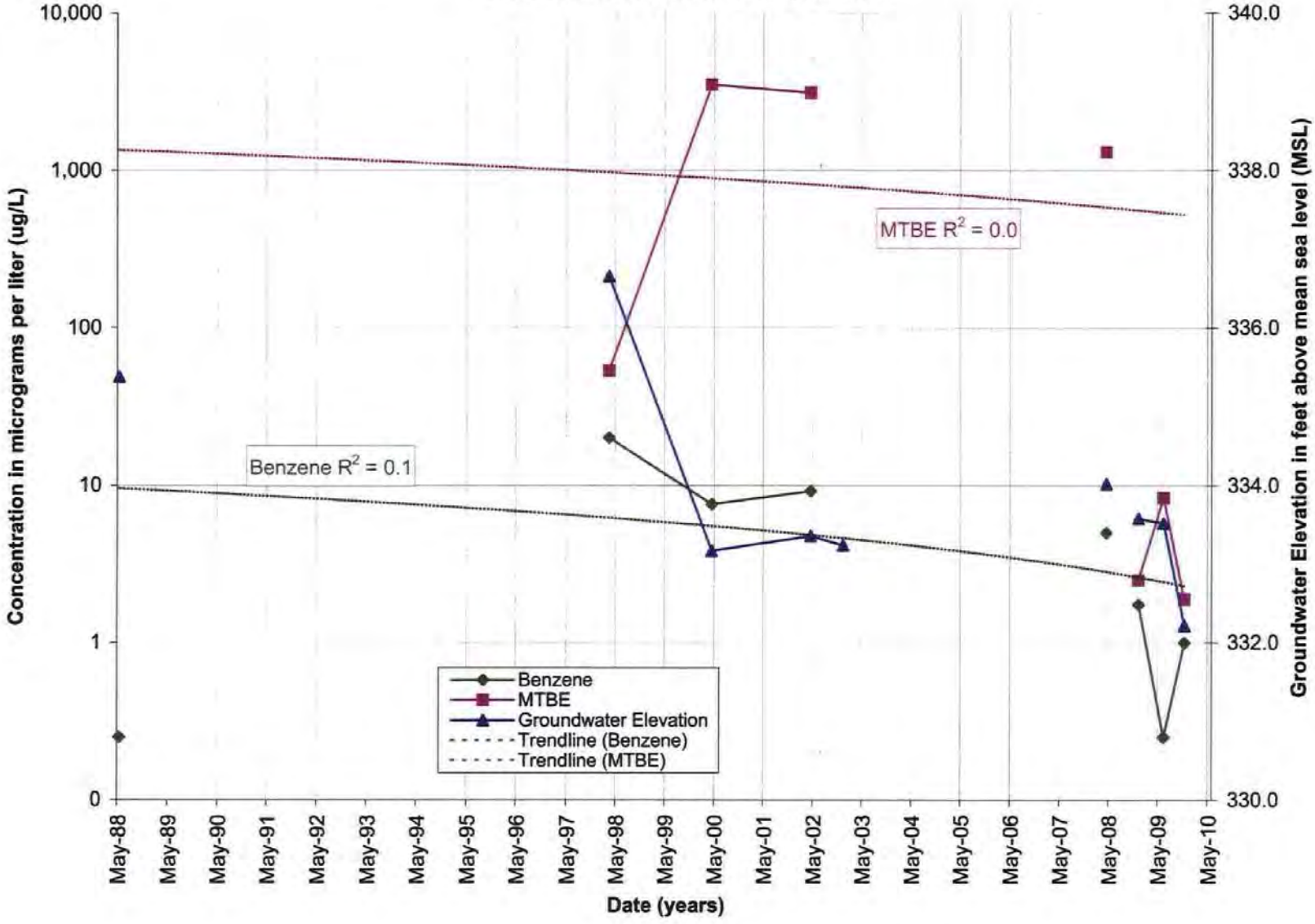
HYDROGRAPHS

MW-1
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



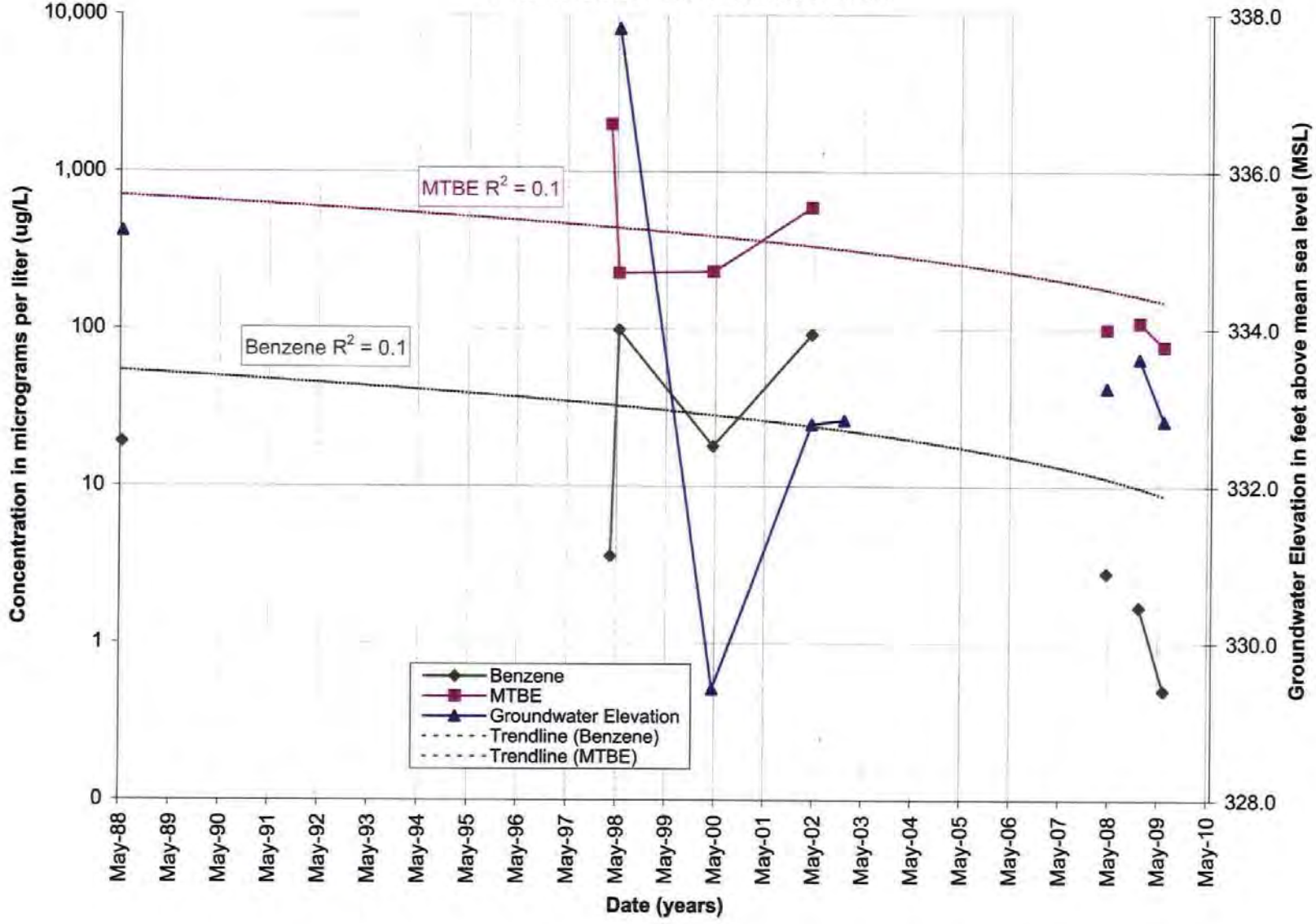
SCS ENGINEERS

MW-2
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



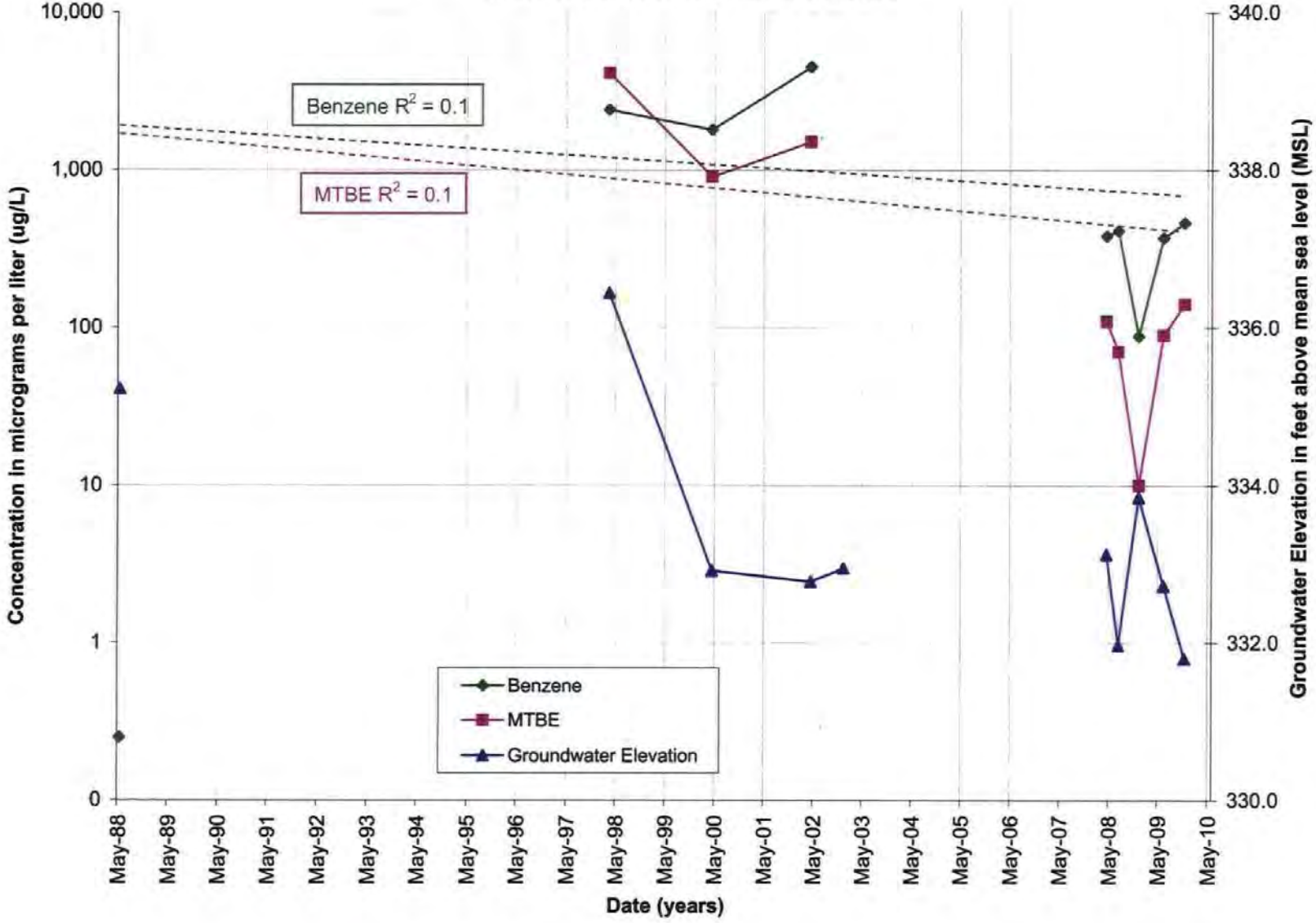
SCS ENGINEERS

MW-3
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



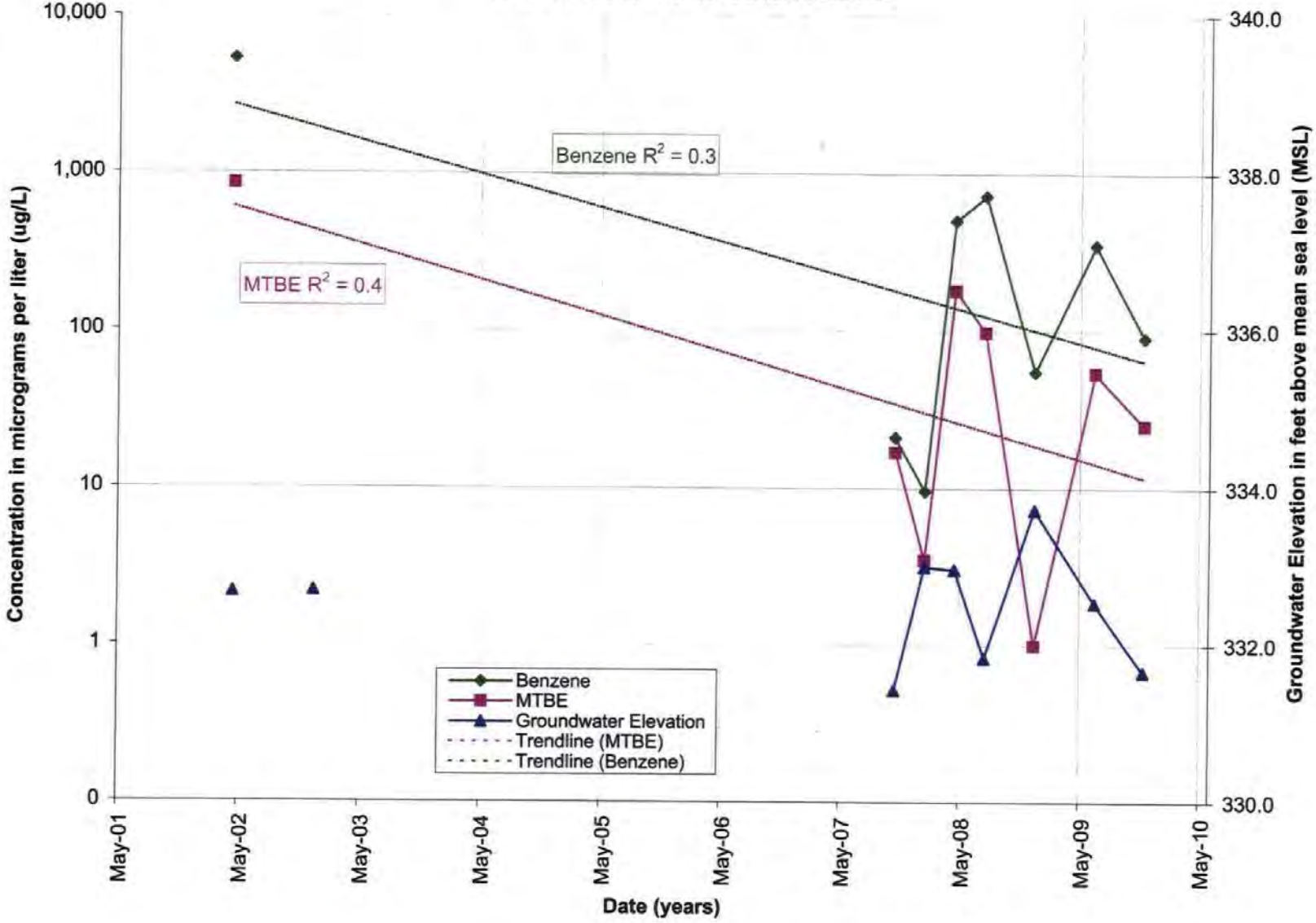
SCS ENGINEERS

MW-4
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



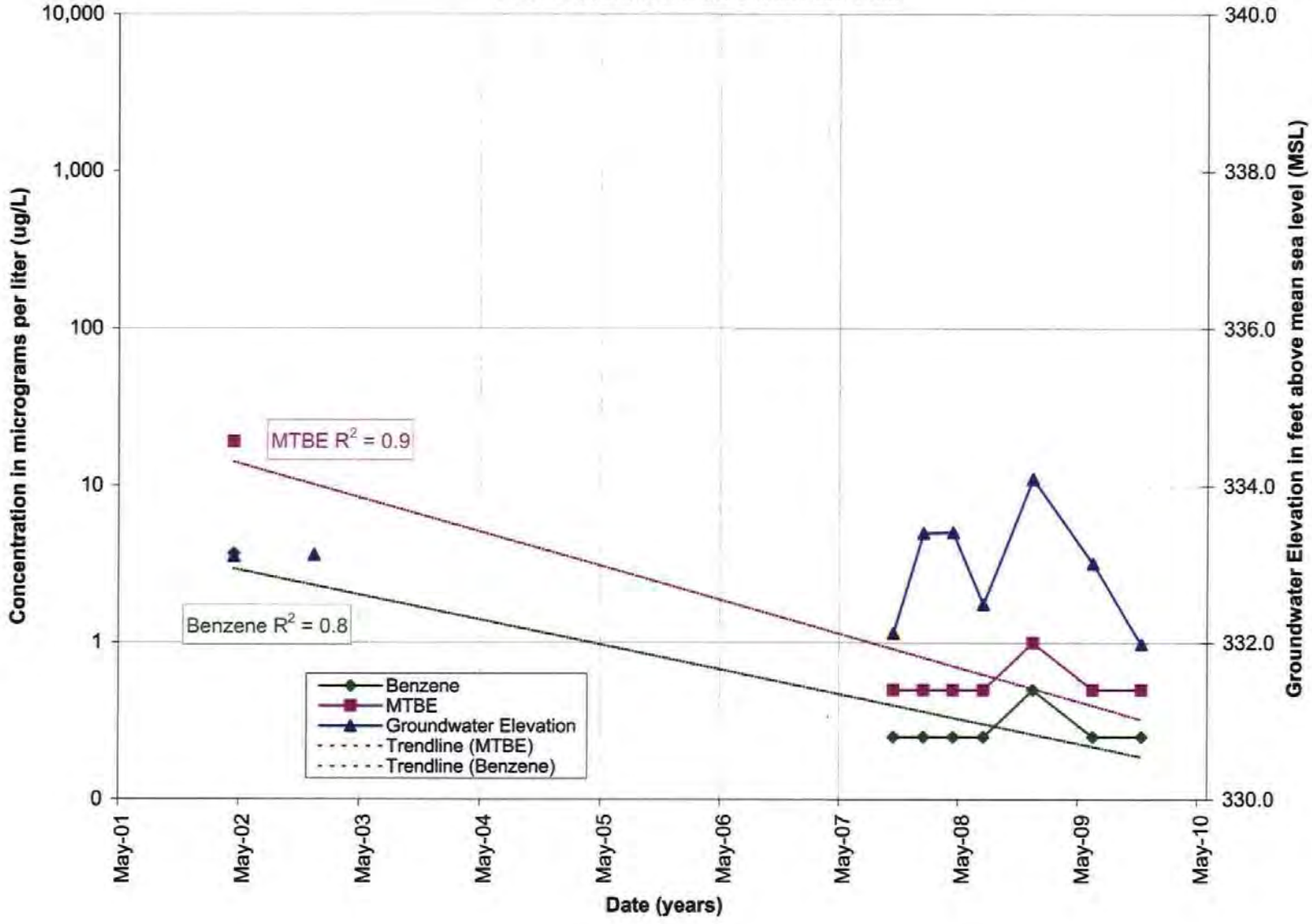
SCS ENGINEERS

MW-6
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



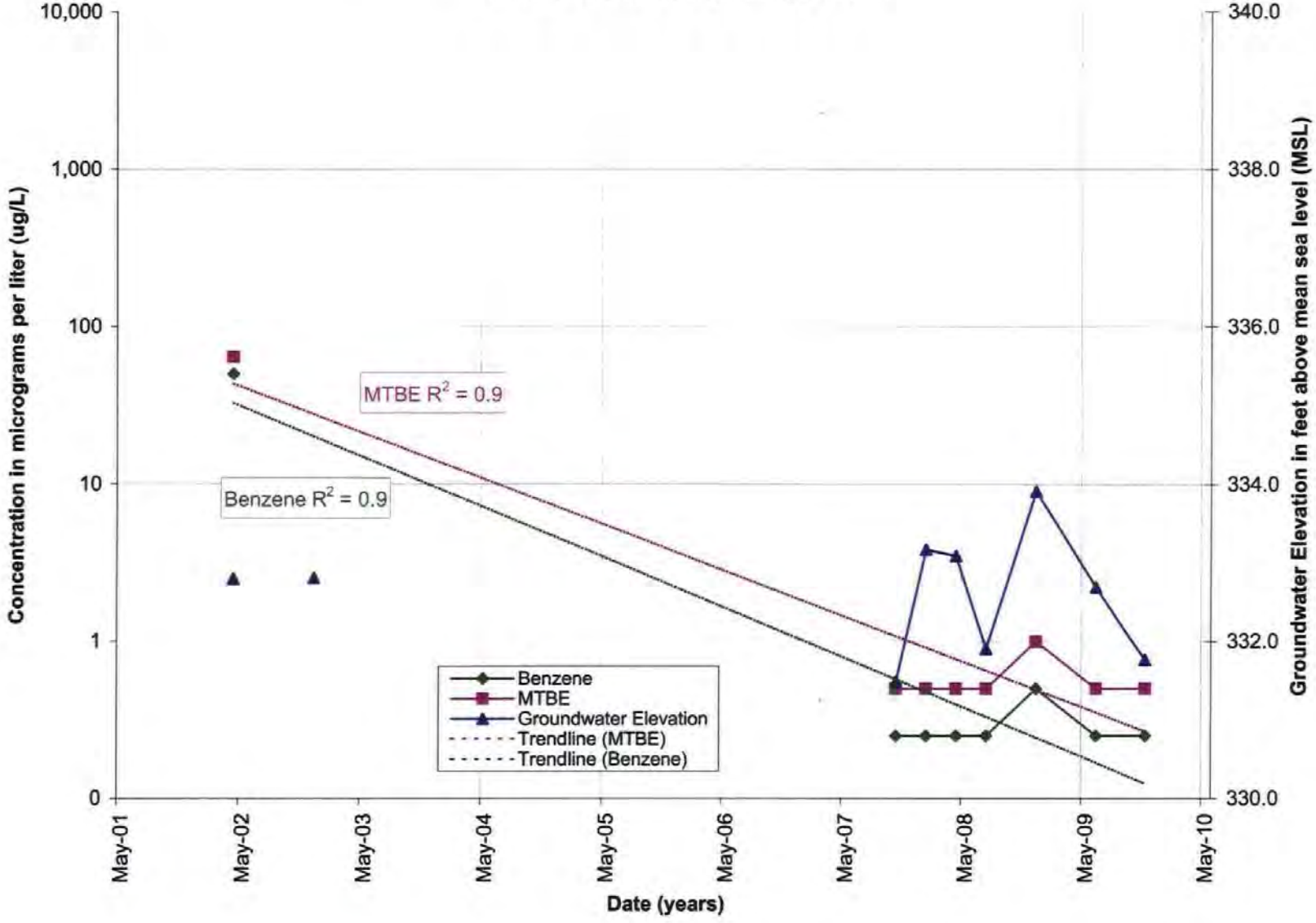
SCS ENGINEERS

MW-7
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



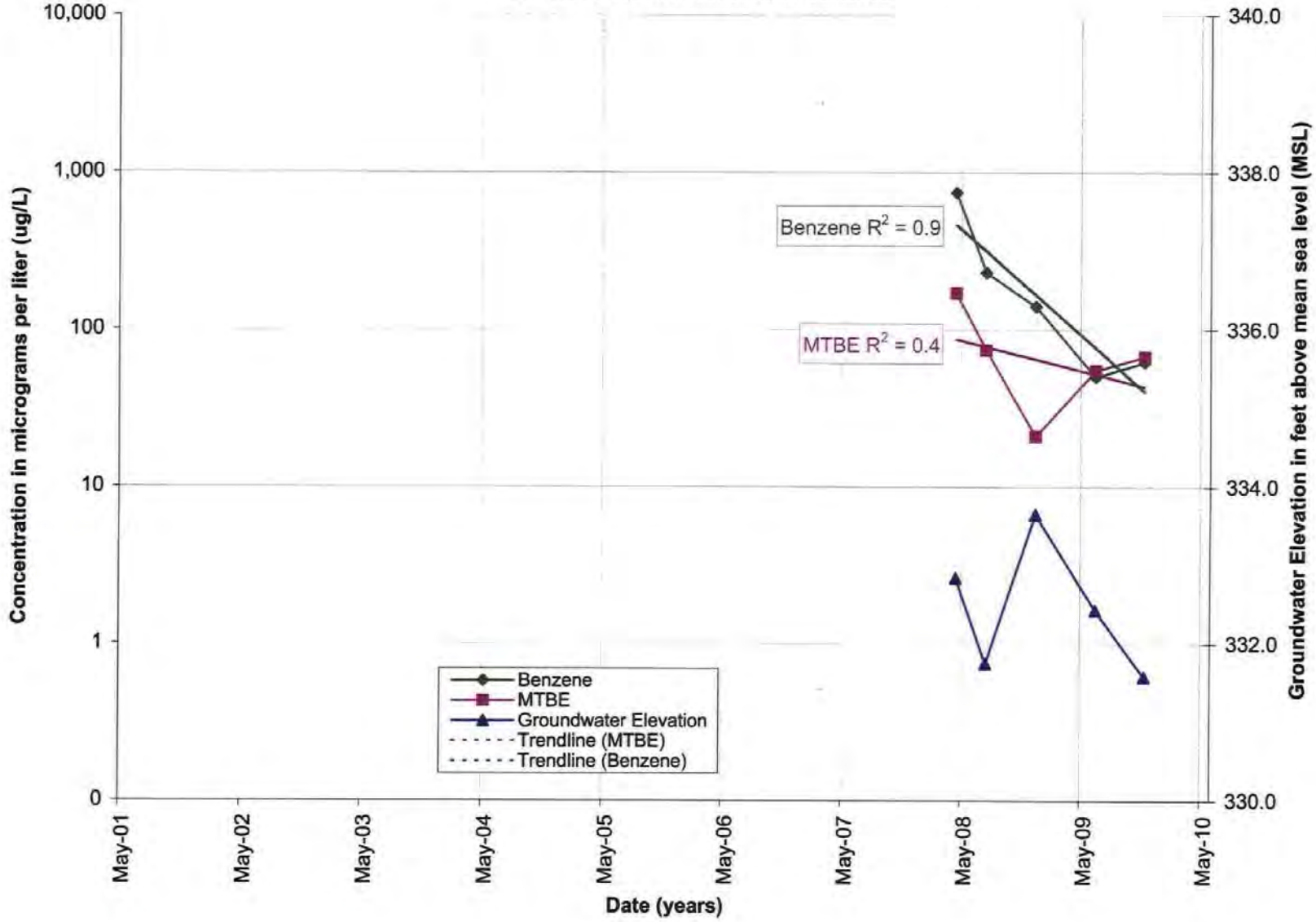
SCS ENGINEERS

MW-8
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



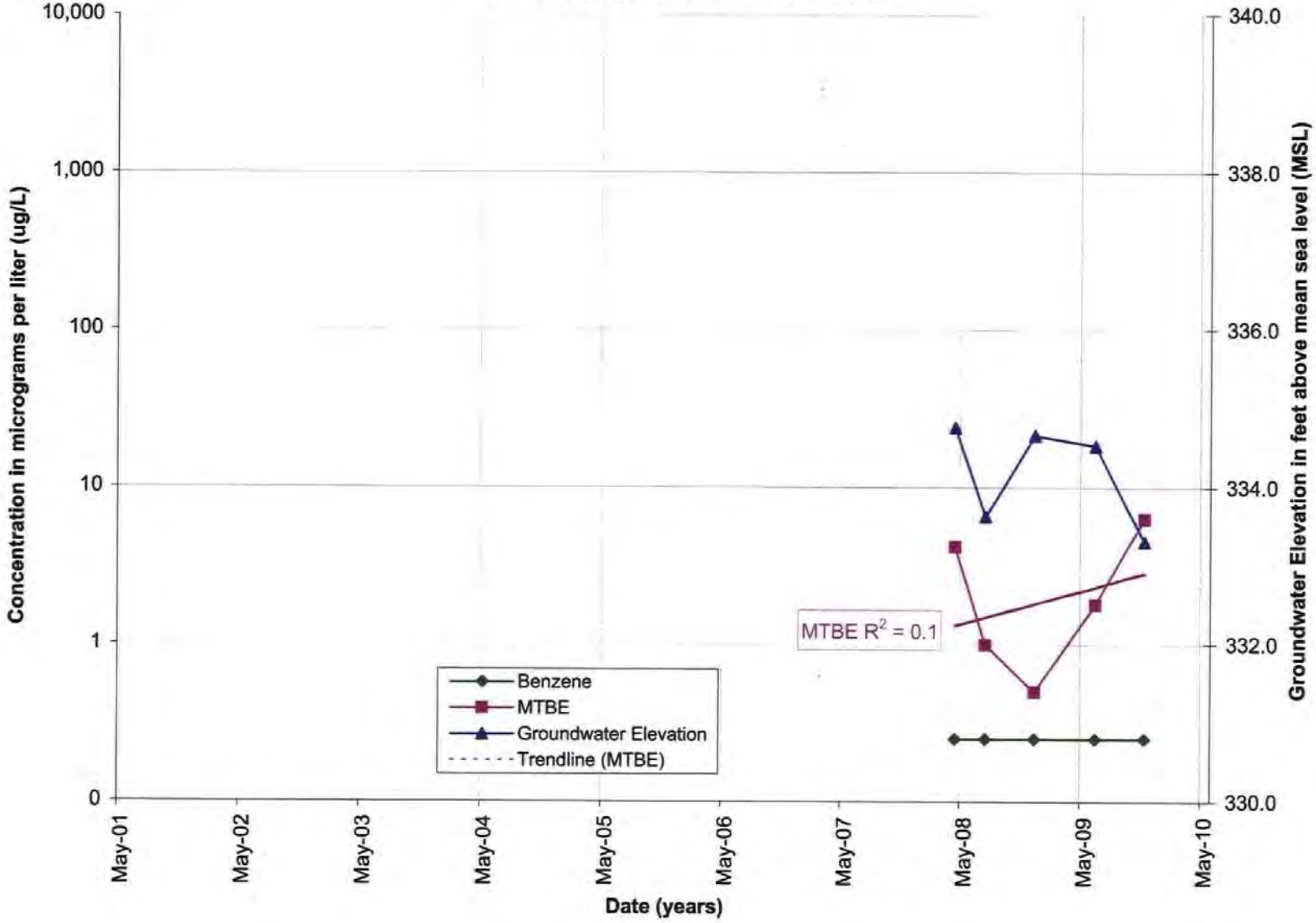
SCS ENGINEERS

MW-9
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



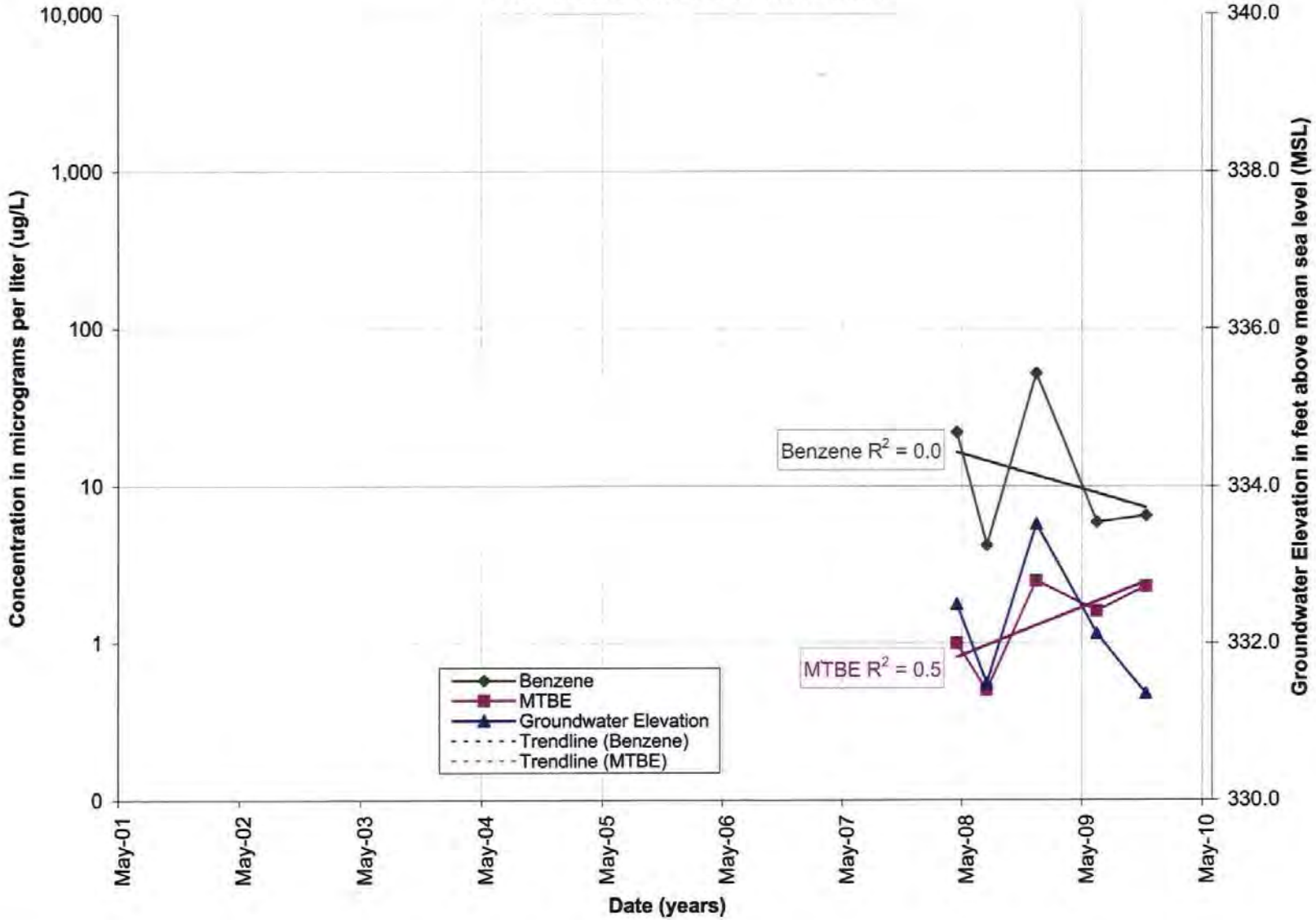
SCS ENGINEERS

MW-10
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



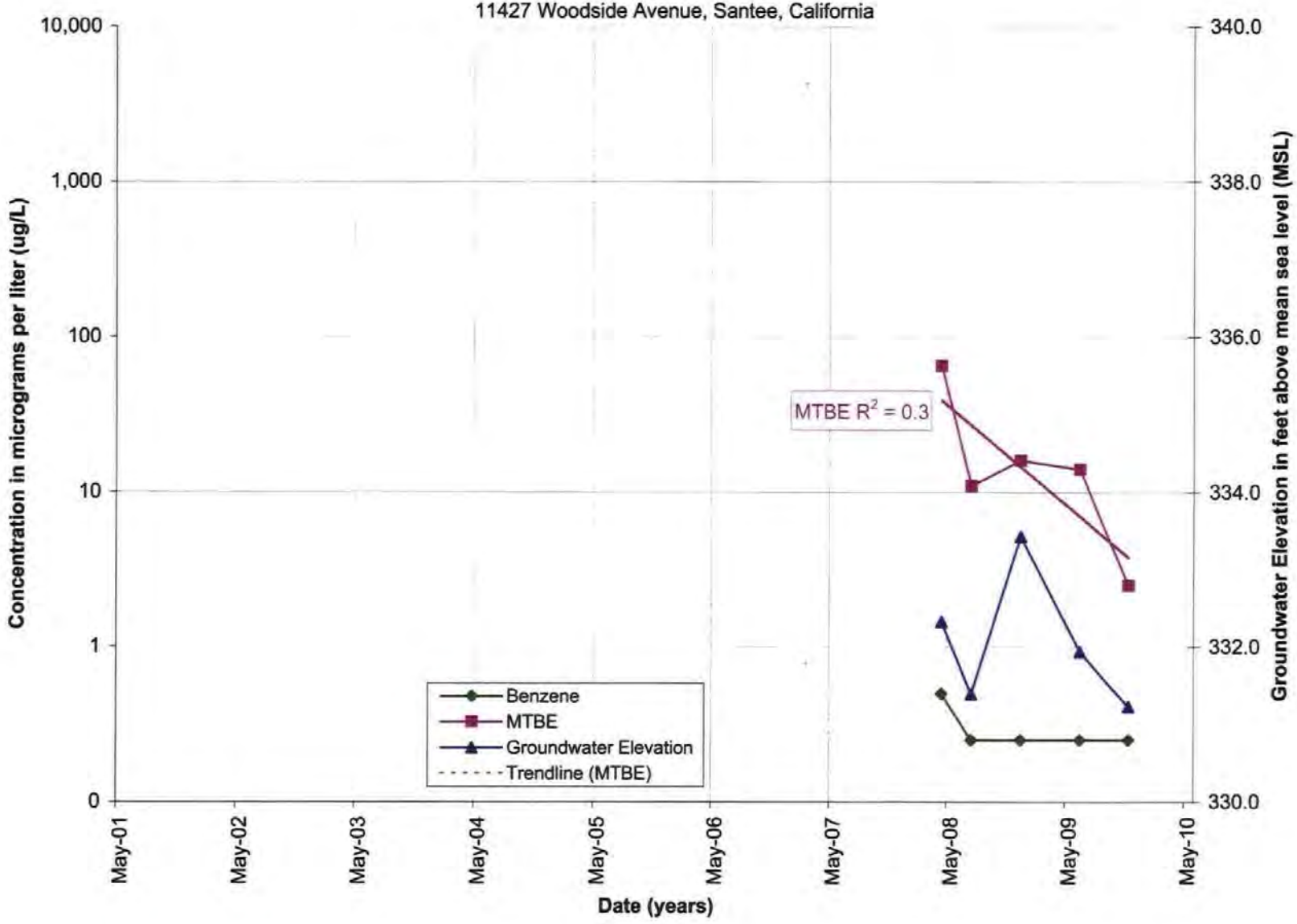
SCS ENGINEERS

MW-11
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



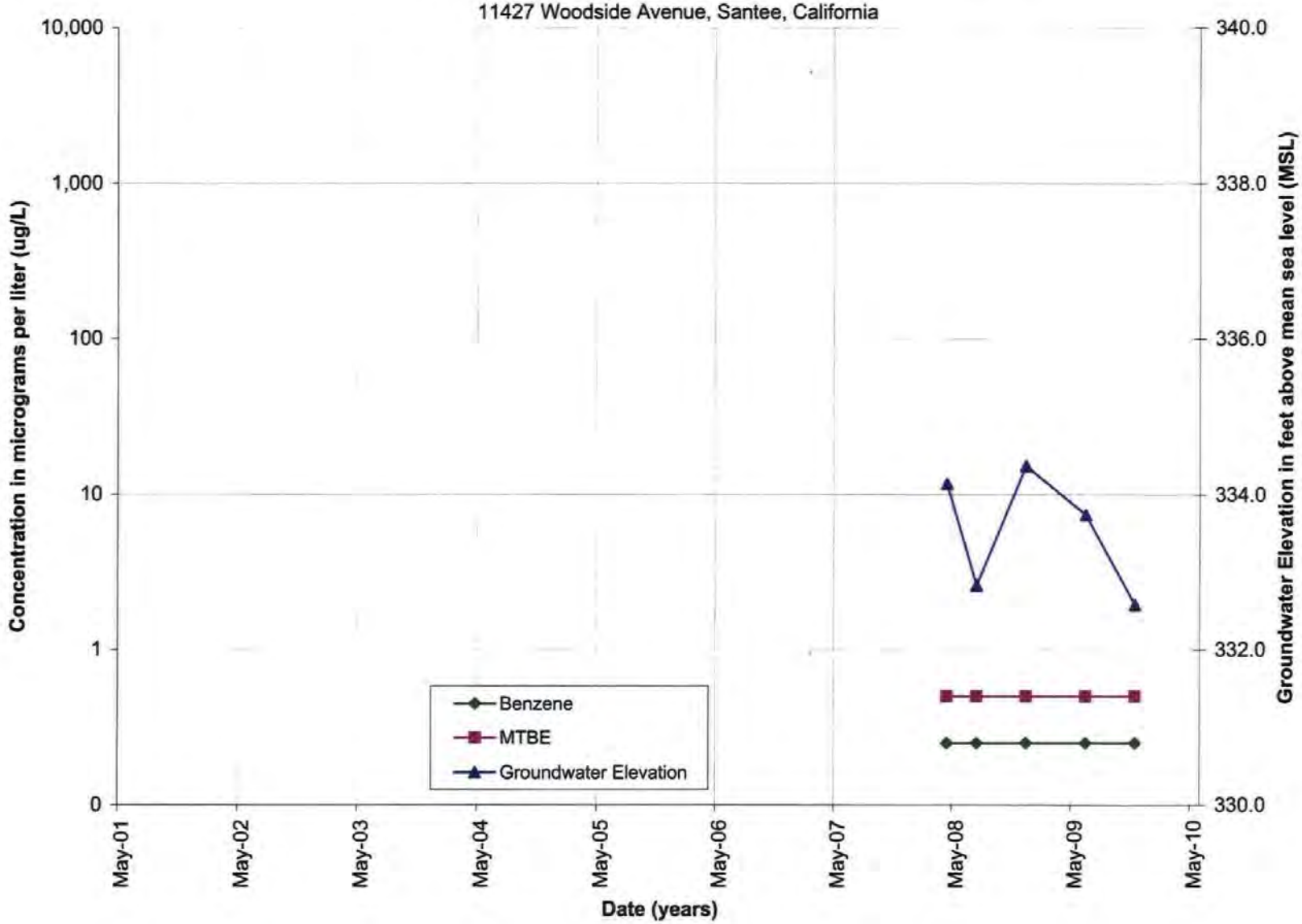
SCS ENGINEERS

MW-12
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



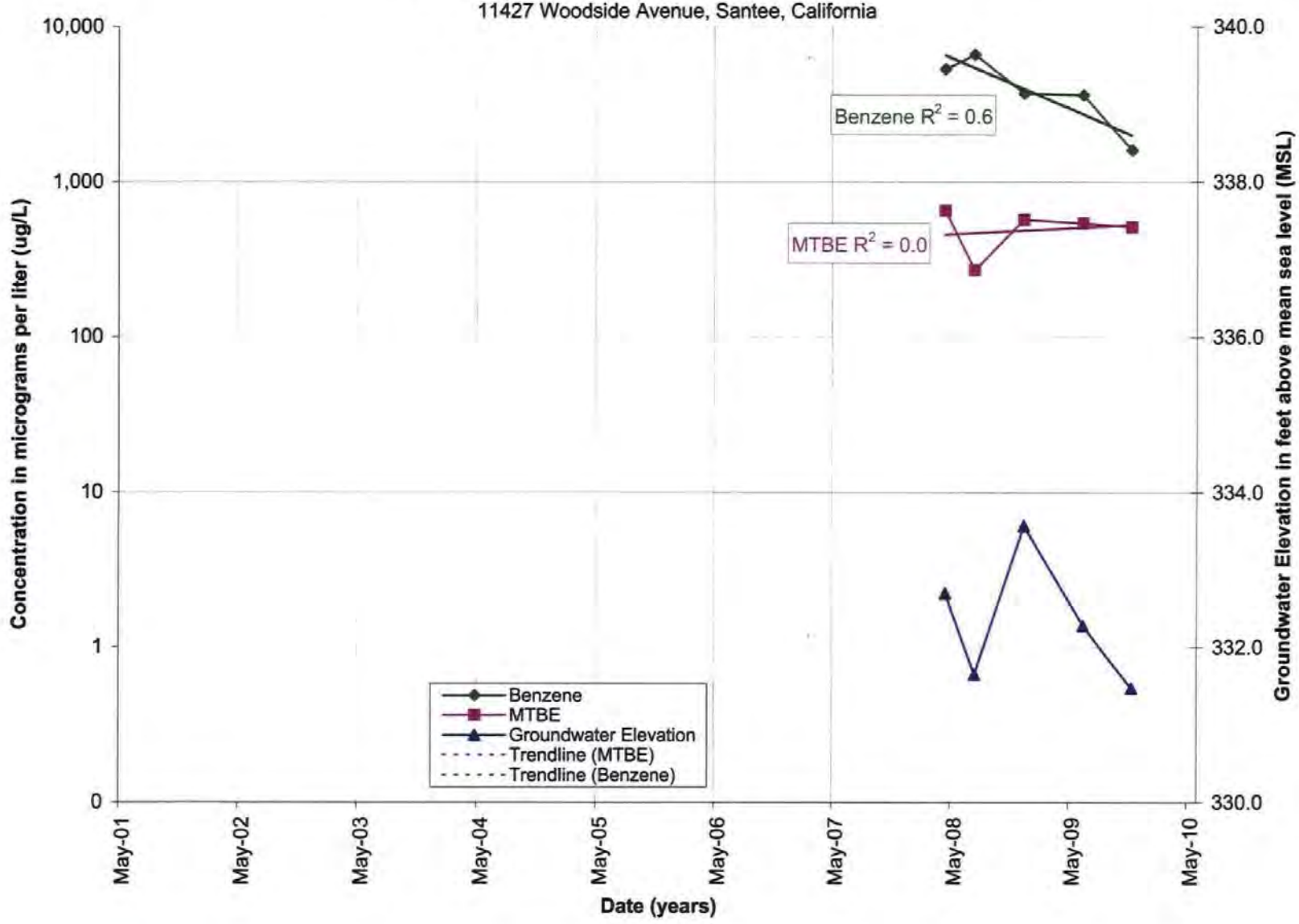
SCS ENGINEERS

MW-13
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



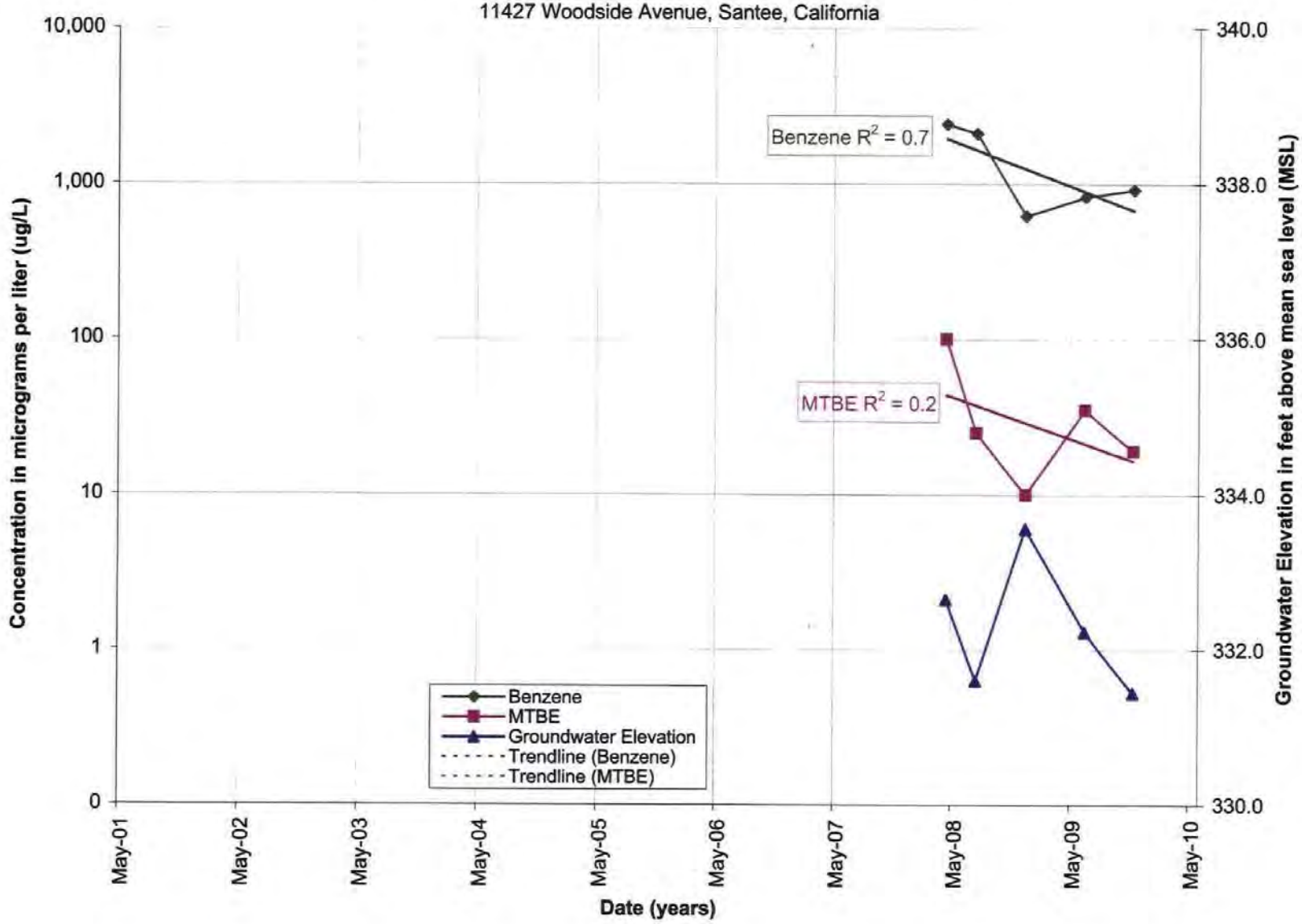
SCS ENGINEERS

MW-14
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



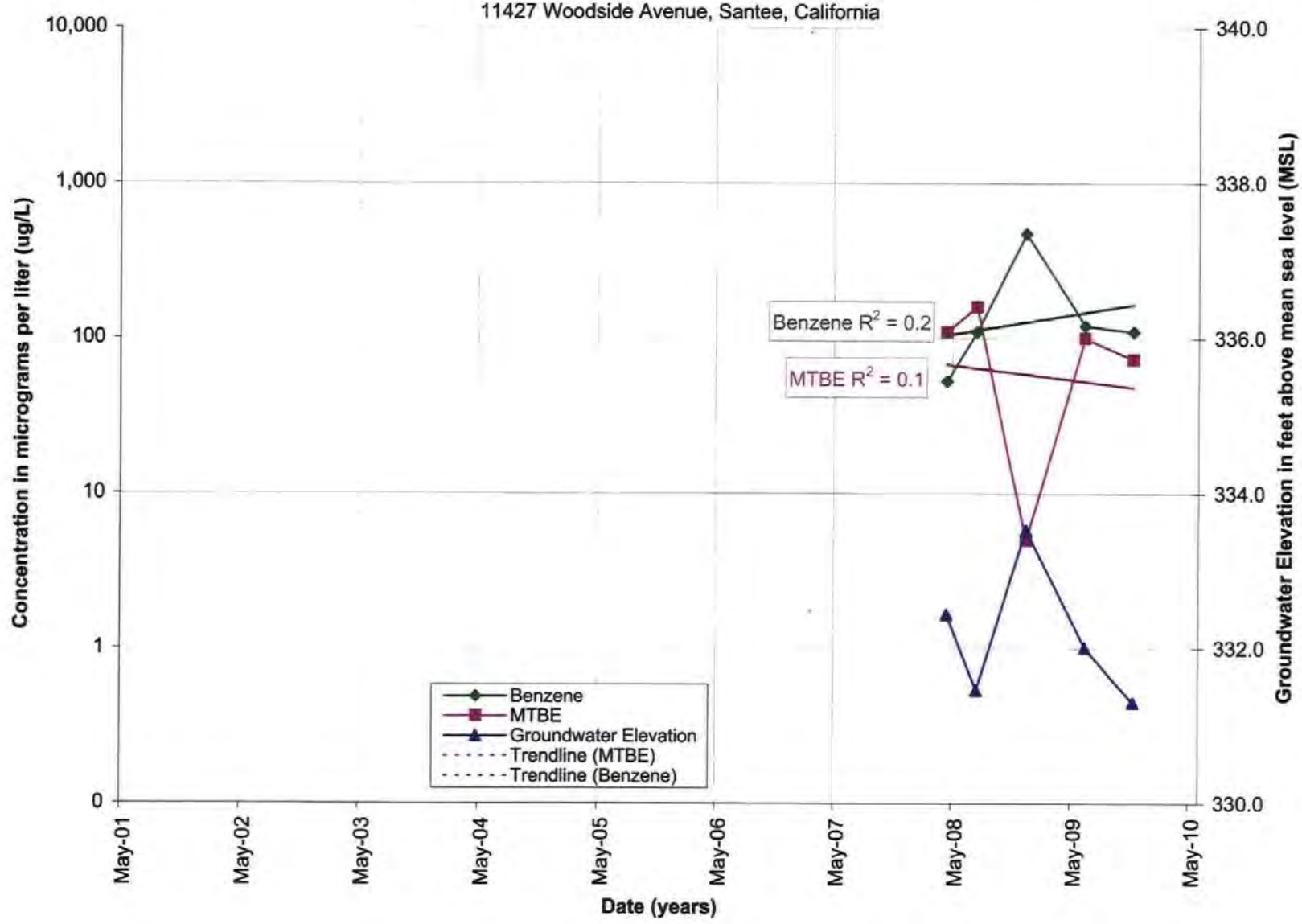
SCS ENGINEERS

MW-15
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



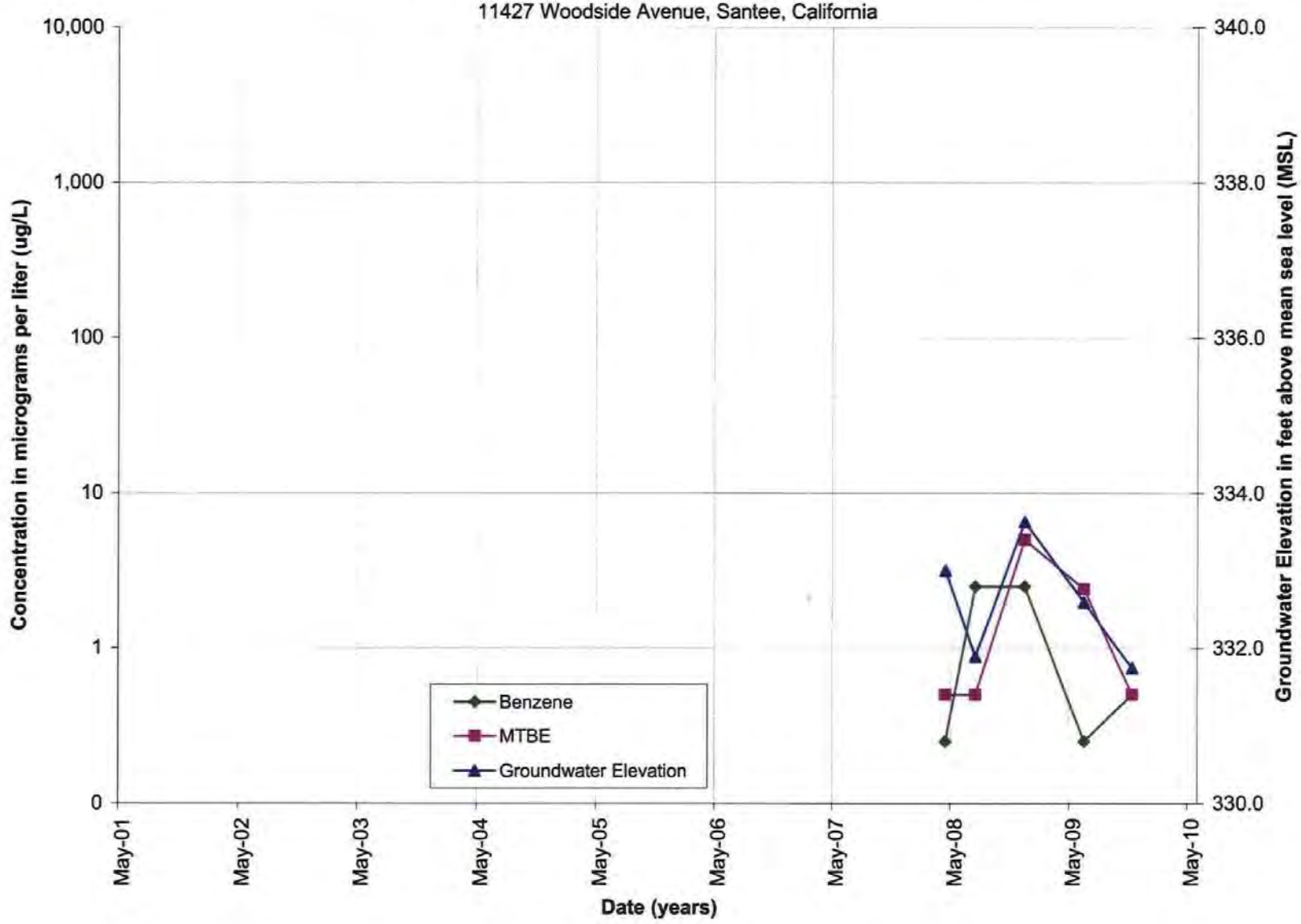
SCS ENGINEERS

MW-16
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



SCS ENGINEERS

MW-17
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



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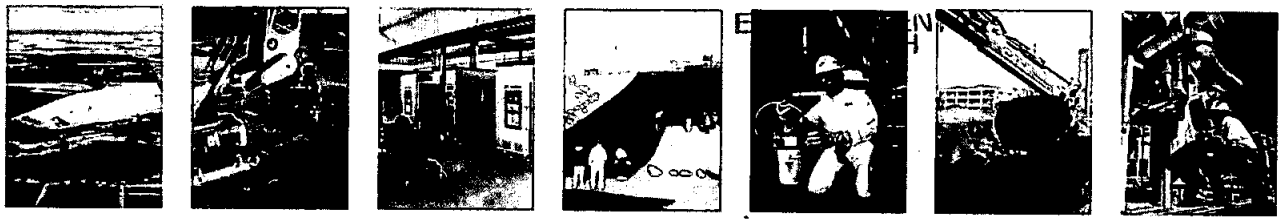


WORKPLAN FOR FOCUSED HIGH-VACUUM, DUAL-PHASE EXTRACTION (HVDPE) PILOT TEST

11427 Woodside Avenue

Santee, California

Presented to:

Ms. Ellen Beacon
County of San Diego
Department of Environment Health
P.O. Box 129261
San Diego, California 92112-9261

Presented by:

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123
(858) 571-5500

February 19, 2010
Project Number: 01208473.00

February 19, 2010
File No. 01208473.00

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Subject: Workplan for Focused High-Vacuum, Dual-Phase Extraction (HVDPE) Pilot Test
DEH File Number: H19469-001

Site: Wigington Petroleum
11427 Woodside Avenue
Santee, California

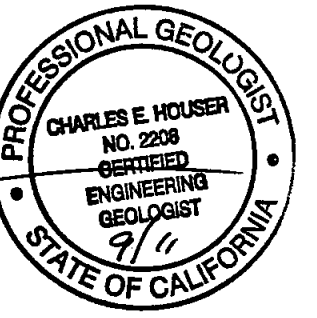
Dear Ms. Beacon:

SCS Engineers (SCS) is pleased to present this Workplan to conduct a focused high-vacuum, dual-phase extraction pilot test at the above referenced Site. This Workplan will be conducted pursuant to the requirements of the County of San Diego Department of Environmental Health (DEH), Site Assessment and Mitigation Program (SAM). This Workplan was prepared in accordance with the guidelines set forth by the DEH and Exhibit 00 to the Contract between SCS and Wigington Petroleum, Inc. (Client), fully executed on March 30, 2009.

Should you have any questions regarding this Workplan, please do not hesitate to call the undersigned at (858) 571-5500.

Sincerely,

Chris Crosby
Associate Professional
SCS ENGINEERS



Charles E. Houser, CEG 2206
Senior Project Professional
SCS ENGINEERS
2/19/10

Chuck Pryatel, MBA, REHS
Vice President
SCS ENGINEERS

cc: Ms. Linda Wigington c/o William Fischbeck, Esq.
State UST Cleanup Fund (with reimbursement request)

Enclosures
F:\Projects\208\451-530\01208473.00 (Wigington Petroleum, Inc.)\701 (El Cap Oil)\Workplan\01208473.00.Focused HVDPE Workplan.doc

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Appendix

DEH Correspondence

1 BACKGROUND

The Site is located at 11427 Woodside Avenue in the City of Santee, San Diego County, California (Figure 1). The Site is a triangular-shaped parcel (Figure 2) and is currently occupied by a gasoline service station. Between 1987 and 1998 thirteen underground storage tanks (USTs) were reported to be removed from the Site. Analysis of samples collected during the UST removal indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) directed that corrective measures be taken regarding the release.

A summary of the previous environmental assessments conducted at the Site follows:

- EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the Site between 1988 and 2005. A total of eighteen borings and eight groundwater monitoring wells (MW-1 through MW-8) were drilled and sampled by EnecoTech.

- In 1988, EnecoTech reported that four USTs were removed from the Site. A site assessment was performed immediately following the tank removal activities where eleven soil borings were drilled and sampled and four of the borings were completed as groundwater monitoring wells.

- On August 19, 1993, the HMMD issued a Notice of Violation to El Capitan Oil Co. requiring corrective action relative to the release. The SAM Program reportedly assumed oversight responsibility of the UST assessment and mitigation in mid-1993.

- EnecoTech reported single walled product piping was removed from the site in October 1997.

- In April 1998, nine USTs were reportedly removed from the Site where samples collected by EnecoTech indicated a release of petroleum hydrocarbons.

- On March 14, 2000, EnecoTech produced a workplan titled *Work Plan for Environmental Services*, which proposed the installation of two additional groundwater monitoring wells. The SAM Program reportedly directed that four groundwater monitoring wells be installed in a letter dated, May 8, 2000. EnecoTech installed two groundwater monitoring wells (MW-6 and MW-7) on February 26, 2001 and one groundwater monitoring well (MW-8) on April 19, 2002. An existing twelve inch diameter concrete water production well, inside the building, was labeled MW-5 and sampled during the monitoring events in March 1998 and April 2002. Based on the results of EnecoTech's site assessment activities, groundwater beneath the Site was impacted by petroleum hydrocarbons from the release.

- On March 25, 2005, EnecoTech submitted a workplan for additional site assessment, which proposed the installation of nine additional groundwater monitoring wells both on and offsite.

- In 2006, Petra Geotechnical Inc. (Petra) was retained to conduct the site assessment work.

- On October 25, 2007, Petra observed phase-separated hydrocarbons (PSH) in monitoring wells MW-2, MW-3, and MW-4. Petra submitted a workplan titled *Workplan for High Vacuum Dual Phase Extraction Pilot Test and Interim Remediation*, to the SAM Program, dated December 24, 2007. The SAM Program approved the workplan in a letter dated, January 16, 2008.

- Petra conducted a 33-day high-vacuum, dual-phase extraction (HVDPE) pilot test between January 22, 2008 and February 24, 2008. Approximately 3,256.17 pounds of petroleum hydrocarbons were removed and treated during the pilot test. During the pilot test, nine new monitoring wells (MW-9 through MW-17) were installed. In April 2008, monitoring wells MW-1 through MW-4 and MW-6 through MW-17 were sampled during the 2Q2008 sampling event.

- On July 25, 2008, Petra submitted a *Workplan for Well Maintenance and Well Destruction* to the SAM Program to destroy well MW-5 and reconstruct the well heads for several monitoring wells. The SAM Program approved this workplan in a letter dated September 4, 2008. Monitoring well MW-5 was subsequently destroyed.

- In 2009, SCS Engineers was retained to conduct further groundwater monitoring and site assessment beginning with the 2Q2009 groundwater monitoring event.

- On July 13, 2009, a letter was issued from the SAM Program to reduce the frequency of groundwater monitoring from quarterly to semi-annually during the second and fourth quarters.

- During conversations between SCS and the SAM Program in early 2009, the SAM Program questioned the appropriateness of HVDPE as a remedial alternative for the Site, based on the pilot test report submitted by Petra. In those conversations, SCS suggested that additional data, specifically regarding the radius of influence, might be obtained to demonstrate the feasibility of HVDPE at the Site. In a phone conversation with Ms. Teresa Sherman of the SAM Program in June 2009, the SAM Program agreed that a workplan for a focused HVDPE pilot test was appropriate and, in an e-mail dated October 26, 2009, asked that a workplan be submitted (Included in Appendix).

This Workplan is being submitted for a high-vacuum, dual-phase extraction (HVDPE) pilot test to assess the approximate radius of influence, which was not determined in the previous pilot test conducted by Petra.

2 SITE DESCRIPTION SUMMARY

Site Name:	Wigington Petroleum
Site Owner:	Linda Wigington
Site Address:	11427 Woodside Avenue, Santee, California
DEH Case Number:	H19469-001
Cleanup Fund Claim Number:	912
Global ID:	T0607303173

3 OBJECTIVE

The objective of the proposed scope of services is to evaluate the radius of influence of HVDPE relative to shallow vapor flow and groundwater drawdown, and to further evaluate potential effectiveness of HVDPE as an alternative for remediation of phase-separated hydrocarbons (PSH) and contaminated groundwater at the Site.

4 SCOPE OF SERVICES

This workplan outlines the scope of work to perform a HVDPE pilot test at the site. The proposed pilot testing consists of pre-fieldwork activities (permitting, preparation of a health and safety plan, and necessary subcontractor scheduling and management), installation of three groundwater and observation wells, and conducting an approximately 5-day HVDPE pilot test. Following is a detailed description of the proposed activities.

PREPARATION FOR FIELDWORK

Permitting

CalClean has already obtained a various locations permit from the San Diego Air Pollution Control District. CalClean will notify the County of San Diego Air Pollution Control District (APCD) of the startup date at the Site. Prior to conducting the first HVDPE pilot test in 2008, CalClean obtained a groundwater discharge permit from the City of Santee for discharge of the extracted and treated groundwater to the municipal sewer. Prior to continuing pilot test activities, CalClean will contact the City of Santee (City) to confirm that the permit is still valid and to schedule any inspections that might be required by the City.

As part of the proposed pilot test, three observation wells to be used to monitor subsurface vacuum and fluctuations in groundwater levels will be installed at the Site. Prior to conducting field work, a monitoring well permit application will be completed and submitted for the completion of the three wells with the required fee to the DEH for approval. The permit application will reflect monitoring well design and construction methods. The permit application will be signed by the appropriately licensed professional and submitted to the DEH.

Site Health and Safety Plan

A health and safety plan for work conducted at the Site and workers within the exclusion zone is required pursuant to the regulations found in 29 Code of Federal Regulations (CFR) Part 1910.120 and California Code of Regulations (CCR), Title 8, Section 5192. Therefore, the existing health and safety plan will be revised for the proposed work scope, and will outline the potential chemical and physical hazards that may be encountered during drilling and sampling activities and HVDPE pilot test activities. The appropriate personal protective equipment and emergency response procedures for the anticipated site-specific chemical and physical hazards will be detailed in this plan. SCS and contracted personnel involved with the proposed field work will be required to read and sign this document in order to encourage proper health and safety practices.

Utility Search and Markout

SCS will notify Underground Service Alert (USA), as required by state law, and retain a private utility locating service prior to commencement of field operations. This procedure is designed to minimize the likelihood of drilling into a subsurface utility.

Project Management, Subcontractor Management, Scheduling

Prior to mobilizing for field work, SCS will notify the DEH, and schedule the subcontractors including, but not limited to, the laboratory, the drilling company, the utility location company. This task also includes time to coordinate and manage subcontractors, such as the analytical laboratory and the drilling company, to secure the necessary specialized equipment, and to prepare for field mobilization.

GROUNDWATER MONITORING WELL DRILLING, INSTALLATION, AND SAMPLING

To further assess the extent of petroleum hydrocarbon impacts at the Site, and to provide a well network to allow an adequate evaluation of the radius of influence with respect to subsurface vapor flow under vacuum, SCS will attempt to advance three borings on the Site and convert them to groundwater and vacuum monitoring/observation wells. Figure 3 depicts the proposed well locations. Two monitoring/observation wells will be installed 15 feet (OW-1) and 35 feet (OW-2) to the west-southwest of well MW-3. A third monitoring/observation well will be installed half the distance between OW-2 and existing well MW-1.

A truck-mounted drilling rig equipped with hollow stem augers will be used to advance the borings. We anticipate the borings will be advanced to a depth of approximately 40 feet below grade. Soil samples will be collected, when possible, every 5 feet and at significant lithologic changes if readily identified. The borings will be converted into monitoring wells. Based on the previous subsurface assessment performed at the Site, groundwater is estimated to occur at approximately 30 feet bgs at the Site. Please note that many variables influence groundwater depth and actual depth at the Site may be different from the estimate presented herein.

The location of the proposed borings/wells is presented in Figure 3, and the description of the borings and rationale is presented in the table below.

Boring	Proposed boring location	Proposed soil sample depths	Analytical Methods	Rationale
OW-1	Approximately 15 feet west of MW-3	5, 10, 15, 20, 25, 30, 35, 40 feet below ground surface	Total petroleum hydrocarbons as gasoline (TPHg) and as diesel fuel (TPHd) by Modified EPA Method 8015B; BTEX, MTBE, and oxygenates by EPA Method 8260B on highest TPHg detection, or on soil sample nearest field-interpreted water table if TPHg not detected in soil samples.	To observe the radius of influence and effectiveness of HVDPE as a remediation technique.
OW-2	Approximately 35 feet west of MW-3			
OW-3	Half the distance between OW-2 and MW-1. Approximately 50 feet from both wells and 85 feet west of MW-3.			

A California Professional Geologist, or a qualified professional under the direct supervision of a Professional Geologist, will be on the Site to observe the drilling activity and describe collected soil samples in accordance with the Unified Soil Classification System.

As required by San Diego County guidelines, a steam cleaner will be on-site to steam clean the augers before drilling and between soil borings to minimize the likelihood of cross-contaminating the borings and to minimize the potential for a false positive in the soil samples analyzed. The soil samples from each boring will be collected, when possible, with a split-spoon or similar type sampler. The split-spoon sampler will be cleaned between samples with a soap and water wash followed by a tap water rinse and final rinse with deionized water.

Up to eight samples for analysis will be collected from each soil boring. Soil samples will be driven into brass or stainless steel tubes. The ends of the sample tubes will be covered with Teflon™ sheeting, and tightly closed with end caps. The sample containers will be labeled and packed in ice-filled coolers for delivery to a laboratory for analysis. Chain-of-custody procedures will be implemented for sample tracking. A written analytical report will be provided by the laboratory upon completion of the sample testing. Soil cuttings will be placed in Department of Transportation (DOT)-rated 55-gallon drums, which will be labeled and left on-Site pending receipt of analytical results and evaluation of disposal options.

Soil Sample Analysis

A state-accredited laboratory will be used to analyze the collected samples. We estimate that as many as 24 soil samples will be analyzed for TPHg and TPHd in accordance with Modified EPA Method 8015B. The sample with the highest reported TPHg concentration from each boring or the sample collected nearest the field interpreted water table will also be analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), and tertiary

butyl alcohol (TBA) (DIPE, TAME, ETBE, and TBA collectively referred to as oxygenates) in accordance with EPA Method 8260B.

Well Construction

The wells will be constructed with 2-inch-diameter polyvinyl chloride (PVC) casing, with the screened interval consisting of a 20-foot length of 0.020-inch slotted casing that extends approximately 10 feet below and 10 feet above the field-interpreted water table. Blank casing will be used to complete the casing interval. An appropriately graded sand filter pack will be installed to extend at least 2 feet above the screened interval. A minimum 3 foot hydrated bentonite seal will be placed above the sand filter pack, and the annular space above the seal will be backfilled with an appropriate grout. The upper 3 feet will be filled with concrete and the wells will be completed with traffic-rated, flush mounted well vaults and concrete in accordance with DEH guidelines.

The wells will be surged and developed in accordance with DEH guidelines to remove fines from the well casing and grade the filter pack. After surging, the wells will be purged until water quality parameters (pH, temperature, conductivity) have stabilized within an acceptable range. Development water will be placed in DOT 55-gallon drums, which will be labeled and left on-Site pending receipt of analytical results and evaluation of disposal options.

Groundwater Monitoring and Sampling

At least 72 hours after development of the new wells, all Site wells will be purged and sampled in accordance with DEH guidelines. The wells will be monitored for depth to groundwater and for the presence of PSH. Wells with measurable PSH will not be sampled. Collected groundwater samples will be decanted into laboratory-supplied vials, labeled, and submitted to a State-accredited laboratory for analysis. Chain-of-custody procedures will be implemented for sample tracking. Samples will be analyzed for TPHg and TPHd in accordance with Modified EPA Method 8015B, and for BTEX, MTBE, and oxygenates in accordance with EPA Method 8260B. A written analytical report will be provided by the laboratory upon completion of the sample testing.

Monitoring Well Survey

The new groundwater monitoring wells at the Site will be surveyed for latitude, longitude, and elevation by a licensed land surveyor. The latitude and longitude will be measured to sub-meter accuracy using an approved datum with GPS equipment. The well elevation will be measured to a hundredth of a foot. This information is required to be collected for submittal to the State of California GeoTracker database.

DISPOSAL OF SOIL CUTTINGS, PURGE WATER AND DECON WATER

Soil cuttings, rinsate water generated during well construction, and purged groundwater generated during well development and sampling will be placed in DOT 55-gallon drums, labeled, and stored on-Site pending evaluation of disposal and recycling options.

HVDPE PILOT TEST

The HVDPE pilot test procedure involves removing air at high vacuum from monitoring/extraction wells to evaluate contaminant removal rates and to determine the distribution of airflow (i.e., radius of influence) within the contaminated zone. The following activities will be conducted to complete the HVDPE pilot test:

- A mobile HVDPE extraction treatment system will perform the HVDPE pilot test on well MW-3 (Figure 3). Previous pilot testing (Petra, 2008) provided data allowing a conclusion that HVDPE was effective at removing petroleum hydrocarbons from the subsurface, based on the calculated removal rates and total hydrocarbon mass removed (approximately 3,256 pounds) removed during 33 days of HVDPE conducted at the site. Further extraction on well MW-3 will allow further evaluation of the radius of influence, mass removal rate, and maximum removal rates, as well as constraints on the system's ability to treat the extracted water for disposal.

- The three monitoring/observation wells to be installed as outlined above will be used to monitor vacuum and groundwater drawdown during the focused pilot test. The approximate locations of these proposed wells are depicted on Figure 3.

- Influent vapor concentrations will be monitored by a Horiba organic vapor analyzer (OVA), located on the mobile system, and calibrated as hexane.

- Influent vapor samples will be collected during the test and submitted to a laboratory for analysis. Sampling frequency and analysis to be performed are outlined below.

- The Horiba and laboratory data will be used to calculate rates of hydrocarbon removal and total mass of hydrocarbons removed.

- During the pilot test, data will be collected to evaluate the effectiveness of HVDPE for removing free product from groundwater and volatile organic compounds (VOC) adsorbed to saturated and unsaturated zone soil, and to obtain the following specific design information:

    1. Radius of influence relative to shallow vapor flow due to the induced vacuum during HVDPE system operation;

    2. Airflow required to effectively influence the target areas at the site; and

3. Hydrocarbon destruction rates obtained during operation of the HVDPE system.

If the technology is shown to be effective at the Site, the data obtained from the pilot test will be used to evaluate HVDPE as an appropriate remedial option for the site. To implement the HVDPE pilot test, the following tasks will be conducted:

The test will be conducted in two phases. The first phase will be a step test where the vacuums will be incrementally increased as outlined below. The second phase will be a constant rate test performed on the extraction well for up to four consecutive days. Observation wells, including the three wells proposed in this workplan for installation, will be monitored for vacuum.

The HVDPE system will be coupled to a thermal oxidizer used to treat extracted soil vapor in accordance with permit conditions established by the San Diego APCD. The treatment system (thermal oxidizer) will be monitored to evaluate achievable hydrocarbon destruction rates relative to extraction rates. This will be accomplished to provide an evaluation of the system's ability to effectively treat the effluent at achievable extraction rates.

Prior to starting the step test and constant rate test, water level measurements will be recorded in all on-Site wells (MW-1, MW-2, MW-4, MW-6, MW-7, MW-9, and MW-10) and one off-Site well (MW-17). Stinger placement will be recorded on field notes. Following is a detailed description of the step test and constant rate test to be conducted.

Step Test

The step test will begin at relatively low vacuum (inlet vacuum at approximately 3-inches Hg) and will incrementally be increased to vacuums of approximately 6-inches Hg, approximately 15-inches Hg, and the maximum available vacuum. This test will initially be performed at extraction well MW-3. The step test will be run for a maximum of four hours per step or until vacuum flow conditions stabilize. Vacuum measurements will be made at least every 15 minutes during the step test at wells OW-1, OW-2, OW-3, MW-1, MW-2, MW-4, MW-10, and MW-17. The frequency of measurements will be reduced as readings are observed to stabilize. The results from this test will be used to identify the optimal vacuum level of the system for the constant rate test (the second phase). During the step test, the downhole stinger depth will remain constant.

Once the step test is completed and prior to starting the constant rate test, the HVDPE system extraction will be turned off and groundwater levels and formational vacuums allowed to recover. SCS anticipates that formation vacuum will recover almost instantaneously once the system vacuum is turned off. Once groundwater has recovered to static or near static (within approximately 10 to 20 percent of static) conditions, the pilot study will continue on a full-time basis for the remainder of the 5-day period.

Constant Rate Test

The constant rate test will be performed on well MW-3 initially, however the number of wells used for extraction may be increased. Wells that might be added as extraction wells include MW-1, MW-2, and MW-4. It is likely that some or all of these additional wells listed would be added to the extraction program if 1) PSH is detected in any of these wells or 2) adequate

vacuum (greater than 0.1 inch water) is observed early in the constant rate test and additional extraction wells would augment the evaluation of radius of influence.

Measurements, including vacuum, drawdown, and flow rate, will be recorded every 30 minutes for the first 4 hours or until conditions stabilize and every 4 hours thereafter. Well-head vacuum measurements will be recorded at wells OW-1, OW-2, OW-3, MW-4, MW-10, and MW-17 and may be recorded at other nearby wells at a frequency as outlined above.

Sample Collection

Soil vapor samples collected during the HVDPE pilot test will be collected in laboratory supplied Tedlar™ bags. Soil vapor samples will be labeled with the sample ID and location, date and time, and name of sampler. The samples will be stored at ambient temperature in a cooler that protects the samples from direct sunlight. The samples will be shipped to a State-certified analytical laboratory under chain-of-custody documentation within two days of collection and analyzed on a standard turn-around-time (TAT). All vapor samples will be analyzed for TPHg by EPA Method 8015B. Start and end samples will be analyzed for BTEX, MTBE, and oxygenates by EPA Method 8260B. All other samples will be analyzed for BTEX and MTBE by EPA Method 8021. ? why Vapor samples will be collected at the beginning of the pilot test, at the end of each step during the step test, and at least daily during the constant rate test.

In addition to the analyses outlined above, samples collected at the end of each step, and at the middle and end of the constant rate test, will be analyzed for fixed gases to evaluate the potential of short circuiting.

Extracted Groundwater Management

Extracted groundwater will be treated in at least two granular activated carbon canisters in series. The extracted and treated water will be discharged to the sanitary sewer under a City of Santee groundwater discharge permit, or transported, under manifest, to an appropriate disposal/recycling facility. If treated water is discharged to the sanitary sewer, a sample will be collected at the start, mid-point, and end of the constant rate test. The samples will be analyzed by EPA Method 8015B for TPHg and TPHd and EPA Method 8260B for BTEX, MTBE, and oxygenates.

DATA ANALYSIS AND REPORT PREPARATION

Field data collected during the HVDPE pilot test will include applied vacuum, airflow rates, and influent contaminant concentrations. The tabulated data collected during the pilot test will be used to generate the following plots/diagrams:

- Soil vapor cumulative removal rate versus time;
- Influent vapor concentrations versus time;
- System flow diagram and description of system used for the pilot test; and
- Applied vacuum and flow rate data versus time.

Following completion of the pilot test and data analysis, a pilot test report will be prepared. The report will document the pilot testing activities and provide an evaluation of the test data and an assessment of the radius of influence with respect to subsurface vapor flow under the varying system vacuums applied during the pilot test. We anticipate that information obtained from this and previous pilot test activities will be used for comparison of the technical and cost feasibility of HVDPE compared to other remediation alternatives for presentation in a corrective action plan (CAP) for the site.

ELECTRONIC DELIVERY FORMAT (EDF) REPORTING

Pursuant to State law, an electronic delivery format (EDF) report with the soil and groundwater sample analytical results and a PDF copy of the report will be submitted to the State of California GeoTracker database.

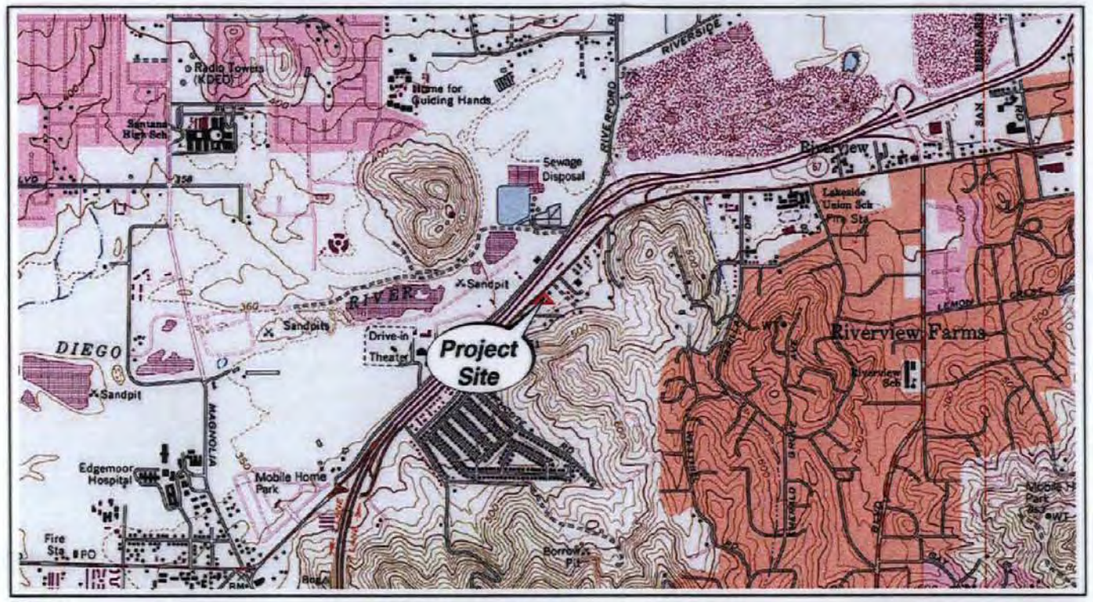
5 SCHEDULE OF ACTIVITIES

The existing groundwater disposal permit will be verified and, if necessary, updated once written approval of this workplan has been provided from the SAM Program. Well installation permits will be obtained prior to installation. In addition, the proposed observation wells will be installed prior to HVDPE activities. The pilot test report will be prepared and submitted after completion of the pilot test. SCS anticipates that permitting and drilling of the proposed monitoring/observation wells, and implementation of the HVDPE pilot test will take approximately 6 weeks to complete. The pilot test report would be submitted within approximately 8 weeks of completion of the field work.

FIGURES

North (Not to scale)

REGIONAL SITE LOCATION



North

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

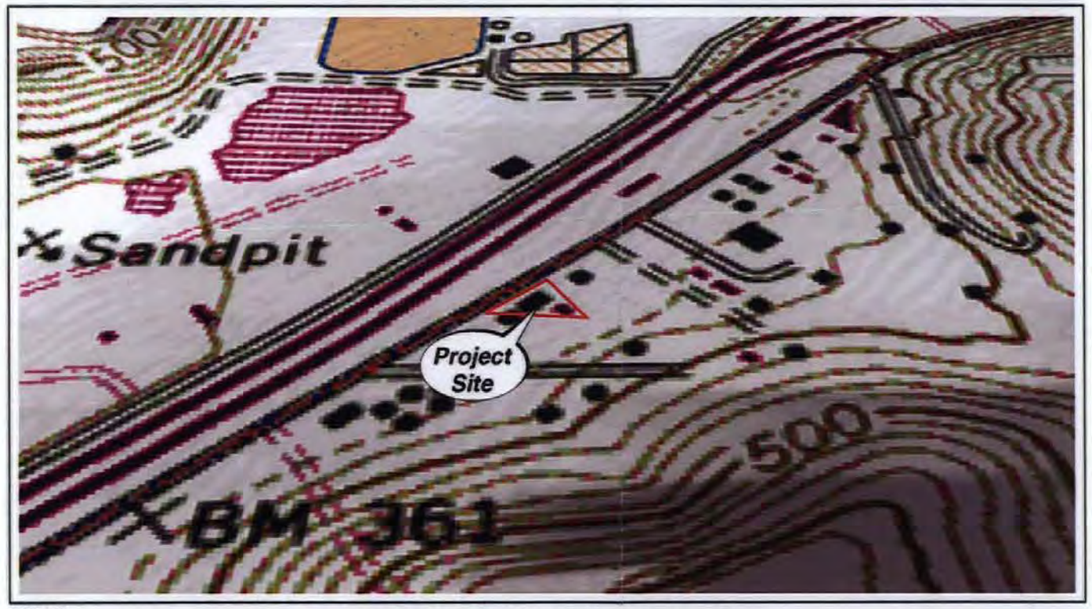
2-DIMENSIONAL SITE LOCATION

0 1,000 2,000 3,000
Approximate Graphic Scale in Feet

North (Not to scale)

Reference:
Google Earth Aerial Photograph
Santee, California - February 2008

SITE AERIAL PHOTOGRAPH



North (Not to scale)

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

3-DIMENSIONAL SITE LOCATION

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

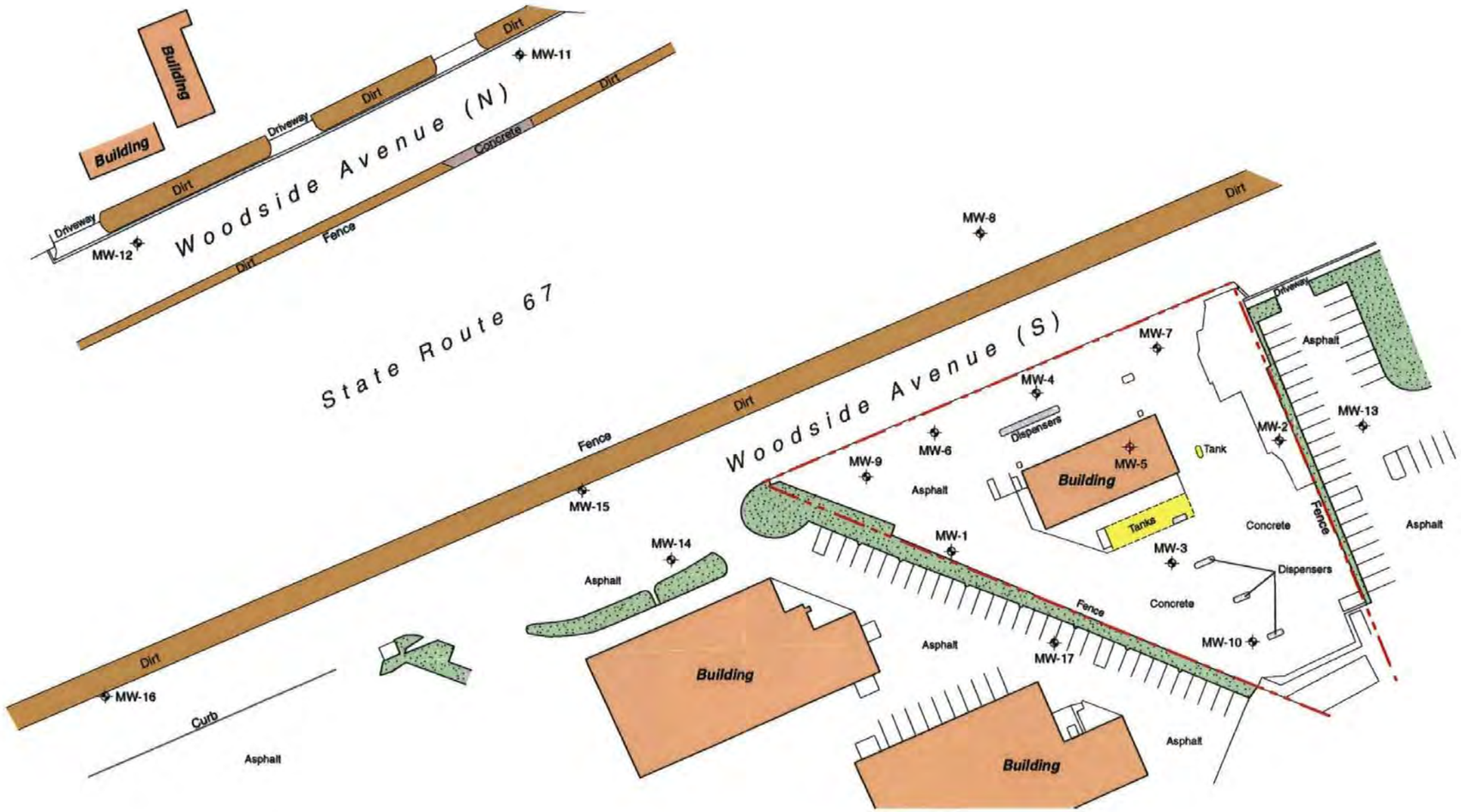
SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

4-WAY SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 1

Date Drafted: 11/4/09



EXPLANATION

MW-16 — Groundwater monitoring well location

MW-5 — Well destroyed

Approximate Site boundary

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

0 40 80 120

Approximate Graphic Scale: One Inch Equals 80 Feet

North

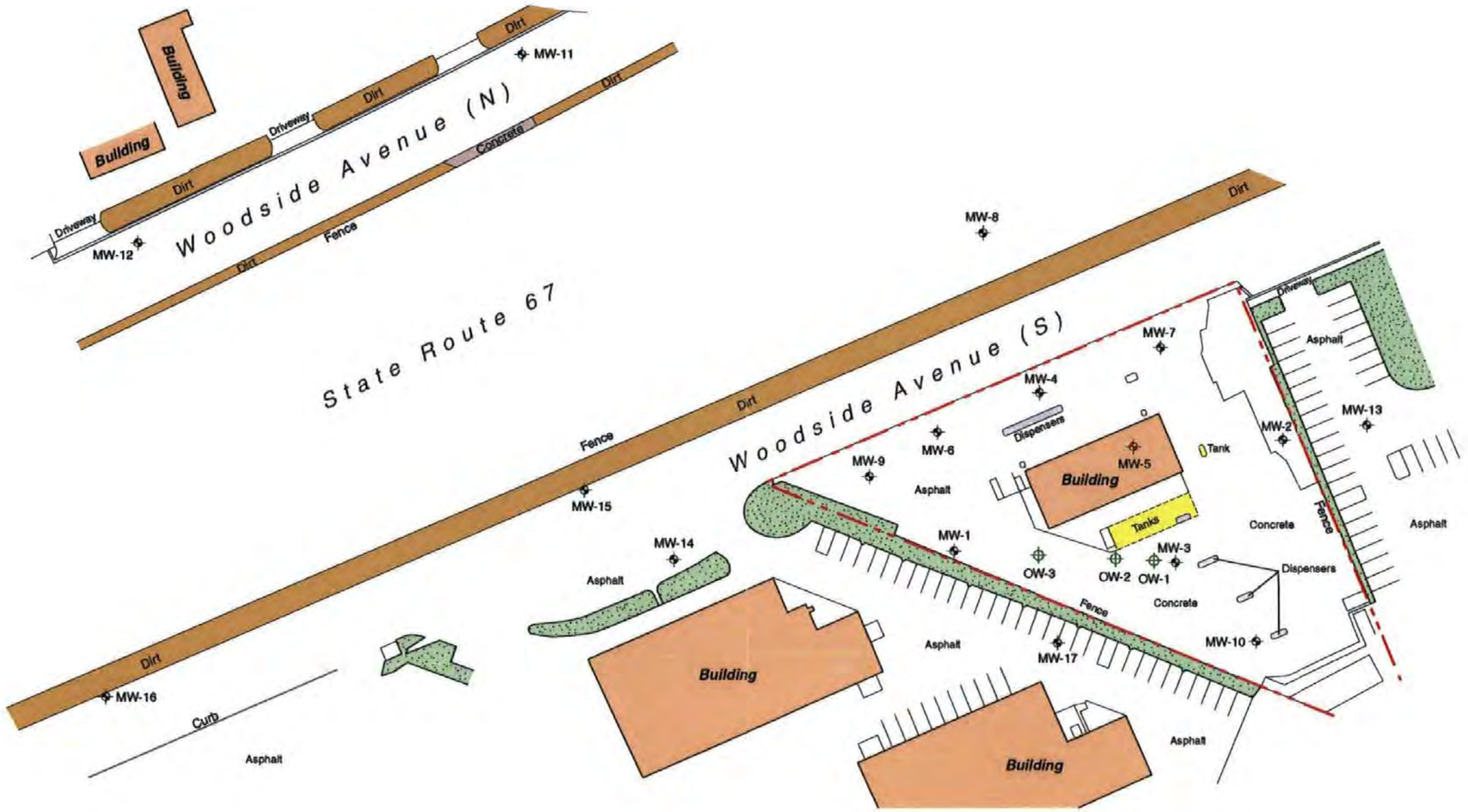
SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 2

Date Drafted: 2/19/10



EXPLANATION

- MW-16 — Groundwater monitoring well location
- MW-5 — Well destroyed
- Approximate Site boundary
- OW-1 — Proposed observation well location

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

0 40 80 120
Approximate Graphic Scale:
One Inch Equals 80 Feet

North

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

SITE PLAN WITH PROPOSED DOWN GRADIENT OBSERVATION WELLS
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 3

Date Drafted: 2/19/10

DEH CORRESPONDENCE

Houser, Chuck

From: Sherman, Teresa [Teresa.Sherman@sdcounty.ca.gov]
Sent: Monday, October 26, 2009 11:40 AM
To: Houser, Chuck
Cc: Crosby, Christopher; wlf@lamesalaw.com; asnyder@znet.net
Subject: RE: Wigington - Santee

Hi Chuck,
Yes, our previous approval for the preparation and submittal of a workplan for a focused high vacuum dual phase extraction (HVDPE) pilot test at the Wigington Petroleum site is still valid.

Also, additional assessment is required to fully delineate the groundwater plume (offsite). Tony Sawyer and I have discussed the need for additional downgradient wells. If the last monitoring report is not finalized, I would appreciate it if you would include specific recommendations for additional assessment.

Please call if you have any questions.

Regards,
Teresa

Teresa Sherman
Environmental Health Specialist
County of San Diego, Department of Environmental Health
Site Assessment and Mitigation Group
(619) 338-2258

Mail Stop D-561

From: Houser, Chuck [mailto:CHouser@scsengineers.com]
Sent: Monday, October 26, 2009 11:23 AM
To: Sherman, Teresa
Cc: Crosby, Christopher; wlf@lamesalaw.com; asnyder@znet.net
Subject: Wigington - Santee

Hi Teresa,

As we discussed, please confirm that we have your approval to prepare and submit the focused high vacuum dual phase extraction workplan for the Site. We anticipate submitting that workplan by the end of November and would, with your approval, be prepared to implement it by early 2010. Thanks.

Chuck Houser
SCS Engineers

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not up

SCS ENGINEERS

Additional Site Assessment and Semi-Annual Groundwater Monitoring Report 2Q2011

11427 Woodside Avenue

Santee, California

(DEH CASE #H19469-001)

Presented to:

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Presented by:

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123
(858) 571-5500

August 18, 2011
Project Number: 01208473.00

August 18, 2011
Project No. 01208473.00

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Subject: Additional Site Assessment and Semi-Annual Groundwater Monitoring Event Conducted During April 2011 (2Q2011)

DEH File Number: H19469-001

Site: 11427 Woodside Avenue
Santee, California

Dear Ms. Beacon:

SCS Engineers (SCS) is pleased to present this report (Report) of the additional Site assessment and groundwater monitoring and sampling activities (Assessment) at the above-referenced Site (Figures 1 and 2). This Assessment was conducted in accordance with the guidelines set forth by the County of San Diego Department of Environmental Health (DEH), Site Assessment and Mitigation Program (SAM), the *Site Assessment Workplan*, dated April 26, 2010, approved by the DEH in a letter dated May 19, 2010 (Appendix A), and Scope of Service Change 1 (SSC 1) to Exhibit 00 to the Contract between SCS and Wigington Petroleum, Inc. (Client), fully executed on March 30, 2009.

Should you have any questions regarding this Report, please do not hesitate to call the undersigned at (858) 571-5500.

Sincerely,

Cor Chris Crosby
Staff Professional
SCS ENGINEERS

Charles E. Houser, CHg 945, CEG 2206
Senior Project Professional
SCS ENGINEERS

PROFESSIONAL GEOLOGIST
CHARLES E. HOUSER
NO. 2206
CERTIFIED
ENGINEERING
GEOLOGIST
9/11
STATE OF CALIFORNIA

Chuck Pryatel, MBA, REHS
Vice President
SCS ENGINEERS

cc: Ms. Linda Wigington, c/o William Fischbeck, Esq.

State UST Cleanup Fund via upload to State Geotracker website

Enclosures
CC
F:\Projects\208\451-530\01208473.00 (Wigington Petroleum, Inc.)\701 (El Cap Oil)\Site Assessment/01208473.00 Site Assessment Report.doc

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1 BACKGROUND

The Site is located at 11427 Woodside Avenue in the City of Santee, San Diego County, California (Site, Figure 1). The Site is currently occupied by a commercial fuel and oil facility (Figure 2). Between 1987 and 1998, 13 underground storage tanks (USTs) were reportedly removed from the Site. Analysis of soil samples collected during the UST removals indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Department of Environmental health (DEH), Hazardous Materials Management Division (HMMD) directed that corrective measures be taken regarding the release. For reference, Figures 3 and 4 depict soil sample analytical results obtained during the various phases of assessment, including the current assessment, conducted at the Site. Soil sample analytical results are summarized in Tables 1 and 2.

A summary of the previous environmental assessments conducted at the Site follows:

- EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the Site between 1988 and 2005. A total of 18 borings and 7 groundwater monitoring wells (MW-1 through MW-4 and MW-6 through MW-8) were drilled and sampled by EnecoTech. An existing 12-inch diameter concrete water production well inside the Site building was labeled MW-5 and was also sampled during the monitoring events in March 1998 and April 2002.

- In 1988, EnecoTech reported that four USTs were removed from the Site. A Site assessment was performed immediately following the tank removal activities, during which 11 soil borings were drilled and sampled and 4 of the borings were completed as groundwater monitoring wells (MW-1 through MW-4).

- On August 19, 1993, the HMMD issued a Notice of Violation to El Capitan Oil Co. requiring corrective action relative to the release. The DEH Site Assessment and Mitigation Program (SAM) reportedly assumed oversight responsibility of the UST assessment and mitigation in mid-1993.

- EnecoTech reported that single-walled product piping was removed from the Site in October 1997.

- In April 1998, samples collected by EnecoTech from the areas where nine USTs were reportedly removed from the Site indicated a release of petroleum hydrocarbons.

- On March 14, 2000, EnecoTech produced a workplan titled, *Work Plan for Environmental Services*, which proposed the installation of two additional groundwater monitoring wells. SAM reportedly directed that four groundwater monitoring wells be installed in a letter dated, May 8, 2000. EnecoTech installed two groundwater monitoring wells (MW-6 and MW-7) on February 26, 2001, and one groundwater monitoring well (MW-8) on April 19, 2002.

- Based on the results of EnecoTech's Site assessment activities, groundwater beneath the Site was interpreted to have been impacted by petroleum hydrocarbons from on-Site releases.

- On March 25, 2005, EnecoTech submitted a workplan for additional Site assessment, which proposed the installation of nine additional groundwater monitoring wells both on and off Site.

- In 2006, Petra Geotechnical Inc. (Petra) was retained to conduct the Site assessment work. The SAM Program approved EnecoTech's workplan in a letter, dated October 10, 2007. Petra proposed one well be installed in addition to the nine wells proposed by EnecoTech. The SAM Program agreed that an additional well was needed and requested a revised workplan. Petra submitted an addendum to the revised workplan, dated December 21, 2007, to include the installation of a tenth groundwater monitoring well. The SAM Program approved the revised workplan in a letter, dated January 15, 2008.

- On October 25, 2007, Petra assessed that phase-separated hydrocarbons (PSH) were present in monitoring wells MW-2, MW-3, and MW-4. Petra submitted a workplan titled, *Workplan for High Vacuum Dual Phase Extraction Pilot Test and Interim Remediation*, to the SAM Program, dated December 24, 2007. The SAM Program approved the workplan in a letter dated, January 16, 2008.

- Petra conducted a 33-day high-vacuum, dual-phase extraction (HVDPE) pilot test between January 22 and February 24, 2008. Approximately 3,256.17 pounds of petroleum hydrocarbons were removed and treated during the pilot test. During the pilot test, nine new monitoring wells (MW-9 through MW-17) were installed. The locations of these wells (MW-9 through MW-17) and previous wells (MW-1 through MW-8) are depicted on Figure 2. In April 2008, monitoring wells MW-1 through MW-4 and MW-6 through MW-17 were sampled.

- On July 25, 2008, Petra submitted a *Workplan for Well Maintenance and Well Destruction* to SAM to destroy well MW-5 and reconstruct the well heads for several monitoring wells. SAM approved this workplan in a letter, dated September 4, 2008.

- On July 13, 2009, SAM issued a letter that called for the reduction of the frequency of groundwater monitoring from quarterly to semi-annually, occurring during the second and fourth quarters.

- In 2009, SCS Engineers (SCS) was retained to conduct further groundwater monitoring and Site assessment beginning with the second quarter 2009 (2Q2009) groundwater monitoring event. SCS performed groundwater monitoring and sampling at the Site on June 2009 (2Q2009), November 2009 (4Q2009), April 2010 (2Q2010), and December 2010 (4Q2010).

- On February 19, 2010, SCS submitted a focused HVDPE pilot test workplan. SAM responded in a letter, dated March 16, 2010, stating prior to conducting remedial testing,

an on-site health risk assessment and delineation of the groundwater contamination should be completed.

- On April 26, 2010, SCS submitted a *Workplan for a Soil Vapor Survey and Health Risk Assessment* to SAM. SAM approved this workplan in a letter dated, May 18, 2010. Additionally, on April 26, 2010, SCS submitted a *Site Assessment Workplan* to SAM to install two additional groundwater monitoring wells (MW-18 and MW-19) in order to delineate the downgradient (westerly) and southernly extent of dissolved petroleum hydrocarbons in groundwater from the release at the Site. SAM approved this workplan in a letter dated, May 19, 2010 (Appendix A).

- On April 28, 2011, SCS submitted a report titled, *Soil Vapor Survey and Health Risk Assessment* to SAM describing the installation and sampling of five nested soil vapor probes (SV1 through SV5) near the Site building in March and April 2011. SAM concurred with SCS's conclusions in a letter, dated May 9, 2011, that there is a low likelihood that a significant health risk exists in connection with the concentrations of petroleum hydrocarbons in soil vapor beneath the onsite building.

The current Report describes the Assessment activities and the semi-annual groundwater monitoring event conducted during April 2011 (2Q2011).

2 SITE DESCRIPTION SUMMARY

Site Name:	Wigington Petroleum
Site Owner:	Wigington Petroleum, Inc.
Site Address:	11427 Woodside Avenue, Santee, California
DEH Case Number:	H19469-001
Cleanup Fund Claim Number:	912
Global ID:	T0607303173

3 OBJECTIVES

The objectives of the scope of services described in this Report were to:

- Assess the presence and extent of petroleum hydrocarbons and associated volatile organic compounds (VOCs) in soil and dissolved in groundwater at the Site.

- Assess the possible presence of PSH in groundwater at the Site.

- Assess the groundwater elevation and the hydraulic gradient at the Site.

4 SCOPE OF SERVICES

PREPARATION FOR FIELDWORK

Traffic Control Plan and Encroachment Permit

Proposed well MW-18 was located along the shoulder within the right-of-way of Woodside Avenue in the City of Santee (City). Installation of this well required a traffic-control plan and encroachment permit from the City. A traffic-control plan was prepared and submitted to the City, along with an encroachment permit application and the associated fees. On January 31, 2011, the City issued permit number N2010-131.

Monitoring Well Permit

A monitoring well permit application for the completion of two groundwater monitoring wells was completed and reflected boring backfill methods and monitoring well design and construction methods. The permit application was signed by the appropriately licensed professional and submitted to the DEH with the required fee for approval. On March 11, 2011, the DEH issued permit number LMON107686 (Appendix B). Prior to mobilizing for field work, on March 23, 2011, SCS notified the DEH of the proposed drilling date.

Site Health and Safety Plan

A health and safety plan for work conducted at the Site and workers within the exclusion zone is required pursuant to the regulations found in 29 Code of Federal Regulations (CFR) Part 1910.120 and California Code of Regulations (CCR), Title 8, Section 5192. The existing health and safety plan was revised for the proposed work scope and outlined the potential chemical and physical hazards that may be encountered during drilling and sampling activities. The appropriate personal protective equipment and emergency response procedures for the anticipated Site-specific chemical and physical hazards were detailed in this plan. SCS and contracted personnel involved with the proposed field work were required to read and sign this document in order to encourage proper health and safety practices.

Utility Search and Markout

SCS notified Underground Service Alert (USA), as required by state law, and retained a private utility-locating service prior to commencement of field operations. This procedure was designed to minimize the likelihood of drilling into a subsurface utility. USA issued ticket number A10750756 on March 16, 2011. USA notified AT&T, County of San Diego Department of Public Works, Cox Communication, Helix Water District, Level 3 Communications, Padre Dam, San Diego Gas & Electric, City of San Diego Water, and the City of Santee.

GROUNDWATER MONITORING WELL DRILLING, INSTALLATION, AND SAMPLING

On March 23, 2011, SCS advanced two borings in the Site vicinity to further assess the extent of petroleum hydrocarbon impacts at the Site.

A truck-mounted drilling rig equipped with hollow-stem augers was used to advance the borings. The borings were drilled to depths of approximately 40 feet below ground surface (bgs). Soil samples were collected at approximately 5-foot intervals for logging purposes, but only samples from approximately 25, 30, 35, and 40 feet were analyzed. Both borings were converted into monitoring wells following the collection of soil samples. Based on the previous subsurface assessment performed at the Site, groundwater was estimated to occur at approximately 30 feet bgs at the Site.

The approximate locations of the wells are presented on Figure 2, and the following table presents the rationale for the soil boring locations and depths:

Well Number	Depth of Boring (in feet bgs)	Location	Rationale
MW-18	40	West-southwest of Site	To assess petroleum hydrocarbon-bearing soil and groundwater downgradient to the southwest.
MW-19	40	West-southwest of Site	To assess petroleum hydrocarbon-bearing soil and groundwater downgradient to the south-southwest.

Notes: bgs = below ground surface

A California Professional Geologist, or a qualified professional under the direct supervision of a Professional Geologist, was on the Site to observe the drilling activity and describe collected soil samples in accordance with the Unified Soil Classification System. Copies of the boring logs are included in Appendix C.

As required by San Diego County guidelines, a steam cleaner was on-Site to steam clean the augers before drilling and between the advancement of soil borings to minimize the likelihood of cross-contaminating the borings and to minimize the potential for a false positive in the soil samples analyzed. The soil samples from each boring were collected with a split-spoon sampler. The split-spoon sampler was cleaned between samples with a water-Alconox™ solution wash, followed by a tap water rinse and a final rinse with deionized water.

Four samples were collected from each soil boring for analysis. Soil samples were driven into brass or stainless steel tubes. The ends of the sample tubes were covered with Teflon™ sheeting and tightly closed with end caps. The sample containers were labeled and delivered directly to a state-accredited laboratory. Chain-of-custody procedures were implemented for sample tracking. Soil cuttings were placed in Department of Transportation (DOT)-rated 55-gallon drums, labeled, and left on-Site pending receipt of analytical results and evaluation of disposal options.

Soil Sample Analysis

H&P Mobile Geochemistry, a state-accredited laboratory, analyzed the collected samples. A total of eight soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and as diesel (TPHd) in accordance with California Department of Health Services, Leaking Underground Fuel Tank (CA DHS LUFT) method. The sample from each boring collected nearest the field-interpreted water table or with the highest reported TPHg concentration was also analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA) (MTBE, DIPE, TAME, ETBE, and TBA collectively referred to as fuel oxygenates) in accordance with Environmental Protection Agency (EPA) Method 8260B.

Well Construction

The wells were constructed with 2-inch-diameter polyvinyl chloride (PVC) casing, with the screened interval extending approximately 10 feet below and 5 feet above the field-interpreted water table. An appropriately graded sand filter pack was installed to extend at least 2 feet above the screened interval. A minimum 3-foot hydrated bentonite seal was placed above the sand filter pack, and the annular space above the seal was backfilled with an appropriate grout. The upper 3 feet was filled with concrete, and the wells were finished with traffic-rated, flush-mounted well vaults and concrete in accordance with DEH guidelines. Well construction details are included in Appendix D.

The wells were surged and developed in accordance with DEH guidelines to remove fines from the well casing and grade the filter pack around the screened interval of the well.

FIELD ACTIVITIES—GROUNDWATER SAMPLING AND ANALYSIS

Groundwater Monitoring and Sampling

On April 4, 2011, all 18 Site groundwater monitoring wells were monitored for depth to groundwater and for the presence of PSH. None of the Site wells had measurable PSH during this event. Depth-to-groundwater measurements were taken using an interface probe with a manufacturer's reported accuracy of 0.01 foot and are presented in Table 3.

On April 4, 5, and 6, 2011, groundwater monitoring wells MW-1 through MW-4, and MW-6 through MW-19 were purged and sampled in accordance with SAM guidelines. It is SCS's understanding that well MW-5 was destroyed by Petra. For fast-recovering wells (i.e. those recovering at least 80 percent within two hours), temperature, conductivity, and pH measurements (collectively referred to as purging parameters) were measured after the removal of the first borehole volume and each one-half borehole volume thereafter. Purging continued until at least one and one-half borehole volumes had been removed and purging parameters had stabilized to within 10 percent of the previous reading. Slow-recovering wells (i.e. those recovering less than 80 percent in two hours) were purged of one-borehole volume. Purge water was placed in appropriate 55-gallon drums, labeled, and stored on Site pending disposal.

After purging was completed, the wells were allowed to recover. The fast-recovering wells (MW-1, MW-3, MW-4, MW-6 through MW-12, and MW-14 through MW-17) were sampled after at least 80 percent recovery. The slow-recovering wells (MW-2 and MW-13) were sampled at least two hours after purging was complete. Groundwater samples were collected from each well with a single-use, disposable bailer and decanted into laboratory-supplied vials. The groundwater sample containers were labeled and placed in an ice-filled cooler pending delivery to the laboratory. Chain-of-custody procedures were implemented for sample tracking. Copies of groundwater monitoring/sampling data sheets are included in Appendix E.

Groundwater Sample Analysis

Groundwater samples were analyzed by H&P Mobile Geochemistry, a state-accredited environmental testing laboratory, in Carlsbad, California, for the following:

- TPHg and TPHd in general accordance with the CA DHS LUFT Method.
- BTEX and fuel oxygenates in general accordance with EPA Method 8260B.

Disposal of Drummed Purged Groundwater and Rinsate Water

SCS submitted the necessary documentation to Soclaris Contracting (Soclaris) for the disposal of the drummed rinsate water and purged groundwater. On April 25, 2011, the drums were transported to the Crosby and Overton Plant #1 facility in Long Beach, California, for treatment and recycling. A copy of the Non-Hazardous Waste Manifest is included in Appendix F.

PSH Monitoring

PSH monitoring was conducted on Site in wells MW-1 through MW-4 from September 4, 2009 to April 20, 2010 approximately two times per month. PSH has been measured by SCS in monitoring wells MW-2 (up to approximately 0.03 feet on September 4, 2009) and MW-3 (up to approximately 0.31 feet on November 30, 2009) (Table 4). PSH was not measured in any Site well between March 5, 2010 and April 20, 2010. As a result, PSH monitoring was discontinued except during semi-annual sampling events.

5 FINDINGS

GEOLOGY

Regional Geology

The Site is located in the Peninsular Ranges Geomorphic Province of Southern California. This province is typified by northwest- to southeast-trending mountain ranges approximately parallel to the San Andreas Fault and related regional fault systems. The Peninsular Ranges are generally characterized by granitic rocks of the Southern California batholith and associated metamorphic rocks. Sedimentary rocks ranging in age from Cretaceous to Pleistocene form the San Diego embayment and coastal terraces west of the batholith.

Based on SCS's review of previous Site assessments, materials encountered at the Site generally included fill soil, alluvium, residual soil, and weathered granitic rock. Following is a brief description of these units.

Site Geology

Fill Soil
This unit was encountered in wells MW-13, MW-15, and MW-16 and was interpreted by Petra to be derived from the local alluvial soils. This unit generally consisted of loose, brown to olive-brown to dark yellowish-brown, dry to moist, fine- to very coarse-grained sand with some gravel and asphalt fragments.

Alluvium
This unit generally consisted of brown to olive-brown, moist to wet, interbedded silty to clayey, fine- to very coarse-grained sand, with some gravel. This unit was interpreted to extend from the surface to depths ranging from approximately 10 feet (well MW-10) to 51.5 feet below ground surface (bgs) (well MW-13).

Residual Soil
This unit generally consisted of earth material derived from in-situ weathering of granitic bedrock, and consisted of dark brown to dark reddish-brown, moist, fine- to medium-grained clayey sand with some coarse-grained sand and gravel. This unit was encountered in MW-10 and MW-17 at approximately 10 to 30 feet bgs and 20 to 45 feet bgs, respectively.

Weathered Granitic Rock
This unit generally consisted of dark yellowish-brown to dark olive-brown, hard to very hard, weathered crystalline granitic rock. This unit was encountered in MW-10 and MW-17 at approximately 30 feet bgs and 45 feet bgs, respectively.

HYDROGEOLOGY

Based on review of a document titled, *Water Quality Control Plan, San Diego Basin - Region 9*, prepared by the San Diego Regional Water Quality Control Board (RWQCB), dated September 1994, the Site is interpreted to be located within the Santee Hydrologic Sub Area (7.12) of the Lower San Diego Hydrologic Area (7.10) of the San Diego Hydrologic Unit (7.00). According to the RWQCB, the groundwater in this hydrologic unit has been classified as having existing beneficial uses for municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply purposes.

Groundwater Conditions

Groundwater elevations were calculated based on the surveyed top-of-well casing elevations and the measured depth to groundwater obtained from 16 Site wells (Table 3). Groundwater was encountered at depths ranging from approximately 27.74 (MW-4) to 33.40 (MW-17) feet below top-of-well casings. The groundwater flow direction was interpreted to be generally toward the northwest to west-southwest, with a gradient ranging from approximately 0.0008 to 0.03. The interpreted groundwater contours and flow directions are depicted on Figure 5.

LABORATORY ANALYTICAL RESULTS

Soil Samples

Soil analytical results for TPH and VOCs from the current and previous Site assessments are summarized in Tables 1 and 2 and on Figure 3. Copies of the laboratory analytical reports from the current assessment are included in Appendix G. Concentrations of TPH and VOCs from the current assessment were reported as follows:

TPH

Two of the four soil samples collected from boring MW-19 was reported to contain detectable concentrations[1] of TPHg and TPHd. TPHg was reported at concentrations of 82 and 1,100 milligrams per kilogram (mg/kg) in soil samples MW-19-30.5 and MW-19-35, respectively. TPHd was reported at concentrations of 46 and 210 mg/kg in soil samples MW-19-30.5 and MW-19-35, respectively. No detectable concentrations of TPHg and TPHd were reported in the remainder of the soil samples analyzed. wet

BTEX

One of the two soil samples chosen for additional analysis were reported to contain detectable concentrations of constituents of concern (CoCs) above the laboratory reporting limit. Soil sample MW-19-35 was reported to contain concentrations of benzene, toluene, ethylbenzene, and total xylenes at concentrations of 280, 4,000, 21,000, and 96,000 micrograms per kilogram (µg/kg), respectively. No detectable concentrations of BTEX were reported for MW-18-28.5.

Fuel Oxygenates

Detectable concentrations of MTBE, DIPE, TAME, ETBE, and TBA were not reported in either of the soil samples analyzed during the current sampling event. Note that the laboratory reporting limit for sample MW-19-35 was elevated due to sample dilution.

Groundwater Samples

Groundwater analytical results for TPH and VOCs from the quarterly sampling event are summarized in Table 5 and on Figure 6. Based on laboratory analytical results from the groundwater sampling event, wells MW-2, MW-4, MW-6, MW-9, MW-11, MW-14 MW-15, MW-16, MW-18, and MW-19 had detectable concentrations of TPH. Concentrations of TPH and VOCs were reported as follows.

[1] For the purposes of this Report, "detectable concentrations" means concentrations above the laboratory reporting limits for the analytical method used.

TPH

TPHg was reported at detectable concentrations in wells MW-6, MW-9, MW-14, MW-15, MW-18, and MW-19. The reported TPHg concentrations ranged from 530 micrograms per liter (µg/L) in MW-18 to 55,000 µg/L in MW-19. No detectable concentrations of TPHg were reported in the remainder of samples analyzed.

TPHd was reported at detectable concentrations in wells MW-2, MW-4, MW-6, MW-9, MW-11, MW-14, MW-15, MW-16, and MW-19. The reported TPHd concentrations ranged from 500 µg/L in MW-9 to 8,400 µg/L in MW-15. No detectable concentrations of TPHd were reported in the remainder of samples analyzed.

BTEX

Benzene was reported at detectable concentrations in wells MW-1, MW-4, MW-6, MW-7, MW-9, MW-11, MW-14 through MW-16, MW-18, and MW-19. The reported benzene concentrations ranged from 0.5 µg/L in MW-18 to 2,400 µg/L in MW-14. No detectable concentrations of benzene were reported in the remainder of the groundwater samples analyzed. Iso-concentration contours for benzene are depicted on Figure 7.

Toluene was reported at detectable concentrations in wells MW-1, MW-4, MW-6, MW-9, MW-11, MW-14 through MW-16, and MW-19. The reported toluene concentrations ranged from 0.7 µg/L in MW-11 and MW-16 to 2,600 µg/L in MW-19. No detectable concentrations of toluene were reported in the remainder of the groundwater samples analyzed.

Ethylbenzene was reported at detectable concentrations in wells MW-1, MW-4, MW-6 through MW-9, MW-11, MW-13 through MW-16, MW-18, and MW-19. The reported ethylbenzene concentrations ranged from 0.5 µg/L in MW-18 to 4,100 µg/L in MW-19. No detectable concentrations of ethylbenzene were reported in the remainder of the groundwater samples analyzed.

Xylenes were reported at detectable concentrations in wells MW-1, MW-4, MW-6, MW-7, MW-9, MW-14, MW-15, and MW-19. The reported xylenes concentrations ranged from 2.8 µg/L in MW-7 to 17,200 µg/L in MW-19. No detectable concentrations of xylenes were reported in the remainder of the groundwater samples analyzed.

Fuel Oxygenates

MTBE was reported at detectable concentrations in wells MW-1 through MW-4, MW-6, MW-9, MW-11, MW-12, MW-14, MW-16, and MW-17. The reported MTBE concentrations ranged from 1.7 µg/L in MW-11 to 770 µg/L in MW-14. No detectable concentrations of MTBE were reported in the remainder of the groundwater samples analyzed. Iso-concentration contours for MTBE are depicted on Figure 8.

TBA was reported at detectable concentrations in wells MW-1, MW-2, and MW-3 at 40, 490, and 9.5 µg/L, respectively. No detectable concentrations of TBA were reported in the remainder of the groundwater samples analyzed.

Detectable concentrations of ETBE, TAME, and DIPE were not reported in any Site well during the current sampling event.

Copies of the laboratory analytical reports are included in Appendix G.

Hydrographs

Hydrographs depicting groundwater elevations and concentrations of dissolved-phase benzene and MTBE in groundwater versus time for wells MW-1, MW-4, and MW-6 through MW-17 are included in Appendix H and discussed in the table on the following page. Hydrographs for MW-2 and MW-3 were not included due to the historical presence of PSH. Linear regression trendlines of the benzene and MTBE concentrations are depicted on each hydrograph as appropriate with the calculated R-squared (R^2) value.

The R^2 value indicates the *goodness-of-fit* of the trendline to the data set. In general, an R^2 value between 0.7 and 1.0 would be a *good* fit, between 0.4 and 0.7 a *moderate* fit, and below 0.4 would be a *poor* fit. Over time, significant data gaps are present, limiting the ability to calculate representative data trends from several wells. Two significant data gaps occur between samplings events May 1988 and March 1998 and between April 2002 and October 2007. For illustration purposes, samples with no detectable concentration of benzene or MTBE were plotted at one-half of the laboratory reporting limit. Please note that the laboratory reporting limits have changed for benzene and MTBE over time; therefore, some wells may show detectable concentrations that are below previous laboratory reporting limits.

Well	Benzene Trendline	MTBE Trendline	Correlation with GW Elevation	Benzene/MTBE Above MCL	Comment
MW-1	Increasing R^2=0.1	Decreasing R^2=0.1	No	Yes	Benzene and MTBE within historical range.
MW-2	NA	NA	NA	NA	PSH historically present
MW-3	NA	NA	NA	NA	PSH historically present
MW-4	Increasing R^2=0.1	Decreasing R^2=0.1	Yes (1998-2002), Inverse (2008-present)	Yes	Benzene and MTBE within historical range. MTBE near historical low.
MW-5	Abandoned by Petra				
MW-6	Decreasing R^2=0.1	Decreasing R^2=0.1	No	Yes	Highest benzene concentration since April 2002. MTBE within historical range. Benzene and MTBE generally increasing since 2007/2008.
MW-7	Decreasing R^2=0.5	Decreasing R^2=0.8	NA	No	Below MCLs since Oct. 2007.
MW-8	Decreasing R^2=0.8	Decreasing R^2=0.8	NA	No	Below laboratory reporting limit since Oct. 2007.
MW-9	Decreasing R^2=0.5	Decreasing R^2=0.2	Benzene – Yes MTBE – No	Yes	Within historical range for benzene and MTBE.
MW-10	NA	Slightly Decreasing R^2=0.1	Inverse	No	ND for benzene since installation. MTBE below MCL since installation.
MW-11	Slightly Decreasing R^2=0.0	Slightly Increasing R^2=0.2	No	Yes/No	Benzene within historical range. MTBE below MCL since installation.
MW-12	Increasing R^2=0.6	Decreasing R^2=0.7	MTBE - Slight	No	Benzene below laboratory reporting limit. MTBE below MCL since Nov. 2009.
MW-13	NA	NA	NA	No	Below MCLs since installation in April 2008.
MW-14	Decreasing R^2=0.7	Slightly Increasing R^2=0.3	Weak	Yes	Benzene within historical range. Historical high for MTBE.
MW-15	Decreasing R^2=0.3	NA*	No	Benzene – Yes MTBE – <100	Benzene within historical range. MTBE below laboratory reporting limits.
MW-16	Decreasing R^2=0.5	Decreasing R^2=0.2	No	Yes	Benzene and MTBE within historical range.
MW-17	NA	Increasing R^2=0.3	MTBE - Yes	No	Benzene and MTBE below MCLs since sampling began.

Notes:

MCL's = Maximum contaminant levels, California Code of Regulations, Section 64444.5, dated September 29, 2009. Benzene = 1 ug/L; MTBE = 13 ug/L.

GW = Groundwater

NA = Not applicable either due to values below laboratory reporting limits or due to the presence of PSH

ND = Not detected above laboratory reporting limit

MTBE = Methyl tertiary butyl ether

ug/L = Micrograms per liter

* = MTBE trendline not calculated for MW-15 due to increased laboratory reporting limit

6 DISCUSSION

PETROLEUM HYDROCARBONS IN SOIL

Interpreted Lateral Extent of Petroleum Hydrocarbons in Soil

Based on the analytical results from this assessment and previous assessments, TPH was present in soil samples collected at or near the water table at the Site and off-Site to the west and south. This suggests migration of petroleum hydrocarbons along the water table away from the source area (former UST location). The interpreted lateral extent of TPH-bearing soil is depicted on Figures 3 and 4.

The lateral extent of petroleum hydrocarbon-bearing soil is assessed to the east by MW-10, northeast by MW-13, northwest by MW-11 and MW-12, west by MW-15, and southwest by MW-16 and MW-18. Based on the results of this assessment, the horizontal extent of petroleum hydrocarbon-bearing soil has not been delineated to the south of the Site.

Interpreted Vertical Extent of Petroleum Hydrocarbon-Bearing Soil

Based on the analytical results from this assessment and previous assessments, SCS judges that the vertical extent of petroleum hydrocarbon-bearing soil has generally been assessed and is generally limited to soil in the upper five to ten feet below the water table in the area of the release, and near the water table downgradient from the Site (Figure 4). One exception is in the vicinity of well MW-6 where petroleum hydrocarbon-bearing soil extends at least 15 feet below the water table.

The vertical extent of petroleum hydrocarbon-bearing soil at the Site and Site vicinity is assessed by soil samples collected below the water table at depths of 40 to 45 feet below grade. With the exception of MW-6, soil samples collected from these depths were reported not to have detectable concentrations of TPH. Because petroleum hydrocarbons are less dense than water, migration of hydrocarbons vertically downward in the source area (former USTs) and laterally along the water table would be expected. Analytical data collected as part of this assessment is consistent with that model. Therefore, it appears that petroleum hydrocarbons have not migrated significantly below the water table. The interpreted vertical extent of petroleum hydrocarbon-bearing soil is depicted on Figure 4.

INTERPRETED EXTENT OF PETROLEUM HYDROCARBONS IN GROUNDWATER

Analytical results from the April 2011 sampling event were compared to those obtained during previous monitoring events conducted at the Site beginning in May 1988. Groundwater sample analytical results are summarized in Table 5 and Figure 6. Hydrographs for wells MW-1, MW-4, and MW-6 through MW-17 are included in Appendix H. The following is a summary of trends on-Site since the last semi-annual monitoring and sampling event. Please note that the discussion of recent trends in groundwater elevations and conditions may apply to more than just the interval between the fourth quarter 2010 monitoring event and this second quarter 2011 event.

- PSH was not detected in any Site well during this event. Historically MW-1 through MW-4 have had detections of PSH at least once.

- Reported TPHg concentrations during this event were below laboratory reporting limits in wells MW-1 through MW-4, MW-7, MW-8, MW-10 through MW-13, MW-16, and MW-17, and within historical ranges for each well with detectable TPHg.

- Reported TPHd concentrations during this event were below laboratory reporting limits in wells MW-1, MW-3, MW-7, MW-8, MW-10, MW-12, MW-13, MW-17, and MW-18, and within historical ranges for each well with detectable TPHd. The reported detectable TPHd concentrations during this event were flagged by the laboratory stating, "results in the diesel organics range are primarily due to overlap from a gasoline-range product."

- Since the last sampling event in December 2010, reported benzene concentrations during this event have decreased in wells MW-4, MW-11, and MW-12. They remain stable at or below the laboratory reporting limit in wells MW-8, MW-10, MW-13, and MW-17. The reported benzene concentrations have increased in wells MW-1, MW-6, MW-7, MW-9, and MW-14 through MW-16 since the last sampling event. Wells MW-1, MW-4, and MW-12 show overall increasing benzene concentration trends.

- Since the last sampling in December 2010, reported MTBE concentrations during this event have decreased in wells MW-4, MW-10, MW-12, and MW-17. They remain stable at or below the detection limit in wells MW-7, MW-8, MW-13, and MW-15. The reported MTBE concentrations during this event have increased in wells MW-1, MW-6, MW-9, MW-11, MW-14, and MW-16 since the last sampling event. Wells MW-11, MW-14, and MW-17 show overall increasing MTBE concentration trends.

The interpreted extent of dissolved benzene and MTBE in groundwater, based on the quarterly sampling conducted during April 2011, is depicted on Figure 7 and 8, respectively.

7 CONCLUSIONS

Based on the data collected during this Assessment, including but not limited to laboratory results, field observations and data evaluation by a professional geologist, and current regulatory guidelines, the following conclusions are made:

- Phase-separated hydrocarbons (PSH) were not observed in any Site wells during the second quarter 2011 sampling event.
- The lateral extent of petroleum hydrocarbon-bearing soil has been delineated to the west, north, and east at the Site, but not to the south of well MW-19.
- The vertical extent of petroleum hydrocarbon-bearing soil has been delineated at the Site.
- On April 4, 2011, depth to groundwater was observed to be between 27.74 (MW-4) to 33.40 (MW-17) feet below top-of-well casings. The groundwater flow direction was interpreted to be generally toward the northwest to west-southwest, with a gradient ranging from approximately 0.0008 to 0.03 ft/ft
- The extent of dissolved benzene and MTBE concentrations in groundwater has generally been delineated to the north, east, west, and southwest. Delineation is not complete to the south of MW-19.

8 RECOMMENDATIONS

Based on SCS's assessment of the Site, the following recommendations are made:

- Install one additional groundwater monitoring well south-southeast of MW-19 to further delineate the lateral extent of petroleum hydrocarbon-bearing soil and groundwater.
- Continue semi-annual monitoring and sampling to evaluate the TPH and VOC trends in the monitoring wells at the Site.
- Prepare a corrective action plan (CAP) for the Site.

On February 19, 2010, SCS submitted a workplan for a focused HVDPE pilot test. The workplan included installation of two observation wells near MW-3. SCS recommends implementation of the focused pilot test workplan, including installation of the two observation wells. Results of the focused pilot will support selection of an appropriate remedial alternative during preparation of the CAP, and installation of the two proposed observation wells at the time the proposed monitoring well is installed south of MW-19 will be more time and cost efficient than if these two scopes of work are performed separately.

9 REPORT USAGE AND FUTURE SITE CONDITIONS

This Report is intended for the sole usage of the Client and the parties designated by SCS. Use of this Report is subject to the provisions of the fully executed Contract between the Client and SCS. Any third party usage of this Report shall be subject to the provisions of the Contract, and any unauthorized misuse of or reliance upon the Report shall be without risk or liability to SCS.

The conclusions of this Report are judged to be relevant at the time the work described in this Report was conducted. Future conditions may differ and this Report should not be relied upon to represent future Site conditions unless a qualified consultant familiar with the practice of Phase II environmental assessments in San Diego County is consulted to assess the necessity of updating this Report.

Although this Assessment has attempted to assess the likelihood that the Site has been impacted by a hazardous material/waste release, potential sources of impact may have escaped detection for reasons that include, but are not limited to: 1) inadequate or inaccurate information rightfully provided to SCS by third parties, such as public agencies and other outside sources; 2) the limited scope of this Assessment; and 3) the presence of undetected, unknown, or unreported environmental releases.

10 LIKELIHOOD STATEMENTS

Statements of "likelihood" have been made in this report. Likelihood statements are based on professional judgments of SCS. The term "likelihood," as used herein, pertains to the probability of a match between the prediction for an event and its actual occurrence. The likelihood statement assigns a measure for a "degree of belief" for the match between the prediction for the event and the actual occurrence of the event.

The likelihood statements in this Report are made qualitatively (expressed in words). The qualitative terms can be approximately related to quantitative percentages. The term "low likelihood" is used by SCS to approximate a range of 10 to 20 percent; the term "moderate likelihood" refers to an approximate range of 40 to 60 percent; and the term "high likelihood" refers to an approximate range of 80 to 90 percent.

TABLES

Table 1 (Page 1 of 4)
Soil Sample Analytical Results
of Total Petroleum Hydrocarbons
11427 Woodside Avenue, Santee, California

Sample Number	Soil Boring	Depth (Feet below grade)	Date	TPHg (mg/kg)	TPHd (mg/kg)
B1-20	B1	20	12/3/2002	<10	<10
B1-25		25		<10	<10
B1-30		30		**240**	**140**
B1-32		32		**8,600**	**2,100**
B1-34		34		<10	<10
B1-36		36		<10	<10
B2-30	B2	30	12/3/2002	<10	<10
B2-32		32		<10	<10
B2-34		34		<10	<10
B2-40		40		<10	<10
B3-7	B3	7	12/3/2002	<10	<10
B3-10		10		<10	<10
B3-20		20		<10	<10
B3-25		25		<10	<10
B3-30		30		**1,700**	**2,800**
B3-32		32		**4,000**	**6,700**
B3-34		34		<10	<10
B4-7	B4	7	12/3/2002	<10	<10
B4-10		10		<10	<10
B4-20		20		<10	<10
B4-30		30		**1,200**	**4,500**
B4-32		32		**11,000**	**24,000**
B4-34		34		**3,900**	**12,000**
B4-36		36		**17**	**51**
B5-20	B5	20	12/4/2002	<10	<10
B5-28.5		28.5		<10	<10
B6-32	B6	32	12/4/2002	**780**	**200**
B6-33		33		**200**	**180**
B6-34		34		<10	<10
B7-32	B7	32	12/4/2002	<10	<10
B7-36		36		<10	<10
B8-25	B8	25	12/4/2002	<10	<10
B8-32		32		**3,400**	**760**
B8-34		34		<10	<10
B9-25	B9	25	12/4/2002	<10	<10
B9-31		31		**480**	**1,100**
B9-33		33		**2,600**	**4,900**
B9-35		35		<10	<10
B11-36	B11	36	12/5/2002	<10	<10
B11-40		40		<10	<10
B12-32	B12	32	12/5/2002	<10	<10
B12-34		34		**3,800**	**2,700**
B12-36		36		<10	<10
B13-30	B13	30	12/6/2002	**1,000**	**2,300**
B13-35		35		<10	<10
B14-25	B14	25	12/6/2002	**730**	**260**
B14-30		30		**390**	**1,000**

Table 1 (Page 2 of 4)
Soil Sample Analytical Results
of Total Petroleum Hydrocarbons
11427 Woodside Avenue, Santee, California

Sample Number	Soil Boring	Depth (Feet below grade)	Date	TPHg (mg/kg)	TPHd (mg/kg)
B17-7	B17	7	12/6/2002	<10	<10
B17-15		15		<10	<10
B17-25		25		**330**	**4,100**
B17-32		32		**7,800**	**13,000**
B17-34		34		<10	<10
B18-32	B18	32	12/6/2002	**320**	**1,300**
MW-1	NA	NA	NA	NA	NA
MW-2	NA	NA	NA	NA	NA
MW-3	NA	NA	NA	NA	NA
MW4-1	MW-4	1	4/30/1988	Total Extractable Hydrocarbons-14 ppm	
MW4-5		5		Total Extractable Hydrocarbons-0.5 ppm	
MW6-20'	MW-6	20	3/1/2001	**2.1**	--
MW6-25'		25		**5.8**	--
MW6-30'		30		**5,900**	--
MW6-35'		35		**410**	--
MW6-40'		40		**210**	--
MW7-25'	MW-7	25	3/7/2001	**21**	--
MW8-25	MW-8	25	4/26/2002	<1.0	--
MW8-30.5		30.5		<1.0	--
MW8-31		31		<1.0	--
MW8-31.5		31.5		<1.0	--
MW8-32.5		32.5		<1.0	--
MW8-33		33		**230**	--
MW8-34		34		**51**	--
MW8-34.5		34.5		**3,800**	--
MW8-35.5		35.5		**480**	--
MW8-36		36		<1.0	--
MW8-37		37		**470**	--
MW8-37.5		37.5		<1.0	--
MW8-38.5		38.5		**110**	--
MW8-39		39		<1.0	--
MW8-39.5		39.5		<2.5	--
MW-9-5	MW-9	5	2/4/2008	<10	<10
MW-9-10		10		<10	<10
MW-9-15		15		<10	<10
MW-9-20		20		<10	<10
MW-9-25		25		<10	<10
MW-9-30		30		**14**	<10
MW-9-35		35		<10	<10
MW-9-39		39		<10	<10
MW-10-5	MW-10	5	2/4/2008	<10	<10
MW-10-10		10		<10	<10
MW-10-15		15		<10	<10
MW-10-20		20		<10	<10
MW-10-25		25		<10	<10
MW-10-30		30		<10	<10
MW-10-35		35		<10	<10
MW-10-40		40		<10	<10
MW-10-43		43		<10	<10

Table 1 (Page 3 of 4)
Soil Sample Analytical Results
of Total Petroleum Hydrocarbons
11427 Woodside Avenue, Santee, California

Sample Number	Soil Boring	Depth (Feet below grade)	Date	TPHg (mg/kg)	TPHd (mg/kg)
MW-11-5	MW-11	5	2/8/2008	<10	<10
MW-11-10		10		<10	<10
MW-11-15		15		<10	<10
MW-11-20		20		<10	<10
MW-11-25		25		<10	<10
MW-11-30		30		<10	<10
MW-11-35		35		<10	<10
MW-11-38		38		<10	<10
MW-12-5	MW-12	5	2/8/2008	<10	<10
MW-12-10		10		<10	<10
MW-12-15		15		<10	<10
MW-12-20		20		<10	<10
MW-12-25		25		<10	<10
MW-12-30		30		<10	<10
MW-12-35		35		<10	<10
MW-12-39		39		<10	<10
MW-13-5	MW-13	5	2/18/2008	<10	<10
MW-13-10		10		<10	<10
MW-13-15		15		<10	<10
MW-13-20		20		<10	<10
MW-13-25		25		<10	<10
MW-13-30		30		<10	<10
MW-13-35		35		<10	<10
MW-13-40		40		<10	<10
MW-13-45		45		<10	<10
MW-13-50		50		<10	<10
MW-14-5	MW-14	5	2/18/2008	<10	<10
MW-14-10		10		<10	<10
MW-14-15		15		<10	<10
MW-14-20		20		<10	<10
MW-14-25		25		<10	<10
MW-14-30		30		<10	**37.2**
MW-14-35		35		<10	<10
MW-14-40		40		<10	<10
MW-15-5	MW-15	5	2/19/2008	<10	<10
MW-15-10		10		<10	<10
MW-15-15		15		<10	<10
MW-15-20		20		<10	<10
MW-15-25		25		<10	<10
MW-15-30		30		<10	<10
MW-15-35		35		<10	<10
MW-15-40		40		<10	<10
MW-16-5	MW-16	5	2/19/2008	<10	<10
MW-16-10		10		<10	<10
MW-16-15		15		<10	<10
MW-16-20		20		<10	<10
MW-16-25		25		<10	<10
MW-16-30		30		<10	<10
MW-16-35		35		<10	<10
MW-16-40		40		<10	<10

Table 1 (Page 4 of 4)
Soil Sample Analytical Results of Total Petroleum Hydrocarbons
11427 Woodside Avenue, Santee, California

Sample Number	Soil Boring	Depth (Feet below grade)	Date	TPHg (mg/kg)	TPHd (mg/kg)
MW-17-5	MW-17	5	2/19/2008	<10	<10
MW-17-10		10		<10	<10
MW-17-15		15		<10	<10
MW-17-20		20		<10	<10
MW-17-25		25		<10	<10
MW-17-30		30		<10	<10
MW-17-35		35		**378**	**1,610**
MW-17-38		38		<10	<10
MW-17-45		45		<10	<10
MW-18-25	MW-18	25	3/23/2011	<10	<10
MW-18-28.5		28.5		<10	<10
MW-18-35		35		<10	<10
MW-18-40		40		<10	<10
MW-19-25	MW-19	25	3/23/2011	<10	<10
MW-19-30.5		30.5		**82**	**46**
MW-19-35		35		**1,100**	**210**
MW-19-40		40		<10	<10

Notes:

Samples collected by SCS Engineers in March 2011.

Samples collected by Petra Geotechnical, Inc. in 2008.

Samples collected by EnecoTech, Inc. from 1988 to 2001.

Concentrations reported in milligrams per kilogram (mg/kg).

TPHg = Total petroleum hydrocarbons - gasoline range (C6 to C10), in accordance with DHS LUFT Method.

TPHd = Total petroleum hydrocarbons - diesel range (C10 to C28), in accordance with DHS LUFT Method.

< indicates the reported concentration was not above the laboratory reporting limit for the relevant analytical method.

Bold font indicates concentration above the laboratory reporting limit.

NA indicates sample was not analyzed for the relavant analyte.

NA indicates that soil sample results were not available and were likely not collected for wells MW-1 to MW-3.

Table 2 (Page 1 of 7)
Soil Sample Analytical Results of Volatile Organic Compounds
11427 Woodside Avenue, Santee, California

Sample Number	Date	Analytical Method	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	MTBE (µg/kg)	DIPE (µg/kg)	TAME (µg/kg)	ETBE (µg/kg)	TBA (µg/kg)
B1-25	12/3/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B1-30		8021	**680**	**1,600**	**2,400**	**13,000**	<1,000	--	--	--	--
B1-32		8021	**61,000**	**340,000**	**100,000**	**590,000**	**130,000**	--	--	--	--
		8260	**8,300**	**86,000**	**39,000**	**201,000**	<1,000	--	--	--	--
B1-34		8021	**660**	**2,400**	**970**	**4,900**	**720**	--	--	--	--
B1-36		8021	<50	<50	<50	<150	<100	--	--	--	--
B1-38		8021	<50	<50	<50	<150	<100	--	--	--	--
B2-30	12/3/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B2-32		8021	<50	<50	<50	<150	<100	--	--	--	--
		8260	**12**	**6.4**	<5	<10	**9.8**	--	--	--	--
B2-34		8021	<50	<50	<50	<150	<100	--	--	--	--
B2-40		8021	<50	<50	<50	<150	<100	--	--	--	--
B3-20	12/3/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B3-25		8021	<50	<50	<50	<150	<100	--	--	--	--
B3-30		8021	**8,200**	**8,600**	**27,000**	**96,000**	**10,000**	--	--	--	--
		8260	**990**	<200	**14,000**	**40,000**	<200	--	--	--	--
B3-32		8021	**32,000**	**8,200**	**55,000**	**210,000**	**42,000**	--	--	--	--
		8260	**20,000**	**1,700**	**55,000**	**161,200**	**1,400**	--	--	--	--
B3-34		8021	<50	<50	<50	<150	**210**	--	--	--	--
		8260	**21**	<5	**16**	0	**120**	--	--	--	--
B3-36		8021	<50	<50	<50	<150	**140**	--	--	--	--
		8260	--	--	--	**32**	--	--	--	--	--
B3-40		8021	<50	<50	<50	<150	<100	--	--	--	--
B4-7	12/3/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B4-10		8021	<50	<50	<50	<150	<100	--	--	--	--
B4-20		8021	<50	<50	<50	<150	<100	--	--	--	--
B4-30		8021	**460**	**130**	**8,100**	**19,000**	**390**	--	--	--	--
B4-32		8021	**14,000**	**11,000**	**35,000**	**110,000**	<50,000	--	--	--	--
		8260	**1,900**	**1,600**	**6,400**	**17,000**	<1,000	--	--	--	--
B4-34		8021	**840**	**1,200**	**11,000**	**18,000**	**2,600**	--	--	--	--
B4-36		8021	**50**	<50	<50	<150	**400**	--	--	--	--
B4-38		8021	**110**	<50	<50	<150	**350**	--	--	--	--
B4-40		8021	<50	<50	<50	<150	**240**	--	--	--	--
B5-20	12/4/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B5-28.5		8021	<50	<50	<50	<150	<100	--	--	--	--

Table 2 (Page 2 of 7)
Soil Sample Analytical Results of Volatile Organic Compounds
11427 Woodside Avenue, Santee, California

Sample Number	Date	Analytical Method	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	MTBE (µg/kg)	DIPE (µg/kg)	TAME (µg/kg)	ETBE (µg/kg)	TBA (µg/kg)
B6-30	12/4/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B6-32		8021	**9,100**	**7,200**	**26,000**	**120,000**	**68,000**	--	--	--	--
		8260	**660**	**3,100**	**9,800**	**48,000**	<500	--	--	--	--
B6-33		8021	**380**	**1,600**	**4,900**	**28,000**	**1,900**	--	--	--	--
		8260	<50	<50	**1,600**	**8,600**	<50	--	--	--	--
B6-34		8021	**360**	**80**	**400**	**750**	<500	--	--	--	--
B6-36		8021	**60**	<50	**110**	<150	<100	--	--	--	--
B6-40		8021	<50	<50	<50	<150	<100	--	--	--	--
B7-25	12/4/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B7-30		8021	<50	<50	<50	<150	<100	--	--	--	--
B7-32		8021	**210**	<50	**60**	<150	**150**	--	--	--	--
B7-36		8021	**730**	<50	<50	<150	**220**	--	--	--	--
B7-40		8021	<50	<50	<50	<150	<100	--	--	--	--
B8-25	12/4/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B8-32		8021	**15,000**	**88,000**	**63,000**	**330,000**	<10,000	--	--	--	--
		8260	**2,700**	**45,000**	**46,000**	**116,000**	<500	--	--	--	--
B8-34		8021	**260**	**200**	**240**	**450**	<500	--	--	--	--
B8-36		8021	<50	**200**	**210**	**1,200**	<100	--	--	--	--
B8-38		8021	<50	<50	<50	<150	<100	--	--	--	--
B9-25	12/4/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B9-31		8021	**250**	**1,100**	**2,400**	**8,000**	**2,700**	--	--	--	--
		8260	<50	<50	**170**	**490**	<50	--	--	--	--
B9-33		8021	**6,200**	**8,000**	**19,000**	**44,000**	<10,000	--	--	--	--
		8260	<500	<500	**8,900**	**25,300**	<500	--	--	--	--
B9-35		8021	<50	<50	<50	<150	<100	--	--	--	--
B10-30	12/5/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B10-32		8021	<50	<50	<50	<150	<100	--	--	--	--
B10-34		8021	<50	<50	**60**	<150	<100	--	--	--	--
B10-40		8021	**80**	<50	**100**	<150	<100	--	--	--	--
B11-31	12/5/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B11-36		8021	**240**	<50	**60**	<150	<100	--	--	--	--
		8260	**88**	**5.8**	**38**	<10	**10**	--	--	--	--
B11-40		8021	**70**	<50	<50	<150	<100	--	--	--	--
B11-45		8021	<50	<50	<50	<150	<100	--	--	--	--

Table 2 (Page 3 of 7)
Soil Sample Analytical Results of Volatile Organic Compounds
11427 Woodside Avenue, Santee, California

Sample Number	Date	Analytical Method	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	MTBE (µg/kg)	DIPE (µg/kg)	TAME (µg/kg)	ETBE (µg/kg)	TBA (µg/kg)
B12-32	12/5/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B12-34		8021	**9,400**	**580**	**8,200**	**7,300**	**7,900**	--	--	--	--
		8260	<50	<50	<50	**66**	<50	--	--	--	--
B12-36		8021	<50	**80**	**270**	<150	<500	--	--	--	--
B12-38		8021	<50	<50	<50	<150	<100	--	--	--	--
B13-25	12/6/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B13-30		8021	**3,600**	**1,900**	**17,000**	**110,000**	**500**	--	--	--	--
		8260	**210**	<200	**8,700**	**46,000**	<200	--	--	--	--
B13-35		8021	<50	<50	<50	<150	<100	--	--	--	--
B13-40		8021	<50	<50	<50	<150	<100	--	--	--	--
B14-25	12/6/2002	8021	**150**	<50	**2,600,000**	**680**	**130**	--	--	--	--
B14-30		8021	**960**	**1,400**	**2,900**	**5,700**	<100	--	--	--	--
		8260	**78**	<50	**1,900**	**3,300**	<50	--	--	--	--
B14-35		8021	<50	<50	<50	<150	<100	--	--	--	--
B15-32	12/6/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B15-33		8021	<50	<50	<50	<150	<100	--	--	--	--
B15-34		8021	<50	<50	<50	<150	<100	--	--	--	--
B15-35		8021	<50	<50	<50	<150	<100	--	--	--	--
B15-36		8021	<50	<50	<50	<150	<100	--	--	--	--
B16-29	12/6/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B16-31		8021	<50	<50	<50	<150	<100	--	--	--	--
B16-33		8021	<50	<50	<50	<150	<100	--	--	--	--
B17-30	12/6/2002	8021	<50	<50	**530**	**86**	<100	--	--	--	--
B17-32		9021	**1,600**	**320**	**2,200**	**7,500**	**2,000**	--	--	--	--
		8260	**12,000**	<500	**18,000**	**57,000**	<500	--	--	--	--
B17-34		8021	<50	<50	<50	<150	<100	--	--	--	--
B17-36		8021	<50	<50	<50	<150	<100	--	--	--	--
B18-25	12/6/2002	8021	<50	<50	<50	<150	<100	--	--	--	--
B18-32		8021	<50	<50	**70**	**180**	**170**	--	--	--	--
		8260	<50	<50	<50	<100	**150**	--	--	--	--
B18-34		8021	<50	<50	<50	<150	**210**	--	--	--	--
		8260	<5	<5	<5	<10	**140**	--	--	--	--
B18-36		8021	<50	<50	<50	<150	**280**	--	--	--	--
		8260	<5	<5	<5	<10	**250**	--	--	--	--
B18-40		8021	<50	<50	<50	<150	<100	--	--	--	--

Table 2 (Page 4 of 7)
Soil Sample Analytical Results of Volatile Organic Compounds
11427 Woodside Avenue, Santee, California

Sample Number	Date	Analytical Method	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	MTBE (µg/kg)	DIPE (µg/kg)	TAME (µg/kg)	ETBE (µg/kg)	TBA (µg/kg)
MW1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW4-5	4/30/1998	8021	<0.5	<0.5	<0.5	--	--	--	--	--	--
MW6-20	3/1/2001	8021	**150**	**6**	**15**	**110**	**46**	--	--	--	--
		8260	--	--	--	--	**23**	--	--	--	--
MW6-25		8021	<5	<5	**6**	**130**	**51**	--	--	--	--
		8260	--	--	--	--	<5	--	--	--	--
MW6-30		8021	**11,000**	**93,000**	**80,000**	**540,000**	<800,000	--	--	--	--
MW6-35		8021	**430**	**7,700**	**4,300**	**29,000**	<40,000	--	--	--	--
MW6-40		8021	<400	**730**	**2,000**	**17,000**	<2,800	--	--	--	--
MW7-25	3/7/2001	8021	<20	<20	<20	**60**	**140**	--	--	--	--
MW8-25	4/26/2002	8021	<5	<5	<5	**15**	<35	--	--	--	--
MW8-30.5		8021	<5	<5	<5	**15**	<35	--	--	--	--
MW8-31		8021	<5	<5	<5	**15**	<35	--	--	--	--
MW8-31.5		8021	<5	<5	<5	**15**	<35	--	--	--	--
MW8-32.5		8021	<5	<5	<5	**15**	<35	--	--	--	--
MW8-33		8021	**590**	**390**	**790**	**2,100**	<1,400	--	--	--	--
MW8-34		8021	<200	<200	<200	<600	<1,400	--	--	--	--
MW8-34.5		8021	**7,700**	**3,500**	**29,000**	**55,000**	<14,000	--	--	--	--
MW8-35.5		8021	**1,400**	**1,500**	**1,800**	**2,900**	<3,500	--	--	--	--
MW8-36		8021	<5	<5	<5	<15	<35	--	--	--	--
MW8-37		8021	**930**	**690**	**2,700**	**3,400**	<3,500	--	--	--	--
MW8-37.5		8021	<5	<5	<5	<15	<35	--	--	--	--
MW8-38.5		8021	**250**	<200	**750**	**1,000**	<1,400	--	--	--	--
MW8-39		8021	<5	<5	<5	<15	<35	--	--	--	--
MW8-39.5		8021	<12	<12	<12	<38	<88	--	--	--	--
MW-9-5	2/4/2008	8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-9-10		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-9-15		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-9-20		8260	**76**	< 5.0	**56**	**64**	**22**	< 5.0	< 5.0	< 5.0	< 25
MW-9-25		8260	< 5.0	< 5.0	**21**	**70**	**7.4**	< 5.0	< 5.0	< 5.0	< 25
MW-9-30		8260	**900**	**1,700**	**320**	**1,720**	**120**	< 5.0	< 5.0	< 5.0	< 25
MW-9-35		8260	< 5.0	< 5.0	< 5.0	**15**	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-9-39		8260	< 5.0	< 5.0	< 5.0	**11**	< 5.0	< 5.0	< 5.0	< 5.0	< 25

Table 2 (Page 5 of 7)
Soil Sample Analytical Results of Volatile Organic Compounds
11427 Woodside Avenue, Santee, California

Sample Number	Date	Analytical Method	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	MTBE (µg/kg)	DIPE (µg/kg)	TAME (µg/kg)	ETBE (µg/kg)	TBA (µg/kg)
MW-10-5	2/4/2008	8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-10-10		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-10-15		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-10-20		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-10-25		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-10-30		8260	< 5.0	< 5.0	< 5.0	< 15.0	**31**	< 5.0	< 5.0	< 5.0	< 25
MW-10-35		8260	< 5.0	< 5.0	< 5.0	< 15.0	**13**	< 5.0	< 5.0	< 5.0	< 25
MW-10-40		8260	< 5.0	< 5.0	< 5.0	< 15.0	**7.7**	< 5.0	< 5.0	< 5.0	< 25
MW-10-43		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-11-5	2/8/2008	8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-11-10		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-11-15		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-11-20		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-11-25		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-11-30		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-11-35		8260	< 5.0	< 5.0	**14**	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-11-38		8260	< 5.0	< 5.0	**9.3**	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-12-5	2/8/2008	8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-12-10		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-12-15		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-12-20		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-12-25		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-12-30		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-12-35		8260	< 5.0	< 5.0	< 5.0	< 15.0	**8.3**	< 5.0	< 5.0	< 5.0	< 25
MW-12-39		8260	< 5.0	< 5.0	< 5.0	< 15.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-13-5	2/18/2008	8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-13-10		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-13-15		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-13-20		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-13-25		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-13-30		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-13-35		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-13-40		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-13-45		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-13-50		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10

Table 2 (Page 6 of 7)
Soil Sample Analytical Results of Volatile Organic Compounds
11427 Woodside Avenue, Santee, California

Sample Number	Date	Analytical Method	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	MTBE (µg/kg)	DIPE (µg/kg)	TAME (µg/kg)	ETBE (µg/kg)	TBA (µg/kg)
MW-14-5	2/18/2008	8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-14-10		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-14-15		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-14-20		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-14-25		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-14-30		8260	**31.7**	< 2.0	**61.9**	**5.35**	**22.5**	< 2.0	< 2.0	< 2.0	< 10
MW-14-35		8260	**100**	< 2.0	**143**	**5.32**	**71.2**	< 2.0	< 2.0	< 2.0	< 10
MW-14-40		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-15-5	2/19/2008	8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-15-10		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-15-15		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-15-20		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-15-25		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-15-30		8260	< 2.0	< 2.0	**2.38**	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-15-35		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-15-40		8260	< 2.0	< 2.0	**2.58**	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-16-5	2/19/2008	8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-16-10		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-16-15		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-16-20		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-16-25		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-16-30		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-16-35		8260	< 2.0	< 2.0	< 2.0	< 7.0	**3.02**	< 2.0	< 2.0	< 2.0	< 10
MW-16-40		8260	< 2.0	< 2.0	**2.70**	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-17-5	2/19/2008	8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-17-10		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-17-15		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-17-20		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-17-25		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-17-30		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-17-35		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-17-38		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
MW-17-45		8260	< 2.0	< 2.0	< 2.0	< 7.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10

Table 2 (Page 7 of 7)
Soil Sample Analytical Results of Volatile Organic Compounds
11427 Woodside Avenue, Santee, California

Sample Number	Date	Analytical Method	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	MTBE (µg/kg)	DIPE (µg/kg)	TAME (µg/kg)	ETBE (µg/kg)	TBA (µg/kg)
MW-18-28.5'	3/23/2011	8260	< 5.0	< 5.0	< 5.0	< 15	< 5.0	< 5.0	< 5.0	< 5.0	< 25
MW-19-35'	3/23/2011	8260	**280**	**4,000**	**21,000**	**96,000**	< 200	< 200	< 200	< 200	< 1,000

Notes:

Samples collected by SCS Engineers in March 2011.

Samples collected by Petra Geotechnical, Inc. in 2008.

Samples collected by EnecoTech, Inc. from 1988 to 2001.

Concentrations reported in micrograms per kilogram (µg/kg).

Soil samples analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl

< indicates the reported concentration was not above the laboratory reporting limit for the relevant analytical method.

Bold font indicates concentration above the laboratory reporting limit.

-- indicates sample was not analyzed for the relavant analyte

NA indicates that soil sample results were not available and were likely not collected for wells MW-1 to MW-3

Table 3

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Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-1	363.90 (22-42)	05/25/88	28.73	335.17
		03/10/98	27.03	336.87
		04/05/00	29.62	334.28
	362.84 (22-42)	04/26/02	30.21	332.63
		12/03/02	30.19	332.65
		10/26/07	NM	NM
		01/17/08	PSH	PSH
		04/18/08	29.86	332.98
		07/28/08	30.98	331.86
		12/29/08	29.14	333.70
		06/18/09	30.29	332.55
		11/17/09	31.15	331.69
		04/20/10	28.58	334.26
		12/20/10	29.80	333.04
		04/04/11	28.36	334.48
MW-2	365.40 (24-44)	05/25/88	30.03	335.37
		03/10/98	28.75	336.65
		04/05/00	32.23	333.17
	365.08 (24-44)	04/26/02	31.72	333.36
		12/03/02	31.84	333.24
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	31.06	334.02
		07/28/08	PSH	PSH
		12/29/08	31.50	333.58
		06/18/09	31.56	333.52
		11/17/09	32.86	332.22
		04/20/10	29.08	336.00
		12/20/10	PSH	PSH
		04/04/11	29.41	335.67
MW-3	366.07 (24.5-44.5)	05/25/88	30.83	335.24
		03/10/98	28.25	337.82
		04/05/00	36.65	329.42
	364.16 (24.5-44.5)	04/26/02	31.37	332.79
		12/03/02	31.32	332.84
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	30.91	333.25
		07/28/08	PSH	PSH
		12/29/08	30.54	333.62
		06/18/09	31.33	332.83
		11/17/09	PSH	PSH
		04/20/10	29.54	334.62
		12/20/10	PSH	PSH
		04/04/11	29.32	334.84

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Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-4	362.90 (22-42)	05/25/88	27.68	335.22
		03/10/98	26.46	336.44
		04/05/00	29.98	332.92
	362.38 (22-42)	04/26/02	29.60	332.78
		12/03/02	29.43	332.95
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	29.25	333.13
		07/28/08	30.41	331.97
		12/29/08	28.53	333.85
		06/18/09	29.65	332.73
		11/17/09	30.58	331.80
		04/20/10	27.97	334.41
		12/20/10	29.22	333.16
		04/04/11	27.74	334.64
MW-5	NM	03/10/98	27.50	NM
	363.42 (unknown)	04/26/02	30.39	333.03
		12/03/02	30.50	332.92
		10/26/07	31.72	331.70
		01/17/08	NM	NM
		04/18/08	31.07	332.35
		07/28/08	NM	NM
		12/29/08	NM	NM
		Well Destroyed		
MW-6	362.44 (17-42)	04/26/02	29.77	332.67
		12/03/02	29.75	332.69
		10/26/07	31.01	331.43
		01/17/08	29.44	333.00
		04/18/08	29.47	332.97
		07/28/08	30.60	331.84
		12/29/08	28.71	333.73
		06/18/09	29.90	332.54
		11/17/09	30.78	331.66
		04/20/10	28.17	334.27
		12/20/10	29.45	332.99
		04/04/11	27.98	334.46

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Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-7	362.57 (17-42)	04/26/02	29.47	333.10
		12/03/02	29.45	333.12
		10/26/07	30.45	332.12
		01/17/08	29.17	333.40
		04/18/08	29.16	333.41
		07/28/08	30.08	332.49
		12/29/08	28.48	334.09
		06/18/09	29.56	333.01
		11/17/09	30.59	331.98
		04/20/10	27.92	334.65
		12/20/10	29.15	333.42
		04/04/11	27.75	334.82
MW-8	364.51 (20.5-40.5)	04/26/02	31.71	332.80
		12/03/02	31.70	332.81
		10/26/07	33.02	331.49
		01/17/08	31.34	333.17
		04/18/08	31.42	333.09
		07/28/08	32.60	331.91
		12/29/08	30.60	333.91
		06/18/09	31.82	332.69
		11/17/09	32.74	331.77
		04/20/10	30.12	334.39
		12/20/10	31.37	333.14
		04/04/11	29.92	334.59
MW-9	362.33 (34-39)	04/18/08	29.49	332.84
		07/28/08	30.58	331.75
		12/29/08	28.68	333.65
		06/18/09	29.90	332.43
		11/17/09	30.75	331.58
		04/20/10	28.15	334.18
		12/20/10	29.43	332.90
		04/04/11	27.95	334.38
MW-10	367.28 (25-40)	04/18/08	32.52	334.76
		07/29/08	33.65	333.63
		12/29/08	32.62	334.66
		06/18/09	32.75	334.53
		11/17/09	33.97	333.31
		04/20/10	30.83	336.45
		12/20/10	32.10	335.18
		04/04/11	30.26	337.02
MW-11	362.48 (23-38)	04/18/08	29.98	332.50
		07/29/08	30.99	331.49
		12/29/08	28.96	333.52
		06/18/09	30.36	332.12
		11/17/09	31.12	331.36
		04/20/10	28.61	333.87
		12/20/10	29.84	332.64
		04/04/11	28.44	334.04

Table 3

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Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-12	361.88 (24-39)	04/18/08	29.55	332.33
		07/29/08	30.49	331.39
		12/29/08	28.45	333.43
		06/18/09	29.94	331.94
		11/17/09	30.65	331.23
		04/20/10	28.17	333.71
		12/20/10	29.40	332.48
		04/04/11	27.93	333.95
MW-13	366.91 (25-45)	04/21/08	32.77	334.14
		07/30/08	34.08	332.83
		12/29/08	32.54	334.37
		06/18/09	33.17	333.74
		11/17/09	34.33	332.58
		04/20/10	31.35	335.56
		12/20/10	32.71	334.20
		04/04/11	31.24	335.67
MW-14	362.79 (23-38)	04/21/08	30.09	332.70
		07/30/08	31.14	331.65
		12/29/08	29.22	333.57
		06/18/09	30.51	332.28
		11/17/09	31.32	331.47
		04/20/10	28.74	334.05
		12/20/10	30.03	332.76
		04/04/11	28.52	334.27
MW-15	362.36 (23.5-38.5)	04/21/08	29.91	332.65
		07/30/08	30.96	331.60
		12/29/08	28.80	333.56
		06/18/09	30.13	332.23
		11/17/09	30.92	331.44
		04/20/10	28.36	334.00
		12/20/10	29.64	332.72
		04/04/11	28.15	334.21
MW-16	362.48 (24-39)	04/21/08	30.04	332.44
		07/30/08	31.02	331.46
		12/29/08	28.95	333.53
		06/18/09	30.47	332.01
		11/17/09	31.18	331.30
		04/20/10	28.66	333.82
		12/20/10	29.94	332.54
		04/04/11	28.41	334.07

Table 3

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Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-17	367.97 (24.5-44.5)	04/21/08	34.97	333.00
		07/30/08	36.08	331.89
		12/29/08	34.34	333.63
		06/18/09	35.38	332.59
		11/17/09	36.23	331.74
		04/20/10	33.63	334.34
		12/20/10	34.93	333.04
		04/04/11	33.40	334.57
MW-18	NS	04/04/11	28.60	NS
MW-19	NS	04/04/11	31.28	NS

Notes:

MSL = mean sea level

TOC = top of well casing

PSH = phase-separated hydrocarbons present in well, therefore groundwater elevation was not calculated

NM = well not measured

NS = well not surveyed

Wells were surveyed by Southern California Survey initially on April 26, 2002 and updated on March 28, 2008.

Table 5
(Page 1 of 5)
Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-1 (installed 5/11/88)	05/25/88	0.6	NA	NA	0.7	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	2,500	910	340	200	18	240	190	NA	NA	NA	NA
	05/18/98	NA	704	< 500	326	89.5	< 50.0	< 100	< 50.0	NA	NA	NA	NA
	04/05/00	NA	1,800	NA	250	14	34	380	200	NA	NA	NA	NA
	04/26/02	NA	1,100	1,100	230	14	36	220	190	< 40	< 40	500	< 40
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	2,800	980	370	6.6	170	227.8	610	NA	NA	NA	NA
	07/28/08	NA	420	< 500	57	< 0.5	19.0	15	55	NA	NA	NA	NA
	12/29/08	NA	440	720	57	< 1.0	30	26	< 2.0	< 2.0	< 2.0	27	< 2.0
	06/18/09	NA	< 500	< 500	210	1.0	38	17.7	220	< 1.0	< 1.0	140	< 1.0
	11/17/09	NA	< 500	< 500	4.4	0.6	2.5	1.1	1.7	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	42	<0.5	3.7	1.1	81	< 1.0	< 1.0	49	< 1.0
	12/20/10	NA	< 500	< 500	66	<0.5	35	4.6	34	< 1.0	< 1.0	15	< 1.0
	04/04/11	NA	< 500	< 500	78	1.3	9.8	10.4	52	< 1.0	< 1.0	40	< 1.0
MW-2 (installed 5/12/88)	05/25/88	< 0.5	NA	NA	< 0.5	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	330	< 500	20	3.3	25	47	53	NA	NA	NA	NA
	04/04/00	NA	7,600	NA	7.6	3.3	30	59	3,500	NA	NA	NA	NA
	04/26/02	NA	6,000	160,000	9.2	3.9	16	17	3,100	< 40	< 40	500	< 40
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	510	6,400	< 10	< 10	< 10	< 30	1,300	NA	NA	NA	NA
	07/28/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	12/30/08	NA	440	22,000	< 2.5	< 2.5	4.0	< 10	< 5.0	< 5.0	< 5.0	2,100	< 5.0
	06/19/09	NA	< 500	< 500	< 0.5	< 0.5	4.9	< 1.5	8.3	< 1.0	< 1.0	2,000	< 1.0
	11/18/09	NA	2,300	< 500	1.0	0.7	3.4	< 1.5	1.9	< 1.0	< 1.0	1,100	< 1.0
	04/21/10	NA	< 500	7,400	< 0.5	< 0.5	3.7	< 1.5	20	< 1.0	< 1.0	170	< 1.0
	12/20/10	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/06/11	NA	< 500	2,600	< 0.5	< 0.5	< 0.5	< 1.5	13	< 1.0	< 1.0	490	< 1.0
MW-3 (installed 5/13/88)	05/25/88	140	NA	NA	19	3.4	NA	1.3	NA	NA	NA	NA	NA
	03/10/98	NA	2,300	5,100	3.6	0.7	0.7	4.1	2,000	NA	NA	NA	NA
	05/18/98	NA	115	< 500	98.5	< 12.5	< 12.5	< 25.0	226	NA	NA	NA	NA
	04/05/00	NA	420	NA	18	1.7	3.9	12	230	NA	NA	NA	NA
	04/26/02	NA	9,700	190,000	92	< 3.0	56	62	590	< 100	< 100	< 1,200	< 100
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	< 500	1,800	2.8	< 1.0	< 1.0	< 3.0	99	NA	NA	NA	NA
	07/28/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	12/30/08	NA	230	3,200	1.7	< 0.5	0.61	< 2.0	110	< 1.0	< 1.0	59	< 1.0
	06/19/09	NA	< 500	< 500	0.5	< 0.5	< 0.5	< 1.5	77	< 1.0	< 1.0	400	< 1.0
	11/17/09	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/21/10	NA	< 500	5,900	1.3	< 0.5	1.2	< 1.5	90	< 1.0	< 1.0	43	< 1.0
	12/20/10	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/06/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	96	< 1.0	< 1.0	9.5	< 1.0

Table 5
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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-4 (installed 5/13/88)	05/25/88	6.3	NA	NA	< 0.5	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	9,600	3,700	2,400	250	50	430	4,100	NA	NA	NA	NA
	04/04/00	NA	8,700	NA	1,800	< 12	110	790	900	NA	NA	NA	NA
	04/26/02	NA	15,000	95,000	4,500	150	450	1,900	1,500	< 100	< 100	< 1,200	< 100
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	2,000	4,500	380	2.9	95	41.0	110.0	NA	NA	NA	NA
	07/28/08	NA	2,100	1,300	410	< 2.5	72.0	< 10	70	NA	NA	NA	NA
	12/30/08	NA	4,900	3,400	88	< 10	20	53	< 20	< 20	< 20	< 200	< 20
	06/18/09	NA	< 500	< 500	370	2.0	58	11.6	89	< 1.0	< 1.0	24	< 1.0
	11/18/09	NA	3,300	2,600	460	11	130	70.4	140	< 1.0	< 1.0	< 5.0	< 1.0
	04/21/10	NA	< 500	< 500	34	0.5	4.7	1.0	33	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	51	1.2	20	4.7	57	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	860	43	2.7	11	8.3	29	< 1.0	< 1.0	< 5.0	< 1.0
MW-5 (instalation unknown)	03/10/98	NA	730	1,700	20	0.6	< 0.30	39	92	NA	NA	NA	NA
	04/26/02	NA	500	2,000	7.3	1.7	2.8	6.8	230	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/17/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	07/28/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/30/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Well Destroyed												
MW-6 (installed 2/26/01)	04/26/02	NA	25,000	9,100	5,300	1,400	1,200	5,900	850	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	570	< 500	21	0.7	48	14	17	NA	NA	NA	NA
	01/17/08	NA	1,400	< 500	9.6	0.6	4.8	8.5	3.5	NA	NA	NA	NA
	04/18/08	NA	2,000	750	500	< 20	210	150	180	NA	NA	NA	NA
	07/28/08	NA	6,900	980	720	7.6	410	540	98	NA	NA	NA	NA
	12/30/08	NA	950	650	55	< 1.0	34	30	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/19/09	NA	< 500	< 500	350	3.1	250	182.3	54	< 1.0	< 1.0	22	< 1.0
	11/18/09	NA	< 500	< 500	90	2.0	75	73.0	25	< 1.0	< 1.0	< 5.0	< 1.0
	04/21/10	NA	1,300	1,500	750	4.1	320	29.7	110	< 1.0	< 1.0	< 5.0	< 1.0
	12/20/10	NA	< 500	< 500	110	< 1.0	16	5.0	12	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	1,200	6,800	990	5.7	550	28.8	160	< 1.0	< 1.0	< 5.0	< 1.0

Table 5
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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-7 (installed 2/26/01)	04/26/02	NA	1,900	13,000	3.7	1.1	4	7.9	19	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	01/17/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	04/21/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 1.0	< 1.0	< 1.0	< 3.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	15	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	8.7	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	< 500	0.8	< 0.5	0.6	2.8	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-8 (installed 4/19/02)	04/26/02	NA	4,800	6,500	50	9.2	170	210	64	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/26/07	NA	1,100	790	< 0.5	< 0.5	23	< 0.5	< 1.0	NA	NA	NA	NA
	01/17/08	NA	1,100	570	< 0.5	< 0.5	27	< 1.5	< 1.0	NA	NA	NA	NA
	04/21/08	NA	980	1,200	< 0.5	< 0.5	23	< 1.5	< 1.0	NA	NA	NA	NA
	07/29/08	NA	660	2,100	< 0.5	< 0.5	15	< 2.0	< 1.0	NA	NA	NA	NA
	12/30/08	NA	890	3,000	< 1.0	< 1.0	16	< 4.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	13	< 1.5	< 1.0	< 1.0	< 1.0	13	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.7	10	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	6.1	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	< 0.5	< 0.5	1.9	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	< 500	< 0.5	< 0.5	5.1	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-9 (installed 2/4/08)	04/18/08	NA	1,700	560	740	250	270	1,010	170	NA	NA	NA	NA
	07/28/08	NA	1,100	570	230	27	27	65	74	NA	NA	NA	NA
	12/30/08	NA	1,300	< 500	140	10	71	200	21	< 5.0	< 5.0	< 50	< 5.0
	06/19/09	NA	< 500	< 500	50	6.1	34	49.3	55	< 1.0	< 1.0	34	< 1.0
	11/18/09	NA	< 500	< 500	62	8.9	51	89	67	< 1.0	< 1.0	< 5.0	< 1.0
	04/21/10	NA	< 500	< 500	170	28	86	164	64	< 1.0	< 1.0	< 5.0	< 1.0
	12/20/10	NA	< 500	< 500	18	2.9	22	31.3	40	< 1.0	< 1.0	< 5.0	< 1.0
	04/04/11	NA	1,300	500	74	31	84	146	43	< 1.0	< 1.0	< 5.0	< 1.0
MW-10 (installed 2/5/08)	04/18/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	4.2	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	1.8	< 1.0	< 1.0	20	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.5	< 0.5	< 1.5	6.3	< 1.0	< 1.0	6.3	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	2.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	1.4	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0

Table 5
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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-11 (installed 2/8/08)	04/18/08	NA	1,800	< 500	22	< 1.0	170	< 3.0	< 2.0	NA	NA	NA	NA
	07/29/08	NA	690	720	4.2	0.81	39	< 2.0	< 1.0	NA	NA	NA	NA
	12/31/08	NA	2,000	1,600	52	6.8	230	11	< 5.0	< 5.0	< 5.0	< 50	< 5.0
	06/18/09	NA	< 500	< 500	5.9	0.6	19	< 1.5	1.6	< 1.0	< 1.0	12	< 1.0
	11/17/09	NA	900	< 500	6.5	1.5	5.5	1.2	2.3	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	3.1	< 0.5	0.7	< 1.5	1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/10	NA	< 500	< 500	28	4.1	22	9.6	1.6	< 1.0	< 1.0	< 5.0	< 1.0
	04/04/11	NA	< 500	600	9.3	0.7	5.7	< 1.5	1.7	< 1.0	< 1.0	< 5.0	< 1.0
MW-12 (installed 2/8/08)	04/18/08	NA	< 500	< 500	< 1.0	< 1.0	2.0	< 3.0	65	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	11	NA	NA	NA	NA
	12/31/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	16	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	14	< 1.0	< 1.0	32	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	2.5	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	2.7	< 0.5	< 0.5	< 1.5	4.6	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	12	0.6	0.7	3.6	4.1	< 1.0	< 1.0	< 5.0	< 1.0
	04/04/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	3.2	< 1.0	< 1.0	< 5.0	< 1.0
MW-13 (installed 2/18/08)	04/21/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	NA	NA	NA	NA
	07/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	11	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.6	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	< 500	< 0.5	< 0.5	1.0	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-14 (installed 2/18/08)	04/21/08	NA	27,000	3,800	5,300	290	2,400	6,460	650	NA	NA	NA	NA
	07/30/08	NA	25,000	12,000	6,600	170	2,400	3,700	270	NA	NA	NA	NA
	12/31/08	NA	18,000	1,000	3,700	< 50	1,500	2,000	570	< 100	< 100	< 1,000	< 100
	06/19/09	NA	< 500	< 500	3,600	160	1,900	2,990	540	< 20	< 20	110	< 20
	11/18/09	NA	6,900	< 500	1,600	54	1,000	944	510	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	3,700	< 500	2,600	210	1,700	3,650	670	< 20	< 20	< 100	< 20
	12/20/10	NA	5,500	2,300	1,900	98	1,400	2,180	670	< 40	< 40	< 200	< 40
	04/05/11	NA	14,000	2,900	2,400	110	1,500	2,759	770	< 40	< 40	< 200	< 40
MW-15 (installed 2/19/08)	04/21/08	NA	32,000	3,500	2,400	510	4,100	13,380	< 200	NA	NA	NA	NA
	07/30/08	NA	46,000	17,000	2,100	250	3,700	10,000	< 50	NA	NA	NA	NA
	12/31/08	NA	8,400	2,100	620	12	1,500	160	< 20	< 20	< 20	< 200	< 20
	06/19/09	NA	< 500	< 500	820	250	2,800	6,930	35	< 20	< 20	< 100	< 20
	11/18/09	NA	19,000	< 500	910	77	3,700	4,308.9	19	< 10	< 10	< 50	< 10
	04/20/10	NA	1,800	1,500	1,100	130	3,700	10,090	< 100	< 100	< 100	< 500	< 100
	12/21/10	NA	7,100	4,800	800	63	2,600	2,800	< 100	< 100	< 100	< 500	< 100
	04/05/11	NA	21,000	8,400	990	120	3,000	7,180	< 100	< 100	< 100	< 500	< 100

Table 5
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11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-16 (installed 2/16/08)	04/21/08	NA	< 500	< 500	**53**	< 2.5	**77**	< 7.5	**110**	NA	NA	NA	NA
	07/30/08	NA	**1,300**	**780**	**110**	**1.7**	**210**	< 4.0	**160**	NA	NA	NA	NA
	12/31/08	NA	**2,500**	**790**	**470**	**6**	**390**	< 20	< 10	< 10	< 10	< 100	< 10
	06/19/09	NA	< 500	< 500	**120**	**16**	**220**	**33**	**100**	< 20	< 20	**170**	< 20
	11/18/09	NA	**570**	< 500	**110**	**2.5**	**65**	**10.5**	**73**	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	< 10	< 10	< 10	< 30	**33**	< 20	< 20	< 100	< 20
	12/21/10	NA	< 500	< 500	**3.9**	< 1.0	< 1.0	< 1.5	**16**	< 1.0	< 1.0	< 5.0	< 1.0
	04/04/11	NA	< 500	**570**	**11**	**0.7**	**60**	< 1.5	**26**	< 1.0	< 1.0	< 5.0	< 1.0
MW-17 (installed 2/19/08)	04/21/08	NA	**990**	**3,100**	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	07/30/08	NA	**780**	**11,000**	< 5.0	< 5.0	< 5.0	< 1.5	< 1.0	NA	NA	NA	NA
	12/30/08	NA	**520**	**55,000**	< 5.0	< 5.0	< 5.0	< 20	< 10	< 10	< 10	< 100	< 10
	06/19/09	NA	**1,600**	**730**	< 0.5	**0.7**	< 0.5	< 1.5	**2.4**	< 1.0	< 1.0	**15**	< 1.0
	11/17/09	NA	**550**	< 500	**0.5**	< 0.5	**1.9**	**2.4**	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	**0.6**	< 0.5	< 0.5	< 1.5	**29**	< 1.0	< 1.0	**35**	< 1.0
	12/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	**2.9**	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	**1.9**	< 1.0	< 1.0	< 5.0	< 1.0
MW-18 (installed 3/23/11)	04/04/11	NA	**530**	< 500	**0.5**	< 0.5	**0.5**	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-19 (installed 3/23/11)	04/04/11	NA	**55,000**	**6,100**	**640**	**2,600**	**4,100**	**17,200**	< 100	< 100	< 100	< 500	< 100

Notes:

Groundwater samples collected by SCS Engineers from June 2009 through 2011.

Groundwater samples collected by Petra Geotechnical, Inc. from October 25, 2007 to December 31, 2008.

Groundwater samples collected by EnecoTech Southwest, Inc. from May 25, 1988 to December 3, 2002.

Results presented in micrograms per liter (µg/L).

Samples were analyzed for gasoline-range (TPHg), and diesel-range (TPHd) total petroleum hydrocarbons in general accordance with CA DHS LUFT Method; and benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), tert-amyl methyl ether (TAME), and t-butanol (TBA) in general accordance with EPA Method 8260B.

< indicates not reported at a concentration above laboratory detection limit, and bold font indicates concentrations above the laboratory reporting limit.

NS indicates well not sampled.

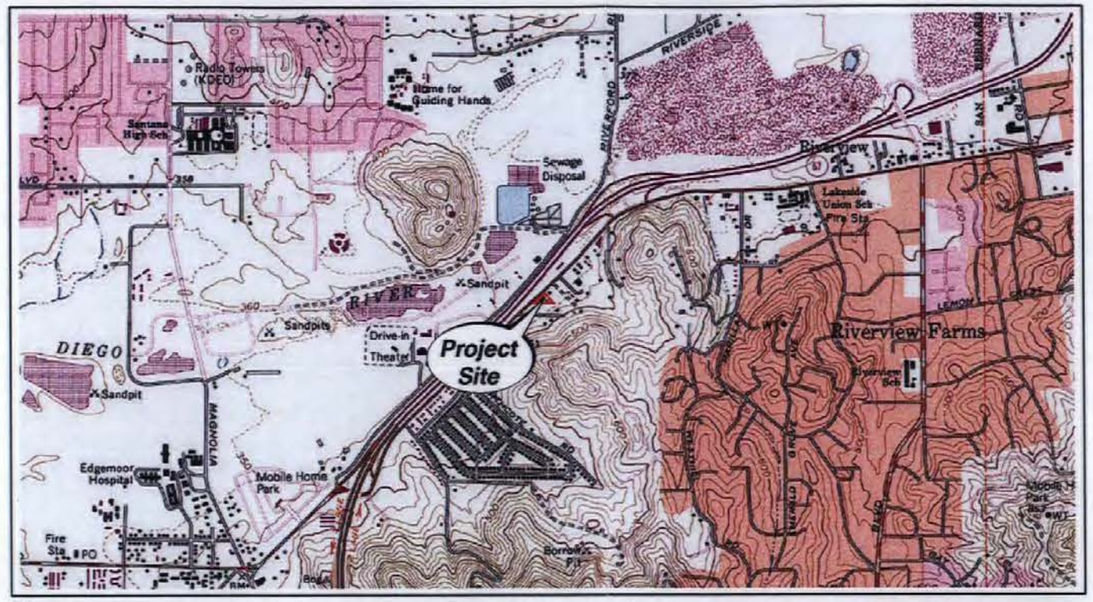
NA indicates not analyzed for particular constituent-of-concern.

* indicates samples were analyzed by EPA Method 418.1 for total extractable hydrocarbons.

PSH = phase-separated hydrocarbons

FIGURES

REGIONAL SITE LOCATION



Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

2-DIMENSIONAL SITE LOCATION

0 1,000 2,000 3,000
Approximate Graphic Scale in Feet

Reference:
Google Earth Aerial Photograph
Santee, California - February 2008

SITE AERIAL PHOTOGRAPH

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

3-DIMENSIONAL SITE LOCATION

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

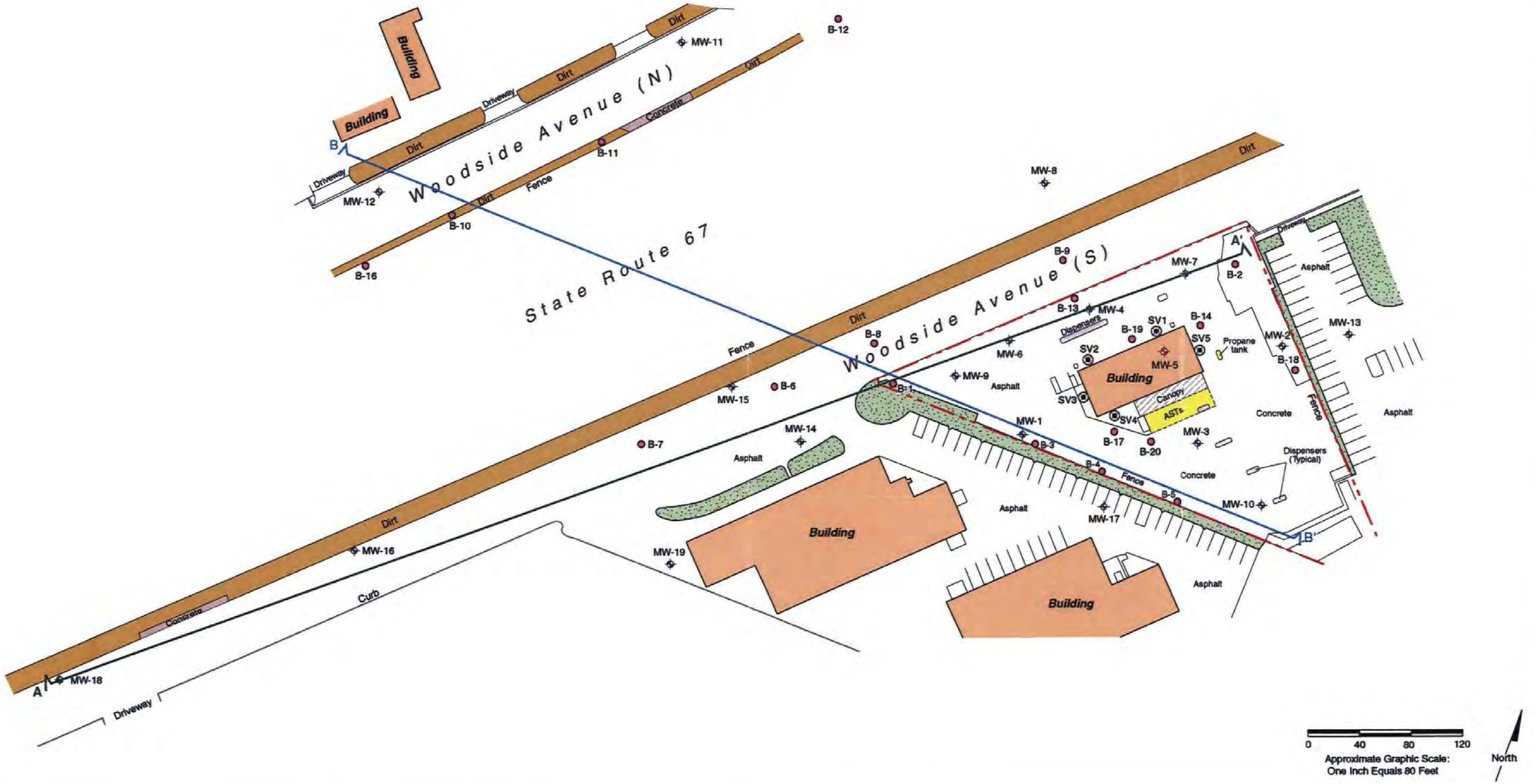
SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

4-WAY SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 1

Date Drafted: 11/4/09



EXPLANATION

- MW-16 — Groundwater monitoring well location
- MW-5 — Well destroyed
- Approximate Site boundary
- Soil vapor sampling location
- B-16 — Approximate location of exploratory boring, performed by EnecoTech (2003).
- A A' — Cross-section location
- AST = aboveground storage tank

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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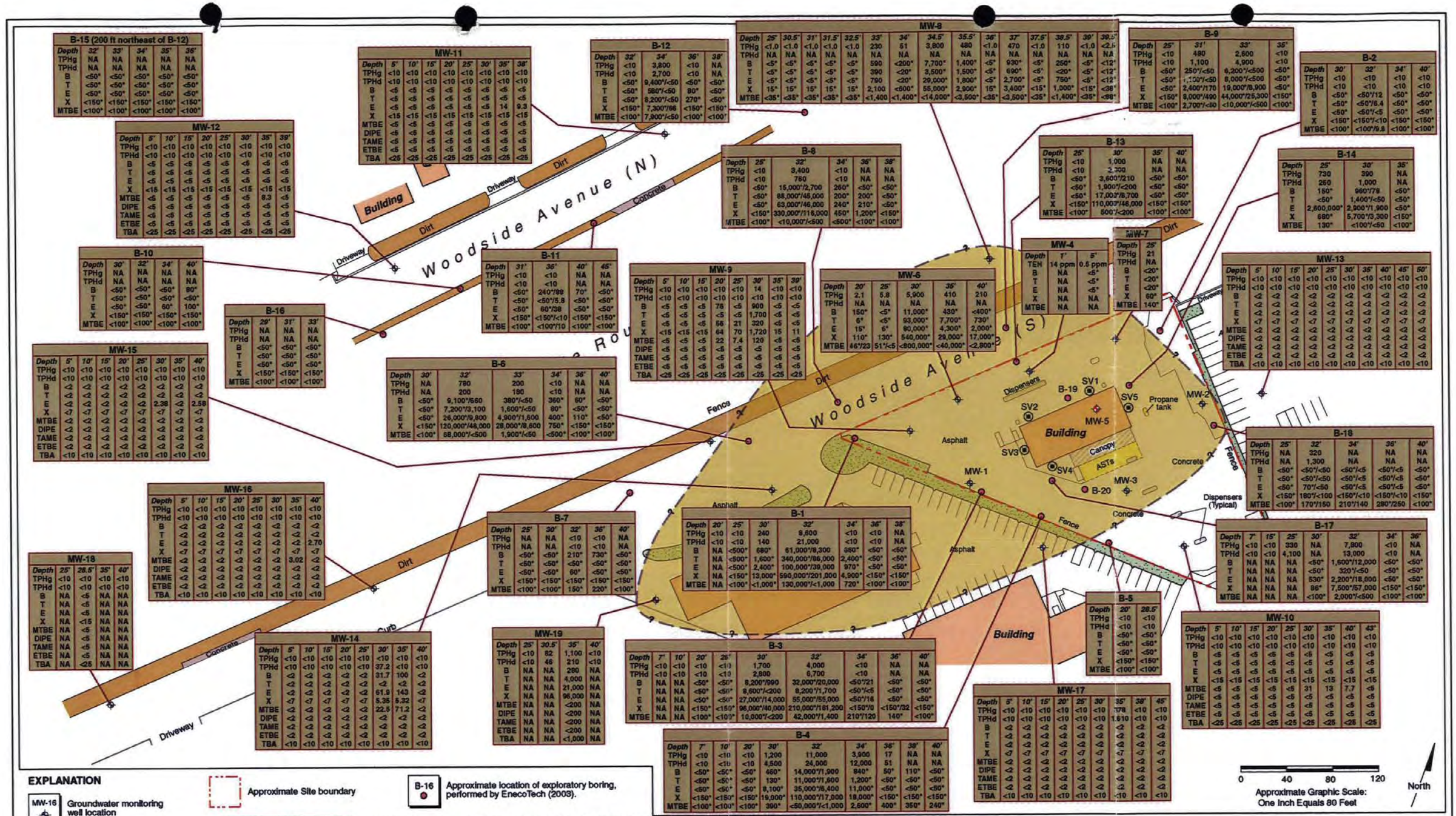
SITE MAP WITH SOIL VAPOR SAMPLING WELL LOCATIONS

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 2

Date Drafted: 8/15/11



B-15 (200 ft northeast of B-12)

Depth	32'	33'	34'	35'	36'
TPHg	NA	NA	NA	NA	NA
TPHd	NA	NA	NA	NA	NA
B	<50*	<50*	<50*	<50*	<50*
T	<50*	<50*	<50*	<50*	<50*
E	<50*	<50*	<50*	<50*	<50*
X	<150*	<150*	<150*	<150*	<150*
MTBE	<100*	<100*	<100*	<100*	<100*

MW-11

Depth	5'	10'	15'	20'	25'	30'	35'	38'
TPHg	<10	<10	<10	<10	<10	<10	<10	<10
TPHd	<10	<10	<10	<10	<10	<10	<10	<10
B	<5	<5	<5	<5	<5	<5	<5	<5
T	<5	<5	<5	<5	<5	<5	<5	<5
E	<5	<5	<5	<5	<5	<5	14	9.3
X	<15	<15	<15	<15	<15	<15	<15	<15
MTBE	<5	<5	<5	<5	<5	<5	<5	<5
DIPE	<5	<5	<5	<5	<5	<5	<5	<5
TAME	<5	<5	<5	<5	<5	<5	<5	<5
ETBE	<5	<5	<5	<5	<5	<5	<5	<5
TBA	<25	<25	<25	<25	<25	<25	<25	<25

B-12

Depth	32'	34'	36'	38'
TPHg	<10	3,800	<10	NA
TPHd	<10	2,700	<10	NA
B	<50*	9,400*/<50	<50*	<50*
T	<50*	580*/<50	80*	<50*
E	<50*	8,200*/<50	270*	<50*
X	<150*	7,300*/66	<150*	<150*
MTBE	<100*	7,900*/<50	<100*	<100*

MW-8

Depth	25'	30.5'	31'	31.5'	32.5'	33'	34'	34.5'	35.5'	36'	37'	37.5'	39.5'	39'	39.5'
TPHg	<1.0	<1.0	<1.0	<1.0	<1.0	230	51	3,800	480	<1.0	470	<1.0	110	<1.0	<2.5
TPHd	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B	<5*	<5*	<5*	<5*	<5*	590	<200*	7,700*	1,400*	<5*	930*	<5*	250*	<5*	<12*
T	<5*	<5*	<5*	<5*	<5*	390	<20*	3,500*	1,500*	<5*	690*	<5*	<20*	<5*	<12*
E	<5*	<5*	<5*	<5*	<5*	790	<20*	29,000*	1,800*	<5*	2,700*	<5*	750*	<5*	<12*
X	15*	15*	15*	15*	15*	2,100	<500*	55,000*	2,900*	15*	3,400*	<15*	1,000*	<15*	<36*
MTBE	<35*	<35*	<35*	<35*	<35*	<1,400	<1,400*	<14,000*	<3,500*	<35*	<3,500*	<35*	<1,400*	<35*	<88*

B-9

Depth	25'	31'	33'	35'
TPHg	<10	480	2,600	<10
TPHd	<10	1,100	4,900	<10
B	<50*	250*/<50	6,200*/<500	<50*
T	<50*	1,100*/<50	8,000*/<500	<50*
E	<50*	2,400*/170	19,000*/8,900	<50*
X	<150*	6,000*/490	44,000*/25,300	<150*
MTBE	<100*	2,700*/<50	<10,000*/<500	<100*

B-2

Depth	30'	32'	34'	40'
TPHg	<10	<10	<10	<10
TPHd	<10	<10	<10	<10
B	<50*	<50*/12	<50*	<50*
T	<50*	<50*/6.4	<50*	<50*
E	<50*	<50*/<5	<50*	<50*
X	<150*	<150*/<10	<150*	<150*
MTBE	<100*	<100*/9.9	<100*	<100*

MW-12

Depth	5'	10'	15'	20'	25'	30'	35'	39'
TPHg	<10	<10	<10	<10	<10	<10	<10	<10
TPHd	<10	<10	<10	<10	<10	<10	<10	<10
B	<5	<5	<5	<5	<5	<5	<5	<5
T	<5	<5	<5	<5	<5	<5	<5	<5
E	<5	<5	<5	<5	<5	<5	<5	<5
X	<15	<15	<15	<15	<15	<15	<15	<15
MTBE	<5	<5	<5	<5	<5	<5	9.3	<5
DIPE	<5	<5	<5	<5	<5	<5	<5	<5
TAME	<5	<5	<5	<5	<5	<5	<5	<5
ETBE	<5	<5	<5	<5	<5	<5	<5	<5
TBA	<25	<25	<25	<25	<25	<25	<25	<25

B-8

Depth	25'	32'	34'	36'	38'
TPHg	<10	3,400	<10	NA	NA
TPHd	<10	760	<10	NA	NA
B	<50*	15,000*/2,700	260*	<50*	<50*
T	<50*	88,000*/45,000	200*	200*	<50*
E	<50*	63,000*/46,000	240*	210*	<50*
X	<150*	330,000*/116,000	450*	1,200*	<150*
MTBE	<100*	<10,000*/<500	<500*	<100*	<100*

B-13

Depth	25'	30'	35'	40'
TPHg	<10	1,000	NA	NA
TPHd	<10	2,300	NA	NA
B	<50*	3,600*/210	<50*	<50*
T	<50*	1,900*/<200	<50*	<50*
E	<50*	17,000*/8,700	<50*	<50*
X	<150*	110,000*/46,000	<150*	<150*
MTBE	<100*	500*/<200	<100*	<100*

B-14

Depth	25'	30'	35'
TPHg	730	390	NA
TPHd	260	1,000	NA
B	150*	960*/78	<50*
T	<50*	1,400*/<50	<50*
E	2,600,000*	2,900*/1,900	<50*
X	680*	5,700*/3,300	<150*
MTBE	130*	<100*/<50	<100*

B-10

Depth	30'	32'	34'	40'
TPHg	NA	NA	NA	NA
TPHd	NA	NA	NA	NA
B	<50*	<50*	<50*	90*
T	<50*	<50*	<50*	<50*
E	<50*	<50*	60*	100*
X	<150*	<150*	<150*	<150*
MTBE	<100*	<100*	<100*	<100*

B-11

Depth	31'	36'	40'	45'
TPHg	<10	<10	NA	NA
TPHd	<10	<10	NA	NA
B	<50*	240*/88	70*	<50*
T	<50*	<50*/5.8	<50*	<50*
E	<50*	60*/38	<50*	<50*
X	<150*	<150*/<10	<150*	<150*
MTBE	<100*	<100*/10	<100*	<100*

MW-9

Depth	5'	10'	15'	20'	25'	30'	35'	39'
TPHg	<10	<10	<10	<10	<10	14	<10	<10
TPHd	<10	<10	<10	<10	<10	<10	<10	<10
B	<5	<5	<5	76	<5	900	<5	<5
T	<5	<5	<5	<5	<5	1,700	<5	<5
E	<5	<5	<5	56	21	320	<5	<5
X	<15	<15	<15	64	70	1,720	15	11
MTBE	<5	<5	<5	22	7.4	120	<5	<5
DIPE	<5	<5	<5	<5	<5	<5	<5	<5
TAME	<5	<5	<5	<5	<5	<5	<5	<5
ETBE	<5	<5	<5	<5	<5	<5	<5	<5
TBA	<25	<25	<25	<25	<25	<25	<25	<25

MW-6

Depth	20'	25'	30'	35'	40'
TPHg	2.1	5.8	5,900	410	210
TPHd	NA	NA	NA	NA	NA
B	150*	<5*	11,000*	430*	<400*
T	6*	<5*	93,000*	7,700*	730*
E	15*	6*	90,000*	4,300*	2,000*
X	110*	130*	540,000*	29,000*	17,000*
MTBE	46*/23	51*/<5	<800,000*	<40,000*	<2,800*

MW-4

Depth	1'	5'
TEH	14 ppm	0.5 ppm
B	NA	<5*
T	NA	<5*
E	NA	<5*
X	NA	NA
MTBE	NA	NA

MW-7

Depth	25'
TPHg	21
TPHd	NA
B	<20
T	<20
E	<20
X	60*
MTBE	140*

MW-13

Depth	5'	10'	15'	20'	25'	30'	35'	40'	45'	50'
TPHg	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TPHd	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
B	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
T	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
E	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
X	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7
MTBE	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
DIPE	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
TAME	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
ETBE	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
TBA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

B-16

Depth	29'	31'	33'
TPHg	NA	NA	NA
TPHd	NA	NA	NA
B	<50*	<50*	<50*
T	<50*	<50*	<50*
E	<50*	<50*	<50*
X	<150*	<150*	<150*
MTBE	<100*	<100*/10	<100*

MW-15

Depth	5'	10'	15'	20'	25'	30'	35'	40'
TPHg	<10	<10	<10	<10	<10	<10	<10	<10
TPHd	<10	<10	<10	<10	<10	<10	<10	<10
B	<2	<2	<2	<2	<2	<2	<2	<2
T	<2	<2	<2	<2	<2	<2	<2	<2
E	<2	<2	<2	<2	2.38	<2	<2	2.56
X	<7	<7	<7	<7	<7	<7	<7	<7
MTBE	<2	<2	<2	<2	<2	<2	<2	<2
DIPE	<2	<2	<2	<2	<2	<2	<2	<2
TAME	<2	<2	<2	<2	<2	<2	<2	<2
ETBE	<2	<2	<2	<2	<2	<2	<2	<2
TBA	<10	<10	<10	<10	<10	<10	<10	<10

B-6

Depth	30'	32'	33'	34'	36'	40'
TPHg	NA	780	200	<10	NA	NA
TPHd	NA	200	190	<10	NA	NA
B	<50*	9,100*/660	390*/<50	360*	60*	<50*
T	<50*	7,200*/3,100	1,600*/<50	80*	<50*	<50*
E	<50*	26,000*/9,900	4,900*/1,600	400*	110*	<50*
X	<150*	120,000*/48,000	28,000*/8,600	750*	<150*	<150*
MTBE	<100*	68,000*/<500	1,900*/<50	<500*	<100*	<100*

MW-16

Depth	5'	10'	15'	20'	25'	30'	35'	40'
TPHg	<10	<10	<10	<10	<10	<10	<10	<10
TPHd	<10	<10	<10	<10	<10	<10	<10	<10
B	<2	<2	<2	<2	<2	<2	<2	<2
T	<2	<2	<2	<2	<2	<2	<2	<2
E	<2	<2	<2	<2	<2	<2	<2	2.70
X	<7	<7	<7	<7	<7	<7	<7	<7
MTBE	<2	<2	<2	<2	<2	<2	3.02	<2
DIPE	<2	<2	<2	<2	<2	<2	<2	<2
TAME	<2	<2	<2	<2	<2	<2	<2	<2
ETBE	<2	<2	<2	<2	<2	<2	<2	<2
TBA	<10	<10	<10	<10	<10	<10	<10	<10

B-7

Depth	25'	30'	32'	36'	40'
TPHg	NA	NA	<10	<10	NA
TPHd	NA	NA	<10	<10	NA
B	<50*	<50*	210*	730*	<50*
T	<50*	<50*	<50*	<50*	<50*
E	<50*	<50*	60*	<50*	<50*
X	<150*	<150*	<150*	<150*	<150*
MTBE	<100*	<100*	150*	220*	<100*

B-1

Depth	20'	25'	30'	32'	34'	36'	38'
TPHg	<10	<10	240	9,600	<10	<10	NA
TPHd	<10	<10	140	21,000	<10	<10	NA
B	NA	<500*	680*	61,000*/8,300	660*	<50*	<50*
T	NA	<500*	1,600*	340,000*/86,000	2,400*	<50*	<50*
E	NA	<500*	2,400*	100,000*/39,000	970*	<50*	<50*
X	NA	<150*	13,000*	590,000*/201,000	4,900*	<150*	<150*
MTBE	NA	<100*	<1,000*	130,000*/<1,000	720*	<100*	<100*

MW-19

Depth	25'	30.5'	35'	40'
TPHg	<10	82	1,100	<10
TPHd	<10	46	210	<10
B	NA	NA	280	NA
T	NA	NA	4,000	NA
E	NA	NA	21,000	NA
X	NA	NA	96,000	NA
MTBE	NA	NA	<200	NA
DIPE	NA	NA	<200	NA
TAME	NA	NA	<200	NA
ETBE	NA	NA	<200	NA
TBA	NA	NA	<1,000	NA

MW-14

Depth	5'	10'	15'	20'	25'	30'	35'	40'
TPHg	<10	<10	<10	<10	<10	<10	<10	<10
TPHd	<10	<10	<10	<10	<10	37.2	<10	<10
B	<2	<2	<2	<2	<2	31.7	100	<2
T	<2	<2	<2	<2	<2	<2	<2	<2
E	<2	<2	<2	<2	<2	61.9	143	<2
X	<7	<7	<7	<7	<7	5.35	5.32	<7
MTBE	<2	<2	<2	<2	<2	22.6	71.2	<2
DIPE	<2	<2	<2	<2	<2	<2	<2	<2
TAME	<2	<2	<2	<2	<2	<2	<2	<2
ETBE	<2	<2	<2	<2	<2	<2	<2	<2
TBA	<10	<10	<10	<10	<10	<10	<10	<10

B-3

Depth	7'	10'	20'	25'	30'	32'	34'	36'	40'
TPHg	<10	<10	<10	<10	1,700	4,000	<10	NA	NA
TPHd	<10	<10	<10	<10	2,800	8,700	<10	NA	NA
B	NA	NA	<50*	<50*	8,200*/990	32,000*/20,000	<50*/21	<50*	<50*
T	NA	NA	<50*	<50*	8,600*/<200	8,200*/1,700	<50*/<5	<50*	<50*
E	NA	NA	<50*	<50*	27,000*/4,000	55,000*/55,000	<50*/16	<50*	<50*
X	NA	NA	<150*	<150*	96,000*/40,000	210,000*/161,200	<150*/9	<150*/32	<150*
MTBE	NA	NA	<100*	<100*	10,000*/<200	42,000*/1,400	210*/120	140*	<100*

B-4

Depth	7'	10'	20'	30'	32'	34'	36'	38'	40'
TPHg	<10	<10	<10	1,200	11,000	3,900	17	NA	NA
TPHd	<10	<10	<10	4,500	24,000	12,000	51	NA	NA
B	<50*	<50*	<50*	460*	14,000*/1,900	840*	50*	110*	<50*
T	<50*	<50*	<50*	130*	11,000*/1,600	1,200*	<50*	<50*	<50*
E	<50*	<50*	<50*	8,100*	35,000*/8,400	11,000*	<50*	<50*	<50*
X	<150*	<150*	<150*	19,000*	110,000*/17,000	18,000*	<150*	<150*	<150*
MTBE	<100*	<100*	<100*	390*	<50,000*/<1,000	2,600*	400*	350*	240*

MW-17

Depth	5'	10'	15'	20'	25'	30'	35'	38'	45'
TPHg	<10	<10	<10	<10	<10	<10	378	<10	<10
TPHd	<10	<10	<10	<10	<10	<10	1,610	<10	<10
B	<2	<2	<2	<2	<2	<2	<2	<2	<2
T	<2	<2	<2	<2	<2	<2	<2	<2	<2
E	<2	<2	<2	<2	<2	<2	<2	<2	<2
X	<7	<7	<7	<7	<7	<7	<7	<7	<7
MTBE	<2	<2	<2	<2	<2	<2	<2	<2	<2
DIPE	<2	<2	<2	<2	<2	<2	<2	<2	<2
TAME	<2	<2	<2	<2	<2	<2	<2	<2	<2
ETBE	<2	<2	<2	<2	<2	<2	<2	<2	<2
TBA	<10	<10	<10	<10	<10	<10	<10	<10	<10

B-5

Depth	20'	28.5'
TPHg	<10	<10
TPHd	<10	<10
B	<50*	<50*
T	<50*	<50*
E	<50*	<50*
X	<150*	<150*
MTBE	<100*	<100*

MW-10

Depth	5'	10'	15'	20'	25'	30'	35'	40'	43'
TPHg	<10	<10	<10	<10	<10	<10	<10	<10	<10
TPHd	<10	<10	<10	<10	<10	<10	<10	<10	<10
B	<5	<5	<5	<5	<5	<5	<5	<5	<5
T	<5	<5	<5	<5	<5	<5	<5	<5	<5
E	<5	<5	<5	<5	<5	<5	<5	<5	<5
X	<15	<15	<15	<15	<15	<15	<15	<15	<15
MTBE	<5	<5	<5	<5	<5	31	13	7.7	<5
DIPE	<5	<5	<5	<5	<5	<5	<5	<5	<5
TAME	<5	<5	<5	<5	<5	<5	<5	<5	<5
ETBE	<5	<5	<5	<5	<5	<5	<5	<5	<5
TBA	<25	<25	<25	<25	<25	<25	<25	<25	<25

B-18

Depth	25'	32'	34'	36'	40'
TPHg	NA	320	NA	NA	NA
TPHd	NA	1,300	NA	NA	NA
B	<50*	<50*/<50	<50*/<5	<50*/<5	<50*
T	<50*	<50*/<50	<50*/<5	<50*/<5	<50*
E	<50*	70*/<50	<50*/<5	<50*/<5	<50*
X	<150*	180*/<100	<150*/<10	<150*/<10	<150*
MTBE	<100*	170*/150	210*/140	280*/250	<100*

B-17

Depth	7'	15'	25'	30'	32'	34'	36'
TPHg	<10	<10	330	NA	7,800	<10	NA
TPHd	<10	<10	4,100	NA	13,000	<10	NA
B	NA	NA	NA	<50*	1,600*/12,000	<50*	<50*
T	NA	NA	NA	<50*	320*/<50	<50*	<50*
E	NA	NA	NA	530*	2,200*/18,000	<50*	<50*
X	NA	NA	NA	86*	7,500*/57,000	<150*	<150*
MTBE	NA	NA	NA	<100*	2,000*/<500	<100*	<100*

MW-18

Depth	25'	28.5'	35'	40'
TPHg	<10	<10	<10	<10
TPHd	<10	<10	<10	<10
B	NA	<5	NA	NA
T	NA	<5	NA	NA
E	NA	<5	NA	NA
X	NA	<15	NA	NA
MTBE	NA	<5	NA	NA
DIPE	NA	<5	NA	NA
TAME	NA	<5	NA	NA
ETBE	NA	<5	NA	NA
TBA	NA	<25	NA	NA

0 40 80 120

Approximate Graphic Scale: One Inch Equals 80 Feet

North

EXPLANATION

- MW-16 — Groundwater monitoring well location
- MW-5 — Well destroyed
- Soil vapor sampling location
- Approximate Site boundary
- B-16 — Approximate location of exploratory boring, performed by EnecoTech (2003).
- Approximate extent of TPH-bearing soil

AST = aboveground storage tank

Soil samples collected by SCS Engineers in 2011, Petra Geotechnical, Inc. in 2008, and Eneco Tech Southwest, Inc. from 1998 to 2002. Soil samples, with depth in feet below grade, analyzed for total petroleum hydrocarbons as gasoline (TPHg) and diesel (TPHd) by EPA Method 8015 or DHS LUFT method; volatile organic compounds (VOCs) by EPA Method 8260B unless otherwise noted. Total extractable hydrocarbons (TEH) measured in parts per million (ppm). * indicates soil samples analyzed by EPA Method 8021. All results reported in micrograms per kilogram (µg/kg). < indicates concentration not detected above laboratory reporting limits for relevant analyte and analytical method. NA indicates sample not analyzed. Only VOCs with detectable concentrations are listed here; refer to laboratory reports for a full listing of VOCs analyzed.

TPHg = total petroleum hydrocarbons as gasoline
TPHd = total petroleum hydrocarbons as diesel
B = benzene
T = toluene
E = ethylbenzene
X = xylenes
TEH = total extractable hydrocarbons
MTBE = methyl tertiary buty ether
DIPE = Di-isopropyl ether
TAME = Tertiary amyl methyl ether
ETBE = Ethyl tertiary butyl ether
TBA = Tertiary butyl alcohol

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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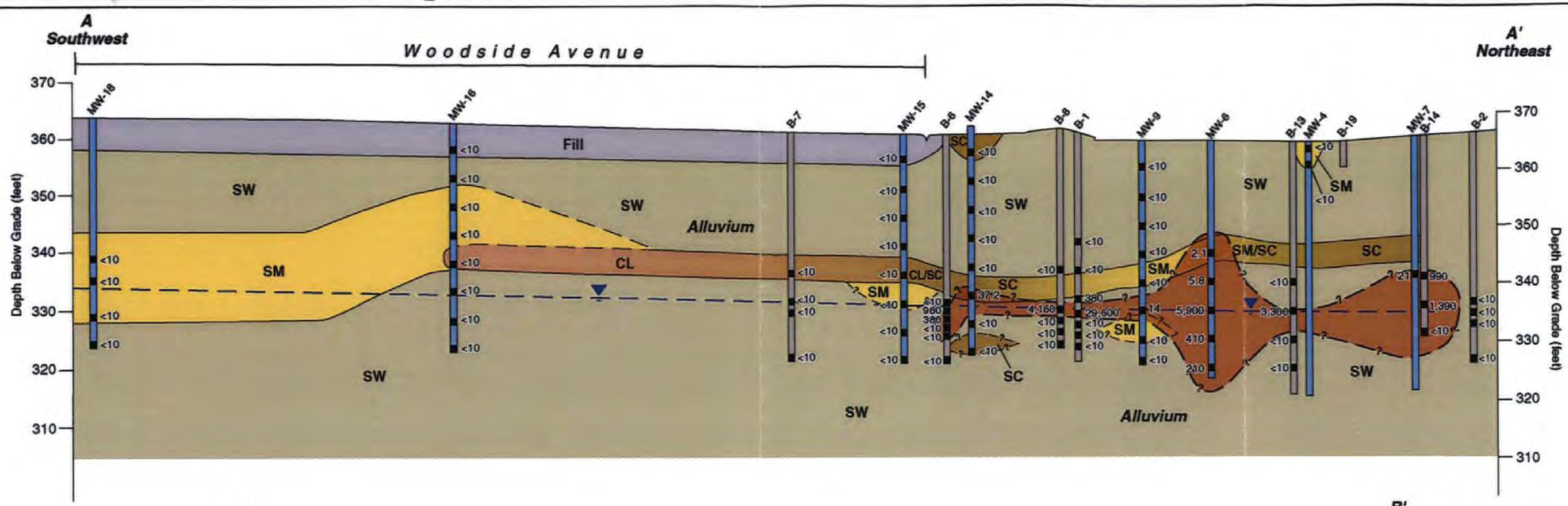
SOIL SAMPLE ANALYTICAL RESULTS

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 3

Date Drafted: 8/15/11



EXPLANATION

Borings with soil sample locations and total petroleum hydrocarbon (TPH) concentrations above the laboratory reporting limit. All results reported in micrograms per liter (µg/L).

Total petroleum hydrocarbon-bearing soil

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

Approximate Vertical Graphic Scale: One Inch Equals 20 feet

Approximate Horizontal Graphic Scale: One Inch Equals 80 feet

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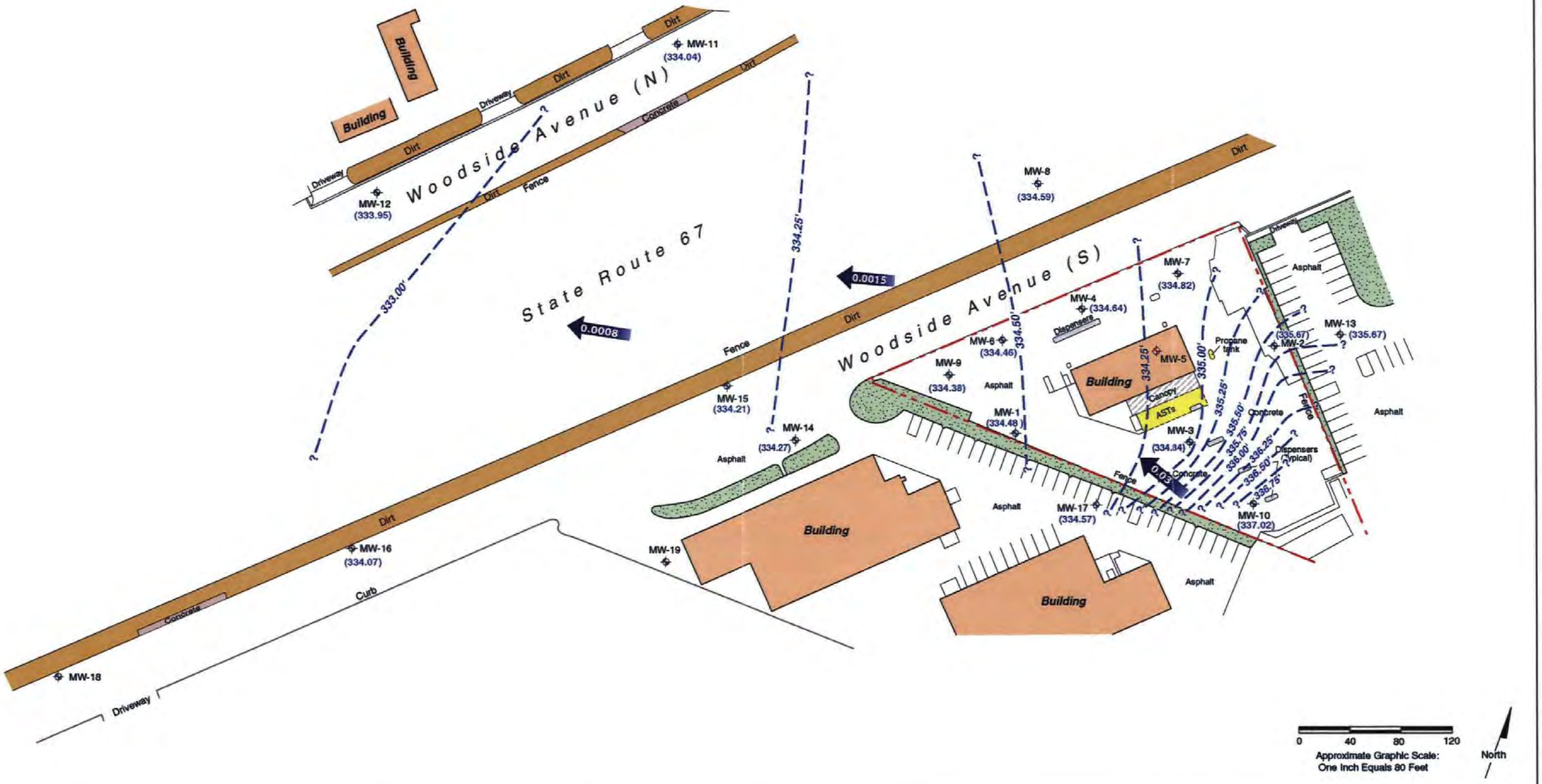
CROSS-SECTIONS A - A' AND B - B'
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 4

Date Drafted: 8/15/11



EXPLANATION

MW-16 (334.07) — Groundwater monitoring well location with groundwater elevation in feet above mean sea level.

MW-5 — Well destroyed

334.25' — Estimated groundwater contour in feet above mean sea level.

0.0008 — Interpreted direction of groundwater flow and estimated groundwater gradient.

AST = aboveground storage tank

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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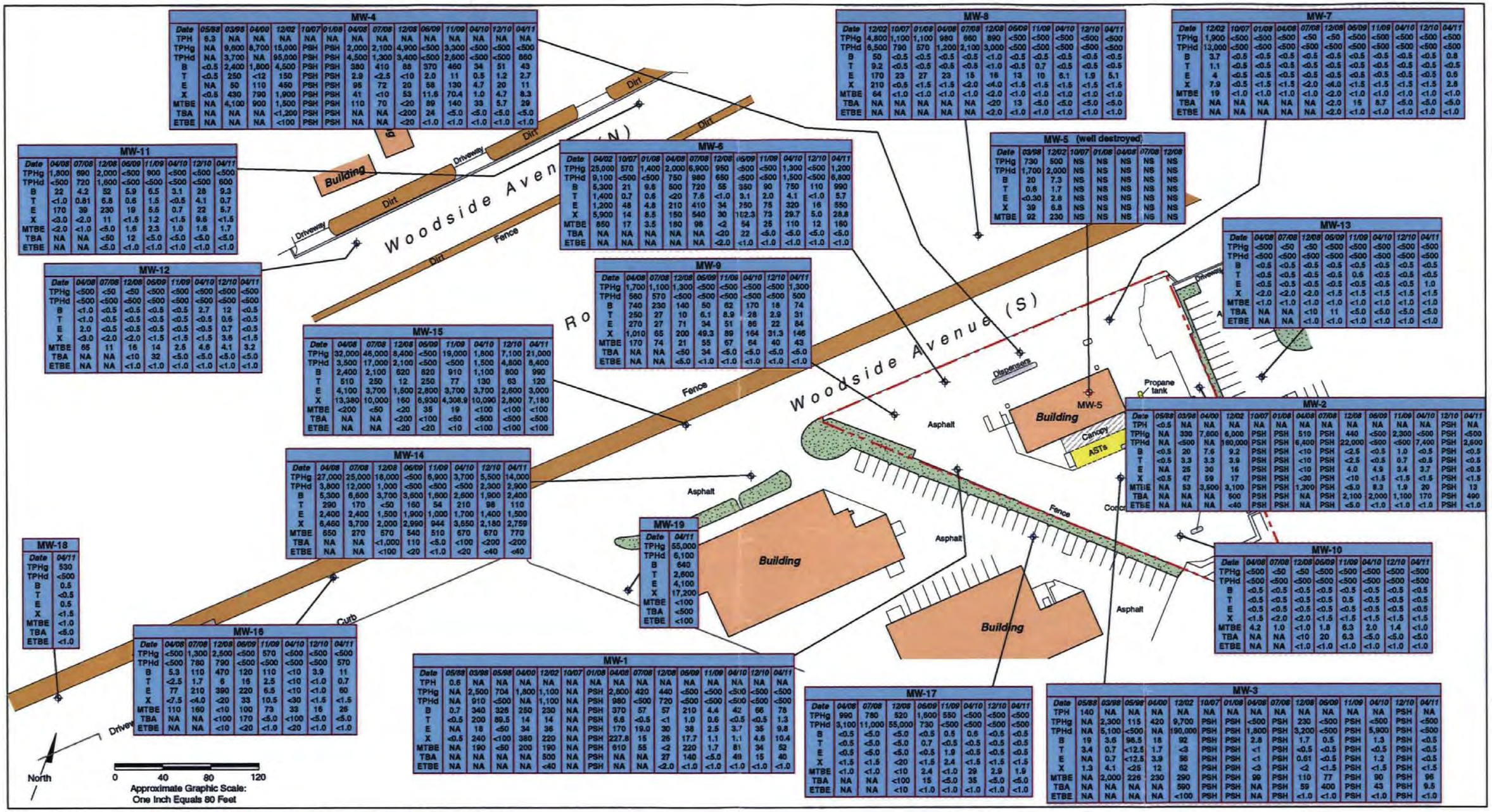
GROUNDWATER ELEVATION MAP
APRIL 2011
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 5

Date Drafted: 6/28/11



MW-4

Date	05/88	03/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPH	6.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	9,600	8,700	15,000	PSH	PSH	2,000	2,100	4,900	<500	3,300	<500	<500	<500
TPHd	NA	3,700	NA	95,000	PSH	PSH	4,500	1,300	3,400	<500	2,600	<500	<500	860
B	<0.5	2,400	1,800	4,500	PSH	PSH	380	410	88	370	460	34	51	43
T	<0.5	250	<12	150	PSH	PSH	2.9	<2.5	<10	2.0	11	0.5	1.2	2.7
E	NA	50	110	450	PSH	PSH	95	72	20	58	130	4.7	20	11
X	<0.5	430	790	1,900	PSH	PSH	41	<10	53	11.6	70.4	1.0	4.7	8.3
MTBE	NA	4,100	900	1,500	PSH	PSH	110	70	<20	89	140	33	5.7	29
TBA	NA	NA	NA	<1,200	PSH	PSH	NA	NA	<200	24	<5.0	<5.0	<5.0	<5.0
ETBE	NA	NA	NA	<100	PSH	PSH	NA	NA	<20	<1.0	<1.0	<1.0	<1.0	<1.0

MW-8

Date	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPHg	4,800	1,100	1,100	980	660	890	<500	<500	<500	<500	<500
TPHd	6,500	790	570	1,200	2,100	3,000	<500	<500	<500	<500	<500
B	50	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5
T	9.2	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	0.7	<0.5	<0.5	<0.5
E	170	23	27	23	15	16	13	10	6.1	1.9	5.1
X	210	<0.5	<1.5	<1.5	<2.0	<4.0	<1.5	<1.5	<1.5	<1.5	<1.5
MTBE	64	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
TBA	NA	NA	NA	NA	NA	<20	13	<5.0	<5.0	<5.0	<5.0
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-7

Date	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPHg	1,900	<500	<500	<500	<50	<50	<500	<500	<500	<500	<500
TPHd	13,000	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	3.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8
T	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
E	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6
X	7.9	<0.5	<1.5	<1.5	<2.0	<4.0	<1.5	<1.5	<1.5	<1.5	2.8
MTBE	19	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
TBA	NA	NA	NA	NA	NA	<20	15	8.7	<5.0	<5.0	<5.0
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-11

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPHg	1,800	690	2,000	<500	900	<500	<500	<500
TPHd	<500	720	1,600	<500	<500	<500	<500	600
B	22	4.2	52	5.9	6.5	3.1	28	9.3
T	<1.0	0.81	6.8	0.6	1.5	<0.5	4.1	0.7
E	170	39	230	19	5.5	0.7	22	5.7
X	<3.0	<2.0	11	<1.5	1.2	<1.5	9.6	<1.5
MTBE	<2.0	<1.0	<5.0	1.6	2.3	1.0	1.6	1.7
TBA	NA	NA	<50	12	<5.0	<5.0	<5.0	<5.0
ETBE	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-6

Date	04/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPHg	25,000	570	1,400	2,000	6,900	950	<500	<500	1,300	<500	1,200
TPHd	9,100	<500	<500	750	980	650	<500	<500	1,500	<500	6,500
B	5,300	21	9.6	500	720	55	350	90	750	110	990
T	1,400	0.7	0.6	<20	7.6	<1.0	3.1	2.0	4.1	<1.0	5.7
E	1,200	48	4.8	210	410	34	250	75	320	16	550
X	5,900	14	8.5	150	540	30	122.3	73	29.7	5.0	28.8
MTBE	850	17	3.5	180	98	<2	54	25	110	12	160
TBA	NA	NA	NA	NA	NA	<20	22	<5.0	<5.0	<5.0	<5.0
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-5 (well destroyed)

Date	03/98	12/02	10/07	01/08	04/08	07/08	12/08
TPHg	730	500	NS	NS	NS	NS	NS
TPHd	1,700	2,000	NS	NS	NS	NS	NS
B	20	7.3	NS	NS	NS	NS	NS
T	0.6	1.7	NS	NS	NS	NS	NS
E	<0.30	2.8	NS	NS	NS	NS	NS
X	39	6.8	NS	NS	NS	NS	NS
MTBE	92	230	NS	NS	NS	NS	NS

MW-13

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPHg	<500	<50	<50	<500	<500	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500	<500	<500
B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
T	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5
E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.0
X	<2.0	<2.0	<2.0	<1.5	<1.5	<1.5	<1.5	<1.5
MTBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TBA	NA	NA	<10	11	<5.0	<5.0	<5.0	<5.0
ETBE	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-12

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPHg	<500	<50	<50	<500	<500	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500	<500	<500
B	<1.0	<0.5	<0.5	<0.5	<0.5	2.7	12	<0.5
T	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5
E	2.0	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5
X	<3.0	<2.0	<2.0	<1.5	<1.5	<1.5	3.6	<1.5
MTBE	65	11	16	14	2.5	4.6	4.1	3.2
TBA	NA	NA	<10	32	<5.0	<5.0	<5.0	<5.0
ETBE	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-9

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPHg	1,700	1,100	1,300	<500	<500	<500	<500	1,300
TPHd	560	570	<500	<500	<500	<500	<500	500
B	740	230	140	50	62	170	18	74
T	250	27	10	6.1	8.9	28	2.9	31
E	270	27	71	34	51	86	22	84
X	1,010	65	200	49.3	89	164	31.3	146
MTBE	170	74	21	55	67	64	40	43
TBA	NA	NA	<50	34	<5.0	<5.0	<5.0	<5.0
ETBE	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-15

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPHg	32,000	46,000	8,400	<500	19,000	1,800	7,100	21,000
TPHd	3,500	17,000	2,100	<500	<500	1,500	4,800	8,400
B	2,400	2,100	620	820	910	1,100	800	990
T	510	250	12	250	77	130	63	120
E	4,100	3,700	1,500	2,800	3,700	3,700	2,800	3,000
X	13,380	10,000	160	6,930	4,308.9	10,090	2,800	7,180
MTBE	<200	<50	<20	35	19	<100	<100	<100
TBA	NA	NA	<200	<100	<50	<500	<500	<500
ETBE	NA	NA	<20	<20	<10	<100	<100	<100

MW-14

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPHg	27,000	25,000	18,000	<500	6,900	3,700	5,500	14,000
TPHd	3,800	12,000	1,000	<500	<500	<500	2,300	2,900
B	5,300	6,600	3,700	3,600	1,600	2,600	1,900	2,400
T	290	170	<50	160	54	210	98	110
E	2,400	2,400	1,500	1,900	1,000	1,700	1,400	1,500
X	6,460	3,700	2,000	2,990	944	3,650	2,180	2,759
MTBE	550	270	570	540	510	670	670	770
TBA	NA	NA	<1,000	110	<5.0	<100	<200	<200
ETBE	NA	NA	<100	<20	<1.0	<20	<40	<40

MW-19

Date	04/11
TPHg	55,000
TPHd	6,100
B	640
T	2,600
E	4,100
X	17,200
MTBE	<100
TBA	<500
ETBE	<100

MW-2

Date	05/88	03/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPH	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	PSH	NA
TPHg	NA	330	7,600	6,000	PSH	PSH	510	PSH	440	<500	2,300	<500	PSH	<500
TPHd	NA	<500	NA	160,000	PSH	PSH	6,400	PSH	22,000	<500	<500	7,400	PSH	2,600
B	<0.5	20	7.6	9.2	PSH	PSH	<10	PSH	<2.5	<0.5	1.0	<0.5	PSH	<0.5
T	<0.5	3.3	3.3	3.9	PSH	PSH	<10	PSH	<2.5	<0.5	0.7	<0.5	PSH	<0.5
E	NA	25	30	16	PSH	PSH	<10	PSH	4.0	4.9	3.4	3.7	PSH	<0.5
X	<0.5	47	59	17	PSH	PSH	<30	PSH	<10	<1.5	<1.5	<1.5	PSH	<1.5
MTBE	NA	53	3,500	3,100	PSH	PSH	1,300	PSH	<5.0	8.3	1.9	20	PSH	13
TBA	NA	NA	NA	500	PSH	PSH	NA	PSH	2,100	2,000	1,100	170	PSH	490
ETBE	NA	NA	NA	<40	PSH	PSH	NA	PSH	<5.0	<1.0	<1.0	<1.0	PSH	<1.0

MW-10

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPHg	<500	<50	<50	<500	<500	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500	<500	<500
B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
T	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5
E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
X	<1.5	<2.0	<2.0	<1.5	<1.5	<1.5	<1.5	<1.5
MTBE	4.2	1.0	<1.0	1.8	6.3	2.0	1.4	<1.0
TBA	NA	NA	<10	20	6.3	<5.0	<5.0	<5.0
ETBE	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-18

Date	04/11
TPHg	530
TPHd	<500
B	0.5
T	<0.5
E	0.5
X	<1.5
MTBE	<1.0
TBA	<5.0
ETBE	<1.0

MW-16

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPHg	<500	1,300	2,500	<500	570	<500	<500	<500
TPHd	<500	780	790	<500	<500	<500	<500	570
B	5.3	110	470	120	110	<10	3.9	11
T	<2.5	1.7	6	15	2.5	<10	<1.0	0.7
E	77	210	390	220	6.5	<10	<1.0	60
X	<7.5	<4.0	<20	33	10.5	<30	<1.5	<1.5
MTBE	110	160	<10	100	73	33	16	26
TBA	NA	NA	<100	170	<5.0	<100	<5.0	<5.0
ETBE	NA	NA	<10	<20	<1.0	<20	<1.0	<1.0

MW-1

Date	05/88	03/98	05/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPH	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	2,500	704	1,800	1,100	NA	PSH	2,800	420	440	<500	<500	<500	<500	<500
TPHd	NA	910	<500	NA	1,100	NA	PSH	980	<500	720	<500	<500	<500	<500	<500
B	0.7	340	325	250	230	NA	PSH	370	57	57	210	4.4	42	66	78
T	<0.5	200	89.5	14	14	NA	PSH	6.6	<0.5	<1	1.0	0.6	<0.5	<0.5	1.3
E	NA	18	<50	34	36	NA	PSH	170	19.0	30	38	2.5	3.7	35	9.8
X	<0.5	240	<100	380	220	NA	PSH	227.8	15	26	17.7	1.1	1.1	4.6	10.4
MTBE	NA	190	<50	200	190	NA	PSH	610	55	<2	220	1.7	81	36	52
TBA	NA	NA	NA	NA	500	NA	PSH	NA	NA	27	140	<5.0	49	15	40
ETBE	NA	NA	NA	NA	<40	NA	PSH	NA	NA	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-17

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPHg	990	780	520	1,600	550	<500	<500	<500
TPHd	3,100	11,000	55,000	730	<500	<500	<500	<500
B	<0.5	<5.0	<5.0	<0.5	0.5	0.6	<0.5	<0.5
T	<0.5	<5.0	<5.0	0.7	<0.5	<0.5	<0.5	<0.5
E	<0.5	<5.0	<5.0	<0.5	1.9	<0.5	<0.5	<0.5
X	<1.5	<1.5	<20	<1.5	2.4	<1.5	<1.5	<1.5
MTBE	<1.0	<1.0	<10	2.4	<1.0	29	2.9	1.9
TBA	NA	NA	<100	15	<5.0	35	<5.0	<5.0
ETBE	NA	NA	<10	<1.0	<1.0	<1.0	<1.0	<1.0

MW-3

Date	05/88	03/98	05/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPH	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	PSH	NA
TPHg	NA	2,300	115	420	9,700	PSH	PSH	<500	PSH	230	<500	PSH	<500	PSH	<500
TPHd	NA	5,100	<500	NA	190,000	PSH	PSH	1,800	PSH	3,200	<500	PSH	5,900	PSH	<500
B	19	3.6	98.5	18	92	PSH	PSH	2.8	PSH	1.7	0.5	PSH	1.3	PSH	<0.5
T	3.4	0.7	<12.5	1.7	<3	PSH	PSH	<1	PSH	<0.5	<0.5	PSH	<0.5	PSH	<0.5
E	NA	0.7	<12.5	3.9	56	PSH	PSH	<1	PSH	0.61	<0.5	PSH	1.2	PSH	<0.5
X	1.3	4.1	<25	12	62	PSH	PSH	<3	PSH	<2	<1.5	PSH	<1.5	PSH	<1.5
MTBE	NA	2,000	226	230	290	PSH	PSH	99	PSH	110	77	PSH	90	PSH	96
TBA	NA	NA	NA	NA	590	PSH	PSH	NA	PSH	59	400	PSH	43	PSH	9.5
ETBE	NA	NA	NA	NA	<100	PSH	PSH	NA	PSH	<1.0	<1.0	PSH	<1.0	PSH	<1.0

EXPLANATION

MW-17 — Groundwater monitoring well location

MW-5 — Well destroyed

MW-16

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11
TPHg	<500	1,300	2,500	<500	570	<500	<500	<500
TPHd	<500	780	790	<500	<500	<500	<500	570
B	5.3	110	470	120	110	<10	3.9	11
T	<2.5	1.7	6	15	2.5	<10	<1.0	0.7
E	77	210	390	220	6.5	<10	<1.0	60
X	<7.5	<4.0	<20	33	10.5	<30	<1.5	<1.5
MTBE	110	160	<10	100	73	33	16	26
TBA	NA	NA	<100	170	<5.0	<100	<5.0	<5.0
ETBE	NA	NA	<10	<20	<1.0	<20	<1.0	<1.0

Groundwater samples collected by SCS Engineers beginning in June 2009; Petra Geotechnical, Inc. from October 2007 to December 2008; and Eneco Tech Southwest, Inc. from May 1988 to December 2002. Groundwater samples analyzed for total petroleum hydrocarbons by CA DHS LUFT Method; volatile organic compounds (VOCs) by EPA Method 8260B. All results reported in micrograms per liter (ug/L). < indicates concentration not reported above indicated reporting limit for relevant analyte and analytical method. NA indicates sample not analyzed. PSH indicates phase-separated hydrocarbons. Only VOCs with detectable concentrations are listed here; refer to laboratory reports for full listing of VOCs analyzed.

TPH = total petroleum hydrocarbons
TPHg = total petroleum hydrocarbons as gasoline
TPHd = total petroleum hydrocarbons as diesel
B = benzene
T = toluene
E = ethylbenzene
X = xylenes
MTBE = methyl tertiary buty ether
TBA = tertiary butyl alcohol
ETBE = Ethyl tertiary butyl ether

AST = aboveground storage tank

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

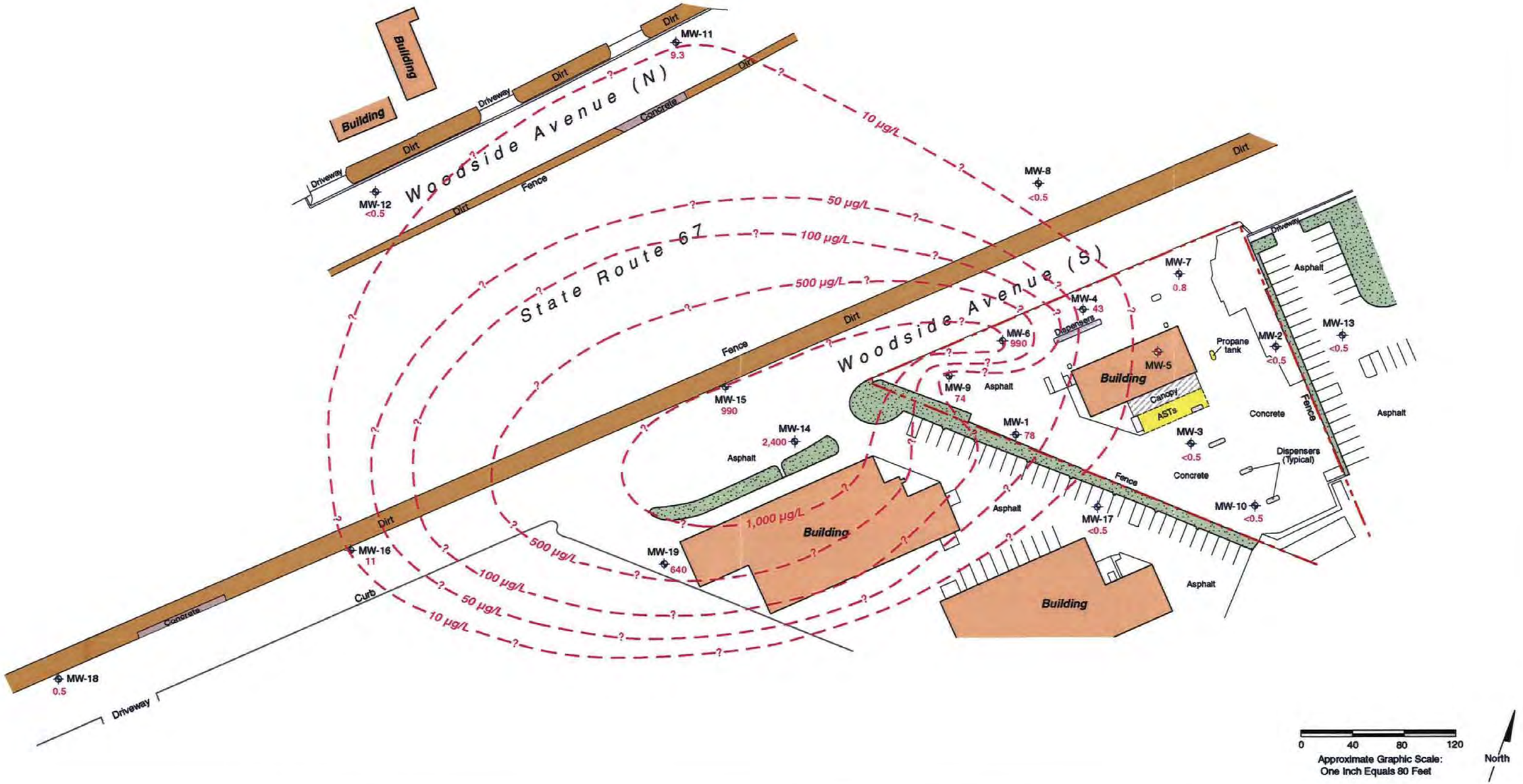
GROUNDWATER SAMPLE ANALYTICAL RESULTS

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 6

Date Drafted: 6/28/11



EXPLANATION

MW-16 11 — Groundwater monitoring well location with reported concentrations of benzene reported in micrograms per liter (µg/L). < indicates not reported above laboratory reporting limit for given analyte.

MW-5 — Well destroyed

100 µg/L — Iso-concentration of benzene reported in µg/L. Dashed where estimated, queried where inferred.

AST = aboveground storage tank

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

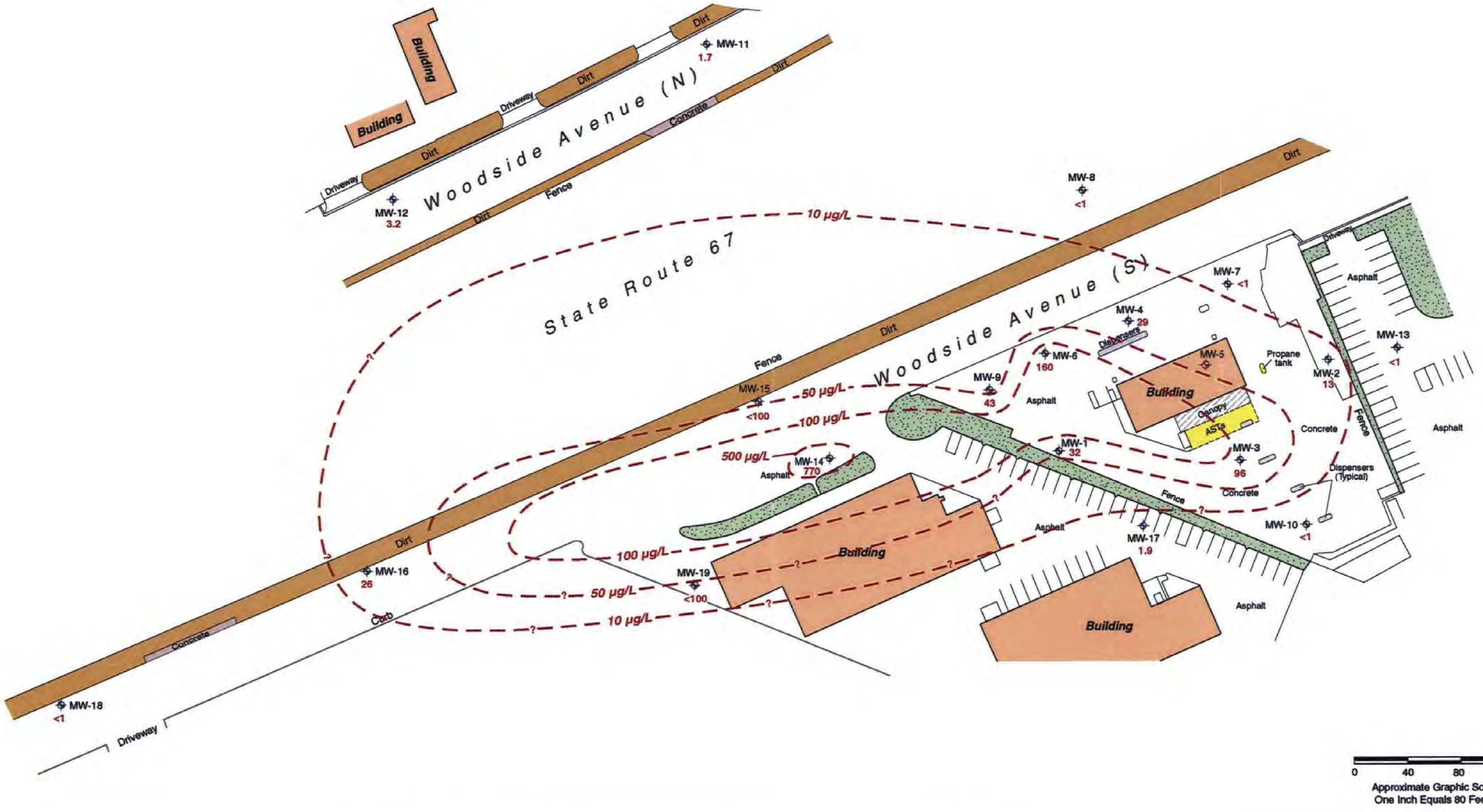
ISO-CONCENTRATION CONTOURS OF BENZENE IN SHALLOW GROUNDWATER - APRIL 2011

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 7

Date Drafted: 6/28/11



EXPLANATION

MW-16 / 26 — Groundwater monitoring well location with reported concentrations of MTBE reported in micrograms per liter (µg/L). < indicates not reported above laboratory detection limit for given analyte.

MW-5 — Well destroyed

100 — Iso-concentration of MTBE reported in µg/L. Dashed where estimated, queried where inferred.

AST = aboveground storage tank

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

ISO-CONCENTRATION CONTOURS OF MTBE IN SHALLOW GROUNDWATER - APRIL 2011
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 8

Date Drafted: 6/28/11

APPENDICES

APPENDIX A

DEH COMMUNICATION

County of San Diego

JACK MILLER
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
619-338-2222/FAX 619-338-2315/1-800-253-9933
www.sdcdeh.org

ELIZABETH POZZEBON
ASSISTANT DIRECTOR

May 19, 2010

Mrs. Linda Wigington
c/o William Fischbeck
Fischbeck and Oberndorfer
5464 Grossmont Center Drive, 3rd Floor
La Mesa, CA 91942

Dear Mrs. Wigington:

UNAUTHORIZED RELEASE #H19469-001
WORK PLAN APPROVAL WITH CONDITIONS
WIGINGTON PETROLEUM
11427 WOODSIDE AVENUE, SANTEE, CA

This letter has been prepared in accordance with the requirements set forth in Title 23 (State Underground Storage Tank Regulations), Division 3, Chapter 16, Article 11, Section 2722. The purpose of this letter is to notify the Responsible Party of the status of the *Site Assessment Work Plan* received by the County of San Diego, Site Assessment and Mitigation Program (SAM), on April 28, 2010.

The Work Plan, dated April 26, 2010, and prepared by SCS Engineers, covers one of the following phases of corrective action:

Preliminary Site Assessment	( )
Soil and Water Investigation	(X)
Corrective Action Plan	( )
Verification Monitoring	( )
Interim Remedial Action	( )

The Work Plan has been:

( ) approved.
( ) disapproved-call the undersigned for further instructions.
(X) approved with the following changes or conditions:

- All soil samples submitted for laboratory analysis must be analyzed for benzene, toluene, ethylbenzene, xylenes, and fuel oxygenates using EPA Method 8260B.

This approval is valid for 180 days from the date of this letter. The work must be completed and a report submitted within 180 days. *Keep this letter for your records as it may be required for corrective action cost reimbursement under Senate Bill 2004 (California Health and Safety Code, Division 20, Chapter 6.75, Article 6).*

As a reminder, please continue submitting all of the soil and groundwater data electronically into GeoTracker based on our letter dated July 13, 2005.

Please call me at (619) 338-2243 if you have any questions.

Sincerely,

Ellen Beacon

ELLEN BEACON, PG #7566
Project Manager
Site Assessment and Mitigation Program

EB:kd

cc: Charles Houser, SCS Engineers

APPENDIX B

WELL PERMIT

PERMIT #LMON107686
A.P.N. #382-320-39
EST #H19469-001

COUNTY OF SAN DIEGO
DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
MONITORING WELL PROGRAM

MONITORING WELL CONSTRUCTION PERMIT

SITE NAME: WIGINGTON PETROLEUM

SITE ADDRESS: 11427 WOODSIDE AVE., AND IN THE STREET ADJ. TO 9360 CREEKSIDE CT., SANTEE CA 92040

PERMIT FOR: **SEVEN GROUNDWATER MONITORING WELLS**

PERMIT APPROVAL DATE: MARCH 11, 2011

PERMIT EXPIRES ON: JULY 9, 2011

RESPONSIBLE PARTY: WIGINGTON PETROLEUM C/O WILLIAM FISCHBECK ESQ.

PERMIT CONDITIONS:

1. Wells must have a **minimum 3-foot concrete surface seal**. The surface seal shall consist of concrete able to withstand the maximum anticipated load without cracking or deteriorating. The concrete should meet Class A specifications of a minimum 4000-pound compressive strength.

2. All water and soil resulting from the activities covered by this permit must be managed, stored and disposed of as specified in the SAM Manual in Section 5, E- 4. (**http://www.sdcounty.ca.gov/deh/lwq/sam/manual_guidelines.html**). In addition, drill cuttings must be properly handled and disposed in compliance with the Stormwater Best Management Practices of the local jurisdiction.

3. Within 60 days of completing work, submit a well construction report, including all well and/or boring logs and laboratory data to the Well Permit Desk. This report must include all items required by the SAM Manual, Section 5, Pages 6 & 7.

4. This office must be given 48-hour notice of any drilling activity on this site and advanced notification of drilling cancellation. Please contact the Well Permit Desk at 858) 505-6688.

NOTE: **This permit does not constitute approval of a work plan as defined in Section 2722 of Article 11 of C.C.R., Title 23. Work plans are required for all unauthorized release investigations in San Diego County.**

APPROVED BY: _____ DATE: 3.11.2011
JAMES CLAY

NOTIFIED: _____

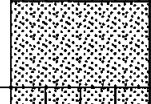
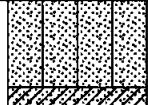
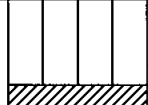
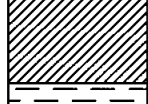
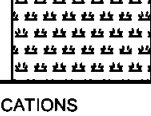
DEH: SAM-9075

APPENDIX C

BORING LOGS

SCS ENGINEERS

USCS SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS — MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS — MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS — MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS — MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

USCS_LEGEND_SD 10/15/08

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

	Fines	Sand			Gravel		Cobbles	Boulders
		Fine	Medium	Coarse	Fine	Coarse		
U.S. Standard Sieve Sizes	#200	1/64"		1/8"	1/4"	3/4"	3"	12"

California modified split spoon sampler with sample recovery indicated.

Groundwater level encountered during drilling operations

Static groundwater level

Description of constituent percentages as used in soil sample classifications

1% to 12% - "Trace"
13% to 30% - "Some"
31% to 49% - Adjective form of the soil group (e.g. sandy)
Equal amounts of different soil groups - "and"

SCS ENGINEERS

8799 Balboa Avenue, Suite 290
San Diego, California 92123-1568

WELL LOG

Number: MW-18

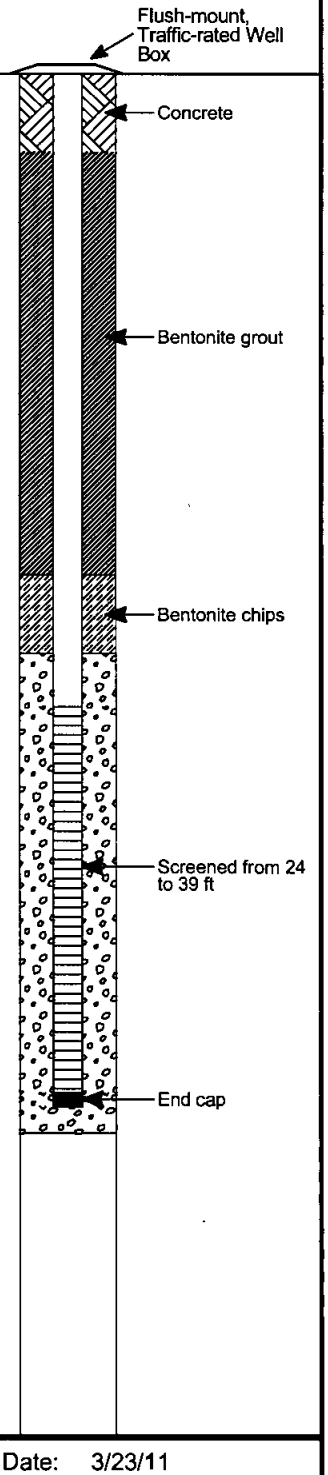
Client: Wiginton Petroleum
Job No: 01208473.00
Sheet: 1 of 1

SCS Representative: Chris Crosby
Location: 11427 Woodside Avenue, Santee, CA
Drilling Company: Cascade Drilling

Date Drilled: 3/23/11
Date Drafted: 6/28/11
Drilling / Sampling Method: Hollow Stem Auger / Split Spoon Sampler
Lat.: 0
Long: 0
Elev: 0.00
Borehole Dia.: 8"
Casing Dia: 2"
Total Depth: 40.0

Depth (feet)	Sample Interval	Sample Number	Blow Counts	PID (ppm)	Lab Results gas/diesel/oil (mg/kg)	USCS Soil Class.	Graphic Log	Description (Formation, soil type, grain, minor soil component, moisture, density, odor, etc.)
0								4 inches ashpalt.
						Fill		Artifical Fill (Qaf) Dark yellowish-brown (10 YR 3/6) SAND, fine- to coarse-grained, slightly moist, loose, no odor.
5	X		8 10 12	0.0		SW		ALLUVIUM (Qal) Olive brown (2.5 Y 4/4) SAND, fine- to coarse-grained, trace silt, moist, loose, no odor.
10	X		8 10 15	0.0				Same as above, fine-grained.
15	X		10 12 12	0.0		SP		Yellowish-brown (10 YR 5/6) SAND, fine- to medium-grained, trace silt, moist, loose, no odor.
20	X		12 12 12	0.0				Dark olive brown (2.5 Y 3/3) SILTY SAND, very fine-grained, non-plastic, moist, loose, no odor.
25	X	MW18-25	10 10 17	0.0	<10/<10/NA	SM		Dark olive brown (2.5 Y 3/3) SILTY SAND with clay, very fine-grained, medium plasticity, moist, loose, no odor.
	X	MW18-28.5	12 15	0.0	<10/<10/NA			Same as above, decreased clay, non-plastic, very moist.
30	X		17 10 12 12	0.0				Dark grayish-brown (2.5 Y 4/2) SAND, fine- to medium-grained, trace silt, wet, no odor.
35	X	MW18-35	12 15 15	0.0	<10/<10/NA	SW		Dark yellowish-brown (10 YR 3/6) SAND, fine- to coarse-grained, trace silt, wet, no odor.
40	X	MW18-40	10 11 12	0.0	<10/<10/NA			Boring termainted at 40 feet below grade.
45								
50								

Completion Detail



Logged By: Chris Crosby Title: Staff Professional Date: 3/23/11

Reviewed By: Chuck Houser License No: C.H.g. 945 Date: 6/20/11

SD_BORING_LOG WIGINGTON OIL WELL LOGS.GPJ GINT STD US.GDT 6/28/11

SCS ENGINEERS

WELL LOG

Number: MW-19

8799 Balboa Avenue, Suite 290
San Diego, California 92123-1568

Client: Wiginton Petroleum

Job No: 01208473.00

Sheet: 1 of 1

SCS Representative: Chris Crosby

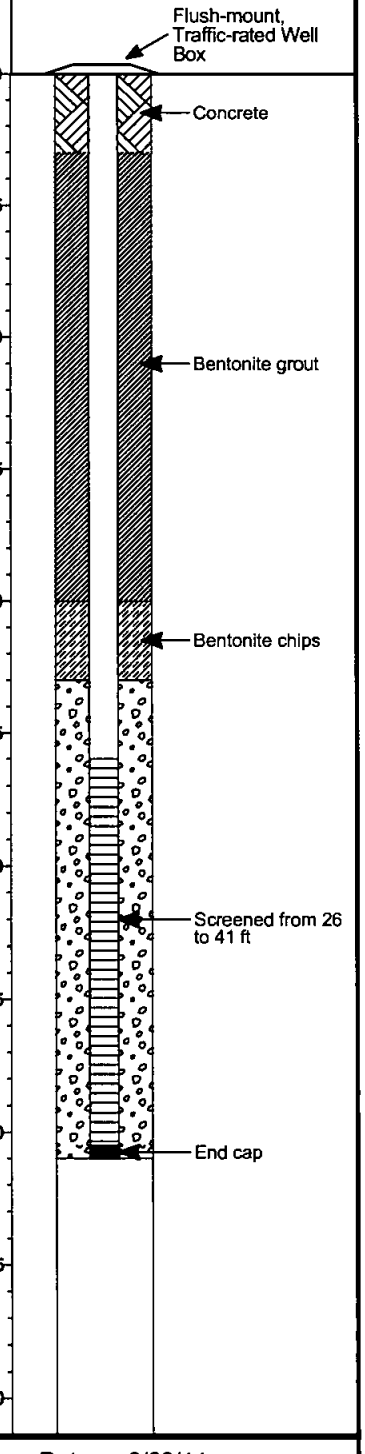
Location: 11427 Woodside Avenue, Santee, CA

Drilling Company: Cascade Drilling

Date Drilled:	Date Drafted:	Drilling / Sampling Method	Lat.:	Long:	Elev:
3/23/11	6/28/11	Hollow Stem Auger / Split Spoon Sampler	0	0	0.00
			Borehole Dia.: 8"	Casing Dia: 2"	Total Depth: 41.0

Depth (feet)	Sample Interval	Sample Number	Blow Counts	PID (ppm)	Lab Results gas/diesel/oil (mg/kg)	USCS Soil Class.	Graphic Log	Description (Formation, soil type, grain, minor soil component, moisture, density, odor, etc.)
0								3 inches asphalt ALLUVIUM (Qal)
5	☒		15 18 15	0.0				Dark brown (10 YR 3/3) SAND, fine-grained, trace silt, moist, loose, no odor.
10	☒		8 10 10	0.0				Olive brown (2.5 Y 4/4) SAND, fine- to coarse-grained, trace silt, moist, loose, no odor.
15	☒		10 12 12	0.0				Same as above, fine- to medium-grained.
20	☒		12 12 12	0.0		SM		Dark olive brown (2.5 Y 3/3) SILTY SAND, very fine-grained, non-plastic, moist, loose, no odor.
25	☒	MW19-25	8 10 10	0.0	<10/<10/NA			Dark olive brown (2.5 Y 3/3) SILTY SAND with clay, very fine-grained, medium plasticity.
30	☒	MW19-30.5	10 12 15	203 115 46.7	82/46/NA			Dark grayish-brown (2.5 Y 4/2), SAND, fine- to medim-grained, trace silt, very moist, strong hydrocarbon odor.
35	☒	MW19-35	10 10 10	0.0	1100/210/NA			Same as above, trace coarse-grained sand, wet.
40	☒	MW19-40	8 8 10	0.0	<10/<10/NA			Grayish-brown (2.5 Y 5/2) SAND, fine- to coarse-grained, trace silt, wet, slight hydrocarbon odor. Boring terminated at 41 feet below grade.
45								
50								

Completion Detail



Logged By: Chris Crosby Title: Staff Professional Date: 3/23/11

Reviewed By: Chuck Houser License No: C.H.g. 945 Date: 6/20/11

SD_BORING_LOG WIGINGTON OIL WELL LOGS.GPJ GINT STD US.GDT 6/28/11

APPENDIX D

WELL COMPLETION LOGS

MONITORING WELL CONSTRUCTION DETAILS

FLUSH MOUNT WELL

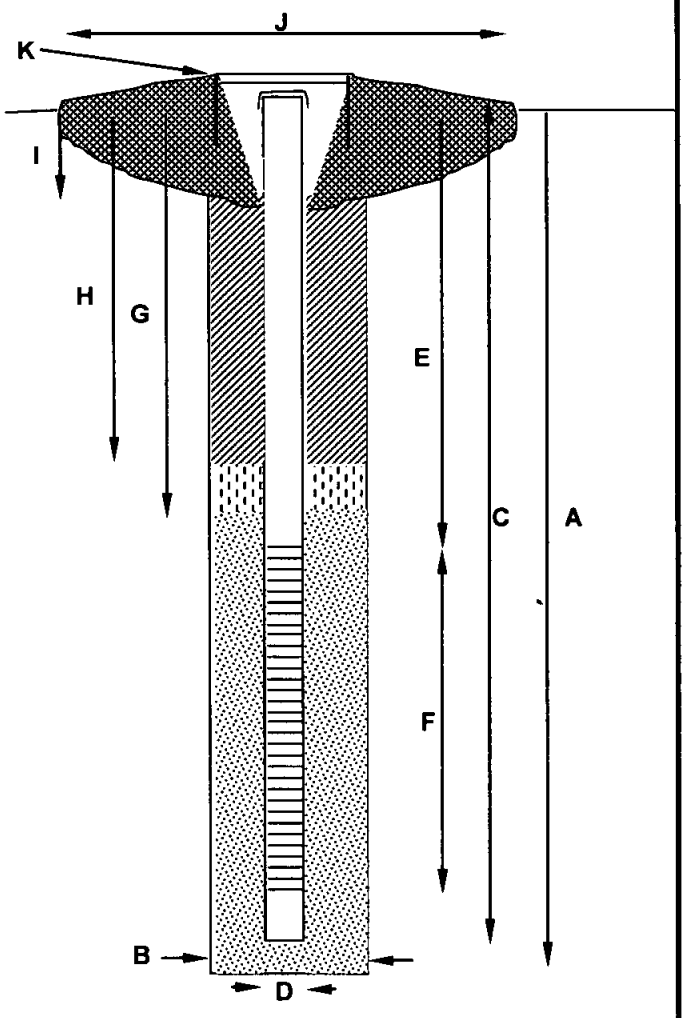
SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123

PROJECT NUMBER: 01208473.00 | BORING/WELL NUMBER: MW-18

SITE: 11427 Woodside Avenue, Santee, CA | CLIENT: Wigington Petroleum

COUNTY & PERMIT #: San Diego #LMON107686 | DATE OF INSTALLATION: March 23, 2011

DRILLER: Cascade Drilling | PREPARED BY: Chris Crosby



CONSTRUCTION DETAILS

Surface Elevation	unknown
Top of Casing Elevation	unknown
A. Total Depth	40
B. Boring Diameter	8 in
C. Casing Length	39
Casing Material	PVC
D. Casing Diameter	2 in
E. Depth to Top of Screen	24 ft
F. Screen Length	15 ft
Screen (slot) Size	0.020 in
G. Depth to top of Filter Pack	22 ft
Filter Pack Material	#3 Sand
H. Depth to top of Seal	19 ft
Seal Material	Bentonite Chips
I. Depth to Top of Fill Material	3 ft
Annular Fill Material	Bentonite Grout
J. Surface Seal Dimensions	3 ft diameter
Radial or Square or Other	Radial
Surface Seal Material	Concrete

K. Type and Size of Protective Casing: 12 in Traffic Box

Notes:
11 bags of Sand
1.5 bags of Bentonite Chips
2 bags of Grout
10 bags of Concrete

Prepared by:	Date:	Reviewed by:	Date:
Chris Crosby	5/12/2011	Chuck Houser	5/13/2011

F:\Projects\208\451-530\01208473.00 (Wigington Petroleum, Inc.)\701 (El Cap Oil)\Site Assessment\WellCompletion MW-18

MONITORING WELL CONSTRUCTION DETAILS

FLUSH MOUNT WELL

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123

PROJECT NUMBER: 01208473.00

BORING/WELL NUMBER: MW-19

SITE: 11427 Woodside Avenue, Santee, CA

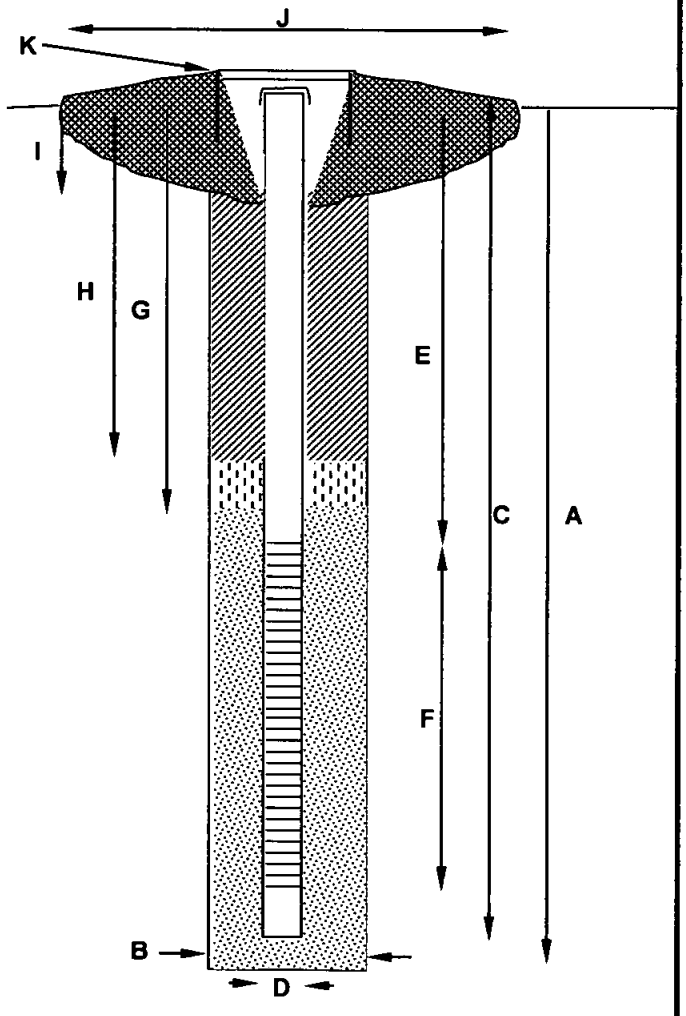
CLIENT: Wigington Petroleum

COUNTY & PERMIT #: San Diego #LMON107686

DATE OF INSTALLATION: March 23, 2011

DRILLER: Cascade Drilling

PREPARED BY: Chris Crosby



CONSTRUCTION DETAILS

Surface Elevation	unknown
Top of Casing Elevation	unknown
A. Total Depth	41
B. Boring Diameter	8 in
C. Casing Length	41
Casing Material	PVC
D. Casing Diameter	2 in
E. Depth to Top of Screen	26 ft
F. Screen Length	15 ft
Screen (slot) Size	0.020 in
G. Depth to top of Filter Pack	23 ft
Filter Pack Material	#3 Sand
H. Depth to top of Seal	20 ft
Seal Material	Bentonite Chips
I. Depth to Top of Fill Material	3 ft
Annular Fill Material	Bentonite Grout
J. Surface Seal Dimensions	3 ft diameter
Radial or Square or Other	Radial
Surface Seal Material	Concrete

K. Type and Size of Protective Casing: 12 in Traffic Box

Notes:
11 bags of Sand
1.5 bags of Bentonite Chips
2 bags of Grout
10 bags of Concrete

Prepared by:	Date:	Reviewed by:	Date:
Chris Crosby	5/12/2011	Chuck Houser	5/13/2011

APPENDIX E

GROUNDWATER PURGING AND SAMPLING SHEETS

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123

Client: Wigington Oil	Project No: 1208473.00	Recorded By:
Site Address: 11427 Woodside Avenue Santee, CA	Date: 4/4/2011	CC/AB

WELL MONITORING DATA

WELL NO.	DTB	DTW	DTP	PT	SWE	ELEV-W	ELEV-P
MW-1	41.6	28.36			362.84		
MW-2	44.6	29.41			365.08		
MW-3	43.2	29.32			364.16		
MW-4	41.6	27.74			362.38		
MW-6	41.8	27.98			362.44		
MW-7	41.9	27.75			362.57		
MW-8	39.5	29.92			364.51		
MW-9	38.3	27.95			362.33		
MW-10	38.3	30.26			367.28		
MW-11	37.4	28.44			362.48		
MW-12	36.2	27.93			361.88		
MW-13	44.7	31.24			366.91		
MW-14	36.8	28.52			362.79		
MW-15	37.2	28.15			362.36		
MW-16	38.3	28.41			362.48		
MW-17	44.4	33.40			367.97		
MW-18	39.1	28.60					
MW-19	40.4	31.28					

NOTES

Drums onsite: 8 soil, 9 water

WELL NO. - Monitoring well number
DTW - Depth to water from datum
DTP - Depth to product from datum
PT - Product Thickness
DTB - Depth to bottom of well
SWE - Surveyed well elevation in feet
ELEV-W - Relative elevation of water
ELEV-P - Relative elevation of product

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-1
Project Number: 01208473.00 | Date: 4/4/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: AB | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 41.6 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 28.36 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 13.24 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV** = 22.5 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other:
Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☐ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
☐ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
13:48	28.54	0.18	22.5	642	–	7.13	–	22.4
14:00	28.60	0.24	33.5	662	–	7.21	–	22.1

Borehole Volume: 22.5 (gal) | Total Volume Purge Water: 33.5 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.41

SAMPLING INFORMATION

Date & Time Sampled: 4/4/11, 14:20 | Depth to water at time of sampling (feet): 28.36

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-2
Project Number: 01208473.00 | Date: 4/6/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 44.6 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 29.41 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 15.19 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2-CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 25.8 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other:
Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☐ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☒ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
☒ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
0850								
0933	44.26	14.85	26	1033	-	7.30	-	20.2

Borehole Volume: 25.8 (gal) | Total Volume Purge Water: 26 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 32.38

SAMPLING INFORMATION

Date & Time Sampled: 4/6/11 1200 | Depth to water at time of sampling (feet): 37.07

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil		Well No.: MW-3
Project Number: 01208473.00		Date: 4/6/11
Project Address: 11427 Woodside Avenue, Santee, CA		
Well GPS: Latitude:	Longitude:	
Sampled by: C. Crosby	Checked by: CEH	License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12	
Casing Diameter (in.) (CD): 2 (4) 6 8	
Total Well Depth (ft.) (WD): 43.2	Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 29.32	Time measured: NA
Water Column (ft.) (WC=WD-SWL): 13.88	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 23.6 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐

pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp

Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other: _____

Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☐ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

☐ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1005								
1026	38.95	9.63	24	706	–	7.43	–	19.6
1040	39.62	10.30	36	685	–	7.25	–	20.4

Borehole Volume: 23.6 (gal) Total Volume Purge Water: 36 (gal) Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 31.38

SAMPLING INFORMATION

Date & Time Sampled: 4/6/11 1110 Depth to water at time of sampling (feet): 30.20

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

WELL PURGING/SAMPLING LOG

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Project Name: Wigington Oil | Well No.: MW-4
Project Number: 01208473.00 | Date: 4/5/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: AB | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 41.6 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 27.74 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 13.86 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 23.5 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other: _____
Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☐ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
☐ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
13:15	27.96	0.22	23.5	920	—	7.38	—	21.1
13:30	27.97	0.23	35.5	918	—	7.41	—	20.9

Borehole Volume: 23.5 (gal) | Total Volume Purge Water: 35.5 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 27.79

SAMPLING INFORMATION

Date & Time Sampled: 4/5/11, 13:45 | Depth to water at time of sampling (feet): 27.76

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

WELL PURGING/SAMPLING LOG

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Project Name: Wigington Oil — Well No.: MW-6
Project Number: 01208473.00 — Date: 4/5/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: AB — Checked by: CEH — License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 41.8
Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 27.98
Time measured: NA
Water Column (ft.) (WC=WD-SWL): 13.82
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 23.5 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other:
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
[ ] Method 4, remove I BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
14:38	28.01	0.03	23.5	838	—	6.97	—	21.3
14:50	27.99	0.01	35.5	850	—	7.00	—	20.9

Borehole Volume: 23.5 (gal) — Total Volume Purge Water: 35.5 (gal) — Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 27.986

SAMPLING INFORMATION

Date & Time Sampled: 4/5/11, 15:05 — Depth to water at time of sampling (feet): 27.98

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-7
Project Number: 01208473.00 | Date: 4/5/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: AB | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 41.9
Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 27.75
Time measured: NA
Water Column (ft.) (WC=WD-SWL): 14.15
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 24 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other:
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
11:05	27.94	0.19	24	864	—	6.90	—	21.2
11:20	27.96	0.21	36	876	—	7.01	—	20.8

Borehole Volume: 24 (gal) | Total Volume Purge Water: 36 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 27.79

SAMPLING INFORMATION

Date & Time Sampled: 4/5/11, 11:45 | Depth to water at time of sampling (feet): 27.77

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-8
Project Number: 01208473.00 | Date: 4/5/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 39.5 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 29.92 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 9.58 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 16.3 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other:
Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☐ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
☐ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1242								
1255	30.03	0.11	18.	779	–	7.43	–	22.4
1304	30.10	0.18	25	809	–	7.52	–	22.5

Borehole Volume: 16.3 (gal) | Total Volume Purge Water: 25 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.95

SAMPLING INFORMATION

Date & Time Sampled: 4/5/11 1315 | Depth to water at time of sampling (feet): 29.94

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-9
Project Number: 01208473.00 | Date: 4/4/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: AB | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 38.3 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 27.95 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 10.35 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD² + P (BD²-CD²)](WC)
This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 17.5 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other: _____
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
12:35	27.99	0.04	18	735	—	7.09	—	22.1
12:52	28.03	0.08	27	754	—	7.21	—	21.6

Borehole Volume: 17.5 (gal) | Total Volume Purge Water: 27 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 27.97

SAMPLING INFORMATION

Date & Time Sampled: 4/4/11, 13:10 | Depth to water at time of sampling (feet): 27.95

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-10
Project Number: 01208473.00 | Date: 4/5/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: AB | Checked by: CEN | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 38.3 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 30.26 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 8.04 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 13.5 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other: ____
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
15:43	32.02	1.76	14	692	—	7.06	—	23.3
15:50	32.55	2.29	21	708	—	7.03	—	22.3

Borehole Volume: 13.5 (gal) | Total Volume Purge Water: 21 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 30.72

SAMPLING INFORMATION

Date & Time Sampled: 4/5/11, 16:00 | Depth to water at time of sampling (feet): 30.33

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-11
Project Number: 01208473.00 | Date: 4/4/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: AB | Checked by: CEK | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12
Casing Diameter (in.) (CD): (2) 4 6 8
Total Well Depth (ft.) (WD): 37.4 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 28.44 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 8.96 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 8 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other:
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date: Time:
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
10:53	28.43	-0.01	8	360	–	7.11	–	26.2
11:12	28.44	0	12	454	–	7.00	–	22.3
11:28	28.44	0	16	468	–	7.03	–	22.2

Borehole Volume: 8 (gal) | Total Volume Purge Water: 16 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.44

SAMPLING INFORMATION

Date & Time Sampled: 4/4/11 11:45 | Depth to water at time of sampling (feet): 28.44

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-12
Project Number: 01208473.00 | Date: 4/4/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEN | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12
Casing Diameter (in.) (CD): (2) 4 6 8
Total Well Depth (ft.) (WD): 36.2 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 27.93 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 8.27 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 7.4 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other:
Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☐ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
☐ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1025								
1041	27.95	0.02	7.5	576	–	7.34	–	22.9
1050	27.95	0.02	11.5	547	–	7.36	–	22.8

Borehole Volume: 7.4 (gal) | Total Volume Purge Water: 11.5 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 27.93

SAMPLING INFORMATION

Date & Time Sampled: 4/4/11 1100 | Depth to water at time of sampling (feet): 27.93

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil		Well No.: MW-13
Project Number: 01208473.00		Date: 4/5/11
Project Address: 11427 Woodside Avenue, Santee, CA		
Well GPS: Latitude:	Longitude:	
Sampled by: AB	Checked by: CEH	License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12	
Casing Diameter (in.) (CD): (2) 4 6 8	
Total Well Depth (ft.) (WD): 44.7	Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 31.24	Time measured: NA
Water Column (ft.) (WC=WD-SWL): 13.46	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 12.1 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐

pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp

Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other: _____

Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☒ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

☒ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
10:20	44.32	13.08	12	1049	—	7.05	—	21.7

Borehole Volume: 12 (gal) Total Volume Purge Water: 12 (gal) Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 33.86

SAMPLING INFORMATION

Date & Time Sampled: 4/5/11, 12:30 Depth to water at time of sampling (feet): 32.73

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil		Well No.: MW-14
Project Number: 01208473.00		Date: 4/5/11
Project Address: 11427 Woodside Avenue, Santee, CA		
Well GPS: Latitude:	Longitude:	
Sampled by: C. Crosby	Checked by: CEH	License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12	
Casing Diameter (in.) (CD): 2 (4) 6 8	
Total Well Depth (ft.) (WD): 36.8	Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 28.52	Time measured: NA
Water Column (ft.) (WC=WD-SWL): 8.28	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 14.1 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐

pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp

Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other: _____

Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☐ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

☐ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1348								
1358	30.62	2.11	15	923	–	7.41	–	22.2
1404	30.82	2.30	22	919	–	7.39	–	22.1

Borehole Volume: 14.1 (gal) Total Volume Purge Water: 22 (gal) Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.98

SAMPLING INFORMATION

Date & Time Sampled: 4/5/11 1415 Depth to water at time of sampling (feet): 28.55

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-15
Project Number: 01208473.00 | Date: 4/5/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEG | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12
Casing Diameter (in.) (CD): (2) 4 6 8
Total Well Depth (ft.) (WD): 37.2
Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 28.15
Time measured: NA
Water Column (ft.) (WC=WD-SWL): 9.05
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 8.1 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other:
Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☐ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
☐ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1540								
1558	28.18	0.03	8.5	685	-	7.37	-	22.4
1607	28.22	0.07	12.5	681	-	7.39	-	22.3

Borehole Volume: 8.1 (gal) | Total Volume Purge Water: 12.5 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.16

SAMPLING INFORMATION

Date & Time Sampled: 4/5/11 1615 | Depth to water at time of sampling (feet): 28.15

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil		Well No.: MW-16
Project Number: 01208473.00		Date: 4/4/11
Project Address: 11427 Woodside Avenue, Santee, CA		
Well GPS: Latitude:	Longitude:	
Sampled by: C. Crosby	Checked by: CEH	License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12	
Casing Diameter (in.) (CD): (2) 4 6 8	
Total Well Depth (ft.) (WD): 38.3	Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 28.41	Time measured: NA
Water Column (ft.) (WC=WD-SWL): 9.89	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 8.9 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐

pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp

Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other: _____

Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☐ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

☐ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1412	28.41	0.00	9.0	1230	—	7.51	—	22.6
1422	28.41	0.00	13.5	1173	—	7.55	—	22.6

Borehole Volume: 8.9 (gal) Total Volume Purge Water: 13.5 (gal) Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.41

SAMPLING INFORMATION

Date & Time Sampled: 4/4/11 1430 Depth to water at time of sampling (feet): 28.41

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-17
Project Number: 01208473.00 | Date: 4/5/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12
Casing Diameter (in.) (CD): (2) 4 6 8
Total Well Depth (ft.) (WD): 44.4 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 33.40 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 11.00 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 9.9 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other:
Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☐ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
☐ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
0916								
0949	41.86	8.46	10	866	–	7.75	–	23.0
1004	42.55	9.15	15	857	–	7.72	–	23.3

Borehole Volume: 9.9 (gal) | Total Volume Purge Water: 15 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 35.23

SAMPLING INFORMATION

Date & Time Sampled: 4/5/11 1030 | Depth to water at time of sampling (feet): 35.00

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil		Well No.: MW-18
Project Number: 01208473.00		Date: 4/4/11
Project Address: 11427 Woodside Avenue, Santee, CA		
Well GPS: Latitude:	Longitude:	
Sampled by: C. Crosby	Checked by: CEH	License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12	
Casing Diameter (in.) (CD): (2) 4 6 8	
Total Well Depth (ft.) (WD): 39.1	Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 28.60	Time measured: NA
Water Column (ft.) (WC=WD-SWL): 10.50	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 9.5 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐

pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp

Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other: _____

Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☐ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

☐ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1230								
1253	28.60	0.00	9.5	1560	–	7.58	–	22.1
1305	28.60	0.00	14.5	882	–	7.55	–	22.0
1319	28.60	0.00	19.0	897	–	7.60	–	21.8

Borehole Volume: 9.5 (gal) Total Volume Purge Water: 19.0 (gal) Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.60

SAMPLING INFORMATION

Date & Time Sampled: 4/4/11 1330 Depth to water at time of sampling (feet): 28.60

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

WELL PURGING/SAMPLING LOG

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

Project Name: Wigington Oil | Well No.: MW-19
Project Number: 01208473.00 | Date: 4/5/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12
Casing Diameter (in.) (CD): (2) 4 6 8
Total Well Depth (ft.) (WD): 40.4 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 31.28 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 9.12 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 8.2 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other:
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date: Time:
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1055								
1126	31.34	0.06	8.5	791	–	7.39	–	22.7
1139	31.35	0.07	12.5	787	–	7.41	–	22.6

Borehole Volume: 8.2 (gal) | Total Volume Purge Water: 12.5 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 31.29

SAMPLING INFORMATION

Date & Time Sampled: 4/5/11 1150 | Depth to water at time of sampling (feet): 31.28

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

APPENDIX F

NON-HAZARDOUS WASTE MANIFEST

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number (SOC)	2. Page 1 of 1	3. Emergency Response Phone CHEMTREC 1-800-424-9300	4. Waste Tracking Number 36739

GENERATOR

5. Generator's Name and Mailing Address
WIGINGTON OIL
11427 WOODSIDE AVE
SANTEE, CA 92071
Generator's Phone: ~~858-571-5500 CHRIS CROSBY~~

Generator's Site Address (if different than mailing address)
SAME

6. Transporter 1 Company Name: EFR ENVIRONMENTAL SERVICES, INC. — U.S. EPA ID Number: CAR000011205

7. Transporter 2 Company Name: Pacific Trans Environmental Serv. Inc. — U.S. EPA ID Number: CAD981412356

8. Designated Facility Name and Site Address: CROSBY & OVERTON PLANT #1
1630 WEST 17TH STREET
LONG BEACH, CA 90813
Facility's Phone: 562-432-5445 — U.S. EPA ID Number: CAD028409019

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON-HAZARDOUS WASTE LIQUID (PURGE WATER)	10	DM	550	G	
2.	NON-HAZARDOUS WASTE SOLID (SOIL)	7	DM	3500	P	
3.						
4.						

13. Special Handling Instructions and Additional Information
9B-1 PROFILE NO: 79886
9B-2 PROFILE NO: 81345

ALWAYS WEAR APPROPRIATE PPE & UDE SAFE HANDLING METHODS.

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: J Chris Crosby (On behalf of Generator (SCS)) — Signature: J Chris Crosby — Month 4 Day 25 Year 11

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Octavio Quintero — Signature — Month 4 Day 25 Year 11

Transporter 2 Printed/Typed Name: Francisco Hernandez — Signature: Francisco — Month 4 Day 25 Year 11

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

APPENDIX G

ANALYTICAL DATA AND CHAIN-OF-CUSTODY DOCUMENTATION

H&P Mobile Geochemistry Inc.

31 March 2011

Mr. Chuck Houser
SCS Engineers - San Diego
8799 Balboa Avenue, Suite 290
San Diego, CA 92123

H&P Project: SCS032411-10
Client Project: 01208473.00 / Wigington Petroleum

Dear Mr. Chuck Houser:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 23-Mar-11 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody

Unless otherwise noted, all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry, Inc. operates under CA Environmental Lab Accreditation Program Numbers 2579, 2740, 2741, 2742, 2743, 2745 and 2754. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

2470 Impala Drive, Carlsbad, California 92010 ┌ 760.804.9678 — Fax 760.804.9159
1855 Coronado Avenue, Signal Hill, California 90755
www.HandPmg.com ┌ 1-800-834-9888

Mobile Geochemistry Inc.

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Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

SCS Engineers - San Diego	Project: SCS032411-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	31-Mar-11 15:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-18-25	E103111-01	Soil	23-Mar-11	23-Mar-11
MW-18-28.5	E103111-02	Soil	23-Mar-11	23-Mar-11
MW-18-35	E103111-03	Soil	23-Mar-11	23-Mar-11
MW-18-40	E103111-04	Soil	23-Mar-11	23-Mar-11
MW-19-25	E103111-05	Soil	23-Mar-11	23-Mar-11
MW-19-30.5	E103111-06	Soil	23-Mar-11	23-Mar-11
MW-19-35	E103111-07	Soil	23-Mar-11	23-Mar-11
MW-19-40	E103111-08	Soil	23-Mar-11	23-Mar-11

H&P Mobile Geochemistry Inc.

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SCS Engineers - San Diego	Project: SCS032411-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	31-Mar-11 15:53

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-18-28.5 (E103111-02) Soil Sampled: 23-Mar-11 Received: 23-Mar-11									
Methyl tertiary-butyl ether (MTBE)	ND	5.0	ug/kg	0.5	EC12804	28-Mar-11	28-Mar-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	5.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*		*65-135*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*112 %*		*52-149*	"	"	"	"	
Surrogate: Toluene-d8		*114 %*		*65-135*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*		*65-135*	"	"	"	"	
MW-19-35 (E103111-07) Soil Sampled: 23-Mar-11 Received: 23-Mar-11									
Methyl tertiary-butyl ether (MTBE)	ND	200	ug/kg	20	EC12804	28-Mar-11	28-Mar-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	200	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	200	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	200	"	"	"	"	"	"	
Benzene	**280**	200	"	"	"	"	"	"	
Toluene	**4000**	200	"	"	"	"	"	"	
Ethylbenzene	**21000**	5000	"	500	"	"	"	"	
m,p-Xylene	**79000**	10000	"	"	"	"	"	"	
o-Xylene	**17000**	200	"	20	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	1000	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*103 %*		*65-135*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*119 %*		*52-149*	"	"	"	"	
Surrogate: Toluene-d8		*129 %*		*65-135*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*		*65-135*	"	"	"	"	

H&P Mobile Geochemistry Inc.

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SCS Engineers - San Diego	Project: SCS032411-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	31-Mar-11 15:53

TPH by GC FID

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-18-25 (E103111-01) Soil Sampled: 23-Mar-11 Received: 23-Mar-11									
Gasoline (C5-C11)	ND	10	mg/kg	1	EC12404	24-Mar-11	24-Mar-11	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-18-28.5 (E103111-02) Soil Sampled: 23-Mar-11 Received: 23-Mar-11									
Gasoline (C5-C11)	ND	10	mg/kg	1	EC12404	24-Mar-11	24-Mar-11	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-18-35 (E103111-03) Soil Sampled: 23-Mar-11 Received: 23-Mar-11									
Gasoline (C5-C11)	ND	10	mg/kg	1	EC12404	24-Mar-11	24-Mar-11	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-18-40 (E103111-04) Soil Sampled: 23-Mar-11 Received: 23-Mar-11									
Gasoline (C5-C11)	ND	10	mg/kg	1	EC12404	24-Mar-11	24-Mar-11	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-19-25 (E103111-05) Soil Sampled: 23-Mar-11 Received: 23-Mar-11									
Gasoline (C5-C11)	ND	10	mg/kg	1	EC12404	24-Mar-11	24-Mar-11	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	
MW-19-30.5 (E103111-06) Soil Sampled: 23-Mar-11 Received: 23-Mar-11									
Gasoline (C5-C11)	**82**	10	mg/kg	1	EC12404	24-Mar-11	24-Mar-11	DHS LUFT	
Diesel (C12-C24)	**46**	10	"	"	"	"	"	"	D-08
MW-19-35 (E103111-07) Soil Sampled: 23-Mar-11 Received: 23-Mar-11									
Gasoline (C5-C11)	**1100**	10	mg/kg	1	EC12404	24-Mar-11	24-Mar-11	DHS LUFT	
Diesel (C12-C24)	**210**	10	"	"	"	"	"	"	D-08

H&P Mobile Geochemistry Inc.

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SCS Engineers - San Diego	Project: SCS032411-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	31-Mar-11 15:53

TPH by GC FID

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-19-40 (E103111-08) Soil Sampled: 23-Mar-11 Received: 23-Mar-11									
Gasoline (C5-C11)	ND	10	mg/kg	1	EC12404	24-Mar-11	24-Mar-11	DHS LUFT	
Diesel (C12-C24)	ND	10	"	"	"	"	"	"	

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8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	31-Mar-11 15:53

Volatile Organic Compounds by EPA Method 8260B - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC12804 - EPA 5030										
Blank (EC12804-BLK1)				Prepared & Analyzed: 28-Mar-11						
Methyl tertiary-butyl ether (MTBE)	ND	5.0	ug/kg							
Diisopropyl ether (DIPE)	ND	5.0	"							
Ethyl tert-butyl ether (ETBE)	ND	5.0	"							
Tertiary-amyl methyl ether (TAME)	ND	5.0	"							
Benzene	ND	5.0	"							
Toluene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
m,p-Xylene	ND	10	"							
o-Xylene	ND	5.0	"							
Tertiary-butyl alcohol (TBA)	ND	25	"							
Surrogate: Dibromofluoromethane	*27.7*		"	*25.0*		*111*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*28.7*		"	*25.0*		*115*	*52-149*			
Surrogate: Toluene-d8	*28.9*		"	*25.0*		*116*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*26.6*		"	*25.0*		*106*	*65-135*			
Matrix Spike (EC12804-MS1)		**Source: E103111-02**		Prepared & Analyzed: 28-Mar-11						
Benzene	26.8	5.0	ug/kg	25.0	ND	107	65-135			
Toluene	25.1	5.0	"	25.0	ND	100	64-135			
Surrogate: Dibromofluoromethane	*28.6*		"	*25.0*		*115*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*29.3*		"	*25.0*		*117*	*52-149*			
Surrogate: Toluene-d8	*29.5*		"	*25.0*		*118*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*28.5*		"	*25.0*		*114*	*65-135*			
Matrix Spike Dup (EC12804-MSD1)		**Source: E103111-02**		Prepared & Analyzed: 28-Mar-11						
Benzene	28.0	5.0	ug/kg	25.0	ND	112	65-135	4.40	30	
Toluene	26.2	5.0	"	25.0	ND	105	64-135	4.08	30	
Surrogate: Dibromofluoromethane	*28.2*		"	*25.0*		*113*	*65-135*			
Surrogate: 1,2-Dichloroethane-d4	*29.6*		"	*25.0*		*119*	*52-149*			
Surrogate: Toluene-d8	*29.9*		"	*25.0*		*120*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*27.7*		"	*25.0*		*111*	*65-135*			

H&P Mobile Geochemistry Inc.

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SCS Engineers - San Diego	Project: SCS032411-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	31-Mar-11 15:53

TPH by GC FID - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC12404 - LUFT-DHS										
Blank (EC12404-BLK1)				Prepared & Analyzed: 24-Mar-11						
Gasoline (C5-C11)	ND	10	mg/kg							
Diesel (C12-C24)	ND	10	"							
Matrix Spike (EC12404-MS1)	Source: E103109-01			Prepared & Analyzed: 24-Mar-11						
Gasoline (C5-C11)	190	10	mg/kg	200	ND	94.9	67-125			
Diesel (C12-C24)	450	10	"	500	ND	90.0	67-125			
Matrix Spike Dup (EC12404-MSD1)	Source: E103109-01			Prepared & Analyzed: 24-Mar-11						
Gasoline (C5-C11)	195	10	mg/kg	200	ND	97.4	67-125	2.60	30	
Diesel (C12-C24)	524	10	"	500	ND	105	67-125	15.2	30	

Mobile Geochemistry Inc.

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SCS Engineers - San Diego	Project: SCS032411-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	31-Mar-11 15:53

Notes and Definitions

D-08	Results in the diesel organics range are primarily due to overlap from a gasoline range product.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

H&P Mobile Geochemistry Inc.

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SCS Engineers - San Diego	Project: SCS032411-10	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	31-Mar-11 15:53

Appendix

H&P Mobile Geochemistry, Inc is approved as an Environmental Laboratory in conformance with the Environmental Laboratory Accreditation Program (CA) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste for the following methods:

Certificate# 2741, 2743, 2579, 2754 & 2740 approved for EPA 8260 and LUFT GC/MS
Certificate# 2742, 2745, & 2741 approved for LUFT
Certificate# 2745 & 2742 approved for EPA 418.1

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the National Environmental Accreditation Conference Standards for the category Environmental Analysis Air and Emissions for the following analytes and methods:

1,2,4-Trichlorobenzene by EPA TO-15 & TO-14A
Hexachlorobutadiene by EPA TO-15 & TO-14A
1,2,4-Trimethylbenzene by EPA TO-14A
1,2-Dichlorobenzene by EPA TO-15 & TO-14A
1,3,5-Trimethylbenzene by EPA TO-14A
1,4-Dichlorobenzene by EPA TO-15 & TO-14A
Benzene by EPA TO-15 & TO-14A
Chlorobenzene by EPA TO-15 & TO-14A
Ethyl benzene by EPA TO-15 & TO-14A
Styrene by EPA TO-15 & TO-14A
Toluene by EPA TO-15 & TO-14A
Total Xylenes by EPA TO-15 & TO-14A
1,1,1-Trichloroethane by EPA TO-15 & TO-14A
1,1,2,2-Tetrachloroethane by EPA TO-15 & TO-14A
1,1,2-Trichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethene by EPA TO-15 & TO-14A
1,2-Dichloroethane by EPA TO-15 & TO-14A
1,2-Dichloropropane by EPA TO-15 & TO-14A
Bromoform by EPA TO-15
Bromomethane by EPA TO-15 & TO-14A
Carbon tetrachloride by EPA TO-15 & TO-14A
Chloroethane by EPA TO-15
Chloroform by EPA TO-15 & TO-14A
Chloromethane by EPA TO-15 & TO-14A
cis-1,2-Dichloroethene by EPA TO-15
cis-1,2-Dichloropropene by EPA TO-15 & TO-14A
Methylene chloride by EPA TO-15 & TO-14A
Tetrachloroethane by EPA TO-15 & TO-14A
trans-1,2-Dichloroethene by EPA TO-15
trans-1,2-Dichloropropene by EPA TO-15 & TO-14A
Trichloroethene by EPA TO-15 & TO-14A
Vinyl chloride by EPA TO-15 & TO-14A
2-Butanone by EPA TO-15
4-Methyl-2-Pentanone by EPA TO-15
Hexane by EPA TO-15
Methyl tert-butyl ether by EPA TO-15
Vinyl acetate by EPA TO-15

This certification applies to samples analyzed in summa canisters

Chain of Custody Record

H&P Mobile Geochemistry Inc.

☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 3/23/11
H&P Project # SCS032411-10
Outside Lab:

Client: SCS Engineers
Address: 8799 Balboa Ave., Suite 290, San Diego, CA 92123
Email: ccrosby@scsengineers.com
Collector: Chris Crosby
Client Project #: 01208473.00
Location: Wigington Petroleum : 11427 Woodside Ave, Santee CA
Phone: 858-571-5500 Fax: 858-571-5357
Page: 1 of 1
Project Contact: Chuck Houser
Turn around time: Normal

Geotracker EDF: Yes ☑ No ☐
Global ID: T0607303173
Excel EDD: Yes ☐ No ☐

Sample Receipt
Intact: ☑ Yes ☐ No
Seal Intact: ☑ Yes ☐ No ☐ N/A
Cold: ☑ Yes ☐ No ☐ N/A
Temperature: 4°

Special Instructions:
- Please cc results to chouser@scsengineers.com
- Run highest TPH result from MW-18 and MW-19 for 8260 BTEX/Oxy. Per client - analyze a MW18-28.5 for BTEX/Oxy

Lab Work Order #: E103111

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B ☒ BTEX/OXY ☐ TPH gas	8015M TPH ☒ g ☒ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☐ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS										
MW-18-25	MW-18		1040	3/23/11	Soil	55 Sleeves	1		X													
MW-18-28.5	↓		1050																			
MW-18-35			1055																			
MW-18-40	↓		1100																			
MW-19-25	MW-19		1500																			
MW-19-30.5	↓		1510																			
MW-19-35			1515						X													
MW-19-40	↓		1520	↓	↓	↓	↓															

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time
Chris Crosby	SCS	[signature]	H&P	3/23/11	1700
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back

Sample disposal instruction: ☒ Disposal ☐ Return to client ☐ Pickup

H&P Mobile Geochemistry Inc.

22 April 2011

Mr. Chuck Houser
SCS Engineers - San Diego
8799 Balboa Avenue, Suite 290
San Diego, CA 92123

H&P Project: SCS040511-11
Client Project: 01208473.00 / Wigington Petroleum

Dear Mr. Chuck Houser:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 4/5/2011 -4/6/2011 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody

Unless otherwise noted, all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

for Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry, Inc. operates under CA Environmental Lab Accreditation Program Numbers 2579, 2740, 2741, 2742, 2743, 2745 and 2754. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

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Mobile Geochemistry Inc.

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SCS Engineers - San Diego	Project: SCS040511-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	22-Apr-11 13:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	E104017-01	Water	04-Apr-11	05-Apr-11
MW-4	E104017-02	Water	05-Apr-11	05-Apr-11
MW-7	E104017-03	Water	05-Apr-11	05-Apr-11
MW-8	E104017-04	Water	05-Apr-11	05-Apr-11
MW-9	E104017-05	Water	04-Apr-11	05-Apr-11
MW-11	E104017-06	Water	04-Apr-11	05-Apr-11
MW-12	E104017-07	Water	04-Apr-11	05-Apr-11
MW-13	E104017-08	Water	05-Apr-11	05-Apr-11
MW-14	E104017-09	Water	05-Apr-11	05-Apr-11
MW-16	E104017-10	Water	04-Apr-11	05-Apr-11
MW-17	E104017-11	Water	05-Apr-11	05-Apr-11
MW-18	E104017-12	Water	04-Apr-11	05-Apr-11
MW-19	E104017-13	Water	05-Apr-11	05-Apr-11
MW-2	E104022-01	Water	06-Apr-11	06-Apr-11
MW-3	E104022-02	Water	06-Apr-11	06-Apr-11
MW-6	E104022-03	Water	05-Apr-11	06-Apr-11
MW-10	E104022-04	Water	05-Apr-11	06-Apr-11
MW-15	E104022-05	Water	05-Apr-11	06-Apr-11

Sample MW-1 was reanalyzed on April 19, 2011, one day past the EPA recommended holding time, for Benzene only. Therefore, the sample qualifier,0-04, refers only to the Benzene result.

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SCS Engineers - San Diego	Project: SCS040511-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	22-Apr-11 13:08

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-1 (E104017-01) Water Sampled: 04-Apr-11 Received: 05-Apr-11									
Methyl tertiary-butyl ether (MTBE)	**52**	1.0	ug/l	0.05	ED10616	06-Apr-11	06-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**78**	0.5	"	"	"	"	12-Apr-11	"	O-04
Toluene	**1.3**	0.5	"	"	"	"	06-Apr-11	"	
Ethylbenzene	**9.8**	0.5	"	"	"	"	"	"	
m,p-Xylene	**7.6**	1.0	"	"	"	"	"	"	
o-Xylene	**2.8**	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**40**	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*112 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*120 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*122 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*75-125*		"	"	"	
MW-4 (E104017-02) Water Sampled: 05-Apr-11 Received: 05-Apr-11									
Methyl tertiary-butyl ether (MTBE)	**29**	1.0	ug/l	0.05	ED10616	06-Apr-11	06-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**43**	0.5	"	"	"	"	"	"	
Toluene	**2.7**	0.5	"	"	"	"	"	"	
Ethylbenzene	**11**	0.5	"	"	"	"	"	"	
m,p-Xylene	**5.9**	1.0	"	"	"	"	"	"	
o-Xylene	**2.4**	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*108 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*111 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*123 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*		*75-125*		"	"	"	

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SCS Engineers - San Diego	Project: SCS040511-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	22-Apr-11 13:08

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-7 (E104017-03) Water Sampled: 05-Apr-11 Received: 05-Apr-11									
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l	0.05	ED10616	06-Apr-11	06-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**0.8**	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	**0.6**	0.5	"	"	"	"	"	"	
m,p-Xylene	**2.0**	1.0	"	"	"	"	"	"	
o-Xylene	**0.8**	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*112 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*114 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*		*75-125*		"	"	"	
MW-8 (E104017-04) Water Sampled: 05-Apr-11 Received: 05-Apr-11									
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l	0.05	ED10616	06-Apr-11	06-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	**5.1**	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*115 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*121 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*75-125*		"	"	"	

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SCS Engineers - San Diego	Project: SCS040511-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	22-Apr-11 13:08

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-9 (E104017-05) Water Sampled: 04-Apr-11 Received: 05-Apr-11									
Methyl tertiary-butyl ether (MTBE)	**43**	1.0	ug/l	0.05	ED10616	06-Apr-11	06-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**74**	5.0	"	1	"	"	12-Apr-11	"	
Toluene	**31**	5.0	"	"	"	"	"	"	
Ethylbenzene	**84**	5.0	"	"	"	"	"	"	
m,p-Xylene	**130**	10	"	"	"	"	"	"	
o-Xylene	**16**	5.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	0.05	"	"	06-Apr-11	"	
Surrogate: Dibromofluoromethane		*116 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*114 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*119 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*		*75-125*		"	"	"	
MW-11 (E104017-06) Water Sampled: 04-Apr-11 Received: 05-Apr-11									
Methyl tertiary-butyl ether (MTBE)	**1.7**	1.0	ug/l	0.05	ED11304	12-Apr-11	12-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**9.3**	0.5	"	"	"	"	"	"	
Toluene	**0.7**	0.5	"	"	"	"	"	"	
Ethylbenzene	**5.7**	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*112 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*110 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*118 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.3 %*		*75-125*		"	"	"	

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SCS Engineers - San Diego	Project: SCS040511-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	22-Apr-11 13:08

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-12 (E104017-07) Water Sampled: 04-Apr-11 Received: 05-Apr-11									
Methyl tertiary-butyl ether (MTBE)	**3.2**	1.0	ug/l	0.05	ED11304	12-Apr-11	12-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*108 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*115 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*		*75-125*		"	"	"	
MW-13 (E104017-08) Water Sampled: 05-Apr-11 Received: 05-Apr-11									
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l	0.05	ED11304	12-Apr-11	12-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	**1.0**	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*109 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*		*75-125*		"	"	"	

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SCS Engineers - San Diego	Project: SCS040511-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	22-Apr-11 13:08

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-14 (E104017-09) Water Sampled: 05-Apr-11 Received: 05-Apr-11									
Methyl tertiary-butyl ether (MTBE)	**770**	40	ug/l	4	ED10616	06-Apr-11	06-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	40	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	40	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	40	"	"	"	"	"	"	
Benzene	**2400**	20	"	"	"	"	"	"	
Toluene	**110**	20	"	"	"	"	"	"	
Ethylbenzene	**1500**	20	"	"	"	"	"	"	
m,p-Xylene	**2700**	200	"	20	"	"	12-Apr-11	"	
o-Xylene	**59**	20	"	4	"	"	06-Apr-11	"	
Tertiary-butyl alcohol (TBA)	ND	200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*115 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*126 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*121 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*		*75-125*		"	"	"	
MW-16 (E104017-10) Water Sampled: 04-Apr-11 Received: 05-Apr-11									
Methyl tertiary-butyl ether (MTBE)	**26**	1.0	ug/l	0.05	ED11304	12-Apr-11	12-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**11**	0.5	"	"	"	"	"	"	
Toluene	**0.7**	0.5	"	"	"	"	"	"	
Ethylbenzene	**60**	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*108 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*114 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*113 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*		*75-125*		"	"	"	

H&P Mobile Geochemistry Inc.

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SCS Engineers - San Diego	Project: SCS040511-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	22-Apr-11 13:08

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-17 (E104017-11) Water Sampled: 05-Apr-11 Received: 05-Apr-11									
Methyl tertiary-butyl ether (MTBE)	**1.9**	1.0	ug/l	0.05	ED10616	06-Apr-11	06-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*111 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*111 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*118 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*		*75-125*		"	"	"	
MW-18 (E104017-12) Water Sampled: 04-Apr-11 Received: 05-Apr-11									
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l	0.1	ED11304	12-Apr-11	12-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**0.5**	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	**0.5**	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*106 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*112 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.6 %*		*75-125*		"	"	"	

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San Diego, CA 92123	Project Manager: Mr. Chuck Houser	22-Apr-11 13:08

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-19 (E104017-13) Water Sampled: 05-Apr-11 Received: 05-Apr-11									
Methyl tertiary-butyl ether (MTBE)	ND	100	ug/l	10	ED11304	12-Apr-11	12-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	100	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	100	"	"	"	"	"	"	
Benzene	**640**	50	"	"	"	"	"	"	
Toluene	**2600**	50	"	"	"	"	"	"	
Ethylbenzene	**4100**	50	"	"	"	"	"	"	
m,p-Xylene	**12000**	100	"	"	"	"	"	"	
o-Xylene	**5200**	50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	500	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*111 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*113 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.8 %*		*75-125*	"	"	"	"	
MW-2 (E104022-01) Water Sampled: 06-Apr-11 Received: 06-Apr-11									
Methyl tertiary-butyl ether (MTBE)	**13**	1.0	ug/l	0.05	ED11304	12-Apr-11	12-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**490**	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*109 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*118 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*117 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*75-125*	"	"	"	"	

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San Diego, CA 92123	Project Manager: Mr. Chuck Houser	22-Apr-11 13:08

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-3 (E104022-02) Water Sampled: 06-Apr-11 Received: 06-Apr-11									
Methyl tertiary-butyl ether (MTBE)	**96**	1.0	ug/l	0.05	ED11304	12-Apr-11	12-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**9.5**	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*114 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*111 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.0 %*		*75-125*		"	"	"	
MW-6 (E104022-03) Water Sampled: 05-Apr-11 Received: 06-Apr-11									
Methyl tertiary-butyl ether (MTBE)	**160**	10	ug/l	1	ED11304	12-Apr-11	12-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	0.05	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**990**	5.0	"	1	"	"	"	"	
Toluene	**5.7**	0.5	"	0.05	"	"	"	"	
Ethylbenzene	**550**	5.0	"	1	"	"	"	"	
m,p-Xylene	**26**	1.0	"	0.05	"	"	"	"	
o-Xylene	**2.2**	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*111 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*110 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*119 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*		*75-125*		"	"	"	

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Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-10 (E104022-04) Water Sampled: 05-Apr-11 Received: 06-Apr-11									
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l	0.05	ED11304	12-Apr-11	12-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*109 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*111 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*112 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.7 %*		*75-125*	"	"	"	"	
MW-15 (E104022-05) Water Sampled: 05-Apr-11 Received: 06-Apr-11									
Methyl tertiary-butyl ether (MTBE)	ND	100	ug/l	10	ED11304	12-Apr-11	12-Apr-11	EPA 8260B	
Diisopropyl ether (DIPE)	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	100	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	100	"	"	"	"	"	"	
Benzene	**990**	50	"	"	"	"	"	"	
Toluene	**120**	50	"	"	"	"	"	"	
Ethylbenzene	**3000**	50	"	"	"	"	"	"	
m,p-Xylene	**6400**	100	"	"	"	"	"	"	
o-Xylene	**780**	50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	500	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*112 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*112 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*116 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.6 %*		*75-125*	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-1 (E104017-01) Water Sampled: 04-Apr-11 Received: 05-Apr-11									
Gasoline (C5-C11)	ND	500	ug/l	1	ED11101	06-Apr-11	06-Apr-11	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-4 (E104017-02) Water Sampled: 05-Apr-11 Received: 05-Apr-11									
Gasoline (C5-C11)	ND	500	ug/l	1	ED11101	06-Apr-11	06-Apr-11	DHS LUFT	
Diesel (C12-C24)	**860**	500	"	"	"	"	"	"	
MW-7 (E104017-03) Water Sampled: 05-Apr-11 Received: 05-Apr-11									
Gasoline (C5-C11)	ND	500	ug/l	1	ED11101	06-Apr-11	06-Apr-11	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-8 (E104017-04) Water Sampled: 05-Apr-11 Received: 05-Apr-11									
Gasoline (C5-C11)	ND	500	ug/l	1	ED11101	06-Apr-11	06-Apr-11	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-9 (E104017-05) Water Sampled: 04-Apr-11 Received: 05-Apr-11									
Gasoline (C5-C11)	**1300**	500	ug/l	1	ED11101	06-Apr-11	06-Apr-11	DHS LUFT	
Diesel (C12-C24)	**500**	500	"	"	"	"	"	"	D-08
MW-11 (E104017-06) Water Sampled: 04-Apr-11 Received: 05-Apr-11									
Gasoline (C5-C11)	ND	500	ug/l	1	ED11101	06-Apr-11	06-Apr-11	DHS LUFT	
Diesel (C12-C24)	**600**	500	"	"	"	"	"	"	D-08
MW-12 (E104017-07) Water Sampled: 04-Apr-11 Received: 05-Apr-11									
Gasoline (C5-C11)	ND	500	ug/l	1	ED11101	06-Apr-11	06-Apr-11	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-13 (E104017-08) Water Sampled: 05-Apr-11 Received: 05-Apr-11									
Gasoline (C5-C11)	ND	500	ug/l	1	ED11101	06-Apr-11	06-Apr-11	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-14 (E104017-09) Water Sampled: 05-Apr-11 Received: 05-Apr-11									
Gasoline (C5-C11)	**14000**	500	ug/l	1	ED11101	06-Apr-11	06-Apr-11	DHS LUFT	
Diesel (C12-C24)	**2900**	500	"	"	"	"	"	"	D-08
MW-16 (E104017-10) Water Sampled: 04-Apr-11 Received: 05-Apr-11									
Gasoline (C5-C11)	ND	500	ug/l	1	ED11101	06-Apr-11	06-Apr-11	DHS LUFT	
Diesel (C12-C24)	**570**	500	"	"	"	"	"	"	D-08
MW-17 (E104017-11) Water Sampled: 05-Apr-11 Received: 05-Apr-11									
Gasoline (C5-C11)	ND	500	ug/l	1	ED11101	06-Apr-11	06-Apr-11	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-18 (E104017-12) Water Sampled: 04-Apr-11 Received: 05-Apr-11									
Gasoline (C5-C11)	**530**	500	ug/l	1	ED11101	06-Apr-11	06-Apr-11	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-19 (E104017-13) Water Sampled: 05-Apr-11 Received: 05-Apr-11									
Gasoline (C5-C11)	**55000**	500	ug/l	1	ED11101	06-Apr-11	06-Apr-11	DHS LUFT	
Diesel (C12-C24)	**6100**	500	"	"	"	"	"	"	D-08
MW-2 (E104022-01) Water Sampled: 06-Apr-11 Received: 06-Apr-11									
Gasoline (C5-C11)	ND	500	ug/l	1	ED11103	07-Apr-11	07-Apr-11	DHS LUFT	
Diesel (C12-C24)	**2600**	500	"	"	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-3 (E104022-02) Water Sampled: 06-Apr-11 Received: 06-Apr-11									
Gasoline (C5-C11)	ND	500	ug/l	1	ED11103	07-Apr-11	07-Apr-11	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-6 (E104022-03) Water Sampled: 05-Apr-11 Received: 06-Apr-11									
Gasoline (C5-C11)	**1200**	500	ug/l	1	ED11103	07-Apr-11	07-Apr-11	DHS LUFT	
Diesel (C12-C24)	**6800**	500	"	"	"	"	"	"	
MW-10 (E104022-04) Water Sampled: 05-Apr-11 Received: 06-Apr-11									
Gasoline (C5-C11)	ND	500	ug/l	1	ED11103	07-Apr-11	07-Apr-11	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-15 (E104022-05) Water Sampled: 05-Apr-11 Received: 06-Apr-11									
Gasoline (C5-C11)	**21000**	500	ug/l	1	ED11103	07-Apr-11	07-Apr-11	DHS LUFT	
Diesel (C12-C24)	**8400**	500	"	"	"	"	"	"	D-08

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED10616 - EPA 5030										
Blank (ED10616-BLK1)				Prepared & Analyzed: 06-Apr-11						
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l							
Diisopropyl ether (DIPE)	ND	1.0	"							
Ethyl tert-butyl ether (ETBE)	ND	1.0	"							
Tertiary-amyl methyl ether (TAME)	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tertiary-butyl alcohol (TBA)	ND	5.0	"							
Surrogate: Dibromofluoromethane	*2.93*		"	*2.50*		*117*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.80*		"	*2.50*		*112*	*62-139*			
Surrogate: Toluene-d8	*2.96*		"	*2.50*		*119*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.57*		"	*2.50*		*103*	*75-125*			
LCS (ED10616-BS1)				Prepared & Analyzed: 06-Apr-11						
Benzene	2.60	0.5	ug/l	2.50		104	75-125			
Toluene	2.52	0.5	"	2.50		101	74-125			
Surrogate: Dibromofluoromethane	*2.80*		"	*2.50*		*112*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.73*		"	*2.50*		*109*	*62-139*			
Surrogate: Toluene-d8	*2.93*		"	*2.50*		*117*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.48*		"	*2.50*		*99.0*	*75-125*			
LCS Dup (ED10616-BSD1)				Prepared & Analyzed: 06-Apr-11						
Benzene	2.59	0.5	ug/l	2.50		104	75-125	0.0964	20	
Toluene	2.47	0.5	"	2.50		98.7	74-125	2.11	20	
Surrogate: Dibromofluoromethane	*2.77*		"	*2.50*		*111*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.81*		"	*2.50*		*112*	*62-139*			
Surrogate: Toluene-d8	*2.89*		"	*2.50*		*116*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.53*		"	*2.50*		*101*	*75-125*			

H&P Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

SCS Engineers - San Diego	Project: SCS040511-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	22-Apr-11 13:08

Volatile Organic Compounds by EPA Method 8260B - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED11304 - EPA 5030										
Blank (ED11304-BLK1)				Prepared & Analyzed: 12-Apr-11						
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l							
Diisopropyl ether (DIPE)	ND	1.0	"							
Ethyl tert-butyl ether (ETBE)	ND	1.0	"							
Tertiary-amyl methyl ether (TAME)	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tertiary-butyl alcohol (TBA)	ND	5.0	"							
Surrogate: Dibromofluoromethane	*2.63*		"	*2.50*		*105*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.61*		"	*2.50*		*104*	*62-139*			
Surrogate: Toluene-d8	*2.76*		"	*2.50*		*110*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.50*		"	*2.50*		*99.9*	*75-125*			
Matrix Spike (ED11304-MS1)		**Source: E104017-07**		Prepared & Analyzed: 12-Apr-11						
Benzene	2.59	0.5	ug/l	2.50	0.23	94.5	75-125			
Toluene	2.28	0.5	"	2.50	ND	91.3	74-125			
Surrogate: Dibromofluoromethane	*2.63*		"	*2.50*		*105*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.76*		"	*2.50*		*110*	*62-139*			
Surrogate: Toluene-d8	*2.82*		"	*2.50*		*113*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.66*		"	*2.50*		*106*	*75-125*			
Matrix Spike Dup (ED11304-MSD1)		**Source: E104017-07**		Prepared & Analyzed: 12-Apr-11						
Benzene	2.57	0.5	ug/l	2.50	0.23	93.8	75-125	0.678	20	
Toluene	2.27	0.5	"	2.50	ND	90.7	74-125	0.681	20	
Surrogate: Dibromofluoromethane	*2.71*		"	*2.50*		*109*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.72*		"	*2.50*		*109*	*62-139*			
Surrogate: Toluene-d8	*2.77*		"	*2.50*		*111*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.54*		"	*2.50*		*102*	*75-125*			

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SCS Engineers - San Diego	Project: SCS040511-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	22-Apr-11 13:08

TPH by GC FID - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED11101 - LUFT-DHS										
Blank (ED11101-BLK1)				Prepared & Analyzed: 06-Apr-11						
Gasoline (C5-C11)	ND	500	ug/l							
Diesel (C12-C24)	ND	500	"							
Matrix Spike (ED11101-MS1)		Source: E104017-03		Prepared & Analyzed: 06-Apr-11						
Gasoline (C5-C11)	3040	500	ug/l	3000	ND	101	75-125			
Diesel (C12-C24)	7540	500	"	7500	ND	101	75-125			
Matrix Spike Dup (ED11101-MSD1)		Source: E104017-03		Prepared & Analyzed: 06-Apr-11						
Gasoline (C5-C11)	3060	500	ug/l	3000	ND	102	75-125	0.819	30	
Diesel (C12-C24)	7860	500	"	7500	ND	105	75-125	4.03	30	
Batch ED11103 - LUFT-DHS										
Blank (ED11103-BLK1)				Prepared & Analyzed: 07-Apr-11						
Gasoline (C5-C11)	ND	500	ug/l							
Diesel (C12-C24)	ND	500	"							
Matrix Spike (ED11103-MS1)		Source: E104022-02		Prepared & Analyzed: 07-Apr-11						
Gasoline (C5-C11)	3300	500	ug/l	3000	ND	110	75-125			
Diesel (C12-C24)	8160	500	"	7500	ND	109	75-125			
Matrix Spike Dup (ED11103-MSD1)		Source: E104022-02		Prepared & Analyzed: 07-Apr-11						
Gasoline (C5-C11)	2780	500	ug/l	3000	ND	92.5	75-125	17.4	30	
Diesel (C12-C24)	8210	500	"	7500	ND	109	75-125	0.550	30	

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SCS Engineers - San Diego	Project: SCS040511-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	22-Apr-11 13:08

Notes and Definitions

O-04	This sample was analyzed outside the EPA recommended holding time.
D-08	Results in the diesel organics range are primarily due to overlap from a gasoline range product.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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SCS Engineers - San Diego	Project: SCS040511-11	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Petroleum	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	22-Apr-11 13:08

Appendix

H&P Mobile Geochemistry, Inc is approved as an Environmental Laboratory in conformance with the Environmental Laboratory Accreditation Program (CA) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste for the following methods:

Certificate# 2741, 2743, 2579, 2754 & 2740 approved for EPA 8260 and LUFT GC/MS
Certificate# 2742, 2745, & 2741 approved for LUFT
Certificate# 2745 & 2742 approved for EPA 418.1

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the National Environmental Accreditation Conference Standards for the category Environmental Analysis Air and Emissions for the following analytes and methods:

1,2,4-Trichlorobenzene by EPA TO-15 & TO-14A
Hexachlorobutadiene by EPA TO-15 & TO-14A
1,2,4-Trimethylbenzene by EPA TO -14A
1,2-Dichlorobenzene by EPA TO-15 & TO-14A
1,3,5-Trimethylbenzene by EPA TO -14A
1,4-Dichlorobenzene by EPA TO-15 & TO-14A
Benzene by EPA TO-15 & TO-14A
Chlorobenzene by EPA TO-15 & TO-14A
Ethyl benzene by EPA TO-15 & TO-14A
Styrene by EPA TO-15 & TO-14A
Toluene by EPA TO-15 & TO-14A
Total Xylenes by EPA TO-15 & TO-14A
1,1,1-Trichloroethane by EPA TO-15 & TO-14A
1,1,2,2-Tetrachloroethane by EPA TO-15 & TO-14A
1,1,2-Trichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethene by EPA TO-15 & TO-14A
1,2-Dichloroethane by EPA TO-15 & TO-14A
1,2-Dichloropropane by EPA TO-15 & TO-14A
Bromoform by EPA TO-15
Bromomethane by EPA TO-15 & TO-14A
Carbon tetrachloride by EPA TO-15 & TO-14A
Chloroethane by EPA TO-15
Chloroform by EPA TO-15 & TO-14A
Chloromethane by EPA TO-15 & TO-14A
cis-1,2-Dichloroethene by EPA TO-15
cis-1,2-Dichloropropene by EPA TO-15 & TO-14A
Methylene chloride by EPA TO -15 & TO-14A
Tetrachloroethane by EPA TO-15 & TO-14A
trans-1,2-Dichloroethene by EPA TO-15
trans-1,2-Dichloropropene by EPA TO-15 & TO-14A
Trichloroethene by EPA TO-15 & TO-14A
Vinyl chloride by EPA TO -15 & TO-14A
2-Butanone by EPA TO-15
4-Methyl-2-Pentanone by EPA TO-15
Hexane by EPA TO-15
Methyl tert-butyl ether by EPA TO-15
Vinyl acetate by EPA TO-15

This certification applies to samples analyzed in summa canisters

Chain of Custody Record

H&P Mobile Geochemistry Inc.
☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 4/5/11
(SP) H&P Project #: SCS040511-11
Outside Lab:

Client: SCS Engineers
Address: 8799 Balboa Ave., Suite 290
San Diego, CA 92123
Email: ccrosby@scsengineers.com

Collector: C. Crosby / A. Barrow
Client Project #: 01208473.00
Location: Wigington 0.1 :11427 Woodside Ave., Santee CA
Phone: 858-571-5500 Fax: 858-571-5357

Page: 1 of 2
Project Contact: Chuck Howser
Turn around time: Normal

Geotracker EDF: Yes ☑ No ☐
Global ID: T0607303173
Excel EDD: Yes ☑ No ☐

Sample Receipt
Intact: ☐ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☐ N/A
Cold: ☐ Yes ☐ No ☐ N/A
Temperature:

Special Instructions:
- Please cc results to chowser@scsengineers.com
- Please report all GW samples in one report. Additional samples to follow.

Lab Work Order # E 104017

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B ☒ BTEX/OXY ☐ TPH gas	8015M TPH ☒ g ☒ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☐ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ N_2 ☐ O_2 ☐ CO_2
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS										
MW-1			1420	4/4/11	GW	VOA	6	X	X	X												
MW-4			1345	4/5/11				X	X	X												
MW-7			1145	↓				X	X	X												
MW-8			1315	↓				X	X	X												
MW-9			1310	4/4/11				X	X	X												
MW-11			1145	↓				X	X	X												
MW-12			1100	↓				X	X	X												
MW-13			1230	4/5/11				X	X	X												
MW-14			1415	↓				X	X	X												
MW-16			1430	4/4/11				X	X	X												

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Chris Crosby	SCS	[signature]	H&P	4/5/11	1500
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back

Sample disposal instruction: ☒ Disposal ☐ Return to client ☐ Pickup

Chain of Custody Record

H&P Mobile Geochemistry Inc.
☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 4/5/11
H&P Project # SCS040511-11
Outside Lab:

Client: SCS Engineers
Address: 8799 Balboa Ave., Suite 290
San Diego, CA 92123
Email: cc rosby@scsengineers.com

Collector: C. Crosby / A. Barrow
Client Project # 01208473.00
Location: Wigington 0.1 : 11427 Woodside Ave., Santee CA
Phone: 858-571-5500 Fax: 858-571-5357

Page: 2 of 2
Project Contact: Chuck Houser
Turn around time: Normal

Geotracker EDF: Yes ☑ No ☐
Global ID: T0607303173
Excel EDD: Yes ☑ No ☐

Sample Receipt
Intact: ☐ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☐ N/A
Cold: ☐ Yes ☐ No ☐ N/A
Temperature:

Special Instructions:
- Please cc results to chouser@scsengineers.com

Lab Work Order # E104017

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B ☒ BTEX/OXY ☐ TPH gas	8015M TPH ☒ g ☒ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☐ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ____ ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2
					SOIL/GW							SOIL VAPOR/AIR ANALYSIS										
MW-17			1030	4/5/11	GW	VOA	6	☒	☒	☒												
MW-18			1330	4/4/11	↓	↓	↓	☒	☒	☒												
MW-19			1150	4/5/11	↓	↓	↓	☒	☒	☒												

Relinquished by: (Signature) Chris Crosby	(company) SCS	Received by: (Signature)	(company) H&P	Date: 4/5/11 Time: 1500
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date: Time:
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date: Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back

Sample disposal instruction: ☒ Disposal ☐ Return to client ☐ Pickup

Chain of Custody Record

H&P Mobile Geochemistry Inc.
☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 4/6/11
(SB) H&P Project # ~~SCS040611-1~~ SCS040511-1
Outside Lab:

Client: SCS Engineers
Address: 8799 Balboa Ave., Suite 290
San Diego, CA 92123
Email: ccrosby@scsengineers.com

Collector: C. Crosby
Client Project # 01208473.00
Location: Wigington Oil; 11427 Woodside Ave., Santee CA
Phone: 858-571-5500 Fax: 858-571-5557

Page: 1 of 1
Project Contact: Chuck Houser
Turn around time: Normal

Geotracker EDF: Yes ☑ No ☐
Global ID: T0607303173
Excel EDD: Yes ☑ No ☐

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☒ Yes ☐ No ☐ N/A
Temperature: 1.4 °C

Special Instructions:
- Please cc results to chouser@scsengineers.com
- Please report all GW samples collected (4/4/11 - 4/6/11) in one report. ~~(REPORT SCS040611-1 & SCS040611-1 TOGETHER)~~

Lab Work Order # E104022 (SB)

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	SOIL/GW: 8260B Full List	8260B ☒ BTEX/OXY ☐ TPH gas	8015M TPH ☒ g ☒ d ☐ ext	418.1 TRPH	SOIL VAPOR/AIR ANALYSIS: VOC's: Full List ☐ TO-15 ☐ 8260B	VOC's: Short List/DTSC ☐ TO-15 ☐ 8260B	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ____ ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ N_2 ☐ O_2 ☐ CO_2
MW-2			1200	4/6/11	GW	VOA	6		X	X												
MW-3			1110	↓					X	X												
MW-6			1505	4/5/11					X	X												
MW-10			1600	↓					X	X												
MW-15			1615	↓	↓	↓	↓		X	X												

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time
Chris Crosby	SCS		H&P	4/6/11	13:15
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

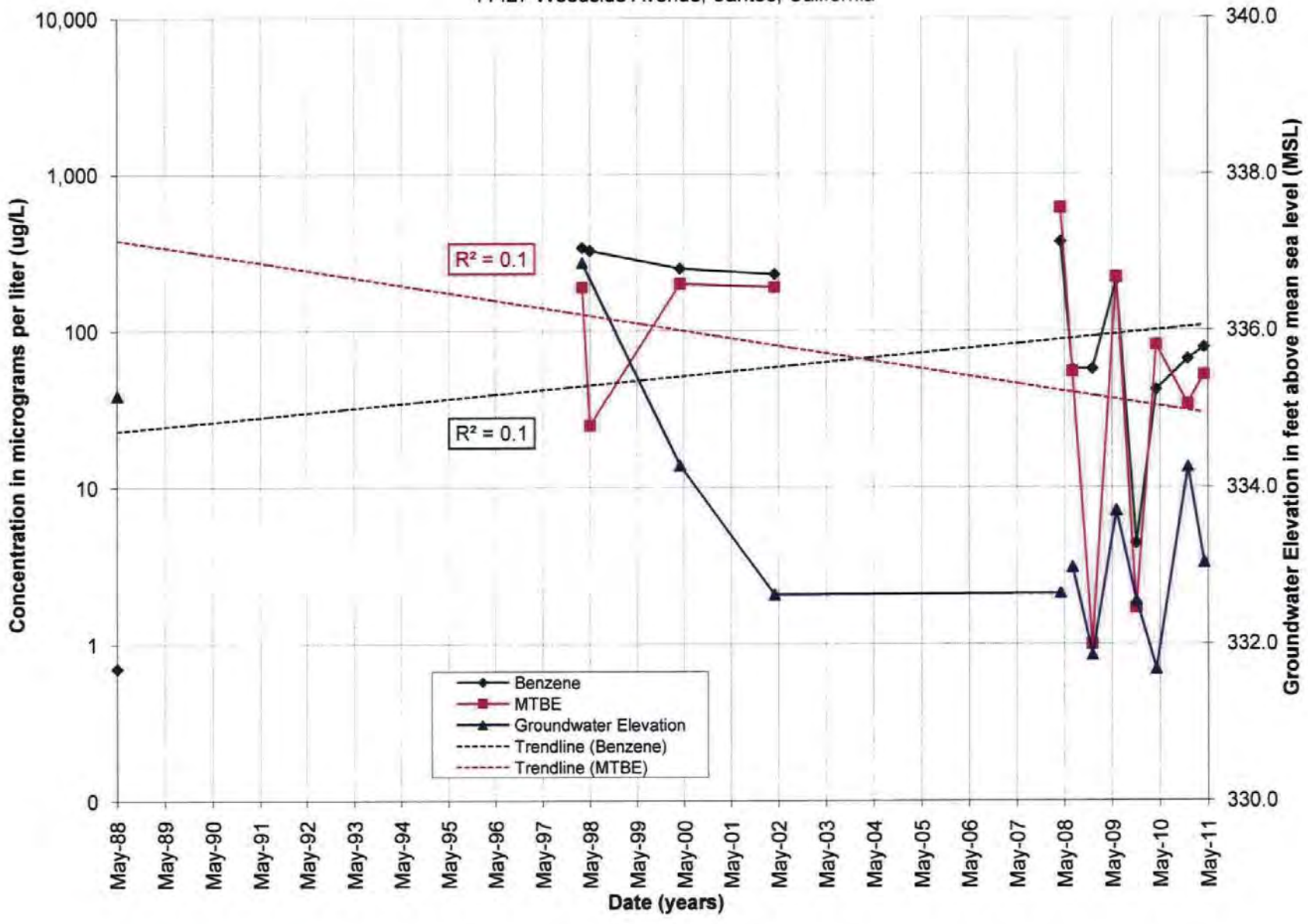
*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☒ Disposal ☐ Return to client ☐ Pickup

APPENDIX H

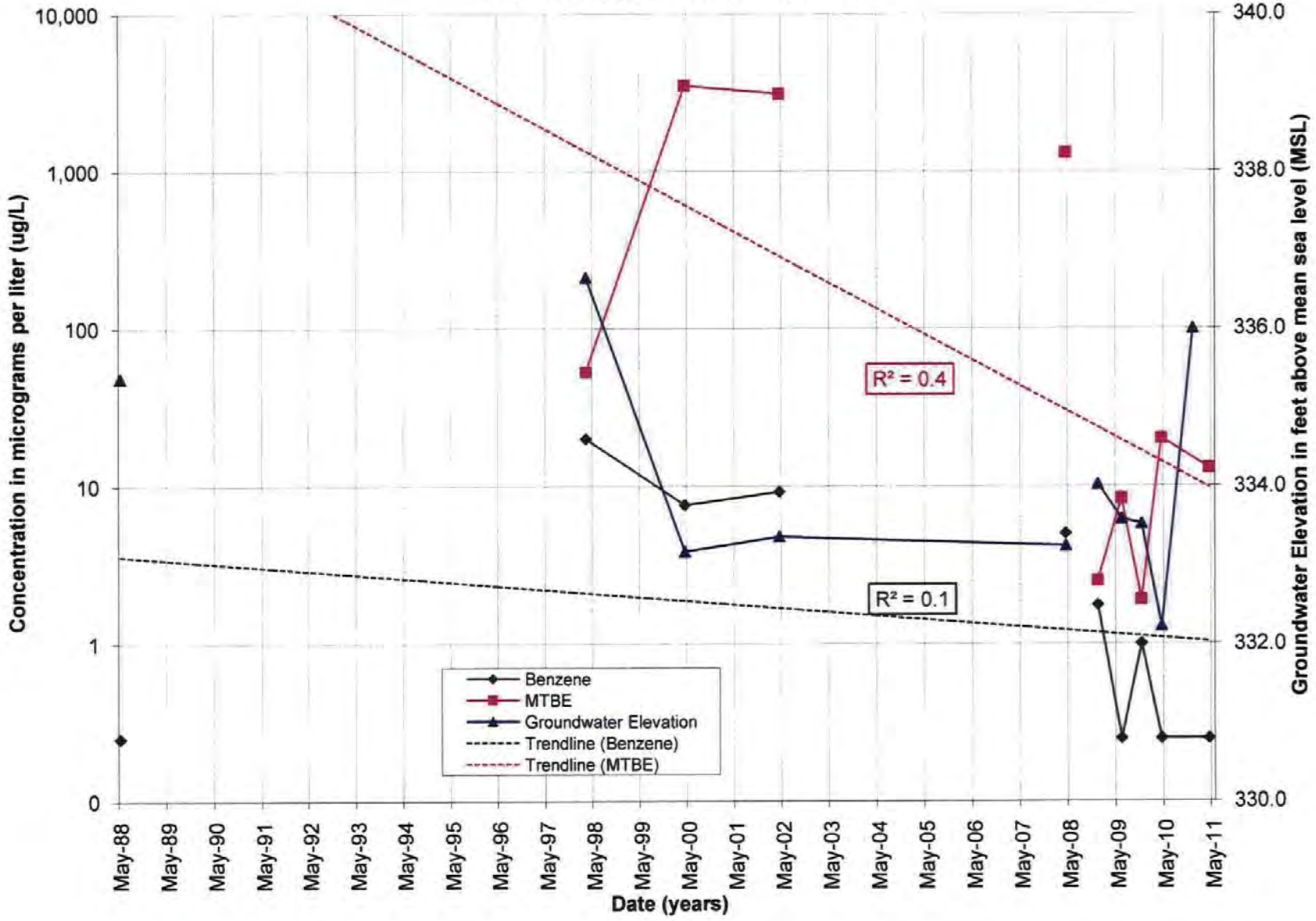
HYDROGRAPHS

MW-1
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



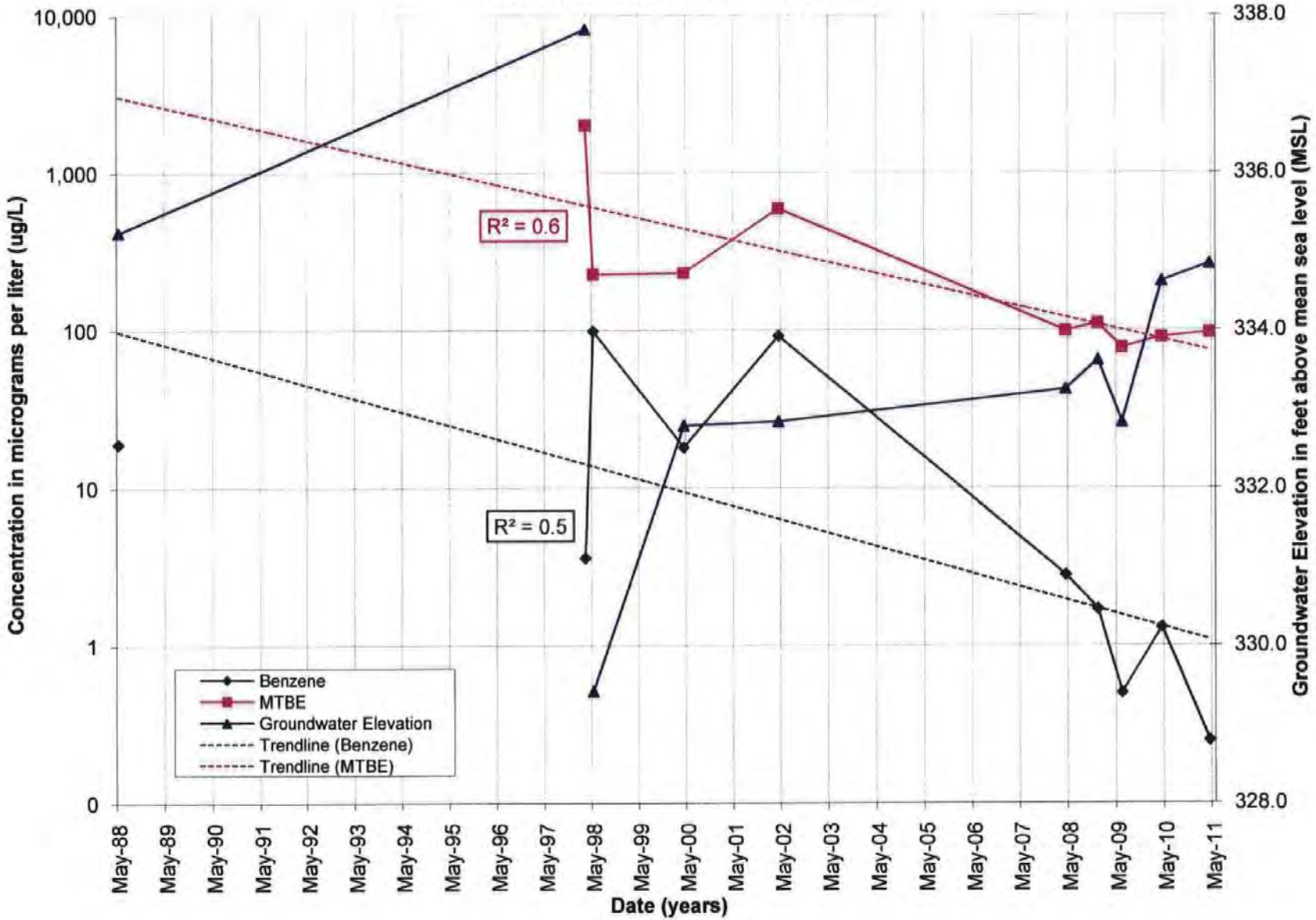
SCS ENGINEERS

MW-2
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



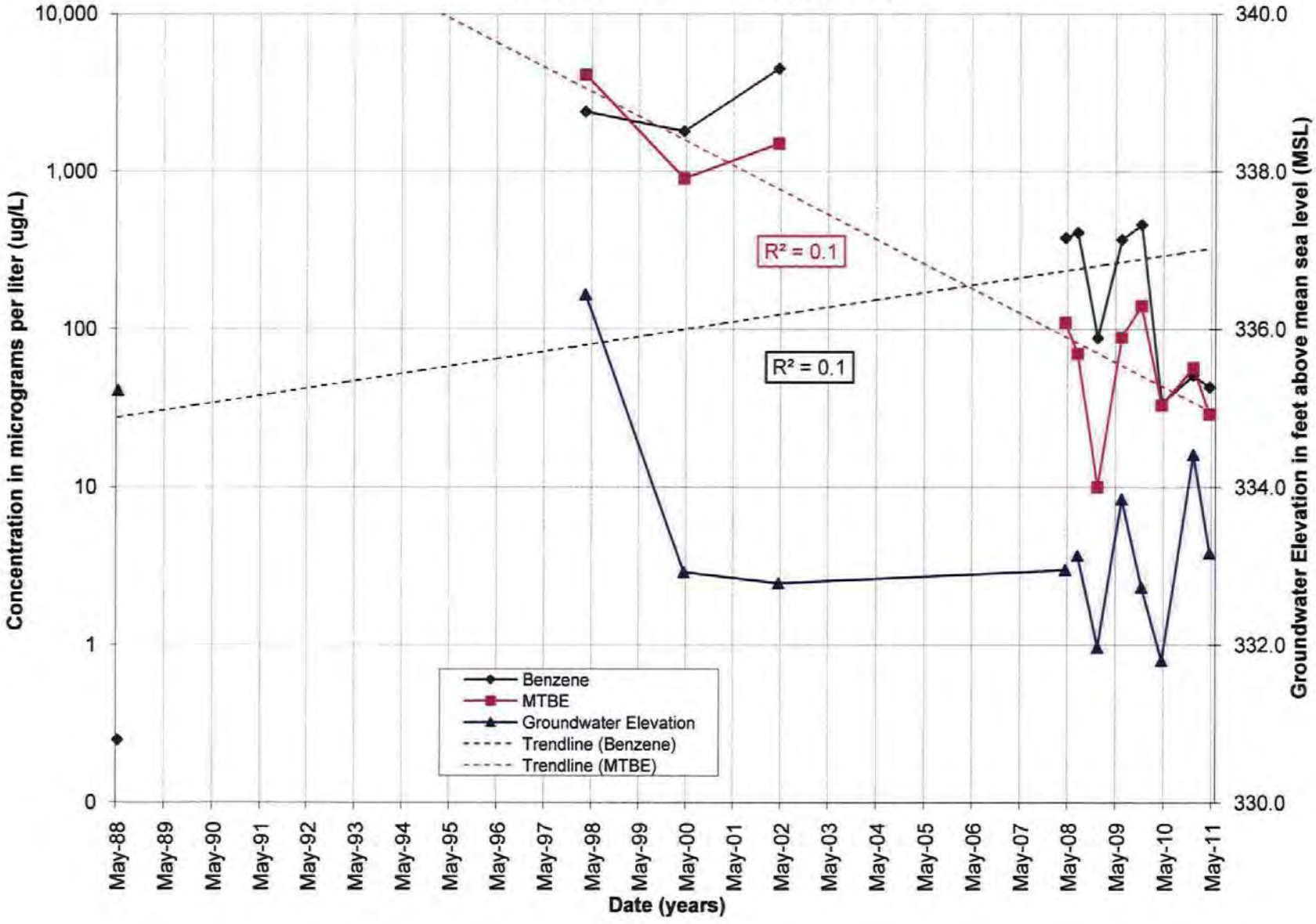
SCS ENGINEERS

MW-3
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



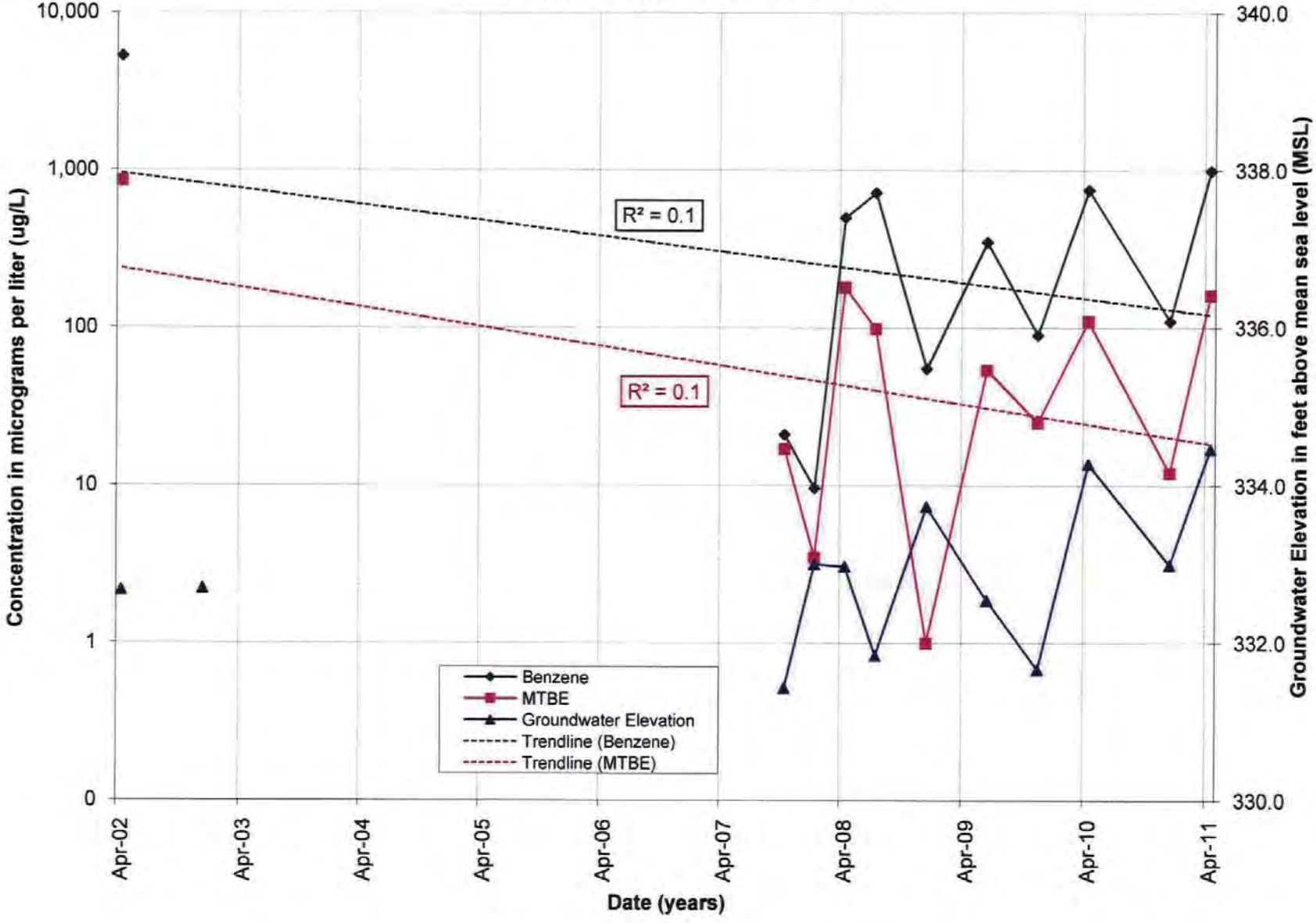
SCS ENGINEERS

MW-4
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



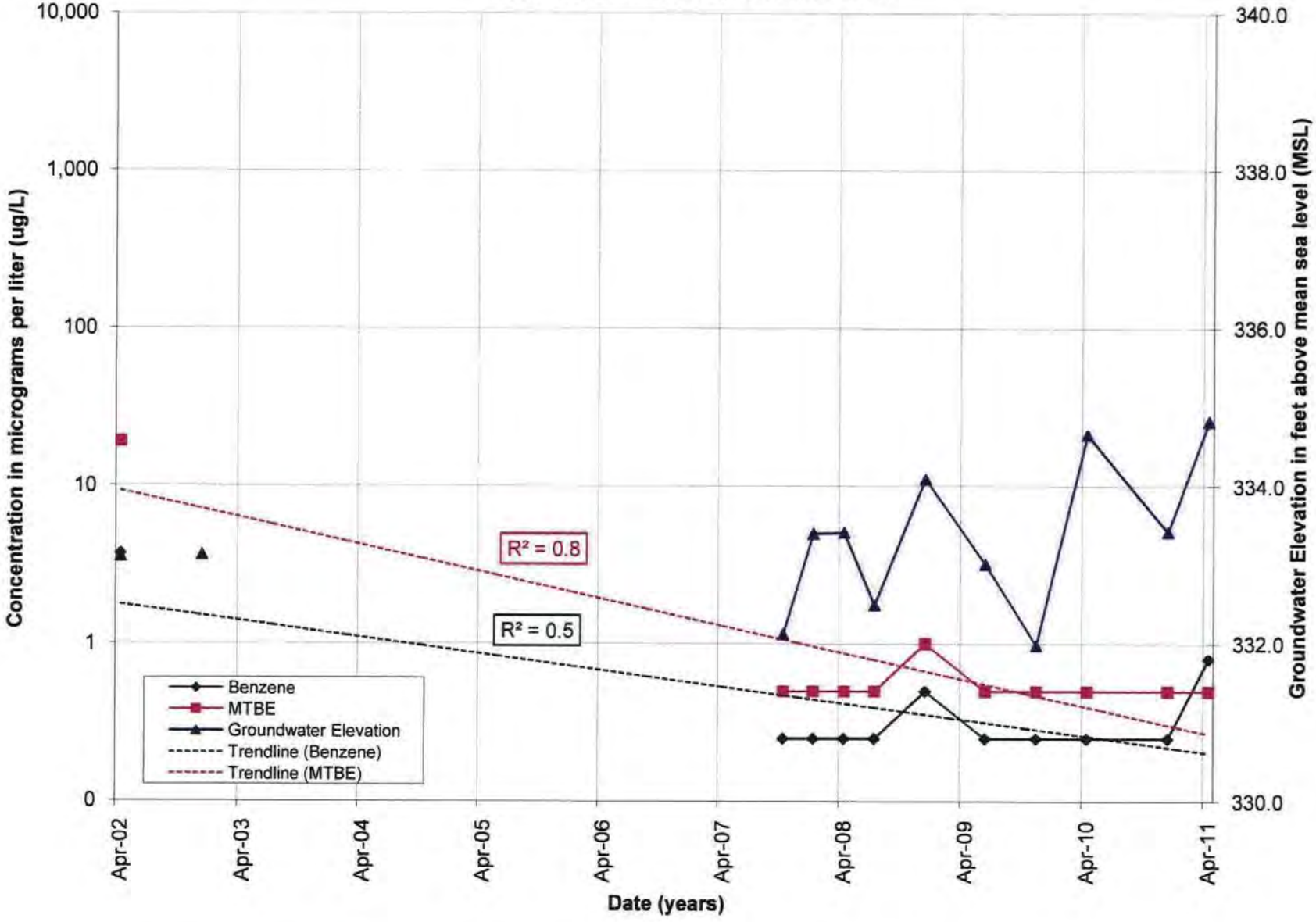
SCS ENGINEERS

MW-6
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



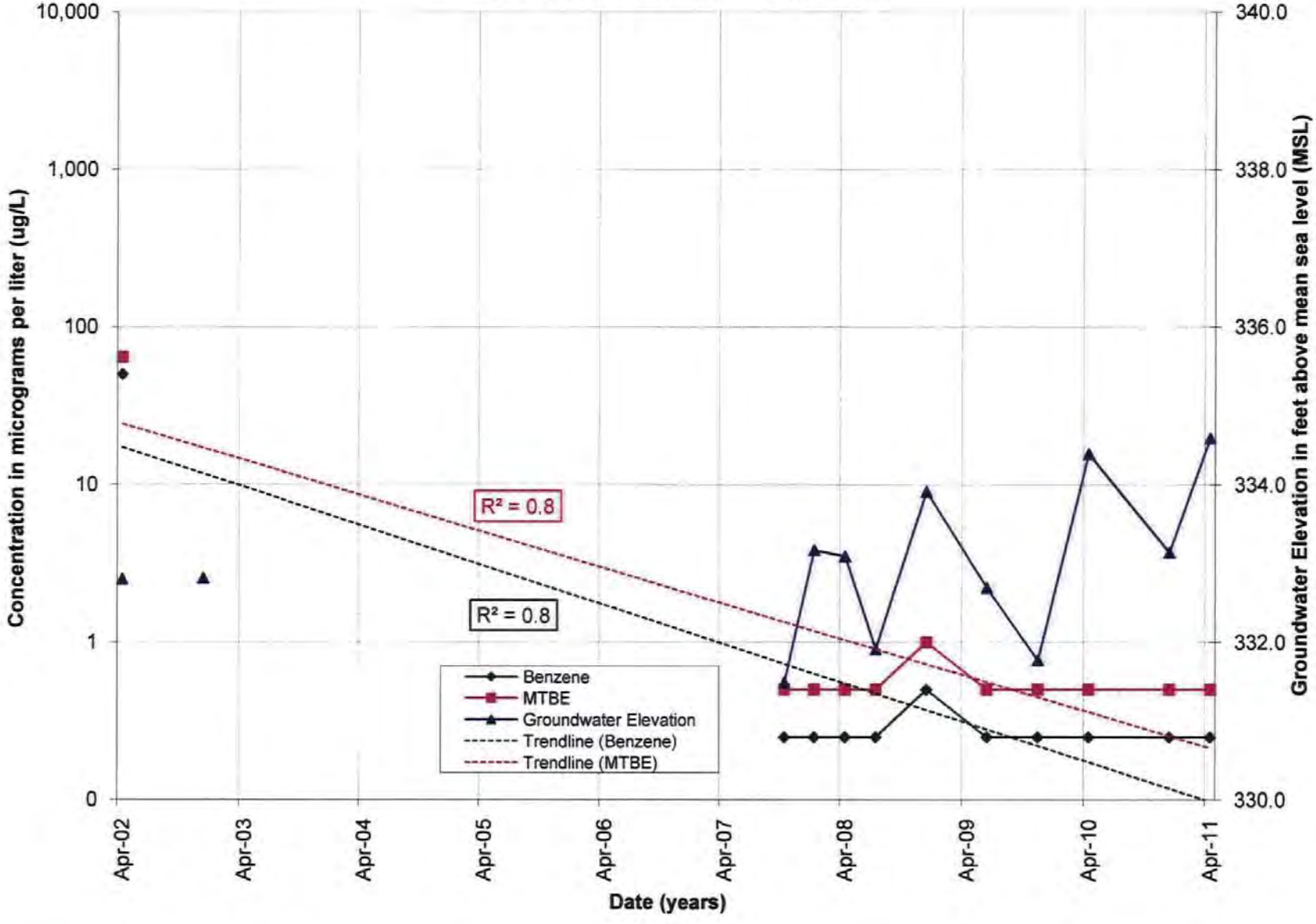
SCS ENGINEERS

MW-7
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



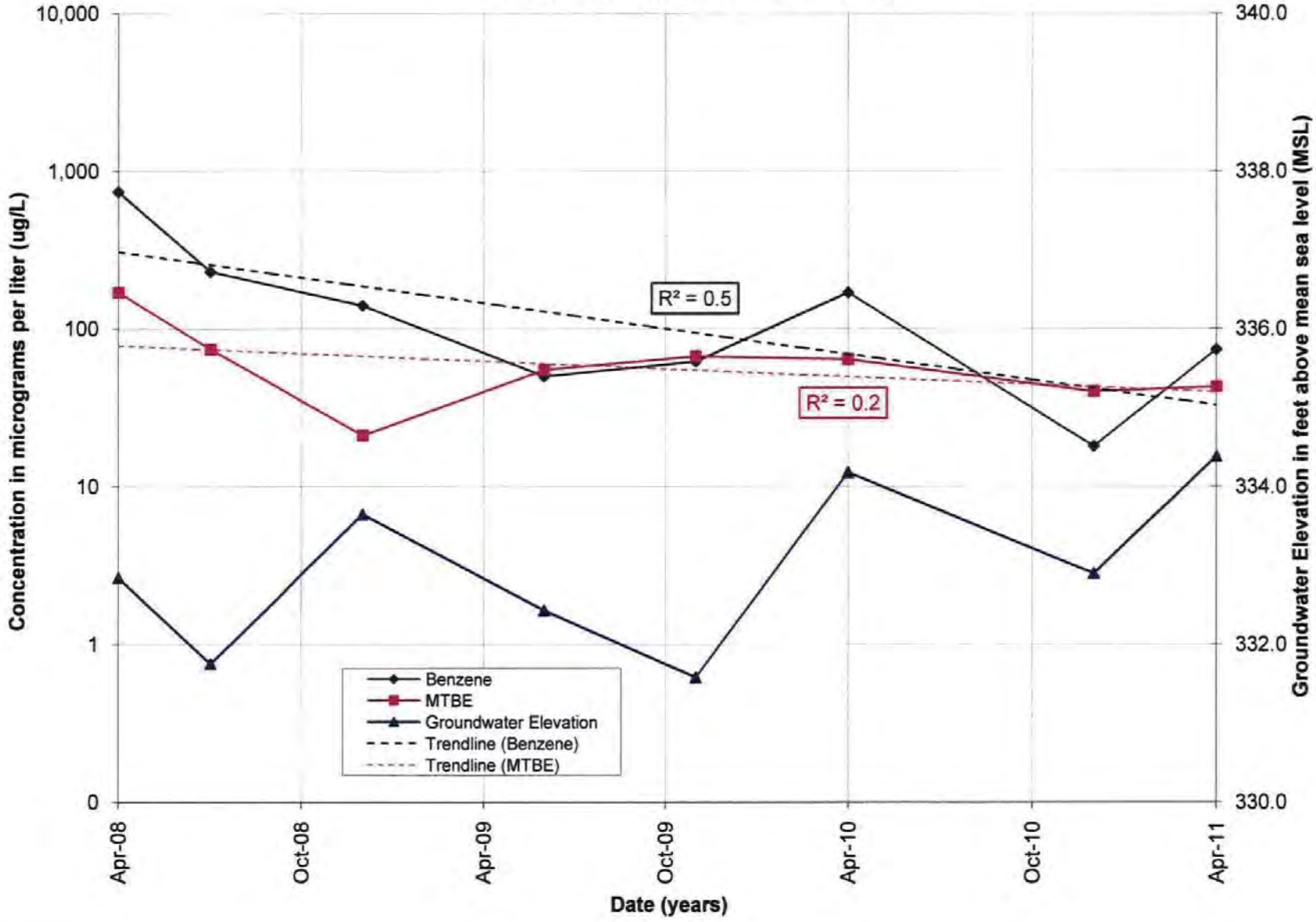
SCS ENGINEERS

MW-8
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



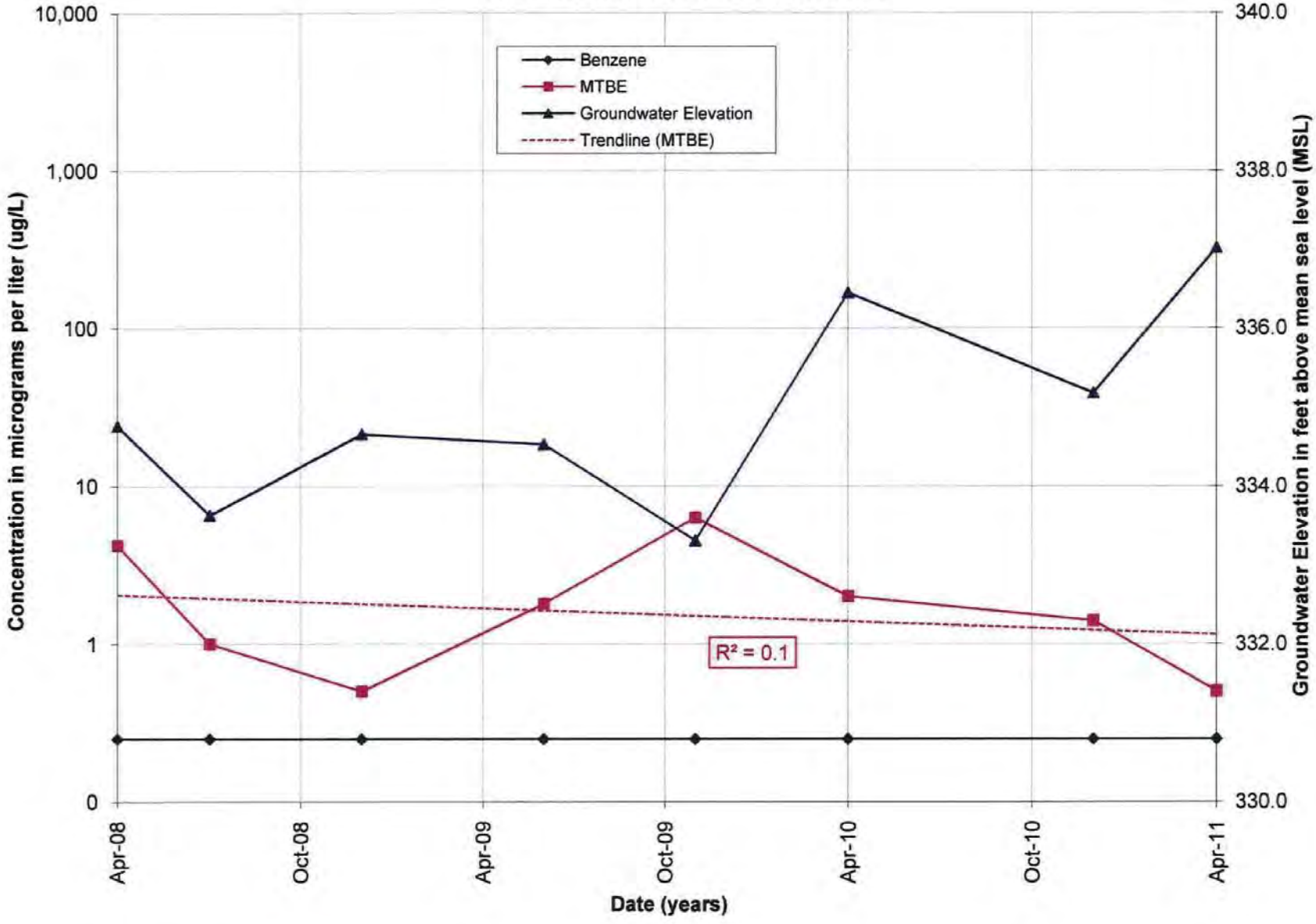
SCS ENGINEERS

MW-9
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



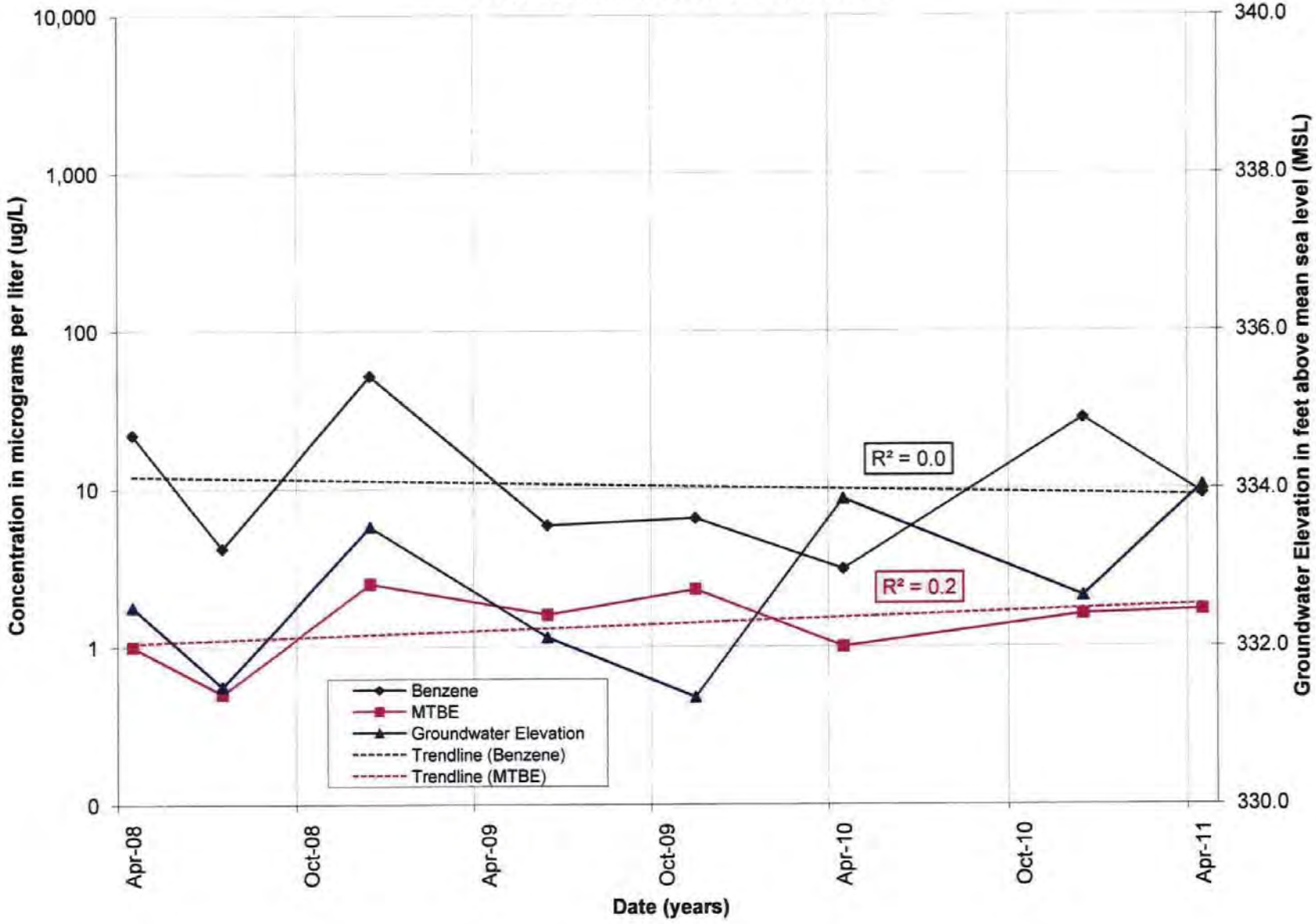
SCS ENGINEERS

MW-10
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



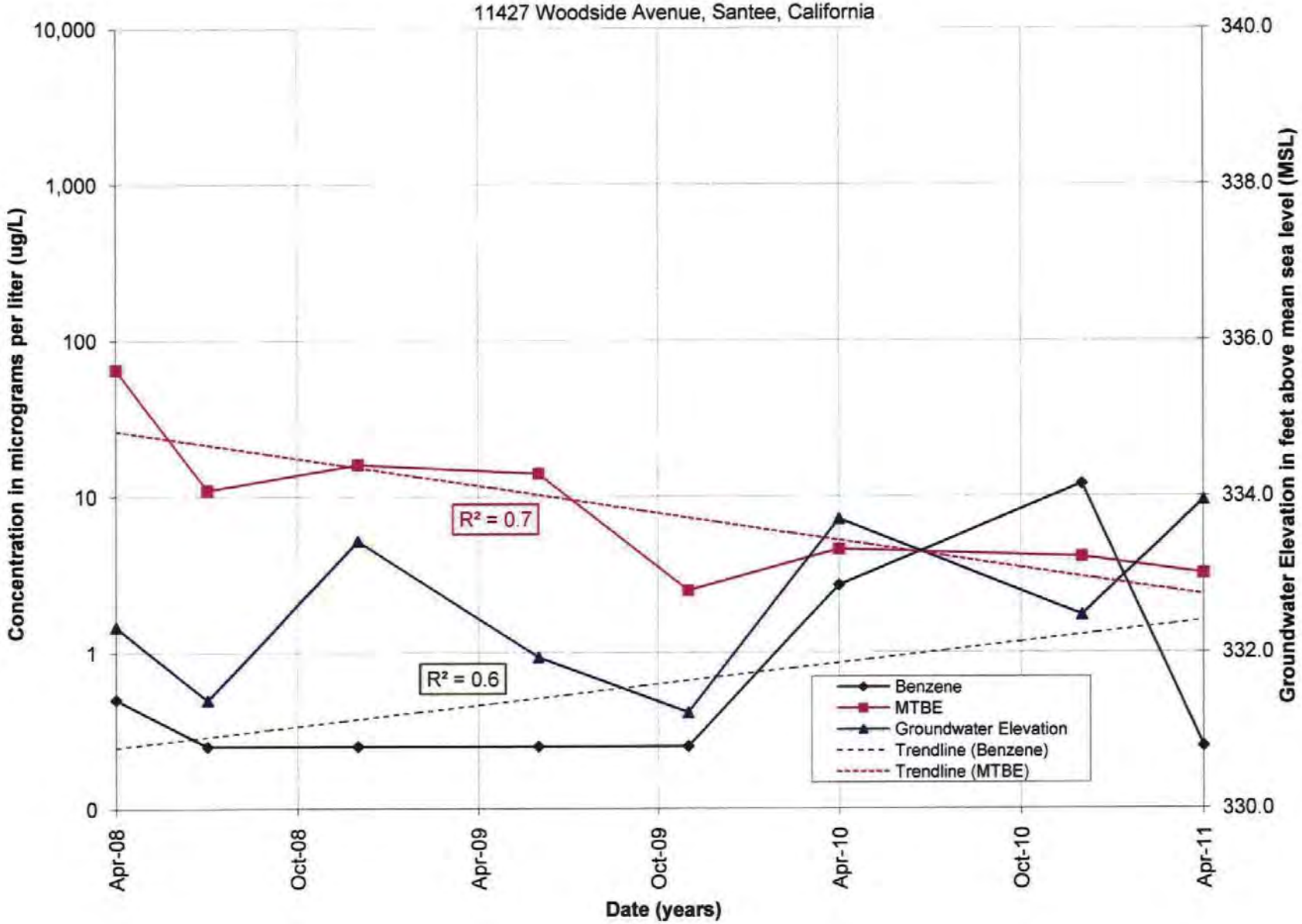
SCS ENGINEERS

MW-11
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



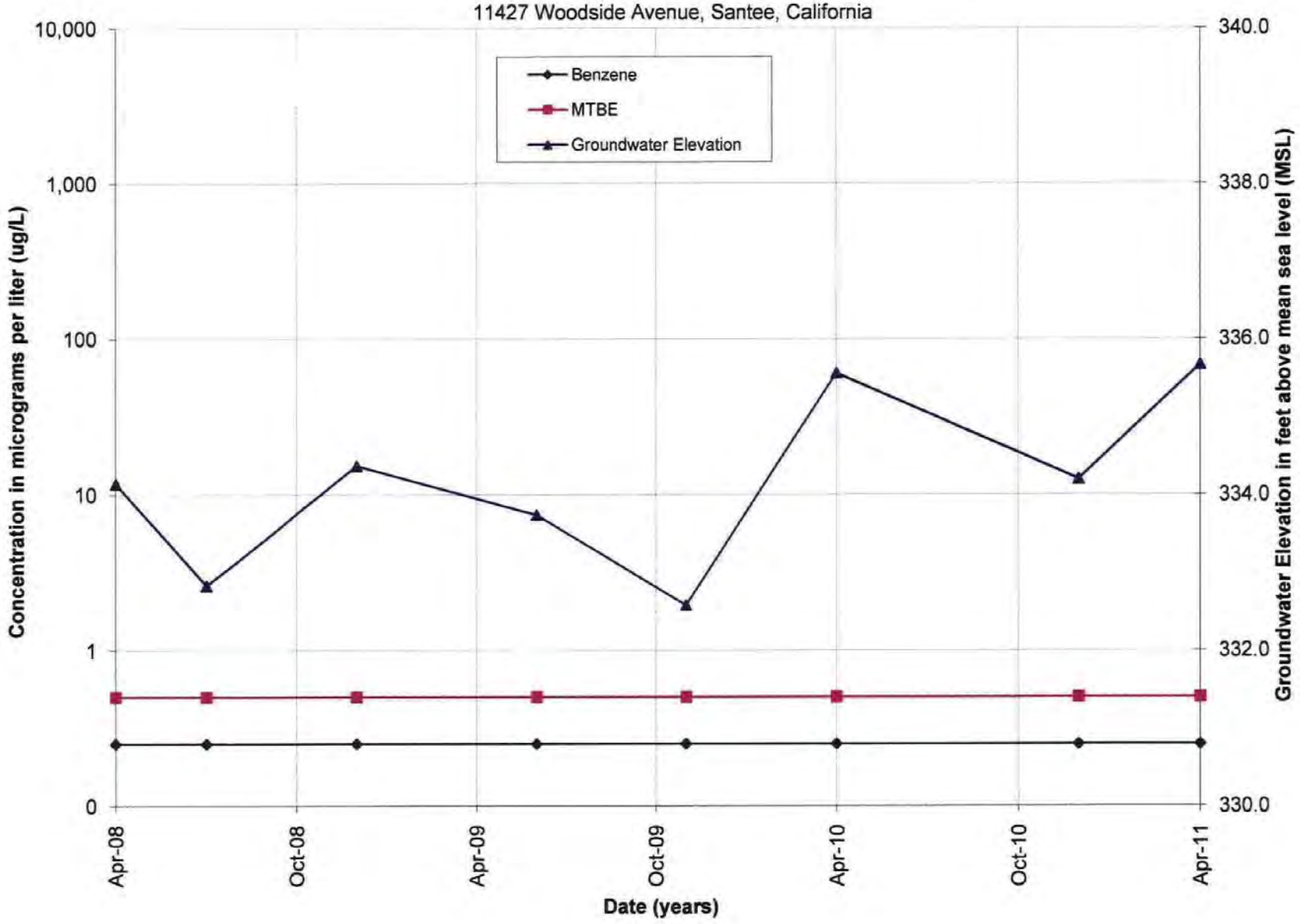
SCS ENGINEERS

MW-12
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California

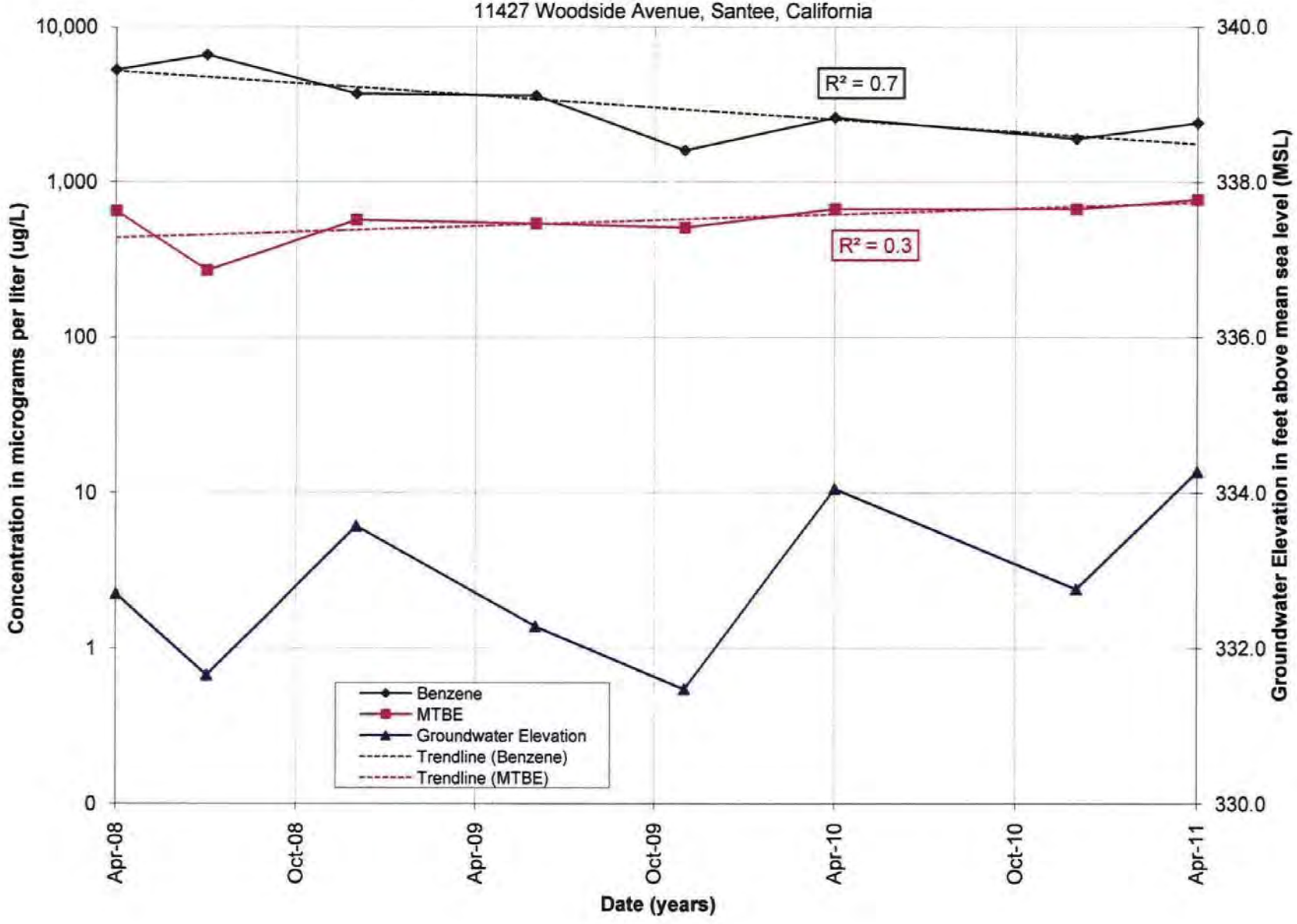


SCS ENGINEERS

MW-13
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California

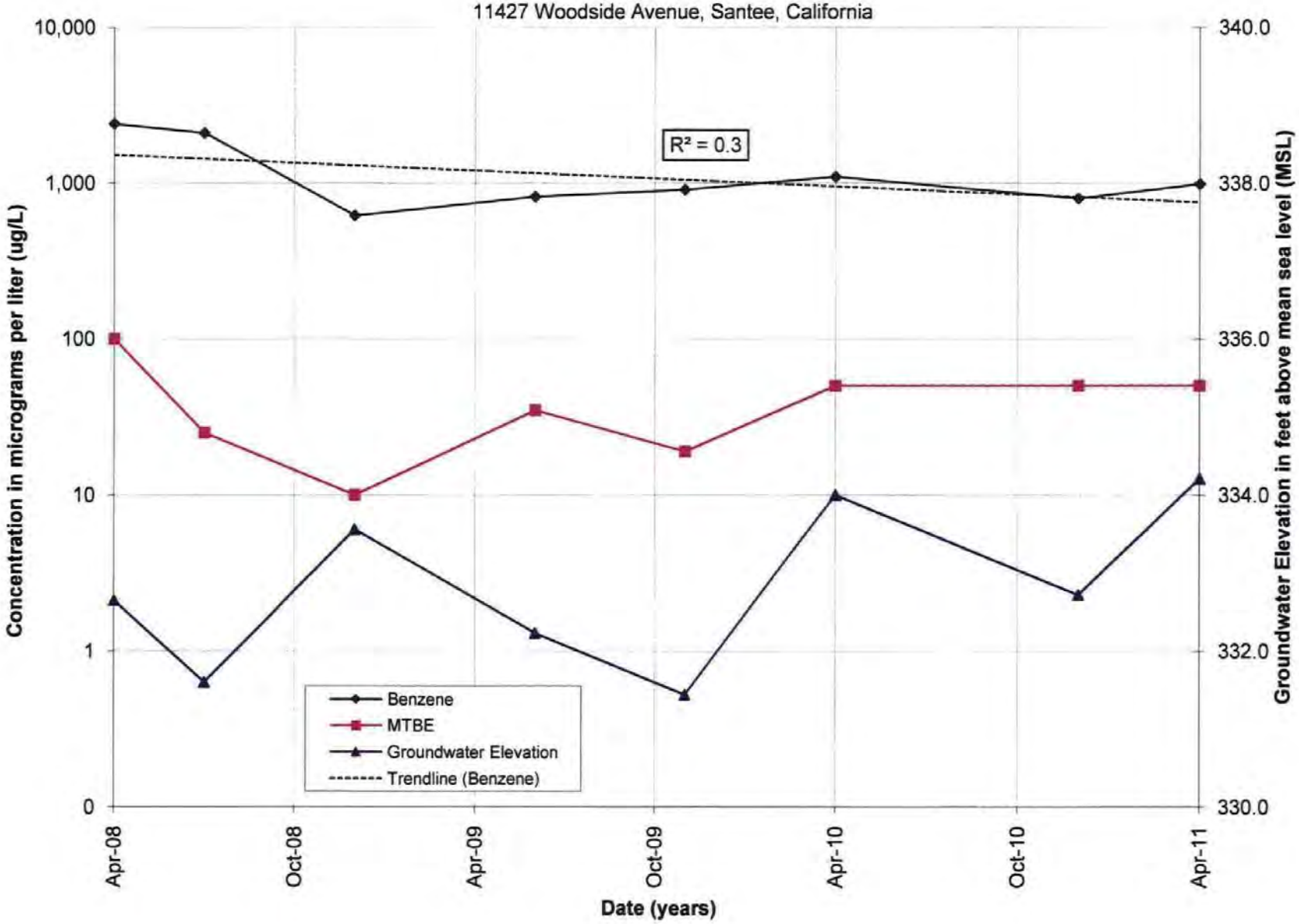


MW-14
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



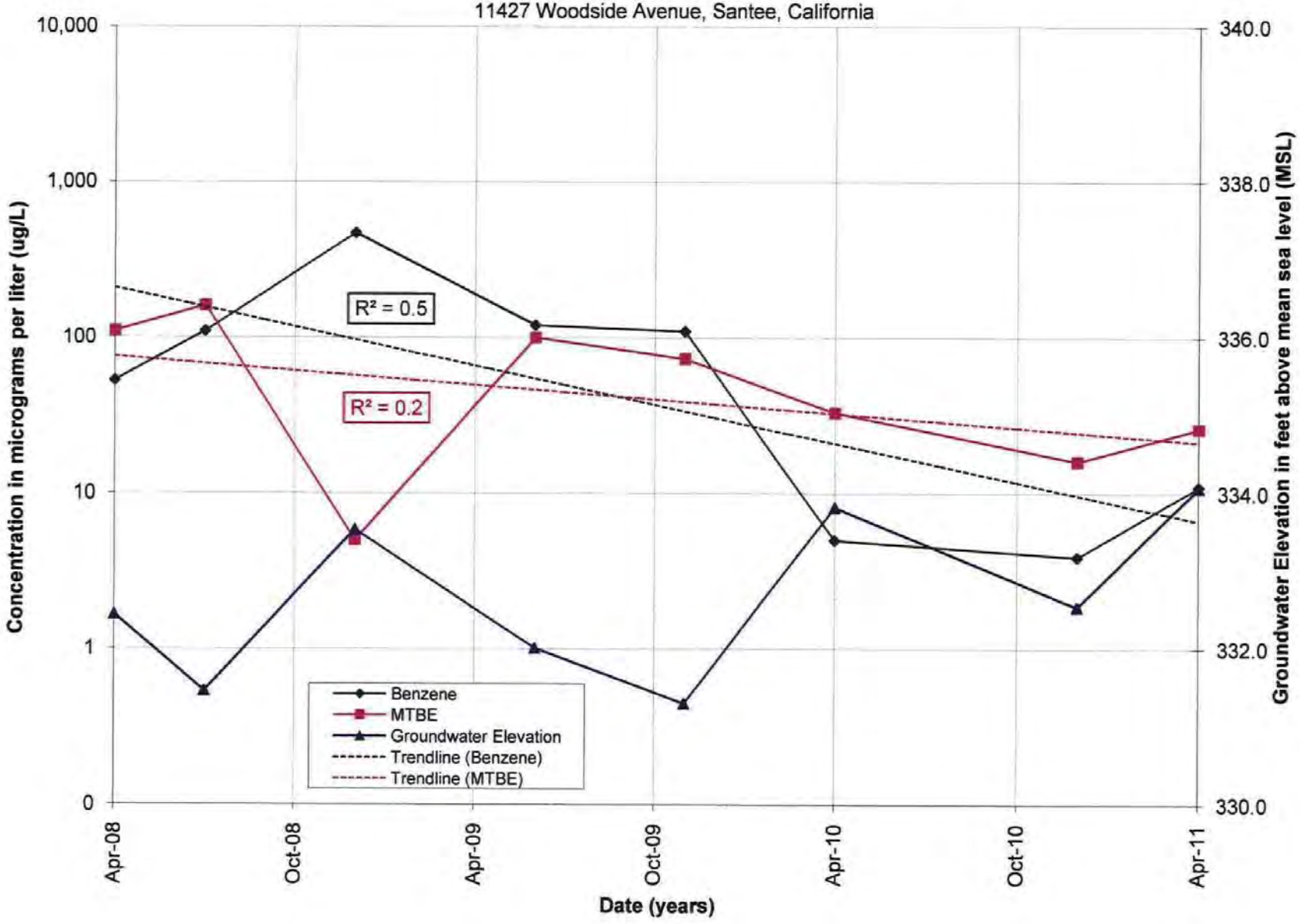
SCS ENGINEERS

MW-15
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



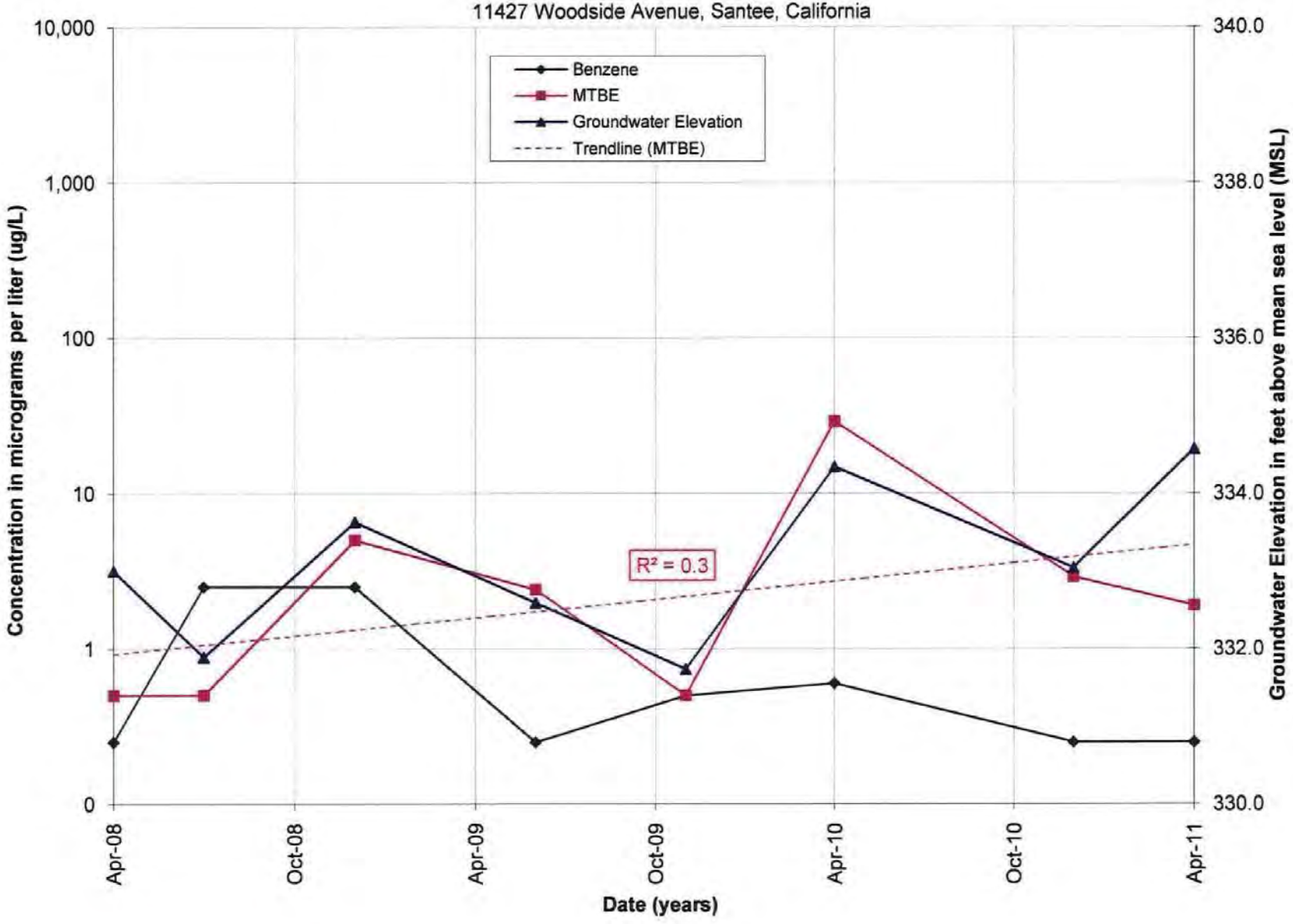
SCS ENGINEERS

MW-16
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



SCS ENGINEERS

MW-17
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



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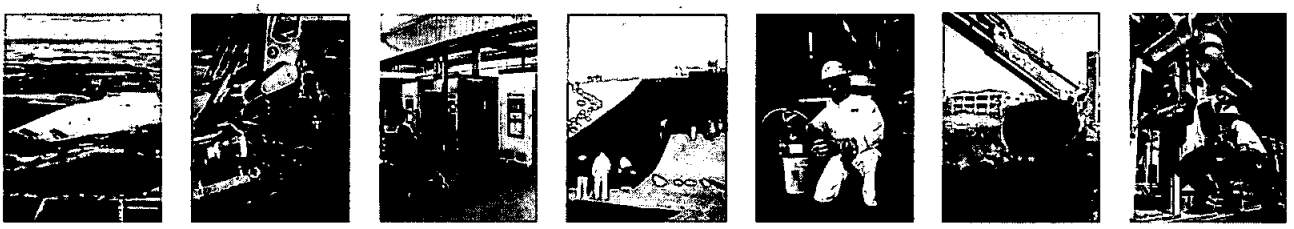


Soil Vapor Survey and Health Risk Assessment

11427 Woodside Avenue

Santee, California

(DEH CASE #H19469-00

RECEIVED
APR 29 2011
ENVIRONMENTAL HEALTH

Presented to:

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Presented by:

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123
(858) 571-5500

April 28, 2011
Project Number: 01208473.00

April 28, 2011
Project No. 01208473.00

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Subject: Soil Vapor Survey and Health Risk Assessment

DEH File Number: H19469-001

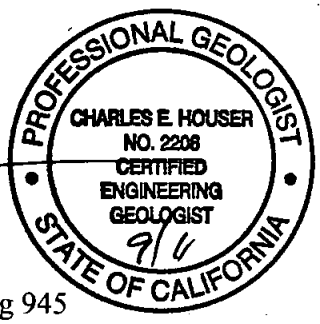
Site: 11427 Woodside Avenue
Santee, California

Dear Ms. Beacon:

SCS Engineers (SCS), is pleased to present this report (Report) of the March and April 2011 soil vapor survey and health risk assessment (HRA) of petroleum hydrocarbon-bearing vapors in the vicinity of the Site building at the above-referenced Site (Figures 1 and 2). During the current assessment, 10 soil vapor probes were installed, purged, and sampled pursuant to the requirements of the County of San Diego, Department of Environmental Health (DEH), Site Assessment and Mitigation Program (SAM). This work was conducted in accordance with Scope of Services Change Number 1 (SSC1) to Exhibit 00 to the Contract between SCS and Wigington Petroleum, Inc. (Client), dated March 30, 2009.

Should you have any questions regarding this Report, please do not hesitate to call the undersigned at (858) 571-5500.

Sincerely,



Chris Crosby
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Senior Project Professional
SCS ENGINEERS

Chuck Pryatel, MBA, REHS
Vice President
SCS ENGINEERS

cc: Ms. Linda Wigington, c/o William Fischbeck, Esq.

State UST Cleanup Fund via electronic upload to State Geotracker website

Enclosures

F:\Projects\208\451-530\01208473.00 (Wigington Petroleum, Inc.)\701 (El Cap Oil)\Soil Vapor Survey\Soil Vapor Survey\01208473.00.SV.RPT (2011).doc

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Appendix B Soil Vapor Well Construction Diagram
Appendix C H&P Mobile Geochemistry SOP for Soil Vapor Sampling
Appendix D Analytical Data and Chain-of-Custody Documentation
Appendix E Vapor Risk Assessment Model Sheets

1 BACKGROUND

The Site is located at 11427 Woodside Avenue in the City of Santee, San Diego County, California (Figure 1). The Site is currently occupied by a commercial fuel and oil facility (Figure 2). Between 1987 and 1998, 13 underground storage tanks (USTs) were reportedly removed from the Site. Analysis of samples collected during the UST removals indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) directed that corrective measures be taken regarding the release.

A summary of the previous environmental assessments conducted at the Site follows:

- EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the Site between 1988 and 2005. A total of 18 borings and 7 groundwater monitoring wells (MW-1 through MW-4 and MW-6 through MW-8) were drilled and sampled by EnecoTech. An existing 12-inch diameter concrete water production well inside the Site building was labeled MW-5 and was also sampled during the monitoring events in March 1998 and April 2002.

- In 1988, EnecoTech reported that four USTs were removed from the Site. A site assessment was performed immediately following the tank removal activities, during which 11 soil borings were drilled and sampled and four of the borings were completed as groundwater monitoring wells (MW-1 through MW-4).

- On August 19, 1993, the HMMD issued a Notice of Violation to El Capitan Oil Co. requiring corrective action relative to the release. The Site Assessment and Mitigation Program (SAM) reportedly assumed oversight responsibility of the UST assessment and mitigation in mid-1993.

- EnecoTech reported that single-walled product piping was removed from the Site in October 1997.

- In April 1998, nine USTs were reportedly removed from the Site where samples collected by EnecoTech indicated a release of petroleum hydrocarbons.

- On March 14, 2000, EnecoTech produced a workplan titled *Work Plan for Environmental Services*, which proposed the installation of two additional groundwater monitoring wells. SAMreportedly directed that four groundwater monitoring wells be installed in a letter dated, May 8, 2000. EnecoTech installed two groundwater monitoring wells (MW-6 and MW-7) on February 26, 2001, and one groundwater monitoring well (MW-8) on April 19, 2002.

- Based on the results of EnecoTech's Site assessment activities, groundwater beneath the Site was interpreted to have been impacted by petroleum hydrocarbons from on-Site releases.

- On March 25, 2005, EnecoTech submitted a workplan for additional Site assessment, which proposed the installation of nine additional groundwater monitoring wells both on and off Site.

- In 2006, Petra Geotechnical Inc. (Petra) was retained to conduct the Site assessment work. SAM approved EnecoTech's workplan in a letter, dated October 10, 2007. Petra proposed one well be installed in addition to the nine wells proposed by EnecoTech. SAM agreed that an additional well was needed and requested a revised workplan. Petra submitted an addendum to the revised workplan, dated December 21, 2007, to include a tenth groundwater monitoring well be installed. SAM approved the revised workplan in a letter, dated January 15, 2008.

- On October 25, 2007, Petra assessed that phase-separated hydrocarbons (PSH) were present in monitoring wells MW-2, MW-3, and MW-4. Petra submitted a workplan titled, *Workplan for High Vacuum Dual Phase Extraction Pilot Test and Interim Remediation*, to the SAM Program, dated December 24, 2007. SAM approved the workplan in a letter dated, January 16, 2008.

- Petra conducted a 33-day high-vacuum, dual-phase extraction (HVDPE) pilot test between January 22 and February 24, 2008. Approximately 3,256.17 pounds of petroleum hydrocarbons were removed and treated during the pilot test. During the pilot test, nine new monitoring wells (MW-9 through MW-17) were installed. The locations of these wells (MW9 through MW-17) and previous wells (MW-1 through MW-8) are depicted on Figure 2. In April 2008, monitoring wells MW-1 through MW-4 and MW-6 through MW-17 were sampled during the second quarter 2008 (2Q2008) groundwater monitoring event.

- On July 25, 2008, Petra submitted a *Workplan for Well Maintenance and Well Destruction* to SAM to destroy well MW-5 and reconstruct the well heads for several monitoring wells. SAM approved this workplan in a letter, dated September 4, 2008.

- On July 13, 2009, SAM issued a letter that called for the reduction of the frequency of groundwater monitoring from quarterly to semi-annually, occurring during the second and fourth quarters.

- In 2009, SCS Engineers was retained to conduct further groundwater monitoring and Site assessment beginning with the second quarter 2009 (2Q2009) groundwater monitoring event. SCS performed groundwater monitoring and sampling at the Site on June 2009 (2Q2009), November 2009 (4Q2009), April 2010 (2Q2010), December 2010 (4Q2010), and April 2011 (2Q2011).

- On April 26, 2010, SCS submitted a *Workplan for a Soil Vapor Survey and Health Risk Assessment* to SAM. SAM conditionally approved this workplan in a letter dated, May 18, 2010 (Appendix A). Additionally, on April 26, 2010, SCS submitted a *Site Assessment Workplan* to SAM to install two groundwater monitoring wells. SAM approved this workplan in a letter dated, May 19, 2010.

- On March 23, 2010, SCS installed two additional groundwater monitoring wells (MW-18 and MW-19) to the southwest of the Site. The Site Assessment Report including 2Q2011 groundwater monitoring results is in process and will be submitted in the near future.

The current Report describes the soil vapor sampling events conducted during March 2011 and April 2011.

2 SITE DESCRIPTION SUMMARY

Site Name:	Wigington Petroleum
Site Owner:	Wigington Petroleum, Inc.
Site Address:	11427 Woodside Avenue, Santee, California
DEH Case Number:	H19469-001
Cleanup Fund Claim Number:	912
Global ID:	T0607303173

3 OBJECTIVES

The objectives of the scope of services were to:

- Assess the extent and concentrations of petroleum hydrocarbons in subsurface soil vapor beneath the Site building.
- Assess the likelihood that significant[1] human health risk exists at the Site as a result of vapor-phase migration of petroleum hydrocarbons.

4 SCOPE OF SERVICES

PREPARATION FOR FIELD WORK

Site Health and Safety Plan

A Site health and safety plan (Plan) was required for the work conducted at the Site by workers within the "exclusion zone" pursuant to the requirements of 29 Code of Federal Regulations (CFR) Part 1910.120 and Title 8 California Code of Regulations (CCR) Section 5192. The existing Plan outlined the potential chemical and physical hazards that might be encountered during the drilling and sampling activities. The appropriate personal protective equipment and emergency response procedures for the Site-specific chemical and physical hazards were detailed in this Plan. All personnel involved with the field work were required to read and sign the document to encourage proper health and safety practices.

1 For the purposes of this assessment, significant is defined as greater than one in 1,000,000 excess lifetime cancer risk.

Utility Search and Markout

Prior to drilling, SCS contacted Underground Service Alert (USA) and contracted with a private underground utility search company (Subsurface Alert) to locate subsurface utilities and improvements at the Site to minimize the likelihood of drilling into an underground utility. No underground utilities were identified by USA or Subsurface Alert in the vicinity of the boring locations. USA issued ticket number A10750756 for the utility notification request.

Project Management, Subcontractor Management, and Scheduling

Prior to mobilizing for field work, SCS notified and scheduled the subcontractors including H&P Mobile Geochemistry, Inc. (H&P), Subsurface Alert, and Primetime Concrete Cutting.

FIELD ACTIVITIES

Soil Vapor Well Installation

On March 23, 2011, SCS supervised the drilling of 5 borings (SV1 through SV5) and installation of 10 soil vapor probes (Figure 3). All borings were drilled adjacent to the Site building using a truck-mounted, direct-push drill rig. A $1^1/_2$-inch diameter metal rod was driven to a depth of 10 feet below ground surface (bgs). Drilling equipment was cleaned or changed out between sampling locations to minimize the likelihood of cross-contamination of the soil vapor probe holes and to minimize the potential for a false positive in the soil vapor samples analyzed.

Dual-nested soil vapor probes were installed at each location at an approximate depth of 5 and 10 feet bgs. Each location was completed with a 5-inch traffic-rated well box in a 12-inch concrete pad (Appendix B).

Soil Vapor Survey

March 2011

On March 23, 2011, SCS supervised the collection of 13 soil vapor samples including 1 duplicate sample for quality assurance purposes. A purge test was conducted on the first sample location (SV3-10). One-, three-, and seven-purge volumes were removed prior to collecting samples SV3-10-1V, SV3-10-3V, and SV3-10-7V, respectively. Sample concentrations were not reported above the laboratory reporting limit from SV3-10; as a result, a default three-purge volume purge was used prior to collecting a sample from the remaining soil vapor probes. Soil vapor samples were collected after probes had the appropriate amount of time to equilibrate and three purge volumes were removed. H&P conducted a leak test for each sample collected. A copy of H&P standard operating procedures for soil vapor sampling is including in Appendix C.

The soil vapor samples were immediately transferred to a state-accredited, on-Site mobile laboratory provided by H&P for analysis for benzene, toluene, ethylbenzene, and total xylenes (BTEX), fuel oxygenates including methyl tertiary butyl ether (MTBE), di-iso propyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), and tertiary butyl alcohol (TBA), and leak test compound (1,1-difluoroethane) in accordance with Environmental

Protection Agency (EPA) Method 8260B. Chain-of-custody procedures were implemented for sample tracking. A written analytical report was provided by the laboratory upon the completion of the sample testing. The laboratory reports and chain-of-custody documentation are presented in Appendix D.

April 2011

On April 5, 2011, SCS again supervised the collection of 11 soil vapor samples including 1 duplicate sample for quality assurance purposes. To remain consistent with the previous sampling event in March 2011, three purge volumes were removed prior to collecting each sample and a leak test was conducted for each sample collected.

The soil vapor samples were immediately transferred to a state-accredited, on-Site mobile laboratory provided by H&P for analysis for BTEX, fuel oxygenates, and 1,1-difluoroethane in accordance with EPA Method 8260B. Chain-of-custody procedures were implemented for sample tracking. A written analytical report was provided by the laboratory upon the completion of the sample testing. The laboratory reports and chain-of-custody documentation are presented in Appendix D.

Site Safety

The following procedures were used to conduct the drilling activity in a safe manner:

- The Site Health and Safety Plan was implemented.
- A limited access exclusion zone was established in the work area.
- Unauthorized personnel were not permitted to enter the exclusion zone.

CHANGES FROM WORKPLAN

Soil vapor probe SV3 was placed on the western end of the Site building per the direction of SAM in their May 18, 2010 conditional workplan approval letter. The location of soil vapor probe SV5 was move from the proposed location near the east corner of the building to the north side due to overhead obstructions and underground utilities.

5 FINDINGS

SOIL VAPOR ANALYTICAL RESULTS

Soil vapor samples were collected from 10 soil vapor probes in March 2011 and April 2011 to assess the possible presence of BTEX and fuel oxygenates in the shallow soil vapor beneath the Site. A summary of soil vapor analytical results from the sampling events are presented in Table 1 and Figure 3. A complete list of analytical results are included in the laboratory reports (Appendix D).

Benzene, Toluene, Ethylbenzene, and Total Xylenes

Benzene was reported at concentrations ranging from 0.21 micrograms per liter (µg/l) to 1.3 µg/l in soil vapor samples collected at 5 feet bgs from SV4 and SV5. Benzene was reported at concentrations from 0.39 µg/l to 5.9 µg/l in soil vapor samples collected at 10 feet bgs from SV4 and SV5. No concentrations of benzene were reported above the laboratory reporting limit in the remainder of the samples analyzed.

No concentrations of toluene were reported above the laboratory reporting limit in the soil vapor samples analyzed.

Ethylbenzene was reported at concentrations from 12 µg/l to 20 µg/l in soil vapor samples collected at 5 feet bgs from SV5. Ethylbenzene was reported at concentrations of 24 µg/l and 38 µg/l in soil vapor samples collected at 10 feet bgs from SV5. No concentrations of ethylbenzene were reported above the laboratory reporting limit in the remainder of the samples analyzed.

No concentrations of xylenes were reported above the laboratory reporting limit in the soil vapor samples analyzed.

Fuel Oxygenates

Ethyl tertiary butyl ether (ETBE) was reported at concentrations from 4.9 µg/l to 13 µg/l in soil vapor samples collected at 5 feet bgs from SV5. No concentrations of ETBE were reported above the laboratory reporting limit in the remainder of the samples analyzed.

No concentrations above the respective analyte laboratory reporting limit for methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), and tertiary butyl alcohol (TBA) were reported in the soil vapor samples analyzed.

Leak Test Compound

No concentrations of 1,1-difluoroethane were reported above the laboratory reporting limit in the soil vapor samples analyzed.

6 DISCUSSION

HEALTH RISK ASSESSMENT (HRA)

As indicated above, concentrations of benzene, ethylbenzene, and ETBE were reported above their respective laboratory reporting limits in the soil vapor beneath the Site. Therefore, a health risk assessment was conducted.

The estimation of potential human health risks associated with the upward migration of vapors from petroleum hydrocarbon-bearing soil and groundwater has been extensively evaluated by the DEH. The spreadsheets used in this analysis are maintained by the DEH on their website at http://www.sdcounty.ca.gov/deh/water/sam_vapor_risk_assessment_2000.html (accessed March 29, 2011).

The evaluation of health risk is based upon indoor vapor concentrations, which are estimated from the rate of vapor-phase diffusion (or flux) of petroleum hydrocarbon constituents through the soil and a building foundation (i.e., the transport rate), the ventilation and use characteristics of a building (i.e., the dose), and the relative toxicity of the petroleum hydrocarbon constituents specific to vapor inhalation (i.e., the health risk associated with the estimated dose) for a given end-use scenario. The estimation of relative toxicity of vapors that could potentially accumulate in the building spaces is based upon carcinogenic and non-carcinogenic toxicity values published by California EPA (Cal-EPA).

Petroleum hydrocarbon constituents in soil vapor may originate from either impacted soil or groundwater; thus, soil vapor was measured directly. Concentrations of benzene, ethylbenzene, and ETBE were reported above the laboratory reporting limits in soil vapor; therefore, a limited human health risk assessment was conducted to assess the potential for significant human health risk posed to future users of the Site due to the upward migration of the detected vapor.

The human health risk assessment was conducted in accordance with the SAM Manual methodology and relied upon Site-specific data where available. It was assumed that the soil vapor is in chemical equilibrium with soil and pore water. The rate of the chemical diffusion from subsurface soil vapor into a building was estimated based upon properties of the petroleum hydrocarbon constituents. Finally, the potential human exposure to, and health risk from, the petroleum hydrocarbon constituents was estimated based on the duration of time that an individual is assumed to occupy the building and the relative petroleum hydrocarbon constituent concentrations that may occur within the building. The exposure concentration is based on the rate of diffusion into the building and the ventilation rate within the building. The human health risk is based on the exposure concentration, inhalation rate, and the relative toxicity of a given petroleum hydrocarbon constituent.

According to the methodology described in the SAM Manual, the potential indoor air concentration of a constituent of concern (COC) as a result of vapor-phase transport from soil beneath a building can be estimated based upon soil vapor data and an understanding of soil and building conditions. The only known complete exposure pathway is assumed to be the vadose zone vapor-phase migration to the surface.

The highest concentrations reported from 5 feet bgs and 10 feet bgs for the volatile organic compounds listed in the SAM Vapor Risk Assessment Model and reported above the laboratory reporting limits at the Site were used to estimate the range of total diffusion-driven vapor flux into the building. The Excel spreadsheets for the risk calculations associated with benzene and ethylbenzene (obtained from the DEH) are presented in Appendix E. ETBE is not listed in the SAM Vapor Risk Assessment Model and therefore is not included in the HRA.

The following assumptions were used to estimate human health risk:

- The highest reported concentration of each petroleum hydrocarbon constituent from 5 feet bgs and 10 feet bgs was conservatively estimated to be present at the entire Site.
- The Site building is assumed to be ventilated at the default exchange rate of 0.83 indoor building air exchanges per hour for commercial uses.
- A commercial adult exposure scenario is used in which an adult works at the Site for 12 hours a day, five days a week, 50 weeks per year for an average period of 25 years.
- The Site building was estimated to have an average interior height of 8 feet (2.44 meters).
- The Site was assumed to have an old slab-on-grade concrete foundation for which a slab attenuation factor default value of 0.1 was used.

The following table summarizes our estimates of carcinogenic and non-carcinogenic risk from soil vapor samples collected at 5 feet bgs:

Human Health Risk Calculations at 5 feet bgs			
CoC	**Highest Concentration with sample location (µg/L)**	**Noncarcinogenic (Hazard Index) Adult**	**Carcinogenic (Cancer Risk) Adult**
Benzene	1.3 (SV5-5)	7.96 E-04	2.44 E-07
Ethylbenzene	20 (SV5-5)	3.09 E-04	2.79 E-07
Total	**NA**	**1.11 E-03**	**5.23 E-07**

Notes:
CoC: Constituent of concern
µg/L: micrograms per liter vapor
NA: not applicable

The following table summarizes our estimates of carcinogenic and non-carcinogenic risk from soil vapor samples collected at 10 feet bgs:

Human Health Risk Calculations at 10 feet bgs			
CoC	Highest Concentration with sample location (µg/L)	Noncarcinogenic (Hazard Index) Adult	Carcinogenic (Cancer Risk) Adult
Benzene	5.9 (SV5-10)	1.80 E-03	5.53 E-07
Ethylbenzene	38 (SV5-10)	2.94 E-04	2.65 E-07
Total	**NA**	**2.09 E-03**	**8.18 E-07**

Notes:
CoC: Constituent of concern
µg/L: micrograms per liter vapor
NA: not applicable

The human health risk estimated herein is expressed for both carcinogenic and noncarcinogenic toxicity. Carcinogenic risk is expressed as a probability, where excess cancer risk (ECR) corresponds to the incremental probability that an individual will develop cancer in a lifetime. The SAM criterion for an acceptable ECR used in this analysis is one in one-million (1.00 E-06) or less. Noncarcinogenic toxicity is estimated by comparing the estimated dose to the dose required to trigger chronic toxicity (reference dose, RfD) (as a simple toxicant) and is expressed as a ratio of the dose to RfD. A value exceeding 1.0 is considered significant. The results of the human health risk assessment indicated the following:

- Based on the previously described assumptions and limitations of the scenario evaluated by the health risk calculation, the estimated cancer risk from the human health risk assessment for petroleum hydrocarbons at the Site is from 5.23 E-07 to 8.18 E-07 (less than 1.00 E-06). This result indicates that there is a low likelihood that a significant human health risk exists due to possible exposure to the petroleum hydrocarbon vapors detected beneath the Site.

- The calculated hazard index for petroleum hydrocarbons at the Site is from 1.11 E-03 to 2.09 E-03 (less than 1). This result indicates that there is a low likelihood of a non-carcinogenic risk due to possible exposure to the petroleum hydrocarbon vapors detected beneath the Site.

As noted above, the model makes a number of assumptions. In general, the assumptions are conservative, i.e., Site-specific data, if obtained and used in the model, would tend to give lower risk and toxicity results.

Please note that two of the assumptions used in the model are conservative. First, the use of 0.83 fresh air exchanges per hour is likely low. Second, the use of an indoor building height of eight

feet is a conservative assumption. The indoor ceiling height throughout most of the building is greater than eight feet.

7 CONCLUSIONS

Based on the data obtained and reviewed, laboratory results, current regulatory guidelines, and our experience and professional judgment, SCS concludes that petroleum hydrocarbon constituents were present in shallow soil vapor samples collected beneath the Site; however, with the assumptions used in the human health risk model (discussed in section 6), the calculated health risk at the Site does not exceed the criterion of one-in-one-million (1.00 E-06) excess cancer risk. In addition, a hazard index of 1.0 (significant non-carcinogenic risk criterion) was not exceeded. The calculated health risk and hazard index decreases as vapors migrate toward the surface. Therefore, there is a low likelihood that a significant human health risk exists in connection with the concentrations of petroleum hydrocarbon constituents in the soil vapor beneath the Site.

8 RECOMMENDATIONS

Based on the data obtained during this assessment and our conclusions, SCS recommends the DEH consider not requiring any further action to assess or mitigate potential vapor intrusion from the petroleum hydrocarbon-bearing soil and groundwater at the Site.

9 REPORT USAGE AND FUTURE SITE CONDITIONS

This Report is intended for the sole usage of the Client and the Client's authorized representatives. Use of this Report is subject to the provisions of the fully executed Contract between the Client and SCS. Any third party usage of this Report shall be subject to the provisions of the Contract, and any unauthorized misuse of or reliance upon the Report shall be without risk or liability to SCS.

The conclusions of this Report are judged to be relevant at the time the work described in this Report was conducted. Future conditions may differ and this Report should not be relied upon to represent future Site conditions unless a qualified consultant familiar with the practice of Phase II environmental assessments in San Diego County is consulted to assess the necessity of updating this Report.

Although this Assessment has attempted to assess the likelihood that the Site has been impacted by a hazardous material/waste release, potential sources of impact may have escaped detection for reasons, which include but are not limited to: 1) our reliance on inadequate or inaccurate information rightfully provided to SCS by third parties, such as public agencies and other outside sources; 2) the limited scope of this Assessment; and 3) the presence of undetected, unknown, or unreported environmental releases.

10 LIKELIHOOD STATEMENTS

Statements of "likelihood" have been made in this report. Likelihood statements are based on professional judgments of SCS. The term "likelihood," as used herein, pertains to the probability of a match between the prediction for an event and its actual occurrence. The likelihood statement assigns a measure for a "degree of belief" for the match between the prediction for the event and the actual occurrence of the event.

The likelihood statements in this Report are made qualitatively (expressed in words). The qualitative terms can be approximately related to quantitative percentages. The term "low likelihood" is used by SCS to approximate a range of 10 to 20 percent; the term "moderate likelihood" refers to an approximate range of 40 to 60 percent; and the term "high likelihood" refers to an approximate range of 80 to 90 percent.

TABLES

Table 1
Soil Vapor Sample Analytical Results
11427 Woodside Avenue, Santee, California

Sample ID	Location	Depth (feet bgs)	Date Sampled	Purge Volume (cc)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	ETBE (µg/L)	TBA (µg/L)
SV1 - 5	SV1	5	3/23/2011	333	< 0.10	< 1.0	< 0.50	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 5.0
			4/5/2011	333	< 0.10	< 1.0	< 0.50	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 5.0
SV1 - 10		10	3/23/2011	348	< 0.10	< 1.0	< 0.50	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 5.0
			4/5/2011	348	< 0.10	< 1.0	< 0.50	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 5.0
SV2 - 5	SV2	5	3/23/2011	333	< 0.10	< 1.0	< 0.50	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 5.0
			4/5/2011	333	< 0.10	< 1.0	< 0.50	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 5.0
SV2 - 10		10	3/23/2011	348	< 0.10	< 1.0	< 0.50	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 5.0
			4/5/2011	348	< 0.10	< 1.0	< 0.50	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 5.0
SV3 - 5	SV3	5	3/23/2011	333	< 0.10	< 1.0	< 0.50	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 5.0
			4/5/2011	333	< 0.10	< 1.0	< 0.50	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 5.0
SV3 - 10		10	3/23/2011	116	< 0.10	< 1.0	< 0.50	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 5.0
			3/23/2011	348	< 0.10	< 1.0	< 0.50	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 5.0
			3/23/2011	812	< 0.10	< 1.0	< 0.50	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 5.0
			4/5/2011	348	< 0.10	< 1.0	< 0.50	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 5.0
SV4 - 5	SV4	5	3/23/2011	333	< 0.40	< 4.0	< 2.0	< 4.0	< 2.0	< 4.0	< 4.0	< 4.0	< 20
			4/5/2011	333	**0.21**	< 2.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.0	< 10
SV4 - 10		10	3/23/2011	348	< 1.0	< 10	< 5.0	< 10	< 5.0	< 10	< 10	< 10	< 50
			4/5/2011	348	**0.39**	< 2.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.0	< 10
SV5 - 5	SV5	5	3/23/2011	333	**1.3**	< 10	**14**	< 10	< 5.0	< 10	< 10	**13**	< 50
			4/5/2011	333	**1.1**	< 4.0	**18**	< 4.0	< 2.0	< 4.0	< 4.0	**4.9**	< 20
SV5 - 5 Dup			3/23/2011	383	**1.2**	< 10	**12**	< 10	< 5.0	< 10	< 10	**13**	< 50
			4/5/2011	383	**1.1**	< 4.0	**20**	< 4.0	< 2.0	< 4.0	< 4.0	**5.0**	< 20
SV5 - 10		10	3/23/2011	348	**5.9**	< 20	**38**	< 20	< 10	< 20	< 20	< 20	< 100
			4/5/2011	348	**3.2**	< 10	**24**	< 10	< 5.0	< 10	< 10	< 10	< 50

Notes:

Soil vapor samples collected by SCS Engineers.

Concentrations reported in micrograms per liter (µg/L).

Soil samples analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and fuel oxygenates in accordance with EPA Method 8260B.

< indicates concentration not reported above indicated reporting limit for relevant analyte and analytical method.

Bold font indicates analytical results above the laboratory reporting limit

Please refer to the laboratory report in the Appendix for a complete list of analytes.

bgs = below ground surface.

MTBE = methyl tertiary butyl ether

DIPE = di-isopropyl ether

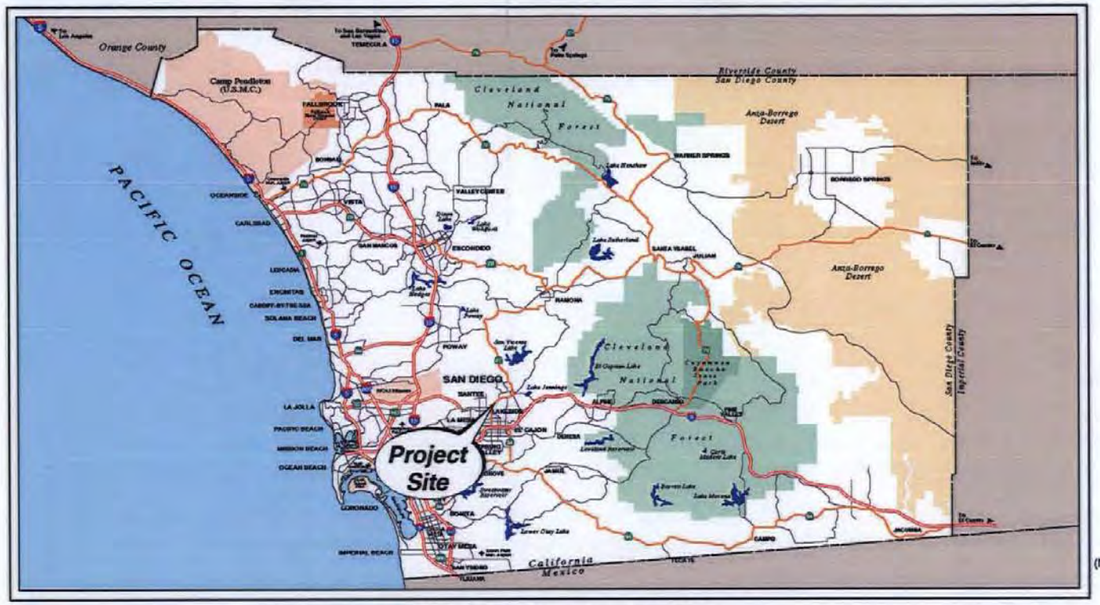
TAME = tertiary amyl methyl ether

ETBE = ethyl tertiary butyl ether

TBA = tertiary butyl alcohol

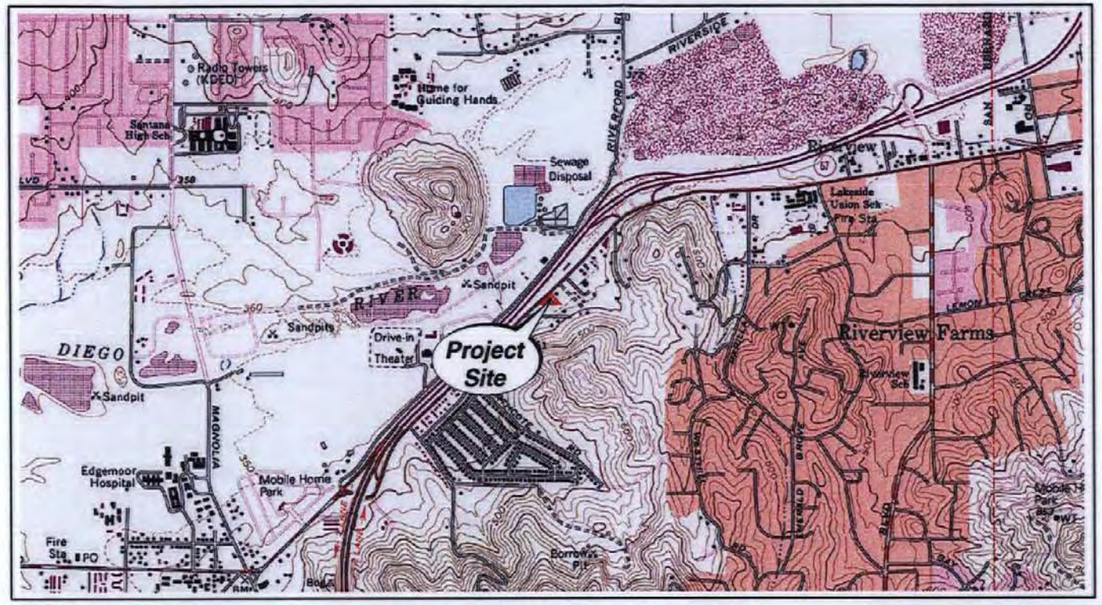
cc = cubic centimeters

FIGURES



North (Not to scale)

REGIONAL SITE LOCATION



North

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

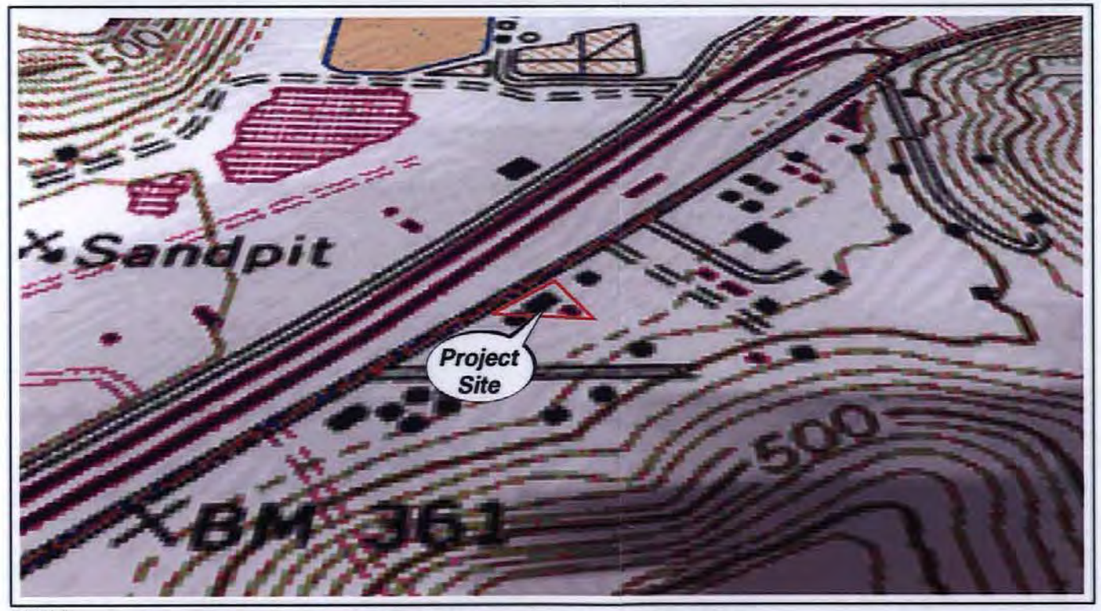
2-DIMENSIONAL SITE LOCATION

0 1,000 2,000 3,000
Approximate Graphic Scale in Feet

North (Not to scale)

Reference:
Google Earth Aerial Photograph
Santee, California - February 2008

SITE AERIAL PHOTOGRAPH



North (Not to scale)

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

3-DIMENSIONAL SITE LOCATION

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

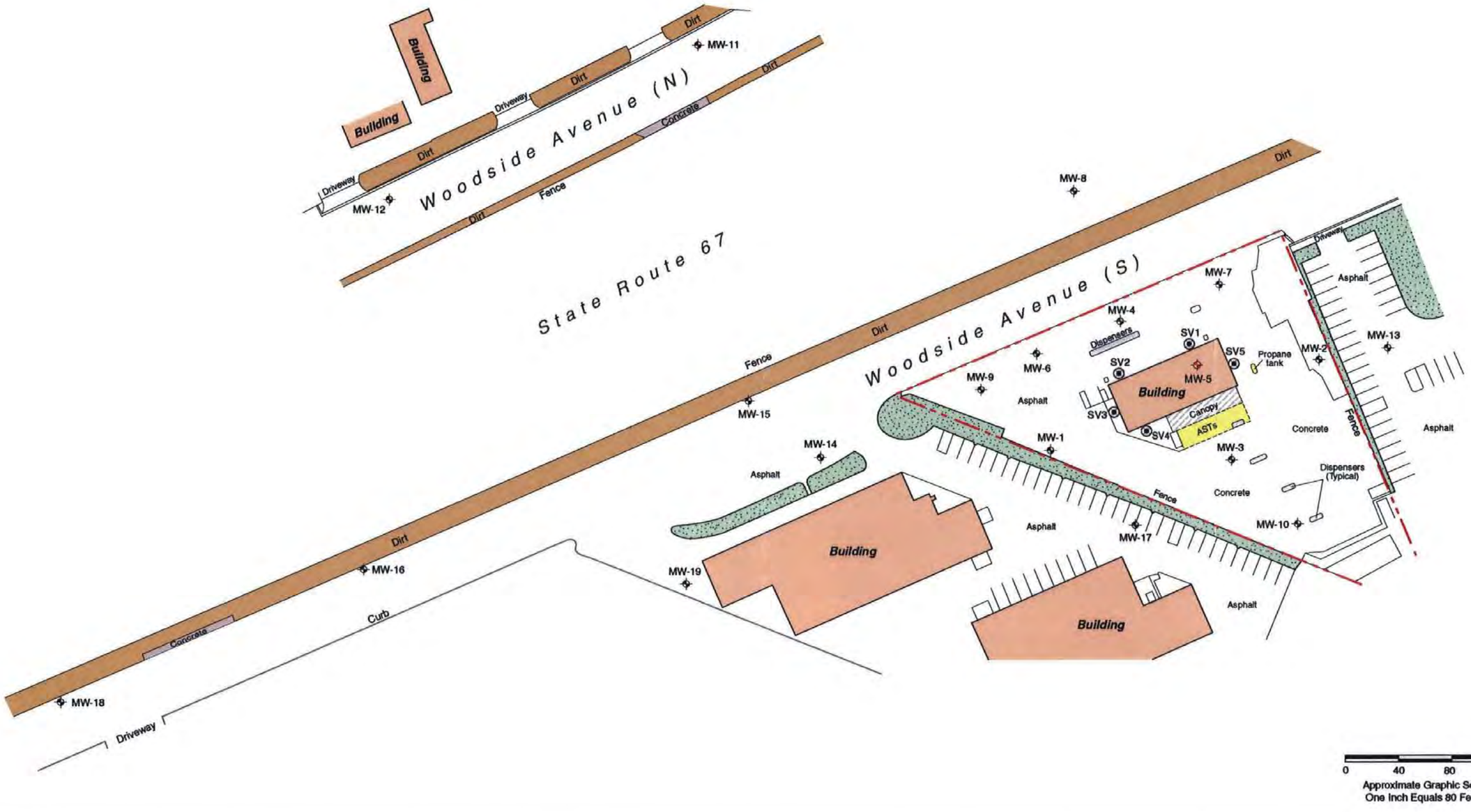
SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

4-WAY SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 1

Date Drafted: 11/4/09



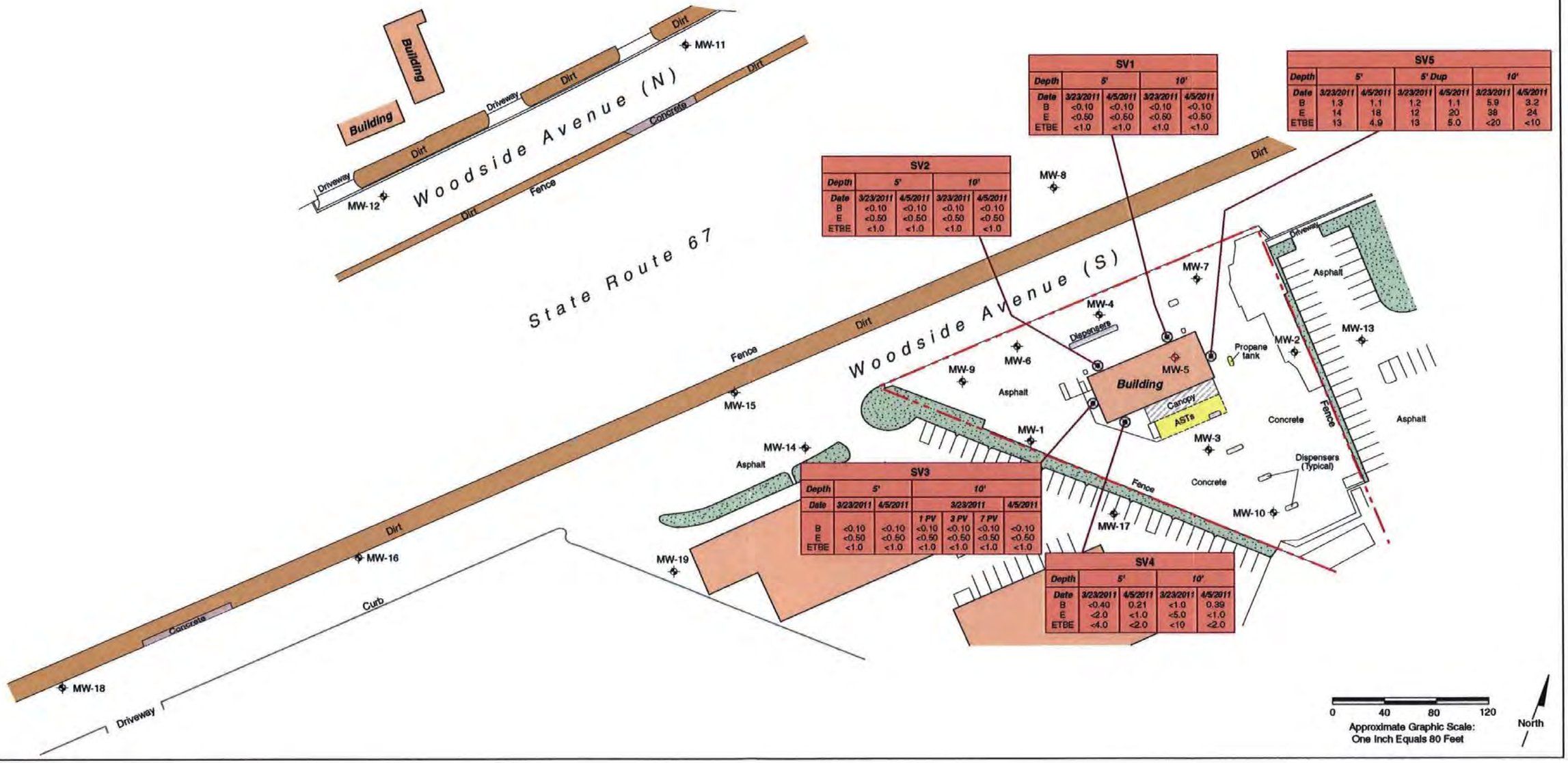
EXPLANATION

- MW-16 — Groundwater monitoring well location
- MW-5 — Well destroyed
- Approximate Site boundary
- Soil vapor sampling location

AST = aboveground storage tank

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS Environmental Consultants 8799 Balboa Avenue, Suite 290 San Diego, California 92123	**SITE MAP WITH SOIL VAPOR SAMPLING WELL LOCATIONS** **Wigington Oil** 11427 Woodside Avenue Santee, California	**Project No.: 01208473.00** **Figure 2** **Date Drafted: 4/21/11**



SV1				
Depth	5'		10'	
Date	3/23/2011	4/5/2011	3/23/2011	4/5/2011
B	<0.10	<0.10	<0.10	<0.10
E	<0.50	<0.50	<0.50	<0.50
ETBE	<1.0	<1.0	<1.0	<1.0

SV2				
Depth	5'		10'	
Date	3/23/2011	4/5/2011	3/23/2011	4/5/2011
B	<0.10	<0.10	<0.10	<0.10
E	<0.50	<0.50	<0.50	<0.50
ETBE	<1.0	<1.0	<1.0	<1.0

SV3						
Depth	5'		10'			
Date	3/23/2011	4/5/2011	3/23/2011			4/5/2011
			1 PV	3 PV	7 PV	
B	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
E	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
ETBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

SV4				
Depth	5'		10'	
Date	3/23/2011	4/5/2011	3/23/2011	4/5/2011
B	<0.40	0.21	<1.0	0.39
E	<2.0	<1.0	<5.0	<1.0
ETBE	<4.0	<2.0	<10	<2.0

SV5						
Depth	5'		5' Dup		10'	
Date	3/23/2011	4/5/2011	3/23/2011	4/5/2011	3/23/2011	4/5/2011
B	1.3	1.1	1.2	1.1	5.9	3.2
E	14	18	12	20	38	24
ETBE	13	4.9	13	5.0	<20	<10

EXPLANATION

MW-16 — Groundwater monitoring well location

MW-5 — Well destroyed

Soil vapor sampling location

Approximate Site boundary

SV4				
Depth	5'		10'	
Date	3/23/2011	4/5/2011	3/23/2011	4/5/2011
B	<0.40	0.21	<1.0	0.39
E	<2.0	<1.0	<5.0	<1.0
ETBE	<4.0	<2.0	<10	<2.0

Soil vapor samples collected by SCS Engineers. Soil vapor samples, with depth in feet below grade, analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and fuel oxygenates by EPA Method 8260B. Results reported in micrograms per liter (µg/L). < indicates concentration not reported above indicated reporting limit. Only analytes with concentrations reported above the laboratory reporting limit are listed here; refer to laboratory report for a complete list of analytes.

B = benzene
E = ethylbenzene
ETBE = ethyl tertiary butyl ether
QA/QC = quality assurance and quality control
PV = purge volume
Dup = duplicate sample

AST = aboveground storage tank

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

SOIL VAPOR ANALYTICAL RESULTS

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 3

Date Drafted: 4/28/11

APPENDICES

APPENDIX A

DEH WORKPLAN APPROVAL LETTER

County of San Diego

JACK MILLER
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
619-338-2222/FAX 619-338-2315/1-800-253-9933
www.sdcdeh.org

ELIZABETH POZZEBON
ASSISTANT DIRECTOR

May 18, 2010

Mrs. Linda Wigington
c/o Mr. William Fischbeck
Fischbeck and Oberndorfer
5464 Grossmont Center Drive, 3rd Floor
La Mesa, CA 91942

Dear Mrs. Wigington:

UNAUTHORIZED RELEASE #H19469-001
WORK PLAN APPROVAL WITH CONDITIONS
WIGINGTON PETROLEUM
11427 WOODSIDE AVENUE, SANTEE, CA

This letter has been prepared in accordance with the requirements set forth in Title 23 (State Underground Storage Tank Regulations), Division 3, Chapter 16, Article 11, Section 2722. The purpose of this letter is to notify the Responsible Party of the status of the *Work Plan for a Soil Vapor Survey and Health Risk Assessment* received by the County of San Diego, Site Assessment and Mitigation Program (SAM), on April 28, 2010.

The Work Plan, dated April 26, 2010, and prepared by SCS Engineers, covers one of the following phases of corrective action:

Preliminary Site Assessment	( )
Soil and Water Investigation	(X)
Corrective Action Plan	( )
Verification Monitoring	( )
Interim Remedial Action	( )

The Work Plan has been:

( ) approved.
( ) disapproved-call the undersigned for further instructions.
(X) approved with the following changes or conditions:

- An additional soil vapor probe must be installed on the westward facing side of the building.
- Purge tests must be conducted prior to sample collection.
- A leak test using a leak detection compound must be conducted for each sample collected. The leak detection compound must be analyzed for in all samples.

This approval is valid for 180 days from the date of this letter. The work must be completed and a report submitted within 180 days. *Keep this letter for your records as it may be required for corrective action cost reimbursement under Senate Bill 2004 (California Health and Safety Code, Division 20, Chapter 6.75, Article 6).*

As a reminder, please continue submitting all of the soil and groundwater data electronically into GeoTracker based on our letter dated July 13, 2005.

Please call me at (619) 338-2243 if you have any questions.

Sincerely,

Ellen Beacon

ELLEN BEACON, PG #7566
Project Manager
Site Assessment and Mitigation Program

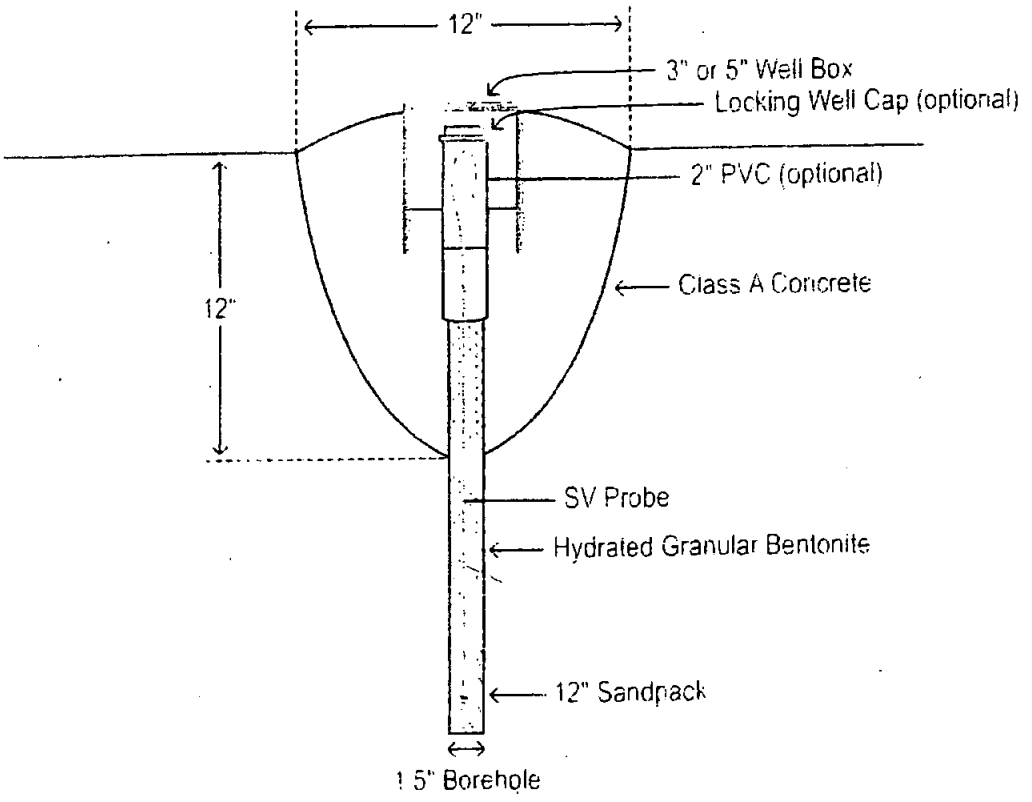
EB:kd

cc: Charles Houser, SCS Engineers

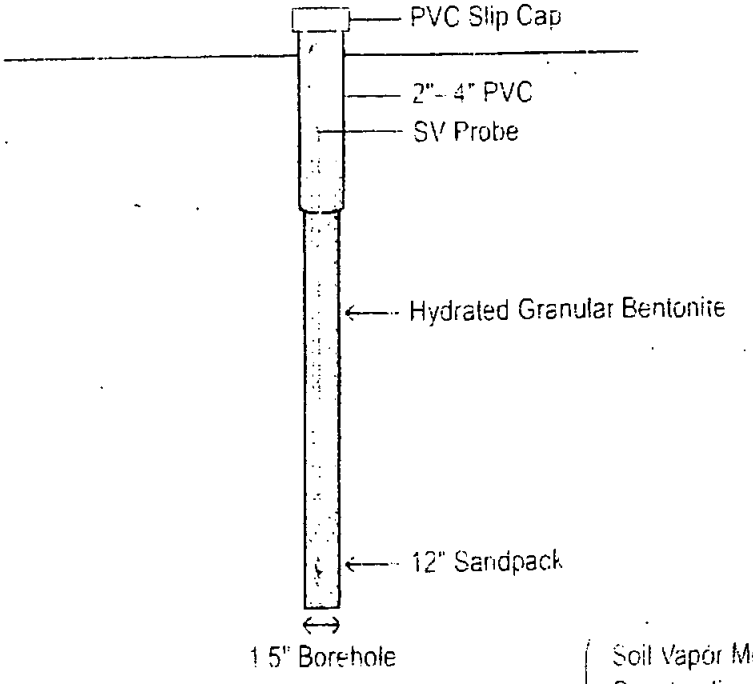
APPENDIX B

SOIL VAPOR WELL CONSTRUCTION DIAGRAM

Soil Vapor Monitoring Well Construction Diagram



Soil Vapor Semi-permanent Monitoring Well Construction Diagram



Soil Vapor Monitoring Well
Construction Diagram

APPENDIX C

H&P MOBILE GEOCHEMISTRY SOP FOR SOIL VAPOR SAMPLING

H&P Mobile Geochemistry Inc.

H&P Standard Operating Procedures for Active Soil Gas Investigations

(Per CA DTSC Advisory dated January 28, 2003)

Mobile Lab 8260B Analysis

January 2011, REV 6

Prepared by:

H&P Mobile Geochemistry, Inc.

Carlsbad, California

Soil Gas Probe Installation and Sampling Procedures

Soil Gas Probe Construction

Soil Gas Probe Installation

At each vapor probe location, H&P's truck-mounted hydraulic direct push rig may be used to advance interconnected 4 ft. lengths of 1.5" stainless steel probe rod to the desired probe depth. The rod is then removed and 1/8" (or ¼" if requested) nylon tubing with a small airstone filter attached to the end is inserted into the open borehole. The probe is gently lifted up approximately 6" and sand is poured down the borehole to encase the filter with 1' of sandpack. Approximately 1' of dry granular bentonite is then poured down the borehole and then the probe can be completed to the surface with hydrated bentonite. For deep probe installation with multiple probe depths the borehole will be completed at each depth in the same manner. In unstable soil conditions, the implant and materials can be inserted into the probe rod as it is retracted.

Equilibration Time

For temporary probes, installed with the direct push method, sampling is conducted after a 30 minute equilibration period and to allow time for the bentonite to properly seal.

Post Run Tubing (PRT) Soil Vapor Sampling (optional method as requested)

Soil vapor samples are obtained by using a 1.5" O.D. PRT (post run tubing) point holder and a hardened stainless steel drop-off point. The point holder is threaded onto the leading end of a 1.5" O.D. probe rod and advanced to depth using H&P's direct push rig. Once the desired depth is reached, a 3/8" PRT fitting connected to 1/8" (or ¼" if requested) nylon tubing is inserted into the rod and lowered to the bottom fitting. The tubing is then threaded onto the drop-off point holder by applying downward pressure on the tubing while rotating. A small rubber o-ring on the PRT fitting ensures an airtight seal. The probe rod is then retracted slightly to disengage the expendable point, exposing the vapor sampling port. Hydrated bentonite is placed around the drive rod at the ground surface to prevent ambient air intrusion from occurring.

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Equilibration Time

For probes installed using the PRT system by direct push methods, sampling is conducted after a 20 minute equilibration period.

Manually-Driven Probes

H&P's manually driven soil vapor probes are constructed of 0.625" outside diameter steel and equipped with a hardened steel tip. The probes can reach a depth of 5' below ground surface. An inert 1/8" nylon tubing is threaded down the center of the probe and connected to a sampling port just above the tip. This internal sample tubing design eliminates any contact between the sample port and the gas sample.

The probe is driven into the ground by an electric rotary hammer. Once inserted to the desired depth, the probe is rotated approximately 3 turns to open the tip and exposes the vapor sampling ports. This design prevents clogging of the sampling ports and cross-contamination from soils during insertion. Hydrated bentonite is placed around the drive rod at the ground surface to prevent ambient air intrusion from occurring.

The probe is allowed to set for 20 minutes prior to sampling to allow the bentonite time to properly seal.

In stable soil conditions, the manually driven probe rods may also be used to set soil vapor implants. With a hardened 1" steel tip on the end of the rod, the probe is driven to depth (usually 5' or less). The rod is then removed and 1/8" (or ¼" if requested) nylon tubing with a small airstone filter attached to the end is inserted into the open borehole. The probe is gently lifted up approximately 6" and sand is poured down the borehole to encase the filter with 1' of sandpack. Approximately 1' of dry granular bentonite is poured down the borehole and then the well can be completed to the surface with hydrated bentonite.

The probe is allowed to set for 30 minutes prior to sampling to allow the bentonite time to properly seal.

Equilibration Time

For temporary probes, installed with the direct push method, sampling is conducted after a 30 minute equilibration period and to allow time for the bentonite to properly seal.

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Sub-Slab Probe Installation

For sub-slab applications, H&P uses a electrically powered rotary hammer with a 1" drill bit to drill through the concrete slab. After penetrating the bottom of the slab, the drill bit is advanced no more than 2-3" into the subsurface material.

For temporary probes (used for a single sample event), a length of 1/8" nylon tubing with a small airsone filter attached to the end is inserted into the borehole. A valve is attached to the end to allow a connection to be made for sampling. A carefully measured amount of sand is poured into the borehole so as to completely cover the filter and connection tubing. Dry granular bentonite is then slowly poured into the hole and carefully hydrated so as to properly seal the hole while not allowing water to penetrate into the sandpack. This is continued to the surface of the slab.

For permanent probes (used for multiple sample events), the same procedure is followed, however at the surface a small swagelok fitting is cemented flush into the slab. This fitting has a small plug that can be removed for multiple sample events. A small plastic cap can be placed over the fitting to protect it from foot traffic and debris.

Equilibration Time

For temporary sub-slab probes, sampling is conducted after a 30 minute equilibration period and to allow time for the bentonite to seal. For permanent sub-slab probes, sampling should be conducted after 1 hour to allow for the cement to properly set.

Soil Gas Sampling

For the initial sampling event for soil vapor wells, the internal volume of the tubing and the annular space of the sandpack surrounding the probe filter is calculated as 1 purge volume of the system. The number of purge volumes extracted from the probe prior to sampling can then be determined by conducting an on-site purge volume test (as described below), or using a standard default valueof 3 purge volumes.

For any additional sample events that occur to a soil vapor probe, it is assumed that any dead space air in the sand pack has been evacuated and the sandpack has equilibrated as a result of the prior sample event. Therefore the purge volume will be calculated as the internal volume of the tubing only, or as directed by client on a site specific basis.

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Purge Volume Test

As requested, a site specific purge volume test is conducted at the beginning of the soil gas survey to purge ambient air from the sampling system and to demonstrate that samples collected are representative of subsurface conditions. The purge volume of a probe system is determined by the internal volume of the tubing and the annular space of the sand pack surrounding the probe filter. Summa canisters, syringes or Tedlar bags are not included in this calculation. A 3 step purge volume test is performed by extracting a succession of purge volumes (typically 1, 3, 7 purge volumes) from the soil vapor probe and analyzing each sample immediately to determine which volume achieves the highest concentration of the target VOC's. Once the highest concentration is determined, that purge volume is used during the entire site investigation. If VOC's are not detected in the purge test, a default of three purge volumes is used for sampling.

Leak Test to Ensure Probe Seal Integrity

A leak test will be conducted to evaluate whether an adequate seal is established at the soil vapor probe interface with the ground surface. A leak test is conducted at every vapor probe, each time a sample is collected to ensure the sample is not being diluted by ambient air.

Using a liquid tracer compound

A liquid tracer compound, i.e. 1,1-Difluoroethane, or Isopropyl alcohol, is used to test for ambient air leaks at the soil vapor probe interface with the ground surface. This is done by saturating a towel or rag with the liquid compound and emplacing it at surface of the soil vapor probe prior to purging and sampling.

If a leak check compound is detected in the sample, the cause of the leak will be evaluated, corrected and retested. If a leak is confirmed and the cause cannot be corrected, the vapor well will be decommissioned.

Using a gaseous tracer compound

Placing a plastic shroud over a soil vapor sampling probe and introducing a gaseous compound, such as helium, into the shroud can be implemented to

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ensure the probe seal integrity. It may also be used to assess the potential for leaks in the sample train.

A plastic shroud is placed over the soil vapor probe location with the tubing of the probe exiting the shroud through a small hole. The valve on the probe termination is connected to the sampling apparatus that is to be used. Smaller purge volumes may only require a syringe to purge, while larger purge volumes may require a sample pump with flow meter and vacuum gauge.

Helium (or other compound) is released into the shroud and a hand held helium detector is used to monitor and maintain a reasonably steady concentration of approximately 50% helium in the shroud. Once the concentration is reached, the soil vapor probe is purged at the recommended flow rate and any probe vacuum is recorded. The soil vapor sample is then collected in the appropriate sample container (i.e. tedlar or summa canister). Once the sample is taken, a final reading of the shroud concentration is measured with the meter and recorded.

The sample can then be analyzed for the tracer gas (i.e. Helium) to determine if a leak was present during sample collection.

Shut-In Test

A shut-in test is conducted on the sampling train to check for leaks in the above-ground fittings. The shut-in test is conducted by assembling the above-ground apparatus (e.g., valves, lines, fittings downstream of the vapor probe) and evacuating the sampling train using an air-tight syringe. If the plunger on the air-tight syringe immediately returns to its original position, then sampling train is free from leaks. Alternatively, a shut-in test may be conducted by installing an in-line vacuum gauge and evacuating the sampling train to a measured vacuum of about 100 inches of water, then shutting the vacuum in with a closed valve. The vacuum gauge will be observed for one minute and all above ground connections will be considered "air-tight" if the pressure on the gauge does not noticeably dissipate.

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Sample Flow Rate and Vacuum

Sample collection is timed so that the flow rate does not exceed 200 ml/per minute. This is accomplished by withdrawing the plunger on the 60 cc syringe at a constant rate for 20 seconds. The collector notes the collection time on a logsheet. An inline gauge is used during sample collection to demonstrate that the probe vacuum does not exceed 100" of water.

A sample of in-situ soil vapor is then withdrawn and immediately transferred to the mobile lab for analysis within minutes of collection. The use of small calibrated syringes allow for careful monitoring of purge and sample volumes. This procedure ensures adequate sample flow is obtained without excessive pumping of air or introduction of surface air into the sample.

Summa Canister

Summa canisters are connected to the end of the nylaflow tubing to the same three way valve used with the syringe. A choke is placed on the canister to ensure that the flow rate is no more than 200 ml/ per minute into the summa canister.

Field Records

The field technician maintains a logsheet summarizing:

- Sample identification
- Probe location
- Date and time of sample collection
- Sampling depth
- Identity of samplers
- Sampling methods and devices
- Soil gas purge volumes
- Volume of soil gas extracted
- Observation of soil or subsurface characteristics (any condition that affects sample integrity)
- Apparent moisture content (dry, moist or saturated etc.) of the sampling zone
- Chain of custody protocols and records used to track samples from sampling point to analysis.

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Analytical Methodology

The following analytical protocols fulfills the both the CA-EPA advisory (2003) and LA-RWQCB soil gas analytical guidelines (1997).

Operating Conditions and Instrumentation

Volatile Organic Compounds (VOCs) by EPA 8260

Instrument: Hewlett-Packard 6890(6850)/5973 or 5890/5972 GCMS
Column: 25 meter HP-624, 0.20mm x 1.0u. capillary.
Carrier flow: Helium at 1.0 ml/min.
Detectors: Quadrupole MS, full scan mode
Concentrator: Tekmar 3000/Solatek 72

Fixed and Biogenic Gases (O2, CO2, & Methane)

Instrument: SRI 8610 or Carle AGC 311 Gas Chromatograph
Column: 6 foot CTR
Carrier flow: Helium at 15 ml/min.
Detectors: Thermoconductivity (TCD) for O2 & CO2.

Detectors: Flame ionization detector (FID) for methane.

Hydrogen Sulfide

Instrument: Jerome 631x
Detectors: Gold-film

Standard Preparation

Primary (stock) standards: Made from certified neat components or from traceable standards purchased from certified suppliers.

Secondary (working) Standards: Made by diluting primary standard. Typical concentrations are 1ug/ml, 10 ug/ml, and 50 ug/ml.

Laboratory Check Samples are prepared at the midpoint concentration from a standard purchased from a source different than the primary standards.

Lot numbers and preparations of all standards are recorded on a log sheet and kept in the mobile laboratory.

Gas Standards for TO-14A/15 analysis purchased from Spectra Gases, Branchburg, N.J. diluted from 1.0 ppmv to 10ppbv (for targets) and 1.0ppmv to 100ppbv (internal standards and surrogates

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Initial Multi-Point Calibration Curve

An initial calibration curve of a minimum of 3 points is performed either:

- At the start of the project.
- When the GC column or operating conditions have changed
- When the daily mid-point calibration check cannot meet the requirements as specified below.

Calibration curves for each target component are prepared by analyzing low, mid, and high calibration standards covering the expected concentration range. The lowest standard concentration will not exceed 5 times the reporting limit for each compound.

A linearity check of the calibration curve for each compound is performed by computing a correlation coefficient and an average response factor. If a correlation coefficient of 0.990 or a percent relative standard deviation (%RSD) of $\pm$ 20% is obtained, an average response factor is used over the entire calibration range. If the linearity criteria are not obtained, quantitation for that analyte is performed using a calibration curve.

After each initial multi-point calibration, the validity of the curve is further verified with a laboratory control standards (LCS) prepared at the mid-point of the calibration range. The LCS includes all target compounds and the response factor (RF) must fall within $\pm$ 15% of the factor from the initial calibration curve.

Continuing Calibration (Daily Mid-point Calibration Check)

Continuing calibration standards prepared from a traceable source are analyzed at the beginning of each day. Acceptable continuing calibration agreement is set at $\pm$ 15% to the average response factor from the calibration curve, except for freon, chloroethane, and vinyl chloride when a 25% agreement is required. When calibration checks fall outside this acceptable range for analytes detected on the site, corrective action, consisting of verification of the standard and/or a new calibration curve for the analytes out of specifications is performed by the on-site chemist.

The continuing calibration includes all compounds expected or detected at the site in addition to any specific compounds designated in the project workplan.

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Detection Limits

Reporting limits for this program are defined as 5 times lower than the lowest concentration standard of the calibration curve, as follows:

Compound	Detector	Report Limit
VOCs	Mass Spec	0.1 to 1 ug/l-vapor
Methane	FID	10 ppmv
Fixed Gases	TCD	0.2% by vol
H2S	Gold Film	0.10 ppmv

Injection of Soil Gas Samples

Vapor samples are withdrawn from the probe sampling syringe with a 5 cc syringe and injected with surrogates into a purge & trap instrument for VOC analysis. Separate aliquots are directly injected into gas chromatographs for fixed gases and methane analysis. The injection syringe is flushed 2 times with the sample prior to injection. Injection syringes are flushed several times with clean air or discarded between injections.

Laboratory Data Logs

The field chemist maintains injection and sample analysis records including date and time of analysis, sampler's name, chemist's name, sample ID number, concentrations of compounds detected, calibration data, and any unusual conditions.

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Quality Control Procedures

Compliance With Standards

Sampling and analytical procedures complied with the American Society for Testing and Materials' *Standard Guide for Soil Gas Monitoring in the Vadose Zone* (ASTM D5314-93), the LA-RWQCB Soil Gas Guidelines (Feb 1997 version), the San Diego County SAM Soil Gas Guidelines (October, 2001), and the Advisory – Active Soil Gas Investigations, DTSC/LARWQCB (Jan 28, 2003).

Sampling Quality Control

Method Blanks

Prior to sampling each day, all components of the sampling system are checked for contamination by drawing ambient air from above ground through the sampling equipment, and injecting a sample into a gas chromatograph.

Sample Quality Control

Each sample is given a unique identification number specifying location and depth. Purge and sample volumes are monitored closely using small calibrated syringes to assure a proper flow of soil gas. This ensures a representative sample is obtained from the sample zone.

Decontamination Procedures

To minimize the potential for cross-contamination between sample locations and other project sites, all external sampling assembly parts are wiped or washed cleaned of excess dirt and moisture. Glass syringed are baked at 240° between uses and decontaminated by baking and flushing with nitrogen or helium between uses.

Corrective Action

Corrective action is taken when unexpected target compounds are detected at concentrations above the laboratory report limit. First, field duplicate samples are collected to verify the initial detection of unexpected target compounds. If contamination is suspected, the soil vapor probe may be reinstalled at a nearby location, at the discretion of the client. Any contaminated sampling syringes are baked between uses and flushed with helium or nitrogen.

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Analytical Quality Control

Method Blanks

Method blanks are performed at the start of each day by drawing clean air through the sampling equipment and analyzing. These blanks verify all components of the sampling and analytical system are free of contamination. Additional blanks are performed more often as appropriate depending upon the measured concentrations, at a minimum 1 every 20 samples. The results of all blank analyses are recorded in the data tables. If a blank shows a measurable amount of any target compound, the on-site chemist will investigate and determine the source, and resolve the contamination problem prior to analyzing any samples.

Duplicate Samples

Duplicate (repetitive) analysis of a sample is performed when inconsistent data are observed, but at least one every 20 samples. Because soil vapor duplicates can vary widely, nominal relative percent difference (RPD) acceptance criteria is $\pm$ a factor of 2.

Continuing Calibration (Daily Mid-point Calibration Check)

As described on page 5 of this document, continuing calibration standards prepared from a traceable source are analyzed at the beginning of each day.

The continuing calibration includes all compounds expected or detected at the site and any specific compounds designated in the project workplan.

Laboratory Check Samples (LCS)

Laboratory check samples, prepared at the lowpoint concentration from a standard purchased from a source different than the calibration standards, are analyzed at the end of each day if all samples are below detection. Acceptance criteria is $\pm$ 30% from the true value. If the LCS falls outside this acceptance range for analytes detected on site, corrective action, consisting of verification of the standard and/or a new calibration curve for the analytes out of specifications, is performed.

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APPENDIX D

ANALYTICAL DATA AND CHAIN-OF-CUSTODY DOCUMENTATION

H&P Mobile Geochemistry Inc.

30 March 2011

Mr. Chuck Houser
SCS Engineers - San Diego
8799 Balboa Avenue, Suite 290
San Diego, CA 92123

H&P Project: SCS032311-SB2
Client Project: 01208473.00 / 11427 Woodside Ave.

Dear Mr. Chuck Houser:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 23-Mar-11 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody

Unless otherwise noted, all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

J. Villarreal

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry, Inc. operates under CA Environmental Lab Accreditation Program Numbers 2579, 2740, 2741, 2742, 2743, 2745 and 2754. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

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Mobile Geochemistry Inc.

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SCS Engineers - San Diego	Project: SCS032311-SB2	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / 11427 Woodside Ave.	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	30-Mar-11 11:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV3-10', 1PV, P116cc	E103105-01	Vapor	23-Mar-11	23-Mar-11
SV3-10', 3PV, P348cc	E103105-02	Vapor	23-Mar-11	23-Mar-11
SV3-10', 7PV, P812cc	E103105-03	Vapor	23-Mar-11	23-Mar-11
SV3-5', P333cc	E103105-04	Vapor	23-Mar-11	23-Mar-11
SV1-5', P333cc	E103105-05	Vapor	23-Mar-11	23-Mar-11
SV1-10', P348cc	E103105-06	Vapor	23-Mar-11	23-Mar-11
SV2-5', P333cc	E103105-07	Vapor	23-Mar-11	23-Mar-11
SV2-10', P348cc	E103105-08	Vapor	23-Mar-11	23-Mar-11
SV4-5', P333cc	E103105-09	Vapor	23-Mar-11	23-Mar-11
SV4-10', P348cc	E103105-10	Vapor	23-Mar-11	23-Mar-11
SV5-5', P333cc	E103105-11	Vapor	23-Mar-11	23-Mar-11
SV5-5' Dup, P383cc	E103105-12	Vapor	23-Mar-11	23-Mar-11
SV5-10', P348cc	E103105-13	Vapor	23-Mar-11	23-Mar-11

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Project: SCS032311-SB2
Project Number: 01208473.00 / 11427 Woodside Ave.
Project Manager: Mr. Chuck Houser

Reported:
30-Mar-11 11:11

Volatile Organic Compounds by EPA Method 8260B Modified

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV3-10', 1PV, P116cc (E103105-01) Vapor	**Sampled: 23-Mar-11**	**Received: 23-Mar-11**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EC12302	23-Mar-11	23-Mar-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*119 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*87.3 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*112 %*		*75-125*		"	"	"	
SV3-10', 3PV, P348cc (E103105-02) Vapor	**Sampled: 23-Mar-11**	**Received: 23-Mar-11**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EC12302	23-Mar-11	23-Mar-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*124 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*87.4 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*112 %*		*75-125*		"	"	"	

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8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / 11427 Woodside Ave.	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	30-Mar-11 11:11

Volatile Organic Compounds by EPA Method 8260B Modified

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV3-10', 7PV, P812cc (E103105-03) Vapor Sampled: 23-Mar-11 Received: 23-Mar-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EC12302	23-Mar-11	23-Mar-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*118 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*87.0 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*120 %*		*75-125*		"	"	"	
SV3-5', P333cc (E103105-04) Vapor Sampled: 23-Mar-11 Received: 23-Mar-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EC12302	23-Mar-11	23-Mar-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*121 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*85.0 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*118 %*		*75-125*		"	"	"	

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Project Number: 01208473.00 / 11427 Woodside Ave.
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Reported:
30-Mar-11 11:11

Volatile Organic Compounds by EPA Method 8260B Modified

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV1-5', P333cc (E103105-05) Vapor Sampled: 23-Mar-11 Received: 23-Mar-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EC12302	23-Mar-11	23-Mar-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*125 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*90.4 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*115 %*		*75-125*		"	"	"	
SV1-10', P348cc (E103105-06) Vapor Sampled: 23-Mar-11 Received: 23-Mar-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EC12302	23-Mar-11	23-Mar-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*123 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*89.5 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*116 %*		*75-125*		"	"	"	

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8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / 11427 Woodside Ave.	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	30-Mar-11 11:11

Volatile Organic Compounds by EPA Method 8260B Modified

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV2-5', P333cc (E103105-07) Vapor Sampled: 23-Mar-11 Received: 23-Mar-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EC12302	23-Mar-11	23-Mar-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*121 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*89.1 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*116 %*		*75-125*		"	"	"	
SV2-10', P348cc (E103105-08) Vapor Sampled: 23-Mar-11 Received: 23-Mar-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EC12302	23-Mar-11	23-Mar-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*121 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*89.4 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*117 %*		*75-125*		"	"	"	

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Reported:
30-Mar-11 11:11

Volatile Organic Compounds by EPA Method 8260B Modified

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV4-5', P333cc (E103105-09) Vapor Sampled: 23-Mar-11 Received: 23-Mar-11									**R-05**
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.2	EC12302	23-Mar-11	23-Mar-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	2.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	4.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	4.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	4.0	"	"	"	"	"	"	
Benzene	ND	0.40	"	"	"	"	"	"	
Toluene	ND	4.0	"	"	"	"	"	"	
Ethylbenzene	ND	2.0	"	"	"	"	"	"	
m,p-Xylene	ND	2.0	"	"	"	"	"	"	
o-Xylene	ND	2.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	20	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*83.8 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*106 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*123 %*		*75-125*		"	"	"	
SV4-10', P348cc (E103105-10) Vapor Sampled: 23-Mar-11 Received: 23-Mar-11									**R-05**
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.5	EC12302	23-Mar-11	23-Mar-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	5.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	10	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	10	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	10	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	50	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*81.0 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*104 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*122 %*		*75-125*		"	"	"	

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Volatile Organic Compounds by EPA Method 8260B Modified

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV5-5', P333cc (E103105-11) Vapor Sampled: 23-Mar-11 Received: 23-Mar-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.5	EC12302	23-Mar-11	23-Mar-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	5.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	10	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	**13**	10	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	10	"	"	"	"	"	"	
Benzene	**1.3**	1.0	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	**14**	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	50	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*89.4 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*115 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*138 %*		*75-125*	"	"	"	"	*S-04*
SV5-5' Dup, P383cc (E103105-12) Vapor Sampled: 23-Mar-11 Received: 23-Mar-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.5	EC12302	23-Mar-11	23-Mar-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	5.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	10	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	**13**	10	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	10	"	"	"	"	"	"	
Benzene	**1.2**	1.0	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	**12**	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	50	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*85.0 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*98.3 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*136 %*		*75-125*	"	"	"	"	*S-04*

H&P Mobile Geochemistry Inc.

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760-804-9678 Phone
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SCS Engineers - San Diego
8799 Balboa Avenue, Suite 290
San Diego, CA 92123

Project: SCS032311-SB2
Project Number: 01208473.00 / 11427 Woodside Ave.
Project Manager: Mr. Chuck Houser

Reported:
30-Mar-11 11:11

Volatile Organic Compounds by EPA Method 8260B Modified

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV5-10', P348cc (E103105-13) Vapor	**Sampled: 23-Mar-11**	**Received: 23-Mar-11**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	1	EC12302	23-Mar-11	23-Mar-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	10	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	20	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	20	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	20	"	"	"	"	"	"	
Benzene	**5.9**	2.0	"	"	"	"	"	"	
Toluene	ND	20	"	"	"	"	"	"	
Ethylbenzene	**38**	10	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	10	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	100	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*86.0 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*113 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*142 %*		*75-125*	"	"	"	"	*S-04*

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SCS Engineers - San Diego	Project: SCS032311-SB2	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / 11427 Woodside Ave.	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	30-Mar-11 11:11

Volatile Organic Compounds by EPA Method 8260B Modified - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC12302 - EPA 5030										
Blank (EC12302-BLK1)				Prepared & Analyzed: 23-Mar-11						
1,1-Difluoroethane (LCC)	ND	10	ug/l							
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"							
Diisopropyl ether (DIPE)	ND	1.0	"							
Ethyl tert-butyl ether (ETBE)	ND	1.0	"							
Tertiary-amyl methyl ether (TAME)	ND	1.0	"							
Benzene	ND	0.10	"							
Toluene	ND	1.0	"							
Ethylbenzene	ND	0.50	"							
m,p-Xylene	ND	0.50	"							
o-Xylene	ND	0.50	"							
Tertiary-butyl alcohol (TBA)	ND	5.0	"							
Surrogate: Dibromofluoromethane	*2.72*		"	*2.50*		*109*	*75-125*			
Surrogate: Toluene-d8	*2.05*		"	*2.50*		*81.8*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.79*		"	*2.50*		*111*	*75-125*			

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SCS Engineers - San Diego	Project: SCS032311-SB2	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / 11427 Woodside Ave.	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	30-Mar-11 11:11

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
R-05	The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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SCS Engineers - San Diego	Project: SCS032311-SB2	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / 11427 Woodside Ave.	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	30-Mar-11 11:11

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the Environmental Laboratory Accreditation Program (CA) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste for the following methods:

Certificate# 2741, 2743, 2579, 2754 & 2740 approved for EPA 8260 and LUFT GC/MS
Certificate# 2742, 2745, & 2741 approved for LUFT
Certificate# 2745 & 2742 approved for EPA 418.1

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the National Environmental Accreditation Conference Standards for the category Environmental Analysis Air and Emissions for the following analytes and methods:

1,2,4-Trichlorobenzene by EPA TO-15 & TO-14A
Hexachlorobutadiene by EPA TO-15 & TO-14A
1,2,4-Trimethylbenzene by EPA TO -14A
1,2-Dichlorobenzene by EPA TO-15 & TO-14A
1,3,5-Trimethylbenzene by EPA TO -14A
1,4-Dichlorobenzene by EPA TO-15 & TO-14A
Benzene by EPA TO-15 & TO-14A
Chlorobenzene by EPA TO-15 & TO-14A
Ethyl benzene by EPA TO-15 & TO-14A
Styrene by EPA TO-15 & TO-14A
Toluene by EPA TO-15 & TO-14A
Total Xylenes by EPA TO-15 & TO-14A
1,1,1-Trichloroethane by EPA TO-15 & TO-14A
1,1,2,2-Tetrachloroethane by EPA TO-15 & TO-14A
1,1,2-Trichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethene by EPA TO-15 & TO-14A
1,2-Dichloroethane by EPA TO-15 & TO-14A
1,2-Dichloropropane by EPA TO-15 & TO-14A
Bromoform by EPA TO-15
Bromomethane by EPA TO-15 & TO-14A
Carbon tetrachloride by EPA TO-15 & TO-14A
Chloroethane by EPA TO-15
Chloroform by EPA TO-15 & TO-14A
Chloromethane by EPA TO-15 & TO-14A
cis-1,2-Dichloroethene by EPA TO-15
cis-1,2-Dichloropropene by EPA TO-15 & TO-14A
Methylene chloride by EPA TO -15 & TO-14A
Tetrachloroethane by EPA TO-15 & TO-14A
trans-1,2-Dichloroethene by EPA TO-15
trans-1,2-Dichloropropene by EPA TO-15 & TO-14A
Trichloroethene by EPA TO-15 & TO-14A
Vinyl chloride by EPA TO -15 & TO-14A
2-Butanone by EPA TO-15
4-Methyl-2-Pentanone by EPA TO-15
Hexane by EPA TO-15
Methyl tert-butyl ether by EPA TO-15
Vinyl acetate by EPA TO-15

This certification applies to samples analyzed in summa canisters.

Chain of Custody Record

H&P Mobile Geochemistry Inc.

☐ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☒ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 3-23-11
H&P Project # SCS032311-SB2
Outside Lab:

Client: SCS Engineers
Collector: D. Pride
Page: 1 of 2
Address: 8799 Balboa Avenue, Suite 290, San Diego, CA. 92123
Client Project # 01208473.00
Project Contact: Chuck Houser
Location: 11427 Woodside Ave., Santee SD
Email: chouser@scsengineers.com, ccrosby@scsengineers.com Phone: 858-571-5500 x 244 Fax:
Turn around time: ON-Site

Geotracker EDF: Yes ☒ No ☐
Global ID:
Excel EDD: Yes ☐ No ☒

Sample Receipt
Intact: ☐ Yes ☑ No
Seal Intact: ☐ Yes ☐ No ☑ N/A
Cold: ☐ Yes ☐ No ☑ N/A
Temperature: N/A

Special Instructions:

Lab Work Order # E103105 EC12302

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B ☐ BTEX/OXY ☐ TPH gas	8015M TPH ☐ g ☐ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☐ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☒ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other BTEX ☒ 8260B ☐ TO-15	Leak Check Compound ☒ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2	
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS											
SV3-10' 1PV	SV3	116cc	1051	3-23-11	Vapor	Glass Syringe	1									X			X	X			
SV3-10' 3PV	SV3	348cc	1053				1																
SV3-10' 7PV	SV3	812cc	1056				1																
SV3-5'	SV3	333cc	1204				1																
SV1-5'	SV1	333cc	1209				1																
SV1-10'	SV1	348cc	1217				1																
SV2-5'	SV2	333cc	1228				1																
SV2-10'	SV2	348cc	1235				1																
SV4-5'	SV4	333cc	1256				1																
SV4-10'	SV4	348cc	1306				1																

Relinquished by: (Signature)	(company) SCS	Received by: (Signature)	(company) H&P	Date: 3/23/11	Time: 1530
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ Disposal ☐ Return to client ☐ Pickup

Chain of Custody Record

H&P Mobile Geochemistry Inc.
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☒ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 3-23-11
H&P Project # SCS032311-SB2
Outside Lab:

Client: SCS Engineers
Address: 8799 Balboa Avenue, Suite 290
San Diego, CA. 92123
Email: chouser@scsengineers.com, ccrosby@scsengineers.com

Collector: D. Pride
Client Project # 01208473.00
Location: 11427 Woodside Ave., Santee SD
Phone: 858-571-5500x 244
Fax:

Page: 2 of 2
Project Contact: Chuck Houser
Turn around time: Field

Geotracker EDF: Yes ☒ No ☐
Global ID:
Excel EDD: Yes ☐ No ☒

Sample Receipt
Intact: ☐ Yes ☒ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☐ Yes ☐ No ☒ N/A
Temperature: N/A

Special Instructions:

Lab Work Order # E103105

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B BTEX/OXY TPH gas	8015M TPH g d ext	418.1 TRPH	VOC's: Full List 8260B TO-15	VOC's: Short List/DTSC 8260B TO-15	VOC's: SAM, 8260B SAM A SAM B	Naphthalene 8260B TO-15	Oxygenates 8260B TO-15	TPHv gas 8260B TO-15	Ketones 8260B TO-15	Other BTEX 8260B TO-15	Leak Check Compound 1,1 DFA OTHER	Methane	Fixed Gases CO2 O2 N2
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS										
SV5-5'	SV5	333cc	1337	3-23-11	Vapor	Glass Syringe	1									X			X	X		
SV5-5' Dup	SV5	383cc	1338	↓	↓	↓	1									↓			↓	↓		
SV5-10'	SV5	348cc	1434	↓	↓	↓	1									↓			↓	↓		

Relinquished by: (Signature)	(company) SCS	Received by: (Signature)	(company) H&P	Date: 3/23 Time: 1530
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date: Time:
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date: Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ Disposal ☐ Return to client ☐ Pickup

H&P Mobile Geochemistry Inc.

12 April 2011

Mr. Chuck Houser
SCS Engineers - San Diego
8799 Balboa Avenue, Suite 290
San Diego, CA 92123

H&P Project: SCS040511-SB2
Client Project: 01208473.00 / 11427 Woodside Ave.

Dear Mr. Chuck Houser:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 05-Apr-11 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody

Unless otherwise noted, all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

CS Parsons

for Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry, Inc. operates under CA Environmental Lab Accreditation Program Numbers 2579, 2740, 2741, 2742, 2743, 2745 and 2754. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

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SCS Engineers - San Diego	Project: SCS040511-SB2	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / 11427 Woodside Ave.	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	12-Apr-11 11:09

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV1-5', P333cc	E104011-01	Vapor	05-Apr-11	05-Apr-11
SV1-10', P348cc	E104011-02	Vapor	05-Apr-11	05-Apr-11
SV2-5', P333cc	E104011-03	Vapor	05-Apr-11	05-Apr-11
SV2-10', P348cc	E104011-04	Vapor	05-Apr-11	05-Apr-11
SV3-5', P333cc	E104011-05	Vapor	05-Apr-11	05-Apr-11
SV3-10', P348cc	E104011-06	Vapor	05-Apr-11	05-Apr-11
SV4-5', P333cc	E104011-07	Vapor	05-Apr-11	05-Apr-11
SV4-10', P348cc	E104011-08	Vapor	05-Apr-11	05-Apr-11
SV5-5', P333cc	E104011-09	Vapor	05-Apr-11	05-Apr-11
SV5-5' Dup, P383cc	E104011-10	Vapor	05-Apr-11	05-Apr-11
SV5-10', P348cc	E104011-11	Vapor	05-Apr-11	05-Apr-11

Mobile Geochemistry Inc.

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SCS Engineers - San Diego	Project: SCS040511-SB2	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / 11427 Woodside Ave.	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	12-Apr-11 11:09

Volatile Organic Compounds by EPA Method 8260B Modified

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV1-5', P333cc (E104011-01) Vapor Sampled: 05-Apr-11 Received: 05-Apr-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	ED10504	05-Apr-11	05-Apr-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*122 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*90.6 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*114 %*		*75-125*		"	"	"	
SV1-10', P348cc (E104011-02) Vapor Sampled: 05-Apr-11 Received: 05-Apr-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	ED10504	05-Apr-11	05-Apr-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*119 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*97.4 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*116 %*		*75-125*		"	"	"	

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SCS Engineers - San Diego	Project: SCS040511-SB2	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / 11427 Woodside Ave.	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	12-Apr-11 11:09

Volatile Organic Compounds by EPA Method 8260B Modified

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV2-5', P333cc (E104011-03) Vapor Sampled: 05-Apr-11 Received: 05-Apr-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	ED10504	05-Apr-11	05-Apr-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*124 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*93.6 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*118 %*		*75-125*		"	"	"	
SV2-10', P348cc (E104011-04) Vapor Sampled: 05-Apr-11 Received: 05-Apr-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	ED10504	05-Apr-11	05-Apr-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*115 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*95.8 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*112 %*		*75-125*		"	"	"	

H&P Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

SCS Engineers - San Diego
8799 Balboa Avenue, Suite 290
San Diego, CA 92123

Project: SCS040511-SB2
Project Number: 01208473.00 / 11427 Woodside Ave.
Project Manager: Mr. Chuck Houser

Reported:
12-Apr-11 11:09

Volatile Organic Compounds by EPA Method 8260B Modified

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV3-5', P333cc (E104011-05) Vapor Sampled: 05-Apr-11 Received: 05-Apr-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	ED10504	05-Apr-11	05-Apr-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*118 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*92.7 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*115 %*		*75-125*		"	"	"	
SV3-10', P348cc (E104011-06) Vapor Sampled: 05-Apr-11 Received: 05-Apr-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	ED10504	05-Apr-11	05-Apr-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*124 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*97.1 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*120 %*		*75-125*		"	"	"	

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SCS Engineers - San Diego	Project: SCS040511-SB2	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / 11427 Woodside Ave.	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	12-Apr-11 11:09

Volatile Organic Compounds by EPA Method 8260B Modified

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV4-5', P333cc (E104011-07) Vapor Sampled: 05-Apr-11 Received: 05-Apr-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	ED10504	05-Apr-11	05-Apr-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	1.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	2.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	2.0	"	"	"	"	"	"	
Benzene	**0.21**	0.20	"	"	"	"	"	"	
Toluene	ND	2.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*76.6 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*111 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*109 %*		*75-125*		"	"	"	
SV4-10', P348cc (E104011-08) Vapor Sampled: 05-Apr-11 Received: 05-Apr-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	ED10504	05-Apr-11	05-Apr-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	1.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	2.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	2.0	"	"	"	"	"	"	
Benzene	**0.39**	0.20	"	"	"	"	"	"	
Toluene	ND	2.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*81.1 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*117 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*117 %*		*75-125*		"	"	"	

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SCS Engineers - San Diego	Project: SCS040511-SB2	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / 11427 Woodside Ave.	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	12-Apr-11 11:09

Volatile Organic Compounds by EPA Method 8260B Modified

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV5-5', P333cc (E104011-09) Vapor Sampled: 05-Apr-11 Received: 05-Apr-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.2	ED10504	05-Apr-11	05-Apr-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	2.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	4.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	**4.9**	4.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	4.0	"	"	"	"	"	"	
Benzene	**1.1**	0.40	"	"	"	"	"	"	
Toluene	ND	4.0	"	"	"	"	"	"	
Ethylbenzene	**18**	2.0	"	"	"	"	"	"	
m,p-Xylene	ND	2.0	"	"	"	"	"	"	
o-Xylene	ND	2.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	20	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*79.9 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*120 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*125 %*		*75-125*		"	"	"	
SV5-5' Dup, P383cc (E104011-10) Vapor Sampled: 05-Apr-11 Received: 05-Apr-11									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.2	ED10504	05-Apr-11	05-Apr-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	2.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	4.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	**5.0**	4.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	4.0	"	"	"	"	"	"	
Benzene	**1.1**	0.40	"	"	"	"	"	"	
Toluene	ND	4.0	"	"	"	"	"	"	
Ethylbenzene	**20**	2.0	"	"	"	"	"	"	
m,p-Xylene	ND	2.0	"	"	"	"	"	"	
o-Xylene	ND	2.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	20	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*78.2 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*124 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*124 %*		*75-125*		"	"	"	

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SCS Engineers - San Diego	Project: SCS040511-SB2	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / 11427 Woodside Ave.	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	12-Apr-11 11:09

Volatile Organic Compounds by EPA Method 8260B Modified

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV5-10', P348cc (E104011-11) Vapor	**Sampled: 05-Apr-11**	**Received: 05-Apr-11**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.5	ED10504	05-Apr-11	05-Apr-11	EPA 8260B	
Methyl tertiary-butyl ether (MTBE)	ND	5.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	10	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	10	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	10	"	"	"	"	"	"	
Benzene	**3.2**	1.0	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	**24**	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	50	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*81.1 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*112 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*120 %*		*75-125*	"	"	"	"	

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SCS Engineers - San Diego	Project: SCS040511-SB2	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / 11427 Woodside Ave.	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	12-Apr-11 11:09

Volatile Organic Compounds by EPA Method 8260B Modified - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED10504 - EPA 5030										
Blank (ED10504-BLK1)				Prepared & Analyzed: 05-Apr-11						
1,1-Difluoroethane (LCC)	ND	10	ug/l							
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"							
Diisopropyl ether (DIPE)	ND	1.0	"							
Ethyl tert-butyl ether (ETBE)	ND	1.0	"							
Tertiary-amyl methyl ether (TAME)	ND	1.0	"							
Benzene	ND	0.10	"							
Toluene	ND	1.0	"							
Ethylbenzene	ND	0.50	"							
m,p-Xylene	ND	0.50	"							
o-Xylene	ND	0.50	"							
Tertiary-butyl alcohol (TBA)	ND	5.0	"							
Surrogate: Dibromofluoromethane	*2.76*		"	*2.50*		*111*	*75-125*			
Surrogate: Toluene-d8	*2.08*		"	*2.50*		*83.1*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.88*		"	*2.50*		*115*	*75-125*			

H&P Mobile Geochemistry Inc.

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SCS Engineers - San Diego	Project: SCS040511-SB2	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / 11427 Woodside Ave.	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	12-Apr-11 11:09

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the Environmental Laboratory Accreditation Program (CA) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste for the following methods:

Certificate# 2741, 2743, 2579, 2754 & 2740 approved for EPA 8260 and LUFT GC/MS
Certificate# 2742, 2745, & 2741 approved for LUFT
Certificate# 2745 & 2742 approved for EPA 418.1

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the National Environmental Accreditation Conference Standards for the category Environmental Analysis Air and Emissions for the following analytes and methods:

1,2,4-Trichlorobenzene by EPA TO-15 & TO-14A
Hexachlorobutadiene by EPA TO-15 & TO-14A
1,2,4-Trimethylbenzene by EPA TO -14A
1,2-Dichlorobenzene by EPA TO-15 & TO-14A
1,3,5-Trimethylbenzene by EPA TO -14A
1,4-Dichlorobenzene by EPA TO-15 & TO-14A
Benzene by EPA TO-15 & TO-14A
Chlorobenzene by EPA TO-15 & TO-14A
Ethyl benzene by EPA TO-15 & TO-14A
Styrene by EPA TO-15 & TO-14A
Toluene by EPA TO-15 & TO-14A
Total Xylenes by EPA TO-15 & TO-14A
1,1,1-Trichloroethane by EPA TO-15 & TO-14A
1,1,2,2-Tetrachloroethane by EPA TO-15 & TO-14A
1,1,2-Trichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethene by EPA TO-15 & TO-14A
1,2-Dichloroethane by EPA TO-15 & TO-14A
1,2-Dichloropropane by EPA TO-15 & TO-14A
Bromoform by EPA TO-15
Bromomethane by EPA TO-15 & TO-14A
Carbon tetrachloride by EPA TO-15 & TO-14A
Chloroethane by EPA TO-15
Chloroform by EPA TO-15 & TO-14A
Chloromethane by EPA TO-15 & TO-14A
cis-1,2-Dichloroethene by EPA TO-15
cis-1,2-Dichloropropene by EPA TO-15 & TO-14A
Methylene chloride by EPA TO -15 & TO-14A
Tetrachloroethane by EPA TO-15 & TO-14A
trans-1,2-Dichloroethene by EPA TO-15
trans-1,2-Dichloropropene by EPA TO-15 & TO-14A
Trichloroethene by EPA TO-15 & TO-14A
Vinyl chloride by EPA TO -15 & TO-14A
2-Butanone by EPA TO-15
4-Methyl-2-Pentanone by EPA TO-15
Hexane by EPA TO-15
Methyl tert-butyl ether by EPA TO-15
Vinyl acetate by EPA TO-15

This certification applies to samples analyzed in summa canisters.

Chain of Custody Record

H&P Mobile Geochemistry Inc.

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☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 4/5/11
H&P Project #: SCS040511-SB2
Outside Lab:

Client: SCS Engineers
Address: 8799 Balboa Avenue Suite 290
San Diego CA 92123
Email: chouser@scsengineers.com; ccrosby@scsengineers.com
Collector: Dave Pride
Client Project #: 01208473.00
Location: 11427 Woodside Ave. Santee, CA
Phone: 858-571-5500x214 Fax:
Page: 1 of 2
Project Contact: Chuck Houser
Turn around time: ON-SITE

Geotracker EDF: Yes ☒ No ☐
Global ID:
Excel EDD: Yes ☐ No ☐

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☐ Yes ☐ No ☒ N/A
Temperature: 20°C

Special Instructions: Use 3PV as determined from SCS032311-SB2

Lab Work Order #: E104011 EA10504

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	BTEX/OXY	TPH gas	8260B	8015M TPH	g	d	ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☐ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☒ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other BTEX ☒ 8260B ☐ TO-15	Leak Check Compound ☒ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2
								SOIL/GW									SOIL VAPOR/AIR ANALYSIS											
SV1-5'	SV1	333cc	0949	4/5/11	Vapor	Glass Syringe	1														X			X	X		
SV1-10'	SV1	348cc	1011				1																				
SV2-5'	SV2	333cc	1036				1																				
SV2-10'	SV2	348cc	1045				1																				
SV3-5'	SV3	333cc	1108				1																				
SV3-10'	SV3	348cc	1122				1																				
SV4-5'	SV4	333cc	1149				1																				
SV4-10'	SV4	348cc	1213				1																				
SV5-5'	SV5	333cc	1237				1																				
SV5-5' Dup	SV5	383cc	1238	↓	↓	↓	1														↓			↓	↓		

Relinquished by: (Signature)	(company) SCS	Received by (Signature)	(company) H&P	Date: 4/5/11	Time: 1430
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Relinquished by (Signature)	(company)	Received by (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back

Sample disposal instruction: ☐ Disposal ☐ Return to client ☐ Pickup

Chain of Custody Record

H&P Mobile Geochemistry Inc.

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☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 4/5/11
H&P Project #: SCS040511-SB2
Outside Lab:

Client: SCS Engineers
Address: 8799 Balboa Avenue, Suite 290, San Diego, CA
Email: chouser@scsengineers.com; cerosby@scsengineers.com
Collector: Dave Pride
Client Project #: 01208473.00
Location: 11427 Woodside Ave. Santee, CA
Phone: 858-571-5500 x244
Fax:
Page: 2 of 2
Project Contact: Chuck Houser
Turn around time: on site

Geotracker EDF: Yes ☒ No ☐
Global ID:
Excel EDD: Yes ☐ No ☐

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☐ Yes ☐ No ☒ N/A
Temperature: 10°C

Special Instructions:

Lab Work Order # E1104011

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	SOIL/GW: 8260B Full List	8260B ☐ BTEX/OXY ☐ TPH gas	8015M TPH ☐ g ☐ d ☐ ext	418.1 TRPH	SOIL VAPOR/AIR ANALYSIS: VOC's: Full List ☐ TO-15 ☐ 8260B	VOC's: Short List/DTSC ☐ TO-15 ☐ 8260B	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ TO-15 ☐ 8260B	Oxygenates ☐ TO-15 ☒ 8260B	TPHv gas ☐ TO-15 ☐ 8260B	Ketones ☐ TO-15 ☐ 8260B	Other BTEX ☐ TO-15 ☒ 8260B	Leak Check Compound ☒ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2
SVS-10'	SVS	348cc	1312	4/5/11	Vapor	Glass Syringe	1									X			X	X		

Relinquished by: (Signature) Chris Crosby	(company) SCS	Received by: (Signature) Dave Pride	(company) H&P
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)

Date	Time
4/5/11	1430
Date:	Time:
Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back

Sample disposal instruction: ☐ Disposal ☐ Return to client ☐ Pickup

APPENDIX E

VAPOR RISK ASSESSMENT MODEL SHEETS

Input Data

Version: November 1999

Revised 07/29/2010

Case Name:

Benzene (SV5-5)

CHEMICAL OF CONCERN:

Enter Chemical Name = benzene

C11 benzene
C12 benzo(a)pyrene
C13 carbon tetrachloride
C14 chlorobenzene
C15 chloroethane (ethyl chloride)
C16 chloromethane (methyl chloride)
C17 1,2-dichlorobenzene
C18 1,3-dichlorobenzene
C19 1,4-dichlorobenzene
C20 1,1-dichloroethene (1,1-DCE)
C21 trans-1,2-dichloroethene
C22 1,1-dichloroethane (1,1-DCA)
C23 1,2-dichloroethane (1,2-DCA)

E11 dichloromethane (methylene chloride)
E12 ethylbenzene
E13 naphthalene
E14 methyl tertiary butyl ether (MTBE)
E15 tetrachloroethene (PCE)
E16 toluene
E17 1,1,1-trichloroethane
E18 1,1,2-trichloroethane
E19 trichloroethene (TCE)
E20 trichloromethane (chloroform)
E21 vinyl chloride
E22 xylene

Chemical Mixture (if app.) =

C27 Gasoline
C28 Kerosene
C29 Diesel

E27 Fuel Oil
E28 Waste Oil

If compound is not listed then data must be entered into the site-specific field.

SITE SPECIFIC INFORMATION			Site-Specific	Value Used
Mole fraction	dimensionless	MF		0.0000
Temperature	K	T		293
Water concentration (chemical)	ug/l	C_w		0
Soil concentration (chemical)	mg/kg	C_t		0
Soil concentration (TPH/TRPH)	mg/kg	C_t		0
Soil gas concentration (measured	mg/m3 (ug/l)	C_{sg}(m)	1.3	1.3
Depth of contamination or Soil G	m	X	1.52	1.52

CHEMICAL PROPERTIES			Site Specific	Value Used
Henry's Law Constant	dimensionless	H		0.23
Vapor pressure	atm	VP		0.13
Molecular weight (chemical)	mg/mole	MW		78,110
Molecular weight (mixture)	mg/mole	MW(m)		#N/A
Universal gas constant	atm-m3/mole-K	R	XXXXXXXXX	8.20E-05
Diffusion coefficient in air	cm2/sec	D_a		0.088
Organic carbon partitioning coef.	cm3/gm	K_{oc}		62
SOIL PROPERTIES				
Total porosity	dimensionless	θ		0.3
Air-filled porosity	dimensionless	θ_a		0.2
Water-filled porosity	dimensionless	θ_w	XXXXXXXXX	0.1
Bulk density (dry)	gm/cc	r_b		1.8
Weight fraction of organic carbon	dimensionless	foc		0.01
BUILDING SPECIFICATIONS				
Floor area of building	m2	A		1
% of floor area that flux occurs	dimensionless			100%
Interior Height of building	m	R_h		2.44
Exchange rate of air	exchanges/hr	E		0.83
Slab Attenuation factor	dimensionless	S_b		0.1
OUTDOOR AIR COMPONENT				
Downwind contamination length	m	L		0
Wind speed	m/hr	u		16000
Height of building openings	m	h		2
EXPOSURE SCENARIO Default values are for Industrial Uses				
Body weight	kg	BW		70
Inhalation rate	m3/day	IR		20
Exposure duration	yrs	ED		25
Hours per day	hr/day			12
Days per week	days/week			5
Weeks per year	weeks/yr			50
HEALTH RISK FACTORS				
Reference dose	mg/kg-day	RfD		0.0086
Slope factor (potency)	1/(mg/kg-day)	SF		0.1

Case Name: Benzene (SV5-5)

Chemical: benzene

Variable Descriptions				Units
CALCULATION OF SOIL GAS CONCENTRATION				
A. SOURCE - Free Product/Soil>100mg/kg.				
Mole fraction	MF	=	0.00E+00	dimensionless
Molecular weight	MW	=	7.81E+04	mg/mole
Vapor pressure	VP	=	1.30E-01	atm
Universal gas constant	R	=	8.20E-05	atm-m3/mole-K
Temperature	T	=	2.93E+02	K
Calculated soil gas concentration	**C_{sg}(fp)**	=	**0.00E+00**	**mg/m3**
B. SOURCE - Groundwater				
Water contamination level	C_w	=	0.00E+00	ug/l
Henry's Law Constant	H	=	2.30E-01	dimensionless
Calculated soil gas concentration	**C_{sg}(gw)**	=	**0.00E+00**	**mg/m3**
C. SOURCE - Soil < 100 mg/kg				
Soil contamination level	C_t	=	0.00E+00	mg/kg
Henry's Law Constant	H	=	2.30E-01	dimensionless
Bulk density (dry)	ρ_b	=	1.80E+00	gm/cc
Air-filled porosity	θ_a	=	2.00E-01	dimensionless
Water-filled porosity	θ_w	=	1.00E-01	dimensionless
Soil/water distribution coef.	K_d	=	6.20E-01	cm3/gm
Calculated soil gas concentration	**C_{sg}(s)**	=	**0.00E+00**	**mg/m3**
D. SOURCE - Measured Soil Gas				
Measured soil gas concentration	**C_{sg}(m)**	=	**1.30E+00**	**mg/m3 (ug/l)**

E. SOIL GAS CONCENTRATION USED IN RISK CALCULATIONS >>>> 1.30E+00 mg/m3

DIFFUSIVE TRANSPORT UPWARD IN UNSATURATED ZONE				
Total porosity	θ	=	3.00E-01	dimensionless
Air-filled porosity	θ_a	=	2.00E-01	dimensionless
Diffusion coefficient in air	D_a	=	8.80E-02	cm2/sec
Effective diffusion coefficient	**D_e**	=	**4.60E-03**	cm2/sec
Depth of contamination or Csg	X	=	1.52E+00	m
Calculated Flux	**F_x**	=	**1.42E-03**	**mg/m2-hour**

Case Name: Benzene (SV5-5)

CALCULATING VAPOR CONCENTRATION IN BUILDING

A. INDOOR AIR COMPONENT

Floor area of building	A	=	1.00E+00	m2
% of floor area that flux occurs			1.00E+00	dimensionless
Slab Attenuation factor	S_b	=	1.00E-01	dimensionless
Flux area within building	Af	=	**1.00E-01**	m2
Interior Height of building	R_h	=	2.44E+00	m
Volume of building	V	=	**2.44E+00**	m3
Exchange rate of air	E	=	8.30E-01	exchanges/hr
Ventilation rate	Q	=	**2.03E+00**	m3/hr
Indoor air component	C_i	=	**6.99E-05**	**mg/m3**

B. OUTDOOR AIR COMPONENT

Downwind contamination length	L	=	0.00E+00	m
Wind speed	u	=	1.60E+04	m/hr
Height of building openings (or height of breathing zone)	h	=	2.00E+00	m
Outdoor air component	C_o	=	**0.00E+00**	**mg/m3**

C. TOTAL INDOOR AIR CONCENTRATION C_t = **6.99E-05** **mg/m3**

EXPOSURE SCENARIO

Body weight	BW	=	7.00E+01	kg
Inhalation rate	IR	=	2.00E+01	m3/day
Exposure duration	ED	=	2.50E+01	yrs
Hours per day	conversion		1.20E+01	hr/day
Exposure time	ET	=	**5.00E-01**	hr/24 hours
Days per week	conversion		5.00E+00	days/week
Weeks per year	conversion		5.00E+01	weeks/yr
Exposure frequency	EF	=	**2.50E+02**	days/yr
Averaging Time (carc. risk)	AT	=	2.56E+04	days
Averaging Time (non-carc. risk)	AT	=	**9.13E+03**	days
Chemical Intake (carc. risk)	IT_c	=	**2.44E-06**	**mg/kg-day**
Chemical Intake (non-carc. risk)	IT_{nc}	=	**6.84E-06**	**mg/kg-day**

NON-CARCINOGENIC RISK (Chronic Risk)

Chemical Intake (non-carc. risk)	IT_{nc}	=	6.84E-06	mg/kg-day
Reference dose	RfD	=	8.60E-03	mg/kg-day
Hazard Index	**HI**	=	**7.96E-04**	

CARCINOGENIC RISK

Chemical Intake (carc. risk)	IT_c	=	2.44E-06	mg/kg-day
Slope factor (potency)	SF	=	1.00E-01	1/(mg/kg-day)
Cancer Risk	**Risk**	=	**2.44E-07**	

Case Name:

Ethylbenzene (SV5-5)

CHEMICAL OF CONCERN:

Enter Chemical Name = ethylbenzene

C11 benzene
C12 benzo(a)pyrene
C13 carbon tetrachloride
C14 chlorobenzene
C15 chloroethane (ethyl chloride)
C16 chloromethane (methyl chloride)
C17 1,2-dichlorobenzene
C18 1,3-dichlorobenzene
C19 1,4-dichlorobenzene
C20 1,1-dichloroethene (1,1-DCE)
C21 trans-1,2-dichloroethene
C22 1,1-dichloroethane (1,1-DCA)
C23 1,2-dichloroethane (1,2-DCA)

E11 dichloromethane (methylene chloride)
E12 ethylbenzene
E13 naphthalene
E14 methyl tertiary butyl ether (MTBE)
E15 tetrachloroethene (PCE)
E16 toluene
E17 1,1,1-trichloroethane
E18 1,1,2-trichloroethane
E19 trichloroethene (TCE)
E20 trichloromethane (chloroform)
E21 vinyl chloride
E22 xylene

Chemical Mixture (if app.) =

C27 Gasoline
C28 Kerosene
C29 Diesel

E27 Fuel Oil
E28 Waste Oil

If compound is not listed then data must be entered into the site-specific field.

SITE SPECIFIC INFORMATION			Site-Specific	Value Used
Mole fraction	dimensionless	MF		0.0000
Temperature	K	T		293
Water concentration (chemical)	ug/l	C_w		0
Soil concentration (chemical)	mg/kg	C_t		0
Soil concentration (TPH/TRPH)	mg/kg	C_t		0
Soil gas concentration (measured	mg/m3 (ug/l)	$C_{sg}(m)$	20	20
Depth of contamination or Soil G	m	X	1.52	1.52

CHEMICAL PROPERTIES			Site Specific	Value Used
Henry's Law Constant	dimensionless	H		0.32
Vapor pressure	atm	VP		0.015
Molecular weight (chemical)	mg/mole	MW		106,000
Molecular weight (mixture)	mg/mole	MW(m)		#N/A
Universal gas constant	atm-m3/mole-K	R	XXXXXXXXX	8.20E-05
Diffusion coefficient in air	cm2/sec	D_a		0.075
Organic carbon partitioning coef.	cm3/gm	K_{oc}		200
SOIL PROPERTIES				
Total porosity	dimensionless	θ		0.3
Air-filled porosity	dimensionless	θ_a		0.2
Water-filled porosity	dimensionless	θ_w	XXXXXXXXX	0.1
Bulk density (dry)	gm/cc	r_b		1.8
Weight fraction of organic carbon	dimensionless	foc		0.01
BUILDING SPECIFICATIONS				
Floor area of building	m2	A		1
% of floor area that flux occurs	dimensionless			100%
Interior Height of building	m	R_h		2.44
Exchange rate of air	exchanges/hr	E		0.83
Slab Attenuation factor	dimensionless	S_b		0.1
OUTDOOR AIR COMPONENT				
Downwind contamination length	m	L		0
Wind speed	m/hr	u		16000
Height of building openings	m	h		2
EXPOSURE SCENARIO Default values are for Industrial Uses				
Body weight	kg	BW		70
Inhalation rate	m3/day	IR		20
Exposure duration	yrs	ED		25
Hours per day	hr/day			12
Days per week	days/week			5
Weeks per year	weeks/yr			50
HEALTH RISK FACTORS				
Reference dose	mg/kg-day	RfD		0.29
Slope factor (potency)	1/(mg/kg-day)	SF		0.0087

Case Name: Ethylbenzene (SV5-5)

Chemical: ethylbenzene

Variable Descriptions				Units
CALCULATION OF SOIL GAS CONCENTRATION				
A. SOURCE - Free Product/Soil>100mg/kg.				
Mole fraction	MF	=	0.00E+00	dimensionless
Molecular weight	MW	=	1.06E+05	mg/mole
Vapor pressure	VP	=	1.50E-02	atm
Universal gas constant	R	=	8.20E-05	atm-m3/mole-K
Temperature	T	=	2.93E+02	K
Calculated soil gas concentration	**C_{sg}(fp)**	=	**0.00E+00**	**mg/m3**
B. SOURCE - Groundwater				
Water contamination level	C_w	=	0.00E+00	ug/l
Henry's Law Constant	H	=	3.20E-01	dimensionless
Calculated soil gas concentration	**C_{sg}(gw)**	=	**0.00E+00**	**mg/m3**
C. SOURCE - Soil < 100 mg/kg				
Soil contamination level	C_t	=	0.00E+00	mg/kg
Henry's Law Constant	H	=	3.20E-01	dimensionless
Bulk density (dry)	ρ_b	=	1.80E+00	gm/cc
Air-filled porosity	θ_a	=	2.00E-01	dimensionless
Water-filled porosity	θ_w	=	1.00E-01	dimensionless
Soil/water distribution coef.	K_d	=	2.00E+00	cm3/gm
Calculated soil gas concentration	**C_{sg}(s)**	=	**0.00E+00**	**mg/m3**
D. SOURCE - Measured Soil Gas				
Measured soil gas concentration	**C_{sg}(m)**	=	**2.00E+01**	**mg/m3 (ug/l)**

E. SOIL GAS CONCENTRATION USED IN RISK CALCULATIONS >>>> 2.00E+01 mg/m3

DIFFUSIVE TRANSPORT UPWARD IN UNSATURATED ZONE				
Total porosity	θ	=	3.00E-01	dimensionless
Air-filled porosity	θ_a	=	2.00E-01	dimensionless
Diffusion coefficient in air	D_a	=	7.50E-02	cm2/sec
Effective diffusion coefficient	**D_e**	=	**3.92E-03**	cm2/sec
Depth of contamination or Csg	X	=	1.52E+00	m
Calculated Flux	**F_x**	=	**1.86E-02**	**mg/m2-hour**

Case Name: Ethylbenzene (SV5-5)

CALCULATING VAPOR CONCENTRATION IN BUILDING

A. INDOOR AIR COMPONENT				
Floor area of building	A	=	1.00E+00	m2
% of floor area that flux occurs			1.00E+00	dimensionless
Slab Attenuation factor	S_b	=	1.00E-01	dimensionless
Flux area within building	Af	=	**1.00E-01**	m2
Interior Height of building	R_h	=	2.44E+00	m
Volume of building	V	=	**2.44E+00**	m3
Exchange rate of air	E	=	8.30E-01	exchanges/hr
Ventilation rate	Q	=	**2.03E+00**	m3/hr
Indoor air component	C_i	=	**9.17E-04**	**mg/m3**
B. OUTDOOR AIR COMPONENT				
Downwind contamination length	L	=	0.00E+00	m
Wind speed	u	=	1.60E+04	m/hr
Height of building openings (or height of breathing zone)	h	=	2.00E+00	m
Outdoor air component	C_o	=	**0.00E+00**	**mg/m3**
C. TOTAL INDOOR AIR CONCENTRATION	C_t	=	**9.17E-04**	**mg/m3**

EXPOSURE SCENARIO

Body weight	BW	=	7.00E+01	kg
Inhalation rate	IR	=	2.00E+01	m3/day
Exposure duration	ED	=	2.50E+01	yrs
Hours per day	conversion		1.20E+01	hr/day
Exposure time	ET	=	**5.00E-01**	hr/24 hours
Days per week	conversion		5.00E+00	days/week
Weeks per year	conversion		5.00E+01	weeks/yr
Exposure frequency	EF	=	**2.50E+02**	days/yr
Averaging Time (carc. risk)	AT	=	2.56E+04	days
Averaging Time (non-carc. risk)	AT	=	**9.13E+03**	days
Chemical Intake (carc. risk)	IT_c	=	**3.20E-05**	**mg/kg-day**
Chemical Intake (non-carc. risk)	IT_{nc}	=	**8.97E-05**	**mg/kg-day**

NON-CARCINOGENIC RISK (Chronic Risk)

Chemical Intake (non-carc. risk)	IT_{nc}	=	8.97E-05	mg/kg-day
Reference dose	RfD	=	2.90E-01	mg/kg-day
Hazard Index	**HI**	=	**3.09E-04**	

CARCINOGENIC RISK

Chemical Intake (carc. risk)	IT_c	=	3.20E-05	mg/kg-day
Slope factor (potency)	SF	=	8.70E-03	1/(mg/kg-day)
Cancer Risk	**Risk**	=	**2.79E-07**	

Input Data

Version: November 1999

Revised 07/29/2010

Case Name:

Benzene (SV5-10)

CHEMICAL OF CONCERN:

Enter Chemical Name = benzene

C11 benzene
C12 benzo(a)pyrene
C13 carbon tetrachloride
C14 chlorobenzene
C15 chloroethane (ethyl chloride)
C16 chloromethane (methyl chloride)
C17 1,2-dichlorobenzene
C18 1,3-dichlorobenzene
C19 1,4-dichlorobenzene
C20 1,1-dichloroethene (1,1-DCE)
C21 trans-1,2-dichloroethene
C22 1,1-dichloroethane (1,1-DCA)
C23 1,2-dichloroethane (1,2-DCA)

E11 dichloromethane (methylene chloride)
E12 ethylbenzene
E13 naphthalene
E14 methyl tertiary butyl ether (MTBE)
E15 tetrachloroethene (PCE)
E16 toluene
E17 1,1,1-trichloroethane
E18 1,1,2-trichloroethane
E19 trichloroethene (TCE)
E20 trichloromethane (chloroform)
E21 vinyl chloride
E22 xylene

Chemical Mixture (if app.) =

C27 Gasoline
C28 Kerosene
C29 Diesel

E27 Fuel Oil
E28 Waste Oil

If compound is not listed then data must be entered into the site-specific field.

SITE SPECIFIC INFORMATION			Site-Specific	Value Used
Mole fraction	dimensionless	MF		0.0000
Temperature	K	T		293
Water concentration (chemical)	ug/l	C_w		0
Soil concentration (chemical)	mg/kg	C_t		0
Soil concentration (TPH/TRPH)	mg/kg	C_t		0
Soil gas concentration (measured	mg/m3 (ug/l)	C_{sg}(m)	5.9	5.9
Depth of contamination or Soil G	m	X	3.05	3.05

CHEMICAL PROPERTIES			Site Specific	Value Used
Henry's Law Constant	dimensionless	H		0.23
Vapor pressure	atm	VP		0.13
Molecular weight (chemical)	mg/mole	MW		78,110
Molecular weight (mixture)	mg/mole	MW(m)		#N/A
Universal gas constant	atm-m3/mole-K	R	XXXXXXXXX	8.20E-05
Diffusion coefficient in air	cm2/sec	D_a		0.088
Organic carbon partitioning coef.	cm3/gm	K_{oc}		62
SOIL PROPERTIES				
Total porosity	dimensionless	θ		0.3
Air-filled porosity	dimensionless	θ_a		0.2
Water-filled porosity	dimensionless	θ_w	XXXXXXXXX	0.1
Bulk density (dry)	gm/cc	r_b		1.8
Weight fraction of organic carbon	dimensionless	foc		0.01
BUILDING SPECIFICATIONS				
Floor area of building	m2	A		1
% of floor area that flux occurs	dimensionless			100%
Interior Height of building	m	R_h		2.44
Exchange rate of air	exchanges/hr	E		0.83
Slab Attenuation factor	dimensionless	S_b		0.1
OUTDOOR AIR COMPONENT				
Downwind contamination length	m	L		0
Wind speed	m/hr	u		16000
Height of building openings	m	h		2
EXPOSURE SCENARIO Default values are for Industrial Uses				
Body weight	kg	BW		70
Inhalation rate	m3/day	IR		20
Exposure duration	yrs	ED		25
Hours per day	hr/day			12
Days per week	days/week			5
Weeks per year	weeks/yr			50
HEALTH RISK FACTORS				
Reference dose	mg/kg-day	RfD		0.0086
Slope factor (potency)	1/(mg/kg-day)	SF		0.1

Case Name: Benzene (SV5-10)

Chemical: benzene

Variable Descriptions				Units
CALCULATION OF SOIL GAS CONCENTRATION				
A. SOURCE - Free Product/Soil>100mg/kg.				
Mole fraction	MF	=	0.00E+00	dimensionless
Molecular weight	MW	=	7.81E+04	mg/mole
Vapor pressure	VP	=	1.30E-01	atm
Universal gas constant	R	=	8.20E-05	atm-m3/mole-K
Temperature	T	=	2.93E+02	K
Calculated soil gas concentration	**C_{sg}(fp)**	=	**0.00E+00**	**mg/m3**
B. SOURCE - Groundwater				
Water contamination level	C_w	=	0.00E+00	ug/l
Henry's Law Constant	H	=	2.30E-01	dimensionless
Calculated soil gas concentration	**C_{sg}(gw)**	=	**0.00E+00**	**mg/m3**
C. SOURCE - Soil < 100 mg/kg				
Soil contamination level	C_t	=	0.00E+00	mg/kg
Henry's Law Constant	H	=	2.30E-01	dimensionless
Bulk density (dry)	ρ_b	=	1.80E+00	gm/cc
Air-filled porosity	θ_a	=	2.00E-01	dimensionless
Water-filled porosity	θ_w	=	1.00E-01	dimensionless
Soil/water distribution coef.	K_d	=	6.20E-01	cm3/gm
Calculated soil gas concentration	**C_{sg}(s)**	=	**0.00E+00**	**mg/m3**
D. SOURCE - Measured Soil Gas				
Measured soil gas concentration	**C_{sg}(m)**	=	**5.90E+00**	**mg/m3 (ug/l)**

E. SOIL GAS CONCENTRATION USED IN RISK CALCULATIONS >>>> 5.90E+00 mg/m3

DIFFUSIVE TRANSPORT UPWARD IN UNSATURATED ZONE				
Total porosity	θ	=	3.00E-01	dimensionless
Air-filled porosity	θ_a	=	2.00E-01	dimensionless
Diffusion coefficient in air	D_a	=	8.80E-02	cm2/sec
Effective diffusion coefficient	**D_e**	=	**4.60E-03**	cm2/sec
Depth of contamination or Csg	X	=	3.05E+00	m
Calculated Flux	**F_x**	=	**3.20E-03**	**mg/m2-hour**

Case Name: Benzene (SV5-10)

CALCULATING VAPOR CONCENTRATION IN BUILDING

A. INDOOR AIR COMPONENT				
Floor area of building	A	=	1.00E+00	m2
% of floor area that flux occurs			1.00E+00	dimensionless
Slab Attenuation factor	S_b	=	1.00E-01	dimensionless
Flux area within building	Af	=	**1.00E-01**	m2
Interior Height of building	R_h	=	2.44E+00	m
Volume of building	V	=	**2.44E+00**	m3
Exchange rate of air	E	=	8.30E-01	exchanges/hr
Ventilation rate	Q	=	**2.03E+00**	m3/hr
Indoor air component	C_i	=	**1.58E-04**	**mg/m3**
B. OUTDOOR AIR COMPONENT				
Downwind contamination length	L	=	0.00E+00	m
Wind speed	u	=	1.60E+04	m/hr
Height of building openings (or height of breathing zone)	h	=	2.00E+00	m
Outdoor air component	C_o	=	**0.00E+00**	**mg/m3**
C. TOTAL INDOOR AIR CONCENTRATION	C_t	=	**1.58E-04**	**mg/m3**

EXPOSURE SCENARIO

Body weight	BW	=	7.00E+01	kg
Inhalation rate	IR	=	2.00E+01	m3/day
Exposure duration	ED	=	2.50E+01	yrs
Hours per day	conversion		1.20E+01	hr/day
Exposure time	ET	=	**5.00E-01**	hr/24 hours
Days per week	conversion		5.00E+00	days/week
Weeks per year	conversion		5.00E+01	weeks/yr
Exposure frequency	EF	=	**2.50E+02**	days/yr
Averaging Time (carc. risk)	AT	=	2.56E+04	days
Averaging Time (non-carc. risk)	AT	=	**9.13E+03**	days
Chemical Intake (carc. risk)	IT_c	=	**5.53E-06**	**mg/kg-day**
Chemical Intake (non-carc. risk)	IT_{nc}	=	**1.55E-05**	**mg/kg-day**

NON-CARCINOGENIC RISK (Chronic Risk)

Chemical Intake (non-carc. risk)	IT_{nc}	=	1.55E-05	mg/kg-day
Reference dose	RfD	=	8.60E-03	mg/kg-day
Hazard Index	**HI**	=	**1.80E-03**	

CARCINOGENIC RISK

Chemical Intake (carc. risk)	IT_c	=	5.53E-06	mg/kg-day
Slope factor (potency)	SF	=	1.00E-01	1/(mg/kg-day)
Cancer Risk	**Risk**	=	**5.53E-07**	

Input Data

Version: November 1999

Revised 07/29/2010

Case Name:

Ethylbenzene (SV5-10)

CHEMICAL OF CONCERN:

Enter Chemical Name = ethylbenzene

C11 benzene
C12 benzo(a)pyrene
C13 carbon tetrachloride
C14 chlorobenzene
C15 chloroethane (ethyl chloride)
C16 chloromethane (methyl chloride)
C17 1,2-dichlorobenzene
C18 1,3-dichlorobenzene
C19 1,4-dichlorobenzene
C20 1,1-dichloroethene (1,1-DCE)
C21 trans-1,2-dichloroethene
C22 1,1-dichloroethane (1,1-DCA)
C23 1,2-dichloroethane (1,2-DCA)

E11 dichloromethane (methylene chloride)
E12 ethylbenzene
E13 naphthalene
E14 methyl tertiary butyl ether (MTBE)
E15 tetrachloroethene (PCE)
E16 toluene
E17 1,1,1-trichloroethane
E18 1,1,2-trichloroethane
E19 trichloroethene (TCE)
E20 trichloromethane (chloroform)
E21 vinyl chloride
E22 xylene

Chemical Mixture (if app.) =

C27 Gasoline
C28 Kerosene
C29 Diesel

E27 Fuel Oil
E28 Waste Oil

If compound is not listed then data must be entered into the site-specific field.

SITE SPECIFIC INFORMATION			Site-Specific	Value Used
Mole fraction	dimensionless	MF		0.0000
Temperature	K	T		293
Water concentration (chemical)	ug/l	C_w		0
Soil concentration (chemical)	mg/kg	C_t		0
Soil concentration (TPH/TRPH)	mg/kg	C_t		0
Soil gas concentration (measured	mg/m3 (ug/l)	$C_{sg}(m)$	38	38
Depth of contamination or Soil G	m	X	3.04	3.04

CHEMICAL PROPERTIES			Site Specific	Value Used
Henry's Law Constant	dimensionless	H		0.32
Vapor pressure	atm	VP		0.015
Molecular weight (chemical)	mg/mole	MW		106,000
Molecular weight (mixture)	mg/mole	MW(m)		#N/A
Universal gas constant	atm-m3/mole-K	R	XXXXXXXXX	8.20E-05
Diffusion coefficient in air	cm2/sec	D_a		0.075
Organic carbon partitioning coef.	cm3/gm	K_{oc}		200
SOIL PROPERTIES				
Total porosity	dimensionless	θ		0.3
Air-filled porosity	dimensionless	θ_a		0.2
Water-filled porosity	dimensionless	θ_w	XXXXXXXXX	0.1
Bulk density (dry)	gm/cc	r_b		1.8
Weight fraction of organic carbon	dimensionless	foc		0.01
BUILDING SPECIFICATIONS				
Floor area of building	m2	A		1
% of floor area that flux occurs	dimensionless			100%
Interior Height of building	m	R_h		2.44
Exchange rate of air	exchanges/hr	E		0.83
Slab Attenuation factor	dimensionless	S_b		0.1
OUTDOOR AIR COMPONENT				
Downwind contamination length	m	L		0
Wind speed	m/hr	u		16000
Height of building openings	m	h		2
EXPOSURE SCENARIO Default values are for Industrial Uses				
Body weight	kg	BW		70
Inhalation rate	m3/day	IR		20
Exposure duration	yrs	ED		25
Hours per day	hr/day			12
Days per week	days/week			5
Weeks per year	weeks/yr			50
HEALTH RISK FACTORS				
Reference dose	mg/kg-day	RfD		0.29
Slope factor (potency)	1/(mg/kg-day)	SF		0.0087

Case Name: Ethylbenzene (SV5-10)

Chemical: ethylbenzene

Variable Descriptions				Units
CALCULATION OF SOIL GAS CONCENTRATION				
A. SOURCE - Free Product/Soil>100mg/kg.				
Mole fraction	MF	=	0.00E+00	dimensionless
Molecular weight	MW	=	1.06E+05	mg/mole
Vapor pressure	VP	=	1.50E-02	atm
Universal gas constant	R	=	8.20E-05	atm-m3/mole-K
Temperature	T	=	2.93E+02	K
Calculated soil gas concentration	**C_{sg}(fp)**	=	**0.00E+00**	**mg/m3**
B. SOURCE - Groundwater				
Water contamination level	C_w	=	0.00E+00	ug/l
Henry's Law Constant	H	=	3.20E-01	dimensionless
Calculated soil gas concentration	**C_{sg}(gw)**	=	**0.00E+00**	**mg/m3**
C. SOURCE - Soil < 100 mg/kg				
Soil contamination level	C_t	=	0.00E+00	mg/kg
Henry's Law Constant	H	=	3.20E-01	dimensionless
Bulk density (dry)	ρ_b	=	1.80E+00	gm/cc
Air-filled porosity	θ_a	=	2.00E-01	dimensionless
Water-filled porosity	θ_w	=	1.00E-01	dimensionless
Soil/water distribution coef.	K_d	=	2.00E+00	cm3/gm
Calculated soil gas concentration	**C_{sg}(s)**	=	**0.00E+00**	**mg/m3**
D. SOURCE - Measured Soil Gas				
Measured soil gas concentration	**C_{sg}(m)**	=	**3.80E+01**	**mg/m3 (ug/l)**

E. SOIL GAS CONCENTRATION USED IN RISK CALCULATIONS >>>> 3.80E+01 mg/m3

DIFFUSIVE TRANSPORT UPWARD IN UNSATURATED ZONE				
Total porosity	θ	=	3.00E-01	dimensionless
Air-filled porosity	θ_a	=	2.00E-01	dimensionless
Diffusion coefficient in air	D_a	=	7.50E-02	cm2/sec
Effective diffusion coefficient	**D_e**	=	**3.92E-03**	cm2/sec
Depth of contamination or Csg	X	=	3.04E+00	m
Calculated Flux	**F_x**	=	**1.76E-02**	**mg/m2-hour**

Case Name: Ethylbenzene (SV5-10)

CALCULATING VAPOR CONCENTRATION IN BUILDING

A. INDOOR AIR COMPONENT				
Floor area of building	A	=	1.00E+00	m2
% of floor area that flux occurs			1.00E+00	dimensionless
Slab Attenuation factor	S_b	=	1.00E-01	dimensionless
Flux area within building	Af	=	**1.00E-01**	m2
Interior Height of building	R_h	=	2.44E+00	m
Volume of building	V	=	**2.44E+00**	m3
Exchange rate of air	E	=	8.30E-01	exchanges/hr
Ventilation rate	Q	=	**2.03E+00**	m3/hr
Indoor air component	C_i	=	**8.71E-04**	**mg/m3**
B. OUTDOOR AIR COMPONENT				
Downwind contamination length	L	=	0.00E+00	m
Wind speed	u	=	1.60E+04	m/hr
Height of building openings (or height of breathing zone)	h	=	2.00E+00	m
Outdoor air component	C_o	=	**0.00E+00**	**mg/m3**
C. TOTAL INDOOR AIR CONCENTRATION	C_t	=	**8.71E-04**	**mg/m3**

EXPOSURE SCENARIO

Body weight	BW	=	7.00E+01	kg
Inhalation rate	IR	=	2.00E+01	m3/day
Exposure duration	ED	=	2.50E+01	yrs
Hours per day	conversion		1.20E+01	hr/day
Exposure time	ET	=	**5.00E-01**	hr/24 hours
Days per week	conversion		5.00E+00	days/week
Weeks per year	conversion		5.00E+01	weeks/yr
Exposure frequency	EF	=	**2.50E+02**	days/yr
Averaging Time (carc. risk)	AT	=	2.56E+04	days
Averaging Time (non-carc. risk)	AT	=	**9.13E+03**	days
Chemical Intake (carc. risk)	IT_c	=	**3.04E-05**	**mg/kg-day**
Chemical Intake (non-carc. risk)	IT_{nc}	=	**8.52E-05**	**mg/kg-day**

NON-CARCINOGENIC RISK (Chronic Risk)

Chemical Intake (non-carc. risk)	IT_{nc}	=	8.52E-05	mg/kg-day
Reference dose	RfD	=	2.90E-01	mg/kg-day
Hazard Index	HI	=	**2.94E-04**	

CARCINOGENIC RISK

Chemical Intake (carc. risk)	IT_c	=	3.04E-05	mg/kg-day
Slope factor (potency)	SF	=	8.70E-03	1/(mg/kg-day)
Cancer Risk	**Risk**	=	**2.65E-07**	

not wp

SCS ENGINEERS

RECEIVED
FEB 28 2011
ENVIRONMENTAL HEALTH

Quarterly Groundwater Monitoring
Fourth Quarter 2010

11427 Woodside Avenue

Santee, California

(DEH CASE #H19469-001)

Presented to:

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Presented by:

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123
(858) 571-5500

February 21, 2011
Project Number: 01208473.00

February 21, 2011
Project No. 01208473.00

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Subject: Quarterly Groundwater Monitoring Event Conducted During December 2010 (4Q2010)

DEH File Number: H19469-001

Site: 11427 Woodside Avenue
Santee, California

Dear Ms. Beacon:

SCS Engineers (SCS) is pleased to present this report (Report) of the December 2010 quarterly groundwater monitoring (Assessment) of petroleum hydrocarbon-bearing groundwater in the vicinity of a former underground storage tank (UST) system at the referenced Site (Figures 1 and 2). During the current assessment, 16 Site monitoring wells were monitored for depth to water and the presence of phase-separated hydrocarbons (PSH). Fourteen monitoring wells were purged and sampled pursuant to the requirements of the County of San Diego, Department of Environmental Health (DEH), Site Assessment and Mitigation (SAM) Program. This work was conducted in accordance with Exhibit 00 to the Contract between SCS and Wigington Petroleum, Inc. (Client), fully executed on March 30, 2009.

Should you have any questions regarding this Report, please do not hesitate to call the undersigned at (858) 571-5500.

Sincerely,

Chris Crosby
Staff Professional
SCS ENGINEERS

Charles E. Houser, CEG 2206
Senior Project Professional
SCS ENGINEERS
2/22/11

PROFESSIONAL GEOLOGIST
CHARLES E. HOUSER
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CERTIFIED
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Chuck Pryatel, MBA, REHS
Vice President
SCS ENGINEERS

cc: Ms. Linda Wigington, c/o William Fischbeck, Esq.

State UST Cleanup Fund via upload to State Geotracker website

Enclosures
CC
F:\Projects\208\451-530\01208473.00 (Wigington Petroleum, Inc.)\701 (El Cap Oil)\01208473.00 Groundwater Monitoring 4Q2010\01208473.00.QTR.GW.RPT (4Q2010).doc

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Appendix A	Groundwater Purging and Sampling Forms
Appendix B	Non-Hazardous Waste Manifest
Appendix C	Analytical Data and Chain-of-Custody Documentation
Appendix D	Hydrographs

1 BACKGROUND

The Site is located at 11427 Woodside Avenue in the City of Santee, San Diego County, California (Figure 1). The Site is currently occupied by a commercial fuel and oil facility (Figure 2). Between 1987 and 1998, 13 underground storage tanks (USTs) were reportedly removed from the Site. Analysis of samples collected during the UST removals indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) directed that corrective measures be taken regarding the release.

A summary of the previous environmental assessments conducted at the Site follows:

- EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the Site between 1988 and 2005. A total of 18 borings and 7 groundwater monitoring wells (MW-1 through MW-4 and MW-6 through MW-8) were drilled and sampled by EnecoTech. An existing 12-inch diameter concrete water production well inside the Site building was labeled MW-5 and was also sampled during the monitoring events in March 1998 and April 2002.

- In 1988, EnecoTech reported that four USTs were removed from the Site. A site assessment was performed immediately following the tank removal activities, during which 11 soil borings were drilled and sampled and 4 of the borings were completed as groundwater monitoring wells (MW-1 through MW-4).

- On August 19, 1993, the HMMD issued a Notice of Violation to El Capitan Oil Co. requiring corrective action relative to the release. The SAM Program reportedly assumed oversight responsibility of the UST assessment and mitigation in mid-1993.

- EnecoTech reported that single-walled product piping was removed from the Site in October 1997.

- In April 1998, nine USTs were reportedly removed from the Site where samples collected by EnecoTech indicated a release of petroleum hydrocarbons.

- On March 14, 2000, EnecoTech produced a workplan titled *Work Plan for Environmental Services*, which proposed the installation of two additional groundwater monitoring wells. The SAM Program reportedly directed that 4 groundwater monitoring wells be installed in a letter dated, May 8, 2000. EnecoTech installed two groundwater monitoring wells (MW-6 and MW-7) on February 26, 2001, and one groundwater monitoring well (MW-8) on April 19, 2002.

- Based on the results of EnecoTech's Site assessment activities, groundwater beneath the Site was interpreted to have been impacted by petroleum hydrocarbons from on-Site releases.

- On March 25, 2005, EnecoTech submitted a workplan for additional Site assessment, which proposed the installation of nine additional groundwater monitoring wells both on and off Site.

- In 2006, Petra Geotechnical Inc. (Petra) was retained to conduct the Site assessment work. The SAM Program approved EnecoTech's workplan in a letter, dated October 10, 2007. Petra proposed one well be installed in addition to the nine wells proposed by EnecoTech. The SAM Program agreed that an additional well was needed and requested a revised workplan. Petra submitted an addendum to the revised workplan, dated December 21, 2007, to include a tenth groundwater monitoring well be installed. The SAM Program approved the revised workplan in a letter, dated January 15, 2008.

- On October 25, 2007, Petra assessed that phase-separated hydrocarbons (PSH) were present in monitoring wells MW-2, MW-3, and MW-4. Petra submitted a workplan titled, *Workplan for High Vacuum Dual Phase Extraction Pilot Test and Interim Remediation*, to the SAM Program, dated December 24, 2007. The SAM Program approved the workplan in a letter dated, January 16, 2008.

- Petra conducted a 33-day high-vacuum, dual-phase extraction (HVDPE) pilot test between January 22 and February 24, 2008. Approximately 3,256.17 pounds of petroleum hydrocarbons were removed and treated during the pilot test. During the pilot test, nine new monitoring wells (MW-9 through MW-17) were installed. The locations of these wells (MW9 through MW-17) and previous wells (MW-1 through MW-8) are depicted on Figure 2. In April 2008, monitoring wells MW-1 through MW-4 and MW-6 through MW-17 were sampled during the second quarter 2008 (2Q2008) groundwater monitoring event.

- On July 25, 2008, Petra submitted a *Workplan for Well Maintenance and Well Destruction* to the SAM Program to destroy well MW-5 and reconstruct the well heads for several monitoring wells. The SAM Program approved this workplan in a letter, dated September 4, 2008.

- On July 13, 2009, the SAM Program issued a letter that called for the reduction of the frequency of groundwater monitoring from quarterly to semi-annually, occurring during the second and fourth quarters.

- On April 26, 2010, SCS submitted a *Workplan for a Soil Vapor Survey and Health Risk Assessment* to the SAM Program. The SAM Program approved this workplan in a letter dated, May 18, 2010. Additionally, on April 26, 2010, SCS submitted a *Site Assessment Workplan* to the SAM Program to install two groundwater monitoring wells. The SAM Program approved this workplan in a letter dated, May 19, 2010.

- In 2009, SCS Engineers was retained to conduct further groundwater monitoring and Site assessment beginning with the second quarter 2009 (2Q2009) groundwater monitoring event. SCS performed groundwater monitoring and sampling at the Site on June 2009 (2Q2009), November 2009 (4Q2009), and April 2010 (2Q2010).

The current Report describes the groundwater monitoring event conducted during December 2010 (4Q2010).

2 SITE DESCRIPTION SUMMARY

Site Name:	Wigington Petroleum
Site Owner:	Wigington Petroleum, Inc.
Site Address:	11427 Woodside Avenue, Santee, California
DEH Case Number:	H19469-001
Cleanup Fund Claim Number:	912
Global ID:	T0607303173

3 OBJECTIVES

The objectives of the scope of services described in this Report were to:

- Assess the possible presence of phase-separated hydrocarbons (PSH) in groundwater at the Site.
- Assess the presence and extent of petroleum hydrocarbons and associated volatile organic compounds (VOCs) dissolved in groundwater at the Site.
- Assess the groundwater elevation and the hydraulic gradient at the Site.

4 SCOPE OF SERVICES

FIELD ACTIVITIES—GROUNDWATER SAMPLING AND ANALYSIS

Groundwater Monitoring and Sampling

On December 20, 2010, all 16 Site groundwater monitoring wells were monitored for depth to groundwater and for the presence of PSH. Wells MW-2 and MW-3 had measurable PSH at a thickness of 0.02 and 0.01 feet, respectively, and, therefore, were not sampled during the current sampling event. On December 20, 21, and 23, 2010, groundwater monitoring wells MW-1, MW-4, and MW-6 through MW-17 were purged and sampled in accordance with SAM Program guidelines. It is SCS's understanding that well MW-5 was destroyed by Petra.

Depth-to-groundwater measurements were taken using an interface probe with a manufacturer's reported accuracy of 0.01 foot and are presented in Table 1. With the exception of MW-2 and MW-3, PSH were not measured in the groundwater monitoring wells prior to or during groundwater purging activities.

The purged wells were sampled in accordance with SAM Program guidelines. For fast-recovering wells (i.e. those recovering at least 80 percent within two hours), temperature, conductivity, and pH measurements (collectively referred to as purging parameters) were measured after the removal of the first borehole volume and each one-half borehole volume thereafter. Purging continued until at least one and one-half borehole volumes had been removed and purging parameters had stabilized to within 10 percent of the previous reading. Slow-recovering wells (i.e. those recovering less than 80 percent in two hours) were purged of one borehole volume. Purge water was placed in appropriate 55-gallon drums, labeled, and stored on Site pending disposal.

After purging was completed, the wells were allowed to recover. The fast-recovering wells (MW-1, MW-4, MW-6 through MW-12, and MW-14 through MW-17) were sampled after at least 80 percent recovery. The slow-recovering well (MW-13) was sampled at least two hours after purging was complete. Groundwater samples were collected from each well with a single-use, disposable bailer and decanted into laboratory-supplied vials. The groundwater sample containers were labeled and placed in an ice-filled cooler pending delivery to the laboratory. Chain-of-custody procedures were implemented for sample tracking. Copies of groundwater monitoring/sampling data sheets are included in Appendix A.

Groundwater Sample Analysis

Groundwater samples were analyzed by H&P Mobile Geochemistry, a state-accredited environmental testing laboratory, in Carlsbad, California, for the following:

- Total petroleum hydrocarbons (TPH) as gasoline (TPHg) and TPH as diesel fuel (TPHd) in general accordance with the California Department of Health Services Leaking Underground Fuel Tank (CA DHS LUFT) Method.

- Benzene, toluene, ethylbenzene, and xylenes (BTEX) and fuel oxygenates including methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA) in general accordance with EPA Method 8260B.

Disposal of Drummed Purged Groundwater and Rinsate Water

SCS submitted the necessary documentation to Soclaris Contracting (Soclaris) for the disposal of the drummed rinsate water and purged groundwater. On January 19, 2011, the drums were transported to the Crosby and Overton Plant #1 facility in Long Beach, California, for treatment and recycling. A copy of the Non-Hazardous Waste Manifest is included in Appendix B.

Phase-Separated Hydrocarbon (PSH) Monitoring

PSH monitoring was conducted on Site at wells MW-1 through MW-4 from September 4, 2009 to April 20, 2010 approximately two times per month. PSH has been measured by SCS in monitoring wells MW-2 (up to approximately 0.03 feet on September 4, 2009) and MW-3 (up to approximately 0.31 feet on November 30, 2009) (Table 2). PSH was not measured in any Site well between March 5, 2010 and April 20, 2010. As a result, PSH monitoring was discontinued except during semi-annual sampling events.

5 FINDINGS

GEOLOGY

Regional Geology

The Site is located in the Peninsular Ranges Geomorphic Province of Southern California. This province is typified by northwest to southeast-trending mountain ranges approximately parallel to the San Andreas Fault and related regional fault systems. The Peninsular Ranges are generally characterized by granitic rocks of the Southern California batholith and associated metamorphic rocks. Sedimentary rocks ranging in age from Cretaceous to Pleistocene form the San Diego embayment and coastal terraces west of the batholith.

Based on SCS's review of previous Site assessments, materials encountered at the Site generally included fill soil, alluvium, residual soil, and weathered granitic rock. Following is a brief description of these units.

Site Geology

Fill Soil

This unit was encountered in wells MW-13, MW-15, and MW-16 and was interpreted by Petra to be derived from the local alluvial soils. This unit generally consisted of loose, brown to olive-brown to dark yellowish-brown, dry to moist, fine to very coarse-grained sand with some gravel and asphalt fragments.

Alluvium

This unit generally consisted of brown to olive-brown, moist to wet, interbedded silty to clayey, fine to very coarse-grained sand, with some gravel. This unit was interpreted to extend from the surface to depths ranging from approximately 10 feet (well MW-10) to 51.5 feet (well MW-13) below ground surface (bgs).

Residual Soil

This unit generally consisted of earth material derived from in-situ weathering of granitic bedrock, and consisted of dark brown to dark reddish-brown, moist, fine to medium grained clayey sand with some coarse grained sand and gravel. This unit was encountered in MW-10 and MW-17 at approximately 10 to 30 feet bgs and 20 to 45 feet bgs, respectively.

Weathered Granitic Rock

This unit generally consisted of dark yellowish-brown to dark olive-brown, hard to very hard, weathered crystalline granitic rock. This unit was encountered in MW-10 and MW-17 at approximately 30 feet bgs and 45 feet bgs, respectively.

HYDROGEOLOGY

Based on review of a document titled, *Water Quality Control Plan, San Diego Basin - Region 9*, prepared by the San Diego Regional Water Quality Control Board (RWQCB), dated September 1994, the Site is interpreted to be located within the Santee Hydrologic Sub Area (7.12) of the Lower San Diego Hydrologic Area (7.10) of the San Diego Hydrologic Unit (7.00). According to the RWQCB, the groundwater in this hydrologic unit has been classified as having existing beneficial uses for municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply purposes.

Groundwater Conditions

Groundwater elevations were calculated based on the surveyed top-of-well casing elevations and the measured depth to groundwater obtained from the 16 Site wells (Table 1). Groundwater was encountered at depths ranging from approximately 29.15 (MW-7) to 34.93 (MW-17) feet below top-of-well casings. The groundwater flow direction was interpreted to be generally toward the northwest to west-southwest, with a gradient ranging from approximately 0.0008 to 0.03. The interpreted groundwater contours and flow directions are depicted on Figure 3.

Analytical Results

Groundwater analytical results for TPH and VOCs from the quarterly sampling event are summarized in Table 3 and on Figure 4. Based on laboratory analytical results from the quarterly sampling event, wells MW-14 and MW-15 had detectable concentrations[1] of TPH. Concentrations of TPH and VOCs were reported as follows.

TPH

TPHg and TPHd were reported at detectable concentrations in wells MW-14 and MW15. The reported TPHg concentrations were 5,500 micrograms per liter (µg/L) in MW-14 and 7,100 µg/L in MW-15. The reported TPHd concentrations were 2,300 µg/L in MW-14 and 4,800 µg/L in MW-15. No detectable concentrations of TPH were reported in the remainder of the groundwater samples analyzed.

BTEX

Benzene was reported at detectable concentrations in wells MW-1, MW-4, MW-6, MW-9, MW-11, MW-12, MW-14 through MW-16. The reported benzene concentrations ranged from 3.9 µg/L in MW-16 to 1,900 µg/L in MW-14. No detectable concentrations of benzene were reported in the remainder of the groundwater samples analyzed. Iso-concentration contours for benzene are depicted on Figure 5.

Toluene was reported at detectable concentrations in wells MW-4, MW-9, MW-11, MW-12, MW-14, and MW-15. The reported toluene concentrations ranged from 0.6 µg/L in MW-12 to

[1] For the purposes of this Report "detectable concentrations" means concentrations above the laboratory reporting limits for the analytical method used.

98 µg/L in MW-14. No detectable concentrations of toluene were reported in the remainder of the groundwater samples analyzed.

Ethylbenzene was reported at detectable concentrations in wells MW-1, MW-4, MW-6, MW-8, MW-9, MW-11, MW-12, MW-14, and MW-15. The reported ethylbenzene concentrations ranged from 0.7 µg/L in MW-12 to 2,600 µg/L in MW-15. No detectable concentrations of ethylbenzene were reported in the remainder of the groundwater samples analyzed.

Xylenes were reported at detectable concentrations in wells MW-1, MW-4, MW-6, MW-9, MW-11, MW-12, MW-14, and MW-15. The reported xylenes concentrations ranged from 3.6 µg/L in MW-12 to 2,800 µg/L in MW-15. No detectable concentrations of xylenes were reported in the remainder of the groundwater samples analyzed.

Oxygenates

MTBE was reported at detectable concentrations in wells MW-1, MW-4, MW-6, MW-9 through MW-12, MW-14, MW-16, and MW-17. The reported MTBE concentrations ranged from 1.4 µg/L in MW-10 to 670 µg/L in MW-14. No detectable concentrations of MTBE were reported in the remainder of the groundwater samples analyzed. Iso-concentration contours for MTBE are depicted on Figure 6.

TBA was reported at detectable concentrations in well MW-1 at 15 µg/L. No detectable concentrations of TBA were reported in the remainder of the groundwater samples analyzed.

Detectable concentrations of ETBE, TAME, and DIPE were not reported in any Site well during the current sampling event.

Copies of the laboratory analytical reports are included in Appendix C.

Hydrographs

Hydrographs depicting groundwater elevations and concentrations of dissolved-phase benzene and MTBE in groundwater versus time for wells MW-1, MW-4, and MW-6 through MW-17 are included in Appendix D and discussed in the table below. A hydrograph for MW-2 and MW-3 were not included due to the current presence of PSH. Linear regression trendlines of the benzene and MTBE concentrations are depicted on each hydrograph as appropriate with the calculated R-squared (R^2) value.

The R^2 value indicates the *goodness-of-fit* of the trendline to the data set. In general, an R^2 value between 0.7 and 1.0 would be a *good* fit, between 0.4 and 0.7 a *moderate* fit, and below 0.4 would be a *poor* fit. Over time, significant data gaps are present, limiting the ability to calculate representative data trends from several wells. Two significant data gaps occur between samplings events May 1988 and March 1998 and between April 2002 and October 2007. For illustration purposes, samples with no detectable concentration of benzene or MTBE were plotted at one-half of the laboratory reporting limit. Please note that the laboratory reporting limits have changed for benzene and MTBE over time; therefore, some wells may show detectable concentrations that are below previous laboratory reporting limits.

Well	Benzene Trendline	MTBE Trendline	Correlation with GW Elevation	Benzene/MTBE Above MCL	Comment
MW-1	Increasing R^2=0.1	Decreasing R^2=0.1	Weak	Yes	Benzene and MTBE within historical range.
MW-2	NA	NA	NA	NA	PSH Present
MW-3	NA	NA	NA	NA	PSH Present
MW-4	Increasing R^2=0.1	Decreasing R^2=0.1	Yes (1998-2002), Inverse (2008-present)	Yes	Benzene and MTBE within historical range.
MW-5	Abandoned by Petra				
MW-6	Decreasing R^2=0.2	Decreasing R^2=0.2	Weak	Yes/No	Benzene and MTBE within historical range.
MW-7	Decreasing R^2=0.8	Decreasing R^2=0.8	NA	No	Below MCLs since Oct. 2007.
MW-8	Decreasing R^2=0.8	Decreasing R^2=0.8	NA	No	Below MCLs since Oct. 2007.
MW-9	Decreasing R^2=0.7	Slightly Decreasing R^2=0.1	Benzene – Yes MTBE – No	Yes	Historical low for benzene. MTBE within historical range.
MW-10	NA	Stable R^2=0.0	Inverse (mid-2008 to April 2010)	No	ND for benzene since installation. MTBE below MCL since installation.
MW-11	Decreasing R^2=0.0	Slightly Increasing R^2=0.1	No	Yes/No	Benzene within historical range. MTBE below MCL since installation.
MW-12	Increasing R^2=0.6	Decreasing R^2=0.6	MTBE - Yes	Yes/No	Historical high for benzene. MTBE below MCL since Nov. 2009.
MW-13	NA	NA	NA	No	Below MCLs since installation in April 2008.
MW-14	Decreasing R^2=0.7	Slightly Increasing R^2=0.2	No	Yes	Benzene within historical range. Historical high for MTBE.
MW-15	Decreasing R^2=0.4	NA*	No	Benzene – Yes MTBE – <100	Benzene within historical range. MTBE below reporting limits.
MW-16	Decreasing R^2=0.5	Decreasing R^2=0.1	No	Yes	Historical low for benzene. MTBE within historical range.
MW-17	NA	Increasing R^2=0.3	MTBE - Yes	No	Benzene below reporting limits. MTBE within historical range.

Notes:

MCL's = Maximum contaminant levels, California Code of Regulations, Section 64444.5, dated September 29, 2009. Benzene = 1 ug/L; MTBE = 13 ug/L.

GW = Groundwater

NA = Not applicable either due to values below laboratory reporting limits or due to the presence of PSH

ND = Not detected above laboratory reporting limit

MTBE = Methyl tertiary butyl ether

ug/L = Micrograms per liter

* = MTBE trendline not calculated for MW-15 due to increased laboratory reporting limit

6 DISCUSSION

Analytical results from the December 2010 sampling event were compared to those obtained during previous monitoring events conducted at the Site beginning in May 1988. Groundwater sample analytical results are summarized in Table 3 and Figure 4. Hydrographs for wells MW-1, MW-4, and MW-6 through MW-17 are included in Appendix D. The following is a summary of trends on Site since the last quarterly monitoring and sampling event. Please note that the discussion of recent trends in groundwater elevations and conditions may apply to more than just the interval between the second quarter 2010 monitoring event and this fourth quarter 2010 event.

- PSH was not detected in any Site well during this event, except for MW-2 and MW-3. Historically MW-1 through MW-4 have had detections of PSH at least once.

- Reported TPHg concentrations during this event were below laboratory reporting limits in wells MW-1, MW-4, MW-6 through MW-13, MW-16, and MW-17. The reported TPHg concentrations during this event were within historical ranges in wells MW-14 and MW-15.

- Reported TPHd concentrations during this event were below laboratory reporting limits in wells MW-1, MW-4, MW-6 through MW-13, MW-16, and MW-17. The TPHd concentrations in wells MW-14 and MW-15 are within historic ranges for these wells. The reported detectable TPHd concentrations during this event in well MW-14 and MW-15 were flagged by the laboratory stating, "results in the diesel organics range are primarily due to overlap from a gasoline-range product."

- Since the last sampling in April 2010, reported benzene concentrations during this event have decreased in wells MW-6, MW-9, MW-14, MW-15, and MW-17. They remain stable at or below the laboratory reporting limit in wells MW-7, MW-8, MW-10, and MW-13. The reported benzene concentrations have increased in wells MW-1, MW-4, MW-11, MW-12, and MW-16 since the last sampling event. Wells MW-1, MW-4, and MW-12 show overall increasing benzene concentration trends.

- Since the last sampling in April 2010, reported MTBE concentrations during this event have decreased in wells MW-1, MW-6, MW-9, MW-10, MW-12, MW-16, and MW-17. They remain stable at or below the detection limit in wells MW-7, MW-8, and MW-13. MTBE concentrations remained at 670 µg/L in MW-14 during this event. The reported MTBE concentrations during this event have increased in wells MW-4 and MW-11 since the last sampling event. Wells MW-11, MW-14, and MW-17 show overall increasing MTBE concentration trends.

The interpreted extent of dissolved benzene and MTBE in groundwater, based on the quarterly sampling conducted during December 2010, is depicted on Figure 5 and 6, respectively.

7 CONCLUSIONS

Based on the data collected during this Assessment, including but not limited to laboratory results, field observations and data evaluation by a professional geologist, and current regulatory guidelines, the following conclusions are made:

- Phase-separated hydrocarbons (PSH) were observed in wells MW-2 and MW-3 at a thickness of 0.02 and 0.01 feet, respectively, during the fourth quarter 2010 sampling event.
- On December 20, 2010, depth to groundwater was observed to be between 29.15 (MW-7) to 34.93 (MW-17) feet below top-of-well casings. The groundwater flow direction was interpreted to be generally toward the northwest to west-southwest, with a gradient ranging from approximately 0.0008 to 0.03 ft/ft.
- The horizontal extent of dissolved benzene and MTBE concentrations in groundwater has generally been delineated to the north, east, and south. Additional delineation is needed to the west, and will be addressed by the pending groundwater assessment.

8 RECOMMENDATIONS

SCS is currently in the process of implementing the approved workplans for additional downgradient groundwater assessment and for a soil vapor survey and human health risk assessment.

Downgradient delineation has been delayed by access issues and obtaining an encroachment permit for work required in the Woodside Avenue right-of-way. The encroachment permit was approved on January 31, 2011. SCS currently anticipates installing the additional downgradient wells and conducting the soil vapor survey in mid-March, 2011. Based on SCS's assessment of the Site, the following recommendations are made:

- Continue semi-annual monitoring and sampling to evaluate the TPH and VOC trends in the monitoring wells at the Site.
- Conduct PSH removal by bailing. SCS proposes bi-weekly PSH monitoring and recovery be performed on wells MW-2 and MW-3. Once downgradient assessment is complete, SCS will prepare a corrective action plan (CAP) for the Site.

9 REPORT USAGE AND FUTURE SITE CONDITIONS

This Report is intended for the sole usage of the Client and the parties designated by SCS. Use of this Report is subject to the provisions of the fully executed Contract between the Client and SCS. Any third party usage of this Report shall be subject to the provisions of the Contract and any unauthorized misuse of or reliance upon the Report shall be without risk or liability to SCS.

The conclusions of this Report are judged to be relevant at the time the work described in this Report was conducted. Future conditions may differ and this Report should not be relied upon to represent future Site conditions unless a qualified consultant familiar with the practice of Phase II environmental assessments in San Diego County is consulted to assess the necessity of updating this Report.

Although this Assessment has attempted to assess the likelihood that the Site has been impacted by a hazardous material/waste release, potential sources of impact may have escaped detection for reasons that include, but are not limited to: 1) inadequate or inaccurate information rightfully provided to SCS by third parties, such as public agencies and other outside sources; 2) the limited scope of this Assessment; and 3) the presence of undetected, unknown, or unreported environmental releases.

10 LIKELIHOOD STATEMENTS

Statements of "likelihood" have been made in this report. Likelihood statements are based on professional judgments of SCS. The term "likelihood," as used herein, pertains to the probability of a match between the prediction for an event and its actual occurrence. The likelihood statement assigns a measure for a "degree of belief" for the match between the prediction for the event and the actual occurrence of the event.

The likelihood statements in this Report are made qualitatively (expressed in words). The qualitative terms can be approximately related to quantitative percentages. The term "low likelihood" is used by SCS to approximate a range of 10 to 20 percent; the term "moderate likelihood" refers to an approximate range of 40 to 60 percent; and the term "high likelihood" refers to an approximate range of 80 to 90 percent.

TABLES

Table 1

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Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-1	363.90 (22-42)	05/25/88	28.73	335.17
		03/10/98	27.03	336.87
		04/05/00	29.62	334.28
	362.84 (22-42)	04/26/02	30.21	332.63
		12/03/02	30.19	332.65
		10/26/07	NM	NM
		01/17/08	PSH	PSH
		04/18/08	29.86	332.98
		07/28/08	30.98	331.86
		12/29/08	29.14	333.70
		06/18/09	30.29	332.55
		11/17/09	31.15	331.69
		04/20/10	28.58	334.26
		12/20/10	29.80	333.04
MW-2	365.40 (24-44)	05/25/88	30.03	335.37
		03/10/98	28.75	336.65
		04/05/00	32.23	333.17
	365.08 (24-44)	04/26/02	31.72	333.36
		12/03/02	31.84	333.24
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	31.06	334.02
		07/28/08	PSH	PSH
		12/29/08	31.50	333.58
		06/18/09	31.56	333.52
		11/17/09	32.86	332.22
		04/20/10	29.08	336.00
		12/20/10	PSH	PSH
MW-3	366.07 (24.5-44.5)	05/25/88	30.83	335.24
		03/10/98	28.25	337.82
		04/05/00	36.65	329.42
	364.16 (24.5-44.5)	04/26/02	31.37	332.79
		12/03/02	31.32	332.84
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	30.91	333.25
		07/28/08	PSH	PSH
		12/29/08	30.54	333.62
		06/18/09	31.33	332.83
		11/17/09	PSH	PSH
		04/20/10	29.54	334.62
		12/20/10	PSH	PSH

Table 1

(Page 2 of 4)

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-4	362.90 (22-42)	05/25/88	27.68	335.22
		03/10/98	26.46	336.44
		04/05/00	29.98	332.92
	362.38 (22-42)	04/26/02	29.60	332.78
		12/03/02	29.43	332.95
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	29.25	333.13
		07/28/08	30.41	331.97
		12/29/08	28.53	333.85
		06/18/09	29.65	332.73
		11/17/09	30.58	331.80
		04/20/10	27.97	334.41
		12/20/10	29.22	333.16
MW-5	NM	03/10/98	27.50	NM
	363.42 (unknown)	04/26/02	30.39	333.03
		12/03/02	30.50	332.92
		10/26/07	31.72	331.70
		01/17/08	NM	NM
		04/18/08	31.07	332.35
		07/28/08	NM	NM
		12/29/08	NM	NM
		Well Destroyed		
MW-6	362.44 (17-42)	04/26/02	29.77	332.67
		12/03/02	29.75	332.69
		10/26/07	31.01	331.43
		01/17/08	29.44	333.00
		04/18/08	29.47	332.97
		07/28/08	30.60	331.84
		12/29/08	28.71	333.73
		06/18/09	29.90	332.54
		11/17/09	30.78	331.66
		04/20/10	28.17	334.27
		12/20/10	29.45	332.99
MW-7	362.57 (17-42)	04/26/02	29.47	333.10
		12/03/02	29.45	333.12
		10/26/07	30.45	332.12
		01/17/08	29.17	333.40
		04/18/08	29.16	333.41
		07/28/08	30.08	332.49
		12/29/08	28.48	334.09
		06/18/09	29.56	333.01
		11/17/09	30.59	331.98
		04/20/10	27.92	334.65
		12/20/10	29.15	333.42

Table 1

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-8	364.51 (20.5-40.5)	04/26/02	31.71	332.80
		12/03/02	31.70	332.81
		10/26/07	33.02	331.49
		01/17/08	31.34	333.17
		04/18/08	31.42	333.09
		07/28/08	32.60	331.91
		12/29/08	30.60	333.91
		06/18/09	31.82	332.69
		11/17/09	32.74	331.77
		04/20/10	30.12	334.39
		12/20/10	31.37	333.14
MW-9	362.33 (34-39)	04/18/08	29.49	332.84
		07/28/08	30.58	331.75
		12/29/08	28.68	333.65
		06/18/09	29.90	332.43
		11/17/09	30.75	331.58
		04/20/10	28.15	334.18
		12/20/10	29.43	332.90
MW-10	367.28 (25-40)	04/18/08	32.52	334.76
		07/29/08	33.65	333.63
		12/29/08	32.62	334.66
		06/18/09	32.75	334.53
		11/17/09	33.97	333.31
		04/20/10	30.83	336.45
		12/20/10	32.10	335.18
MW-11	362.48 (23-38)	04/18/08	29.98	332.50
		07/29/08	30.99	331.49
		12/29/08	28.96	333.52
		06/18/09	30.36	332.12
		11/17/09	31.12	331.36
		04/20/10	28.61	333.87
		12/20/10	29.84	332.64
MW-12	361.88 (24-39)	04/18/08	29.55	332.33
		07/29/08	30.49	331.39
		12/29/08	28.45	333.43
		06/18/09	29.94	331.94
		11/17/09	30.65	331.23
		04/20/10	28.17	333.71
		12/20/10	29.40	332.48
MW-13	366.91 (25-45)	04/21/08	32.77	334.14
		07/30/08	34.08	332.83
		12/29/08	32.54	334.37
		06/18/09	33.17	333.74
		11/17/09	34.33	332.58
		04/20/10	31.35	335.56
		12/20/10	32.71	334.20

Table 1

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-14	362.79 (23-38)	04/21/08	30.09	332.70
		07/30/08	31.14	331.65
		12/29/08	29.22	333.57
		06/18/09	30.51	332.28
		11/17/09	31.32	331.47
		04/20/10	28.74	334.05
		12/20/10	30.03	332.76
MW-15	362.36 (23.5-38.5)	04/21/08	29.91	332.65
		07/30/08	30.96	331.60
		12/29/08	28.80	333.56
		06/18/09	30.13	332.23
		11/17/09	30.92	331.44
		04/20/10	28.36	334.00
		12/20/10	29.64	332.72
MW-16	362.48 (24-39)	04/21/08	30.04	332.44
		07/30/08	31.02	331.46
		12/29/08	28.95	333.53
		06/18/09	30.47	332.01
		11/17/09	31.18	331.30
		04/20/10	28.66	333.82
		12/20/10	29.94	332.54
MW-17	367.97 (24.5-44.5)	04/21/08	34.97	333.00
		07/30/08	36.08	331.89
		12/29/08	34.34	333.63
		06/18/09	35.38	332.59
		11/17/09	36.23	331.74
		04/20/10	33.63	334.34
		12/20/10	34.93	333.04

Notes:

MSL = mean sea level

TOC = top of well casing

PSH = phase-separated hydrocarbons present in well, therefore groundwater elevation was not calculated

NM = well not measured

Wells were surveyed by Southern California Survey initially on April 26, 2002 and updated on March 28, 2008.

Table 2
Phase-Separated Hydrocarbon Monitoring Data
11427 Woodside Avenue, Santee, CA

Date	MW-1			MW-2			MW-3			MW-4		
	DTP	DTW	PT	DTP	DTW	PT	DTP	DTW	PT	DTP	DTW	PT
6/18/2009	NP	30.29	NP	NP	31.56	NP	NP	31.33	NP	NP	29.65	NP
9/4/2009	NP	31.10	NP	32.62	32.65	0.03	32.15	32.18	0.03	NP	30.51	NP
9/18/2009	NP	31.16	NP	32.72	32.73	0.01	32.21	32.26	0.05	NP	30.57	NP
10/2/2009	NP	31.20	NP	NP	32.79	NP	32.26	32.36	0.10	NP	30.61	NP
10/16/2009	NP	31.23	NP	32.82	32.83	0.01	32.29	32.45	0.16	NP	30.64	NP
10/29/2009	NP	31.24	NP	NP	32.90	NP	32.29	32.52	0.23	NP	30.63	NP
11/17/2009	NP	31.15	NP	NP	32.86	NP	32.20	32.48	0.28	NP	30.58	NP
11/30/2009	NP	31.09	NP	NP	32.82	NP	32.10	32.41	0.31	NP	30.48	NP
12/11/2009	NP	30.50	NP	NP	32.41	NP	31.64	31.80	0.16	NP	29.80	NP
12/24/2009	NP	29.42	NP	NP	31.62	NP	NP	30.72	NP	NP	28.79	NP
1/7/2010	NP	29.67	NP	NP	29.03	NP	31.78	31.79	0.01	NP	29.03	NP
1/26/2010	NP	28.69	NP	NP	31.04	NP	NP	30.11	NP	NP	27.98	NP
2/8/2010	NP	28.30	NP	NP	30.08	NP	NP	29.56*	NP	NP	27.68	NP
2/19/2010	NP	28.07	NP	NP	29.32	NP	29.26	29.27	0.01	NP	27.46	NP
3/5/2010	NP	27.83	NP	NP	28.94	NP	NP	29.07*	NP	NP	27.22	NP
3/19/2010	NP	28.12	NP	NP	28.31	NP	NP	29.22	NP	NP	27.51	NP
4/2/2010	NP	28.55	NP	NP	28.61	NP	NP	29.57	NP	NP	27.94	NP
4/20/2010	NP	28.58	NP	NP	29.08	NP	NP	29.54	NP	NP	27.97	NP
12/20/2010	NP	29.80	NP	31.25	31.27	0.02	30.83	30.84	0.01	NP	29.22	NP

Notes: DTP = Depth to phase-separated hydrocarbons (PSH) be
DTW = Depth to water below top of casing
PT = PSH thickness in feet
NP = No PSH
* = PSH sheen

Table 3
(Page 1 of 4)
Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-1 (installed 5/11/88)	05/25/88	0.6	NA	NA	0.7	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	2,500	910	340	200	18	240	190	NA	NA	NA	NA
	05/18/98	NA	704	< 500	326	89.5	< 50.0	< 100	< 50.0	NA	NA	NA	NA
	04/05/00	NA	1,800	NA	250	14	34	380	200	NA	NA	NA	NA
	04/26/02	NA	1,100	1,100	230	14	36	220	190	< 40	< 40	500	< 40
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	2,800	980	370	6.6	170	227.8	610	NA	NA	NA	NA
	07/28/08	NA	420	< 500	57	< 0.5	19.0	15	55	NA	NA	NA	NA
	12/29/08	NA	440	720	57	< 1.0	30	26	< 2.0	< 2.0	< 2.0	27	< 2.0
	06/18/09	NA	< 500	< 500	210	1.0	38	17.7	220	< 1.0	< 1.0	140	< 1.0
	11/17/09	NA	< 500	< 500	4.4	0.6	2.5	1.1	1.7	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	42	<0.5	3.7	1.1	81	< 1.0	< 1.0	49	< 1.0
	12/20/10	NA	< 500	< 500	66	<0.5	35	4.6	34	< 1.0	< 1.0	15	< 1.0
MW-2 (installed 5/12/88)	05/25/88	< 0.5	NA	NA	< 0.5	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	330	< 500	20	3.3	25	47	53	NA	NA	NA	NA
	04/04/00	NA	7,600	NA	7.6	3.3	30	59	3,500	NA	NA	NA	NA
	04/26/02	NA	6,000	160,000	9.2	3.9	16	17	3,100	< 40	< 40	500	< 40
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	510	6,400	< 10	< 10	< 10	< 30	1,300	NA	NA	NA	NA
	07/28/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	12/30/08	NA	440	22,000	< 2.5	< 2.5	4.0	< 10	< 5.0	< 5.0	< 5.0	2,100	< 5.0
	06/19/09	NA	< 500	< 500	< 0.5	< 0.5	4.9	< 1.5	8.3	< 1.0	< 1.0	2,000	< 1.0
	11/18/09	NA	2,300	< 500	1.0	0.7	3.4	< 1.5	1.9	< 1.0	< 1.0	1,100	< 1.0
	04/21/10	NA	< 500	7,400	< 0.5	< 0.5	3.7	< 1.5	20	< 1.0	< 1.0	170	< 1.0
	12/20/10	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
MW-3 (installed 5/13/88)	05/25/88	140	NA	NA	19	3.4	NA	1.3	NA	NA	NA	NA	NA
	03/10/98	NA	2,300	5,100	3.6	0.7	0.7	4.1	2,000	NA	NA	NA	NA
	05/18/98	NA	115	< 500	98.5	< 12.5	< 12.5	< 25.0	226	NA	NA	NA	NA
	04/05/00	NA	420	NA	18	1.7	3.9	12	230	NA	NA	NA	NA
	04/26/02	NA	9,700	190,000	92	< 3.0	56	62	590	< 100	< 100	< 1,200	< 100
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	< 500	1,800	2.8	< 1.0	< 1.0	< 3.0	99	NA	NA	NA	NA
	07/28/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	12/30/08	NA	230	3,200	1.7	< 0.5	0.61	< 2.0	110	< 1.0	< 1.0	59	< 1.0
	06/19/09	NA	< 500	< 500	0.5	< 0.5	< 0.5	< 1.5	77	< 1.0	< 1.0	400	< 1.0
	11/17/09	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/21/10	NA	< 500	5,900	1.3	< 0.5	1.2	< 1.5	90	< 1.0	< 1.0	43	< 1.0
	12/20/10	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH

Table 3
(Page 2 of 4)
Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-4 (installed 5/13/88)	05/25/88	6.3	NA	NA	< 0.5	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	9,600	3,700	2,400	250	50	430	4,100	NA	NA	NA	NA
	04/04/00	NA	8,700	NA	1,800	< 12	110	790	900	NA	NA	NA	NA
	04/26/02	NA	15,000	95,000	4,500	150	450	1,900	1,500	< 100	< 100	< 1,200	< 100
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	2,000	4,500	380	2.9	95	41.0	110.0	NA	NA	NA	NA
	07/28/08	NA	2,100	1,300	410	< 2.5	72.0	< 10	70	NA	NA	NA	NA
	12/30/08	NA	4,900	3,400	88	< 10	20	53	< 20	< 20	< 20	< 200	< 20
	06/18/09	NA	< 500	< 500	370	2.0	58	11.6	89	< 1.0	< 1.0	24	< 1.0
	11/18/09	NA	3,300	2,600	460	11	130	70.4	140	< 1.0	< 1.0	< 5.0	< 1.0
	04/21/10	NA	< 500	< 500	34	0.5	4.7	1.0	33	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	51	1.2	20	4.7	57	< 1.0	< 1.0	< 5.0	< 1.0
MW-5 (instalation unknown)	03/10/98	NA	730	1,700	20	0.6	< 0.30	39	92	NA	NA	NA	NA
	04/26/02	NA	500	2,000	7.3	1.7	2.8	6.8	230	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/17/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	07/28/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/30/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Well Destroyed												
MW-6 (installed 2/26/01)	04/26/02	NA	25,000	9,100	5,300	1,400	1,200	5,900	850	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	570	< 500	21	0.7	48	14	17	NA	NA	NA	NA
	01/17/08	NA	1,400	< 500	9.6	0.6	4.8	8.5	3.5	NA	NA	NA	NA
	04/18/08	NA	2,000	750	500	< 20	210	150	180	NA	NA	NA	NA
	07/28/08	NA	6,900	980	720	7.6	410	540	98	NA	NA	NA	NA
	12/30/08	NA	950	650	55	< 1.0	34	30	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/19/09	NA	< 500	< 500	350	3.1	250	182.3	54	< 1.0	< 1.0	22	< 1.0
	11/18/09	NA	< 500	< 500	90	2.0	75	73.0	25	< 1.0	< 1.0	< 5.0	< 1.0
	04/21/10	NA	1,300	1,500	750	4.1	320	29.7	110	< 1.0	< 1.0	< 5.0	< 1.0
	12/20/10	NA	< 500	< 500	110	< 1.0	16	5.0	12	< 1.0	< 1.0	< 5.0	< 1.0
MW-7 (installed 2/26/01)	04/26/02	NA	1,900	13,000	3.7	1.1	4	7.9	19	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	01/17/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	04/21/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 1.0	< 1.0	< 1.0	< 3.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	15	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	8.7	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0

Table 3
(Page 3 of 4)
Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-8 (installed 4/19/02)	04/26/02	NA	4,800	6,500	50	9.2	170	210	64	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/26/07	NA	1,100	790	< 0.5	< 0.5	23	< 0.5	< 1.0	NA	NA	NA	NA
	01/17/08	NA	1,100	570	< 0.5	< 0.5	27	< 1.5	< 1.0	NA	NA	NA	NA
	04/21/08	NA	980	1,200	< 0.5	< 0.5	23	< 1.5	< 1.0	NA	NA	NA	NA
	07/29/08	NA	660	2,100	< 0.5	< 0.5	15	< 2.0	< 1.0	NA	NA	NA	NA
	12/30/08	NA	890	3,000	< 1.0	< 1.0	16	< 4.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	13	< 1.5	< 1.0	< 1.0	< 1.0	13	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.7	10	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	6.1	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	< 0.5	< 0.5	1.9	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-9 (installed 2/4/08)	04/18/08	NA	1,700	560	740	250	270	1,010	170	NA	NA	NA	NA
	07/28/08	NA	1,100	570	230	27	27	65	74	NA	NA	NA	NA
	12/30/08	NA	1,300	< 500	140	10	71	200	21	< 5.0	< 5.0	< 50	< 5.0
	06/19/09	NA	< 500	< 500	50	6.1	34	49.3	55	< 1.0	< 1.0	34	< 1.0
	11/18/09	NA	< 500	< 500	62	8.9	51	89	67	< 1.0	< 1.0	< 5.0	< 1.0
	04/21/10	NA	< 500	< 500	170	28	86	164	64	< 1.0	< 1.0	< 5.0	< 1.0
	12/20/10	NA	< 500	< 500	18	2.9	22	31.3	40	< 1.0	< 1.0	< 5.0	< 1.0
MW-10 (installed 2/5/08)	04/18/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	4.2	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	1.8	< 1.0	< 1.0	20	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.5	< 0.5	< 1.5	6.3	< 1.0	< 1.0	6.3	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	2.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	1.4	< 1.0	< 1.0	< 5.0	< 1.0
MW-11 (installed 2/8/08)	04/18/08	NA	1,800	< 500	22	< 1.0	170	< 3.0	< 2.0	NA	NA	NA	NA
	07/29/08	NA	690	720	4.2	0.81	39	< 2.0	< 1.0	NA	NA	NA	NA
	12/31/08	NA	2,000	1,600	52	6.8	230	11	< 5.0	< 5.0	< 5.0	< 50	< 5.0
	06/18/09	NA	< 500	< 500	5.9	0.6	19	< 1.5	1.6	< 1.0	< 1.0	12	< 1.0
	11/17/09	NA	900	< 500	6.5	1.5	5.5	1.2	2.3	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	3.1	< 0.5	0.7	< 1.5	1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/10	NA	< 500	< 500	28	4.1	22	9.6	1.6	< 1.0	< 1.0	< 5.0	< 1.0
MW-12 (installed 2/8/08)	04/18/08	NA	< 500	< 500	< 1.0	< 1.0	2.0	< 3.0	65	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	11	NA	NA	NA	NA
	12/31/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	16	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	14	< 1.0	< 1.0	32	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	2.5	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	2.7	< 0.5	< 0.5	< 1.5	4.6	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	12	0.6	0.7	3.6	4.1	< 1.0	< 1.0	< 5.0	< 1.0
MW-13 (installed 2/18/08)	04/21/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	NA	NA	NA	NA
	07/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	11	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.6	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0

Table 3
(Page 4 of 4)
Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-14 (installed 2/18/08)	04/21/08	NA	**27,000**	**3,800**	**5,300**	**290**	**2,400**	**6,460**	**650**	NA	NA	NA	NA
	07/30/08	NA	**25,000**	**12,000**	**6,600**	**170**	**2,400**	**3,700**	**270**	NA	NA	NA	NA
	12/31/08	NA	**18,000**	**1,000**	**3,700**	< 50	**1,500**	**2,000**	**570**	< 100	< 100	< 1,000	< 100
	06/19/09	NA	< 500	< 500	**3,600**	**160**	**1,900**	**2,990**	**540**	< 20	< 20	**110**	< 20
	11/18/09	NA	**6,900**	< 500	**1,600**	**54**	**1,000**	**944**	**510**	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	**3,700**	< 500	**2,600**	**210**	**1,700**	**3,650**	**670**	< 20	< 20	< 100	< 20
	12/20/10	NA	**5,500**	**2,300**	**1,900**	**98**	**1,400**	**2,180**	**670**	< 40	< 40	< 200	< 40
MW-15 (installed 2/19/08)	04/21/08	NA	**32,000**	**3,500**	**2,400**	**510**	**4,100**	**13,380**	< 200	NA	NA	NA	NA
	07/30/08	NA	**46,000**	**17,000**	**2,100**	**250**	**3,700**	**10,000**	< 50	NA	NA	NA	NA
	12/31/08	NA	**8,400**	**2,100**	**620**	**12**	**1,500**	**160**	< 20	< 20	< 20	< 200	< 20
	06/19/09	NA	< 500	< 500	**820**	**250**	**2,800**	**6,930**	**35**	< 20	< 20	< 100	< 20
	11/18/09	NA	**19,000**	< 500	**910**	**77**	**3,700**	**4,308.9**	**19**	< 10	< 10	< 50	< 10
	04/20/10	NA	**1,800**	**1,500**	**1,100**	**130**	**3,700**	**10,090**	< 100	< 100	< 100	< 500	< 100
	12/21/10	NA	**7,100**	**4,800**	**800**	**63**	**2,600**	**2,800**	< 100	< 100	< 100	< 500	< 100
MW-16 (installed 2/16/08)	04/21/08	NA	< 500	< 500	**53**	< 2.5	**77**	< 7.5	**110**	NA	NA	NA	NA
	07/30/08	NA	**1,300**	**780**	**110**	**1.7**	**210**	< 4.0	**160**	NA	NA	NA	NA
	12/31/08	NA	**2,500**	**790**	**470**	**6**	**390**	< 20	< 10	< 10	< 10	< 100	< 10
	06/19/09	NA	< 500	< 500	**120**	**16**	**220**	**33**	**100**	< 20	< 20	**170**	< 20
	11/18/09	NA	**570**	< 500	**110**	**2.5**	**65**	**10.5**	**73**	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	< 10	< 10	< 10	< 30	**33**	< 20	< 20	< 100	< 20
	12/21/10	NA	< 500	< 500	**3.9**	< 1.0	< 1.0	< 1.5	**16**	< 1.0	< 1.0	< 5.0	< 1.0
MW-17 (installed 2/19/08)	04/21/08	NA	**990**	**3,100**	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	07/30/08	NA	**780**	**11,000**	< 5.0	< 5.0	< 5.0	< 1.5	< 1.0	NA	NA	NA	NA
	12/30/08	NA	**520**	**55,000**	< 5.0	< 5.0	< 5.0	< 20	< 10	< 10	< 10	< 100	< 10
	06/19/09	NA	**1,600**	**730**	< 0.5	**0.7**	< 0.5	< 1.5	**2.4**	< 1.0	< 1.0	**15**	< 1.0
	11/17/09	NA	**550**	< 500	**0.5**	< 0.5	**1.9**	**2.4**	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	**0.6**	< 0.5	< 0.5	< 1.5	**29**	< 1.0	< 1.0	**35**	< 1.0
	12/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	**2.9**	< 1.0	< 1.0	< 5.0	< 1.0

Notes:

Groundwater samples collected by SCS Engineers from June 2009 through December 2010.

Groundwater samples collected by Petra Geotechnical, Inc. from October 25, 2007 to December 31, 2008.

Groundwater samples collected by EnecoTech Southwest, Inc. from May 25, 1988 to December 3, 2002.

Results presented in micrograms per liter (µg/L).

Samples were analyzed for gasoline-range (TPHg), and diesel-range (TPHd) total petroleum hydrocarbons in general accordance with CA DHS LUFT Method; and benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), tert-amyl methyl ether (TAME), and t-butanol (TBA) in general accordance with EPA Method 8260B.

< indicates not reported at a concentration above laboratory detection limit, and bold font indicates concentrations above the laboratory reporting limit.

NS indicates well not sampled.

NA indicates not analyzed for particular constituent-of-concern.

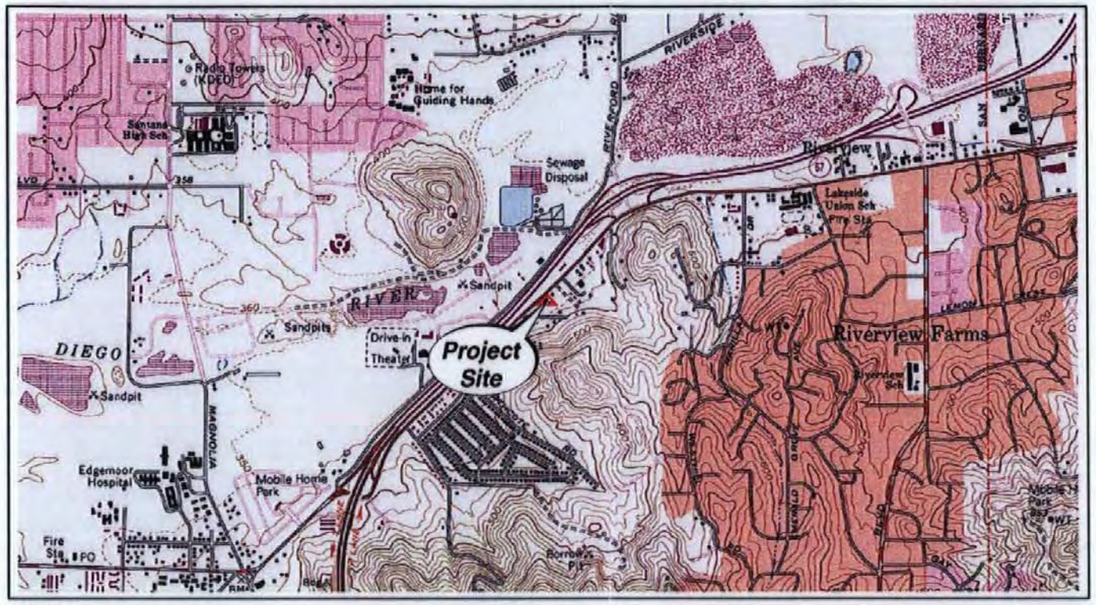
* indicates samples were analyzed by EPA Method 418.1 for total extractable hydrocarbons.

PSH = phase-separated hydrocarbons

FIGURES

North (Not to scale)

REGIONAL SITE LOCATION



North

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

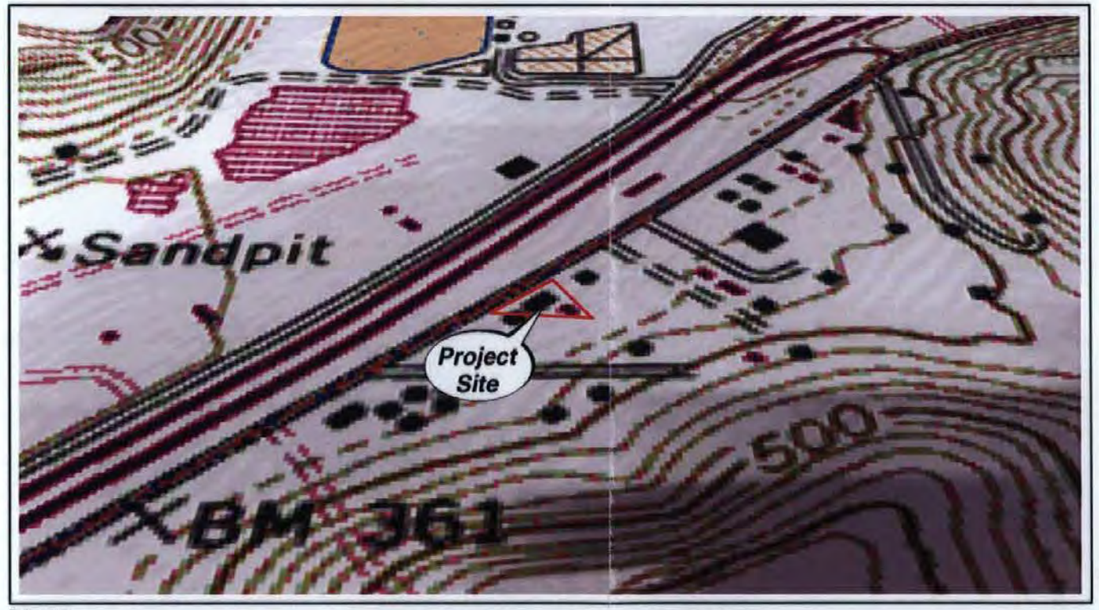
2-DIMENSIONAL SITE LOCATION

0 1,000 2,000 3,000
Approximate Graphic Scale in Feet

North (Not to scale)

Reference:
Google Earth Aerial Photograph
Santee, California - February 2008

SITE AERIAL PHOTOGRAPH



North (Not to scale)

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

3-DIMENSIONAL SITE LOCATION

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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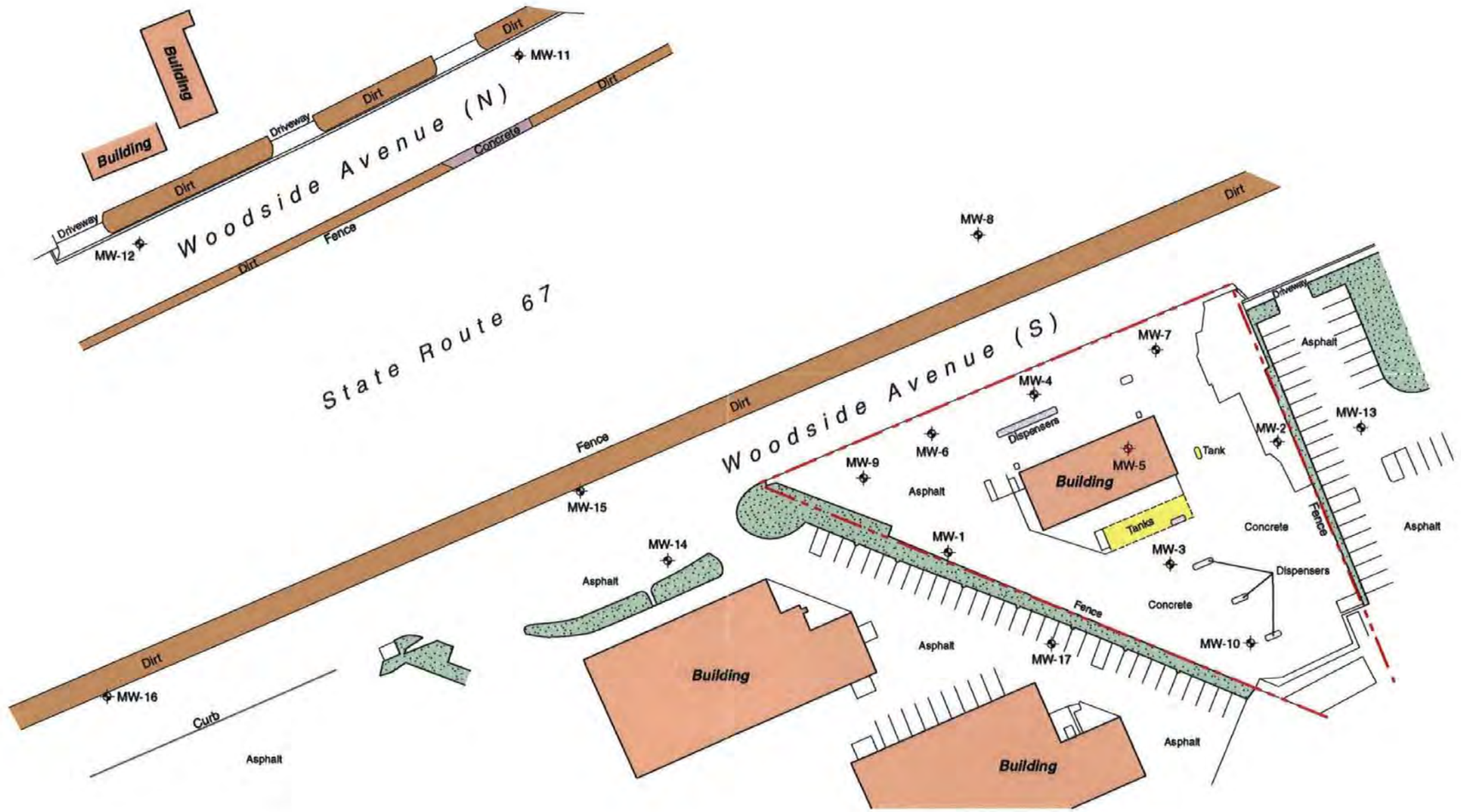
4-WAY SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 1

Date Drafted: 11/4/09



EXPLANATION

MW-16 — Groundwater monitoring well location

MW-5 — Well destroyed

Approximate Site boundary

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

0 40 80 120

Approximate Graphic Scale:
One Inch Equals 80 Feet

North

SCS ENGINEERS
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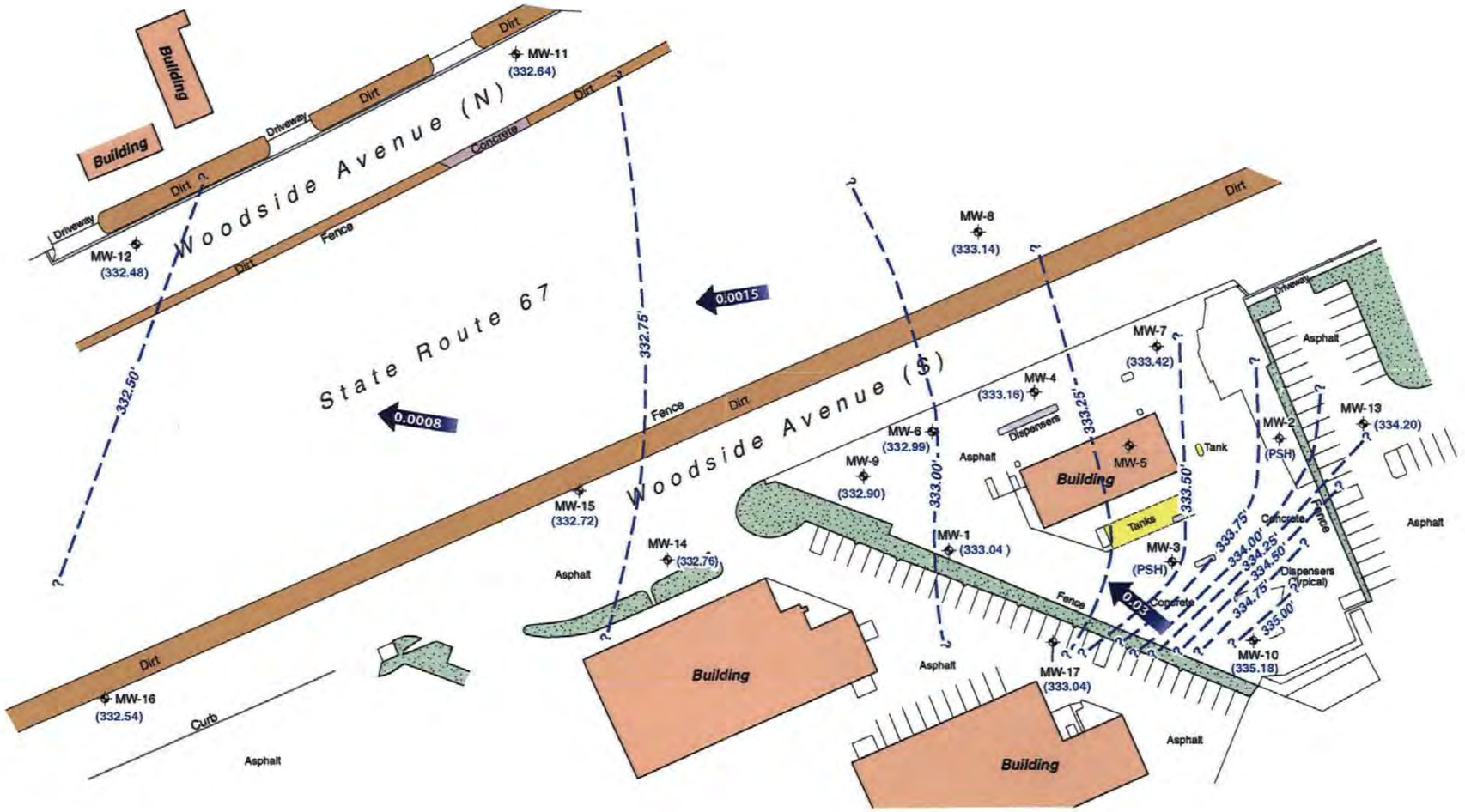
SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 2

Date Drafted: 2/19/10



EXPLANATION

MW-16 (332.54) — Groundwater monitoring well location with groundwater elevation in feet above mean sea level.

333.75' — Estimated groundwater contour in feet above mean sea level.

0.0008 — Interpreted direction of groundwater flow and estimated groundwater gradient.

0 40 80 120
Approximate Graphic Scale:
One Inch Equals 80 Feet

North

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

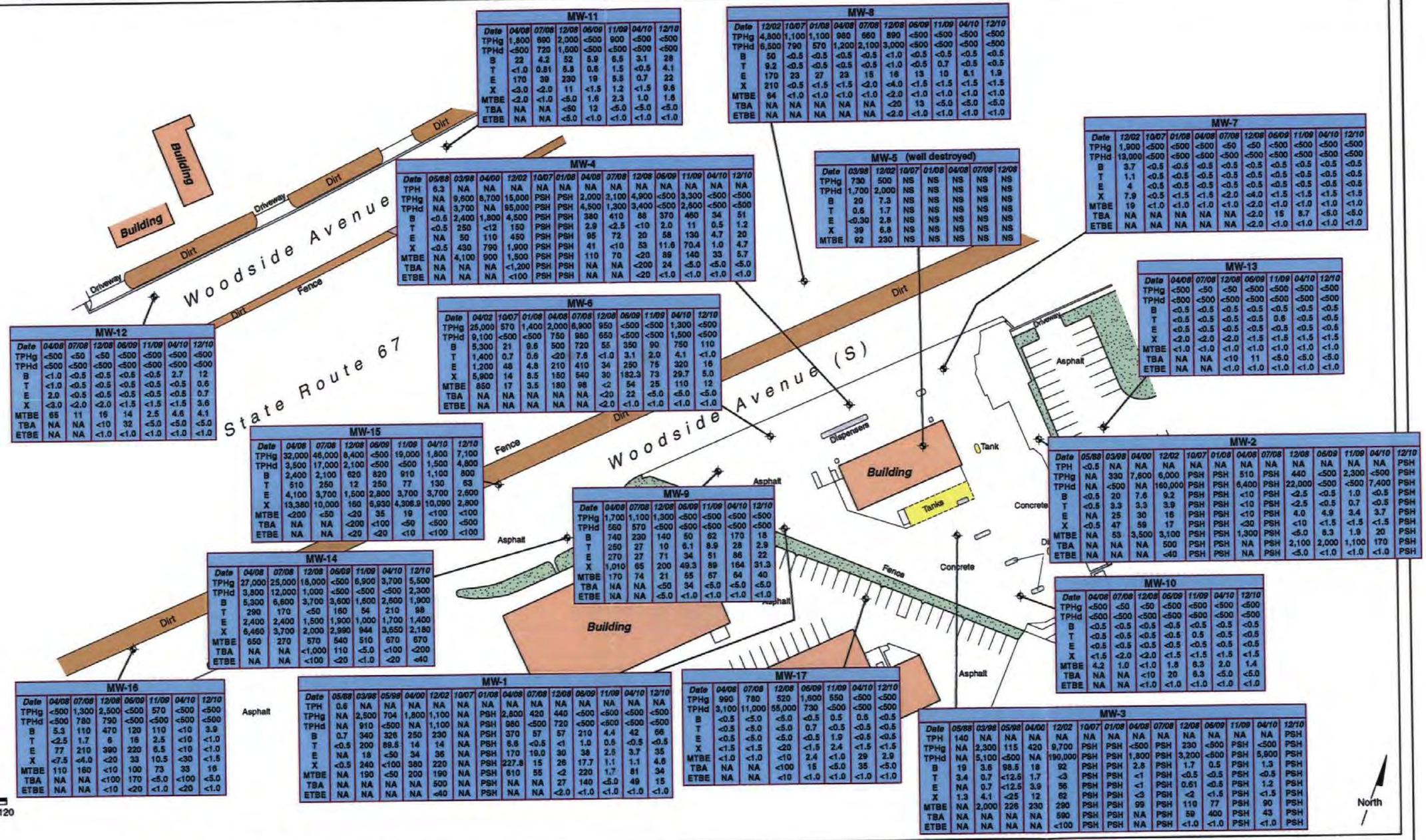
SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

GROUNDWATER ELEVATION MAP
DECEMBER 2010
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 3

Date Drafted: 1/21/11



MW-11

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPHg	1,800	690	2,000	<500	900	<500	<500
TPHd	<500	720	1,500	<500	<500	<500	<500
B	22	4.2	52	5.9	6.5	3.1	28
T	<1.0	0.81	5.8	0.6	1.5	<0.5	4.1
E	170	39	230	19	5.5	0.7	22
X	<3.0	<2.0	11	<1.5	1.2	<1.5	9.6
MTBE	<2.0	<1.0	<5.0	1.6	2.3	1.0	1.6
TBA	NA	NA	<50	12	<5.0	<5.0	<5.0
ETBE	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0

MW-8

Date	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPHg	4,800	1,100	1,100	980	660	890	<500	<500	<500	<500
TPHd	6,500	790	570	1,200	2,100	3,000	<500	<500	<500	<500
B	50	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
T	9.2	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	0.7	<0.5	<0.5
E	170	23	27	23	15	16	13	10	8.1	1.9
X	210	<0.5	<1.5	<1.5	<2.0	<4.0	<1.5	<1.5	<1.5	<1.5
MTBE	64	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
TBA	NA	NA	NA	NA	NA	<20	13	<5.0	<5.0	<5.0
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0	<1.0	<1.0	<1.0

MW-4

Date	05/88	03/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPH	6.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	9,600	8,700	15,000	PSH	PSH	2,000	2,100	4,900	<500	3,300	<500	<500
TPHd	NA	3,700	NA	95,000	PSH	PSH	4,500	1,300	3,400	<500	2,600	<500	<500
B	<0.5	2,400	1,800	4,500	PSH	PSH	380	410	88	370	460	34	51
T	<0.5	250	<12	150	PSH	PSH	2.9	<2.5	<10	2.0	11	0.5	1.2
E	NA	50	110	450	PSH	PSH	95	72	20	58	130	4.7	20
X	<0.5	430	790	1,900	PSH	PSH	41	<10	53	11.6	70.4	1.0	4.7
MTBE	NA	4,100	900	1,500	PSH	PSH	110	70	<20	89	140	33	5.7
TBA	NA	NA	NA	<1,200	PSH	PSH	NA	NA	<200	24	<5.0	<5.0	<5.0
ETBE	NA	NA	NA	<100	PSH	PSH	NA	NA	<20	<1.0	<1.0	<1.0	<1.0

MW-5 (well destroyed)

Date	03/98	12/02	10/07	01/08	04/08	07/08	12/08
TPHg	730	500	NS	NS	NS	NS	NS
TPHd	1,700	2,000	NS	NS	NS	NS	NS
B	20	7.3	NS	NS	NS	NS	NS
T	0.6	1.7	NS	NS	NS	NS	NS
E	<0.30	2.8	NS	NS	NS	NS	NS
X	39	6.8	NS	NS	NS	NS	NS
MTBE	92	230	NS	NS	NS	NS	NS

MW-7

Date	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPHg	1,900	<500	<500	<500	<50	<50	<500	<500	<500	<500
TPHd	13,000	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	3.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
T	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
E	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
X	7.9	<0.5	<1.5	<1.5	<2.0	<4.0	<1.5	<1.5	<1.5	<1.5
MTBE	19	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
TBA	NA	NA	NA	NA	NA	<2.0	15	8.7	<5.0	<5.0
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0	<1.0	<1.0	<1.0

MW-12

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPHg	<500	<50	<50	<500	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500	<500
B	<1.0	<0.5	<0.5	<0.5	<0.5	2.7	12
T	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	0.6
E	2.0	<0.5	<0.5	<0.5	<0.5	<0.5	0.7
X	<3.0	<2.0	<2.0	<1.5	<1.5	<1.5	3.6
MTBE	65	11	16	14	2.5	4.6	4.1
TBA	NA	NA	<10	32	<5.0	<5.0	<5.0
ETBE	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0

MW-6

Date	04/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPHg	25,000	570	1,400	2,000	6,900	950	<500	<500	1,300	<500
TPHd	9,100	<500	<500	750	980	650	<500	<500	1,500	<500
B	5,300	21	9.6	500	720	55	350	90	750	110
T	1,400	0.7	0.6	<20	7.5	<1.0	3.1	2.0	4.1	<1.0
E	1,200	48	4.8	210	410	34	250	75	320	16
X	5,900	14	8.5	150	540	30	182.3	73	29.7	5.0
MTBE	850	17	3.5	180	98	<2	54	25	110	12
TBA	NA	NA	NA	NA	NA	<20	22	<5.0	<5.0	<5.0
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0	<1.0	<1.0	<1.0

MW-13

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPHg	<500	<50	<50	<500	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500	<500
B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
T	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5
E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6
X	<2.0	<2.0	<2.0	<1.5	<1.5	<1.5	<1.5
MTBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TBA	NA	NA	<10	11	<5.0	<5.0	<5.0
ETBE	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0

MW-15

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPHg	32,000	46,000	8,400	<500	19,000	1,800	7,100
TPHd	3,500	17,000	2,100	<500	<500	1,500	4,800
B	2,400	2,100	620	820	910	1,100	800
T	510	250	12	250	77	130	63
E	4,100	3,700	1,500	2,800	3,700	3,700	2,600
X	13,380	10,000	160	5,930	4,306.9	10,090	2,800
MTBE	<200	<50	<20	35	19	<100	<100
TBA	NA	NA	<200	<100	<50	<500	<500
ETBE	NA	NA	<20	<20	<10	<100	<100

MW-9

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPHg	1,700	1,100	1,300	<500	<500	<500	<500
TPHd	560	570	<500	<500	<500	<500	<500
B	740	230	140	50	62	170	18
T	250	27	10	6.1	8.9	28	2.9
E	270	27	71	34	51	86	22
X	1,010	65	200	49.3	89	164	31.3
MTBE	170	74	21	55	67	64	40
TBA	NA	NA	<50	34	<5.0	<5.0	<5.0
ETBE	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0

MW-14

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPHg	27,000	25,000	18,000	<500	6,900	3,700	5,500
TPHd	3,800	12,000	1,000	<500	<500	<500	2,300
B	5,300	6,600	3,700	3,600	1,600	2,600	1,900
T	290	170	<50	160	54	210	98
E	2,400	2,400	1,500	1,900	1,000	1,700	1,400
X	6,460	3,700	2,000	2,990	944	3,650	2,180
MTBE	650	270	570	640	510	670	670
TBA	NA	NA	<1,000	110	<5.0	<100	<200
ETBE	NA	NA	<100	<20	<1.0	<20	<40

MW-16

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPHg	<500	1,300	2,500	<500	570	<500	<500
TPHd	<500	780	790	<500	<500	<500	<500
B	5.3	110	470	120	110	<10	3.9
T	<2.5	1.7	6	16	2.5	<10	<1.0
E	77	210	390	220	6.5	<10	<1.0
X	<7.5	<4.0	<20	33	10.5	<30	<1.5
MTBE	110	160	<10	100	73	33	16
TBA	NA	NA	<100	170	<5.0	<100	<5.0
ETBE	NA	NA	<10	<20	<1.0	<20	<1.0

MW-1

Date	05/88	03/98	05/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPH	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	2,500	704	1,800	1,100	NA	PSH	2,800	420	440	<500	<500	<500	<500
TPHd	NA	910	<500	NA	1,100	NA	PSH	960	<500	720	<500	<500	<500	<500
B	0.7	340	326	250	230	NA	PSH	370	57	57	210	4.4	42	66
T	<0.5	200	89.5	14	14	NA	PSH	6.6	<0.5	<1	1.0	0.5	<0.5	<0.5
E	NA	18	<50	34	36	NA	PSH	170	19.0	30	39	2.5	3.7	35
X	<0.5	240	<100	380	220	NA	PSH	227.8	15	26	17.7	1.1	1.1	4.6
MTBE	NA	190	<50	200	190	NA	PSH	610	55	<2	220	1.7	81	34
TBA	NA	NA	NA	NA	500	NA	PSH	NA	NA	27	140	<5.0	49	15
ETBE	NA	NA	NA	NA	<40	NA	PSH	NA	NA	<2.0	<1.0	<1.0	<1.0	<1.0

MW-17

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPHg	990	780	520	1,600	550	<500	<500
TPHd	3,100	11,000	55,000	730	<500	<500	<500
B	<0.5	<5.0	<5.0	<0.5	0.5	0.5	<0.5
T	<0.5	<5.0	<5.0	0.7	<0.5	<0.5	<0.5
E	<0.5	<5.0	<5.0	<0.5	1.9	<0.5	<0.5
X	<1.5	<1.5	<20	<1.5	2.4	<1.5	<1.5
MTBE	<1.0	<1.0	<10	2.4	<1.0	29	2.9
TBA	NA	NA	<100	15	<5.0	35	<5.0
ETBE	NA	NA	<10	<1.0	<1.0	<1.0	<1.0

MW-2

Date	05/88	03/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPH	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	PSH
TPHg	NA	330	7,600	6,000	PSH	PSH	510	PSH	440	<500	2,300	<500	PSH
TPHd	NA	<500	NA	160,000	PSH	PSH	6,400	PSH	22,000	<500	<500	7,400	PSH
B	<0.5	20	7.6	9.2	PSH	PSH	<10	PSH	<2.5	<0.5	1.0	<0.5	PSH
T	<0.5	3.3	3.3	3.9	PSH	PSH	<10	PSH	<2.5	<0.5	0.7	<0.5	PSH
E	NA	25	30	16	PSH	PSH	<10	PSH	4.0	4.9	3.4	3.7	PSH
X	<0.5	47	59	17	PSH	PSH	<30	PSH	<10	<1.5	<1.5	<1.5	PSH
MTBE	NA	53	3,500	3,100	PSH	PSH	1,300	PSH	<5.0	8.3	1.9	20	PSH
TBA	NA	NA	NA	500	PSH	PSH	NA	PSH	2,100	2,000	1,100	170	PSH
ETBE	NA	NA	NA	<40	PSH	PSH	NA	PSH	<5.0	<1.0	<1.0	<1.0	PSH

MW-10

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPHg	<500	<50	<50	<500	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500	<500
B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
T	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5
E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
X	<1.5	<2.0	<2.0	<1.5	<1.5	<1.5	<1.5
MTBE	4.2	1.0	<1.0	1.8	6.3	2.0	1.4
TBA	NA	NA	<10	20	6.3	<5.0	<5.0
ETBE	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0

MW-3

Date	05/88	03/98	05/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10
TPH	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	PSH
TPHg	NA	2,300	115	420	9,700	PSH	PSH	<500	PSH	230	<500	PSH	<500	PSH
TPHd	NA	5,100	<500	NA	190,000	PSH	PSH	1,800	PSH	3,200	<500	PSH	5,900	PSH
B	19	3.6	98.5	18	92	PSH	PSH	2.8	PSH	1.7	0.5	PSH	1.3	PSH
T	3.4	0.7	<12.5	1.7	<3	PSH	PSH	<1	PSH	<0.5	<0.5	PSH	<0.5	PSH
E	NA	0.7	<12.5	3.9	56	PSH	PSH	<1	PSH	0.61	<0.5	PSH	1.2	PSH
X	1.3	4.1	<25	12	62	PSH	PSH	<3	PSH	<2	<1.5	PSH	<1.5	PSH
MTBE	NA	2,000	226	230	290	PSH	PSH	99	PSH	110	77	PSH	90	PSH
TBA	NA	NA	NA	NA	590	PSH	PSH	NA	PSH	59	400	PSH	43	PSH
ETBE	NA	NA	NA	NA	<100	PSH	PSH	NA	PSH	<1.0	<1.0	PSH	<1.0	PSH

EXPLANATION

MW-17 — Groundwater monitoring well location

Groundwater samples collected by SCS Engineers beginning in June 2009; Petra Geotechnical, Inc. from October 2007 to December 2008; and Eneco Tech Southwest, Inc. from May 1988 to December 2002. Groundwater samples analyzed for total petroleum hydrocarbons by CA DHS LUFT Method; volatile organic compounds (VOCs) by EPA Method 8260B. All results reported in micrograms per liter (ug/L). < indicates concentration not reported above indicated reporting limit for relevant analyte and analytical method. NA indicates sample not analyzed. PSH indicates phase-separated hydrocarbons. Only VOCs with detectable concentrations are listed here; refer to laboratory reports for full listing of VOCs analyzed.

TPH = total petroleum hydrocarbons
TPHg = total petroleum hydrocarbons as gasoline
TPHd = total petroleum hydrocarbons as diesel
B = benzene
T = toluene
E = ethylbenzene
X = xylenes
MTBE = methyl tertiary buty ether
TBA = tertiary butyl alcohol
ETBE = Ethyl tertiary butyl ether

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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San Diego, California 92123

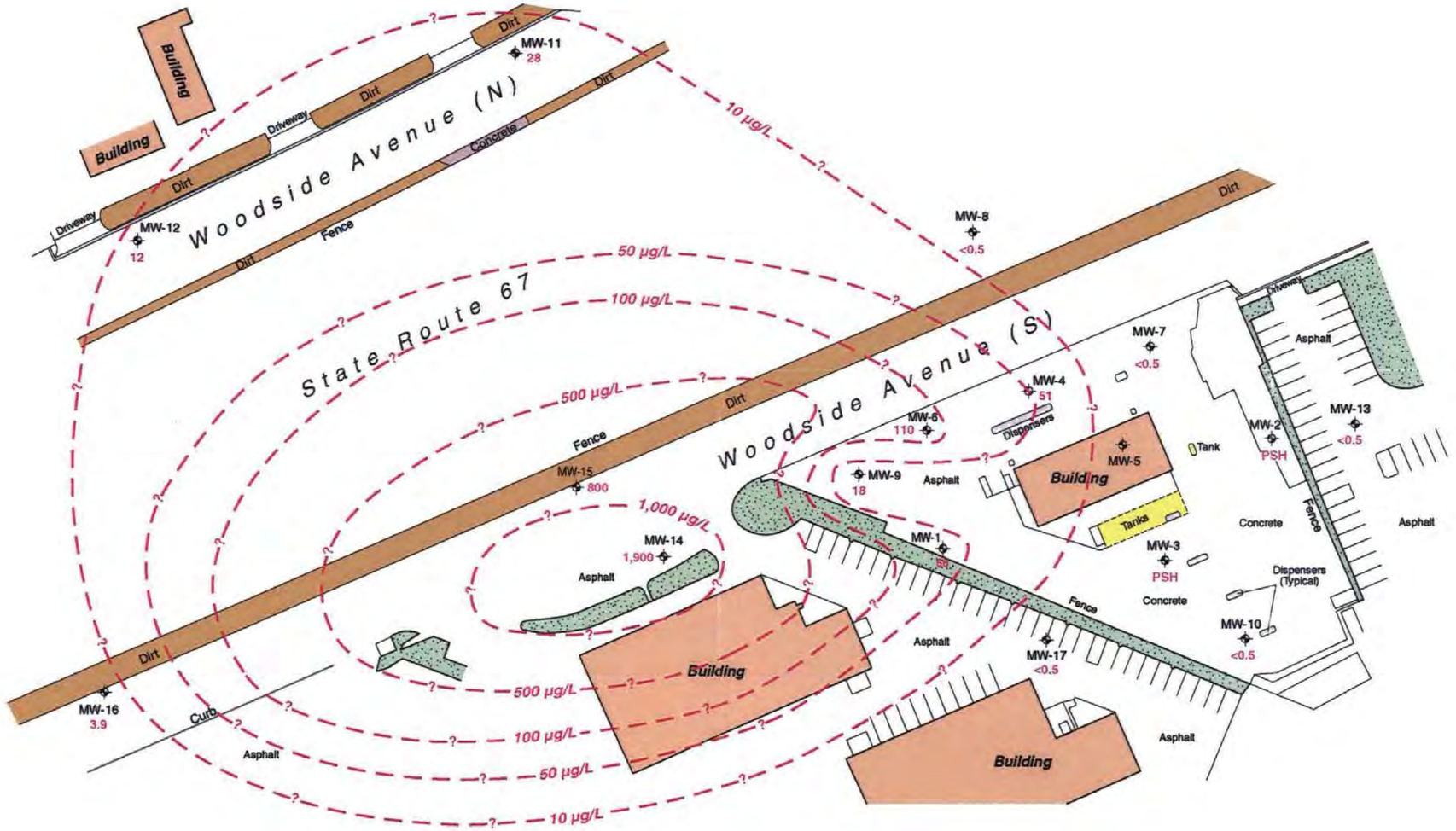
GROUNDWATER SAMPLE ANALYTICAL RESULTS

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 4

Date Drafted: 1/11/11



EXPLANATION

MW-16 / 3.9 — Groundwater monitoring well location with reported concentrations of benzene reported in micrograms per liter (µg/L). < indicates not reported above laboratory reporting limit for given analyte.

100 µg/L — Iso-concentration of benzene reported in µg/L. Dashed where estimated, querried where inferred.

0 40 80 120
Approximate Graphic Scale: One Inch Equals 80 Feet

North

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

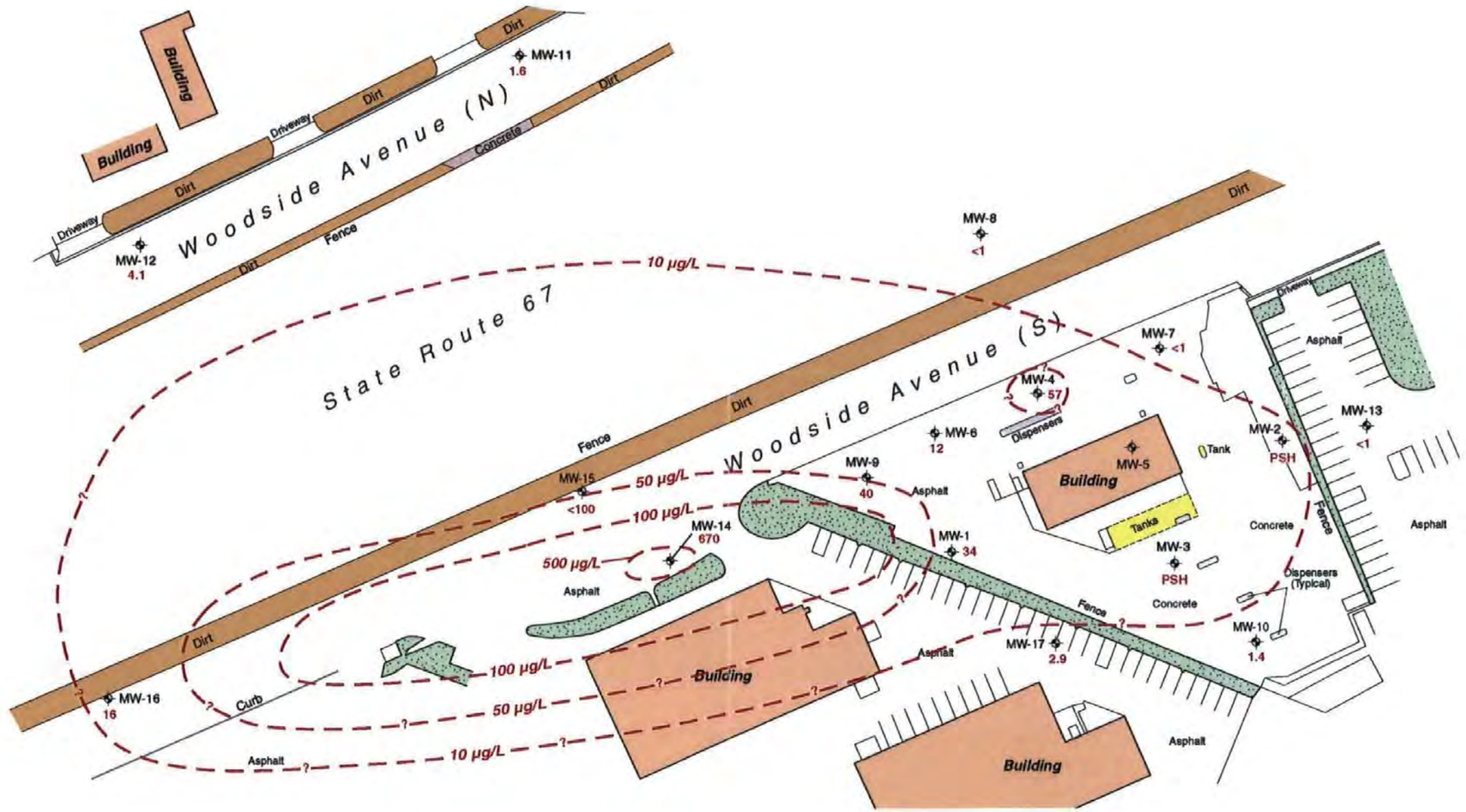
ISO-CONCENTRATION CONTOURS OF BENZENE IN SHALLOW GROUNDWATER - DECEMBER 2010

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 5

Date Drafted: 1/21/11



EXPLANATION

MW-16 / 16 — Groundwater monitoring well location with reported concentrations of MTBE reported in micrograms per liter (µg/L). < indicates not reported above laboratory reporting limit for given analyte.

100 — Iso-concentration of MTBE reported in µg/L. Dashed where estimated, querried where inferred.

0 40 80 120
Approximate Graphic Scale:
One Inch Equals 80 Feet

North

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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ISO-CONCENTRATION CONTOURS OF MTBE IN SHALLOW GROUNDWATER - DECEMBER 2010
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 6

Date Drafted: 1/11/11

APPENDICES

APPENDIX A

GROUNDWATER PURGING AND SAMPLING FORMS

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123

Client: Wigington Petroleum	Project No: 01208473.00	Recorded by: CC/SR AB
Site Address: 11427 Woodside Ave., Santee, CA	Date: 12/20/10	

WELL MONITORING DATA

WELL NO.	DTB	DTW	DTP	PT	SWE	ELEV-W	ELEV-P
MW1	41.6	29.80	–	–	362.84		–
MW2	44.6	31.27	31.25	0.02	365.08		–
MW3	43.2	30.84	30.83	0.01	364.16		
MW4	41.6	29.22	–	–	362.38		–
MW6	41.8	29.45	–	–	362.44		–
MW7	41.9	29.15	–	–	362.57		–
MW8	39.5	31.37	–	–	364.51		–
MW9	38.3	29.43*	–	–	362.33		–
MW10	38.3	32.10	–	–	367.28		–
MW11	37.35	29.84	–	–	362.48		–
MW12	36.2	29.40	–	–	361.88		–
MW13	44.7	32.71	–	–	366.91		–
MW14	36.8	30.03	–	–	362.79		–
MW15	37.2	29.64	–	–	362.36		–
MW16	38.3	29.94	–	–	362.48		–
MW17	44.4	34.93	–	–	367.97		–

NOTES
6 drums left onsite

WELL NO. - Monitoring well number
DTW - Depth to water from datum
DTP - Depth to product from datum
PT - Product Thickness

DTB - Depth to bottom of well
SWE - Surveyed well elevation in feet
ELEV-W - Relative elevation of water
ELEV-P - Relative elevation of product

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: HW-1
Project Number: 01208473.00 | Date: 12/20/10
Project Address: 11427 Woodside Ave, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: AB | Checked by: CEH | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 10
Casing Diameter (in.) (CD): 2 (4) 6 8 4
Total Well Depth (ft.) (WD): 41.6 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 29.80 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 11.80 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD² + P (BD²-CD²)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 20 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron QWIP
Purging Equipment/Method: Bladder Pump ___ Bailer ✓ Centrifugal Pump ___ Other ___
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___Teflon Bailer ✓Disposable Bailer ___Bladder Pump ___Centrifugal Pump ___Other: ___
Decontamination Method: ___ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ___ Other: ___

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:___ Time:___
___ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
11:33	30.01	0.21	20	986	—	8.49	—	15.2
11:58	29.98	0.18	30	979	—	7.99	—	16.3

Borehole Volume: 20 (gal) | Total Volume Purge Water: 30 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.84

SAMPLING INFORMATION

Date & Time Sampled: 12/20/10, 13:10 | Depth to water at time of sampling (feet): 29.84

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil		Well No.: MW-4
Project Number: 01208473.00		Date: 12/23/10
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: C. Crosby	Checked by: CEU	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____	
Casing Diameter (in.) (CD): 2 (4) 6 8 ____	
Total Well Depth (ft.) (WD): 41.6	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 29.22	Time measured: —
Water Column (ft.) (WC=WD-SWL): 12.38	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 21.0 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

____ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:____ Time:____

____ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

____ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1139								
1154	29.51	0.29	21	1196	—	7.67	—	19.3
1203	29.62	0.40	32	1168	—	7.61	—	19.4

Borehole Volume: 21.0 (gal) Total Volume Purge Water: 32 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.30

SAMPLING INFORMATION

Date & Time Sampled: 12/23/10 1215 Depth to water at time of sampling (feet): 29.22

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-6
Project Number: 01208473.00 | Date: 12/20/10
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____
Casing Diameter (in.) (CD): 2 (4) 6 8 ____
Total Well Depth (ft.) (WD): 41.8 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 29.45 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 12.35 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 21.0 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ___ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___ Centrifugal Pump ___Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1400	30.41	0.96	21	1219	—	7.34	—	18.3
1415	30.80	1.35	32	1234	—	7.87	—	18.6

Borehole Volume: 21 (gal) | Total Volume Purge Water: 32 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.72

SAMPLING INFORMATION

Date & Time Sampled: 12/20/10 1430 | Depth to water at time of sampling (feet): 29.45

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil		Well No.: MW-7
Project Number: 01208473.00		Date: 12/21/10
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: C. Crosby	Checked by: CEH	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 ____
Casing Diameter (in.) (CD): 2 (4) 6 8 ____
Total Well Depth (ft.) (WD): 41.9
Product thickness (ft.): —
Static Water Level (ft.) (SWL): 29.15
Time measured: —
Water Column (ft.) (WC=WD-SWL): 12.75
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2-CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 21.7 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ____ Teflon Bailer ✓ Disposable Bailer ____ Bladder Pump ____ Centrifugal Pump ____ Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
____ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
____ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
____ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1358	29.60	0.45	22	1149	— 7.4	[illegible]	—	18.3
1408	29.71	0.56	33	1121	— 7.3	[illegible]	—	18.8

Borehole Volume: 21.7 (gal) Total Volume Purge Water: 33 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.26

SAMPLING INFORMATION

Date & Time Sampled: 12/21/10 1420 Depth to water at time of sampling (feet): 29.18

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-8
Project Number: 01208473.00 | Date: 12/23/10
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 _____
Casing Diameter (in.) (CD): 2 (4) 6 8 _____
Total Well Depth (ft.) (WD): 39.5
Product thickness (ft.): —
Static Water Level (ft.) (SWL): 31.37
Time measured: —
Water Column (ft.) (WC=WD-SWL): 8.13
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 13.8 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ____Teflon Bailer ✓ Disposable Bailer ____Bladder Pump ____Centrifugal Pump ____Other: _____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1022	31.56	0.19	14	592	—	7.13	—	19.8
1031	31.70	0.33	21	612	—	7.14	—	20.4

Borehole Volume: 13.8 (gal) Total Volume Purge Water: 21 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 31.43

SAMPLING INFORMATION

Date & Time Sampled: 12/23/10 1040 Depth to water at time of sampling (feet): 31.38

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil		Well No.: MW-9
Project Number: 01208473.00		Date: 12/20/10
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: C. Crosby	Checked by: CEH	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12	
Casing Diameter (in.) (CD): 2 (4) 6 8	
Total Well Depth (ft.) (WD): 38.3	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 29.43	Time measured: —
Water Column (ft.) (WC=WD-SWL): 8.87	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 15.1 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ___ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___Centrifugal Pump ___Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1300	29.84	0.41	15.5	1168	— 7.44	[redacted]	—	19.3
1308	29.98	0.55	23.0	1161	— 7.51	[redacted]	—	19.2

Borehole Volume: 15.1 (gal) Total Volume Purge Water: 23 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.54

SAMPLING INFORMATION

Date & Time Sampled: 12/20/10 1320 Depth to water at time of sampling (feet): 29.43

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-10
Project Number: 01208473.00 | Date: 12/20/10
Project Address: 11427 Woodside Ave, Santee, Ca
Well GPS: Latitude: Longitude:
Sampled by: AB | Checked by: CEH | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 10
Casing Diameter (in.) (CD): 2 (4) 6 8 4
Total Well Depth (ft.) (WD): 38.5 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 32.10 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 6.40 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD² + P (BD²-CD²)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV** = 10.88 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ____Teflon Bailer ✓ Disposable Bailer ____Bladder Pump ____Centrifugal Pump ____Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
____Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
____Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
____Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
10:28	32.63	0.53	11	1096	—	8.50	—	15.3
10:39	32.78	0.68	16.5	1089	—	8.10	—	16.5

Borehole Volume: 10.88 (gal) | Total Volume Purge Water: 16.5 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 32.24

SAMPLING INFORMATION

Date & Time Sampled: 12/20/10, 11:00 | Depth to water at time of sampling (feet): 32.22

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil			Well No.: MW-11
Project Number: 01208473.00			Date: 12/21/10
Project Address: 11427 Woodside Ave., Santee CA			
Well GPS: Latitude:		Longitude:	
Sampled by: C. Crosby	Checked by: CEH		License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 ____

Casing Diameter (in.) (CD): (2) 4 6 8 ____

Total Well Depth (ft.) (WD): 37.35 | Product thickness (ft.): —

Static Water Level (ft.) (SWL): 29.84 | Time measured: —

Water Column (ft.) (WC=WD-SWL): 7.51 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 6.8 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ____Teflon Bailer ✓ Disposable Bailer ____Bladder Pump ____ Centrifugal Pump ____Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

____Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:____ Time:____

____Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

____Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
0938	29.98	0.14	7.0	715	—	7.36	—	19.7
0950	30.15	0.31	10.5	713	—	7.42	—	19.9

Borehole Volume: 6.8 (gal) | Total Volume Purge Water: 10.5 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.90

SAMPLING INFORMATION

Date & Time Sampled: 12/21/10 1000 | Depth to water at time of sampling (feet): 29.85

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-12
Project Number: 01208473.00 | Date: 12/23/10
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 _____
Casing Diameter (in.) (CD): (2) 4 6 8 _____
Total Well Depth (ft.) (WD): 36.2 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 29.40 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 6.80 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 6.1 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump _____ Bailer ✓ Centrifugal Pump ___ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___ Centrifugal Pump ___Other: _____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
0928	28.50	0.10	6.5	712	—	7.21	—	19.4
0935	28.52	0.12	9.5	691	—	7.11	—	20.0

Borehole Volume: 6.1 (gal) | Total Volume Purge Water: 9.5 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.42

SAMPLING INFORMATION

Date & Time Sampled: 12/23/10 0945 | Depth to water at time of sampling (feet): 29.40

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil		Well No.: MW-13
Project Number: 01208473.00		Date: 12/23/10
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: C. Crosby	Checked by: CEH	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 ____
Casing Diameter (in.) (CD): (2) 4 6 8 ____
Total Well Depth (ft.) (WD): 44.7 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 32.71 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 11.99 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 10.8 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ____Teflon Bailer ✓ Disposable Bailer ____Bladder Pump ____ Centrifugal Pump ____Other: ____
Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

___ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ✓ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
___Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
✓Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
0810								
0848	44.10	11.39	11.0	1396	—	7.22	—	20.8
					—		—	

Borehole Volume: 10.8 (gal) | Total Volume Purge Water: 11 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 34.98

SAMPLING INFORMATION

Date & Time Sampled: 12/23/10 1100 | Depth to water at time of sampling (feet): 38.70

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-14
Project Number: 01208473.00 | Date: 12/20/10
Project Address: 11427 Woodside Ave., Santee CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12 _____
Casing Diameter (in.) (CD): 2 (4) 6 8 _____
Total Well Depth (ft.) (WD): 36.8 | Product thickness (ft.): —
Static Water Level (ft.) (SWL): 30.03 | Time measured: —
Water Column (ft.) (WC=WD-SWL): 6.77 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 11.5 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump _____ Bailer ✓ Centrifugal Pump ___ Other ____
pH/Temp/Conductivity Meter Type and ID: Oakton
Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___ Centrifugal Pump ___Other: _____
Decontamination Method: _____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) _____ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1150	34.10	4.07	11.5	1042	—	7.32	—	18.0
1200	33.94	3.91	17.5	1017	—	7.31	—	18.4

Borehole Volume: 11.5 (gal) | Total Volume Purge Water: 17.5 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 30.84

SAMPLING INFORMATION

Date & Time Sampled: 12/20/10 1215 | Depth to water at time of sampling (feet): 30.05

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil			Well No.: MW-15
Project Number: 01208473.00			Date: 12/21/10
Project Address: 11427 Woodside Ave., Santee CA			
Well GPS: Latitude:		Longitude:	
Sampled by: C. Crosby	Checked by: CEA		License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 ____	
Casing Diameter (in.) (CD): (2) 4 6 8 ____	
Total Well Depth (ft.) (WD): 37.2	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 29.64	Time measured: —
Water Column (ft.) (WC=WD-SWL): 7.56	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 6.8 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___Centrifugal Pump ___Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1210	29.68	0.04	7.0	831	—	7.18	—	18.8
1220	29.70	0.06	10.5	808	—	7.17	—	19.2

Borehole Volume: 6.8 (gal) | Total Volume Purge Water: 10.5 (gal) | Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.65

SAMPLING INFORMATION

Date & Time Sampled: 12/21/10 1230 | Depth to water at time of sampling (feet): 29.64

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil		Well No.: MW-16
Project Number: 01208473.00		Date: 12/21/10
Project Address: 11427 Woodside Ave., Santee CA		
Well GPS: Latitude:	Longitude:	
Sampled by: C. Crosby	Checked by: CEH	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 ____	
Casing Diameter (in.) (CD): (2) 4 6 8 ____	
Total Well Depth (ft.) (WD): 38.3	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 29.94	Time measured: —
Water Column (ft.) (WC=WD-SWL): 8.36	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 7.5 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ____ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ____Teflon Bailer ✓ Disposable Bailer ____Bladder Pump ____Centrifugal Pump ____Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ____ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

____Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

____Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:____ Time:____

____Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

____Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1100	29.97	0.03	7.5	848	—	7.33	—	18.4
1113	29.98	0.04	11.5	831	—	7.29	—	18.8

Borehole Volume: 7.5 (gal) Total Volume Purge Water: 11.5 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.95

SAMPLING INFORMATION

Date & Time Sampled: 12/21/10 1125 Depth to water at time of sampling (feet): 29.94

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPH g/d, 8260 BTEX/Oxy.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil		Well No.: MW-17
Project Number: 01208473.00		Date: 12/20/10
Project Address: 11427 Woodside Ave, Santee, CA		
Well GPS: Latitude:	Longitude:	
Sampled by: AB	Checked by: CEH	License #: 2206

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12 8	
Casing Diameter (in.) (CD): (2) 4 6 8 2	
Total Well Depth (ft.) (WD): 44.4	Product thickness (ft.): —
Static Water Level (ft.) (SWL): 34.93	Time measured: —
Water Column (ft.) (WC=WD-SWL): 9.47	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 {CD^2 + P (BD^2-CD^2)}(WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 8.52 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ____ Bailer ✓ Centrifugal Pump ___ Other ____

pH/Temp/Conductivity Meter Type and ID: Oakton

Sampler Type: ___Teflon Bailer ✓ Disposable Bailer ___Bladder Pump ___Centrifugal Pump ___Other: ____

Decontamination Method: ____ Steam/High Pressure Wash ✓ 3 Stage (Alconox, tap water & DI rinse) ____ Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

✓ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ___ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

___Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

✓ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

___Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

___Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

___Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
13:01	41.23	6.3	8.5	1103	—	8.20	—	15.5
14:02	38.18	3.25	13	1138	—	8.21	—	15.3

Borehole Volume: 8.5 (gal) Total Volume Purge Water: 13 (gal) Average pumping rate: — (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 36.19

SAMPLING INFORMATION

Date & Time Sampled: 12/20/10, 14:30 Depth to water at time of sampling (feet): 35.71

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	8015 TPHg/d, 8260 BTEX/Oxy.

APPENDIX B

NON-HAZARDOUS WASTE MANIFEST

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number (SOC)	2. Page 1 of 1	3. Emergency Response Phone CHEMTREC 1-800-424-9300	4. Waste Tracking Number 36559

GENERATOR

5. Generator's Name and Mailing Address
WIGINGTON OIL
11427 WOODSIDE AVE.
SANTEE, CA 92071
Generator's Phone: 858-571-5500 CHRIS

Generator's Site Address (if different than mailing address)
SAME

6. Transporter 1 Company Name
EER ENVIRONMENTAL SERVICES, INC.
U.S. EPA ID Number
CAR000011205

7. Transporter 2 Company Name
PACIFIC TRANS ENVIRONMENTAL SERVICES
U.S. EPA ID Number
CAD981412356

8. Designated Facility Name and Site Address
CROSBY & OVERTON PLANT #1
1630 WEST 17TH STREET
LONG BEACH, CA 90813
Facility's Phone: 562-432-5445
U.S. EPA ID Number
CAD028409019

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON-HAZARDOUS WASTE LIQUID (GROUNDWATER)	6	DM	330	G	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
9B-1 PROFILE NO: 79886

D42715

ALWAYS WEAR APPROPRIATE PPE & USE SAFE HANDLING METHODS.

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: J Chris Crosby (SES) Signature: J Chris Crosby Month: 1 Day: 19 Year: 11

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Octavio Quintero Signature: Month: 1 Day: 19 Year: 11

Transporter 2 Printed/Typed Name: MARK BICKERSTAFF Signature: Month: 01 Day: 19 Year: 11

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

4395

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Jasmin Bellezza Signature: Month: 01 Day: 25 Year: 11

APPENDIX C

ANALYTICAL DATA AND CHAIN-OF-CUSTODY DOCUMENTATION

H&P Mobile Geochemistry Inc.

03 January 2011

Mr. Chuck Houser
SCS Engineers - San Diego
8799 Balboa Avenue, Suite 290
San Diego, CA 92123

H&P Project: SCS122310-12
Client Project: 01208473.00 / Wigington Oil

Dear Client:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 23-Dec-10 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

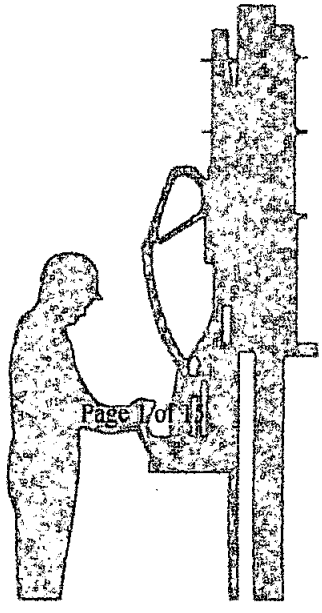
- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody

Unless otherwise noted, all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

Janis Villarreal
Laboratory Director



H&P Mobile Geochemistry, Inc. operates under CA Environmental Lab Accreditation Program Numbers 2579, 2740, 2741, 2742, 2743, 2745 and 2754. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

2470 Impala Drive, Carlsbad, California 92010 ┌ 760.804.9678 — Fax 760.804.9159
1855 Coronado Avenue, Signal Hill, California 90755
www.HandPmg.com ┌ **1-800-834-9888**

Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

SCS Engineers - San Diego	Project: SCS122310-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	03-Jan-11 11:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	E012116-01	Water	20-Dec-10	23-Dec-10
MW-4	E012116-02	Water	23-Dec-10	23-Dec-10
MW-6	E012116-03	Water	20-Dec-10	23-Dec-10
MW-7	E012116-04	Water	21-Dec-10	23-Dec-10
MW-8	E012116-05	Water	23-Dec-10	23-Dec-10
MW-9	E012116-06	Water	20-Dec-10	23-Dec-10
MW-10	E012116-07	Water	20-Dec-10	23-Dec-10
MW-11	E012116-08	Water	21-Dec-10	23-Dec-10
MW-12	E012116-09	Water	23-Dec-10	23-Dec-10
MW-13	E012116-10	Water	23-Dec-10	23-Dec-10
MW-14	E012116-11	Water	20-Dec-10	23-Dec-10
MW-15	E012116-12	Water	21-Dec-10	23-Dec-10
MW-16	E012116-13	Water	21-Dec-10	23-Dec-10
MW-17	E012116-14	Water	20-Dec-10	23-Dec-10

H&P Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

SCS Engineers - San Diego	Project: SCS122310-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	03-Jan-11 11:59

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-1 (E012116-01) Water Sampled: 20-Dec-10 Received: 23-Dec-10									
Methyl tertiary-butyl ether (MTBE)	**34**	1.0	ug/l	0.1	EL03006	30-Dec-10	30-Dec-10	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**66**	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	**35**	0.5	"	"	"	"	"	"	
m,p-Xylene	**4.6**	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**15**	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*103 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*117 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*112 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*114 %*		*75-125*	"	"	"	"	
MW-4 (E012116-02) Water Sampled: 23-Dec-10 Received: 23-Dec-10									
Methyl tertiary-butyl ether (MTBE)	**57**	1.0	ug/l	0.1	EL03006	30-Dec-10	30-Dec-10	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**51**	0.5	"	"	"	"	"	"	
Toluene	**1.2**	0.5	"	"	"	"	"	"	
Ethylbenzene	**20**	0.5	"	"	"	"	"	"	
m,p-Xylene	**4.2**	1.0	"	"	"	"	"	"	
o-Xylene	**0.5**	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*113 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*116 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*111 %*		*75-125*	"	"	"	"	

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SCS Engineers - San Diego	Project: SCS122310-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	03-Jan-11 11:59

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-6 (E012116-03) Water Sampled: 20-Dec-10 Received: 23-Dec-10									
Methyl tertiary-butyl ether (MTBE)	**12**	1.0	ug/l	0.05	EL03006	30-Dec-10	30-Dec-10	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**110**	5.0	"	1	"	"	"	"	
Toluene	ND	0.5	"	0.05	"	"	"	"	
Ethylbenzene	**16**	0.5	"	"	"	"	"	"	
m,p-Xylene	**5.0**	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*112 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*75-125*		"	"	"	
MW-7 (E012116-04) Water Sampled: 21-Dec-10 Received: 23-Dec-10									
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l	0.05	EL03006	30-Dec-10	30-Dec-10	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*105 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*		*75-125*		"	"	"	

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SCS Engineers - San Diego	Project: SCS122310-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	03-Jan-11 11:59

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-8 (E012116-05) Water Sampled: 23-Dec-10 Received: 23-Dec-10									
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l	0.05	EL03006	30-Dec-10	30-Dec-10	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	**1.9**	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*104 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*113 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*112 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*		*75-125*	"	"	"	"	
MW-9 (E012116-06) Water Sampled: 20-Dec-10 Received: 23-Dec-10									
Methyl tertiary-butyl ether (MTBE)	**40**	1.0	ug/l	0.05	EL03006	30-Dec-10	30-Dec-10	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**18**	0.5	"	"	"	"	"	"	
Toluene	**2.9**	0.5	"	"	"	"	"	"	
Ethylbenzene	**22**	0.5	"	"	"	"	"	"	
m,p-Xylene	**29**	1.0	"	"	"	"	"	"	
o-Xylene	**2.3**	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*108 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*111 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*		*75-125*	"	"	"	"	

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San Diego, CA 92123	Project Manager: Mr. Chuck Houser	03-Jan-11 11:59

Volatile Organic Compounds by EPA Method 8260B

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-10 (E012116-07) Water Sampled: 20-Dec-10 Received: 23-Dec-10									
Methyl tertiary-butyl ether (MTBE)	**1.4**	1.0	ug/l	0.05	EL03006	30-Dec-10	30-Dec-10	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*107 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*109 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*113 %*		*75-125*	"	"	"	"	
MW-11 (E012116-08) Water Sampled: 21-Dec-10 Received: 23-Dec-10									
Methyl tertiary-butyl ether (MTBE)	**1.6**	1.0	ug/l	0.05	EL03006	30-Dec-10	30-Dec-10	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**28**	0.5	"	"	"	"	"	"	
Toluene	**4.1**	0.5	"	"	"	"	"	"	
Ethylbenzene	**22**	0.5	"	"	"	"	"	"	
m,p-Xylene	**8.9**	1.0	"	"	"	"	"	"	
o-Xylene	**0.7**	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*107 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*116 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*		*75-125*	"	"	"	"	

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San Diego, CA 92123	Project Manager: Mr. Chuck Houser	03-Jan-11 11:59

Volatile Organic Compounds by EPA Method 8260B

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-12 (E012116-09) Water Sampled: 23-Dec-10 Received: 23-Dec-10									
Methyl tertiary-butyl ether (MTBE)	**4.1**	1.0	ug/l	0.05	EL03006	30-Dec-10	30-Dec-10	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**12**	0.5	"	"	"	"	"	"	
Toluene	**0.6**	0.5	"	"	"	"	"	"	
Ethylbenzene	**0.7**	0.5	"	"	"	"	"	"	
m,p-Xylene	**3.6**	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*103 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*108 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*113 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*		*75-125*		"	"	"	
MW-13 (E012116-10) Water Sampled: 23-Dec-10 Received: 23-Dec-10									
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l	0.05	EL03006	30-Dec-10	30-Dec-10	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*101 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*105 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*109 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*		*75-125*		"	"	"	

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8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
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Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-14 (E012116-11) Water Sampled: 20-Dec-10 Received: 23-Dec-10									
Methyl tertiary-butyl ether (MTBE)	**670**	40	ug/l	4	EL03006	30-Dec-10	30-Dec-10	EPA 8260B	
Diisopropyl ether (DIPE)	ND	40	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	40	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	40	"	"	"	"	"	"	
Benzene	**1900**	20	"	"	"	"	"	"	
Toluene	**98**	20	"	"	"	"	"	"	
Ethylbenzene	**1400**	20	"	"	"	"	"	"	
m,p-Xylene	**2100**	40	"	"	"	"	"	"	
o-Xylene	**80**	20	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*108 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*116 %*	*62-139*		"	"	"	"	
Surrogate: Toluene-d8		*112 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*75-125*		"	"	"	"	
MW-15 (E012116-12) Water Sampled: 21-Dec-10 Received: 23-Dec-10									
Methyl tertiary-butyl ether (MTBE)	ND	100	ug/l	10	EL03006	30-Dec-10	30-Dec-10	EPA 8260B	
Diisopropyl ether (DIPE)	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	100	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	100	"	"	"	"	"	"	
Benzene	**800**	50	"	"	"	"	"	"	
Toluene	**63**	50	"	"	"	"	"	"	
Ethylbenzene	**2600**	50	"	"	"	"	"	"	
m,p-Xylene	**2800**	100	"	"	"	"	"	"	
o-Xylene	ND	50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	500	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*62-139*		"	"	"	"	
Surrogate: Toluene-d8		*109 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*75-125*		"	"	"	"	

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Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-16 (E012116-13) Water Sampled: 21-Dec-10 Received: 23-Dec-10									
Methyl tertiary-butyl ether (MTBE)	**16**	1.0	ug/l	0.05	EL03006	30-Dec-10	30-Dec-10	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**3.9**	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*103 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*110 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*		*75-125*		"	"	"	
MW-17 (E012116-14) Water Sampled: 20-Dec-10 Received: 23-Dec-10									
Methyl tertiary-butyl ether (MTBE)	**2.9**	1.0	ug/l	0.05	EL03006	30-Dec-10	30-Dec-10	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*112 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*110 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.8 %*		*75-125*		"	"	"	

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San Diego, CA 92123	Project Manager: Mr. Chuck Houser	03-Jan-11 11:59

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-1 (E012116-01) Water Sampled: 20-Dec-10 Received: 23-Dec-10									
Gasoline (C5-C11)	ND	500	ug/l	1	EL03004	28-Dec-10	28-Dec-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-4 (E012116-02) Water Sampled: 23-Dec-10 Received: 23-Dec-10									
Gasoline (C5-C11)	ND	500	ug/l	1	EL03004	28-Dec-10	28-Dec-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-6 (E012116-03) Water Sampled: 20-Dec-10 Received: 23-Dec-10									
Gasoline (C5-C11)	ND	500	ug/l	1	EL03004	28-Dec-10	28-Dec-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-7 (E012116-04) Water Sampled: 21-Dec-10 Received: 23-Dec-10									
Gasoline (C5-C11)	ND	500	ug/l	1	EL03004	28-Dec-10	28-Dec-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-8 (E012116-05) Water Sampled: 23-Dec-10 Received: 23-Dec-10									
Gasoline (C5-C11)	ND	500	ug/l	1	EL03004	28-Dec-10	28-Dec-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-9 (E012116-06) Water Sampled: 20-Dec-10 Received: 23-Dec-10									
Gasoline (C5-C11)	ND	500	ug/l	1	EL03004	28-Dec-10	28-Dec-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-10 (E012116-07) Water Sampled: 20-Dec-10 Received: 23-Dec-10									
Gasoline (C5-C11)	ND	500	ug/l	1	EL03004	28-Dec-10	28-Dec-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

SCS Engineers - San Diego	Project: SCS122310-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	03-Jan-11 11:59

TPH by GC FID

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-11 (E012116-08) Water Sampled: 21-Dec-10 Received: 23-Dec-10									
Gasoline (C5-C11)	ND	500	ug/l	1	EL03004	28-Dec-10	28-Dec-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-12 (E012116-09) Water Sampled: 23-Dec-10 Received: 23-Dec-10									
Gasoline (C5-C11)	ND	500	ug/l	1	EL03004	28-Dec-10	28-Dec-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-13 (E012116-10) Water Sampled: 23-Dec-10 Received: 23-Dec-10									
Gasoline (C5-C11)	ND	500	ug/l	1	EL03004	28-Dec-10	28-Dec-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-14 (E012116-11) Water Sampled: 20-Dec-10 Received: 23-Dec-10									
Gasoline (C5-C11)	**5500**	500	ug/l	1	EL03004	28-Dec-10	28-Dec-10	DHS LUFT	
Diesel (C12-C24)	**2300**	500	"	"	"	"	"	"	D-08
MW-15 (E012116-12) Water Sampled: 21-Dec-10 Received: 23-Dec-10									
Gasoline (C5-C11)	**7100**	500	ug/l	1	EL03004	28-Dec-10	28-Dec-10	DHS LUFT	
Diesel (C12-C24)	**4800**	500	"	"	"	"	"	"	D-08
MW-16 (E012116-13) Water Sampled: 21-Dec-10 Received: 23-Dec-10									
Gasoline (C5-C11)	ND	500	ug/l	1	EL03004	28-Dec-10	28-Dec-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-17 (E012116-14) Water Sampled: 20-Dec-10 Received: 23-Dec-10									
Gasoline (C5-C11)	ND	500	ug/l	1	EL03004	28-Dec-10	28-Dec-10	DHS LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	

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SCS Engineers - San Diego	Project: SCS122310-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	03-Jan-11 11:59

Volatile Organic Compounds by EPA Method 8260B - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL03006 - EPA 5030										
Blank (EL03006-BLK1)				Prepared & Analyzed: 30-Dec-10						
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l							
Diisopropyl ether (DIPE)	ND	1.0	"							
Ethyl tert-butyl ether (ETBE)	ND	1.0	"							
Tertiary-amyl methyl ether (TAME)	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tertiary-butyl alcohol (TBA)	ND	5.0	"							
Surrogate: Dibromofluoromethane	*2.61*		"	*2.50*		*104*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.68*		"	*2.50*		*107*	*62-139*			
Surrogate: Toluene-d8	*2.73*		"	*2.50*		*109*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.75*		"	*2.50*		*110*	*75-125*			
Matrix Spike (EL03006-MS1)	**Source: E012116-10**			Prepared & Analyzed: 30-Dec-10						
Benzene	2.56	0.5	ug/l	2.50	ND	102	75-125			
Toluene	2.51	0.5	"	2.50	ND	100	74-125			
Surrogate: Dibromofluoromethane	*2.63*		"	*2.50*		*105*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.56*		"	*2.50*		*102*	*62-139*			
Surrogate: Toluene-d8	*2.74*		"	*2.50*		*110*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.61*		"	*2.50*		*104*	*75-125*			
Matrix Spike Dup (EL03006-MSD1)	**Source: E012116-10**			Prepared & Analyzed: 30-Dec-10						
Benzene	2.59	0.5	ug/l	2.50	ND	104	75-125	1.05	20	
Toluene	2.54	0.5	"	2.50	ND	102	74-125	1.35	20	
Surrogate: Dibromofluoromethane	*2.73*		"	*2.50*		*109*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.77*		"	*2.50*		*111*	*62-139*			
Surrogate: Toluene-d8	*2.76*		"	*2.50*		*111*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.65*		"	*2.50*		*106*	*75-125*			

Mobile Geochemistry Inc.

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SCS Engineers - San Diego	Project: SCS122310-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	03-Jan-11 11:59

TPH by GC FID - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL03004 - LUFT-DHS										
Blank (EL03004-BLK1)				Prepared & Analyzed: 28-Dec-10						
Gasoline (C5-C11)	ND	500	ug/l							
Diesel (C12-C24)	ND	500	"							
Matrix Spike (EL03004-MS1)		Source: E012116-04		Prepared & Analyzed: 28-Dec-10						
Gasoline (C5-C11)	2400	500	ug/l	3000	ND	80.0	75-125			
Diesel (C12-C24)	8080	500	"	7500	ND	108	75-125			
Matrix Spike Dup (EL03004-MSD1)		Source: E012116-04		Prepared & Analyzed: 28-Dec-10						
Gasoline (C5-C11)	2430	500	ug/l	3000	ND	81.0	75-125	1.24	30	
Diesel (C12-C24)	8000	500	"	7500	ND	107	75-125	0.970	30	

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SCS Engineers - San Diego	Project: SCS122310-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	03-Jan-11 11:59

Notes and Definitions

D-08	Results in the diesel organics range are primarily due to overlap from a gasoline range product.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

H&P Mobile Geochemistry Inc.

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SCS Engineers - San Diego	Project: SCS122310-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	03-Jan-11 11:59

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the Environmental Laboratory Accreditation Program (CA) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste for the following methods:

Certificate# 2741, 2743, 2579, 2754 & 2740 approved for EPA 8260 and LUFT GC/MS
Certificate# 2742, 2745, & 2741 approved for LUFT
Certificate# 2745 & 2742 approved for EPA 418.1

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the National Environmental Accreditation Conference Standards for the category Environmental Analysis Air and Emissions for the following analytes and methods:

1,2,4-Trichlorobenzene by EPA TO-15 & TO-14A
Hexachlorobutadiene by EPA TO-15 & TO-14A
1,2,4-Trimethylbenzene by EPA TO -14A
1,2-Dichlorobenzene by EPA TO-15 & TO-14A
1,3,5-Trimethylbenzene by EPA TO -14A
1,4-Dichlorobenzene by EPA TO-15 & TO-14A
Benzene by EPA TO-15 & TO-14A
Chlorobenzene by EPA TO-15 & TO-14A
Ethyl benzene by EPA TO-15 & TO-14A
Styrene by EPA TO-15 & TO-14A
Toluene by EPA TO-15 & TO-14A
Total Xylenes by EPA TO-15 & TO-14A
1,1,1-Trichloroethane by EPA TO-15 & TO-14A
1,1,2,2-Tetrachloroethane by EPA TO-15 & TO-14A
1,1,2-Trichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethene by EPA TO-15 & TO-14A
1,2-Dichloroethane by EPA TO-15 & TO-14A
1,2-Dichloropropane by EPA TO-15 & TO-14A
Bromoform by EPA TO-15
Bromomethane by EPA TO-15 & TO-14A
Carbon tetrachloride by EPA TO-15 & TO-14A
Chloroethane by EPA TO-15
Chloroform by EPA TO-15 & TO-14A
Chloromethane by EPA TO-15 & TO-14A
cis-1,2-Dichloroethene by EPA TO-15
cis-1,2-Dichloropropene by EPA TO-15 & TO-14A
Methylene chloride by EPA TO -15 & TO-14A
Tetrachloroethane by EPA TO-15 & TO-14A
trans-1,2-Dichloroethene by EPA TO-15
trans-1,2-Dichloropropene by EPA TO-15 & TO-14A
Trichloroethene by EPA TO-15 & TO-14A
Vinyl chloride by EPA TO -15 & TO-14A
2-Butanone by EPA TO-15
4-Methyl-2-Pentanone by EPA TO-15
Hexane by EPA TO-15
Methyl tert-butyl ether by EPA TO-15
Vinyl acetate by EPA TO-15

This certification applies to samples analyzed in summa canisters.

Chain of Custody Record

Mobile Geochemistry Inc.
☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 12/23/10
(NV) H&P Project # SCS12310-12
Outside Lab:

Client: SCS Engineers
Address: 8799 Balboa Ave., Suite 290
San Diego, CA 92123
Email: CCrosby@SCSengineers.com

Collector: Chris Crosby / Alissa Barrow
Client Project # 01208473.00
Location: Wigington Oil: 11427 Woodside Ave., Santee CA
Phone: 858-571-5500 Fax: 858-571-5557

Page: 1 of 2
Project Contact: Chuck Houser
Turn around time: Normal

Geotracker EDF: Yes ☑ No ☐
Global ID: T0607303173
Excel EDD: Yes ☑ No ☐

Sample Receipt
Intact: ☐ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☐ N/A
Cold: ☐ Yes ☐ No ☐ N/A
Temperature: 2°C

Special Instructions:
- Please cc results to chouser@SCSengineers.com
- Please send Invoice ASAP.

Lab Work Order # EO12116

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B ☒ BTEX/OXY ☐ TPH gas	8015M TPH ☒ g ☒ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☐ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ____ ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS										
MW-1			1310	12/20/10	GW	VOA	6		☒	☒												
MW-4			1215	12/23/10	↓	↓	↓		☒	☒												
~~MW-5~~																						
MW-6			1430	12/20/10	GW	VOA	6		☒	☒												
MW-7			1420	12/21/10					☒	☒												
MW-8			1040	12/23/10					☒	☒												
MW-9			1320	12/20/10					☒	☒												
MW-10			1100	↓					☒	☒												
MW-11			1000	12/21/10					☒	☒												
MW-12			0945	12/23/10	↓	↓	↓		☒	☒												

Relinquished by (Signature) Chris Crosby	(company) SCS	Received by (Signature)	(company) H&P	Date 12/23/10	Time 14:50
Relinquished by (Signature)	(company)	Received by (Signature)	(company)	Date	Time
Relinquished by (Signature)	(company)	Received by (Signature)	(company)	Date	Time

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back

Sample disposal instruction: ☒ Disposal ☐ Return to client ☐ Pickup

Chain of Custody Record

H&P Mobile Geochemistry Inc.
☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 12/23/10
H&P Project # SCS122310-12
Outside Lab.

Client: SCS Engineers
Address: 8799 Balboa Ave., Suite 290
San Diego, CA 92123
Email: ccrosby@scsengineers.com

Collector: Chris Crosby / Alissa Barrow
Client Project # 01208473.00
Location: Wigington Oil: 11427 Woodside Ave., Santee CA
Phone: 858-571-5500 Fax: 858-571-5367

Page: 2 of 2
Project Contact: Chuck Houser
Turn around time: Normal

Geotracker EDF: Yes ☑ No ☐
Global ID: T0607303173
Excel EDD: Yes ☑ No ☐

Sample Receipt
Intact: ☐ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☐ N/A
Cold: ☐ Yes ☐ No ☐ N/A
Temperature: 2°C

Special Instructions
- Please cc results to chouser@scsengineers.com
- Please send Invoice ASAP

Lab Work Order # E012116

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B ☐ BTEX/OXY ☐ TPH gas	8015M TPH ☒ g ☒ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☐ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ____ ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2
					SOIL/GW							SOIL VAPOR/AIR ANALYSIS										
MW-13			1100	12/23/10	GW	VOA	6		X	X												
MW-14			1215	12/20/10					X	X												
MW-15			1230	12/21/10					X	X												
MW-16			1125	↓					X	X												
MW-17			1430	12/20/10	↓	↓	↓		X	X												

Relinquished by: (Signature) Chris Crosby	(company) SCS	Received by (Signature)	(company) H&P	Date: 12/23/10	Time: 14:56
Relinquished by (Signature)	(company)	Received by (Signature)	(company)	Date	Time
Relinquished by (Signature)	(company)	Received by (Signature)	(company)	Date	Time

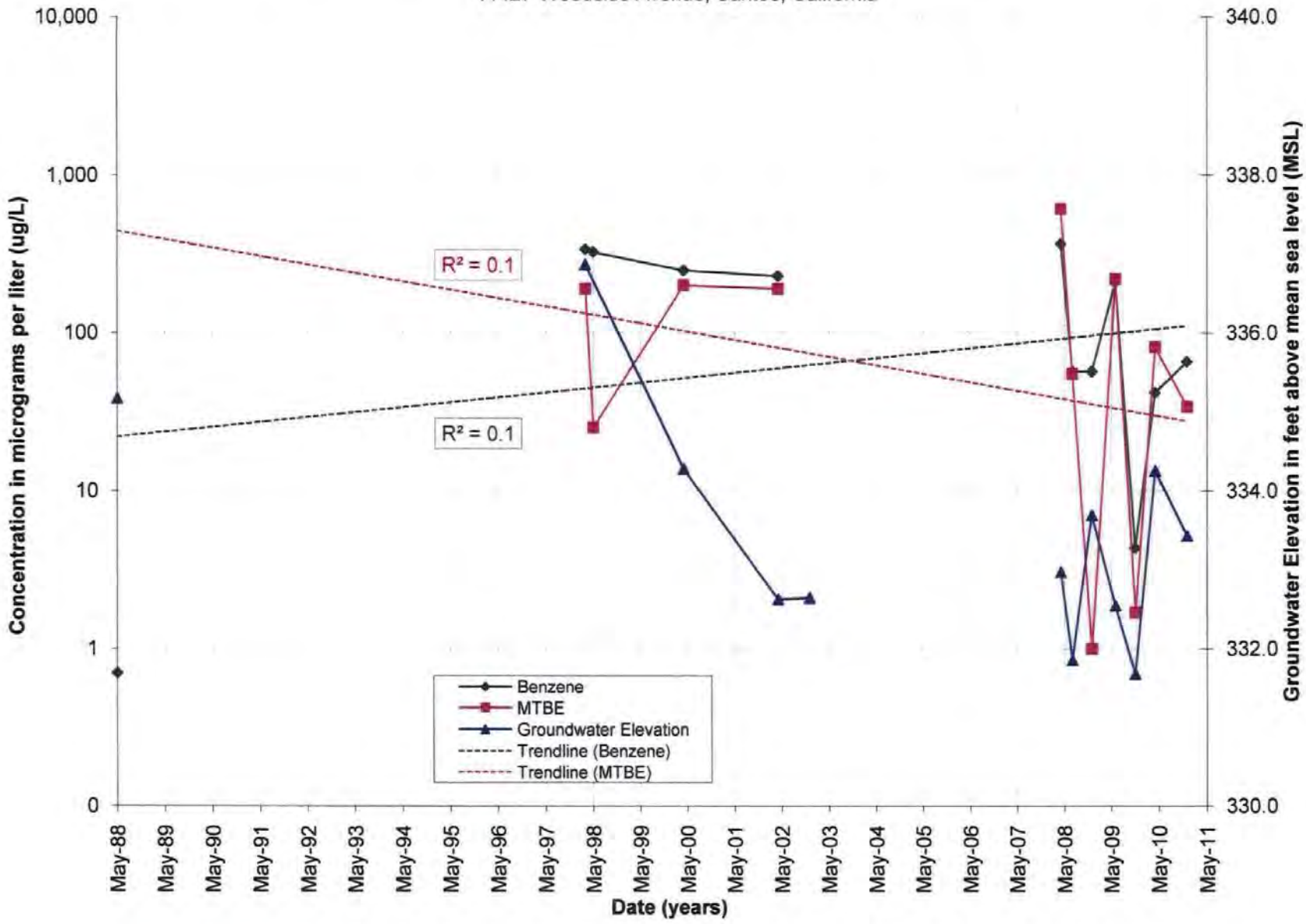
*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction ☒ Disposal ☐ Return to client ☐ Pickup

APPENDIX D

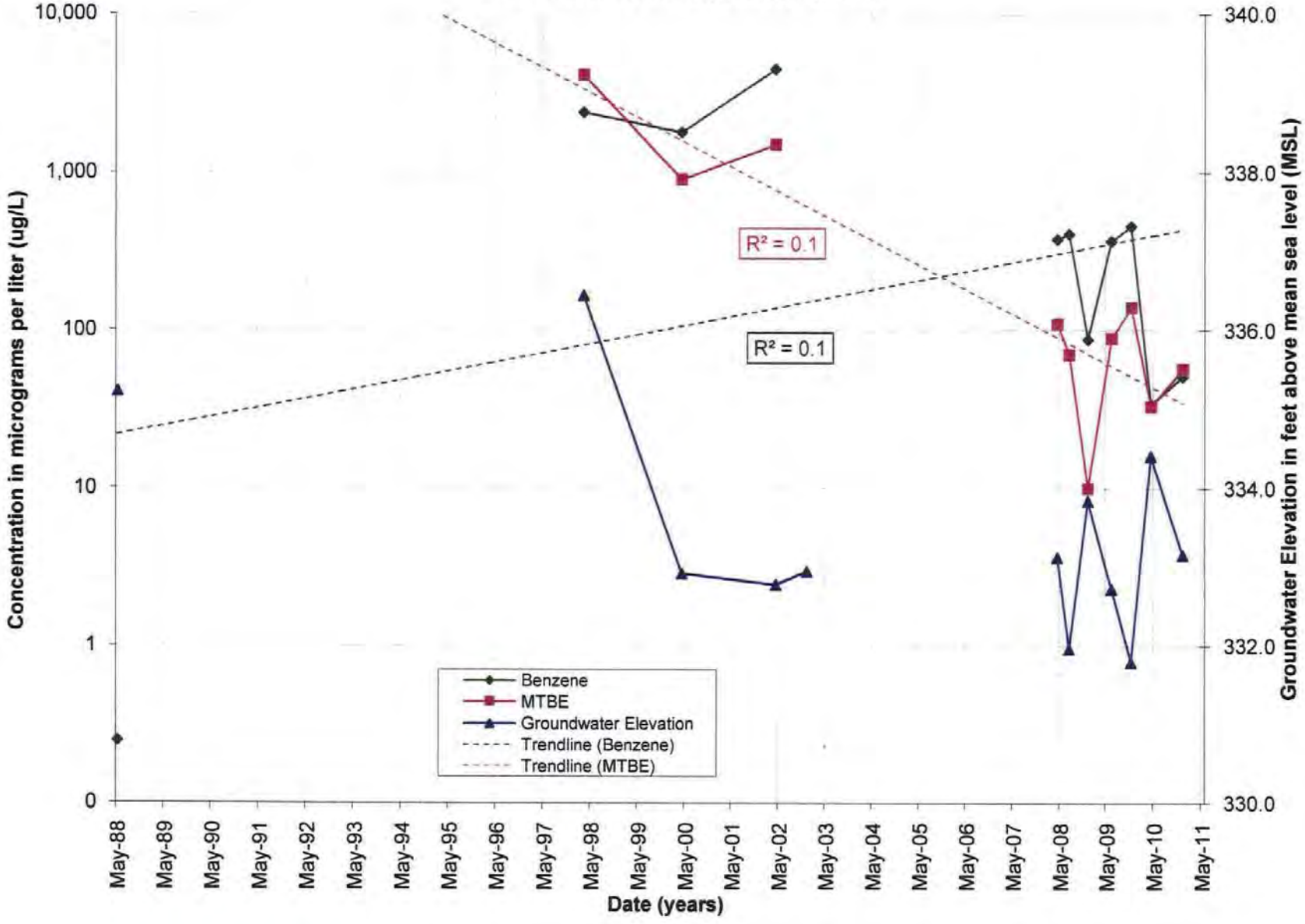
HYDROGRAPHS

MW-1
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



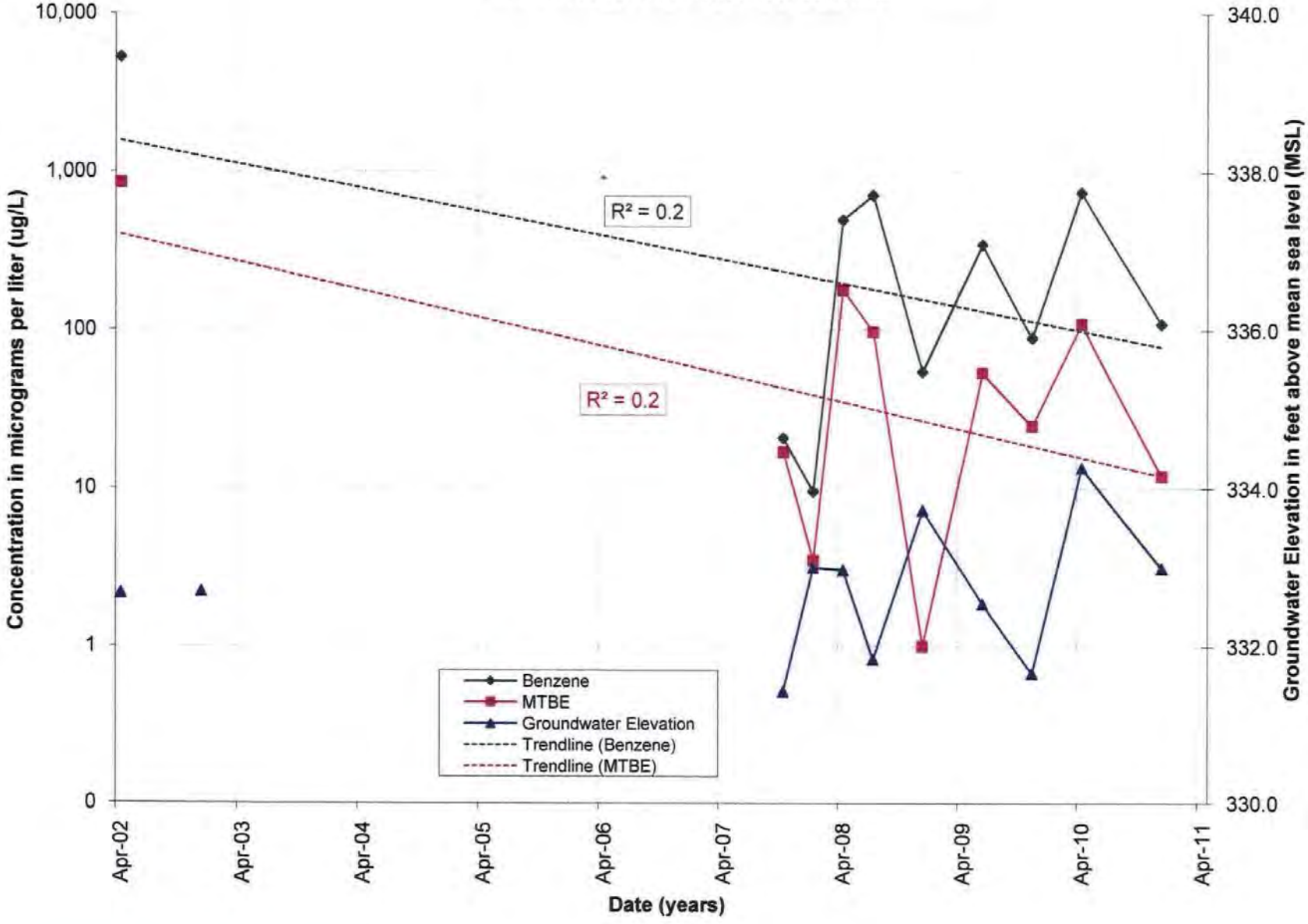
SCS ENGINEERS

MW-4
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



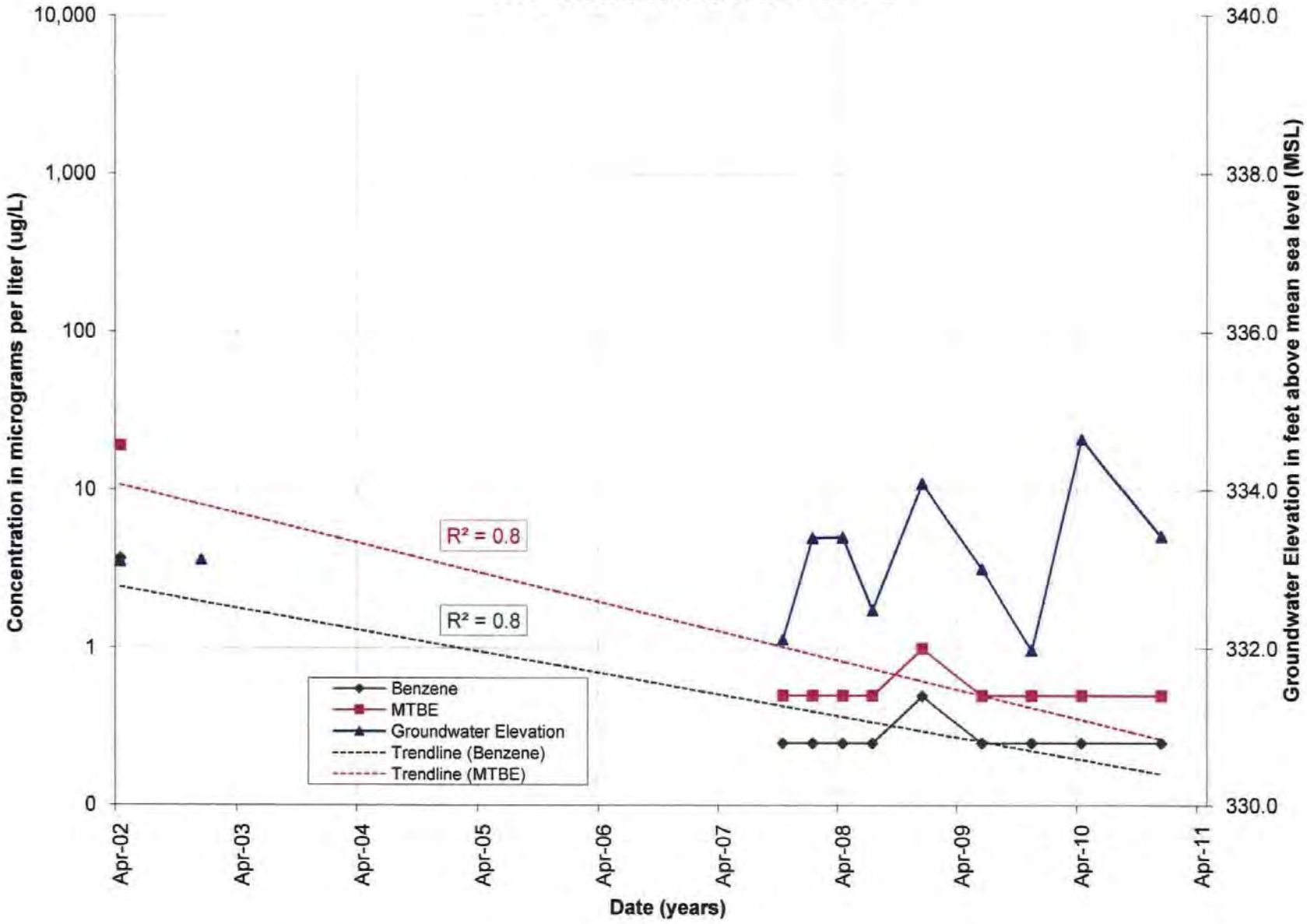
SCS ENGINEERS

MW-6
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



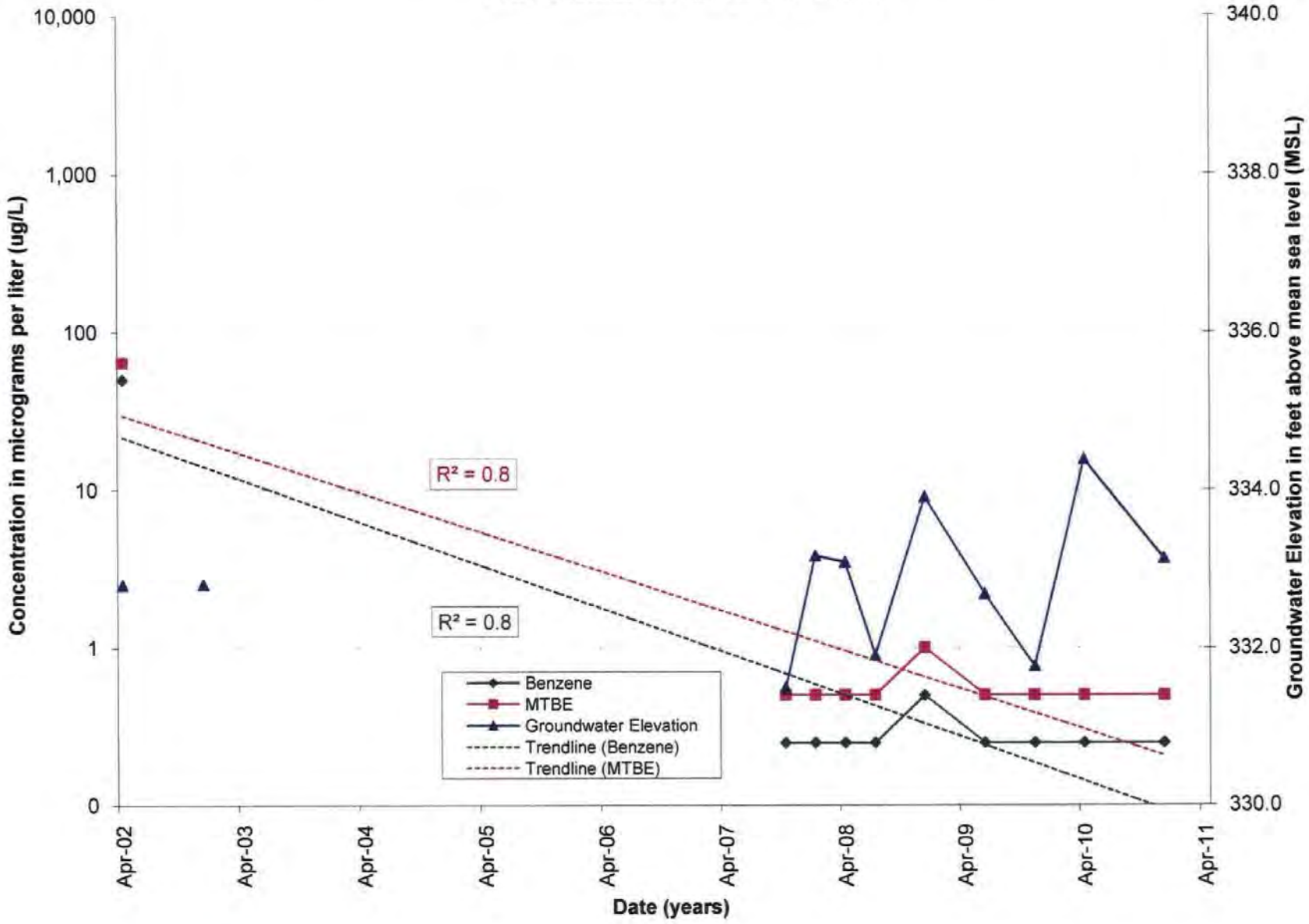
SCS ENGINEERS

MW-7
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



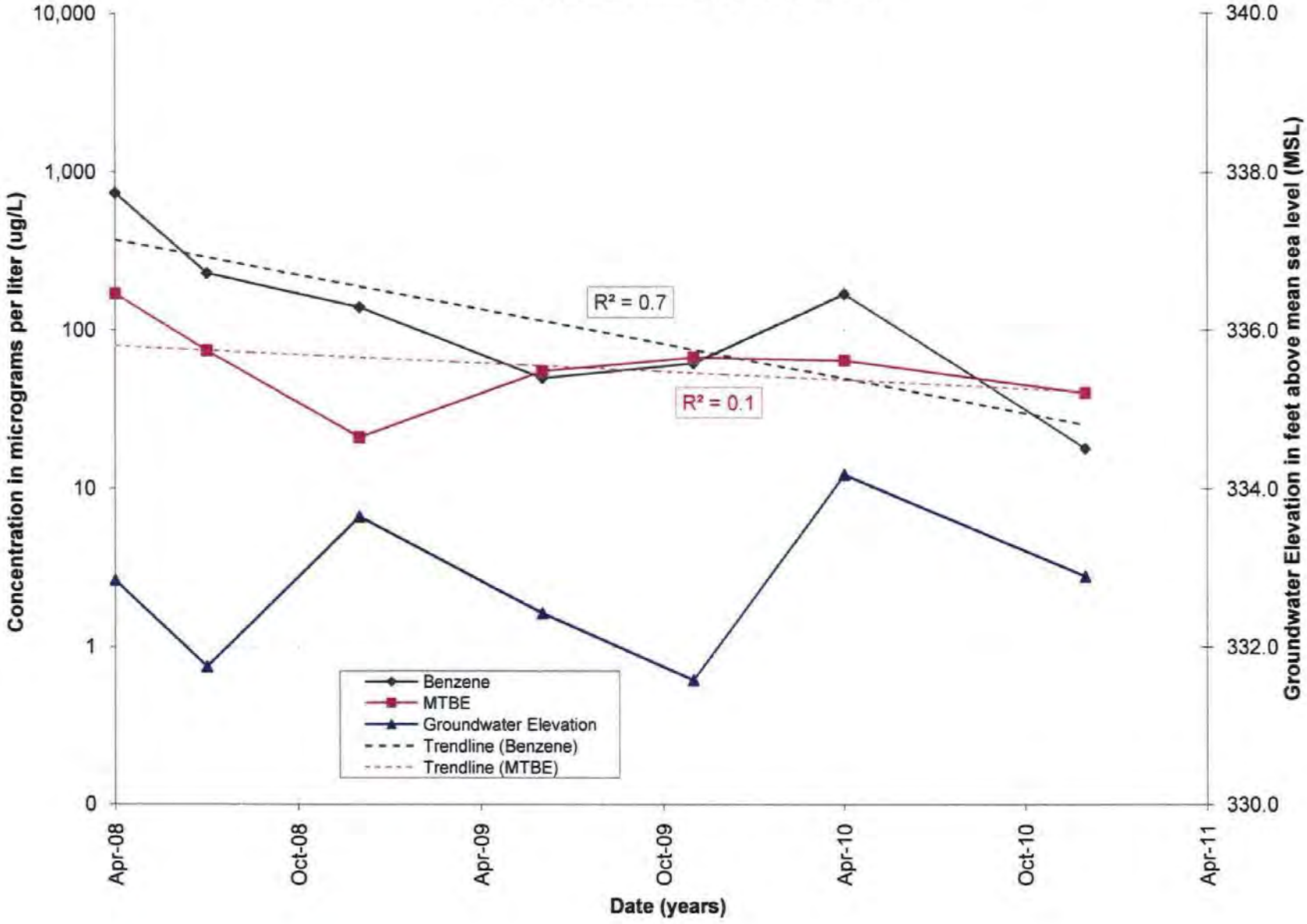
SCS ENGINEERS

MW-8
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



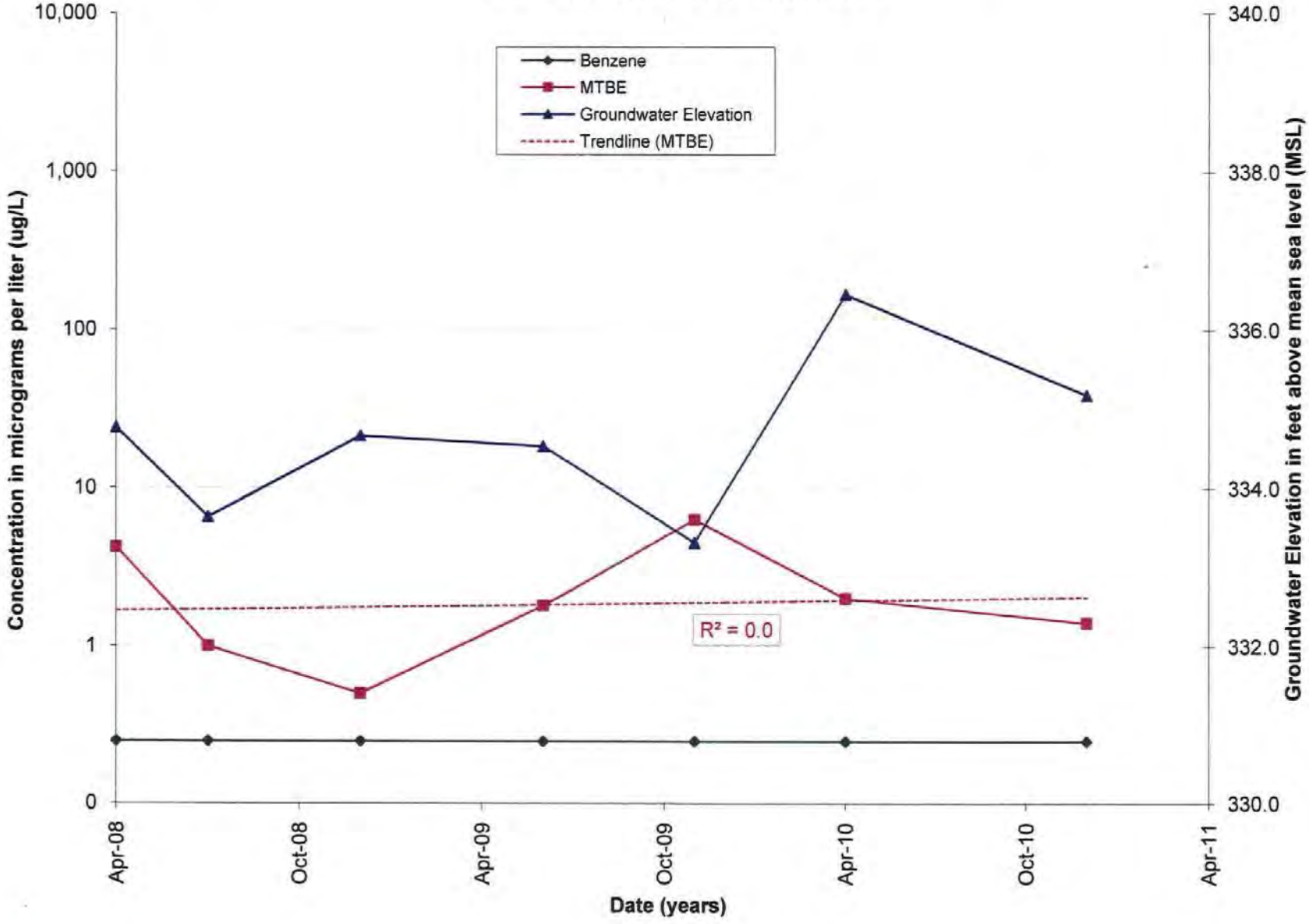
SCS ENGINEERS

MW-9
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



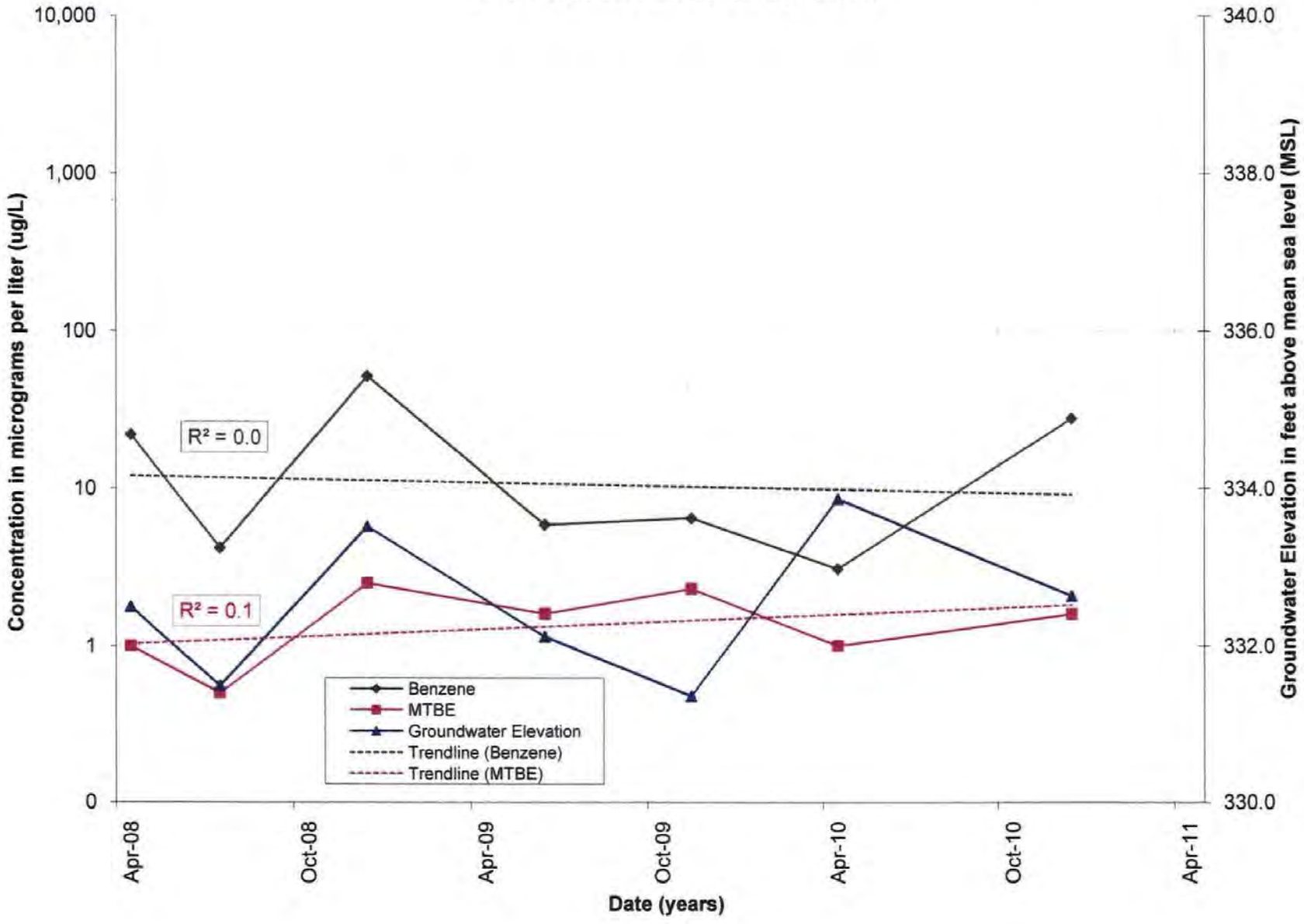
SCS ENGINEERS

MW-10
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



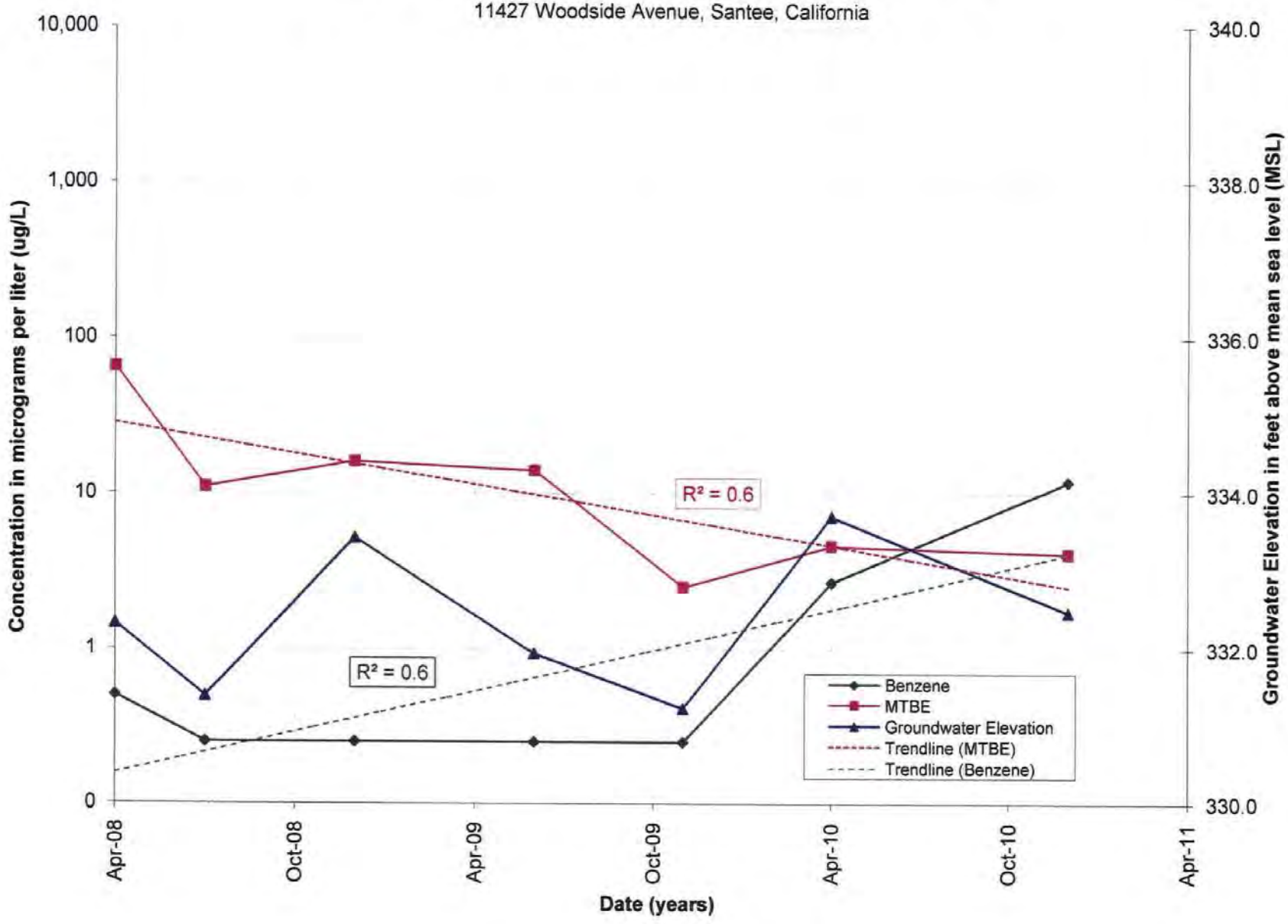
SCS ENGINEERS

MW-11
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



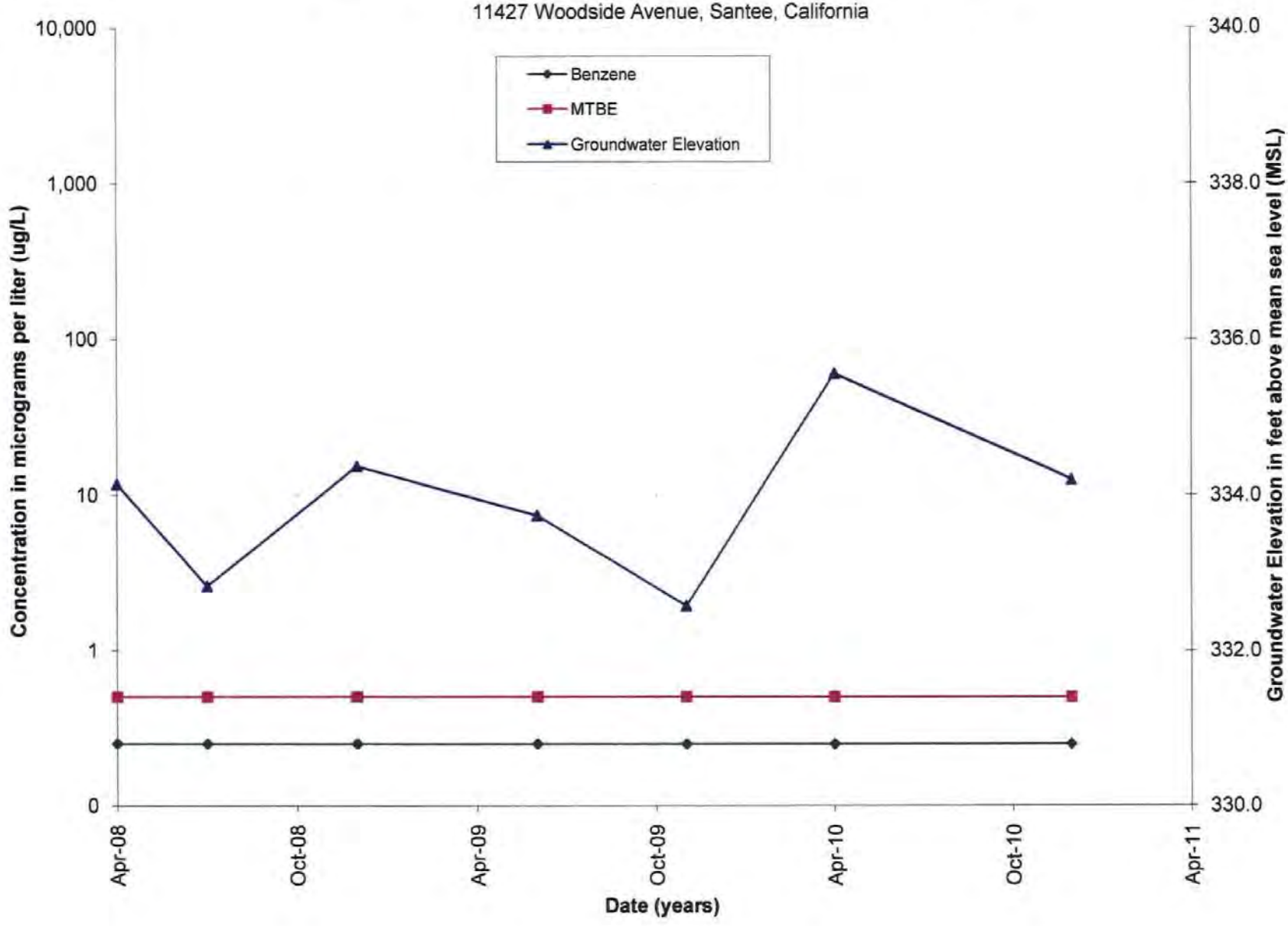
SCS ENGINEERS

MW-12
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



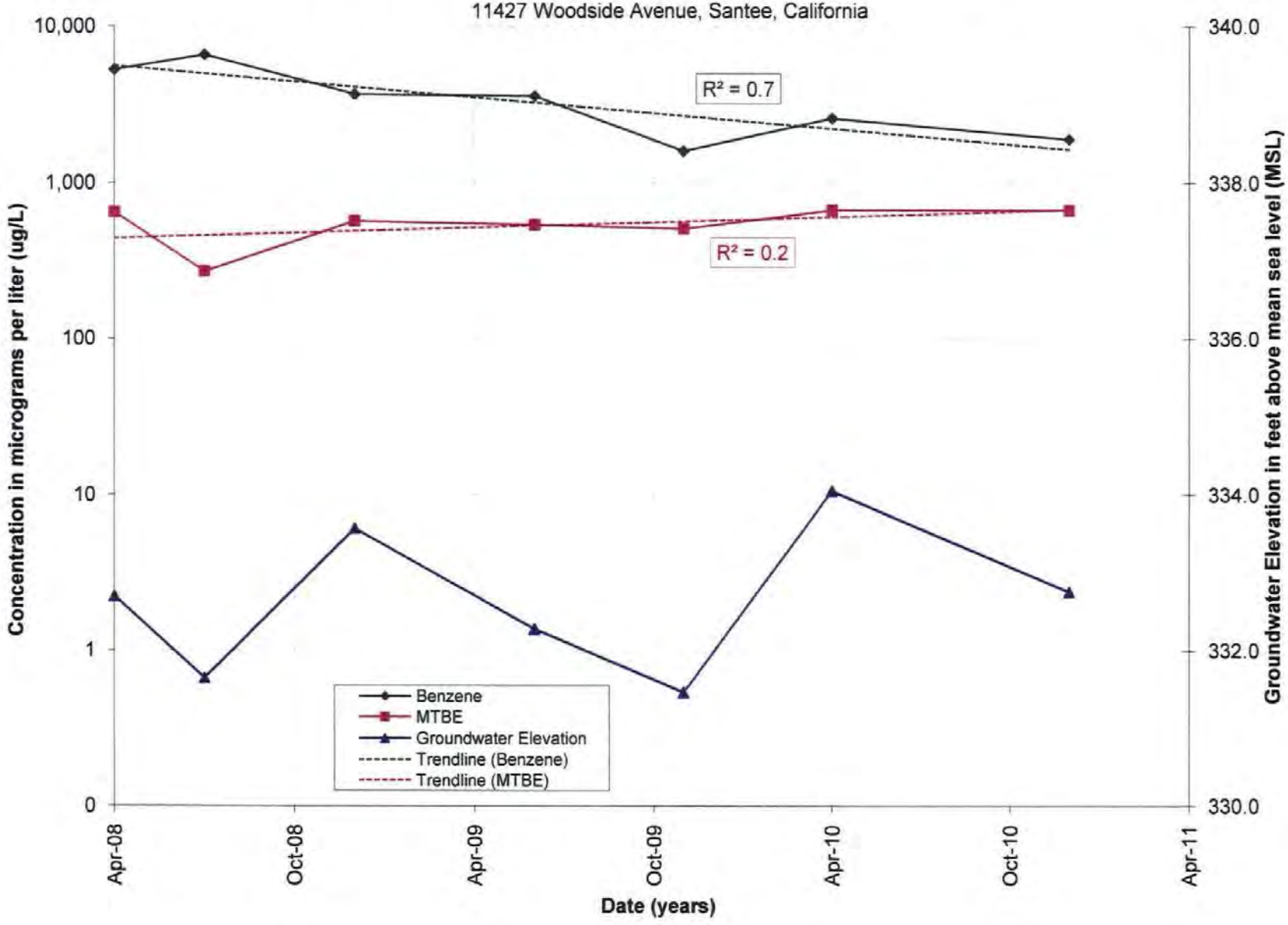
SCS ENGINEERS

MW-13
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



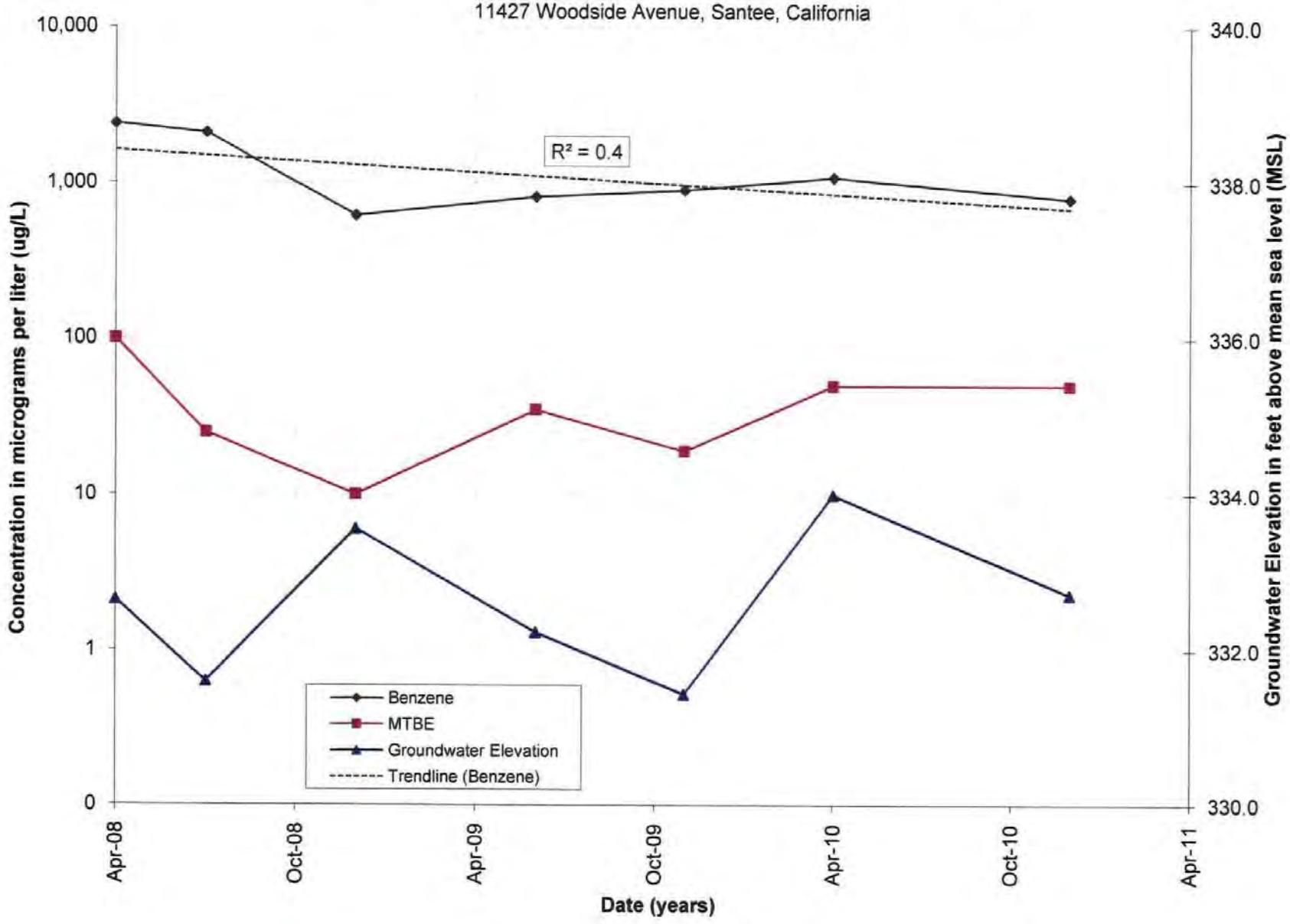
SCS ENGINEERS

MW-14
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



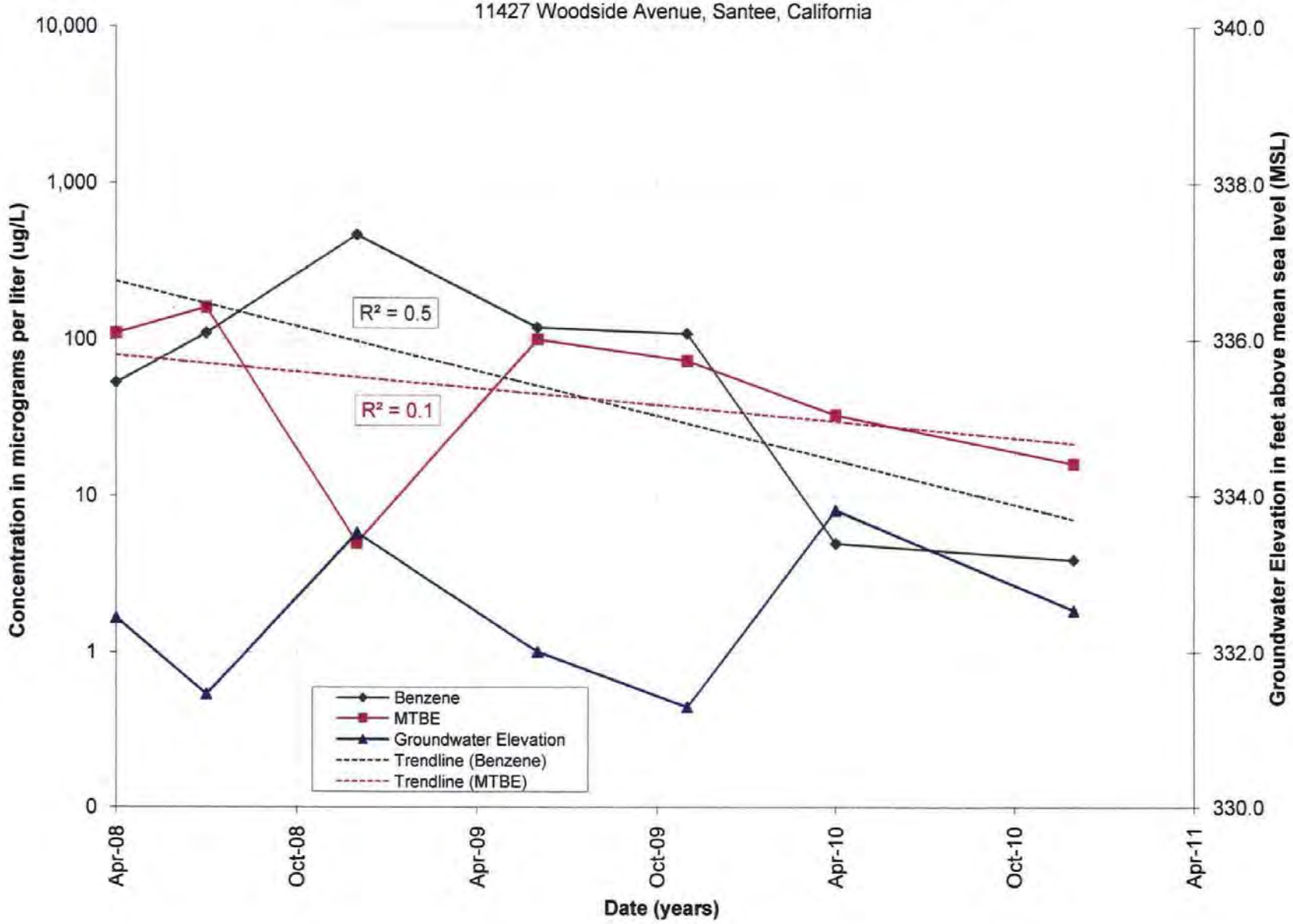
SCS ENGINEERS

MW-15
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



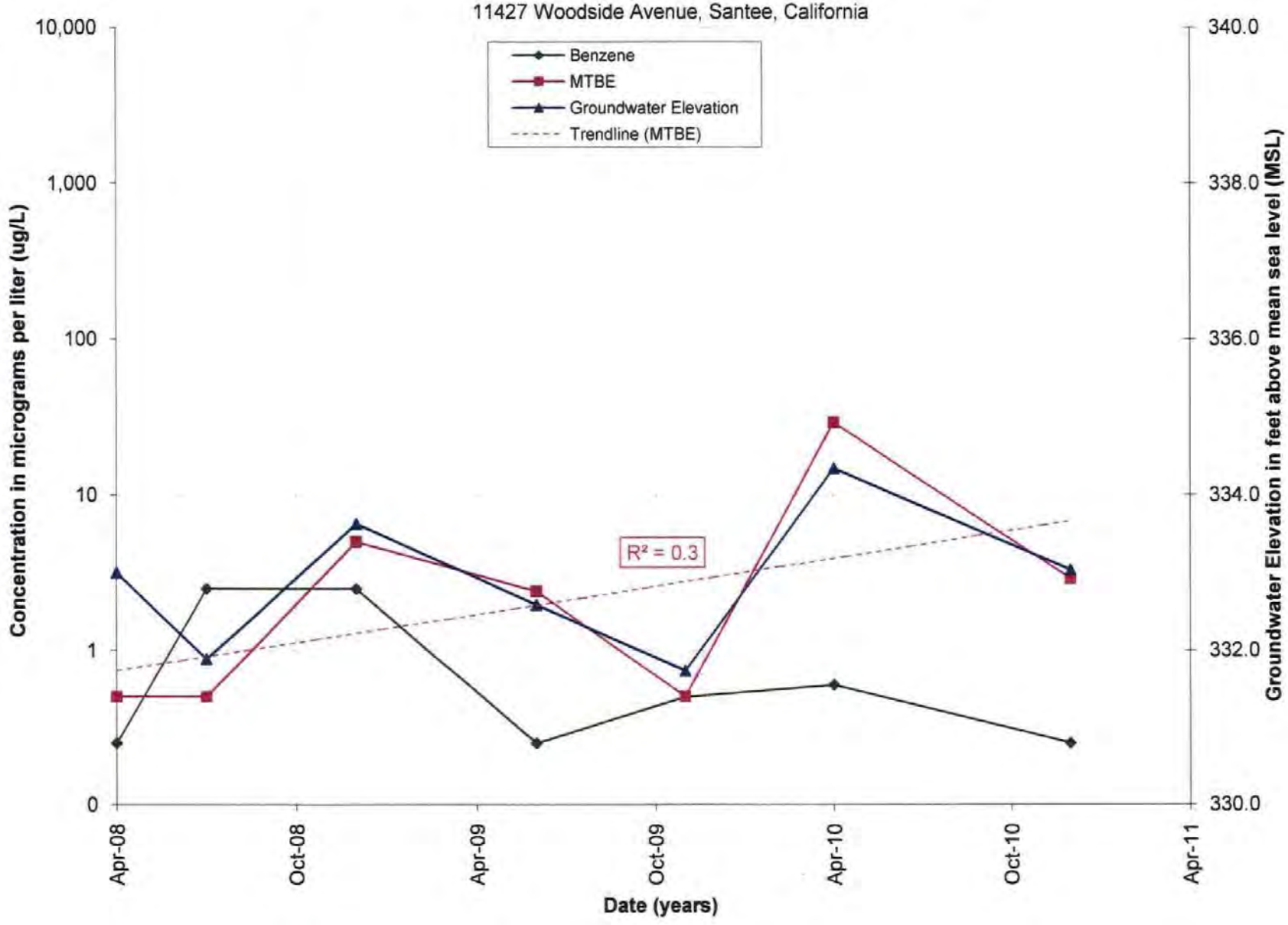
SCS ENGINEERS

MW-16
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



SCS ENGINEERS

MW-17
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



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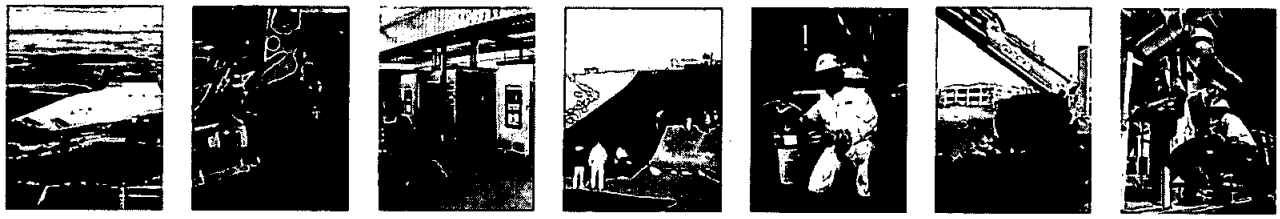

Semi-Annual Groundwater Monitoring
Second Quarter 2012

11427 Woodside Avenue

Santee, California

12/7/10

(DEH CASE #H19469-001)

Presented to:

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Presented by:

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December 3, 2012
Project Number: 01208473.00

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Recd 12/4

December 3, 2012
Project No. 01208473.00

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Subject: Semi-Annual Groundwater Monitoring Event Conducted During June 2012 (2Q2012)

DEH File Number: H19469-001

Site: 11427 Woodside Avenue
Santee, California

Dear Ms. Beacon:

SCS Engineers (SCS) is pleased to present this report (Report) of the semi-annual groundwater monitoring and sampling activities (Assessment) at the above-referenced Site (Figures 1 and 2). This Assessment was conducted in accordance with the guidelines set forth by the County of San Diego Department of Environmental Health (DEH), Site Assessment and Mitigation Program (SAM) and Scope of Service Change 2 (SSC 2) to Exhibit 00 to the Contract between SCS and Wigington Petroleum, Inc. (Client), fully executed on March 30, 2009.

Should you have any questions regarding this Report, please do not hesitate to call the undersigned at (858) 571-5500.

Sincerely,

Chris Crosby
Staff Professional
SCS ENGINEERS

Charles E. Houser, CHg 945
Project Manager
SCS ENGINEERS

PROFESSIONAL GEOLOGIST
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cc: Ms. Linda Wigington, c/o William Fischbeck, Esq.

State UST Cleanup Fund via upload to State Geotracker website

Enclosures
CC
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1 BACKGROUND

The Site is located at 11427 Woodside Avenue in the City of Santee, San Diego County, California (Site, Figure 1). The Site is currently occupied by a commercial fuel and oil facility (Figure 2). Between 1987 and 1998, 13 underground storage tanks (USTs) were reportedly removed from the Site. Analysis of soil samples collected during the UST removals indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Department of Environmental Health (DEH), Hazardous Materials Management Division (HMMD) directed that corrective measures be taken regarding the release.

A summary of the previous environmental assessments conducted at the Site follows:

- EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the Site between 1988 and 2005. A total of 18 borings and 7 groundwater monitoring wells (MW-1 through MW-4 and MW-6 through MW-8) were drilled and sampled by EnecoTech. An existing 12-inch diameter concrete water production well inside the Site building was labeled MW-5 and was also sampled during the monitoring events in March 1998 and April 2002.

- In 1988, EnecoTech reported that four USTs were removed from the Site. A Site assessment was performed immediately following the tank removal activities, during which 11 soil borings were drilled and sampled and 4 of the borings were completed as groundwater monitoring wells (MW-1 through MW-4).

- On August 19, 1993, the HMMD issued a Notice of Violation to El Capitan Oil Co. requiring corrective action relative to the release. The DEH Site Assessment and Mitigation Program (SAM) reportedly assumed oversight responsibility of the UST assessment and mitigation in mid-1993.

- EnecoTech reported that single-walled product piping was removed from the Site in October 1997.

- In April 1998, samples collected by EnecoTech from the areas where nine USTs were reportedly removed from the Site indicated a release of petroleum hydrocarbons.

- On March 14, 2000, EnecoTech produced a workplan titled, *Work Plan for Environmental Services*, which proposed the installation of two additional groundwater monitoring wells. SAM reportedly directed that four groundwater monitoring wells be installed in a letter dated May 8, 2000. EnecoTech installed two groundwater monitoring wells (MW-6 and MW-7) on February 26, 2001, and one groundwater monitoring well (MW-8) on April 19, 2002.

- Based on the results of EnecoTech's Site assessment activities, groundwater beneath the Site was interpreted to have been impacted by petroleum hydrocarbons from on-Site releases.

- On March 25, 2005, EnecoTech submitted a workplan for additional Site assessment, which proposed the installation of nine additional groundwater monitoring wells both on and off Site.

- In 2006, Petra Geotechnical Inc. (Petra) was retained to conduct the Site assessment work. The SAM Program approved EnecoTech's workplan in a letter, dated October 10, 2007. Petra proposed one well be installed in addition to the nine wells proposed by EnecoTech. The SAM Program agreed that an additional well was needed and requested a revised workplan. Petra submitted an addendum to the revised workplan, dated December 21, 2007, to include the installation of a tenth groundwater monitoring well. The SAM Program approved the revised workplan in a letter, dated January 15, 2008.

- On October 25, 2007, Petra assessed that phase-separated hydrocarbons (PSH) were present in monitoring wells MW-2, MW-3, and MW-4. Petra submitted a workplan titled, *Workplan for High Vacuum Dual Phase Extraction Pilot Test and Interim Remediation*, to the SAM Program, dated December 24, 2007. The SAM Program approved the workplan in a letter dated, January 16, 2008.

- Petra conducted a 33-day high-vacuum, dual-phase extraction (HVDPE) pilot test between January 22 and February 24, 2008. Approximately 3,256.17 pounds of petroleum hydrocarbons were removed and treated during the pilot test. During the pilot test, nine new monitoring wells (MW-9 through MW-17) were installed. The locations of these wells (MW-9 through MW-17) and previously existing wells (MW-1 through MW-8) are depicted on Figure 2. In April 2008, monitoring wells MW-1 through MW-4 and MW-6 through MW-17 were sampled.

- On July 25, 2008, Petra submitted a *Workplan for Well Maintenance and Well Destruction* to SAM to destroy well MW-5 and reconstruct the well heads for several monitoring wells. SAM approved this workplan in a letter, dated September 4, 2008. It is SCS's understanding that Petra subsequently destroyed MW-5.

- On July 13, 2009, SAM issued a letter that called for the reduction of the frequency of groundwater monitoring from quarterly to semi-annually, occurring during the second and fourth quarters.

- In 2009, SCS Engineers (SCS) was retained to conduct further groundwater monitoring and Site assessment beginning with the second quarter 2009 (2Q2009) groundwater monitoring event. SCS performed groundwater monitoring and sampling at the Site on June 2009 (2Q2009), November 2009 (4Q2009), April 2010 (2Q2010), and December 2010 (4Q2010).

- On February 19, 2010, SCS submitted a focused HVDPE pilot test workplan. SAM responded in a letter, dated March 16, 2010, stating that, prior to conducting remedial testing, an on-Site health risk assessment and delineation of the groundwater contamination should be completed.

- On April 26, 2010, SCS submitted a *Workplan for a Soil Vapor Survey and Health Risk Assessment* to SAM. SAM approved this workplan in a letter dated, May 18, 2010. Additionally, on April 26, 2010, SCS submitted a *Site Assessment Workplan* to SAM to install two additional groundwater monitoring wells (MW-18 and MW-19) in order to delineate the downgradient (westerly) and southernly extent of dissolved petroleum hydrocarbons in groundwater from the release at the Site. SAM approved this workplan in a letter dated, May 19, 2010.

- On April 28, 2011, SCS submitted a report titled, *Soil Vapor Survey and Health Risk Assessment* to SAM describing the installation and sampling activities of five nested soil vapor probes (SV1 through SV5) near the Site building conducted in March and April 2011. SAM concurred with SCS's conclusions in a letter, dated May 9, 2011, that there is a low likelihood that a significant health risk exists in connection with the concentrations of petroleum hydrocarbons in soil vapor beneath the on-Site building.

- On August 18, 2011, SCS submitted a report titled, *Additional Site Assessment and Semi-Annual Groundwater Monitoring Report 2Q2011*, to SAM describing the installation of two groundwater monitoring wells (MW-18 and MW-19) installed in March 2011 and the semi-annual sampling event conducted in April 2011. That report indicated that additional assessment was needed to the south of well MW-19.

- On May 18, 2012, SCS submitted a workplan for additional assessment south of well MW-19 at the Site. SAM issued a letter on May 29, 2012, granting approval of the workplan.

- SCS conducted groundwater monitoring and sampling during the fourth quarter of 2011 and, on February 13, 2012, submitted a report titled *Semi-Annual Groundwater Monitoring, Fourth Quarter 2011, 11427 Woodside Avenue, Santee, California.*

- During second quarter 2012 groundwater monitoring, described in this Report, PSH with the appearance of red-dyed diesel fuel was measured in well MW-10. Similar PSH has subsequently been monitored in wells MW-2, MW-3, MW-13, and MW-17. Wells MW-1, MW-4, and MW-7 have also been monitored and do not contain PSH. Therefore the PSH plume appears to be generally limited to the southeast portion of the Site and immediately off-Site.

The current Report describes the semi-annual groundwater monitoring event conducted during June 2012 (2Q2012).

2 SITE DESCRIPTION SUMMARY

Site Name:	Wigington Petroleum
Site Owner:	Wigington Petroleum, Inc.
Site Address:	11427 Woodside Avenue, Santee, California
DEH Case Number:	H19469-001
Cleanup Fund Claim Number:	912
Global ID:	T0607303173

3 OBJECTIVES

The objectives of the scope of services described in this Report were to:

- Assess the presence and extent of petroleum hydrocarbons and associated volatile organic compounds (VOCs) dissolved in groundwater at the Site.
- Assess the possible presence of PSH in groundwater at the Site.
- Assess the groundwater elevation and the hydraulic gradient at the Site.

4 SCOPE OF SERVICES

FIELD ACTIVITIES—GROUNDWATER SAMPLING AND ANALYSIS

Groundwater Monitoring and Sampling

On June 4, 2012, all 18 Site groundwater monitoring wells were monitored for depth to groundwater and for the presence of PSH. Well MW-10 had measurable PSH at a thickness of 2.34 feet and, therefore, was not sampled during the current sampling event. With the exception of MW-10, none of the Site wells had measurable PSH during this event. Depth-to-groundwater measurements were taken using an interface probe with a manufacturer's reported accuracy of 0.01 foot and are presented in Table 1.

On June 4 and 5, 2012, groundwater monitoring wells MW-1 through MW-4, MW-6 through MW-9, and MW-11 through MW-19 were purged and sampled in accordance with SAM guidelines. For fast-recovering wells (i.e., those recovering at least 80 percent within two hours), temperature, conductivity, and pH measurements (collectively referred to as purging parameters) were measured after the removal of the first borehole volume and each one-half borehole volume thereafter. Purging continued until at least one and one-half borehole volumes had been removed and purging parameters had stabilized to within 10 percent of the previous reading. Slow-recovering wells (i.e., those recovering less than 80 percent in two hours) were purged of one-

borehole volume. Purge water was placed in appropriate 55-gallon drums, labeled, and stored on Site pending disposal.

After purging was completed, the wells were allowed to recover. The fast-recovering wells (MW-1, MW-3, MW-4, MW-6 through MW-9, MW-11, MW-12, and MW-14 through MW-19) were sampled after at least 80 percent recovery. The slow-recovering wells (MW-2 and MW-13) were sampled at least two hours after purging was complete. Groundwater samples were collected from each well with a single-use, disposable bailer and decanted into laboratory-supplied vials. The groundwater sample containers were labeled and placed in an ice-filled cooler pending delivery to the laboratory. Chain-of-custody procedures were implemented for sample tracking. Copies of groundwater monitoring/sampling data sheets are included in Appendix A.

Groundwater Sample Analysis

Groundwater samples were analyzed by H&P Mobile Geochemistry, a state-accredited environmental testing laboratory, in Carlsbad, California, in accordance with SAM guidelines for the following:

- Total petroleum hydrocarbons as gasoline (TPHg) and diesel (TPHd) in general accordance with the California Department of Health and Services Leaking Underground Fuel Tank (CA DHS LUFT) Method.

- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) and fuel oxygenates in general accordance with Environmental Protection Agency (EPA) Method 8260B.

Disposal of Drummed Purged Groundwater and Rinsate Water

SCS submitted the necessary documentation to EFR Environmental Services (EFR) for the disposal of the drummed rinsate water and purged groundwater. On July 18, 2012, seven drums of water were transported off Site to the Crosby & Overton Plant #1 facility in Long Beach, California for treatment and reuse under a nonhazardous waste manifest. A copy of the preliminary Non-Hazardous Waste Manifest is included in Appendix B, along with the finalized Non-Hazardous Waste Disposal Manifest from the previous sampling event (December 2011) that was not available for publishing of the previous groundwater monitoring report.

PSH Monitoring

PSH monitoring was conducted on Site in wells MW-1 through MW-4 from September 4, 2009 to April 20, 2010 approximately two times per month. PSH has been measured by SCS in monitoring wells MW-2 (up to approximately 0.03 feet on September 4, 2009) and MW-3 (up to approximately 0.31 feet on November 30, 2009) (Table 2). PSH was not measured in any Site well between March 5, 2010 and April 20, 2010. As a result, since April 2010, PSH monitoring has been limited to semi-annual sampling events.

5 FINDINGS

GEOLOGY

Regional Geology

The Site is located in the Peninsular Ranges Geomorphic Province of Southern California. This province is typified by northwest- to southeast-trending mountain ranges approximately parallel to the San Andreas Fault and related regional fault systems. The Peninsular Ranges are generally characterized by granitic rocks of the Southern California batholith and associated metamorphic rocks. Sedimentary rocks ranging in age from Cretaceous to Pleistocene form the San Diego embayment and coastal terraces west of the batholith.

Based on SCS's review of previous Site assessments, materials encountered at the Site generally included fill soil, alluvium, residual soil, and weathered granitic rock. Following is a brief description of these units.

Site Geology

Fill Soil

This unit was encountered in wells MW-13, MW-15, and MW-16 and was interpreted by Petra to be derived from the local alluvial soils. This unit generally consisted of loose, brown to olive-brown to dark yellowish-brown, dry to moist, fine- to very coarse-grained sand with some gravel and asphalt fragments.

Alluvium

This unit generally consisted of brown to olive-brown, moist to wet, interbedded silty to clayey, fine- to very coarse-grained sand, with some gravel. This unit was interpreted to extend from the surface to depths ranging from approximately 10 feet (well MW-10) to 41.5 feet below ground surface (bgs) (wells MW-14, MW-15, and MW-16).

Residual Soil

This unit generally consisted of earth material derived from in-situ weathering of granitic bedrock, and consisted of dark brown to dark reddish-brown, moist, fine- to medium-grained clayey sand with some coarse-grained sand and gravel. This unit was encountered in MW-10, MW-17, and MW-13 at depths of approximately 10, 20, and 30 feet bgs, respectively.

Weathered Granitic Rock

This unit generally consisted of dark yellowish-brown to dark olive-brown, hard to very hard, weathered crystalline granitic rock. This unit was encountered in MW-10 and MW-17 at approximately 30 feet bgs and 45 feet bgs, respectively.

HYDROGEOLOGY

Based on review of a document titled, *Water Quality Control Plan, San Diego Basin - Region 9*, prepared by the San Diego Regional Water Quality Control Board (RWQCB), dated September 1994, the Site is interpreted to be located within the Santee Hydrologic Sub Area (7.12) of the

Lower San Diego Hydrologic Area (7.10) of the San Diego Hydrologic Unit (7.00). According to the RWQCB, the groundwater in this hydrologic unit has been classified as having existing beneficial uses for municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply purposes.

Groundwater Conditions

Groundwater elevations were calculated based on the surveyed top-of-well casing elevations and the measured depth to groundwater obtained from 18 Site wells (Table 1). Groundwater was encountered at depths ranging from approximately 28.60 (MW-7) to 34.35 (MW-17) feet below top-of-well casings. The groundwater elevations ranged from 332.65 feet above mean sea level (msl) in well MW-18 to 335.78 feet above msl in well MW-13. The groundwater flow direction was interpreted to be generally toward the west to west-southwest, with a gradient ranging from approximately 0.001 to 0.01 for the majority of the Site; however, groundwater near MW-19 appears to have a flow direction toward the south. The interpreted groundwater elevation contours and flow directions are depicted on Figure 3.

LABORATORY ANALYTICAL RESULTS

Groundwater Samples

Groundwater analytical results for TPH and VOCs from the 2Q2012 semi-annual sampling event are summarized in Table 3 and on Figure 5. Based on laboratory analytical results from the groundwater sampling event, wells MW-1 through MW-4, MW-6, MW-8, MW-9, MW-11, MW-12, MW-14 through MW-17, and MW-19 had detectable concentrations[1] of dissolved petroleum hydrocarbons. Concentrations of TPH and VOCs were reported as follows.

TPH

TPHg was reported at detectable concentrations in wells MW-6, MW-11, MW-14, MW-15, and MW-19. The reported TPHg concentrations ranged from 1,700 micrograms per liter (µg/L) in MW-11 to 44,000 µg/L in MW-15. No detectable concentrations of TPHg were reported in the remainder of samples analyzed.

TPHd was reported at detectable concentrations in wells MW-2, MW-6, MW-11, MW-14, MW-15, MW-16, and MW-19. The reported TPHd concentrations ranged from 640 µg/L in MW-16 to 8,200 µg/L in MW-15. No detectable concentrations of TPHd were reported in the remainder of samples analyzed.

BTEX

Benzene was reported at detectable concentrations in wells MW-1, MW-2, MW-4, MW-6, MW-9, MW-11, MW-12, MW-14 through MW-16, and MW-19. The reported benzene concentrations ranged from 0.6 µg/L in MW-2 to 3,000 µg/L in MW-14. No detectable

[1] For the purposes of this Report, "detectable concentrations" means concentrations above the laboratory reporting limits for the analytical method used.

concentrations of benzene were reported in the remainder of the groundwater samples analyzed. Iso-concentration contours for benzene are depicted on Figure 6.

Toluene was reported at detectable concentrations in wells MW-2, MW-4, MW-6, MW-9, MW-11, MW-12, MW-14 through MW-16, and MW-19. The reported toluene concentrations ranged from 0.7 µg/L in MW-12 to 870 µg/L in MW-19. No detectable concentrations of toluene were reported in the remainder of the groundwater samples analyzed.

Ethylbenzene was reported at detectable concentrations in wells MW-1, MW-2, MW-4, MW-6, MW-8, MW-9, MW-11, MW-14 through MW-16, and MW-19. The reported ethylbenzene concentrations ranged from 0.8 µg/L in MW-1 to 3,800 µg/L in MW-15. No detectable concentrations of ethylbenzene were reported in the remainder of the groundwater samples analyzed.

Xylenes were reported at detectable concentrations in wells MW-2, MW-4, MW-6, MW-9, MW-11, MW-14 through MW-16, and MW-19. The reported xylenes concentrations ranged from 1.3 µg/L in MW-4 to 6,790 µg/L in MW-15. No detectable concentrations of xylenes were reported in the remainder of the groundwater samples analyzed.

Fuel Oxygenates

Methyl tertiary butyl ether (MTBE) was reported at detectable concentrations in wells MW-1 through MW-4, MW-6, MW-9, MW-14, MW-16, and MW-17. The reported MTBE concentrations ranged from 1.3 µg/L in MW-17 to 390 µg/L in MW-14. No detectable concentrations of MTBE were reported in the remainder of the groundwater samples analyzed. Iso-concentration contours for MTBE are depicted on Figure 7.

Tertiary butyl alcohol (TBA) was reported at detectable concentrations in wells MW-1, MW-2, and MW-3 at 10, 720, and 15 µg/L, respectively. No detectable concentrations of TBA were reported in the remainder of the groundwater samples analyzed.

Detectable concentrations of ethyl tert-butyl ether (ETBE), tertiary amyl methyl ether (TAME), and di-isopropyl ether (DIPE) were not reported in any Site well during the current sampling event.

Copies of the laboratory analytical reports are included in Appendix C.

Hydrographs

Hydrographs depicting groundwater elevations and concentrations of dissolved-phase benzene and MTBE in groundwater versus time for wells MW-1 through MW-4, and MW-6 through MW-17 are included in Appendix D and discussed in the table below. Hydrographs for MW-18 and MW-19 were not included due to their involvement in only three sampling events, which are not statistically significant to derive trends. Linear regression trendlines of the benzene and MTBE concentrations are depicted on each hydrograph, as appropriate, with the calculated R-squared (R^2) value.

The R^2 value indicates the *goodness-of-fit* of the trendline to the data set. In general, an R^2 value between 0.7 and 1.0 would be a *good* fit, between 0.4 and 0.7 a *moderate* fit, and below 0.4 would be a *poor* fit. Over time, significant data gaps are present, limiting the ability to calculate representative data trends from several wells. Two significant data gaps occur between samplings events May 1988 and March 1998 and between April 2002 and October 2007. For illustration purposes, samples with no detectable concentration of benzene or MTBE were plotted at one-half of the laboratory reporting limit. Please note that the laboratory reporting limits have changed for benzene and MTBE over time; therefore, some wells may show detectable concentrations that are below previous laboratory reporting limits.

Well	Benzene Trendline	MTBE Trendline	Correlation with GW Elevation	Benzene/MTBE Above MCL	Comment
MW-1	Decreasing R^2=0.4	Decreasing R^2=0.2	No	Yes/No	Benzene and MTBE within historical range.
MW-2	Decreasing R^2=0.0	Decreasing R^2=0.4	Benzene – No MTBE - Weak	No	PSH historically present. Benzene and MTBE currently below MCLs.
MW-3	Decreasing R^2=0.5	Decreasing R^2=0.7	No	No/Yes	PSH historically present. Benzene historical low. MTBE near historical low.
MW-4	Decreasing R^2=0.8	Decreasing R^2=0.8	Inverse (2008-present)	Yes	Benzene and MTBE within historical range. Benzene near historical low.
MW-5	Abandoned by Petra				
MW-6	Decreasing R^2=0.0	Decreasing R^2=0.1	Yes, since June 2009	Yes	Benzene and MTBE within historical range.
MW-7	Decreasing R^2=0.5	Decreasing R^2=0.7	NA	No	Benzene below MCLs since Oct. 2007. MTBE below laboratory reporting limit.
MW-8	Decreasing R^2=0.7	Decreasing R^2=0.7	NA	No	Below laboratory reporting limit since Oct. 2007.
MW-9	Decreasing R^2=0.7	Decreasing R^2=0.6	Benzene – Weak MTBE – No	Yes/No	Historical low for benzene. MTBE near historic low.
MW-10	NA	Decreasing R^2=0.2	No	No	PSH detected during 2Q2012 monitoring activities
MW-11	Stable R^2=0.0	Stable R^2=0.0	No	Yes/No	Benzene within historical range. MTBE below MCL since installation.
MW-12	Increasing R^2=0.2	Decreasing R^2=0.7	No	Yes/No	Benzene within historical range. MTBE below MCL since Nov. 2009 and below laboratory limits during 2Q2012.
MW-13	NA	NA	NA	No	Benzene and MTBE below laboratory reporting limits since installation in April 2008.
MW-14	Decreasing R^2=0.4	Stable R^2=0.0	No	Yes	Benzene and MTBE within historical range.

Well	Benzene Trendline	MTBE Trendline	Correlation with GW Elevation	Benzene/MTBE Above MCL	Comment
MW-15	Decreasing R^2=0.2	NA*	No	Benzene – Yes MTBE – <100	Benzene within historical range. MTBE below laboratory reporting limits since April 2010.
MW-16	Decreasing R^2=0.4	Decreasing R^2=0.3	No	Yes	Benzene and MTBE within historical range.
MW-17	NA	Increasing R^2=0.0	MTBE - Weak	No	Benzene below MCLs since sampling began. MTBE below MCLs sine Dec. 2010.

Notes:
MCL's = Maximum contaminant levels, California Code of Regulations, Section 64444.5, dated July 27, 2011.
MCL for benzene = 1 ug/L; MCL for MTBE = 13 ug/L.
GW = Groundwater
NA = Not applicable either due to values below laboratory reporting limits or due to the presence of PSH
ND = Not detected above laboratory reporting limit
MTBE = Methyl tertiary butyl ether
ug/L = Micrograms per liter
* = MTBE trendline not calculated for MW-15 due to increased laboratory reporting limit

6 DISCUSSION

INTERPRETED EXTENT OF PETROLEUM HYDROCARBONS IN GROUNDWATER

Analytical results from the June 2012 sampling event were compared to those obtained during previous monitoring events conducted at the Site beginning in May 1988. Groundwater sample analytical results are summarized in Table 3 and Figures 4 and 5. Hydrographs for wells MW-1 through MW-4, and MW-6 through MW-17 are included in Appendix D. The following is a summary of trends on Site since the last semi-annual monitoring and sampling event. Please note that the discussion of recent trends in groundwater elevations and conditions may apply to more than just the interval between the fourth quarter 2011 monitoring event and this second quarter 2012 event.

- With the exception of MW-10, PSH was not detected in any Site well during this event. Historically MW-1 through MW-4 have had detections of PSH at least once.

- Reported TPHg concentrations during this event were below laboratory reporting limits in wells MW-1 through MW-4, MW-7 through MW-9, MW-12, MW-13, and MW-16 through MW-18; at a historical low for MW-19; and within historical ranges for the remaining wells with detectable TPHg.

- Reported TPHd concentrations during this event were below laboratory reporting limits in wells MW-1, MW-3, MW-4, MW-7 through MW-9, MW-12, MW-13, MW-17, and MW-18; at a historical low for MW-19; and within historical ranges for the remaining wells with detectable TPHd. The reported detectable TPHd

concentrations during this event were flagged by the laboratory stating, "results in the diesel organics range are primarily due to overlap from a gasoline-range product."

- Since the last sampling event in December 2011, reported benzene concentrations during this event have decreased in wells MW-1, MW-4, MW-9, MW-11, and MW-19. They remain stable at or below the laboratory reporting limit in wells MW-3, MW-7, MW-8, MW-13, MW-17, and MW-18. The reported benzene concentrations have increased in wells MW-2, MW-6, MW-12, and MW-14 through MW-16 since the last sampling event.

- Since the last sampling in December 2011, reported MTBE concentrations during this event have decreased in wells MW-1, MW-4, MW-11, and MW-12. They remain stable at or below the detection limit in wells MW-7, MW-8, MW-13, MW-15, MW-18, and MW-19. The reported MTBE concentrations during this event have increased in wells MW-2, MW-3, MW-6, MW-9, MW-14, MW-16, and MW-17 since the last sampling event. Well MW-17 is the only Site well showing an overall increasing MTBE concentration trend, however the current concentrations are below the MCL.

The interpreted extents of dissolved benzene and MTBE in groundwater, based on the quarterly sampling conducted during June 2012, are depicted on Figures 6 and 7, respectively.

7 CONCLUSIONS

Based on the data collected during this Assessment, including but not limited to laboratory results, field observations and data evaluation by a professional geologist, and current regulatory guidelines, the following conclusions are made:

- Phase-separated hydrocarbons (PSH) were observed in well MW-10 at a thickness of 2.34 feet. PSH were not observed in the remaining Site wells during the second quarter 2012 sampling event. However, due to an apparent recent release of red-dyed diesel fuel from the on-Site above-ground storage tank (AST) system, PSH has been measured since June 2012 in wells MW-2, MW-3, MW-13, and MW-17. A separate case has been opened with the County of San Diego Voluntary Assistance Program (VAP) to oversee the assessment and remediation of the red-dyed diesel fuel release.

- On June 4, 2012, depth to groundwater was observed to be between 28.60 (MW-7) to 34.35 (MW-17) feet below top-of-well casings. The groundwater elevations ranged from 332.65 feet above msl in well MW-18 to 335.78 feet above msl in well MW-13. The groundwater flow direction was interpreted to be generally toward the west to west-southwest, with a gradient ranging from approximately 0.001 to 0.01 for the majority of the Site; however, groundwater near MW-19 appears to have a flow direction toward the south.

- The extent of dissolved benzene and MTBE concentrations in groundwater has generally been delineated to the north, east, west, and southwest; however, delineation is not complete to the south-southeast of MW-19. A workplan to install a

well south-southeast of well MW-19 has been approved by the DEH. This well will be installed soon.

8 RECOMMENDATIONS

Based on SCS's assessment of the Site, the following recommendations are made:

- Implement the approved workplan for additional assessment dated May 18, 2012 to install one additional groundwater monitoring well (MW-20) toward the south-southeast of MW-19.
- Continue semi-annual monitoring and sampling to evaluate the TPH and VOC trends in the monitoring wells at the Site.
- Install additional on-Site observation wells approved in the May 18, 2012, workplan, and conduct additional pilot testing using high-vacuum, dual-phase extraction (HVDPE).

9 REPORT USAGE AND FUTURE SITE CONDITIONS

This Report is intended for the sole usage of the Client and the parties designated by SCS. Use of this Report is subject to the provisions of the fully executed Contract between the Client and SCS. Any third party usage of this Report shall be subject to the provisions of the Contract, and any unauthorized misuse of or reliance upon the Report shall be without risk or liability to SCS.

The conclusions of this Report are judged to be relevant at the time the work described in this Report was conducted. Future conditions may differ and this Report should not be relied upon to represent future Site conditions unless a qualified consultant familiar with the practice of Phase II environmental assessments in San Diego County is consulted to assess the necessity of updating this Report.

Although this Assessment has attempted to assess the likelihood that the Site has been impacted by a hazardous material/waste release, potential sources of impact may have escaped detection for reasons that include, but are not limited to: 1) inadequate or inaccurate information rightfully provided to SCS by third parties, such as public agencies and other outside sources; 2) the limited scope of this Assessment; and 3) the presence of undetected, unknown, or unreported environmental releases.

10 LIKELIHOOD STATEMENTS

Statements of "likelihood" have been made in this report. Likelihood statements are based on professional judgments of SCS. The term "likelihood," as used herein, pertains to the probability of a match between the prediction for an event and its actual occurrence. The likelihood statement assigns a measure for a "degree of belief" for the match between the prediction for the event and the actual occurrence of the event.

The likelihood statements in this Report are made qualitatively (expressed in words). The qualitative terms can be approximately related to quantitative percentages. The term "low likelihood" is used by SCS to approximate a range of 10 to 20 percent; the term "moderate likelihood" refers to an approximate range of 40 to 60 percent; and the term "high likelihood" refers to an approximate range of 80 to 90 percent.

TABLES

Table 3
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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-1 (installed 5/11/88)	05/25/88	0.6	NA	NA	0.7	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	2,500	910	340	200	18	240	190	NA	NA	NA	NA
	05/18/98	NA	704	< 500	326	89.5	< 50.0	< 100	< 50.0	NA	NA	NA	NA
	04/05/00	NA	1,800	NA	250	14	34	380	200	NA	NA	NA	NA
	04/26/02	NA	1,100	1,100	230	14	36	220	190	< 40	< 40	500	< 40
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	2,800	980	370	6.6	170	227.8	610	NA	NA	NA	NA
	07/28/08	NA	420	< 500	57	< 0.5	19.0	15	55	NA	NA	NA	NA
	12/29/08	NA	440	720	57	< 1.0	30	26	< 2.0	< 2.0	< 2.0	27	< 2.0
	06/18/09	NA	< 500	< 500	210	1.0	38	17.7	220	< 1.0	< 1.0	140	< 1.0
	11/17/09	NA	< 500	< 500	4.4	0.6	2.5	1.1	1.7	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	42	<0.5	3.7	1.1	81	< 1.0	< 1.0	49	< 1.0
	12/20/10	NA	< 500	< 500	66	<0.5	35	4.6	34	< 1.0	< 1.0	15	< 1.0
	04/04/11	NA	< 500	< 500	78	1.3	9.8	10.4	52	< 1.0	< 1.0	40	< 1.0
	12/21/11	NA	< 500	< 500	130	< 0.5	19	1.0	14	< 1.0	< 1.0	59	< 1.0
	06/05/12	NA	< 500	< 500	13	< 0.5	0.8	< 1.5	3.0	< 1.0	< 1.0	10	< 1.0
MW-2 (installed 5/12/88)	05/25/88	< 0.5	NA	NA	< 0.5	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	330	< 500	20	3.3	25	47	53	NA	NA	NA	NA
	04/04/00	NA	7,600	NA	7.6	3.3	30	59	3,500	NA	NA	NA	NA
	04/26/02	NA	6,000	160,000	9.2	3.9	16	17	3,100	< 40	< 40	500	< 40
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	510	6,400	< 10	< 10	< 10	< 30	1,300	NA	NA	NA	NA
	07/28/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	12/30/08	NA	440	22,000	< 2.5	< 2.5	4.0	< 10	< 5.0	< 5.0	< 5.0	2,100	< 5.0
	06/19/09	NA	< 500	< 500	< 0.5	< 0.5	4.9	< 1.5	8.3	< 1.0	< 1.0	2,000	< 1.0
	11/18/09	NA	2,300	< 500	1.0	0.7	3.4	< 1.5	1.9	< 1.0	< 1.0	1,100	< 1.0
	04/21/10	NA	< 500	7,400	< 0.5	< 0.5	3.7	< 1.5	20	< 1.0	< 1.0	170	< 1.0
	12/20/10	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/06/11	NA	< 500	2,600	< 0.5	< 0.5	< 0.5	< 1.5	13	< 1.0	< 1.0	490	< 1.0
	12/22/11	NA	< 500	3,600	< 0.5	< 0.5	< 0.5	< 1.5	3.5	< 1.0	< 1.0	1,200	< 1.0
	06/05/12	NA	< 500	5,100	0.6	1.3	2.3	11.6	8.0	< 1.0	< 1.0	720	< 1.0

Table 3
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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-3 (installed 5/13/88)	05/25/88	140	NA	NA	19	3.4	NA	1.3	NA	NA	NA	NA	NA
	03/10/98	NA	2,300	5,100	3.6	0.7	0.7	4.1	2,000	NA	NA	NA	NA
	05/18/98	NA	115	< 500	98.5	< 12.5	< 12.5	< 25.0	226	NA	NA	NA	NA
	04/05/00	NA	420	NA	18	1.7	3.9	12	230	NA	NA	NA	NA
	04/26/02	NA	9,700	190,000	92	< 3.0	56	62	590	< 100	< 100	< 1,200	< 100
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	< 500	1,800	2.8	< 1.0	< 1.0	< 3.0	99	NA	NA	NA	NA
	07/28/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	12/30/08	NA	230	3,200	1.7	< 0.5	0.61	< 2.0	110	< 1.0	< 1.0	59	< 1.0
	06/19/09	NA	< 500	< 500	0.5	< 0.5	< 0.5	< 1.5	77	< 1.0	< 1.0	400	< 1.0
	11/17/09	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/21/10	NA	< 500	5,900	1.3	< 0.5	1.2	< 1.5	90	< 1.0	< 1.0	43	< 1.0
	12/20/10	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/06/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	96	< 1.0	< 1.0	9.5	< 1.0
	12/22/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	64	< 1.0	< 1.0	7.0	< 1.0
	06/06/12	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	78	< 1.0	< 1.0	15	< 1.0
MW-4 (installed 5/13/88)	05/25/88	6.3	NA	NA	< 0.5	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	9,600	3,700	2,400	250	50	430	4,100	NA	NA	NA	NA
	04/04/00	NA	8,700	NA	1,800	< 12	110	790	900	NA	NA	NA	NA
	04/26/02	NA	15,000	95,000	4,500	150	450	1,900	1,500	< 100	< 100	< 1,200	< 100
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	2,000	4,500	380	2.9	95	41.0	110.0	NA	NA	NA	NA
	07/28/08	NA	2,100	1,300	410	< 2.5	72.0	< 10	70	NA	NA	NA	NA
	12/30/08	NA	4,900	3,400	88	< 10	20	53	< 20	< 20	< 20	< 200	< 20
	06/18/09	NA	< 500	< 500	370	2.0	58	11.6	89	< 1.0	< 1.0	24	< 1.0
	11/18/09	NA	3,300	2,600	460	11	130	70.4	140	< 1.0	< 1.0	< 5.0	< 1.0
	04/21/10	NA	< 500	< 500	34	0.5	4.7	1.0	33	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	51	1.2	20	4.7	57	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	860	43	2.7	11	8.3	29	< 1.0	< 1.0	< 5.0	< 1.0
	12/22/11	NA	< 500	820	44	1.9	15	6.0	48	< 1.0	< 1.0	< 5.0	< 1.0
	06/04/12	NA	< 500	< 500	39	1.2	21	1.3	42	< 1.0	< 1.0	< 5.0	< 1.0

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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-5 (instalation unknown)	03/10/98	NA	730	1,700	20	0.6	< 0.30	39	92	NA	NA	NA	NA
	04/26/02	NA	500	2,000	7.3	1.7	2.8	6.8	230	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/17/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	07/28/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/30/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Well Destroyed												
MW-6 (installed 2/26/01)	04/26/02	NA	25,000	9,100	5,300	1,400	1,200	5,900	850	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	570	< 500	21	0.7	48	14	17	NA	NA	NA	NA
	01/17/08	NA	1,400	< 500	9.6	0.6	4.8	8.5	3.5	NA	NA	NA	NA
	04/18/08	NA	2,000	750	500	< 20	210	150	180	NA	NA	NA	NA
	07/28/08	NA	6,900	980	720	7.6	410	540	98	NA	NA	NA	NA
	12/30/08	NA	950	650	55	< 1.0	34	30	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/19/09	NA	< 500	< 500	350	3.1	250	182.3	54	< 1.0	< 1.0	22	< 1.0
	11/18/09	NA	< 500	< 500	90	2.0	75	73.0	25	< 1.0	< 1.0	< 5.0	< 1.0
	04/21/10	NA	1,300	1,500	750	4.1	320	29.7	110	< 1.0	< 1.0	< 5.0	< 1.0
	12/20/10	NA	< 500	< 500	110	< 1.0	16	5.0	12	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	1,200	6,800	990	5.7	550	28.8	160	< 1.0	< 1.0	< 5.0	< 1.0
	12/22/11	NA	< 500	< 500	130	< 5.0	< 5.0	< 15	29	< 10	< 10	< 50	< 10
	06/05/12	NA	4,300	4,000	710	7.6	660	91	150	< 10	< 10	< 50	< 10
MW-7 (installed 2/26/01)	04/26/02	NA	1,900	13,000	3.7	1.1	4	7.9	19	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	01/17/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	04/21/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 1.0	< 1.0	< 1.0	< 3.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	15	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	8.7	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	< 500	0.8	< 0.5	0.6	2.8	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/22/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	06/04/12	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0

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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-8 (installed 4/19/02)	04/26/02	NA	4,800	6,500	50	9.2	170	210	64	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/26/07	NA	1,100	790	< 0.5	< 0.5	23	< 0.5	< 1.0	NA	NA	NA	NA
	01/17/08	NA	1,100	570	< 0.5	< 0.5	27	< 1.5	< 1.0	NA	NA	NA	NA
	04/21/08	NA	980	1,200	< 0.5	< 0.5	23	< 1.5	< 1.0	NA	NA	NA	NA
	07/29/08	NA	660	2,100	< 0.5	< 0.5	15	< 2.0	< 1.0	NA	NA	NA	NA
	12/30/08	NA	890	3,000	< 1.0	< 1.0	16	< 4.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	13	< 1.5	< 1.0	< 1.0	< 1.0	13	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.7	10	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	6.1	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	< 0.5	< 0.5	1.9	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	< 500	< 0.5	< 0.5	5.1	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/11	NA	< 500	< 500	< 0.5	< 0.5	4.3	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	06/05/12	NA	< 500	< 500	< 0.5	< 0.5	4.6	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-9 (installed 2/4/08)	04/18/08	NA	1,700	560	740	250	270	1,010	170	NA	NA	NA	NA
	07/28/08	NA	1,100	570	230	27	27	65	74	NA	NA	NA	NA
	12/30/08	NA	1,300	< 500	140	10	71	200	21	< 5.0	< 5.0	< 50	< 5.0
	06/19/09	NA	< 500	< 500	50	6.1	34	49.3	55	< 1.0	< 1.0	34	< 1.0
	11/18/09	NA	< 500	< 500	62	8.9	51	89	67	< 1.0	< 1.0	< 5.0	< 1.0
	04/21/10	NA	< 500	< 500	170	28	86	164	64	< 1.0	< 1.0	< 5.0	< 1.0
	12/20/10	NA	< 500	< 500	18	2.9	22	31.3	40	< 1.0	< 1.0	< 5.0	< 1.0
	04/04/11	NA	1,300	500	74	31	84	146	43	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/11	NA	3,800	< 500	16	3.6	22	25.3	5.5	< 1.0	< 1.0	< 5.0	< 1.0
	06/05/12	NA	< 500	< 500	8.2	4.5	10	13.8	6.3	< 1.0	< 1.0	< 5.0	< 1.0
MW-10 (installed 2/5/08)	04/18/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	4.2	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	1.8	< 1.0	< 1.0	20	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.5	< 0.5	< 1.5	6.3	< 1.0	< 1.0	6.3	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	2.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	1.4	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/22/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	06/04/12	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH

Table 3
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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-11 (installed 2/8/08)	04/18/08	NA	1,800	< 500	22	< 1.0	170	< 3.0	< 2.0	NA	NA	NA	NA
	07/29/08	NA	690	720	4.2	0.81	39	< 2.0	< 1.0	NA	NA	NA	NA
	12/31/08	NA	2,000	1,600	52	6.8	230	11	< 5.0	< 5.0	< 5.0	< 50	< 5.0
	06/18/09	NA	< 500	< 500	5.9	0.6	19	< 1.5	1.6	< 1.0	< 1.0	12	< 1.0
	11/17/09	NA	900	< 500	6.5	1.5	5.5	1.2	2.3	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	3.1	< 0.5	0.7	< 1.5	1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/10	NA	< 500	< 500	28	4.1	22	9.6	1.6	< 1.0	< 1.0	< 5.0	< 1.0
	04/04/11	NA	< 500	600	9.3	0.7	5.7	< 1.5	1.7	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/11	NA	910	1,400	16	1.2	27	2.8	1.1	< 1.0	< 1.0	< 5.0	< 1.0
	06/04/12	NA	1,700	1,600	13	2.5	16	13.4	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-12 (installed 2/8/08)	04/18/08	NA	< 500	< 500	< 1.0	< 1.0	2.0	< 3.0	65	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	11	NA	NA	NA	NA
	12/31/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	16	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	14	< 1.0	< 1.0	32	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	2.5	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	2.7	< 0.5	< 0.5	< 1.5	4.6	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	12	0.6	0.7	3.6	4.1	< 1.0	< 1.0	< 5.0	< 1.0
	04/04/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	3.2	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	4.9	< 1.0	< 1.0	< 5.0	< 1.0
	06/04/12	NA	< 500	< 500	3.3	0.7	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-13 (installed 2/18/08)	04/21/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	NA	NA	NA	NA
	07/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	11	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.6	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	< 500	< 0.5	< 0.5	1.0	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	06/04/12	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0

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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-14 (installed 2/18/08)	04/21/08	NA	27,000	3,800	5,300	290	2,400	6,460	650	NA	NA	NA	NA
	07/30/08	NA	25,000	12,000	6,600	170	2,400	3,700	270	NA	NA	NA	NA
	12/31/08	NA	18,000	1,000	3,700	< 50	1,500	2,000	570	< 100	< 100	< 1,000	< 100
	06/19/09	NA	< 500	< 500	3,600	160	1,900	2,990	540	< 20	< 20	110	< 20
	11/18/09	NA	6,900	< 500	1,600	54	1,000	944	510	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	3,700	< 500	2,600	210	1,700	3,650	670	< 20	< 20	< 100	< 20
	12/20/10	NA	5,500	2,300	1,900	98	1,400	2,180	670	< 40	< 40	< 200	< 40
	04/05/11	NA	14,000	2,900	2,400	110	1,500	2,759	770	< 40	< 40	< 200	< 40
	12/22/11	NA	17,000	6,000	2,300	< 50	1,800	2,600	340	< 100	< 100	< 500	< 100
	06/05/12	NA	6,000	2,600	3,000	120	2,500	3,751	390	< 100	< 100	< 500	< 100
MW-15 (installed 2/19/08)	04/21/08	NA	32,000	3,500	2,400	510	4,100	13,380	< 200	NA	NA	NA	NA
	07/30/08	NA	46,000	17,000	2,100	250	3,700	10,000	< 50	NA	NA	NA	NA
	12/31/08	NA	8,400	2,100	620	12	1,500	160	< 20	< 20	< 20	< 200	< 20
	06/19/09	NA	< 500	< 500	820	250	2,800	6,930	35	< 20	< 20	< 100	< 20
	11/18/09	NA	19,000	< 500	910	77	3,700	4,308.9	19	< 10	< 10	< 50	< 10
	04/20/10	NA	1,800	1,500	1,100	130	3,700	10,090	< 100	< 100	< 100	< 500	< 100
	12/21/10	NA	7,100	4,800	800	63	2,600	2,800	< 100	< 100	< 100	< 500	< 100
	04/05/11	NA	21,000	8,400	990	120	3,000	7,180	< 100	< 100	< 100	< 500	< 100
	12/22/11	NA	1,200	720	450	< 50	580	810	< 100	< 100	< 100	< 500	< 100
	06/06/12	NA	44,000	8,200	1,300	72	3,800	6,790	< 100	< 100	< 100	< 500	< 100
MW-16 (installed 2/16/08)	04/21/08	NA	< 500	< 500	53	< 2.5	77	< 7.5	110	NA	NA	NA	NA
	07/30/08	NA	1,300	780	110	1.7	210	< 4.0	160	NA	NA	NA	NA
	12/31/08	NA	2,500	790	470	6	390	< 20	< 10	< 10	< 10	< 100	< 10
	06/19/09	NA	< 500	< 500	120	16	220	33	100	< 20	< 20	170	< 20
	11/18/09	NA	570	< 500	110	2.5	65	10.5	73	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	< 10	< 10	< 10	< 30	33	< 20	< 20	< 100	< 20
	12/21/10	NA	< 500	< 500	3.9	< 1.0	< 1.0	< 1.5	16	< 1.0	< 1.0	< 5.0	< 1.0
	04/04/11	NA	< 500	570	11	0.7	60	< 1.5	26	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/11	NA	< 500	770	10	< 0.5	53	2.8	10	< 1.0	< 1.0	< 5.0	< 1.0
	06/04/12	NA	< 500	640	32	0.9	24	3.5	16	< 1.0	< 1.0	< 5.0	< 1.0

Table 3
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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-17 (installed 2/19/08)	04/21/08	NA	**990**	**3,100**	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	07/30/08	NA	**780**	**11,000**	< 5.0	< 5.0	< 5.0	< 1.5	< 1.0	NA	NA	NA	NA
	12/30/08	NA	**520**	**55,000**	< 5.0	< 5.0	< 5.0	< 20	< 10	< 10	< 10	< 100	< 10
	06/19/09	NA	**1,600**	**730**	< 0.5	**0.7**	< 0.5	< 1.5	**2.4**	< 1.0	< 1.0	**15**	< 1.0
	11/17/09	NA	**550**	< 500	**0.5**	< 0.5	**1.9**	**2.4**	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	**0.6**	< 0.5	< 0.5	< 1.5	**29**	< 1.0	< 1.0	**35**	< 1.0
	12/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	**2.9**	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	**1.9**	< 1.0	< 1.0	< 5.0	< 1.0
	12/22/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	**1.0**	< 1.0	< 1.0	< 5.0	< 1.0
	06/05/12	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	**1.3**	< 1.0	< 1.0	< 5.0	< 1.0
MW-18 (installed 3/23/11)	04/04/11	NA	**530**	< 500	**0.5**	< 0.5	**0.5**	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	06/04/12	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-19 (installed 3/23/11)	04/04/11	NA	**55,000**	**6,100**	**640**	**2,600**	**4,100**	**17,200**	< 100	< 100	< 100	< 500	< 100
	12/22/11	NA	**35,000**	**15,000**	**650**	**1,500**	**3,300**	**6,700**	< 100	< 100	< 100	< 500	< 100
	06/05/12	NA	**22,000**	**6,000**	**410**	**870**	**2,400**	**4,800**	< 100	< 100	< 100	< 500	< 100

Notes:

Groundwater samples collected by SCS Engineers from June 2009 to present.

Groundwater samples collected by Petra Geotechnical, Inc. from October 25, 2007 to December 31, 2008.

Groundwater samples collected by EnecoTech Southwest, Inc. from May 25, 1988 to December 3, 2002.

Results presented in micrograms per liter (µg/L).

Samples were analyzed for gasoline-range (TPHg) and diesel-range (TPHd) total petroleum hydrocarbons in general accordance with CA DHS LUFT Method; and benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), tert-amyl methyl ether (TAME), and t-butanol (TBA) in general accordance with EPA Method 8260B.

< indicates not reported at a concentration above laboratory detection limit, and bold font indicates concentrations above the laboratory reporting limit.

NS indicates well not sampled.

NA indicates not analyzed for particular constituent of concern.

* indicates samples were analyzed by EPA Method 418.1 for total extractable hydrocarbons.

PSH = phase-separated hydrocarbons

Table 2
Phase-Separated Hydrocarbon Monitoring Data
11427 Woodside Avenue, Santee, CA

Date	MW-1			MW-2			MW-3			MW-4			MW-10		
	DTP	DTW	PT	DTP	DTW	PT	DTP	DTW	PT	DTP	DTW	PT	DTP	DTW	PT
6/18/2009	NP	30.29	NP	NP	31.56	NP	NP	31.33	NP	NP	29.65	NP	NP	32.75	NP
9/4/2009	NP	31.10	NP	32.62	32.65	0.03	32.15	32.18	0.03	NP	30.51	NP	NM	NM	NM
9/18/2009	NP	31.16	NP	32.72	32.73	0.01	32.21	32.26	0.05	NP	30.57	NP	NM	NM	NM
10/2/2009	NP	31.20	NP	NP	32.79	NP	32.26	32.36	0.10	NP	30.61	NP	NM	NM	NM
10/16/2009	NP	31.23	NP	32.82	32.83	0.01	32.29	32.45	0.16	NP	30.64	NP	NM	NM	NM
10/29/2009	NP	31.24	NP	NP	32.90	NP	32.29	32.52	0.23	NP	30.63	NP	NM	NM	NM
11/17/2009	NP	31.15	NP	NP	32.86	NP	32.20	32.48	0.28	NP	30.58	NP	NP	33.97	NP
11/30/2009	NP	31.09	NP	NP	32.82	NP	32.10	32.41	0.31	NP	30.48	NP	NM	NM	NM
12/11/2009	NP	30.50	NP	NP	32.41	NP	31.64	31.80	0.16	NP	29.80	NP	NM	NM	NM
12/24/2009	NP	29.42	NP	NP	31.62	NP	NP	30.72	NP	NP	28.79	NP	NM	NM	NM
1/7/2010	NP	29.67	NP	NP	29.03	NP	31.78	31.79	0.01	NP	29.03	NP	NM	NM	NM
1/26/2010	NP	28.69	NP	NP	31.04	NP	NP	30.11	NP	NP	27.98	NP	NM	NM	NM
2/8/2010	NP	28.30	NP	NP	30.08	NP	NP	29.56*	NP	NP	27.68	NP	NM	NM	NM
2/19/2010	NP	28.07	NP	NP	29.32	NP	29.26	29.27	0.01	NP	27.46	NP	NM	NM	NM
3/5/2010	NP	27.83	NP	NP	28.94	NP	NP	29.07*	NP	NP	27.22	NP	NM	NM	NM
3/19/2010	NP	28.12	NP	NP	28.31	NP	NP	29.22	NP	NP	27.51	NP	NM	NM	NM
4/2/2010	NP	28.55	NP	NP	28.61	NP	NP	29.57	NP	NP	27.94	NP	NM	NM	NM
4/20/2010	NP	28.58	NP	NP	29.08	NP	NP	29.54	NP	NP	27.97	NP	NP	30.83	NP
12/20/2010	NP	29.80	NP	31.25	31.27	0.02	30.83	30.84	0.01	NP	29.22	NP	NP	32.10	NP
4/4/2011	NP	28.36	NP	NP	29.41	NP	NP	29.32	NP	NP	27.74	NP	NP	30.26	NP
12/21/2011	NP	29.36	NP	NP	30.93	NP	NP	30.41	NP	NP	28.73	NP	NP	31.64	NP
6/4/2012	NP	29.29	NP	NP	30.27	NP	NP	30.26	NP	NP	28.64	NP	31.07	33.41	2.34

Notes: DTP = Depth to phase-separated hydrocarbons (PSH) below top of casing in feet
DTW = Depth to water below top of casing in feet
PT = PSH thickness in feet
NP = No PSH
* = PSH sheen
NM = Well not monitored

Table 1

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Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-1	363.90 (22-42)	05/25/88	28.73	335.17
		03/10/98	27.03	336.87
		04/05/00	29.62	334.28
	362.84 (22-42)	04/26/02	30.21	332.63
		12/03/02	30.19	332.65
		10/26/07	NM	NM
		01/17/08	PSH	PSH
		04/18/08	29.86	332.98
		07/28/08	30.98	331.86
		12/29/08	29.14	333.70
		06/18/09	30.29	332.55
		11/17/09	31.15	331.69
		04/20/10	28.58	334.26
		12/20/10	29.80	333.04
		04/04/11	28.36	334.48
		12/21/11	29.36	333.48
		06/04/12	29.29	333.55
MW-2	365.40 (24-44)	05/25/88	30.03	335.37
		03/10/98	28.75	336.65
		04/05/00	32.23	333.17
	365.08 (24-44)	04/26/02	31.72	333.36
		12/03/02	31.84	333.24
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	31.06	334.02
		07/28/08	PSH	PSH
		12/29/08	31.50	333.58
		06/18/09	31.56	333.52
		11/17/09	32.86	332.22
		04/20/10	29.08	336.00
		12/20/10	PSH	PSH
		04/04/11	29.41	335.67
		12/21/11	30.93	334.15
		06/04/12	30.27	334.81
MW-3	366.07 (24.5-44.5)	05/25/88	30.83	335.24
		03/10/98	28.25	337.82
		04/05/00	36.65	329.42
	364.16 (24.5-44.5)	04/26/02	31.37	332.79
		12/03/02	31.32	332.84
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	30.91	333.25
		07/28/08	PSH	PSH
		12/29/08	30.54	333.62
		06/18/09	31.33	332.83
		11/17/09	PSH	PSH
		04/20/10	29.54	334.62
		12/20/10	PSH	PSH
		04/04/11	29.32	334.84
		12/21/11	30.41	333.75
		06/04/12	30.26	333.90

Table 1

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Groundwater Elevation Data
11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-4	362.90 (22-42)	05/25/88	27.68	335.22
		03/10/98	26.46	336.44
		04/05/00	29.98	332.92
	362.38 (22-42)	04/26/02	29.60	332.78
		12/03/02	29.43	332.95
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	29.25	333.13
		07/28/08	30.41	331.97
		12/29/08	28.53	333.85
		06/18/09	29.65	332.73
		11/17/09	30.58	331.80
		04/20/10	27.97	334.41
		12/20/10	29.22	333.16
		04/04/11	27.74	334.64
		12/21/11	28.73	333.65
		06/04/12	28.64	333.74
MW-5	NM	03/10/98	27.50	NM
	363.42 (unknown)	04/26/02	30.39	333.03
		12/03/02	30.50	332.92
		10/26/07	31.72	331.70
		01/17/08	NM	NM
		04/18/08	31.07	332.35
		07/28/08	NM	NM
		12/29/08	NM	NM
		Well Destroyed		
MW-6	362.44 (17-42)	04/26/02	29.77	332.67
		12/03/02	29.75	332.69
		10/26/07	31.01	331.43
		01/17/08	29.44	333.00
		04/18/08	29.47	332.97
		07/28/08	30.60	331.84
		12/29/08	28.71	333.73
		06/18/09	29.90	332.54
		11/17/09	30.78	331.66
		04/20/10	28.17	334.27
		12/20/10	29.45	332.99
		04/04/11	27.98	334.46
		12/21/11	28.96	333.48
		06/04/12	28.84	333.60

Table 1

(Page 3 of 5)

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-7	362.57 (17-42)	04/26/02	29.47	333.10
		12/03/02	29.45	333.12
		10/26/07	30.45	332.12
		01/17/08	29.17	333.40
		04/18/08	29.16	333.41
		07/28/08	30.08	332.49
		12/29/08	28.48	334.09
		06/18/09	29.56	333.01
		11/17/09	30.59	331.98
		04/20/10	27.92	334.65
		12/20/10	29.15	333.42
		04/04/11	27.75	334.82
		12/21/11	28.68	333.89
		06/04/12	28.60	333.97
MW-8	364.51 (20.5-40.5)	04/26/02	31.71	332.80
		12/03/02	31.70	332.81
		10/26/07	33.02	331.49
		01/17/08	31.34	333.17
		04/18/08	31.42	333.09
		07/28/08	32.60	331.91
		12/29/08	30.60	333.91
		06/18/09	31.82	332.69
		11/17/09	32.74	331.77
		04/20/10	30.12	334.39
		12/20/10	31.37	333.14
		04/04/11	29.92	334.59
		12/21/11	30.87	333.64
		06/04/12	30.85	333.66
MW-9	362.33 (34-39)	04/18/08	29.49	332.84
		07/28/08	30.58	331.75
		12/29/08	28.68	333.65
		06/18/09	29.90	332.43
		11/17/09	30.75	331.58
		04/20/10	28.15	334.18
		12/20/10	29.43	332.90
		04/04/11	27.95	334.38
		12/21/11	28.90	333.43
		06/04/12	28.84	333.49
MW-10	367.28 (25-40)	04/18/08	32.52	334.76
		07/29/08	33.65	333.63
		12/29/08	32.62	334.66
		06/18/09	32.75	334.53
		11/17/09	33.97	333.31
		04/20/10	30.83	336.45
		12/20/10	32.10	335.18
		04/04/11	30.26	337.02
		12/21/11	31.64	335.64
		06/04/12	PSH	PSH

Table 1

(Page 4 of 5)

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-11	362.48 (23-38)	04/18/08	29.98	332.50
		07/29/08	30.99	331.49
		12/29/08	28.96	333.52
		06/18/09	30.36	332.12
		11/17/09	31.12	331.36
		04/20/10	28.61	333.87
		12/20/10	29.84	332.64
		04/04/11	28.44	334.04
		12/21/11	29.34	333.14
		06/04/12	29.39	333.09
MW-12	361.88 (24-39)	04/18/08	29.55	332.33
		07/29/08	30.49	331.39
		12/29/08	28.45	333.43
		06/18/09	29.94	331.94
		11/17/09	30.65	331.23
		04/20/10	28.17	333.71
		12/20/10	29.40	332.48
		04/04/11	27.93	333.95
		12/21/11	28.88	333.00
		06/04/12	28.93	332.95
MW-13	366.91 (25-45)	04/21/08	32.77	334.14
		07/30/08	34.08	332.83
		12/29/08	32.54	334.37
		06/18/09	33.17	333.74
		11/17/09	34.33	332.58
		04/20/10	31.35	335.56
		12/20/10	32.71	334.20
		04/04/11	31.24	335.67
		12/21/11	31.36	335.55
		06/04/12	32.13	334.78
MW-14	362.79 (23-38)	04/21/08	30.09	332.70
		07/30/08	31.14	331.65
		12/29/08	29.22	333.57
		06/18/09	30.51	332.28
		11/17/09	31.32	331.47
		04/20/10	28.74	334.05
		12/20/10	30.03	332.76
		04/04/11	28.52	334.27
		12/21/11	29.53	333.26
		06/04/12	29.49	333.30
MW-15	362.36 (23.5-38.5)	04/21/08	29.91	332.65
		07/30/08	30.96	331.60
		12/29/08	28.80	333.56
		06/18/09	30.13	332.23
		11/17/09	30.92	331.44
		04/20/10	28.36	334.00
		12/20/10	29.64	332.72
		04/04/11	28.15	334.21
		12/21/11	29.14	333.22
		06/04/12	29.11	333.25

Table 1

(Page 5 of 5)

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-16	362.48 (24-39)	04/21/08	30.04	332.44
		07/30/08	31.02	331.46
		12/29/08	28.95	333.53
		06/18/09	30.47	332.01
		11/17/09	31.18	331.30
		04/20/10	28.66	333.82
		12/20/10	29.94	332.54
		04/04/11	28.41	334.07
		12/21/11	29.42	333.06
		06/04/12	29.41	333.07
MW-17	367.97 (24.5-44.5)	04/21/08	34.97	333.00
		07/30/08	36.08	331.89
		12/29/08	34.34	333.63
		06/18/09	35.38	332.59
		11/17/09	36.23	331.74
		04/20/10	33.63	334.34
		12/20/10	34.93	333.04
		04/04/11	33.40	334.57
		12/21/11	34.45	333.52
		06/04/12	34.35	333.62
MW-18	362.28 (24-39)	04/04/11	28.60	333.68
		12/21/11	29.62	332.66
		06/04/12	29.63	332.65
MW-19	365.07 (26-41)	04/04/11	31.28	333.79
		12/21/11	32.28	332.79
		06/04/12	32.24	332.83

Notes:

MSL = mean sea level

TOC = top of well casing

PSH = phase-separated hydrocarbons present in well, therefore groundwater elevation was not calculated

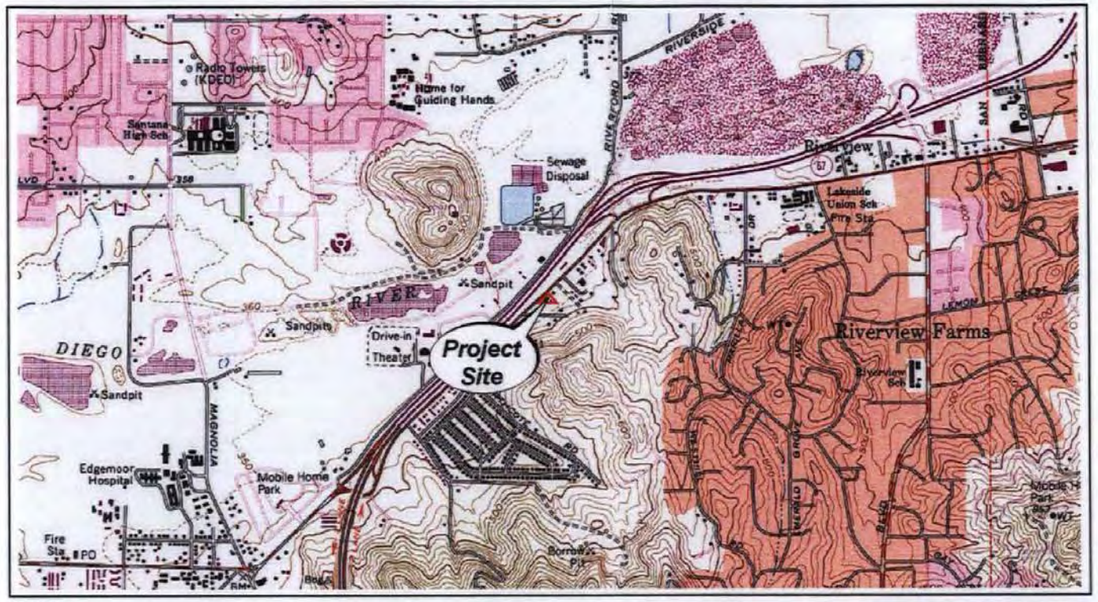
NM = well not measured

Wells were surveyed by Southern California Survey initially on April 26, 2002 and updated on March 28, 2008.

FIGURES

North (Not to scale)

REGIONAL SITE LOCATION



North

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

2-DIMENSIONAL SITE LOCATION

0 1,000 2,000 3,000
Approximate Graphic Scale in Feet

North (Not to scale)

Reference:
Google Earth Aerial Photograph
Santee, California - February 2008

SITE AERIAL PHOTOGRAPH

North (Not to scale)

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

3-DIMENSIONAL SITE LOCATION

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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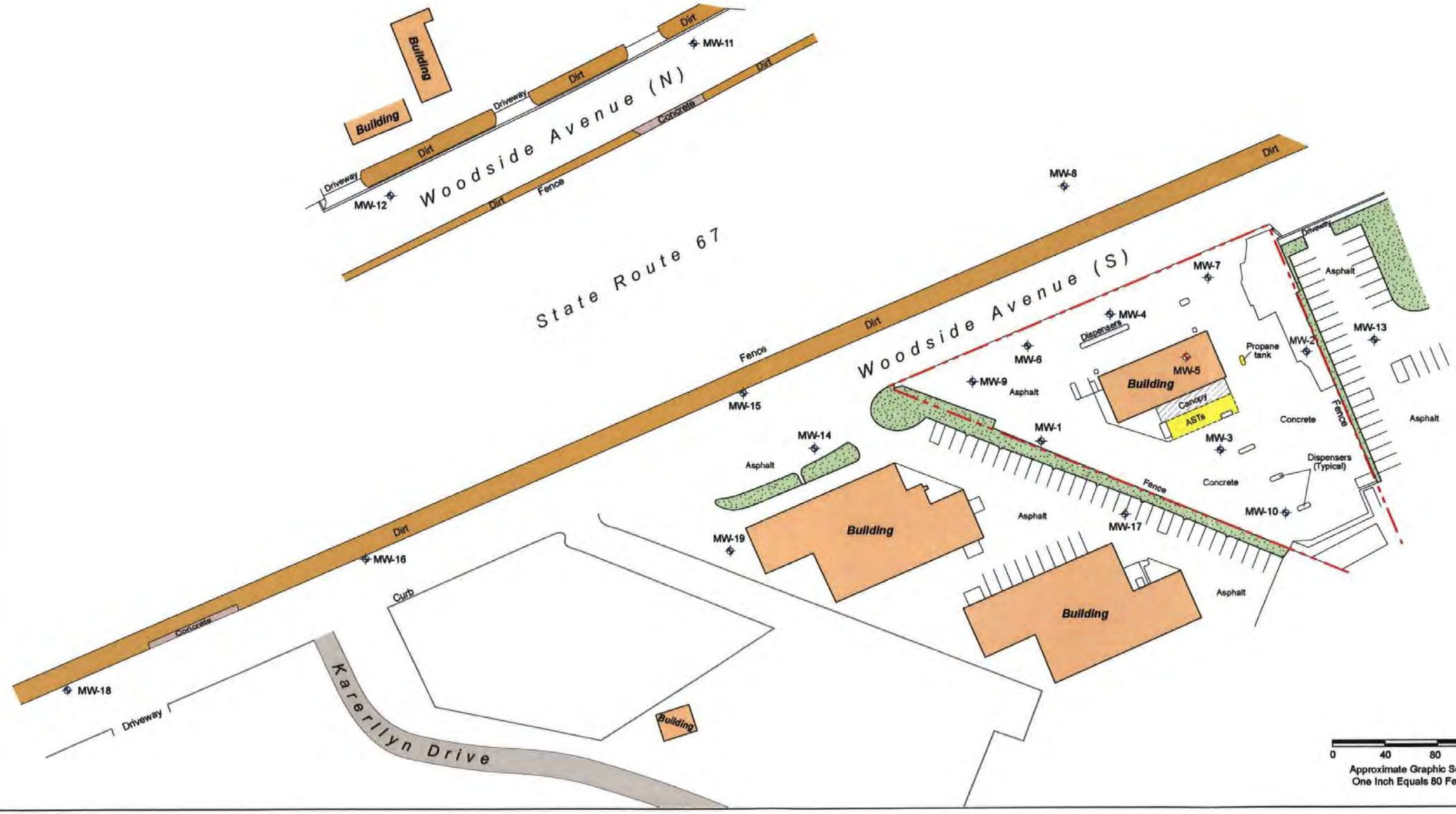
4-WAY SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 1

Date Drafted: 11/4/09



EXPLANATION

MW-16 — Groundwater monitoring well location

MW-5 — Well destroyed

Approximate Site boundary

AST = aboveground storage tank

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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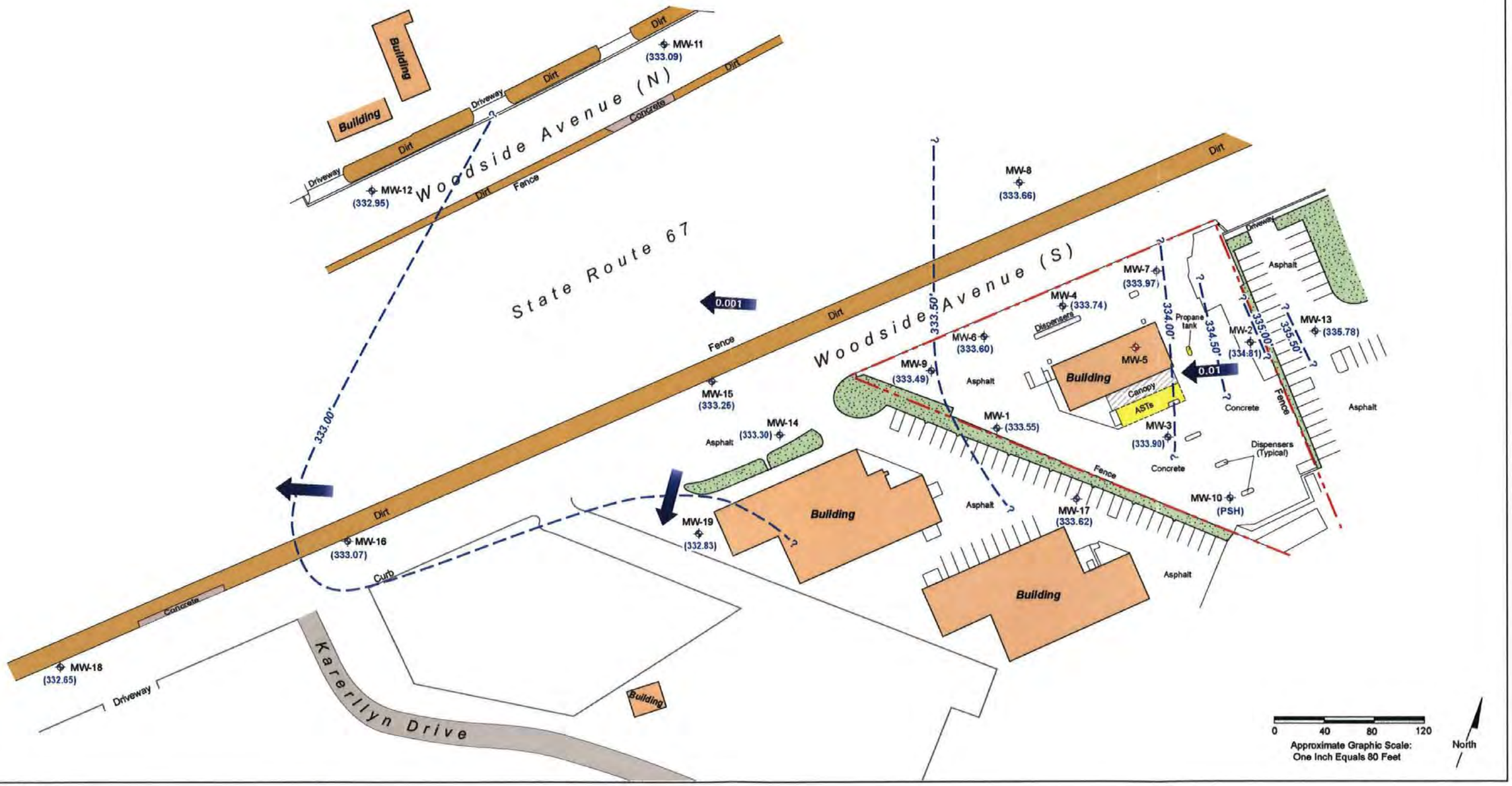
SITE MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 2

Date Drafted: 1/25/12



EXPLANATION

MW-16 (333.07) — Groundwater monitoring well location with groundwater elevation in feet above mean sea level.

MW-5 — Well destroyed

334.50' — Estimated groundwater contour in feet above mean sea level.

0.001 — Interpreted direction of groundwater flow and estimated groundwater gradient.

AST = aboveground storage tank
PSH = phase-separated hydrocarbons

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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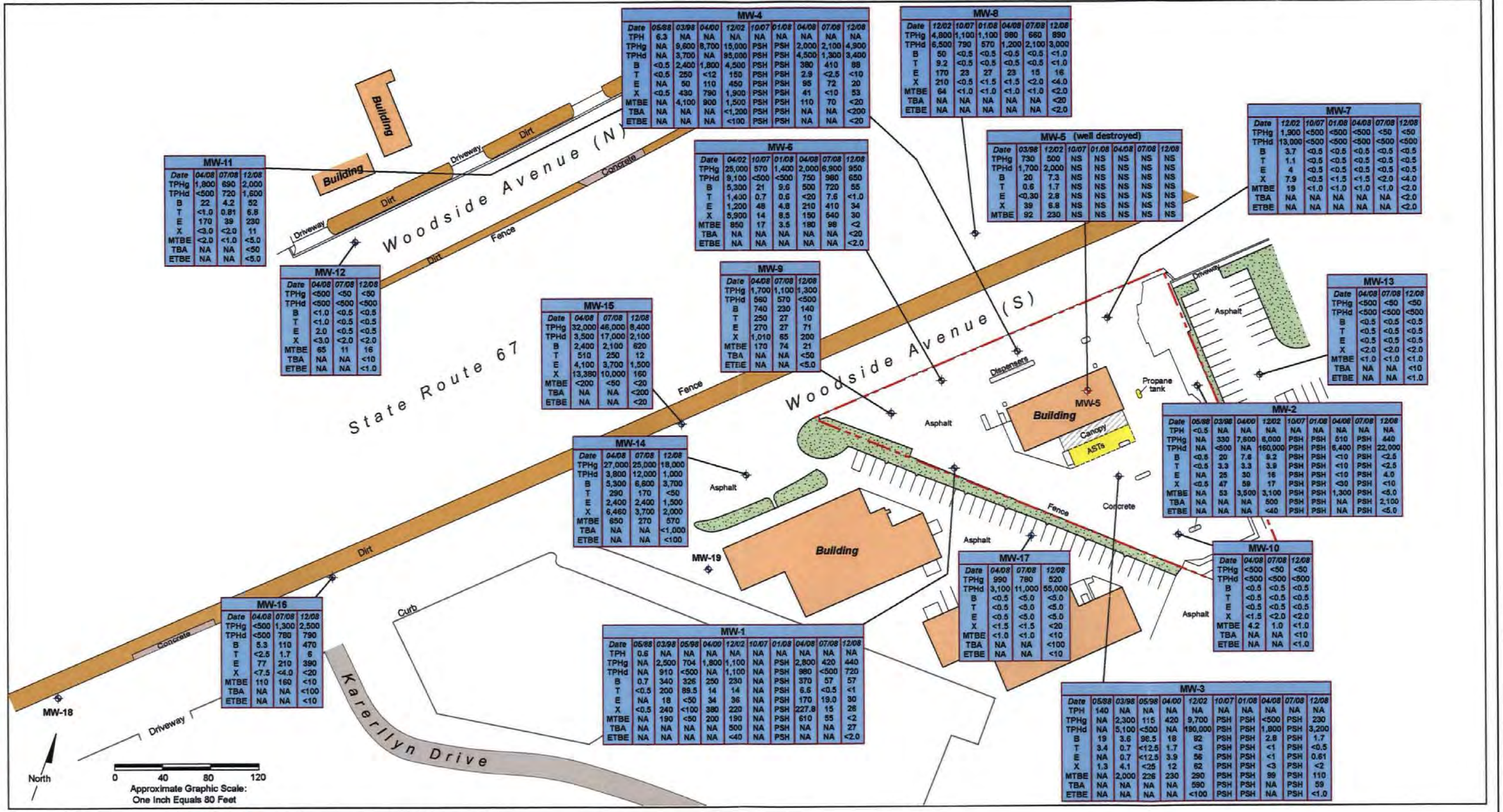
GROUNDWATER ELEVATION MAP
JUNE 2012
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 3

Date Drafted: 7/30/12



MW-4									
Date	05/88	03/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08
TPH	6.3	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	9,600	8,700	15,000	PSH	PSH	2,000	2,100	4,900
TPHd	NA	3,700	NA	95,000	PSH	PSH	4,500	1,300	3,400
B	<0.5	2,400	1,800	4,500	PSH	PSH	380	410	88
T	<0.5	250	<12	150	PSH	PSH	2.9	<2.5	<10
E	NA	50	110	450	PSH	PSH	95	72	20
X	<0.5	430	790	1,900	PSH	PSH	41	<10	53
MTBE	NA	4,100	900	1,500	PSH	PSH	110	70	<20
TBA	NA	NA	NA	<1,200	PSH	PSH	NA	NA	<200
ETBE	NA	NA	NA	<100	PSH	PSH	NA	NA	<20

MW-8						
Date	12/02	10/07	01/08	04/08	07/08	12/08
TPHg	4,800	1,100	1,100	980	660	890
TPHd	6,500	790	570	1,200	2,100	3,000
B	50	<0.5	<0.5	<0.5	<0.5	<1.0
T	9.2	<0.5	<0.5	<0.5	<0.5	<1.0
E	170	23	27	23	15	16
X	210	<0.5	<1.5	<1.5	<2.0	<4.0
MTBE	64	<1.0	<1.0	<1.0	<1.0	<2.0
TBA	NA	NA	NA	NA	NA	<20
ETBE	NA	NA	NA	NA	NA	<2.0

MW-11			
Date	04/08	07/08	12/08
TPHg	1,800	690	2,000
TPHd	<500	720	1,600
B	22	4.2	52
T	<1.0	0.81	6.6
E	170	39	230
X	<3.0	<2.0	11
MTBE	<2.0	<1.0	<5.0
TBA	NA	NA	<50
ETBE	NA	NA	<5.0

MW-6							
Date	04/02	10/07	01/08	04/08	07/08	12/08	
TPHg	25,000	570	1,400	2,000	6,900	950	
TPHd	9,100	<500	<500	750	980	650	
B	5,300	21	9.6	500	720	55	
T	1,400	0.7	0.6	<20	7.6	<1.0	
E	1,200	48	4.8	210	410	34	
X	5,900	14	8.5	150	640	30	
MTBE	850	17	3.5	180	98	<2	
TBA	NA	NA	NA	NA	NA	<20	
ETBE	NA	NA	NA	NA	NA	<2.0	

MW-5 (well destroyed)							
Date	03/98	12/02	10/07	01/08	04/08	07/08	12/08
TPHg	730	500	NS	NS	NS	NS	NS
TPHd	1,700	2,000	NS	NS	NS	NS	NS
B	20	7.3	NS	NS	NS	NS	NS
T	0.6	1.7	NS	NS	NS	NS	NS
E	<0.30	2.8	NS	NS	NS	NS	NS
X	39	6.8	NS	NS	NS	NS	NS
MTBE	92	230	NS	NS	NS	NS	NS

MW-7						
Date	12/02	10/07	01/08	04/08	07/08	12/08
TPHg	1,900	<500	<500	<500	<50	<50
TPHd	13,000	<500	<500	<500	<500	<500
B	3.7	<0.5	<0.5	<0.5	<0.5	<0.5
T	1.1	<0.5	<0.5	<0.5	<0.5	<0.5
E	4	<0.5	<0.5	<0.5	<0.5	<0.5
X	7.9	<0.5	<1.5	<1.5	<2.0	<4.0
MTBE	19	<1.0	<1.0	<1.0	<1.0	<2.0
TBA	NA	NA	NA	NA	NA	<2.0
ETBE	NA	NA	NA	NA	NA	<2.0

MW-12			
Date	04/08	07/08	12/08
TPHg	<500	<50	<50
TPHd	<500	<500	<500
B	<1.0	<0.5	<0.5
T	<1.0	<0.5	<0.5
E	2.0	<0.5	<0.5
X	<3.0	<2.0	<2.0
MTBE	65	11	16
TBA	NA	NA	<10
ETBE	NA	NA	<1.0

MW-9			
Date	04/08	07/08	12/08
TPHg	1,700	1,100	1,300
TPHd	560	570	<500
B	740	230	140
T	250	27	10
E	270	27	71
X	1,010	65	200
MTBE	170	74	21
TBA	NA	NA	<50
ETBE	NA	NA	<5.0

MW-13			
Date	04/08	07/08	12/08
TPHg	<500	<50	<50
TPHd	<500	<500	<500
B	<0.5	<0.5	<0.5
T	<0.5	<0.5	<0.5
E	<0.5	<0.5	<0.5
X	<2.0	<2.0	<2.0
MTBE	<1.0	<1.0	<1.0
TBA	NA	NA	<10
ETBE	NA	NA	<1.0

MW-15			
Date	04/08	07/08	12/08
TPHg	32,000	46,000	8,400
TPHd	3,500	17,000	2,100
B	2,400	2,100	620
T	510	250	12
E	4,100	3,700	1,500
X	13,380	10,000	160
MTBE	<200	<50	<20
TBA	NA	NA	<200
ETBE	NA	NA	<20

MW-2									
Date	05/88	03/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08
TPH	<0.5	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	330	7,600	6,000	PSH	PSH	510	PSH	440
TPHd	NA	<500	NA	160,000	PSH	PSH	6,400	PSH	22,000
B	<0.5	20	7.8	9.2	PSH	PSH	<10	PSH	<2.5
T	<0.5	3.3	3.3	3.9	PSH	PSH	<10	PSH	<2.5
E	NA	25	30	16	PSH	PSH	<10	PSH	4.0
X	<0.5	47	59	17	PSH	PSH	<30	PSH	<10
MTBE	NA	53	3,500	3,100	PSH	PSH	1,300	PSH	<5.0
TBA	NA	NA	NA	500	PSH	PSH	NA	PSH	2,100
ETBE	NA	NA	NA	<40	PSH	PSH	NA	PSH	<5.0

MW-14			
Date	04/08	07/08	12/08
TPHg	27,000	25,000	18,000
TPHd	3,800	12,000	1,000
B	5,300	6,600	3,700
T	290	170	<50
E	2,400	2,400	1,500
X	6,460	3,700	2,000
MTBE	650	270	570
TBA	NA	NA	<1,000
ETBE	NA	NA	<100

MW-17			
Date	04/08	07/08	12/08
TPHg	990	780	520
TPHd	3,100	11,000	55,000
B	<0.5	<5.0	<5.0
T	<0.5	<5.0	<5.0
E	<0.5	<5.0	<5.0
X	<1.5	<1.5	<20
MTBE	<1.0	<1.0	<10
TBA	NA	NA	<100
ETBE	NA	NA	<10

MW-10			
Date	04/08	07/08	12/08
TPHg	<500	<50	<50
TPHd	<500	<500	<500
B	<0.5	<0.5	<0.5
T	<0.5	<0.5	<0.5
E	<0.5	<0.5	<0.5
X	<1.5	<2.0	<2.0
MTBE	4.2	1.0	<1.0
TBA	NA	NA	<10
ETBE	NA	NA	<1.0

MW-1										
Date	05/88	03/98	05/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08
TPH	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	2,500	704	1,800	1,100	NA	PSH	2,800	420	440
TPHd	NA	910	<500	NA	1,100	NA	PSH	980	<500	720
B	0.7	340	326	250	230	NA	PSH	370	57	57
T	<0.5	200	89.5	14	14	NA	PSH	6.6	<0.5	<1
E	NA	18	<50	34	36	NA	PSH	170	19.0	30
X	<0.5	240	<100	380	220	NA	PSH	227.8	15	26
MTBE	NA	190	<50	200	190	NA	PSH	610	55	<2
TBA	NA	NA	NA	NA	500	NA	PSH	NA	NA	27
ETBE	NA	NA	NA	NA	<40	NA	PSH	NA	NA	<2.0

MW-16			
Date	04/08	07/08	12/08
TPHg	<500	1,300	2,500
TPHd	<500	780	790
B	5.3	110	470
T	<2.5	1.7	6
E	77	210	390
X	<7.5	<4.0	<20
MTBE	110	160	<10
TBA	NA	NA	<100
ETBE	NA	NA	<10

MW-3										
Date	05/88	03/98	05/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08
TPH	140	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	2,300	115	420	9,700	PSH	PSH	<500	PSH	230
TPHd	NA	5,100	<500	NA	190,000	PSH	PSH	1,900	PSH	3,200
B	19	3.6	96.5	18	92	PSH	PSH	2.8	PSH	1.7
T	3.4	0.7	<12.5	1.7	<3	PSH	PSH	<1	PSH	<0.5
E	NA	0.7	<12.5	3.9	56	PSH	PSH	<1	PSH	0.61
X	1.3	4.1	<25	12	62	PSH	PSH	<3	PSH	<2
MTBE	NA	2,000	226	230	290	PSH	PSH	99	PSH	110
TBA	NA	NA	NA	NA	590	PSH	PSH	NA	PSH	59
ETBE	NA	NA	NA	NA	<100	PSH	PSH	NA	PSH	<1.0

EXPLANATION

MW-17 — Groundwater monitoring well location

MW-5 — Well destroyed

MW-18

Date	04/08	07/08	12/08	05/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08
TPHg	<500	1,300	2,500	<500	<500	1,100	NA	PSH	2,800	420	440
TPHd	<500	780	790	<500	<500	1,100	NA	PSH	980	<500	720
B	5.3	110	470	326	250	230	NA	PSH	370	57	57
T	<2.5	1.7	6	89.5	14	14	NA	PSH	6.6	<0.5	<1
E	77	210	390	<50	34	36	NA	PSH	170	19.0	30
X	<7.5	<4.0	<20	<100	380	220	NA	PSH	227.8	15	26
MTBE	110	160	<10	<50	200	190	NA	PSH	610	55	<2
TBA	NA	NA	<100	NA	NA	500	NA	PSH	NA	NA	27
ETBE	NA	NA	<10	NA	NA	<40	NA	PSH	NA	NA	<2.0

Groundwater samples collected by SCS Engineers beginning in June 2009; Petra Geotechnical, Inc. from October 2007 to December 2008; and Eneco Tech Southwest, Inc. from May 1988 to December 2002. Groundwater samples analyzed for total petroleum hydrocarbons by CA DHS LUFT Method; volatile organic compounds (VOCs) by EPA Method 8260B. All results reported in micrograms per liter (ug/L). < indicates concentration not reported above indicated reporting limit for relevant analyte and analytical method. NA indicates sample not analyzed. PSH indicates phase-separated hydrocarbons. Refer to laboratory reports for full listing of VOCs analyzed.

TPH = total petroleum hydrocarbons
TPHg = total petroleum hydrocarbons as gasoline
TPHd = total petroleum hydrocarbons as diesel
B = benzene
T = toluene
E = ethylbenzene
X = xylenes
MTBE = methyl tertiary buty ether
TBA = tertiary butyl alcohol
ETBE = Ethyl tertiary butyl ether

AST = aboveground storage tank

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

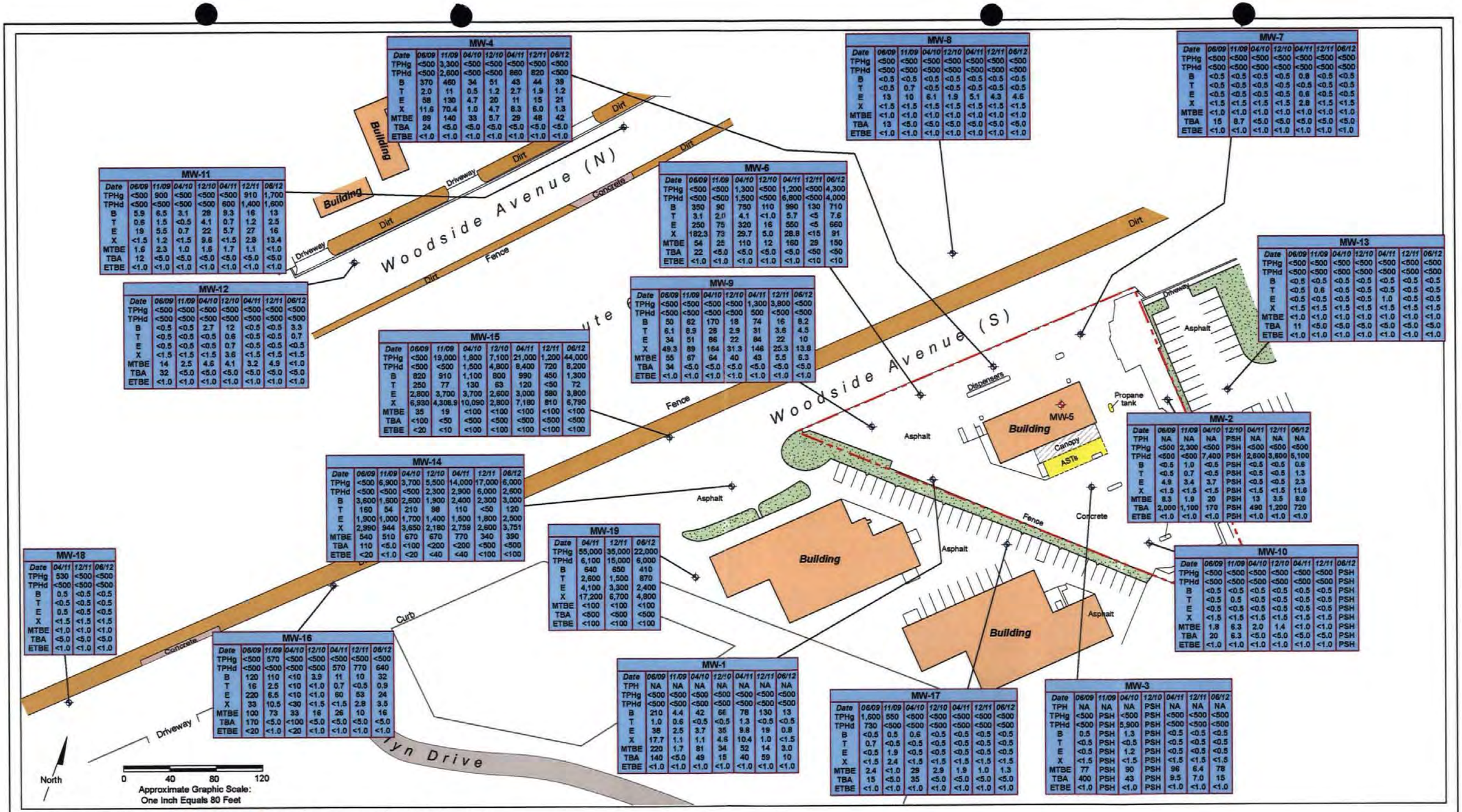
HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS (1988 THRU 2008)

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 4

Date Drafted: 7/31/12



MW-4

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPHg	<500	3,300	<500	<500	<500	<500	<500
TPHd	<500	2,600	<500	<500	860	820	<500
B	370	460	34	51	43	44	39
T	2.0	11	0.5	1.2	2.7	1.9	1.2
E	58	130	4.7	20	11	15	21
X	11.6	70.4	1.0	4.7	8.3	6.0	1.3
MTBE	89	140	33	5.7	29	48	42
TBA	24	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
ETBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-8

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPHg	<500	<500	<500	<500	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500	<500
B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
T	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5
E	13	10	6.1	1.9	5.1	4.3	4.6
X	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
MTBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TBA	13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
ETBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-7

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPHg	<500	<500	<500	<500	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500	<500
B	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5
T	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
E	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5
X	<1.5	<1.5	<1.5	<1.5	2.8	<1.5	<1.5
MTBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TBA	15	8.7	<5.0	<5.0	<5.0	<5.0	<5.0
ETBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-11

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPHg	<500	900	<500	<500	<500	910	1,700
TPHd	<500	<500	<500	<500	600	1,400	1,600
B	5.9	6.5	3.1	28	9.3	16	13
T	0.6	1.5	<0.5	4.1	0.7	1.2	2.5
E	19	5.5	0.7	22	5.7	27	16
X	<1.5	1.2	<1.5	9.6	<1.5	2.8	13.4
MTBE	1.6	2.3	1.0	1.6	1.7	1.1	<1.0
TBA	12	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
ETBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-6

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPHg	<500	<500	1,300	<500	1,200	<500	4,300
TPHd	<500	<500	1,500	<500	6,800	<500	4,000
B	350	90	750	110	990	130	710
T	3.1	2.0	4.1	<1.0	5.7	<5	7.6
E	250	75	320	16	550	<5	660
X	182.3	73	29.7	5.0	28.8	<15	91
MTBE	54	25	110	12	160	29	150
TBA	22	<5.0	<5.0	<5.0	<5.0	<50	<50
ETBE	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10

MW-13

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPHg	<500	<500	<500	<500	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500	<500
B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
T	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5
E	<0.5	<0.5	<0.5	<0.5	1.0	<0.5	<0.5
X	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
MTBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TBA	11	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
ETBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-12

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPHg	<500	<500	<500	<500	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500	<500
B	<0.5	<0.5	2.7	12	<0.5	<0.5	3.3
T	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	0.7
E	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5
X	<1.5	<1.5	<1.5	3.6	<1.5	<1.5	<1.5
MTBE	14	2.5	4.6	4.1	3.2	4.9	<1.0
TBA	32	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
ETBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-9

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPHg	<500	<500	<500	<500	1,300	3,800	<500
TPHd	<500	<500	<500	<500	500	<500	<500
B	50	62	170	18	74	16	8.2
T	6.1	6.9	28	2.9	31	3.6	4.5
E	34	51	86	22	84	22	10
X	49.3	89	164	31.3	146	25.3	13.8
MTBE	55	67	64	40	43	5.5	6.3
TBA	34	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
ETBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-15

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPHg	<500	19,000	1,800	7,100	21,000	1,200	44,000
TPHd	<500	<500	1,500	4,800	8,400	720	8,200
B	820	910	1,100	800	990	450	1,300
T	250	77	130	63	120	<50	72
E	2,800	3,700	3,700	2,600	3,000	580	3,800
X	6,930	4,308.9	10,090	2,800	7,180	810	6,790
MTBE	35	19	<100	<100	<100	<100	<100
TBA	<100	<50	<500	<500	<500	<500	<500
ETBE	<20	<10	<100	<100	<100	<100	<100

MW-14

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPHg	<500	6,900	3,700	5,500	14,000	17,000	6,000
TPHd	<500	<500	<500	2,300	2,900	6,000	2,600
B	3,600	1,600	2,500	1,900	2,400	2,300	3,000
T	160	54	210	98	110	<50	120
E	1,900	1,000	1,700	1,400	1,500	1,800	2,500
X	2,990	944	3,650	2,180	2,759	2,600	3,751
MTBE	540	510	670	670	770	340	390
TBA	110	<5.0	<100	<200	<200	<500	<500
ETBE	<20	<1.0	<20	<40	<40	<100	<100

MW-19

Date	04/11	12/11	06/12
TPHg	55,000	35,000	22,000
TPHd	6,100	15,000	6,000
B	640	650	410
T	2,600	1,500	870
E	4,100	3,300	2,400
X	17,200	6,700	4,800
MTBE	<100	<100	<100
TBA	<500	<500	<500
ETBE	<100	<100	<100

MW-2

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPH	NA	NA	NA	PSH	NA	NA	NA
TPHg	<500	2,300	<500	PSH	<500	<500	<500
TPHd	<500	<500	7,400	PSH	2,600	3,600	5,100
B	<0.5	1.0	<0.5	PSH	<0.5	<0.5	0.6
T	<0.5	0.7	<0.5	PSH	<0.5	<0.5	1.3
E	4.9	3.4	3.7	PSH	<0.5	<0.5	2.3
X	<1.5	<1.5	<1.5	PSH	<1.5	<1.5	11.6
MTBE	8.3	1.9	20	PSH	13	3.5	8.0
TBA	2,000	1,100	170	PSH	490	1,200	720
ETBE	<1.0	<1.0	<1.0	PSH	<1.0	<1.0	<1.0

MW-18

Date	04/11	12/11	06/12
TPHg	530	<500	<500
TPHd	<500	<500	<500
B	0.5	<0.5	<0.5
T	<0.5	<0.5	<0.5
E	0.5	<0.5	<0.5
X	<1.5	<1.5	<1.5
MTBE	<1.0	<1.0	<1.0
TBA	<5.0	<5.0	<5.0
ETBE	<1.0	<1.0	<1.0

MW-16

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPHg	<500	570	<500	<500	<500	<500	<500
TPHd	<500	<500	<500	<500	570	770	640
B	120	110	<10	3.9	11	10	32
T	16	2.5	<10	<1.0	0.7	<0.5	0.9
E	220	6.5	<10	<1.0	60	53	24
X	33	10.5	<30	<1.5	<1.5	2.8	3.5
MTBE	100	73	33	16	26	10	16
TBA	170	<5.0	<100	<5.0	<5.0	<5.0	<5.0
ETBE	<20	<1.0	<20	<1.0	<1.0	<1.0	<1.0

MW-1

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPH	NA	NA	NA	NA	NA	NA	NA
TPHg	<500	<500	<500	<500	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500	<500
B	210	4.4	42	66	78	130	13
T	1.0	0.6	<0.5	<0.5	1.3	<0.5	<0.5
E	38	2.5	3.7	35	9.8	19	0.8
X	17.7	1.1	1.1	4.6	10.4	1.0	<1.5
MTBE	220	1.7	81	34	52	14	3.0
TBA	140	<5.0	49	15	40	59	10
ETBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-17

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPHg	1,600	550	<500	<500	<500	<500	<500
TPHd	730	<500	<500	<500	<500	<500	<500
B	<0.5	0.5	0.6	<0.5	<0.5	<0.5	<0.5
T	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
E	<0.5	1.9	<0.5	<0.5	<0.5	<0.5	<0.5
X	<1.5	2.4	<1.5	<1.5	<1.5	<1.5	<1.5
MTBE	2.4	<1.0	29	2.9	1.9	1.0	1.3
TBA	15	<5.0	35	<5.0	<5.0	<5.0	<5.0
ETBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-10

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPHg	<500	<500	<500	<500	<500	<500	PSH
TPHd	<500	<500	<500	<500	<500	<500	PSH
B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	PSH
T	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	PSH
E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	PSH
X	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	PSH
MTBE	1.8	6.3	2.0	1.4	<1.0	<1.0	PSH
TBA	20	6.3	<5.0	<5.0	<5.0	<5.0	PSH
ETBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	PSH

MW-3

Date	06/09	11/09	04/10	12/10	04/11	12/11	06/12
TPH	NA	NA	NA	PSH	NA	NA	NA
TPHg	<500	PSH	<500	PSH	<500	<500	<500
TPHd	<500	PSH	5,900	PSH	<500	<500	<500
B	0.5	PSH	1.3	PSH	<0.5	<0.5	<0.5
T	<0.5	PSH	<0.5	PSH	<0.5	<0.5	<0.5
E	<0.5	PSH	1.2	PSH	<0.5	<0.5	<0.5
X	<1.5	PSH	<1.5	PSH	<1.5	<1.5	<1.5
MTBE	77	PSH	90	PSH	96	6.4	78
TBA	400	PSH	43	PSH	9.5	7.0	15
ETBE	<1.0	PSH	<1.0	PSH	<1.0	<1.0	<1.0

EXPLANATION

MW-17 — Groundwater monitoring well location

MW-5 — Well destroyed

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

Groundwater samples collected by SCS Engineers beginning in June 2009; Petra Geotechnical, Inc. from October 2007 to December 2008; and Eneco Tech Southwest, Inc. from May 1988 to December 2002. Groundwater samples analyzed for total petroleum hydrocarbons by CA DHS LUFT Method; volatile organic compounds (VOCs) by EPA Method 8260B. All results reported in micrograms per liter (ug/L). < indicates concentration not reported above indicated reporting limit for relevant analyte and analytical method. NA indicates sample not analyzed. PSH indicates phase-separated hydrocarbons. Refer to laboratory reports for full listing of VOCs analyzed.

TPH = total petroleum hydrocarbons
TPHg = total petroleum hydrocarbons as gasoline
TPHd = total petroleum hydrocarbons as diesel
B = benzene
T = toluene
E = ethylbenzene
X = xylenes
MTBE = methyl tertiary buty ether
TBA = tertiary butyl alcohol
ETBE = Ethyl tertiary butyl ether

AST = aboveground storage tank

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

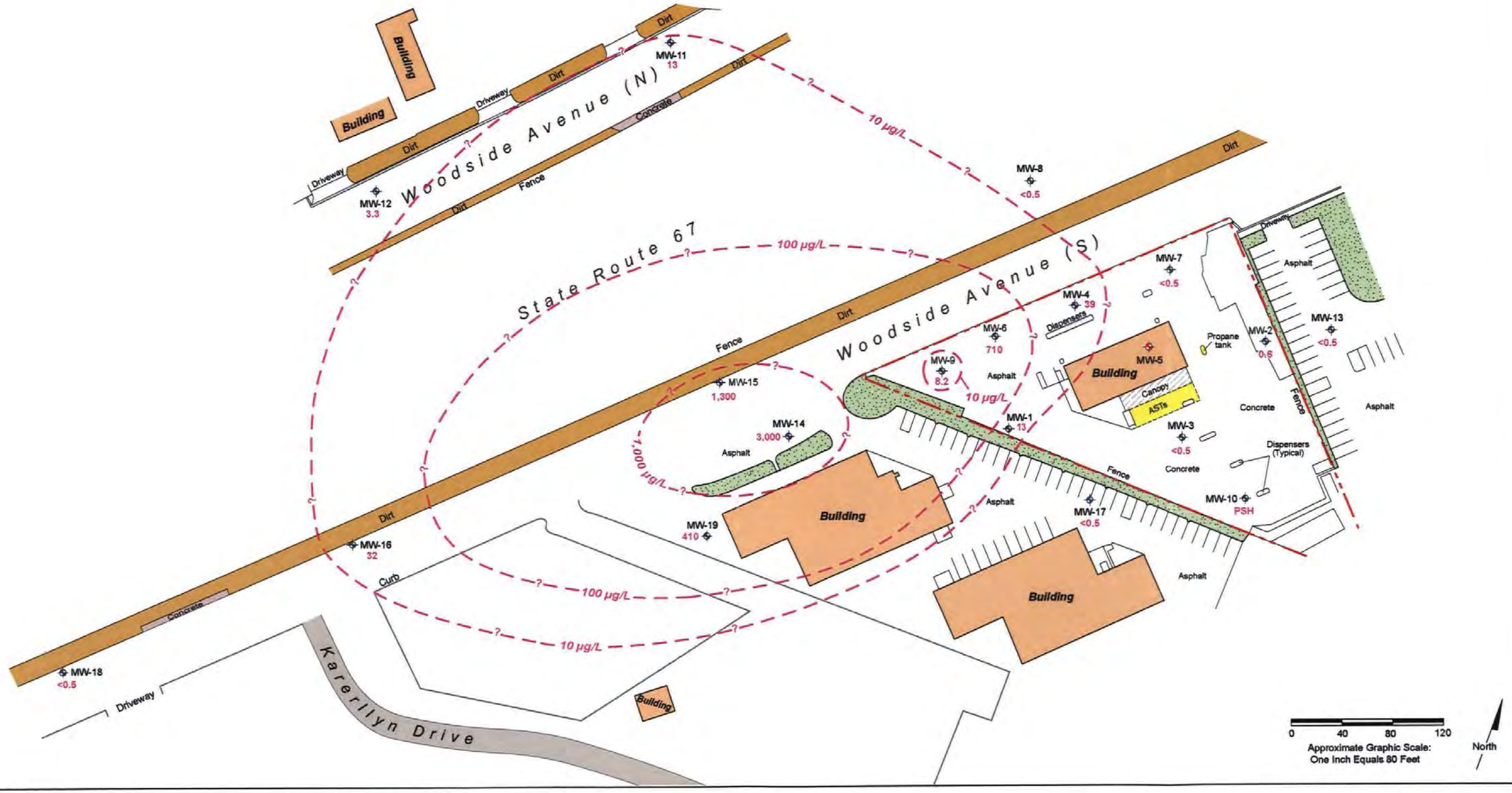
GROUNDWATER SAMPLE ANALYTICAL RESULTS 2009 THROUGH 2012

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 5

Date Drafted: 7/31/12



EXPLANATION

MW-16 32 — Groundwater monitoring well location with reported concentrations of benzene reported in micrograms per liter (µg/L). < indicates not reported above laboratory reporting limit for given analyte.

MW-5 — Well destroyed

100 µg/L — Iso-concentration of benzene reported in µg/L. Dashed where estimated, queried where inferred.

AST = aboveground storage tank
PSH = phase-separated hydrocarbons

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

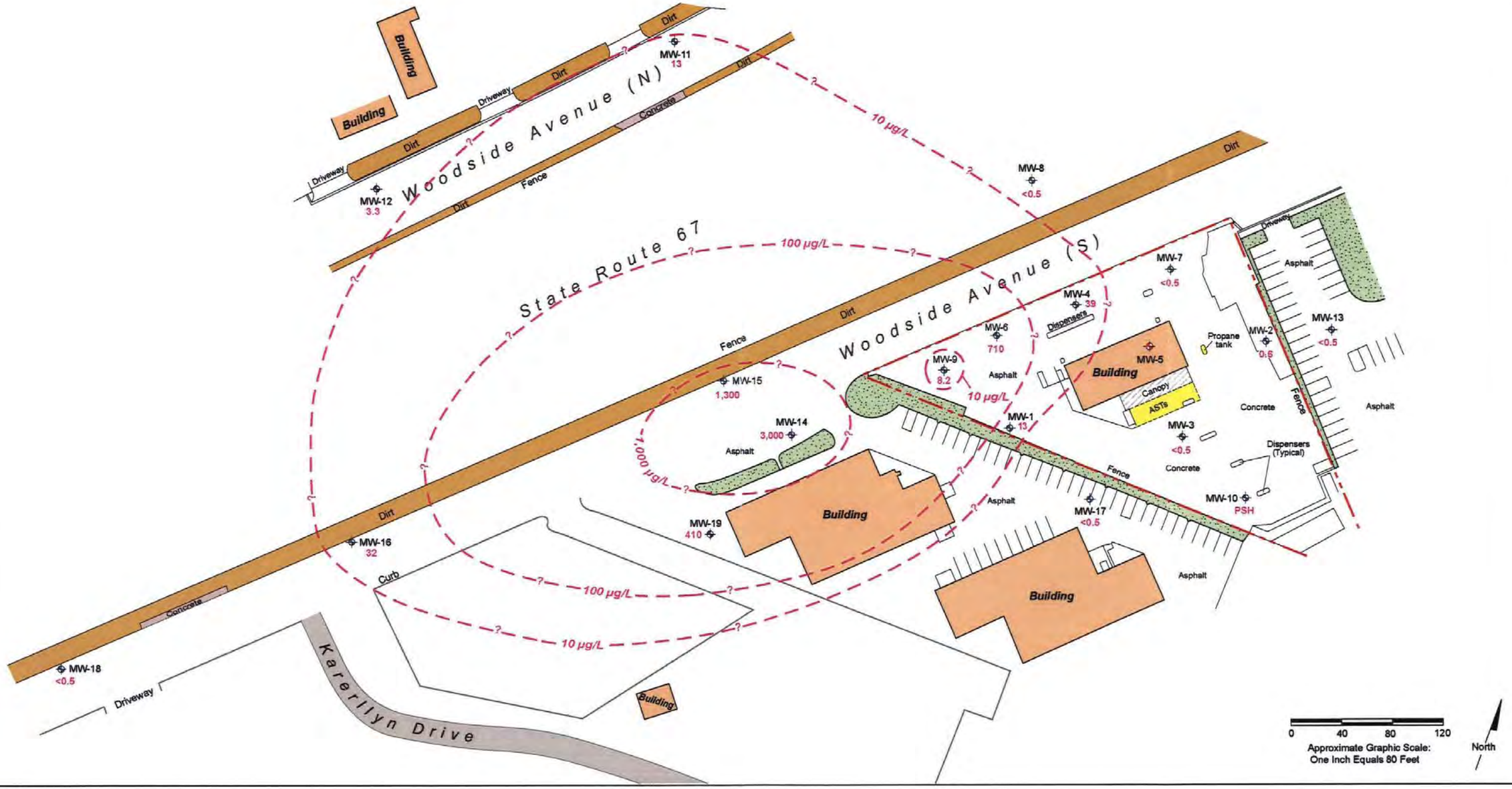
ISO-CONCENTRATION CONTOURS OF BENZENE IN SHALLOW GROUNDWATER - JUNE 2012

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 6

Date Drafted: 7/30/12



EXPLANATION

MW-16 32 — Groundwater monitoring well location with reported concentrations of benzene reported in micrograms per liter (µg/L). < indicates not reported above laboratory reporting limit for given analyte.

MW-5 — Well destroyed

100 µg/L — Iso-concentration of benzene reported in µg/L. Dashed where estimated, queried where inferred.

AST = aboveground storage tank
PSH = phase-separated hydrocarbons

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS
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ISO-CONCENTRATION CONTOURS OF BENZENE IN SHALLOW GROUNDWATER - JUNE 2012

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 6

Date Drafted: 7/30/12

APPENDICES

APPENDIX A

GROUNDWATER PURGING AND SAMPLING SHEETS

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123

Client: Wigington Oil	Project No: 1208473.00	Recorded By:
Site Address: 11427 Woodside Avenue Santee, CA	Date: 6/4/2012	CC/AB

WELL MONITORING DATA

WELL NO.	DTB	DTW	DTP	PT	SWE	ELEV-W	ELEV-P
MW-1	41.6	29.29			362.84	333.55	
MW-2	44.6	30.27			365.08	334.81	
MW-3	43.2	30.26			364.16	333.90	
MW-4	41.6	28.64			362.38	333.74	
MW-6	41.8	28.84			362.44	333.60	
MW-7	41.9	28.60			362.57	333.97	
MW-8	39.5	30.85			364.51	333.66	
MW-9	38.3	28.84			362.33	333.49	
MW-10	38.3	33.41	31.07	2.34	367.28	333.87	336.21
MW-11	37.4	29.39			362.48	333.09	
MW-12	36.2	28.93			361.88	332.95	
MW-13	44.7	32.13			366.91	334.78	
MW-14	36.8	29.49			362.79	333.30	
MW-15	37.2	29.11			362.36	333.25	
MW-16	38.3	29.41			362.48	333.07	
MW-17	44.4	34.35			367.97	333.62	
MW-18	39.1	29.63			362.28	332.65	
MW-19	40.4	32.24			365.07	332.83	

NOTES

WELL NO. - Monitoring well number
DTW - Depth to water from datum
DTP - Depth to product from datum
PT - Product Thickness
DTB - Depth to bottom of well
SWE - Surveyed well elevation in feet
ELEV-W - Relative elevation of water
ELEV-P - Relative elevation of product

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-1
Project Number: 01208473.00 | Date: 6-5-12
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: TT | Checked by: CEA | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 41.6 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 29.29 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 12.31 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 20.79 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other:
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (~~µmhos~~)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1400								
1424	29.67	0.38	21	473	-	8.31	--	28.0
1433	29.69	0.40	26	404	-	7.99	--	27.1
1438	29.70	0.41	28	514		7.60		24.3
1442	29.71	0.42	31	516		7.52		24.0

Borehole Volume: 20.8 (gal) | Total Volume Purge Water: 31 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.37

SAMPLING INFORMATION

Date & Time Sampled: 6-5-12 @ 1457 | Depth to water at time of sampling (feet): 29.30

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-2
Project Number: 01208473.00 | Date: 6/5/12
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: TT | Checked by: CEG | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 44.6
Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 30.27
Time measured: NA
Water Column (ft.) (WC=WD-SWL): 14.33
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2-CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 24.2 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other:
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[ ] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [X] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[ ] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date: Time:
[X] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
0930								
0938	33.58	3.31	10	663	–	7.34	–	22.3
0952	37.41	7.14	20	658	–	7.51	–	22.1
1000	39.38	9.11	25	667	–	7.59	–	22.2
1005	41.22	10.95	27	672	–	7.68	–	22.1

Borehole Volume: 24.2 (gal) Total Volume Purge Water: 27 (gal) Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 32.46

SAMPLING INFORMATION

Date & Time Sampled: 6-5-12 @ 1205 Depth to water at time of sampling (feet): 36.21

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-3
Project Number: 01208473.00 | Date: 6/6/12
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 43.2
Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 30.26
Time measured: NA
Water Column (ft.) (WC=WD-SWL): 12.94
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\,[CD^2 + P\,(BD^2-CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 22.0 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other:
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
0820								
0838	40.00	9.74	22	520	--	7.00	--	20.8
0848	40.55	10.29	33	513	--	6.93	--	21.2

Borehole Volume: 22 (gal) | Total Volume Purge Water: 33 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 32.31

SAMPLING INFORMATION

Date & Time Sampled: 6/6/12 0905 | Depth to water at time of sampling (feet): 32.00

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

WELL PURGING/SAMPLING LOG

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Project Name: Wigington Oil | Well No.: MW-4
Project Number: 01208473.00 | Date: 6-4-12
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: TT | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 41.6 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 28.64 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 12.96 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ |CD^2 + P\ (BD^2 - CD^2)|(WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 21.89 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other: _____
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (~~µmhos~~)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1400								
1410	28.89	0.25	10	482	--	7.77	--	26.9
1420	28.91	0.27	20	541	--	7.48	--	23.0
1433	28.99	0.35	33	564	-	7.33	-	21.6

Borehole Volume: 21.9 (gal) | Total Volume Purge Water: 33 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.71

SAMPLING INFORMATION

Date & Time Sampled: 6-4-12 @ 1438 | Depth to water at time of sampling (feet): 28.68

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-6
Project Number: 01208473.00 | Date: 6-5-12
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: TT | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 41.8 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 28.84 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 12.96 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2-CD^2)](WC)$$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 21.89 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other:
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (~~µmhos~~ µS)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1035								
1057	28.88	0.04	20	574	-	8.29	-	23.8
1106	28.88	0.04	22	517	-	7.60	-	22.0
1116	28.88	0.04	32	522	-	7.47	-	21.2

Borehole Volume: 21.9 (gal) | Total Volume Purge Water: 32 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.85

SAMPLING INFORMATION

Date & Time Sampled: 6-5-12 @ 1125 | Depth to water at time of sampling (feet): 28.85

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

WELL PURGING/SAMPLING LOG

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Project Name: Wigington Oil		Well No.: MW-7
Project Number: 01208473.00		Date: 6-4-12
Project Address: 11427 Woodside Avenue, Santee, CA		
Well GPS: Latitude:	Longitude:	
Sampled by: TT	Checked by: CEH	License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 ~~10~~ 12
Casing Diameter (in.) (CD): 2 ~~4~~ 6 8
Total Well Depth (ft.) (WD): 41.9
Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 28.60
Time measured: NA
Water Column (ft.) (WC=WD-SWL): 13.3
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 22.47 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other: ____
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1505								
1520	28.82	0.22	12	507	-	8.31	-	22.2
1530	28.82	0.22	23	549	-	7.85	-	22.1
1547	28.82	0.22	34	553	-	7.73	-	22.1

Borehole Volume: 22.5 (gal) Total Volume Purge Water: 34 (gal) Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.64

SAMPLING INFORMATION

Date & Time Sampled: 6-4-12 @ 1555 Depth to water at time of sampling (feet): 28.64

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil — Well No.: MW-8
Project Number: 01208473.00 — Date: 6/5/12
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby — Checked by: CEH — License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 39.5
Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 30.85
Time measured: NA
Water Column (ft.) (WC=WD-SWL): 8.65
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 14.7 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other:
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1007								
1020	30.95	0.10	15	1.70	--	7.49	--	24.59
1027	30.95	0.10	23	1.78	--	7.58	--	24.49

Borehole Volume: 14.7 (gal) — Total Volume Purge Water: 23 (gal) — Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 30.87

SAMPLING INFORMATION

Date & Time Sampled: 6/5/12 1040 — Depth to water at time of sampling (feet): 30.86

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW - 9
Project Number: 01208473.00 | Date: 6-5-12
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: JT | Checked by: CEW | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 38.3 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 28.84 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 9.46 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2-CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 15.98 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other: ____
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (~~µmhos~~ µS)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1242								
1300	28.89	0.05	16	526	-	8.86	-	23.8
1309	28.89	0.05	24	559	-	7.75	-	23.1
1315	28.90	0.06	30	566	-	7.69	-	21.6

Borehole Volume: ____ (gal) | Total Volume Purge Water: ____ (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.85

SAMPLING INFORMATION

Date & Time Sampled: 6-5-12 @ 1326 | Depth to water at time of sampling (feet): 28.85

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil		Well No.: MW-11
Project Number: 01208473.00		Date: 6-4-12
Project Address: 11427 Woodside Avenue, Santee, CA		
Well GPS: Latitude:	Longitude:	
Sampled by: TT	Checked by: CEH	License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12
Casing Diameter (in.) (CD): (2) 4 6 8
Total Well Depth (ft.) (WD): 37.4
Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 29.39
Time measured: NA
Water Column (ft.) (WC=WD-SWL): 8.01
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2-CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 7.23 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other: ____
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (~~µmhos~~ µS)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1149								
1205	29.40	0.01	7.5	369	--	9.03	-	27.0
1210	29.40	0.01	10.0	366	--	8.33	--	27.3
1214	29.40	0.01	12.0	365	—	8.28	—	27.3

Borehole Volume: ____ (gal) Total Volume Purge Water: ____ (gal) Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.4

SAMPLING INFORMATION

Date & Time Sampled: 6-4-12 @ 1220 Depth to water at time of sampling (feet): 29.4

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-12
Project Number: 01208473.00 | Date: 6-4-12
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: TT | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12
Casing Diameter (in.) (CD): (2) 4 6 8
Total Well Depth (ft.) (WD): 28.93 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 36.2 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 7.27 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2-CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 6.57 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other:
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (~~µmhos~~ mS)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1250								
1305	28.93	0	7.0	360	--	8.23	--	25.8
1313	28.93	0	10.0	362	--	8.19	--	25.9

Borehole Volume: _____ (gal) | Total Volume Purge Water: _____ (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging)

SAMPLING INFORMATION

Date & Time Sampled: 6-4-12 @ 1315 | Depth to water at time of sampling (feet): 28.93

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-13
Project Number: 01208473.00 | Date: 6/4/12
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12
Casing Diameter (in.) (CD): (2) 4 6 8
Total Well Depth (ft.) (WD): 44.7 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 32.13 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 12.57 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 11.3 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other: _____
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[ ] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [X] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[ ] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
[X] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (~~µmhos~~ mS/cm)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1140								
1223	44.10	11.97	11.3	2.94	--	6.97	--	25.6
					--		--	

Borehole Volume: 11.3 (gal) | Total Volume Purge Water: 11.3 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 34.52

SAMPLING INFORMATION

Date & Time Sampled: 6/4/12 @ 1430 | Depth to water at time of sampling (feet): 38.65

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-14
Project Number: 01208473.00 | Date: 6/5/12
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 36.8 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 29.49 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 7.31 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 12.4 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other: ____
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1420								
1429	31.70	2.21	13	1.73	--	7.40	--	25.20
1436	31.81	2.32	19	1.68	--	7.41	--	24.87

Borehole Volume: 12.4 (gal) | Total Volume Purge Water: 19 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.95

SAMPLING INFORMATION

Date & Time Sampled: 6/5/12 1445 | Depth to water at time of sampling (feet): 29.55

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-15
Project Number: 01208473.00 | Date: 6/6/12
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12
Casing Diameter (in.) (CD): (2) 4 6 8
Total Well Depth (ft.) (WD): 37.2 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 29.11 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 8.09 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2-CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 7.3 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other:
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
0942								
1000	29.16	0.05	7.5	470	--	6.91	--	20.2
1008	29.16	0.05	11	472	--	6.80	--	20.3

Borehole Volume: 7.3 (gal) | Total Volume Purge Water: 11 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.12

SAMPLING INFORMATION

Date & Time Sampled: 6/6/12 1020 | Depth to water at time of sampling (feet): 29.12

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil		Well No.: MW-16
Project Number: 01208473.00		Date: 6/4/12
Project Address: 11427 Woodside Avenue, Santee, CA		
Well GPS: Latitude:	Longitude:	
Sampled by: C. Crosby	Checked by: CEH	License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12

Casing Diameter (in.) (CD): (2) 4 6 8

Total Well Depth (ft.) (WD): 38.3 | Product thickness (ft.): NA

Static Water Level (ft.) (SWL): 29.41 | Time measured: NA

Water Column (ft.) (WC=WD-SWL): 8.89 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2\text{-}CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 8.0 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]

pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp

Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other: ____

Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:____ Time:____

[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters: Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1458								
1516	29.42	0.01	8	1.37	--	7.68	--	24.5
1524	29.41	0.00	12	1.37	--	7.66	--	24.1

Borehole Volume: 8.0 (gal) | Total Volume Purge Water: 12 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.41

SAMPLING INFORMATION

Date & Time Sampled: 6/4/12 1535 | Depth to water at time of sampling (feet): 29.41

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-17
Project Number: 01208473.00 | Date: 6/5/12
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12
Casing Diameter (in.) (CD): (2) 4 6 8
Total Well Depth (ft.) (WD): 44.4 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 34.35 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 10.05 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 {CD^2 + P (BD^2-CD^2)}(WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 9.0 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other:
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast - recovers 80% within 2 hours - Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% - Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, **sample** after well recovers 80% of total **purged** drawdown.
[X] Method 2, remove 1 BV, test **parameters** until stable per SAM Manual, **sample** after well recovers 80% of total **purged** drawdown.
[ ] **Method** 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
[ ] Method 4, remove 1 BV, **sample** after 2 hours. Note - if well recovers 80% of total **purged** drawdown, use another method.
[ ] Method 5, **non-purge** method. Only with **prior** written **approval** from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1138								
1207	40.90	6.55	9	1.56	--	7.75	--	26.21
1226	41.17	6.82	13.5	1.63	--	7.74	--	25.90

Borehole Volume: 9.0 (gal) | Total Volume Purge Water: 13.5 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 35.71

SAMPLING INFORMATION

Date & Time Sampled: 6/5/12 1250 | Depth to water at time of sampling (feet): 35.50

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-18
Project Number: 01208473.00 | Date: 6/4/12
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12
Casing Diameter (in.) (CD): (2) 4 6 8
Total Well Depth (ft.) (WD): 39.1
Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 29.63
Time measured: NA
Water Column (ft.) (WC=WD-SWL): 9.47
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2-CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 8.5 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other: _____
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1308								
1327	29.63	0.00	8.5	1.61	--	7.50	--	23.9
1338	29.63	0.00	13	1.61	--	7.56	--	23.6

Borehole Volume: 8.5 (gal) | Total Volume Purge Water: 13 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.63

SAMPLING INFORMATION

Date & Time Sampled: 6/4/12 1350 | Depth to water at time of sampling (feet): 29.63

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

WELL PURGING/SAMPLING LOG

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Project Name: Wigington Oil | Well No.: MW-19
Project Number: 01208473.00 | Date: 6/5/12
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 (8) 10 12
Casing Diameter (in.) (CD): (2) 4 6 8
Total Well Depth (ft.) (WD): 40.4 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 32.24 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 8.16 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ |CD^2 + P\ (BD^2\text{-}CD^2)|(WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. BV = 7.3 gallons

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump [ ] Bailer [X] Centrifugal Pump [ ] Other [ ]
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: [ ] Teflon Bailer [X] Disposable Bailer [ ] Bladder Pump [ ] Centrifugal Pump [ ] Other: ____
Decontamination Method: [ ] Steam/High Pressure Wash [X] 3 Stage (Alconox, tap water & DI rinse) [ ] Other: ____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

[X] Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 [ ] Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

[ ] Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
[X] Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
[ ] Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:____ Time:____
[ ] Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
[ ] Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1303								
1324	32.28	0.04	7.5	1.35	--	7.42	--	25.38
1336	32.32	0.06	11.0	1.36	--	7.49	--	25.09

Borehole Volume: 7.3 (gal) | Total Volume Purge Water: 11 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 32.25

SAMPLING INFORMATION

Date & Time Sampled: 6/5/12 1345 | Depth to water at time of sampling (feet): 32.24

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

APPENDIX B

NON-HAZARDOUS WASTE MANIFEST

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone 1 800 424 9300	4. Waste Tracking Number 39691

GENERATOR

5. Generator's Name and Mailing Address: WIGHINGTON OIL, C/O SCS ENGINEERS 8799 BALBOA AVE, SAN DIEGO, CA 92123
Generator's Site Address (if different than mailing address): WIGHINGTON OIL, 1142 S WOODTOBE AVE, SANTEE, CA 92071
Generator's Phone: 858 571 5500 CHRIS CROSBY

6. Transporter 1 Company Name: EFR ENVIRONMENTAL SERVICES, INC.
U.S. EPA ID Number: CAD099011205

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: ROSBY & OVERTON PLANT #1, 1630 WEST 17TH STREET, LONG BEACH, CA 90813
U.S. EPA ID Number: CAD028409813
Facility's Phone: 562 436 5445

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON HAZARDOUS WASTE LIQUID, PURGE WATER	7	DM	385	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
SP 1 PROFILE NO: 53453 - PURGE WATER
ALWAYS WEAR APPROPRIATE PPE & USE SAFE HANDLING METHODS.

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: On behalf of Generator, Chris Crosby (SCS) | Signature: X Chris Crosby | Month: 7 | Day: 18 | Year: 12

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Octavio Quintero | Signature | Month: 7 | Day: 18 | Year: 12

Transporter 2 Printed/Typed Name: | Signature: | Month: | Day: | Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number:
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month: | Day: | Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: | Signature: | Month: | Day: | Year:

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone 1-800-424-9300	4. Waste Tracking Number 37868

5. Generator's Name and Mailing Address: WIGINGTON OIL
C/O SCS ENGINEERS 8799 BALBOA AVE
SAN DIEGO, CA 92123
Generator's Phone: 858-571-5500 CHRIS CROSBY

Generator's Site Address (if different than mailing address): WIGINGTON OIL
11427 S WOODSIDE AVE.
SANTEE, CA 92071

6. Transporter 1 Company Name: EFR ENVIRONMENTAL SERVICES, INC. — U.S. EPA ID Number: CAR000011205

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: CROSBY & OVERTON PLANT #1
1630 WEST 17TH STREET
LONG BEACH, CA 90813
Facility's Phone: 562-432-5445 — U.S. EPA ID Number: CAD028409019

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON-HAZARDOUS WASTE LIQUID (PURGE WATER)	8	DM	440	G	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
9B-1 PROFILE NO: 83458

ALWAYS WEAR APPROPRIATE PPE & USE SAFE HANDLING METHODS. D60456

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: On behalf of Generator Chris Crosby — Signature: Chris Crosby — Month 2 Day 3 Year 12

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Rick Traughber — Signature — Month 2 Day 3 Year 12

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

THE REFERENCED WASTE WAS RECEIVED, HANDLED AND STORED FOR SUBSEQUENT OFFSITE DISPOSAL, TREATMENT OR REUSE. CROSBY & OVERTON, INC. OPERATES THE FACILITY UNDER PERMITS GRANTED TO THEM, BY THE DEPARTMENT OF TOXIC SUBSTANCE CONTROL, TOGETHER WITH THE ENVIRONMENTAL PROTECTION AGENCY IN ACCORDANCE WITH THE PROVISIONS OF THE RESOURCE CONSERVATION AND RECOVERY ACT OF 1976 TOGETHER WITH APPLICABLE FEDERAL AND STATE REGULATIONS, CROSBY & OVERTON HAS ALL OF THE NECESSARY PERMITS TO ACCEPT THE REFERENCED WASTE AND ALL THE WASTE HAS BEEN HANDLED ACCORDINGLY

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

H135

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: J. Belleza — Signature: J Belleza — Month 02 Day 08 Year 12

APPENDIX C

ANALYTICAL DATA AND CHAIN-OF-CUSTODY DOCUMENTATION

Mobile Geochemistry Inc.

26 June 2012

Mr. Chuck Houser
SCS Engineers - San Diego
8799 Balboa Avenue, Suite 290
San Diego, CA 92123

H&P Project: SCS060712-12
Client Project: 01208473.00 / Wigington Oil

Dear Mr. Chuck Houser:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 07-Jun-12 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody

Unless otherwise noted, all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

Janis Villarreal

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry, Inc. operates under CA Environmental Lab Accreditation Program Numbers 2579, 2740, 2741, 2742, 2743, 2745 and 2754. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

H&P Mobile
Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

SCS Engineers - San Diego 8799 Balboa Avenue, Suite 290 San Diego, CA 92123	Project: SCS060712-12 Project Number: 01208473.00 / Wigington Oil Project Manager: Mr. Chuck Houser	Reported: 26-Jun-12 14:37

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	E206031-01	Water	05-Jun-12	07-Jun-12
MW-2	E206031-02	Water	05-Jun-12	07-Jun-12
MW-3	E206031-03	Water	06-Jun-12	07-Jun-12
MW-4	E206031-04	Water	04-Jun-12	07-Jun-12
MW-6	E206031-05	Water	05-Jun-12	07-Jun-12
MW-7	E206031-06	Water	04-Jun-12	07-Jun-12
MW-8	E206031-07	Water	05-Jun-12	07-Jun-12
MW-9	E206031-08	Water	05-Jun-12	07-Jun-12
MW-11	E206031-09	Water	04-Jun-12	07-Jun-12
MW-12	E206031-10	Water	04-Jun-12	07-Jun-12
MW-13	E206031-11	Water	04-Jun-12	07-Jun-12
MW-14	E206031-12	Water	05-Jun-12	07-Jun-12
MW-15	E206031-13	Water	06-Jun-12	07-Jun-12
MW-16	E206031-14	Water	04-Jun-12	07-Jun-12
MW-17	E206031-15	Water	05-Jun-12	07-Jun-12
MW-18	E206031-16	Water	04-Jun-12	07-Jun-12
MW-19	E206031-17	Water	05-Jun-12	07-Jun-12

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SCS Engineers - San Diego	Project: SCS060712-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-12 14:37

Volatile Organic Compounds by EPA Method 5030B/8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-1 (E206031-01) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	**3.0**	1.0	ug/l	0.05	EF21408	13-Jun-12	13-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**13**	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	**0.8**	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**10**	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*85.4 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*87.3 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.5 %*		*75-125*	"	"	"	"	
MW-2 (E206031-02) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	**8.0**	1.0	ug/l	0.05	EF21407	12-Jun-12	12-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**0.6**	0.5	"	"	"	"	"	"	
Toluene	**1.3**	0.5	"	"	"	"	"	"	
Ethylbenzene	**2.3**	0.5	"	"	"	"	"	"	
m,p-Xylene	**6.2**	1.0	"	"	"	"	"	"	
o-Xylene	**5.4**	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**720**	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*80.6 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*86.1 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*		*75-125*	"	"	"	"	

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8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-12 14:37

Volatile Organic Compounds by EPA Method 5030B/8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-3 (E206031-03) Water Sampled: 06-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	**78**	1.0	ug/l	0.05	EF21407	12-Jun-12	12-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**15**	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*80.6 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*84.8 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*101 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*75-125*	"	"	"	"	
MW-4 (E206031-04) Water Sampled: 04-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	**42**	1.0	ug/l	0.05	EF21407	12-Jun-12	12-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**39**	0.5	"	"	"	"	"	"	
Toluene	**1.2**	0.5	"	"	"	"	"	"	
Ethylbenzene	**21**	0.5	"	"	"	"	"	"	
m,p-Xylene	**1.3**	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*85.6 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*93.0 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*106 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*		*75-125*	"	"	"	"	

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8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-12 14:37

Volatile Organic Compounds by EPA Method 5030B/8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-6 (E206031-05) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	**150**	10	ug/l	1	EF21408	13-Jun-12	13-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	10	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	10	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	10	"	"	"	"	"	"	
Benzene	**710**	5.0	"	"	"	"	"	"	
Toluene	**7.6**	5.0	"	"	"	"	"	"	
Ethylbenzene	**660**	5.0	"	"	"	"	"	"	
m,p-Xylene	**91**	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	50	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*91.4 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*92.2 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*106 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*75-125*	"	"	"	"	
MW-7 (E206031-06) Water Sampled: 04-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l	0.05	EF21407	12-Jun-12	12-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*81.0 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*81.2 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*		*75-125*	"	"	"	"	

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SCS Engineers - San Diego	Project: SCS060712-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-12 14:37

Volatile Organic Compounds by EPA Method 5030B/8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-8 (E206031-07) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l	0.05	EF21407	12-Jun-12	12-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	**4.6**	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*88.9 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*89.5 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*110 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*		*75-125*	"	"	"	"	
MW-9 (E206031-08) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	**6.3**	1.0	ug/l	0.05	EF21407	12-Jun-12	12-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**8.2**	0.5	"	"	"	"	"	"	
Toluene	**4.5**	0.5	"	"	"	"	"	"	
Ethylbenzene	**10**	0.5	"	"	"	"	"	"	
m,p-Xylene	**11**	1.0	"	"	"	"	"	"	
o-Xylene	**2.8**	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*85.9 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*84.7 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*101 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.7 %*		*75-125*	"	"	"	"	

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SCS Engineers - San Diego	Project: SCS060712-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-12 14:37

Volatile Organic Compounds by EPA Method 5030B/8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-11 (E206031-09) Water Sampled: 04-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l	0.05	EF21407	12-Jun-12	12-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**13**	0.5	"	"	"	"	"	"	
Toluene	**2.5**	0.5	"	"	"	"	"	"	
Ethylbenzene	**16**	0.5	"	"	"	"	"	"	
m,p-Xylene	**12**	1.0	"	"	"	"	"	"	
o-Xylene	**1.4**	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*86.5 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*83.7 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*112 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.0 %*		*75-125*	"	"	"	"	
MW-12 (E206031-10) Water Sampled: 04-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l	0.05	EF21407	12-Jun-12	12-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**3.3**	0.5	"	"	"	"	"	"	
Toluene	**0.7**	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*84.4 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*87.4 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*107 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*		*75-125*	"	"	"	"	

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SCS Engineers - San Diego	Project: SCS060712-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-12 14:37

Volatile Organic Compounds by EPA Method 5030B/8260B

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-13 (E206031-11) Water Sampled: 04-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l	0.05	EF21408	13-Jun-12	13-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*82.8 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*83.4 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*101 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.2 %*		*75-125*	"	"	"	"	
MW-14 (E206031-12) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	**390**	100	ug/l	10	EF21408	13-Jun-12	13-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	100	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	100	"	"	"	"	"	"	
Benzene	**3000**	50	"	"	"	"	"	"	
Toluene	**120**	50	"	"	"	"	"	"	
Ethylbenzene	**2500**	50	"	"	"	"	"	"	
m,p-Xylene	**3700**	100	"	"	"	"	"	"	
o-Xylene	**51**	50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	500	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*86.5 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*89.2 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*106 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*		*75-125*	"	"	"	"	

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San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-12 14:37

Volatile Organic Compounds by EPA Method 5030B/8260B

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-15 (E206031-13) Water Sampled: 06-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	ND	100	ug/l	10	EF21408	13-Jun-12	13-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	100	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	100	"	"	"	"	"	"	
Benzene	**1300**	50	"	"	"	"	"	"	
Toluene	**72**	50	"	"	"	"	"	"	
Ethylbenzene	**3800**	50	"	"	"	"	"	"	
m,p-Xylene	**6500**	100	"	"	"	"	"	"	
o-Xylene	**290**	50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	500	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*83.7 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*88.9 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*106 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*		*75-125*	"	"	"	"	
MW-16 (E206031-14) Water Sampled: 04-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	**16**	1.0	ug/l	0.05	EF21408	13-Jun-12	13-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	**32**	0.5	"	"	"	"	"	"	
Toluene	**0.9**	0.5	"	"	"	"	"	"	
Ethylbenzene	**24**	0.5	"	"	"	"	"	"	
m,p-Xylene	**2.9**	1.0	"	"	"	"	"	"	
o-Xylene	**0.6**	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*84.6 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*86.7 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*109 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*100 %*		*75-125*	"	"	"	"	

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San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-12 14:37

Volatile Organic Compounds by EPA Method 5030B/8260B

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-17 (E206031-15) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	**1.3**	1.0	ug/l	0.05	EF21408	13-Jun-12	13-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*82.2 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*86.2 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*102 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*		*75-125*		"	"	"	
MW-18 (E206031-16) Water Sampled: 04-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l	0.05	EF21408	13-Jun-12	13-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.5	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*81.0 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*87.8 %*		*62-139*		"	"	"	
Surrogate: Toluene-d8		*101 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*		*75-125*		"	"	"	

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San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-12 14:37

Volatile Organic Compounds by EPA Method 5030B/8260B

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-19 (E206031-17) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Methyl tertiary-butyl ether (MTBE)	ND	100	ug/l	10	EF21408	13-Jun-12	13-Jun-12	EPA 8260B	
Diisopropyl ether (DIPE)	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	100	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	100	"	"	"	"	"	"	
Benzene	**410**	50	"	"	"	"	"	"	
Toluene	**870**	50	"	"	"	"	"	"	
Ethylbenzene	**2400**	50	"	"	"	"	"	"	
m,p-Xylene	**3400**	100	"	"	"	"	"	"	
o-Xylene	**1400**	50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	500	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*82.2 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*85.6 %*		*62-139*	"	"	"	"	
Surrogate: Toluene-d8		*105 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.2 %*		*75-125*	"	"	"	"	

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San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-12 14:37

TPH Analysis by LUFT

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-1 (E206031-01) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	ND	500	ug/l	1	EF21505	14-Jun-12	14-Jun-12	LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-2 (E206031-02) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	ND	500	ug/l	1	EF21505	14-Jun-12	14-Jun-12	LUFT	
Diesel (C12-C24)	**5100**	500	"	"	"	"	"	"	
MW-3 (E206031-03) Water Sampled: 06-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	ND	500	ug/l	1	EF21505	14-Jun-12	14-Jun-12	LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-4 (E206031-04) Water Sampled: 04-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	ND	500	ug/l	1	EF21505	14-Jun-12	14-Jun-12	LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-6 (E206031-05) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	**4300**	500	ug/l	1	EF21505	14-Jun-12	14-Jun-12	LUFT	
Diesel (C12-C24)	**4000**	500	"	"	"	"	"	"	D-08
MW-7 (E206031-06) Water Sampled: 04-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	ND	500	ug/l	1	EF21505	14-Jun-12	14-Jun-12	LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-8 (E206031-07) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	ND	500	ug/l	1	EF21505	14-Jun-12	14-Jun-12	LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-9 (E206031-08) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	ND	500	ug/l	1	EF21506	15-Jun-12	15-Jun-12	LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-11 (E206031-09) Water Sampled: 04-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	**1700**	500	ug/l	1	EF21505	14-Jun-12	14-Jun-12	LUFT	D-02
Diesel (C12-C24)	**1600**	500	"	"	"	"	"	"	D-02
MW-12 (E206031-10) Water Sampled: 04-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	ND	500	ug/l	1	EF21505	14-Jun-12	14-Jun-12	LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-13 (E206031-11) Water Sampled: 04-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	ND	500	ug/l	1	EF21505	15-Jun-12	15-Jun-12	LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-14 (E206031-12) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	**6000**	500	ug/l	1	EF21505	14-Jun-12	14-Jun-12	LUFT	
Diesel (C12-C24)	**2600**	500	"	"	"	"	"	"	D-08
MW-15 (E206031-13) Water Sampled: 06-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	**44000**	500	ug/l	1	EF21505	14-Jun-12	14-Jun-12	LUFT	
Diesel (C12-C24)	**8200**	500	"	"	"	"	"	"	D-08
MW-16 (E206031-14) Water Sampled: 04-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	ND	500	ug/l	1	EF21505	14-Jun-12	14-Jun-12	LUFT	
Diesel (C12-C24)	**640**	500	"	"	"	"	"	"	D-02

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San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-12 14:37

TPH Analysis by LUFT

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
MW-17 (E206031-15) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	ND	500	ug/l	1	EF21505	14-Jun-12	14-Jun-12	LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-18 (E206031-16) Water Sampled: 04-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	ND	500	ug/l	1	EF21505	14-Jun-12	14-Jun-12	LUFT	
Diesel (C12-C24)	ND	500	"	"	"	"	"	"	
MW-19 (E206031-17) Water Sampled: 05-Jun-12 Received: 07-Jun-12									
Gasoline (C5-C11)	**22000**	500	ug/l	1	EF21505	14-Jun-12	14-Jun-12	LUFT	
Diesel (C12-C24)	**6000**	500	"	"	"	"	"	"	D-08

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Project Manager: Mr. Chuck Houser

Reported:
26-Jun-12 14:37

Volatile Organic Compounds by EPA Method 5030B/8260B - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF21407 - EPA 5030										
Blank (EF21407-BLK1)				Prepared & Analyzed: 12-Jun-12						
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l							
Diisopropyl ether (DIPE)	ND	1.0	"							
Ethyl tert-butyl ether (ETBE)	ND	1.0	"							
Tertiary-amyl methyl ether (TAME)	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tertiary-butyl alcohol (TBA)	ND	5.0	"							
Surrogate: Dibromofluoromethane	*2.01*		"	*2.50*		*80.3*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.09*		"	*2.50*		*83.7*	*62-139*			
Surrogate: Toluene-d8	*2.52*		"	*2.50*		*101*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.56*		"	*2.50*		*102*	*75-125*			
Matrix Spike (EF21407-MS1)	**Source: E206036-03**			Prepared & Analyzed: 12-Jun-12						
Methyl tertiary-butyl ether (MTBE)	4.96	1.0	ug/l	5.00	ND	99.3	65-125			
Diisopropyl ether (DIPE)	4.86	1.0	"	5.00	ND	97.1	75-125			
Ethyl tert-butyl ether (ETBE)	4.87	1.0	"	5.00	ND	97.4	75-125			
Tertiary-amyl methyl ether (TAME)	5.00	1.0	"	5.00	ND	100	75-125			
Benzene	5.03	0.5	"	5.00	ND	101	80-120			
Toluene	4.92	0.5	"	5.00	ND	98.5	75-120			
Ethylbenzene	5.72	0.5	"	5.00	ND	114	75-125			
m,p-Xylene	10.7	1.0	"	10.0	ND	107	75-130			
o-Xylene	5.66	0.5	"	5.00	ND	113	80-120			
Tertiary-butyl alcohol (TBA)	24.7	5.0	"	25.0	ND	98.8	75-125			
Surrogate: Dibromofluoromethane	*2.15*		"	*2.50*		*86.1*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.06*		"	*2.50*		*82.3*	*62-139*			
Surrogate: Toluene-d8	*2.55*		"	*2.50*		*102*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.73*		"	*2.50*		*109*	*75-125*			

H&P Mobile
Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

SCS Engineers - San Diego	Project: SCS060712-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-12 14:37

Volatile Organic Compounds by EPA Method 5030B/8260B - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF21407 - EPA 5030										
Matrix Spike Dup (EF21407-MSD1)	**Source: E206036-03**			Prepared & Analyzed: 12-Jun-12						
Methyl tertiary-butyl ether (MTBE)	5.12	1.0	ug/l	5.00	ND	102	65-125	3.04	20	
Diisopropyl ether (DIPE)	4.84	1.0	"	5.00	ND	96.9	75-125	0.289	20	
Ethyl tert-butyl ether (ETBE)	4.98	1.0	"	5.00	ND	99.6	75-125	2.27	20	
Tertiary-amyl methyl ether (TAME)	5.05	1.0	"	5.00	ND	101	75-125	0.926	20	
Benzene	4.91	0.5	"	5.00	ND	98.1	80-120	2.42	20	
Toluene	4.96	0.5	"	5.00	ND	99.2	75-120	0.759	20	
Ethylbenzene	5.40	0.5	"	5.00	ND	108	75-125	5.63	20	
m,p-Xylene	10.3	1.0	"	10.0	ND	103	75-130	3.83	20	
o-Xylene	5.40	0.5	"	5.00	ND	108	80-120	4.61	20	
Tertiary-butyl alcohol (TBA)	25.2	5.0	"	25.0	ND	101	75-125	2.12	20	
Surrogate: Dibromofluoromethane	*2.17*		"	*2.50*		*86.7*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.11*		"	*2.50*		*84.3*	*62-139*			
Surrogate: Toluene-d8	*2.56*		"	*2.50*		*102*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.54*		"	*2.50*		*101*	*75-125*			
Batch EF21408 - EPA 5030										
Blank (EF21408-BLK1)				Prepared & Analyzed: 13-Jun-12						
Methyl tertiary-butyl ether (MTBE)	ND	1.0	ug/l							
Diisopropyl ether (DIPE)	ND	1.0	"							
Ethyl tert-butyl ether (ETBE)	ND	1.0	"							
Tertiary-amyl methyl ether (TAME)	ND	1.0	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	0.5	"							
Tertiary-butyl alcohol (TBA)	ND	5.0	"							
Surrogate: Dibromofluoromethane	*2.10*		"	*2.50*		*83.9*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.15*		"	*2.50*		*85.9*	*62-139*			
Surrogate: Toluene-d8	*2.50*		"	*2.50*		*100*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.48*		"	*2.50*		*99.1*	*75-125*			

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SCS Engineers - San Diego	Project: SCS060712-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-12 14:37

Volatile Organic Compounds by EPA Method 5030B/8260B - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF21408 - EPA 5030										
Matrix Spike (EF21408-MS1)	**Source: E206031-11**			Prepared & Analyzed: 13-Jun-12						
Methyl tertiary-butyl ether (MTBE)	5.20	1.0	ug/l	5.00	ND	104	65-125			
Diisopropyl ether (DIPE)	5.02	1.0	"	5.00	ND	100	75-125			
Ethyl tert-butyl ether (ETBE)	5.01	1.0	"	5.00	ND	100	75-125			
Tertiary-amyl methyl ether (TAME)	5.09	1.0	"	5.00	ND	102	75-125			
Benzene	5.03	0.5	"	5.00	ND	101	80-120			
Toluene	5.09	0.5	"	5.00	ND	102	75-120			
Ethylbenzene	5.66	0.5	"	5.00	ND	113	75-125			
m,p-Xylene	10.6	1.0	"	10.0	ND	106	75-130			
o-Xylene	5.56	0.5	"	5.00	ND	111	80-120			
Tertiary-butyl alcohol (TBA)	23.1	5.0	"	25.0	ND	92.2	75-125			
Surrogate: Dibromofluoromethane	*2.20*		"	*2.50*		*87.9*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.23*		"	*2.50*		*89.2*	*62-139*			
Surrogate: Toluene-d8	*2.54*		"	*2.50*		*101*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.74*		"	*2.50*		*110*	*75-125*			
Matrix Spike Dup (EF21408-MSD1)	**Source: E206031-11**			Prepared & Analyzed: 13-Jun-12						
Methyl tertiary-butyl ether (MTBE)	5.13	1.0	ug/l	5.00	ND	103	65-125	1.30	20	
Diisopropyl ether (DIPE)	5.00	1.0	"	5.00	ND	100	75-125	0.319	20	
Ethyl tert-butyl ether (ETBE)	5.00	1.0	"	5.00	ND	100	75-125	0.210	20	
Tertiary-amyl methyl ether (TAME)	5.08	1.0	"	5.00	ND	102	75-125	0.0492	20	
Benzene	5.06	0.5	"	5.00	ND	101	80-120	0.555	20	
Toluene	5.18	0.5	"	5.00	ND	104	75-120	1.63	20	
Ethylbenzene	5.64	0.5	"	5.00	ND	113	75-125	0.265	20	
m,p-Xylene	10.5	1.0	"	10.0	ND	105	75-130	0.884	20	
o-Xylene	5.69	0.5	"	5.00	ND	114	80-120	2.37	20	
Tertiary-butyl alcohol (TBA)	23.0	5.0	"	25.0	ND	91.9	75-125	0.393	20	
Surrogate: Dibromofluoromethane	*2.11*		"	*2.50*		*84.6*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.10*		"	*2.50*		*84.1*	*62-139*			
Surrogate: Toluene-d8	*2.57*		"	*2.50*		*103*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.62*		"	*2.50*		*105*	*75-125*			

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SCS Engineers - San Diego	Project: SCS060712-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-12 14:37

TPH Analysis by LUFT - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF21505 - CA DHS LUFT										
Blank (EF21505-BLK1)				Prepared & Analyzed: 14-Jun-12						
Gasoline (C5-C11)	ND	500	ug/l							
Diesel (C12-C24)	ND	500	"							
Matrix Spike (EF21505-MS1)	Source: E206031-01			Prepared & Analyzed: 14-Jun-12						
Gasoline (C5-C11)	2890	500	ug/l	3000	ND	96.3	75-125			
Diesel (C12-C24)	6950	500	"	7500	ND	92.7	75-125			
Matrix Spike Dup (EF21505-MSD1)	Source: E206031-01			Prepared & Analyzed: 14-Jun-12						
Gasoline (C5-C11)	2330	500	ug/l	3000	ND	77.7	75-125	21.5	30	
Diesel (C12-C24)	7200	500	"	7500	ND	96.0	75-125	3.53	30	
Batch EF21506 - CA DHS LUFT										
Blank (EF21506-BLK1)				Prepared & Analyzed: 15-Jun-12						
Gasoline (C5-C11)	ND	500	ug/l							
Diesel (C12-C24)	ND	500	"							
LCS (EF21506-BS1)				Prepared & Analyzed: 15-Jun-12						
Gasoline (C5-C11)	2430	500	ug/l	3000		81.0	75-125			
Diesel (C12-C24)	6050	500	"	7500		80.7	75-125			
LCS Dup (EF21506-BSD1)				Prepared & Analyzed: 15-Jun-12						
Gasoline (C5-C11)	2770	500	ug/l	3000		92.3	75-125	13.1	30	
Diesel (C12-C24)	7800	500	"	7500		104	75-125	25.3	30	

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SCS Engineers - San Diego 8799 Balboa Avenue, Suite 290 San Diego, CA 92123	Project: SCS060712-12 Project Number: 01208473.00 / Wigington Oil Project Manager: Mr. Chuck Houser	Reported: 26-Jun-12 14:37

Notes and Definitions

D-08	Results in the diesel organics range are primarily due to overlap from a gasoline range product.
D-02	Hydrocarbon pattern present in the requested fuel quantitation range does not resemble the pattern of the requested fuel.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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SCS Engineers - San Diego	Project: SCS060712-12	
8799 Balboa Avenue, Suite 290	Project Number: 01208473.00 / Wigington Oil	Reported:
San Diego, CA 92123	Project Manager: Mr. Chuck Houser	26-Jun-12 14:37

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the Environmental Laboratory Accreditation Program (CA) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste for the following methods:

Certificate# 2741, 2743, 2579, 2754 & 2740 approved for EPA 8260 and LUFT GC/MS
Certificate# 2742, 2745, & 2741 approved for LUFT
Certificate# 2745 & 2742 approved for EPA 418.1

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the National Environmental Accreditation Conference Standards for the category Environmental Analysis Air and Emissions for the following analytes and methods:

1,2,4-Trichlorobenzene by EPA TO-15 & TO-14A
Hexachlorobutadiene by EPA TO-15 & TO-14A
1,2,4-Trimethylbenzene by EPA TO -14A
1,2-Dichlorobenzene by EPA TO-15 & TO-14A
1,3,5-Trimethylbenzene by EPA TO -14A
1,4-Dichlorobenzene by EPA TO-15 & TO-14A
Benzene by EPA TO-15 & TO-14A
Chlorobenzene by EPA TO-15 & TO-14A
Ethyl benzene by EPA TO-15 & TO-14A
Styrene by EPA TO-15 & TO-14A
Toluene by EPA TO-15 & TO-14A
Total Xylenes by EPA TO-15 & TO-14A
1,1,1-Trichloroethane by EPA TO-15 & TO-14A
1,1,2,2-Tetrachloroethane by EPA TO-15 & TO-14A
1,1,2-Trichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethene by EPA TO-15 & TO-14A
1,2-Dichloroethane by EPA TO-15 & TO-14A
1,2-Dichloropropane by EPA TO-15 & TO-14A
Benzyl Chloride by EPA TO-15 & TO-14A
Bromoform by EPA TO-15
Bromomethane by EPA TO-15 & TO-14A
Carbon tetrachloride by EPA TO-15 & TO-14A
Chloroethane by EPA TO-15
Chloroform by EPA TO-15 & TO-14A
Chloromethane by EPA TO-15 & TO-14A
cis-1,2-Dichloroethene by EPA TO-15
cis-1,2-Dichloropropene by EPA TO-15 & TO-14A
Methylene chloride by EPA TO -15 & TO-14A
Tetrachloroethane by EPA TO-15 & TO-14A
trans-1,2-Dichloroethene by EPA TO-15
trans-1,2-Dichloropropene by EPA TO-15 & TO-14A
Trichloroethene by EPA TO-15 & TO-14A
Vinyl chloride by EPA TO -15 & TO-14A
2-Butanone by EPA TO-15
4-Methyl-2-Pentanone by EPA TO-15
Hexane by EPA TO-15
Methyl tert-butyl ether by EPA TO-15
Vinyl acetate by EPA TO-15

Dibromochloromethane by EPA TO-15
Dichlorodifluoromethane by EPA TO-15 & TO-14A
Trichlorofluoromethane by EPA TO-15 & TO-14A
Naphthalene by EPA TO-15 & TO-14A
m&p Xylenes by EPA TO-15
o-Xylene by EPA TO-15
1,3-Butadiene by EPA TO-15
1,1,2-Trichlorotrifluoroethane by EPA TO-15 & TO-14A
Carbon disulfide by EPA TO-15
1,4-Dioxane by EPA TO-15
Cyclohexane by EPA TO-15
tert-Butyl Alcohol by EPA TO-15
1,3-Dichlorobenzene by EPA TO-15 & TO-14A
Heptane by EPA TO-15
Bromodichloromethane by EPA TO-15 & TO-14A

This certification applies to samples analyzed in summa canisters.

Chain of Custody Record

H&P Mobile Geochemistry Inc.

☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: _____
H&P Project # SCS060712-12
Outside Lab: _____

Client: SCS Engineers
Address: 8799 Balboa Ave., Suite 290
San Diego, CA 92123
Email: ccrosby@scsengineers.com

Collector: Chris Crosby / Tracy Thompson
Client Project # 01208473.00
Location: Wigington Oil: 11427 Woodside Ave., Santee, CA
Phone: 858-571-5500 Fax: 858-571-5357

Page: 1 of 2
Project Contact: Chuck Houser
Turn around time: Normal

Geotracker EDF: Yes ☑ No ☐
Global ID: T0607303173
Excel EDD: Yes ☑ No ☐

Sample Receipt
Intact: ☑ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☑ N/A
Cold: ☑ Yes ☐ No ☐ N/A
Temperature: 6.0°

Special Instructions:
Please cc results to chouser@scsengineers.com

Lab Work Order # E206031

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B ☒ BTEX/OXY ☐ TPH gas	8015M TPH ☒ g ☒ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☐ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ____ ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2
					SOIL/GW			SOIL VAPOR/AIR ANALYSIS														
MW-1			1457	6/5/12	GW	VOA	6		X	X												
MW-2			1205	↓					X	X												
MW-3			0905	6/6/12					X	X												
MW-4			1438	6/4/12					X	X												
MW-6			1125	6/5/12					X	X												
MW-7			1555	6/4/12					X	X												
MW-8			1040	6/5/12					X	X												
MW-9			1326	↓					X	X												
MW-11			1220	6/4/12					X	X												
MW-12			1315	↓	↓	↓	↓		X	X												

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time
Chris Crosby	SCS	[signature]	H&P	6/7/2012	1015 AM
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back

Sample disposal instruction: ☒ Disposal ☐ Return to client ☐ Pickup

Chain of Custody Record

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2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date:
H&P Project # SCS060712-12
Outside Lab:

Client: SCS Engineers
Address: 8799 Balboa Ave., Suite 290
San Diego, CA 92123
Email: ccrosby@scsengineers.com

Collector: Chris Crosby / Tracy Thompson
Client Project # 01208473.00
Location: Wigington Oil: 11427 Woodside Ave, Santee, CA
Phone: 858-571-5500 Fax: 858-571-5357

Page: 2 of 2
Project Contact: Chuck Houser
Turn around time: Normal

Geofracker EDF: Yes ☒ No ☐
Global ID: T0607303173
Excel EDD: Yes ☒ No ☐

Sample Receipt
Intact: ☑ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☑ N/A
Cold: ☑ Yes ☐ No ☐ N/A
Temperature: 9.0°

Special Instructions:

Lab Work Order # E206031

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B BTEX/OXY ☐ TPH gas	8015M TPH ☒ g ☒ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☐ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ____ ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS										
MW-13			1430	6/4/12	GW	VOA	6	☒														
MW-14			1445	6/5/12																		
MW-15			1020	6/6/12																		
MW-16			1535	6/4/12																		
MW-17			1250	6/5/12																		
MW-18			1350	6/4/12																		
MW-19			1345	6/5/12	↓	↓	↓															

Relinquished by (Signature) Chris Crosby	(company) SCS	Received by (Signature)	(company) H&P	Date 6/7/2012 Time 10:15
Relinquished by: (Signature)	(company)	Received by (Signature)	(company)	Date Time
Relinquished by (Signature)	(company)	Received by (Signature)	(company)	Date Time

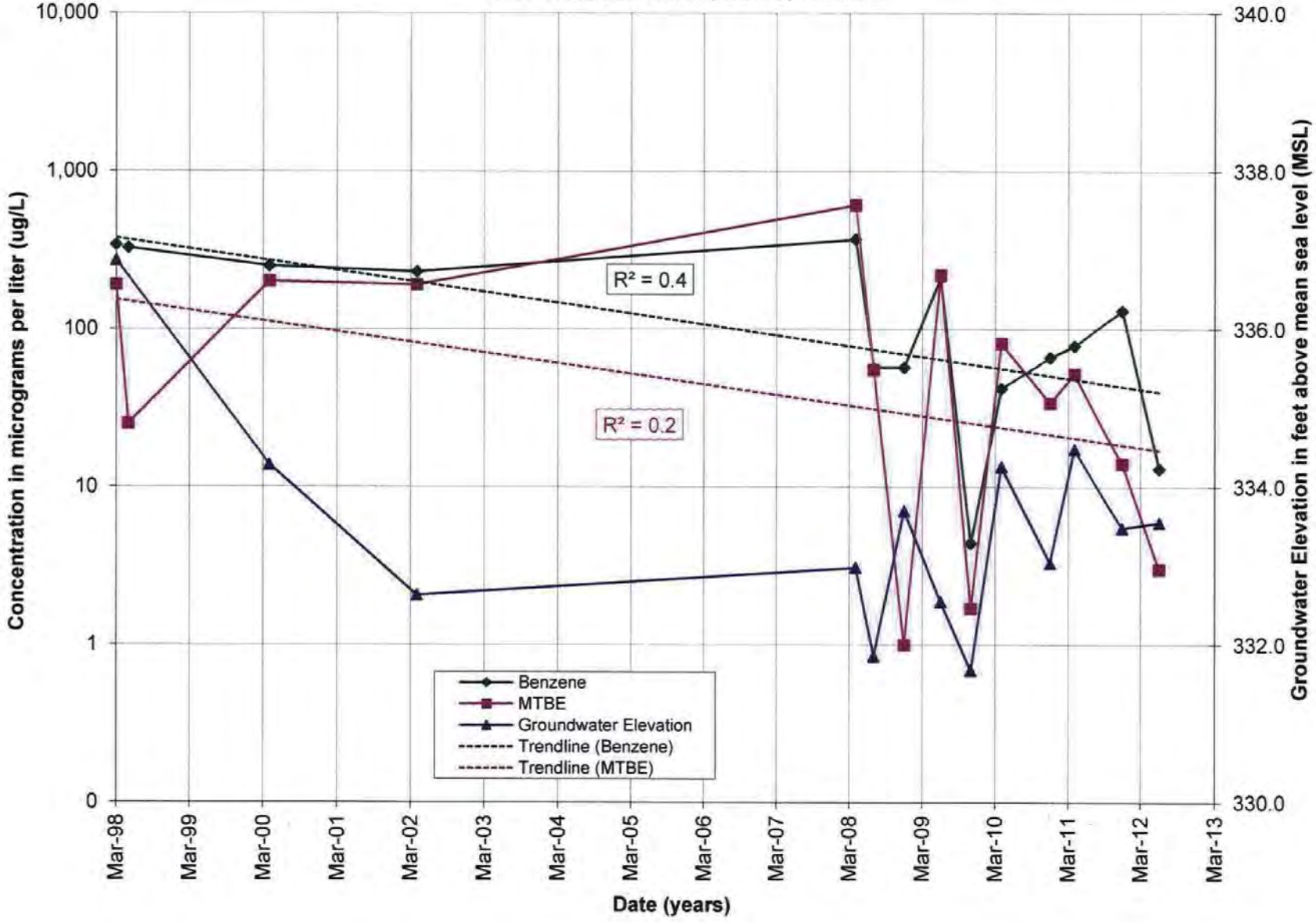
*Signature constitutes authorization to proceed with analysis and acceptance of condition on back

Sample disposal instruction ☒ Disposal ☐ Return to client ☐ Pickup

APPENDIX D

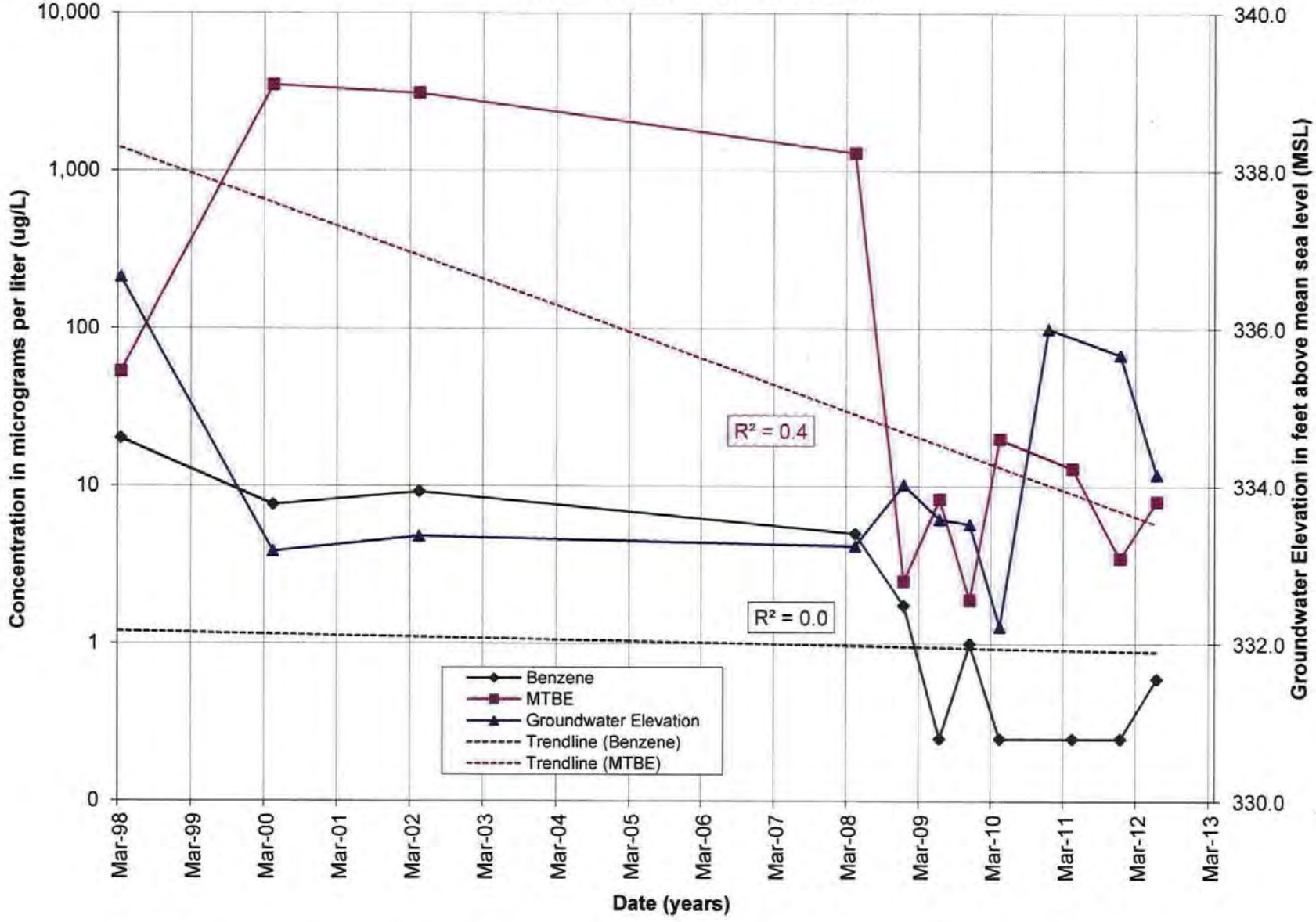
HYDROGRAPHS

MW-1
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



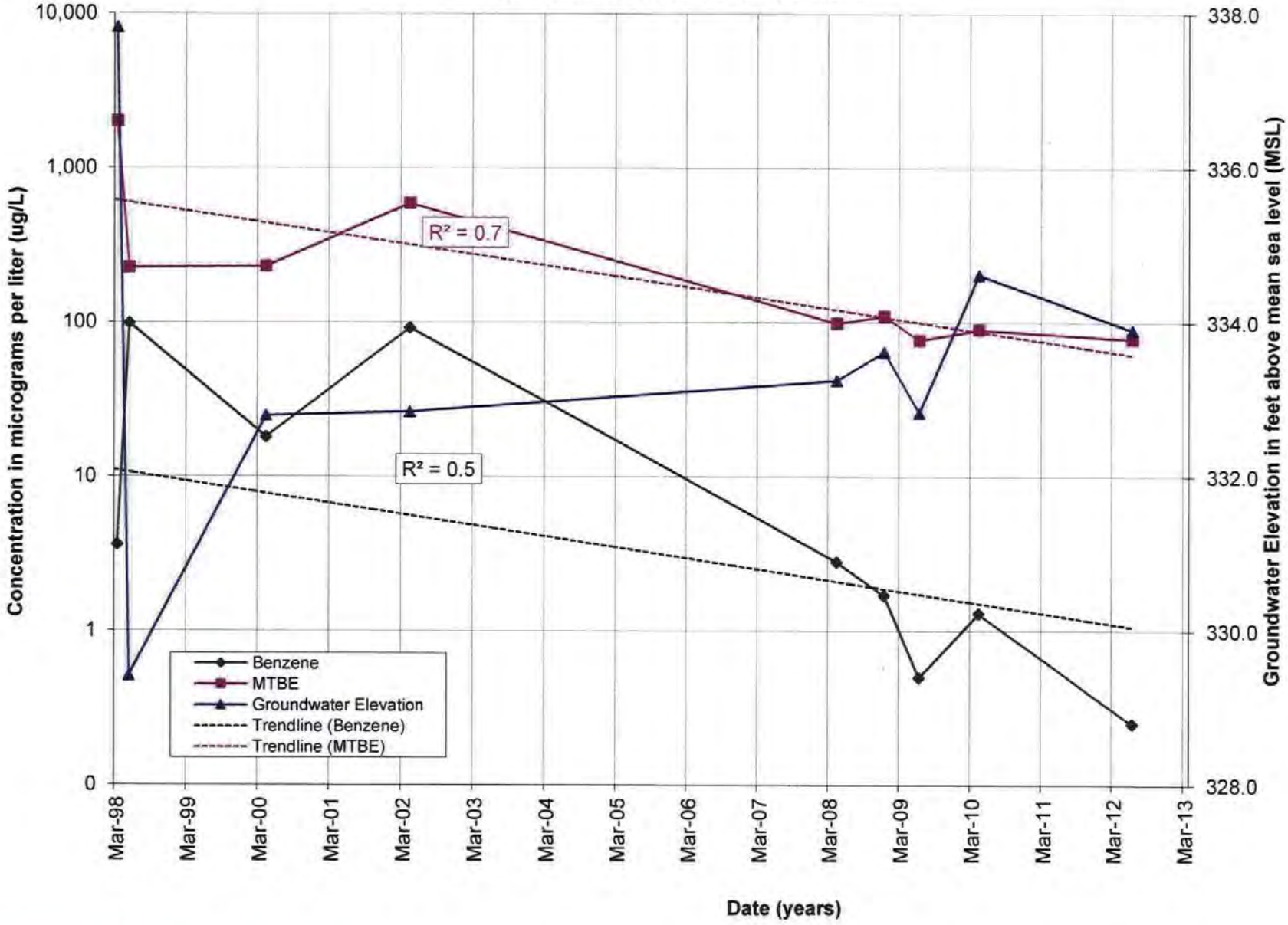
SCS ENGINEERS

MW-2
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



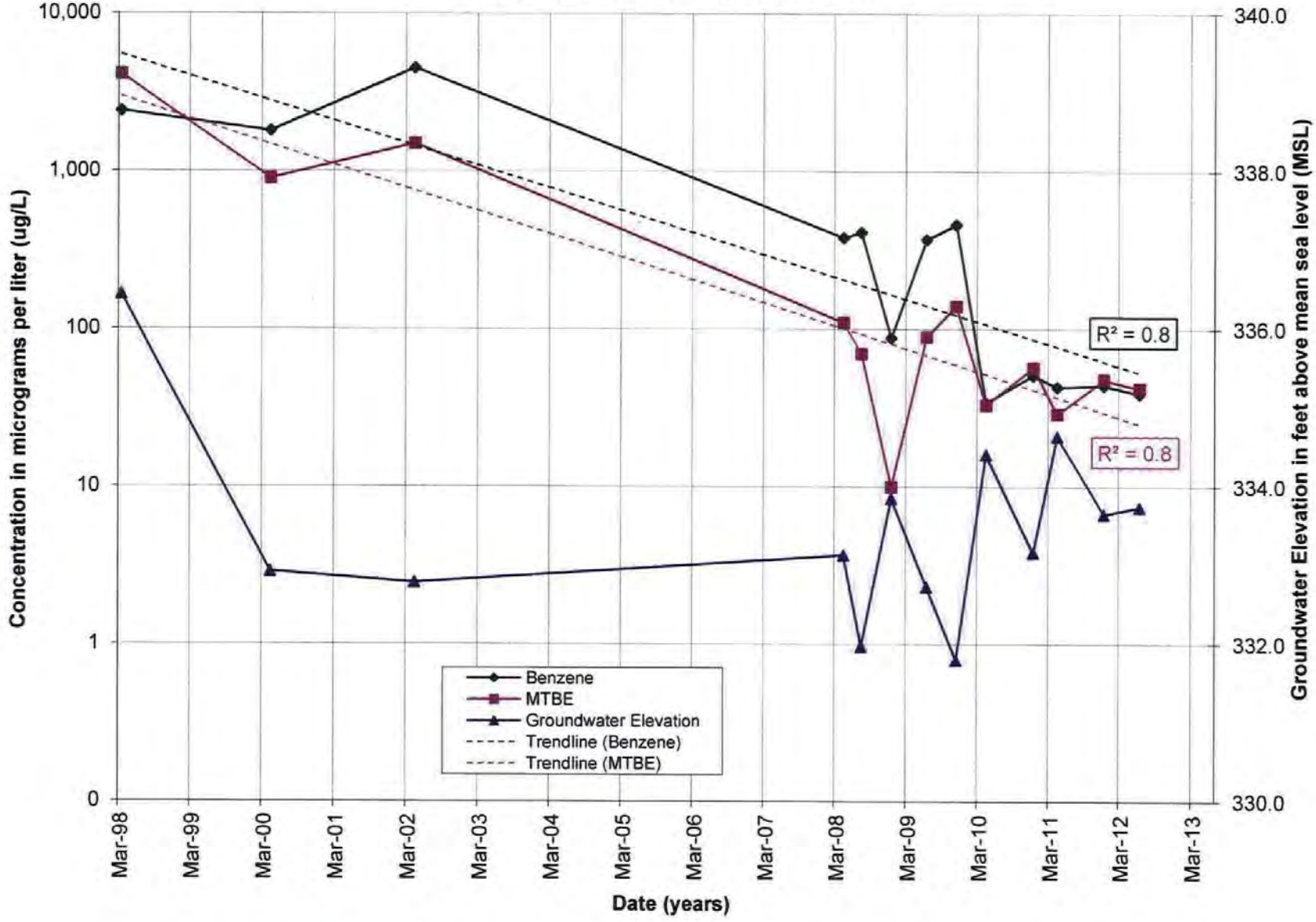
SCS ENGINEERS

MW-3
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



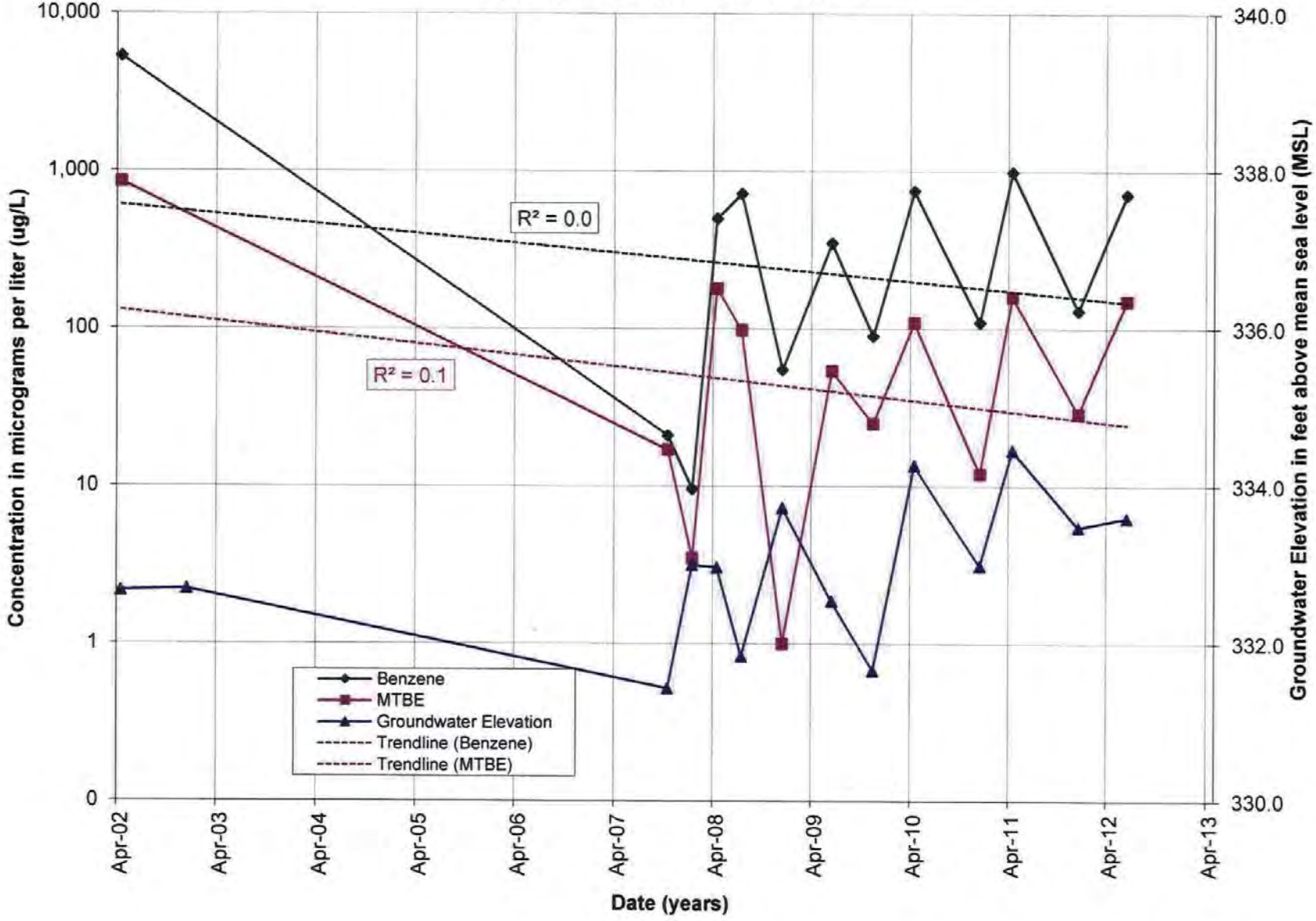
SCS ENGINEERS

MW-4
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



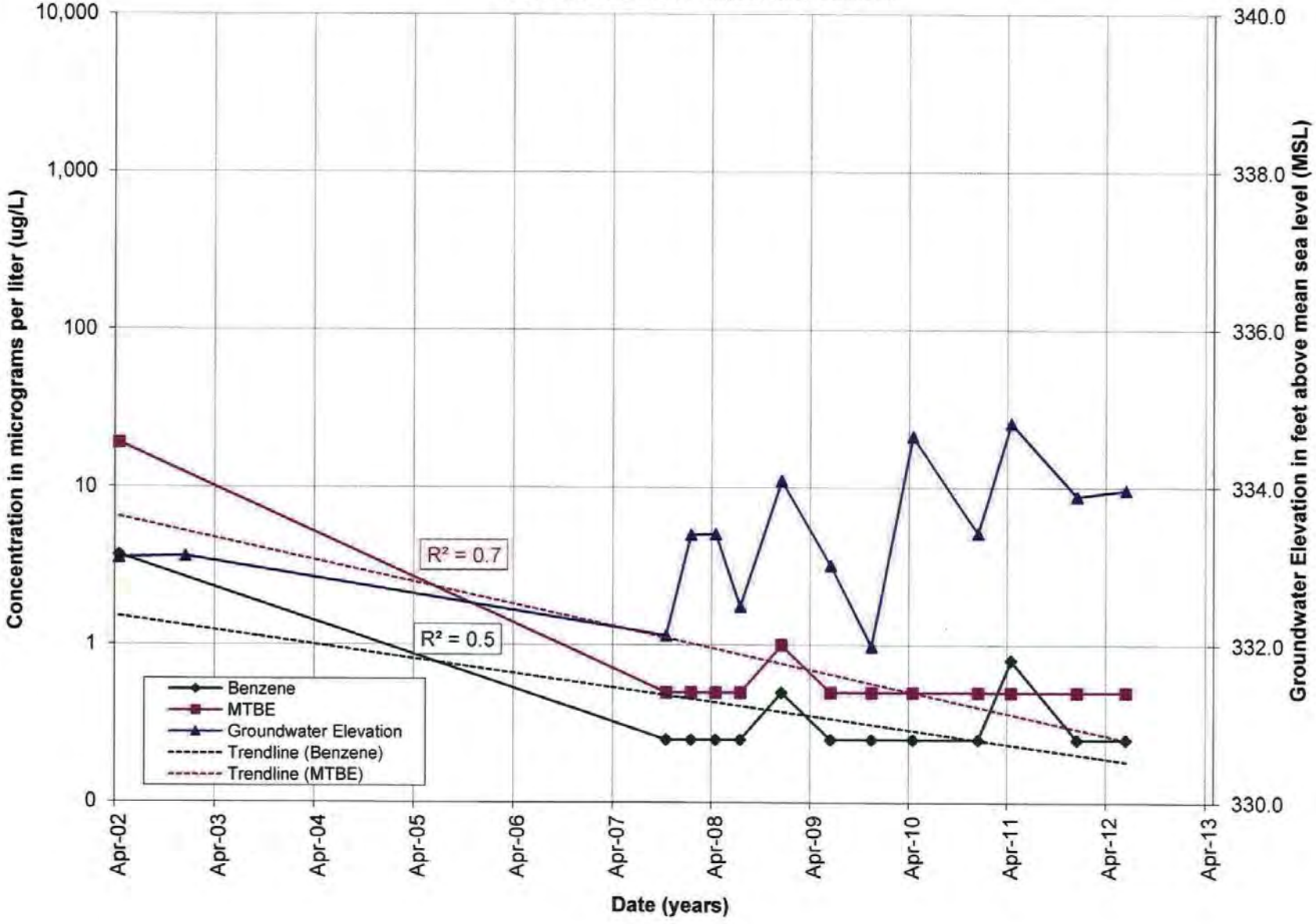
SCS ENGINEERS

MW-6
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



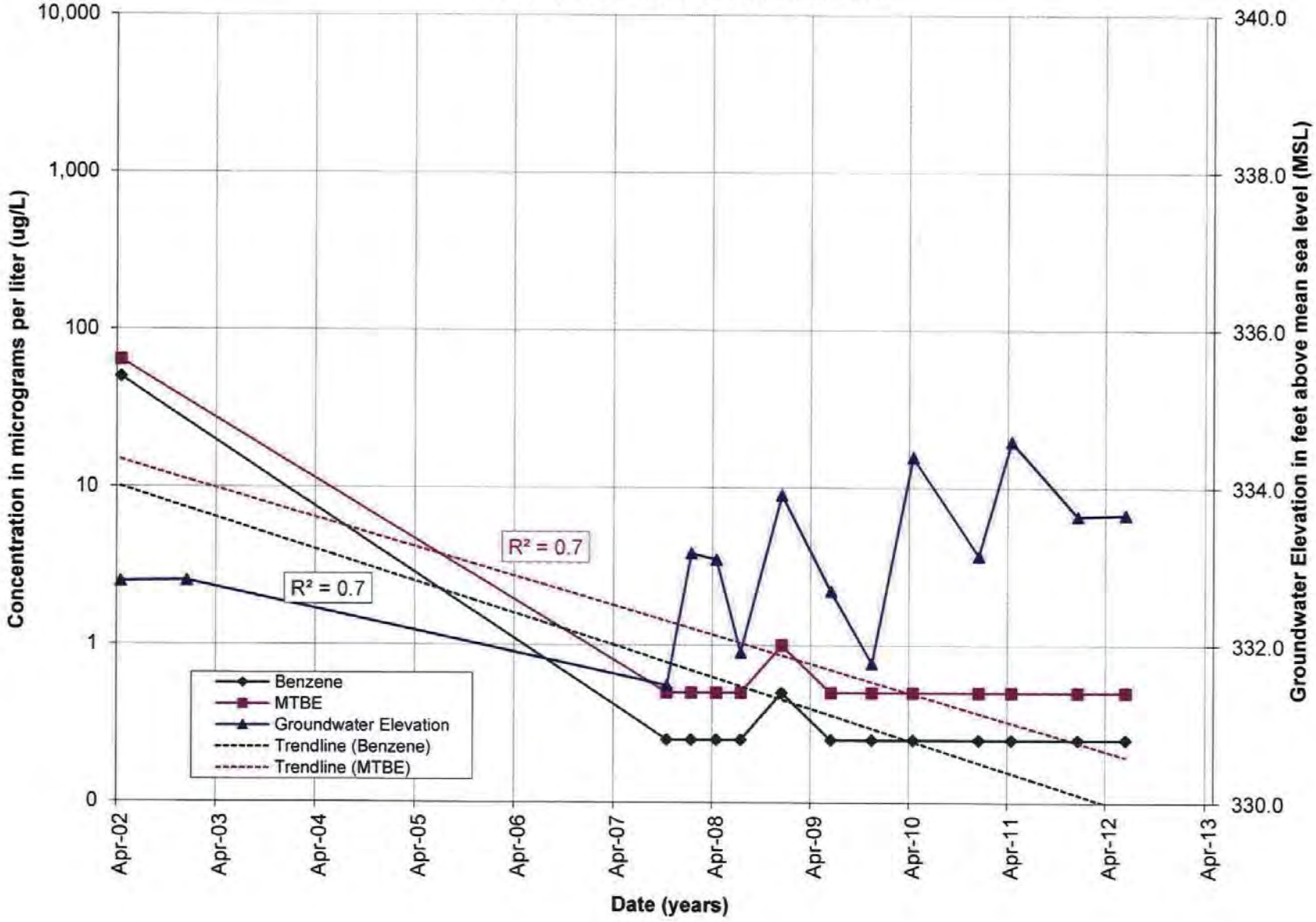
SCS ENGINEERS

MW-7
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



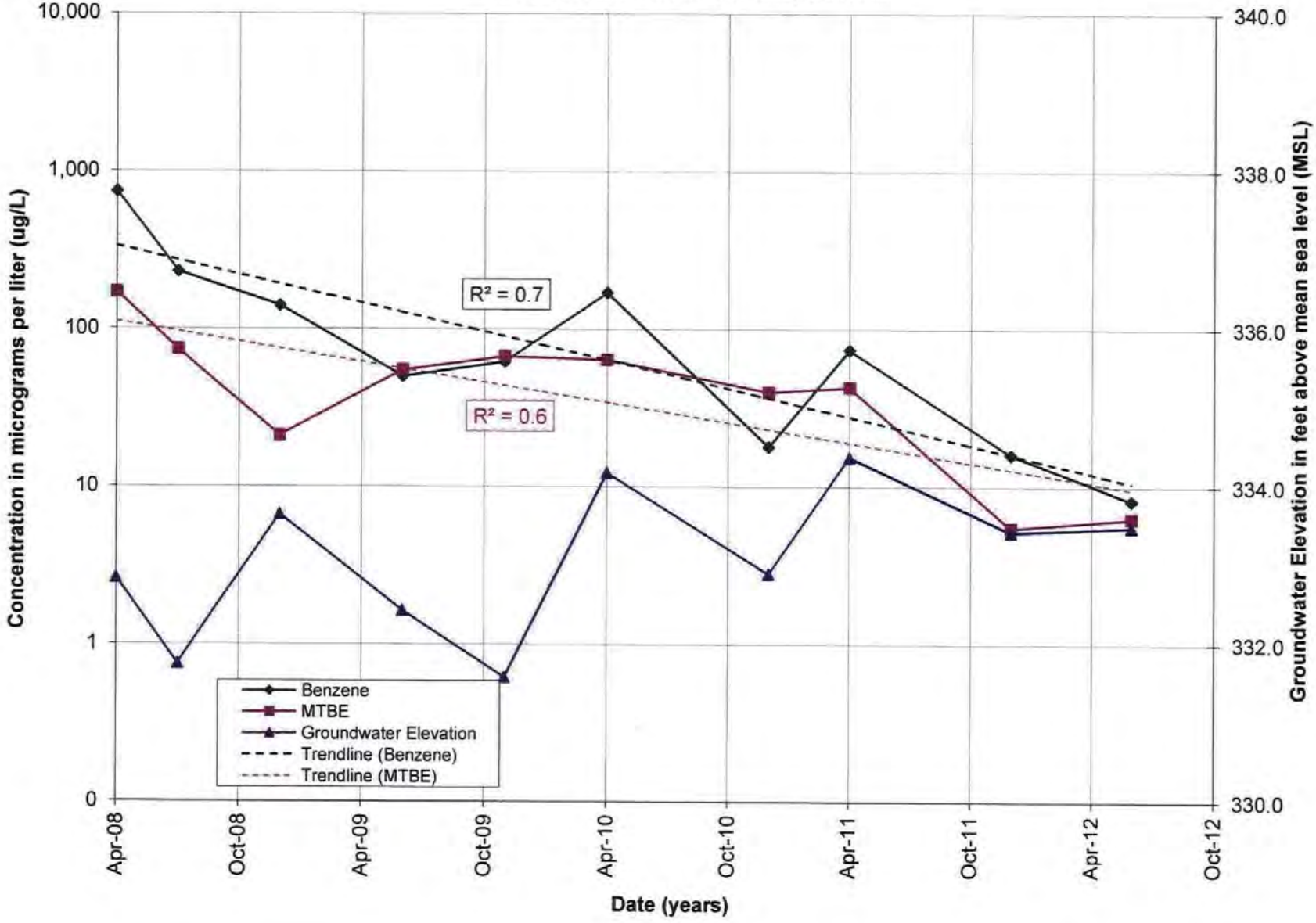
SCS ENGINEERS

MW-8
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



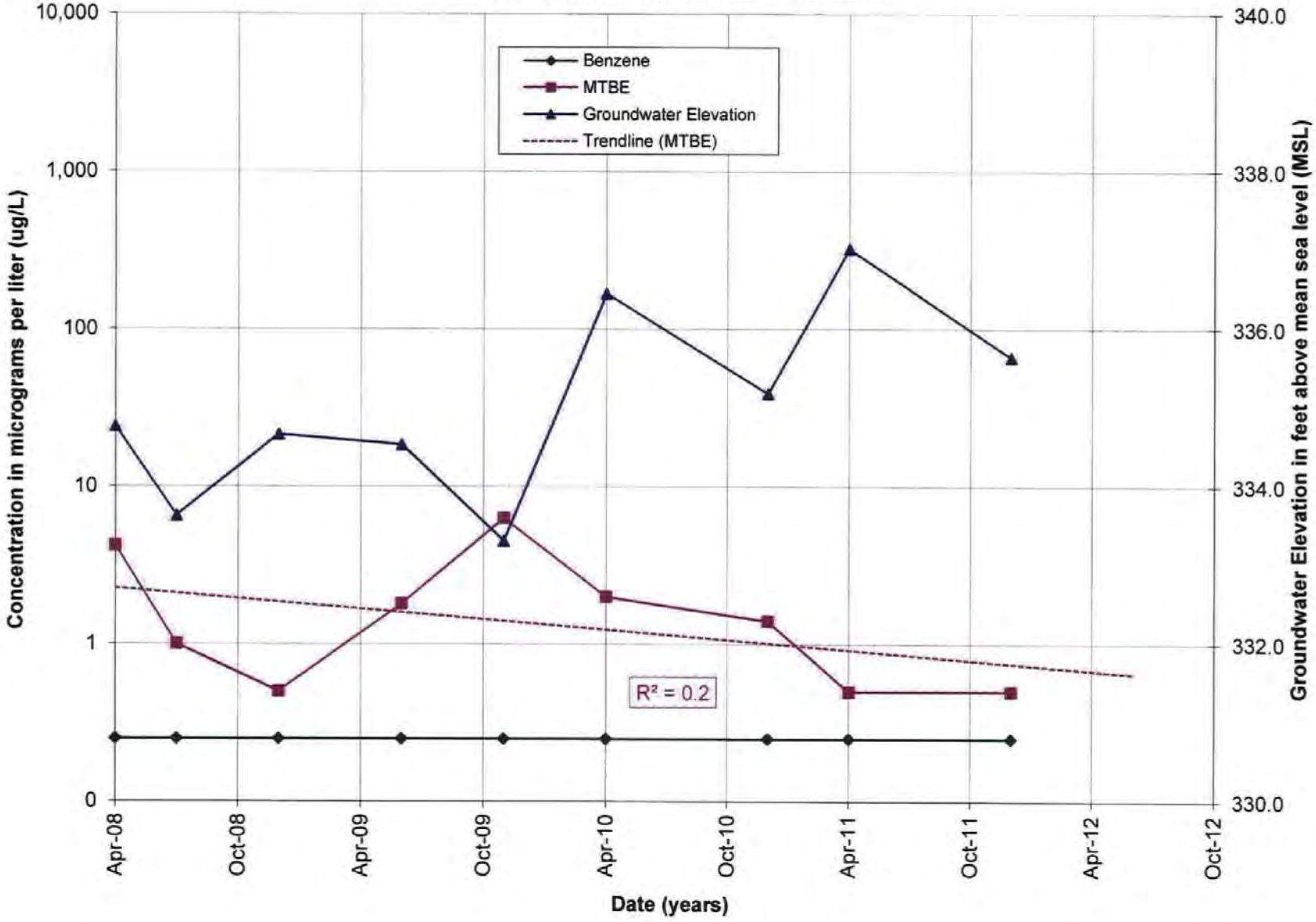
SCS ENGINEERS

MW-9
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



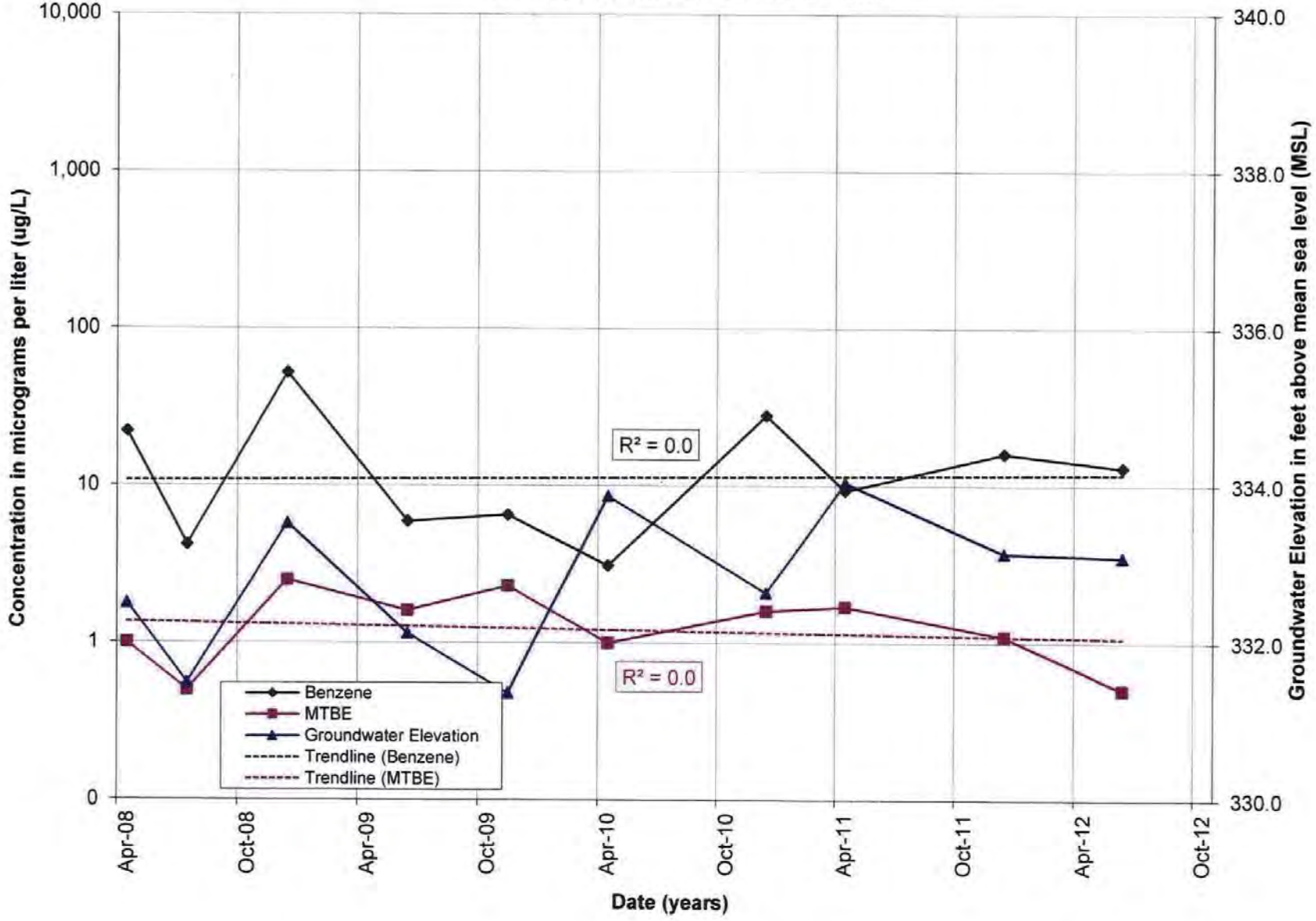
SCS ENGINEERS

MW-10
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



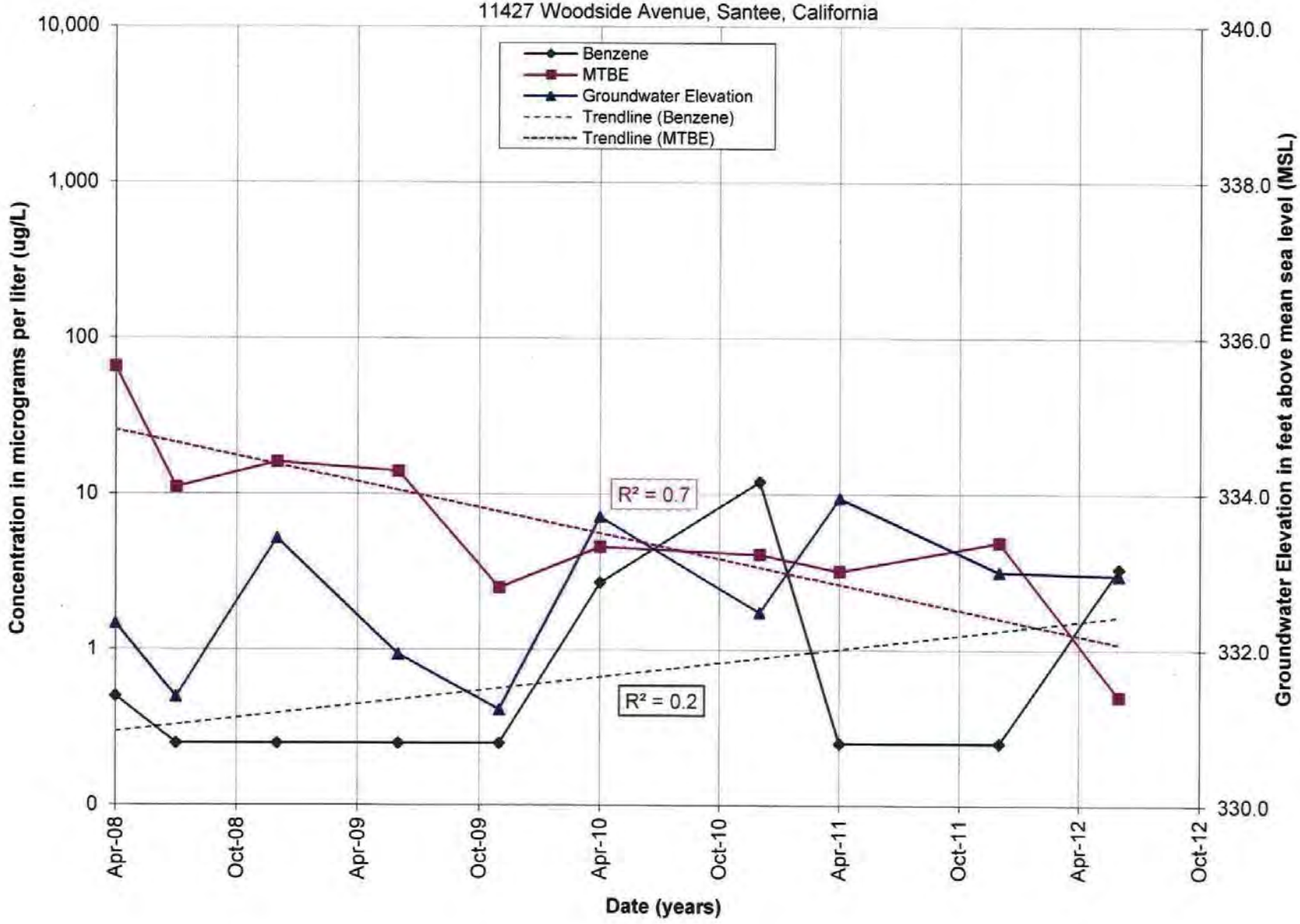
SCS ENGINEERS

MW-11
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



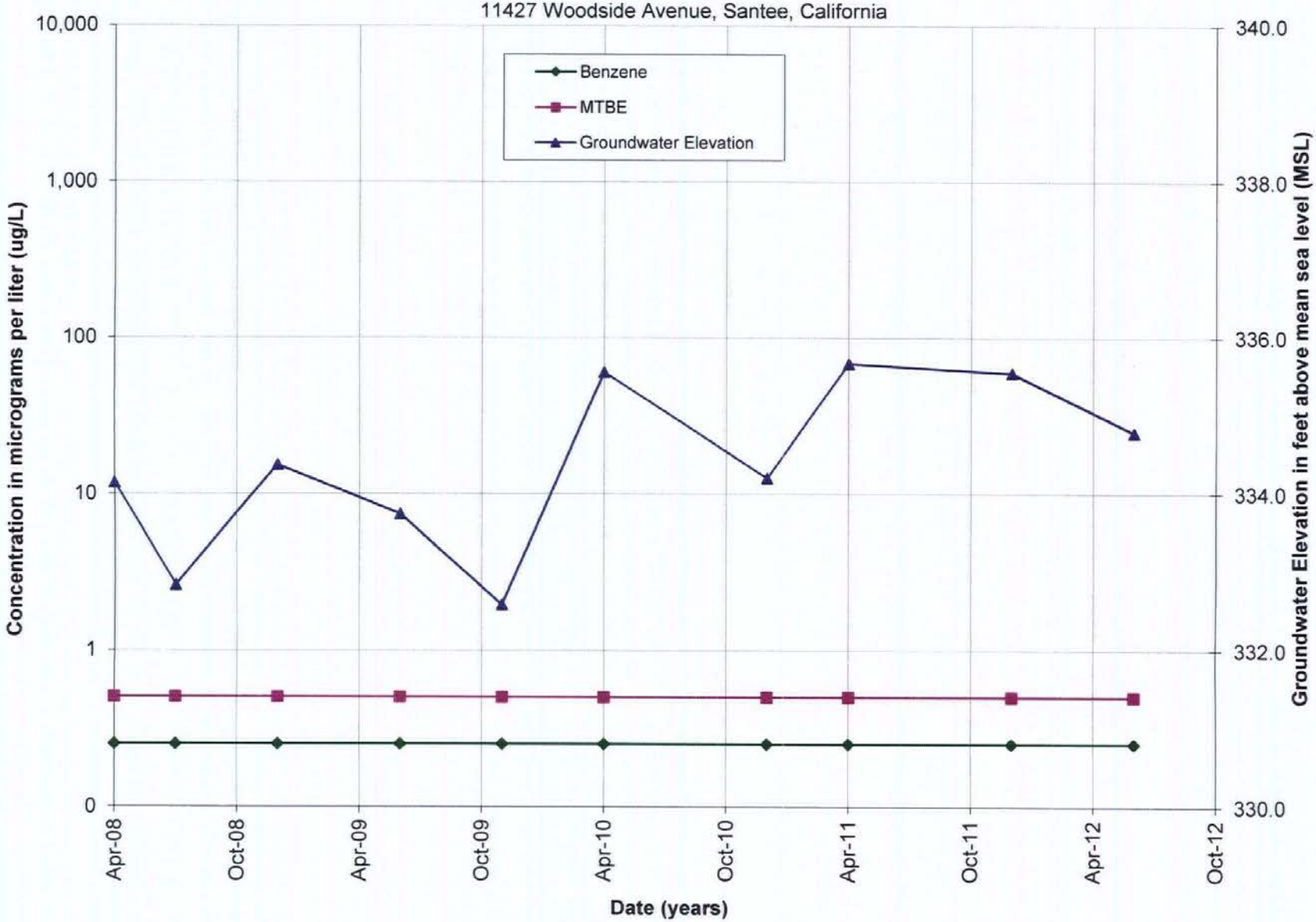
SCS ENGINEERS

MW-12
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



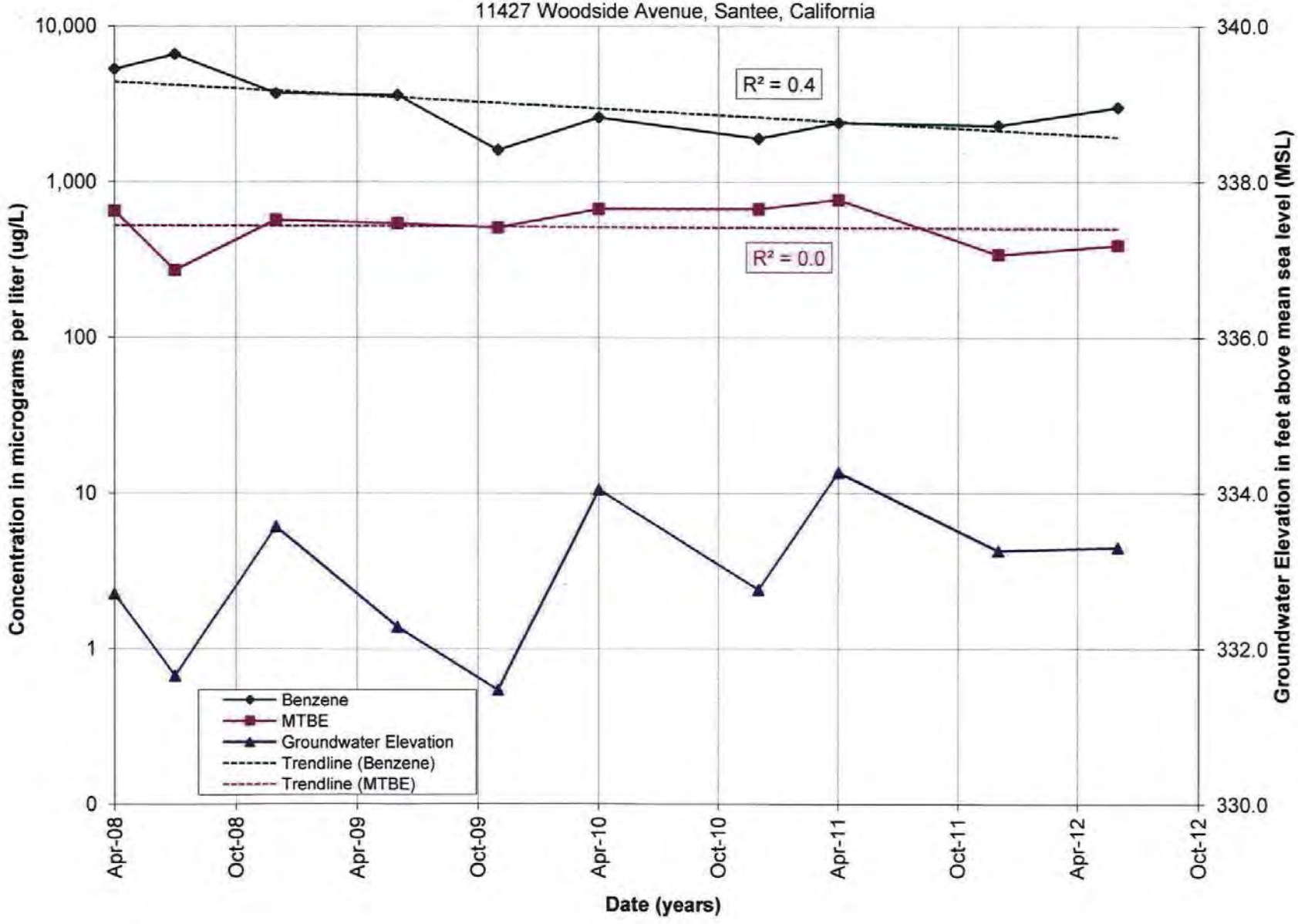
SCS ENGINEERS

MW-13
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



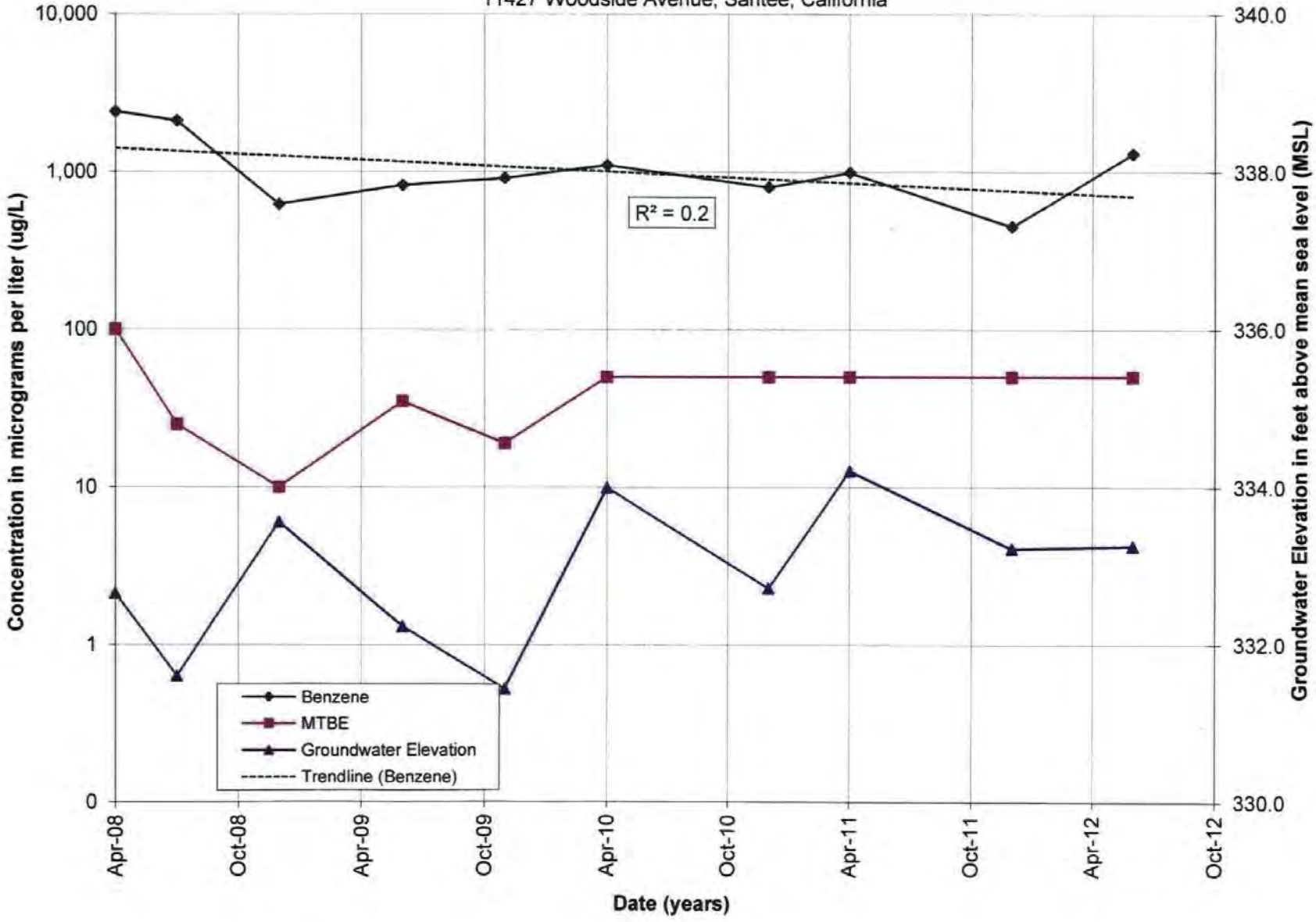
SCS ENGINEERS

MW-14
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



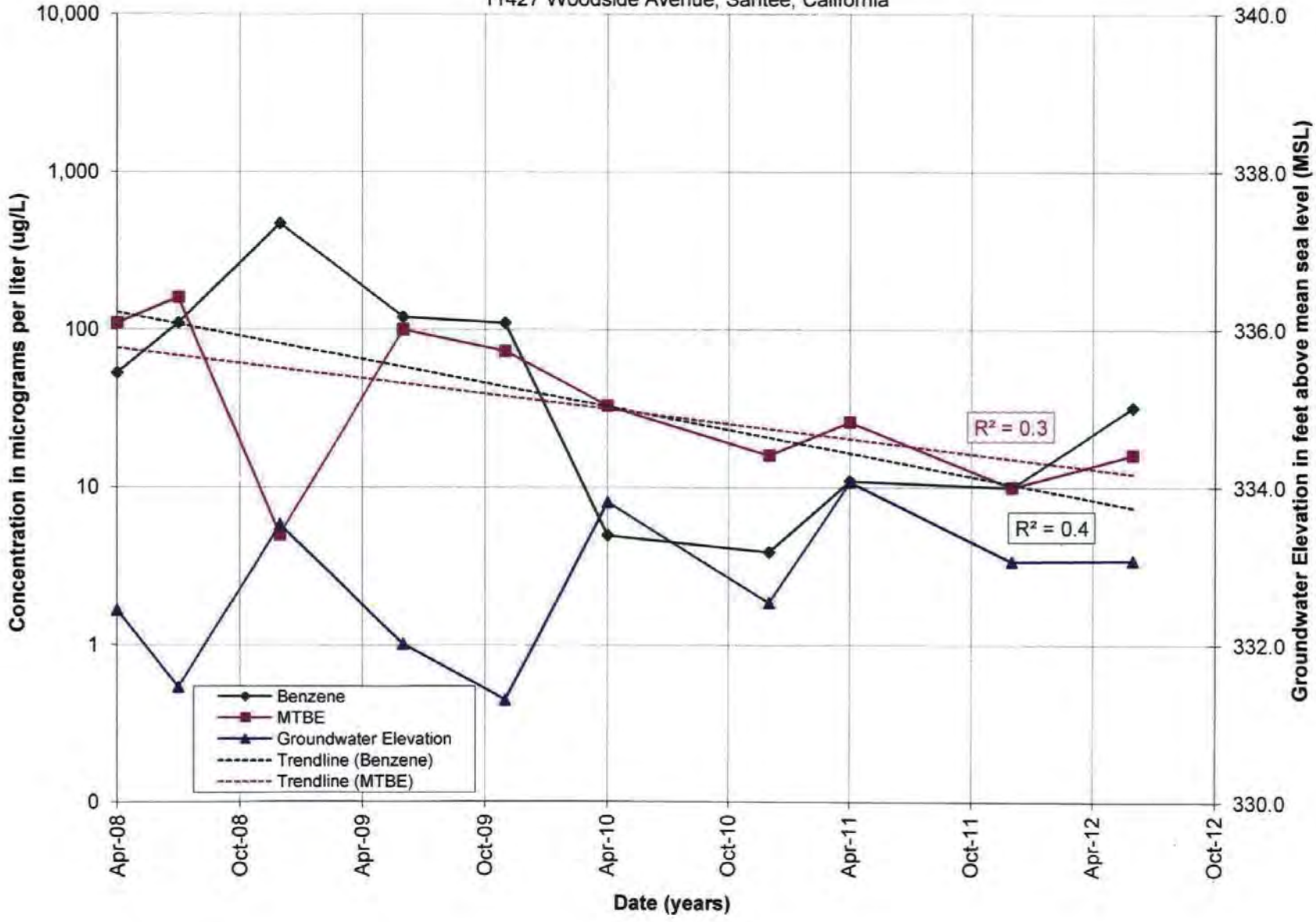
SCS ENGINEERS

MW-15
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



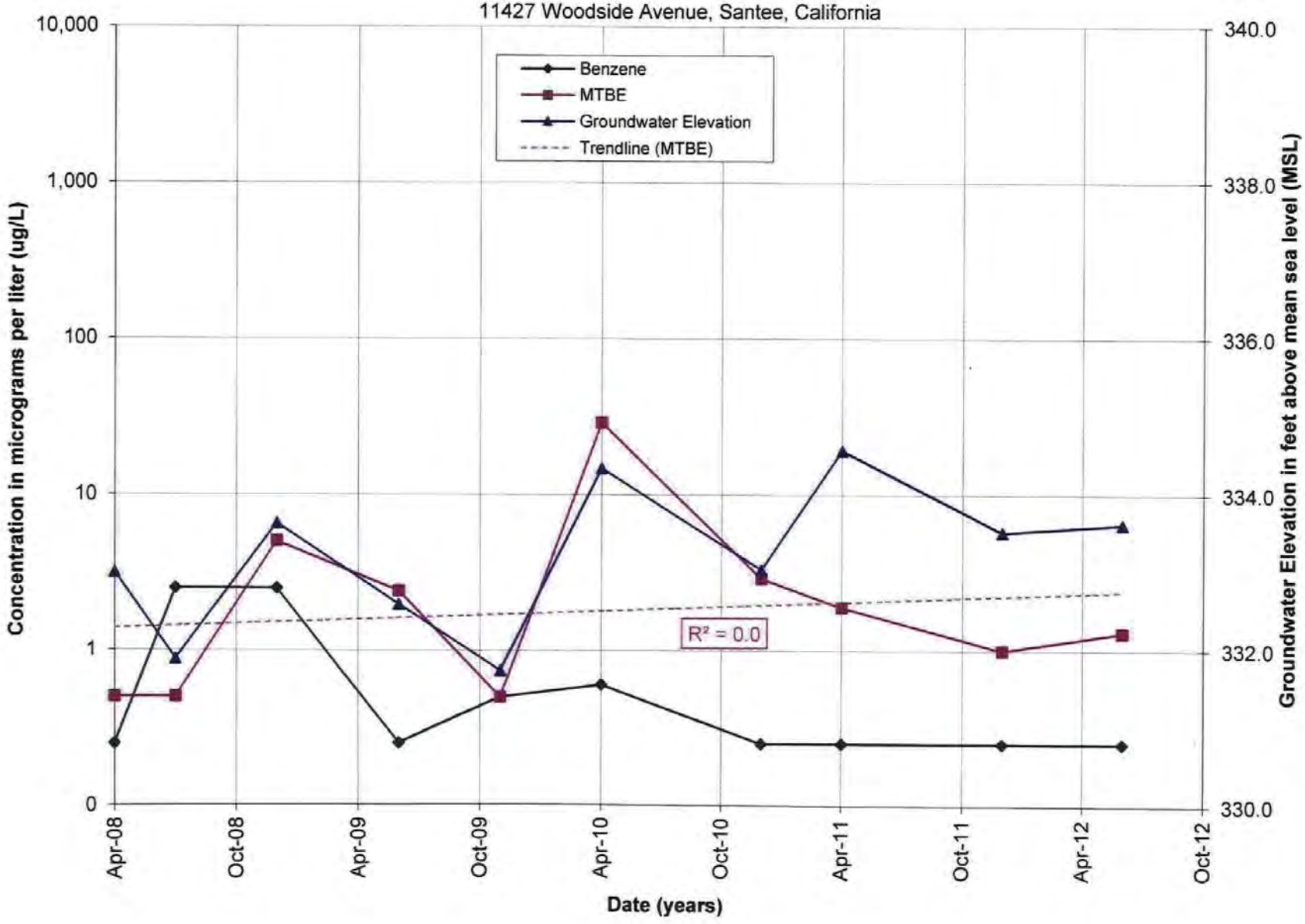
SCS ENGINEERS

MW-16
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



SCS ENGINEERS

MW-17
Benzene and MTBE Concentrations and Groundwater Elevation versus Time
Wigington Petroleum
11427 Woodside Avenue, Santee, California



SCS ENGINEERS

Dion and Sons, Inc.

Bulk Fuels ♦ Lubricants ♦ Cardlock ♦ Services ♦ Solvents ♦ Equipment

H19469-881 **FAX TRANSMISSION REPORT**

Date:	8/6/12	Number of Pages (including cover):	2

To:	Carla Coursol
Company:	SD County Dept of Environmental Health
Fax #:	858-694-3705
From:	Bill Frank 562-432-1301 x216
Subject:	UST Unauthorized Release Form

Comments:

Please call to confirm ✓

Please provide to Zorayda Herrera and Ellen Beacon

☐ FAX REPLY ☐ PLEASE CALL ☐ URGENT ☐ WRITTEN

☐ REPLY NOT NECESSARY

1543 West 16th Street, Long Beach, CA 90813
562-432-3946 ♦ Fax 562-432-7969 ♦ 888-424-DION ♦ www.dionandsons.com

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY ☐ Yes ☑ No — HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? ☐ Yes ☑ No

REPORT DATE: 8-6-12 — CASE #:

REPORTED BY

NAME OF INDIVIDUAL FILING REPORT: Bill Frank — PHONE: (562) 432-1301 x 216 — SIGNATURE: Bill Frank

REPRESENTING: ☐ LOCAL AGENCY ☐ REGIONAL BOARD ☐ OWNER/OPERATOR ☒ OTHER – Operator

COMPANY OR AGENCY NAME: Amber Resources / Dion and Sons Inc.

ADDRESS: 1635 W. Gaylord Street (STREET) — Long Beach (CITY) — CA (STATE) — 90813 (ZIP)

RESPONSIBLE PARTY

NAME: Wigington Petroleum Inc ☐ Unknown — CONTACT PERSON: C/O William Fischbeck — PHONE: (619) 464-1200

ADDRESS: c/o Fischbeck + Oberndorfer 5464 Grossmont Center Drive 3rd Floor (STREET) — La Mesa (CITY) — CA (STATE) — 91942 (ZIP)

SITE LOCATION

FACILITY NAME (IF APPLICABLE): Dion + Sons / El Capitan Oil — OPERATOR: Dion + Sons — PHONE: (619) 258-7113

ADDRESS: 11427 Woodside Avenue, (STREET) — Santee (CITY) — San Diego (COUNTY) — 92071 (ZIP)

CROSS STREET:

IMPLEMENTING AGENCIES

LOCAL AGENCY — AGENCY NAME: County of San Diego Department of Environmental Health — PHONE: (858) 505-6700

REGIONAL BOARD: San Diego Region Water Quality Control Board — PHONE: (858) 467-2952

SUBSTANCES INVOLVED

(1) NAME: Red Dye Diesel Fuel — QUANTITY LOST (GALLONS): ☑ Unknown

(2) ☐ Unknown

DISCOVERY/ABATEMENT

DATE DISCOVERED: July 10, 2012 — HOW DISCOVERED: ☐ Tank Test ☐ Tank Removal ☐ Nuisance Conditions ☐ Inventory Control ☑ Subsurface Monitoring ☐ Other

DATE DISCHARGE BEGAN: ☑ UNKNOWN

HAS DISCHARGE BEEN STOPPED? ☑ YES ☐ NO IF YES, DATE 7/25/12

METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY): ☑ Remove Contents ☐ Close Tank ☐ Repair Tank ☐ Change Procedure ☐ Replace Tank ☐ Other ☐ Repair Piping

SOURCE/CAUSE

SOURCE OF DISCHARGE: ☐ Tank Leak ☑ Piping Leak ☐ Unknown ☐ Other

CAUSE(S): ☐ Overfill ☐ Corrosion ☐ Rupture/Failure ☑ Unknown ☐ Spill ☐ Other

CASE TYPE

CHECK ONE ONLY: ☑ Undetermined ☐ Soil Only ☐ Groundwater ☐ Drinking Water – (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)

CURRENT STATUS

CHECK ONE ONLY:
☐ No Action Taken
☑ Leak Being Confirmed
☐ Remediation Plan
☐ Preliminary Site Assessment Workplan Submitted
☐ Preliminary Site Assessment Underway
☐ Case Closed (Cleanup Completed or Unnecessary)
☐ Pollution Characterization
☐ Post Cleanup Monitoring In Progress
☐ Cleanup Underway

REMEDIAL ACTION

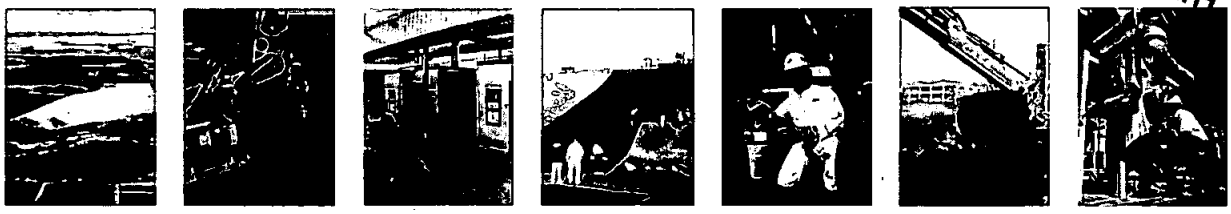
CHECK APPROPRIATE ACTION(S):
☐ Cap Site (CD)
☐ Contamination Barrier (CB)
☐ Vacuum Extract (VE)
☐ Excavate & Dispose (ED)
☐ Excavate & Treat (ET)
☐ No Action Required (NA)
☐ Remove Free Product (FP)
☐ Pump & Treat Groundwater (GT)
☐ Treatment At Hookup (HU)
☐ Enhanced Bio Degradation (IT)
☐ Replace Supply (RS)
☐ Vent Soil (VS)
☐ Other

COMMENTS

Engineer testing to date indicates leak is emanating from a pipe that runs through a dock. Pipe attaches to an above ground storage tank. Tank has been emptied and further testing is underway to confirm source of leak.

RECEIVED
MAY
12
ONMENTAL
HEALTH

SCS ENGINEERS



WORKPLAN FOR ADDITIONAL SITE ASSESSMENT

11427 Woodside Avenue
Santee, California
H19469-001

Presented to:

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Prepared for:

Mrs. Linda Wigington
c/o William Fischbeck
Fischbeck and Oberndorfer
5464 Grossmont Center Drive, 3rd Floor
La Mesa, CA 91942

Presented by:

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123
(858) 571-5500

May 18, 2012
Project Number: 01208473.00

Offices Nationwide
www.scsengineers.com

May 18, 2012
Project No. 01208452.00

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Subject: Workplan For Additional Site Assessment
DEH File Number: H19469-001

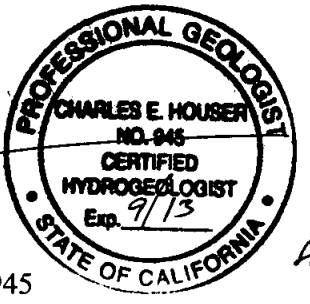
Site: Wigington Petroleum
11427 Woodside Avenue
Santee, California

Dear Ms. Beacon:

SCS Engineers (SCS) is pleased to present this Workplan for a subsurface Site assessment (Assessment) of petroleum hydrocarbon-bearing soil at the above referenced Site. This Assessment will be conducted pursuant to the requirements of the County of San Diego Department of Environmental Health (DEH), Site Assessment and Mitigation Program (SAM). This Workplan was prepared in accordance with the guidelines set forth by the DEH and Exhibit 00 to the Contract between SCS and Mrs. Linda Wigington (Client), fully executed on March 30, 2009.

Should you have any questions regarding this Workplan, please do not hesitate to call the undersigned at (858) 571-5500.

Sincerely,



Charles E. Houser, CHg 945
Project Manager
SCS ENGINEERS

for Chuck Pryatel, MBA, REHS
Vice President
SCS ENGINEERS

cc: William Fischbeck, Esq.
State UST Cleanup Fund (with reimbursement request)

Enclosures
F:\Projects\208\451-530\01208473.00 (Wigington Petroleum)\701 (El Cap Oil)\Site Assessment\01208473.00.Site Assessment Workplan.doc

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Figure 1 4-Way Site Location Map
Figure 2 Aerial Site View with Proposed Downgradient Groundwater Monitoring Wells and Proposed On-Site Observation Wells
Figure 3 Well Construction Diagram

Attachments

March 12, 2012, SAM Letter

1 BACKGROUND

The Site is located at 11427 Woodside Avenue in the town of Santee, San Diego County, California (Figure 1). The Site is currently occupied by a gasoline service station. Between 1987 and 1998 thirteen underground storage tanks (USTs) were reported to be removed from the Site. Analysis of samples collected during the UST removals indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Hazardous Materials Management Division (HMMD) directed that corrective measures be taken regarding the release.

A summary of the previous environmental assessments conducted at the Site follows:

- EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the Site between 1988 and 2005. A total of eighteen borings and eight groundwater monitoring wells (MW-1 through MW-4 and MW-6 through MW-8) were drilled and sampled by EnecoTech. An existing twelve-inch diameter concrete water production well, inside the Site building, was labeled MW-5 and sampled during the monitoring events in March 1998 and April 2002.

- In 1988, EnecoTech reported that four USTs were removed from the Site. A site assessment was performed immediately following the tank removal activities where eleven soil borings were drilled and sampled and four of the borings were completed as groundwater monitoring wells (MW-1 through MW-4).

- On August 19, 1993, the HMMD issued a Notice of Violation to El Capitan Oil Co. requiring corrective action relative to the release. SAM reportedly assumed oversight responsibility of the UST assessment and mitigation in mid-1993.

- EnecoTech reported single-walled product piping was removed from the Site in October 1997.

- In April 1998, nine USTs were reportedly removed from the Site where samples collected by EnecoTech indicated a release of petroleum hydrocarbons.

- On March 14, 2000, EnecoTech produced a workplan titled *Work Plan for Environmental Services*, which proposed the installation of two additional groundwater monitoring wells. SAM reportedly directed that four groundwater monitoring wells be installed in a letter dated, May 8, 2000. EnecoTech installed two groundwater monitoring wells (MW-6 and MW-7) on February 26, 2001 and one groundwater monitoring well (MW-8) on April 19, 2002.

- Based on the results of EnecoTech's Site assessment activities, groundwater beneath the Site was impacted by petroleum hydrocarbons from on-Site releases.

- On March 25, 2005, EnecoTech submitted a workplan for additional Site assessment, which proposed the installation of nine additional groundwater monitoring wells both on-Site and off-Site.

- In 2006, Petra Geotechnical Inc. (Petra) was retained to conduct the site assessment work. SAM approved EnecoTech's workplan in a letter dated October 10, 2007. Petra proposed one well be installed in addition to the nine wells proposed by EnecoTech. SAM agreed that an additional well was needed and requested a revised workplan. Petra submitted an addendum to the revised workplan, dated December 21, 2007, to include a tenth groundwater monitoring well to be installed. SAM approved the revised workplan in a letter, dated January 15, 2008.

- On October 25, 2007, Petra observed phase-separated hydrocarbons (PSH) in monitoring wells MW-2, MW-3, and MW-4. Petra submitted a workplan titled, *Workplan for High Vacuum Dual Phase Extraction Pilot Test and Interim Remediation*, to the SAM Program, dated December 24, 2007. SAM approved the workplan in a letter dated, January 16, 2008.

- Petra conducted a 33-day high-vacuum, dual-phase extraction (HVDPE) pilot test between January 22, 2008 and February 24, 2008. Approximately 3,256.17 pounds of petroleum hydrocarbons were removed and treated during the pilot test. During the pilot test, nine new monitoring wells (MW-9 through MW-17) were installed. The location of these wells (MW9 through MW-17) and previous wells (MW-1 through MW-8) are depicted on Figure 2. In April 2008, monitoring wells MW-1 through MW-4 and MW-6 through MW-17 were sampled during the second quarter 2008 (2Q2008) groundwater monitoring event.

- On July 25, 2008, Petra submitted a *Workplan for Well Maintenance and Well Destruction* to SAM to destroy well MW-5 and reconstruct the well heads for several monitoring wells. SAM approved this workplan in a letter dated September 4, 2008.

- In 2009, SCS Engineers was retained to conduct further groundwater monitoring and Site assessment beginning with the second quarter 2009 (2Q2009) groundwater monitoring event.

- On July 13, 2009, a letter was issued from SAM to reduce the frequency of groundwater monitoring from quarterly to semi-annually during the second and fourth quarters.

- During the HVDPE pilot test in early 2008, the data obtained regarding subsurface vapor flow was not sufficient to provide an estimated radius of influence. On February 19, 2010, SCS submitted a workplan for a focused HVDPE pilot test. In a letter dated march 16, 2010, SAM stated their position that, prior to conducting additional remedial action pilot testing, an on-site health risk assessment and delineation of the groundwater contamination should be completed. SAM requested that workplans for a human health risk assessment (HHRA) and off-site groundwater assessment be submitted.

- On April 26, 2010, SCS submitted a *Workplan for a Soil Vapor Survey and Health Risk Assessment* to SAM. SAM approved this workplan in a letter dated, May 18, 2010. Additionally, on April 26, 2010, SCS submitted a *Site Assessment Workplan* to SAM to install two additional groundwater monitoring wells (MW-18 and MW-19) in order to delineate the downgradient (westerly) and southernly extent of dissolved petroleum

hydrocarbons in groundwater from the release at the Site. SAM approved this workplan in a letter dated, May 19, 2010.

- On April 28, 2011, SCS submitted a report titled, *Soil Vapor Survey and Health Risk Assessment* to SAM describing the installation and sampling of five nested soil vapor probes (SV1 through SV5) near the Site building in March and April 2011. SAM concurred with SCS's conclusions in a letter, dated May 9, 2011, that there is a low likelihood that a significant health risk exists in connection with the concentrations of petroleum hydrocarbons in soil vapor beneath the on-Site building. On May 9, 2011, SAM issued a letter concurring with the conclusion of this report.

- On August 18, 2011, SCS submitted a report titled, *Additional Site Assessment and Semi-Annual Groundwater Monitoring Report 2Q2011*, to SAM describing the installation of two groundwater monitoring wells (MW-18 and MW-19) installed in March 2011 and the semi-annual sampling event conducted in April 2011.

- Semi-annual groundwater monitoring and sampling has been on-going at the Site. On February 13, 2012, SCS submitted a report titled "Semi-Annual Groundwater Monitoring, Fourth Quarter 2011." In this report, SCS made the following recommendations:

  - Install one additional groundwater monitoring well (MW-20) with a potential step out well (MW-21) toward the south-southeast of MW-19 to further delineate the lateral extent of petroleum hydrocarbon-bearing soil and groundwater (Figure 7). The well(s) will be installed in accordance with SCS's previously approved *Site Assessment Workplan*, dated April 26, 2010.

  - Continue semi-annual monitoring and sampling to evaluate the TPH and VOC trends in the monitoring wells at the Site.

  - Implement the *Focused HVDPE Pilot Test Workplan*, submitted by SCS on February 19, 2010, including the installation of three observation wells. Results of the focused pilot test will support selection of an appropriate remedial alternative during preparation of the CAP. Installation of the three proposed observation wells at the time wells MW-20 and, if necessary, MW-21 are installed, will be more time and cost efficient than if these two scopes of work are performed separately.

- On March 12, 2012, SAM issued a letter requesting a workplan with well location maps and well installation diagrams.

This Workplan has been prepared in response to that request. Installation of the three proposed observation wells (discussed below) at the time the new groundwater monitoring well MW-20 and, if necessary, MW-21 (also discussed below) are installed, will be more time and cost efficient than if these two scopes of work are performed separately.

2 SITE DESCRIPTION SUMMARY

Site Name:	Wigington Petroleum
Site Owner:	Linda Wigington
Site Address:	11427 Woodside Avenue, Santee, California
DEH Case Number:	H19469-001
Cleanup Fund Claim Number:	912
Global ID:	T0607303173

3 OBJECTIVE

The objectives of the proposed scope of services are to:

- Assess the extent of petroleum hydrocarbon-bearing soil and groundwater with dissolved or phase-separated petroleum hydrocarbons associated with the release from the former USTs at the Site.
- Install additional observation wells needed to complete high vacuum-dual phase extraction pilot testing at the Site.

4 SCOPE OF SERVICES

PREPARATION FOR FIELDWORK

Monitoring Well Permit

Prior to conducting field work, a monitoring well permit application will be completed and submitted for the completion of up to two new groundwater monitoring wells and two or three groundwater and vadose zone observation wells needed to complete the HVDPE pilot test. The permit application will be submitted to the DEH for approval. The permit application will reflect boring backfill methods and monitoring well design and construction methods. The permit application will be signed by the appropriately licensed professional and submitted to the DEH.

Site Health and Safety Plan

A health and safety plan for work conducted at the Site and workers within the exclusion zone is required pursuant to the regulations found in 29 Code of Federal Regulations (CFR) Part 1910.120 and California Code of Regulations (CCR), Title 8, Section 5192. Therefore, the existing health and safety plan will be revised for the proposed work scope, and will outline the potential chemical and physical hazards that may be encountered during drilling and sampling activities. The appropriate personal protective equipment and emergency response procedures for

the anticipated site-specific chemical and physical hazards will be detailed in this plan. SCS and contracted personnel involved with the proposed field work will be required to read and sign this document in order to encourage proper health and safety practices.

Utility Search and Markout

SCS will notify Underground Service Alert (USA), as required by state law, and retain a private utility locating service prior to commencement of field operations. This procedure is designed to minimize the likelihood of drilling into a subsurface utility.

Project Management, Subcontractor Management, Scheduling

Prior to mobilizing for field work, SCS will notify the DEH, and schedule the subcontractors including, but not limited to, the laboratory, the drilling company, the utility location company. This task also includes time to coordinate and manage subcontractors, such as the analytical laboratory and the drilling company, to secure the necessary specialized equipment, and to prepare for field mobilization.

FIELDWORK

Groundwater Monitoring Well Drilling, Installation, and Sampling

To further assess the extent of petroleum hydrocarbon impacts to the south of existing well MW-19, SCS will attempt to advance one boring off-Site (MW-20, Figure 2). A truck-mounted drilling rig equipped with hollow stem augers will be used to advance the boring. We anticipate the boring will be advanced to a depth of approximately 40 feet below ground surface (bgs). Soil samples will be collected at approximate 5-foot intervals for logging purposes, at significant changes in lithology, and at the capillary fringe, but initially only samples from approximately 25, 30, 35, and 40 feet bgs, and at the capillary fringe will be analyzed. The boring will be converted into a groundwater monitoring well. Based on the previous subsurface assessment performed at the Site, groundwater is estimated to occur at approximately 30 feet bgs at the Site. Please note that many variables influence groundwater depth and actual depth at the Site may be different from the estimate presented herein.

After the well casing and screen is installed, SCS will attempt to collect an in-situ (grab) sample of groundwater from the well casing. The sample will be collected with a single-use, disposable bailer, decanted into laboratory-supplied vials, labeled, and stored in an ice-filled cooler. The sample will be transported, under chain of custody, to H&P Mobile Geochemistry (H&P), a State-accredited laboratory, and analyzed for total petroleum hydrocarbons (TPH) as gasoline (TPHg) and as diesel fuel (TPHd) in accordance with CA Department of Health Services (DHS), Leaking Underground Fuel Tank (LUFT) Method, and for benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA) (DIPE, TAME, ETBE, and TBA collectively referred to as fuel oxygenates) in accordance with EPA Method 8260B.

If detectable concentrations of petroleum hydrocarbons are reported in the in-site groundwater sample from new well MW-20, then step-out well MW-21, depicted on Figure 2, will be drilled and installed further to the south.

Observation Well Drilling, Installation, and Sampling

To further assess the radius of influence at the Site with respect to subsurface vapor flow, SCS will attempt to advance three borings at the Site for conversion to observation wells (OW-1, OW-2, and OW-3, Figure 2). A truck-mounted drilling rig equipped with hollow stem augers will be used to advance the boring. We anticipate the boring will be advanced to a depth of approximately 40 feet below ground surface (bgs). Soil samples will be collected at approximate 5-foot intervals, at significant changes in lithology, and at the capillary fringe, for analysis. The borings will be converted into groundwater and vadose zone observation wells. Based on the previous subsurface assessment performed at the Site, groundwater is estimated to occur at approximately 30 feet bgs at the Site. Please note that many variables influence groundwater depth and actual depth at the Site may be different from the estimate presented herein. As stated above, installation of the three proposed observation wells at the time wells MW-20 and, if necessary, MW-21 are installed, will be more time and cost efficient than if these two scopes of work are performed separately.

Borehole Logging, Soil Sampling, and Decontamination Procedures

A California Professional Geologist, or a qualified professional under the direct supervision of a Professional Geologist, will be on the Site to observe the drilling activity and describe collected soil samples in accordance with the Unified Soil Classification System.

As required by San Diego County guidelines, a steam cleaner will be on-site to steam clean the augers before drilling and between soil borings to minimize the likelihood of cross-contaminating the borings and to minimize the potential for a false positive in the soil samples analyzed. The soil samples from each boring will be collected, when possible, with a split-spoon or similar type sampler. The split-spoon sampler will be cleaned between samples with a water-Alconox™ solution wash followed by a tap water rinse and a final rinse with deionized water.

Up to four soil samples for analysis will be collected from the groundwater monitoring well(s), and up to eight soil samples for analysis will be collected from the groundwater and vadose zone observation wells. Soil samples will be driven into brass or stainless steel tubes. The ends of the sample tubes will be covered with Teflon™ sheeting, and tightly closed with end caps. The sample containers will be labeled and delivered directly to an on-Site laboratory. Chain-of-custody procedures will be implemented for sample tracking. A written analytical report will be provided by the laboratory upon completion of the sample testing. Soil cuttings will be placed in Department of Transportation (DOT)-rated 55-gallon drums, which will be labeled and left on-Site pending receipt of analytical results and evaluation of disposal options.

Soil Sample Analysis

A state-accredited laboratory will be used to analyze the collected samples. We estimate that up to 24 soil samples will be analyzed for TPHg and TPHd in accordance with CA DHS LUFT

Method. The sample with the highest reported TPHg concentration from each boring or the sample collected nearest the field interpreted water table will also be analyzed for BTEX, MTBE, and fuel oxygenates in accordance with EPA Method 8260B.

Well Construction

The wells will be constructed with 2-inch-diameter polyvinyl chloride (PVC) casing, with the screened interval consisting of a 15-foot length of 0.020-inch slotted casing that extends approximately 10 feet below and 5 feet above the field-interpreted water table. Blank casing will be used to complete the casing interval. An appropriately graded sand filter pack will be installed to extend at least 2 feet above the screened interval. A minimum 3 foot hydrated bentonite seal will be placed above the sand filter pack, and the annular space above the seal will be backfilled with an appropriate grout. The upper 3 feet will be filled with concrete and the wells will be finished with traffic-rated, flush mounted well vaults and concrete in accordance with County guidelines. Figure 3 presents a well construction diagram.

The wells will be surged and developed in accordance with SAM guidelines to remove fines from the well casing and grade the filter pack around the screened interval of the well. After surging, the wells will be purged until water quality parameters (pH, temperature, conductivity) have stabilized within an acceptable range. Development water will be placed in DOT 55-gallon drums, which will be labeled and left on-Site pending receipt of analytical results and evaluation of disposal options.

Groundwater Monitoring and Sampling

At least 72 hours after development of the new wells, all Site wells will be purged and sampled in accordance with SAM guidelines. The wells will be monitored for depth to groundwater and for the presence of PSH. Wells with measurable PSH will not be sampled. Collected groundwater samples will be decanted into laboratory-supplied vials, labeled, and submitted to a State-accredited laboratory for analysis. Chain-of-custody procedures will be implemented for sample tracking. Samples will be analyzed for TPHg and TPHd in accordance with CA DHS LUFT Method, and for BTEX, MTBE, and fuel oxygenates in accordance with EPA Method 8260B. A written analytical report will be provided by the laboratory upon completion of the sample testing.

Monitoring Well Survey

The new groundwater monitoring and groundwater and vadose zone observation wells will be surveyed for latitude, longitude, and elevation by a licensed land surveyor. The latitude and longitude will be measured to sub-meter accuracy using an approved datum with GPS equipment. The well elevation will be measured to a hundredth of a foot. This information is required to be collected for submittal to the State of California GeoTracker database.

ELECTRONIC DELIVERY FORMAT (EDF) REPORTING

Pursuant to State law, an electronic delivery format (EDF) report with the soil and groundwater sample analytical results and a PDF copy of the report will be prepared and submitted to the State of California GeoTracker database.

DISPOSAL OF SOIL CUTTINGS, PURGE WATER AND DECON WATER

Rinsate water generated during well construction and purged groundwater generated during well development and sampling will be placed in DOT 55-gallon drums, labeled, and stored on-Site pending evaluation of recycling options.

REPORT PREPARATION

Based on the results of the drilling, soil sampling, and groundwater sampling, a report (Report) will be prepared in accordance with SAM guidelines. The Report will include figures and cross-sections depicting the monitoring well and boring locations, subsurface geologic conditions, soil and groundwater sample analytical results, laboratory reports, chain-of-custody records, and appropriate support documentation.

The Report will be peer reviewed and signed by the appropriately licensed professionals. The work conducted at the Site will be overseen by a Professional Geologist. The report will be written in accordance with the guidelines presented in the current SAM Manual and the site assessment report checklist. This Task also includes the preparation and submittal of a 60-day drilling report as required by SAM.

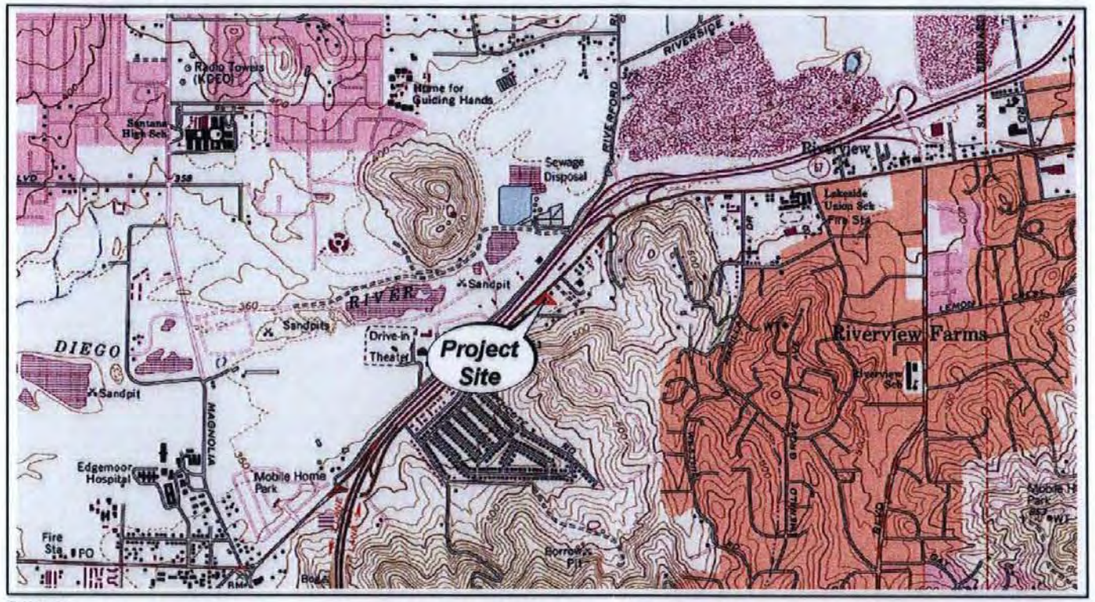
5 SCHEDULE OF ACTIVITIES

SCS will begin permitting after receiving written approval of this work plan from SAM and authorization from the Client to proceed. We anticipate drilling and well installation would commence approximately 30-days after we begin the permit process. A written site assessment report would be submitted 45 to 60 days after receipt of analytical results.

FIGURES

North (Not to scale)

REGIONAL SITE LOCATION



North

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

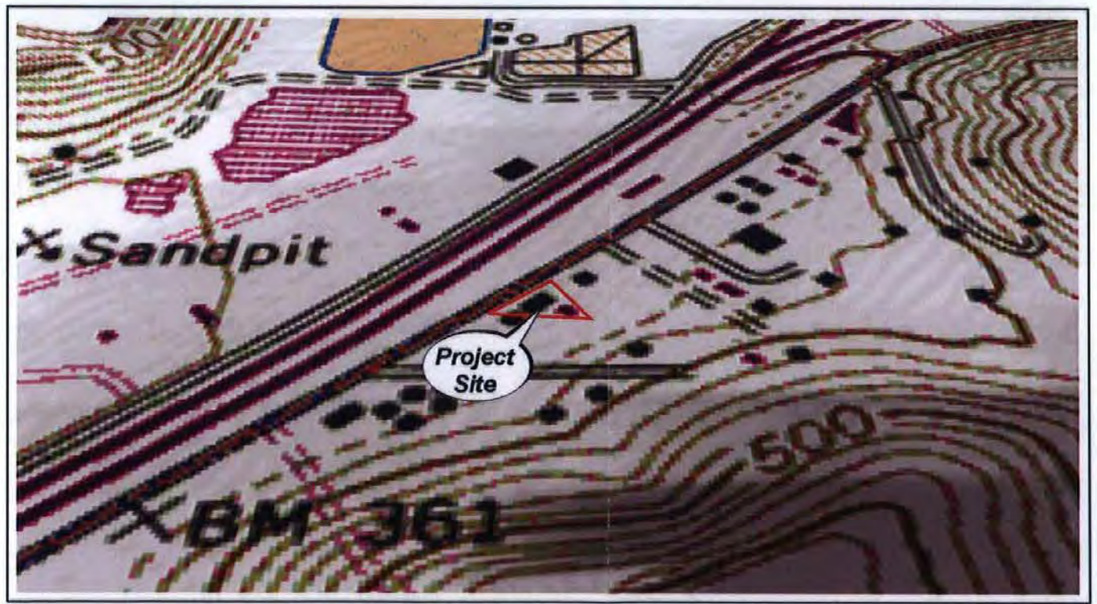
2-DIMENSIONAL SITE LOCATION

0 1,000 2,000 3,000
Approximate Graphic Scale in Feet

North (Not to scale)

Reference:
Google Earth Aerial Photograph
Santee, California - February 2008

SITE AERIAL PHOTOGRAPH



North (Not to scale)

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

3-DIMENSIONAL SITE LOCATION

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

4-WAY SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 1

Date Drafted: 5/14/12

EXPLANATION

- Approximate Site boundary
- MW-19 — Groundwater monitoring well location
- OW-1 — Proposed observation well location
- MW-20 — Proposed groundwater monitoring well location
- Proposed step-out groundwater monitoring well location
- Interpreted groundwater flow direction (based on Fourth Quarter 2011 Monitoring resuts).

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

0 40 80 120
Approximate Graphic Scale:
One Inch Equals 80 Feet

North

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

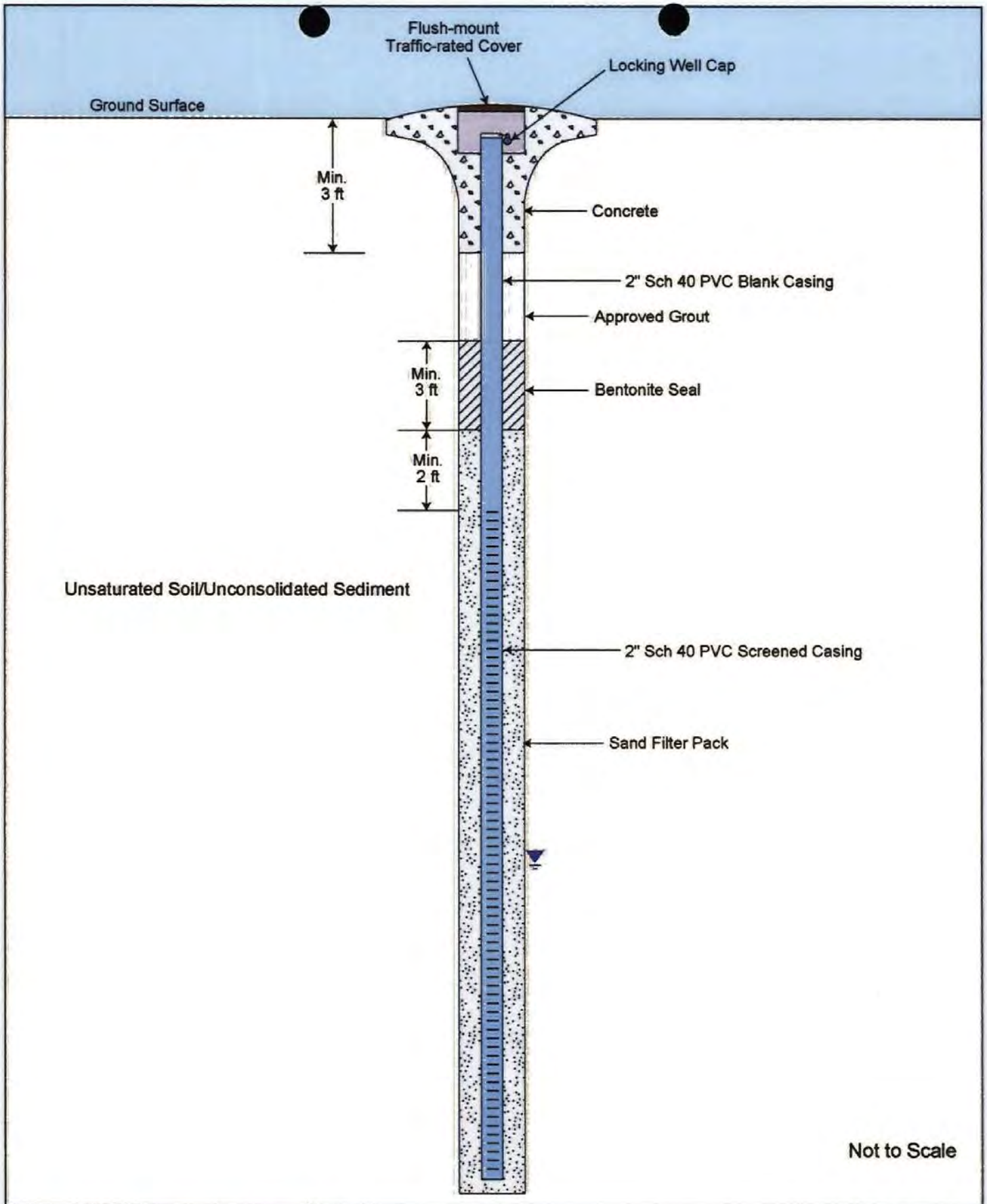
AERIAL SITE VIEW WITH PROPOSED DOWNGRADIENT GROUNDWATER MONITORING WELL AND ON-SITE OBSERVATION WELL LOCATION

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 2

Date Drafted: 5/14/12



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8799 Balboa Avenue, Suite 290
San Diego, California 92123

WELL CONSTRUCTION DIAGRAM

Project No.:
01208473.00

Figure 3

Date Drafted:
5/14/12

DEH CORRESPONDENCE

County of San Diego

JACK MILLER
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
858-505-6700/1-800-253-9933
www.sdcdeh.org

ELIZABETH POZZEBON
ASSISTANT DIRECTOR

March 12, 2012

Ms. Linda Wigington
c/o William Fischbeck, Esq.
Fischbeck & Oberndorfer
5464 Grossmont Center Drive, 3rd Fl
La Mesa, CA 91942

Dear Ms. Wigington:

REPORT RESPONSE
UNAUTHORIZED RELEASE #H19469-001
WIGINGTON PETROLEUM
11427 WOODSIDE AVENUE, SANTEE, CA

The Semi-Annual *Groundwater Monitoring* report for the above referenced site, prepared by SCS Engineers, dated February 13, 2012, and received by the Department of Environmental Health on February 24, 2012 has been reviewed and we have the following comments:

- Regarding the recommendations for installing additional wells, a work plan with well location maps and well installation diagrams is required.

Keep this letter for your records as it may be required for corrective action cost reimbursement under Senate Bill 2004 (California Health and Safety Code, Division 20, Chapter 6.75, Article 6).

Please call me at (858) 505-6983 if you have any questions.

Sincerely,

Ellen Beacon

Digitally signed by Ellen Beacon
DN: cn=Ellen Beacon, o=County of San Diego, ou=SAM, email=Ellen.Beacon@sdcounty.ca.gov, c=US
Date: 2012.03.12 09:25:16 -07'00'

ELLEN BEACON, PG #7566
Project Manager
Site Assessment and Mitigation Program

cc: Chuck E. Hauser, SCS Engineers (via e-mail)

WP/H19469-RR3-12

SCS ENGINEERS

Semi-Annual Groundwater Monitoring
Fourth Quarter 2011

11427 Woodside Avenue

Santee, California

(DEH CASE #H19469-001)

Presented to:

RECEIVED
FEB 16 2012
ENVIRONMENTAL HEALTH

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Presented by:

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123
(858) 571-5500

February 13, 2012
Project Number: 01208473.00

February 13, 2012
Project No. 01208473.00

Ms. Ellen Beacon
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, California 92112-9261

Subject: Semi-Annual Groundwater Monitoring Event Conducted During December 2011 (4Q2011)

DEH File Number: H19469-001

Site: 11427 Woodside Avenue
Santee, California

Dear Ms. Beacon:

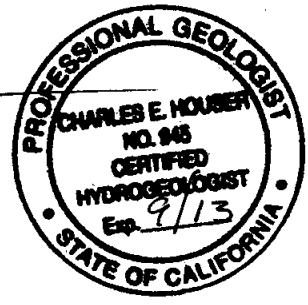
SCS Engineers (SCS) is pleased to present this report (Report) of the semi-annual groundwater monitoring and sampling activities (Assessment) at the above-referenced Site (Figures 1 and 2). This Assessment was conducted in accordance with the guidelines set forth by the County of San Diego Department of Environmental Health (DEH), Site Assessment and Mitigation Program (SAM) and Scope of Service Change 2 (SSC 2) to Exhibit 00 to the Contract between SCS and Wigington Petroleum, Inc. (Client), fully executed on March 30, 2009.

Should you have any questions regarding this Report, please do not hesitate to call the undersigned at (858) 571-5500.

Sincerely,

Chris Crosby
Staff Professional
SCS ENGINEERS

Charles E. Houser, CHg 945
Senior Project Professional
SCS ENGINEERS



Chuck Pryatel, MBA, REHS
Vice President
SCS ENGINEERS

cc: Ms. Linda Wigington, c/o William Fischbeck, Esq.

State UST Cleanup Fund via upload to State Geotracker website

Enclosures
CC
F:\Projects\208\451-530\01208473.00 (Wigington Petroleum, Inc.)\701 (El Cap Oil)\Site Assessment/01208473.00 Site Assessment Report.doc

Table of Contents (cont.)

Appendices

Appendix A Groundwater Purging and Sampling Sheets
Appendix B Analytical Data and Chain-of-Custody Documentation
Appendix C Hydrographs

1 BACKGROUND

The Site is located at 11427 Woodside Avenue in the City of Santee, San Diego County, California (Site, Figure 1). The Site is currently occupied by a commercial fuel and oil facility (Figure 2). Between 1987 and 1998, 13 underground storage tanks (USTs) were reportedly removed from the Site. Analysis of soil samples collected during the UST removals indicated that a release of petroleum hydrocarbons had occurred from the UST system. The County of San Diego, Department of Environmental Health (DEH), Hazardous Materials Management Division (HMMD) directed that corrective measures be taken regarding the release.

A summary of the previous environmental assessments conducted at the Site follows:

- EnecoTech Southwest, Inc. (EnecoTech) conducted assessment activities at the Site between 1988 and 2005. A total of 18 borings and 7 groundwater monitoring wells (MW-1 through MW-4 and MW-6 through MW-8) were drilled and sampled by EnecoTech. An existing 12-inch diameter concrete water production well inside the Site building was labeled MW-5 and was also sampled during the monitoring events in March 1998 and April 2002.

- In 1988, EnecoTech reported that four USTs were removed from the Site. A Site assessment was performed immediately following the tank removal activities, during which 11 soil borings were drilled and sampled and 4 of the borings were completed as groundwater monitoring wells (MW-1 through MW-4).

- On August 19, 1993, the HMMD issued a Notice of Violation to El Capitan Oil Co. requiring corrective action relative to the release. The DEH Site Assessment and Mitigation Program (SAM) reportedly assumed oversight responsibility of the UST assessment and mitigation in mid-1993.

- EnecoTech reported that single-walled product piping was removed from the Site in October 1997.

- In April 1998, samples collected by EnecoTech from the areas where nine USTs were reportedly removed from the Site indicated a release of petroleum hydrocarbons.

- On March 14, 2000, EnecoTech produced a workplan titled, *Work Plan for Environmental Services*, which proposed the installation of two additional groundwater monitoring wells. SAM reportedly directed that four groundwater monitoring wells be installed in a letter dated May 8, 2000. EnecoTech installed two groundwater monitoring wells (MW-6 and MW-7) on February 26, 2001, and one groundwater monitoring well (MW-8) on April 19, 2002.

- Based on the results of EnecoTech's Site assessment activities, groundwater beneath the Site was interpreted to have been impacted by petroleum hydrocarbons from on-Site releases.

- On March 25, 2005, EnecoTech submitted a workplan for additional Site assessment, which proposed the installation of nine additional groundwater monitoring wells both on and off Site.

- In 2006, Petra Geotechnical Inc. (Petra) was retained to conduct the Site assessment work. The SAM Program approved EnecoTech's workplan in a letter, dated October 10, 2007. Petra proposed one well be installed in addition to the nine wells proposed by EnecoTech. The SAM Program agreed that an additional well was needed and requested a revised workplan. Petra submitted an addendum to the revised workplan, dated December 21, 2007, to include the installation of a tenth groundwater monitoring well. The SAM Program approved the revised workplan in a letter, dated January 15, 2008.

- On October 25, 2007, Petra assessed that phase-separated hydrocarbons (PSH) were present in monitoring wells MW-2, MW-3, and MW-4. Petra submitted a workplan titled, *Workplan for High Vacuum Dual Phase Extraction Pilot Test and Interim Remediation*, to the SAM Program, dated December 24, 2007. The SAM Program approved the workplan in a letter dated, January 16, 2008.

- Petra conducted a 33-day high-vacuum, dual-phase extraction (HVDPE) pilot test between January 22 and February 24, 2008. Approximately 3,256.17 pounds of petroleum hydrocarbons were removed and treated during the pilot test. During the pilot test, nine new monitoring wells (MW-9 through MW-17) were installed. The locations of these wells (MW-9 through MW-17) and previous wells (MW-1 through MW-8) are depicted on Figure 2. In April 2008, monitoring wells MW-1 through MW-4 and MW-6 through MW-17 were sampled.

- On July 25, 2008, Petra submitted a *Workplan for Well Maintenance and Well Destruction* to SAM to destroy well MW-5 and reconstruct the well heads for several monitoring wells. SAM approved this workplan in a letter, dated September 4, 2008.

- On July 13, 2009, SAM issued a letter that called for the reduction of the frequency of groundwater monitoring from quarterly to semi-annually, occurring during the second and fourth quarters.

- In 2009, SCS Engineers (SCS) was retained to conduct further groundwater monitoring and Site assessment beginning with the second quarter 2009 (2Q2009) groundwater monitoring event. SCS performed groundwater monitoring and sampling at the Site on June 2009 (2Q2009), November 2009 (4Q2009), April 2010 (2Q2010), and December 2010 (4Q2010).

- On February 19, 2010, SCS submitted a focused HVDPE pilot test workplan. SAM responded in a letter, dated March 16, 2010, stating that, prior to conducting remedial testing, an on-Site health risk assessment and delineation of the groundwater contamination should be completed.

- On April 26, 2010, SCS submitted a *Workplan for a Soil Vapor Survey and Health Risk Assessment* to SAM. SAM approved this workplan in a letter dated, May 18, 2010.

Additionally, on April 26, 2010, SCS submitted a *Site Assessment Workplan* to SAM to install two additional groundwater monitoring wells (MW-18 and MW-19) in order to delineate the downgradient (westerly) and southernly extent of dissolved petroleum hydrocarbons in groundwater from the release at the Site. SAM approved this workplan in a letter dated, May 19, 2010.

- On April 28, 2011, SCS submitted a report titled, *Soil Vapor Survey and Health Risk Assessment* to SAM describing the installation and sampling of five nested soil vapor probes (SV1 through SV5) near the Site building in March and April 2011. SAM concurred with SCS's conclusions in a letter, dated May 9, 2011, that there is a low likelihood that a significant health risk exists in connection with the concentrations of petroleum hydrocarbons in soil vapor beneath the on-Site building.

- On August 18, 2011, SCS submitted a report titled, *Additional Site Assessment and Semi-Annual Groundwater Monitoring Report 2Q2011*, to SAM describing the installation of two groundwater monitoring wells (MW-18 and MW-19) installed in March 2011 and the semi-annual sampling event conducted in April 2011.

The current Report describes the semi-annual groundwater monitoring event conducted during December 2011 (4Q2011).

2 SITE DESCRIPTION SUMMARY

Site Name:	Wigington Petroleum
Site Owner:	Wigington Petroleum, Inc.
Site Address:	11427 Woodside Avenue, Santee, California
DEH Case Number:	H19469-001
Cleanup Fund Claim Number:	912
Global ID:	T0607303173

3 OBJECTIVES

The objectives of the scope of services described in this Report were to:

- Assess the presence and extent of petroleum hydrocarbons and associated volatile organic compounds (VOCs) dissolved in groundwater at the Site.

- Assess the possible presence of PSH in groundwater at the Site.

- Assess the groundwater elevation and the hydraulic gradient at the Site.

4 SCOPE OF SERVICES

FIELD ACTIVITIES—GROUNDWATER SAMPLING AND ANALYSIS

Groundwater Monitoring and Sampling

On December 21, 2011, all 18 Site groundwater monitoring wells were monitored for depth to groundwater and for the presence of PSH. None of the Site wells had measurable PSH during this event. Depth-to-groundwater measurements were taken using an interface probe with a manufacturer's reported accuracy of 0.01 foot and are presented in Table 1.

On December 21 and 22, 2011, groundwater monitoring wells MW-1 through MW-4 and MW-6 through MW-19 were purged and sampled in accordance with SAM guidelines. It is SCS's understanding that well MW-5 was destroyed by Petra. For fast-recovering wells (i.e., those recovering at least 80 percent within two hours), temperature, conductivity, and pH measurements (collectively referred to as purging parameters) were measured after the removal of the first borehole volume and each one-half borehole volume thereafter. Purging continued until at least one and one-half borehole volumes had been removed and purging parameters had stabilized to within 10 percent of the previous reading. Slow-recovering wells (i.e., those recovering less than 80 percent in two hours) were purged of one-borehole volume. Purge water was placed in appropriate 55-gallon drums, labeled, and stored on Site pending disposal.

After purging was completed, the wells were allowed to recover. The fast-recovering wells (MW-1, MW-3, MW-4, MW-6 through MW-12, and MW-14 through MW-19) were sampled after at least 80 percent recovery. The slow-recovering wells (MW-2 and MW-13) were sampled at least two hours after purging was complete. Groundwater samples were collected from each well with a single-use, disposable bailer and decanted into laboratory-supplied vials. The groundwater sample containers were labeled and placed in an ice-filled cooler pending delivery to the laboratory. Chain-of-custody procedures were implemented for sample tracking. Copies of groundwater monitoring/sampling data sheets are included in Appendix A.

purged but different method

Groundwater Sample Analysis

Groundwater samples were analyzed by H&P Mobile Geochemistry, a state-accredited environmental testing laboratory, in Carlsbad, California, in accordance with SAM guidelines for the following:

- Total petroleum hydrocarbons as gasoline (TPHg) and diesel (TPHd) in general accordance with the California Department of Health and Services Leaking Underground Fuel Tank (CA DHS LUFT) Method.

- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) and fuel oxygenates in general accordance with Environmental Protection Agency (EPA) Method 8260B.

Disposal of Drummed Purged Groundwater and Rinsate Water

SCS submitted the necessary documentation to EFR Environmental Services, Inc. (EFR) for the disposal of the drummed rinsate water and purged groundwater and SCS is awaiting approval for disposal. The drums are currently being store on Site in Department-of-Transportation (DOT) rated drums pending disposal. A copy of the Non-Hazardous Waste Manifest will be included in a future report following disposal.

PSH Monitoring

PSH monitoring was conducted on Site in wells MW-1 through MW-4 from September 4, 2009 to April 20, 2010 approximately two times per month. PSH has been measured by SCS in monitoring wells MW-2 (up to approximately 0.03 feet on September 4, 2009) and MW-3 (up to approximately 0.31 feet on November 30, 2009) (Table 2). PSH was not measured in any Site well between March 5, 2010 and April 20, 2010. As a result, PSH monitoring was limited to semi-annual sampling events.

5 FINDINGS

GEOLOGY

Regional Geology

The Site is located in the Peninsular Ranges Geomorphic Province of Southern California. This province is typified by northwest- to southeast-trending mountain ranges approximately parallel to the San Andreas Fault and related regional fault systems. The Peninsular Ranges are generally characterized by granitic rocks of the Southern California batholith and associated metamorphic rocks. Sedimentary rocks ranging in age from Cretaceous to Pleistocene form the San Diego embayment and coastal terraces west of the batholith.

Based on SCS's review of previous Site assessments, materials encountered at the Site generally included fill soil, alluvium, residual soil, and weathered granitic rock. Following is a brief description of these units.

Site Geology

Fill Soil

This unit was encountered in wells MW-13, MW-15, and MW-16 and was interpreted by Petra to be derived from the local alluvial soils. This unit generally consisted of loose, brown to olive-brown to dark yellowish-brown, dry to moist, fine- to very coarse-grained sand with some gravel and asphalt fragments.

Alluvium

This unit generally consisted of brown to olive-brown, moist to wet, interbedded silty to clayey, fine- to very coarse-grained sand, with some gravel. This unit was interpreted to extend from the surface to depths ranging from approximately 10 feet (well MW-10) to 51.5 feet below ground surface (bgs) (well MW-13).

Residual Soil

This unit generally consisted of earth material derived from in-situ weathering of granitic bedrock, and consisted of dark brown to dark reddish-brown, moist, fine- to medium-grained clayey sand with some coarse-grained sand and gravel. This unit was encountered in MW-10 and MW-17 at approximately 10 to 30 feet bgs and 20 to 45 feet bgs, respectively.

Weathered Granitic Rock

This unit generally consisted of dark yellowish-brown to dark olive-brown, hard to very hard, weathered crystalline granitic rock. This unit was encountered in MW-10 and MW-17 at approximately 30 feet bgs and 45 feet bgs, respectively.

HYDROGEOLOGY

Based on review of a document titled, *Water Quality Control Plan, San Diego Basin - Region 9*, prepared by the San Diego Regional Water Quality Control Board (RWQCB), dated September 1994, the Site is interpreted to be located within the Santee Hydrologic Sub Area (7.12) of the Lower San Diego Hydrologic Area (7.10) of the San Diego Hydrologic Unit (7.00). According to the RWQCB, the groundwater in this hydrologic unit has been classified as having existing beneficial uses for municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply purposes.

Groundwater Conditions

Groundwater elevations were calculated based on the surveyed top-of-well casing elevations and the measured depth to groundwater obtained from 18 Site wells (Table 1). Groundwater was encountered at depths ranging from approximately 28.68 (MW-7) to 34.45 (MW-17) feet below top-of-well casings. The groundwater flow direction was interpreted to be generally toward the northwest to west-southwest, with a gradient ranging from approximately 0.001 to 0.03 for the majority of the Site; however, groundwater near MW-19 appears to have a flow direction toward the south. The interpreted groundwater contours and flow directions are depicted on Figure 3.

LABORATORY ANALYTICAL RESULTS

Groundwater Samples

Groundwater analytical results for TPH and volatile organic compounds (VOCs) from the 4Q2011 semi-annual sampling event are summarized in Table 3 and on Figure 4. Based on laboratory analytical results from the groundwater sampling event, wells MW-2, MW-4, MW-9, MW-11, MW-14 MW-15, MW-16, and MW-19 had detectable concentrations[1] of dissolved petroleum hydrocarbons. Concentrations of TPH and VOCs were reported as follows.

[1] For the purposes of this Report, "detectable concentrations" means concentrations above the laboratory reporting limits for the analytical method used.

TPH

TPHg was reported at detectable concentrations in wells MW-9, MW-11, MW-14, MW-15, and MW-19. The reported TPHg concentrations ranged from 910 micrograms per liter (µg/L) in MW-11 to 35,000 µg/L in MW-19. No detectable concentrations of TPHg were reported in the remainder of samples analyzed.

TPHd was reported at detectable concentrations in wells MW-2, MW-4, MW-11, MW-14, MW-15, MW-16, and MW-19. The reported TPHd concentrations ranged from 720 µg/L in MW-15 to 15,000 µg/L in MW-19. No detectable concentrations of TPHd were reported in the remainder of samples analyzed.

BTEX

Benzene was reported at detectable concentrations in wells MW-1, MW-4, MW-6, MW-9, MW-11, MW-14 through MW-16, and MW-19. The reported benzene concentrations ranged from 10 µg/L in MW-16 to 2,300 µg/L in MW-14. No detectable concentrations of benzene were reported in the remainder of the groundwater samples analyzed. Iso-concentration contours for benzene are depicted on Figure 5.

Toluene was reported at detectable concentrations in wells MW-4, MW-9, MW-11, and MW-19. The reported toluene concentrations ranged from 1.2 µg/L in MW-11 to 1,500 µg/L in MW-19. No detectable concentrations of toluene were reported in the remainder of the groundwater samples analyzed.

Ethylbenzene was reported at detectable concentrations in wells MW-1, MW-4, MW-8, MW-9, MW-11, MW-14 through MW-16, and MW-19. The reported ethylbenzene concentrations ranged from 4.3 µg/L in MW-8 to 3,300 µg/L in MW-19. No detectable concentrations of ethylbenzene were reported in the remainder of the groundwater samples analyzed.

Xylenes were reported at detectable concentrations in wells MW-1, MW-4, MW-9, MW-11, MW-14 through MW-16, and MW-19. The reported xylenes concentrations ranged from 1.0 µg/L in MW-1 to 6,700 µg/L in MW-19. No detectable concentrations of xylenes were reported in the remainder of the groundwater samples analyzed.

Fuel Oxygenates

Methyl tertiary butyl ether (MTBE) was reported at detectable concentrations in wells MW-1 through MW-4, MW-6, MW-9, MW-11, MW-12, MW-14, MW-16, and MW-17. The reported MTBE concentrations ranged from 1.0 µg/L in MW-17 to 340 µg/L in MW-14. No detectable concentrations of MTBE were reported in the remainder of the groundwater samples analyzed. Iso-concentration contours for MTBE are depicted on Figure 6.

Tertiary butyl alcohol (TBA) was reported at detectable concentrations in wells MW-1, MW-2, and MW-3 at 59, 1,200, and 7.0 µg/L, respectively. No detectable concentrations of TBA were reported in the remainder of the groundwater samples analyzed.

Detectable concentrations of ethyl tert-butyl ether (ETBE), tertiary amyl methyl ether (TAME), and di-isopropyl ether (DIPE) were not reported in any Site well during the current sampling event.

Copies of the laboratory analytical reports are included in Appendix B.

Hydrographs

Hydrographs depicting groundwater elevations and concentrations of dissolved-phase benzene and MTBE in groundwater versus time for wells MW-1, MW-4, and MW-6 through MW-17 are included in Appendix C and discussed in the table on the following page. Hydrographs for MW-2 and MW-3 were not included due to the historical presence of PSH. Hydrographs for MW-18 and MW-19 were not included due to their involvement in only two sampling events, which are not statistically significant to derive trends. Linear regression trendlines of the benzene and MTBE concentrations are depicted on each hydrograph as appropriate with the calculated R-squared (R^2) value.

The R^2 value indicates the *goodness-of-fit* of the trendline to the data set. In general, an R^2 value between 0.7 and 1.0 would be a *good* fit, between 0.4 and 0.7 a *moderate* fit, and below 0.4 would be a *poor* fit. Over time, significant data gaps are present, limiting the ability to calculate representative data trends from several wells. Two significant data gaps occur between samplings events May 1988 and March 1998 and between April 2002 and October 2007. For illustration purposes, samples with no detectable concentration of benzene or MTBE were plotted at one-half of the laboratory reporting limit. Please note that the laboratory reporting limits have changed for benzene and MTBE over time; therefore, some wells may show detectable concentrations that are below previous laboratory reporting limits.

Well	Benzene Trendline	MTBE Trendline	Correlation with GW Elevation	Benzene/MTBE Above MCL	Comment
MW-1	Increasing R^2=0.1	Decreasing R^2=0.1	No	Yes	Benzene and MTBE within historical range.
MW-2	NA	NA	NA	NA	PSH historically present
MW-3	NA	NA	NA	NA	PSH historically present
MW-4	Increasing R^2=0.1	Decreasing R^2=0.8	Yes (1998-2002), Inverse (2008-present)	Yes	Benzene and MTBE within historical range and near historical low.
MW-5	Abandoned by Petra				
MW-6	Decreasing R^2=0.1	Decreasing R^2=0.1	Yes, since June 2009	Yes	Benzene and MTBE within historical range.
MW-7	Decreasing R^2=0.5	Decreasing R^2=0.7	NA	No	Below MCLs since Oct. 2007.
MW-8	Decreasing R^2=0.7	Decreasing R^2=0.7	NA	No	Below laboratory reporting limit since Oct. 2007.
MW-9	Decreasing R^2=0.7	Decreasing R^2=0.5	Benzene – Weak MTBE – No	Yes/No	Historical low for both benzene and MTBE.

Well	Benzene Trendline	MTBE Trendline	Correlation with GW Elevation	Benzene/MTBE Above MCL	Comment
MW-10	NA	Decreasing R^2=0.2	No	No	ND for benzene since installation. MTBE below MCL since installation.
MW-11	Stable R^2=0.0	Stable R^2=0.1	No	Yes/No	Benzene within historical range. MTBE below MCL since installation.
MW-12	Increasing R^2=0.1	Decreasing R^2=0.6	No	No	Benzene below laboratory reporting limit. MTBE below MCL since Nov. 2009.
MW-13	NA	NA	NA	No	Benzene and MTBE below laboratory reporting limits since installation in April 2008.
MW-14	Decreasing R^2=0.6	Stable R^2=0.0	No	Yes	Benzene within historical range. MTBE near historical low.
MW-15	Decreasing R^2=0.5	NA*	No	Benzene – Yes MTBE – <100	Historical low for benzene. MTBE below laboratory reporting limits since April 2010.
MW-16	Decreasing R^2=0.5	Decreasing R^2=0.3	No	Yes/No	Benzene and MTBE within historical range.
MW-17	NA	Increasing R^2=0.1	MTBE - Yes	No	Benzene below MCLs since sampling began. MTBE below MCLs sine Dec. 2010.

Notes:
MCL's = Maximum contaminant levels, California Code of Regulations, Section 64444.5, dated July 27, 2011.
MCL for benzene = 1 ug/L; MCL for MTBE = 13 ug/L.
GW = Groundwater
NA = Not applicable either due to values below laboratory reporting limits or due to the presence of PSH
ND = Not detected above laboratory reporting limit
MTBE = Methyl tertiary butyl ether
ug/L = Micrograms per liter
* = MTBE trendline not calculated for MW-15 due to increased laboratory reporting limit

6 DISCUSSION

INTERPRETED EXTENT OF PETROLEUM HYDROCARBONS IN GROUNDWATER

Analytical results from the December 2011 sampling event were compared to those obtained during previous monitoring events conducted at the Site beginning in May 1988. Groundwater sample analytical results are summarized in Table 3 and Figure 4. Hydrographs for wells MW-1, MW-4, and MW-6 through MW-17 are included in Appendix C. The following is a summary of trends on Site since the last semi-annual monitoring and sampling event. Please note that the discussion of recent trends in groundwater elevations and conditions may apply to more than just

the interval between the second quarter 2011 monitoring event and this fourth quarter 2011 event.

- PSH was not detected in any Site well during this event. Historically MW-1 through MW-4 have had detections of PSH at least once.

- Reported TPHg concentrations during this event were below laboratory reporting limits in wells MW-1 through MW-4, MW-6 through MW-8, MW-10, MW-12, MW-13, and MW-16 through MW-18; at a historical high for MW-9; and within historical ranges for the remaining wells with detectable TPHg.

- Reported TPHd concentrations during this event were below laboratory reporting limits in wells MW-1, MW-3, MW-6 through MW-10, MW-12, MW-13, MW-17, and MW-18, and within historical ranges for each well with detectable TPHd. The reported detectable TPHd concentrations during this event were flagged by the laboratory stating, "results in the diesel organics range are primarily due to overlap from a gasoline-range product."

- Since the last sampling event in April 2011, reported benzene concentrations during this event have decreased in wells MW-6, MW-7, MW-9, MW-14, MW-15, MW-16, and MW-18. They remain stable at or below the laboratory reporting limit in wells MW-2, MW-3, MW-8, MW-10, MW-12, MW-13, and MW-17. The reported benzene concentrations have increased in wells MW-1, MW-4, MW-11, and MW-19 since the last sampling event. Wells MW-1, MW-4, and MW-12 show overall increasing benzene concentration trends, however the current concentrations of benzene in MW-12 are below the MCL and near the historic low for MW-4.

- Since the last sampling in April 2011, reported MTBE concentrations during this event have decreased in wells MW-1 through MW-3, MW-6, MW-9, MW-11, MW-14, MW-16, and MW-17. They remain stable at or below the detection limit in wells MW-7, MW-8, MW-10, MW-13, MW-15, MW-18, and MW-19. The reported MTBE concentrations during this event have increased in wells MW-4 and MW-12 since the last sampling event. Well MW-17 is the only Site well showing an overall increasing MTBE concentration trend, however the current concentrations are below the MCL.

The interpreted extents of dissolved benzene and MTBE in groundwater, based on the quarterly sampling conducted during December 2011, are depicted on Figures 5 and 6, respectively.

7 CONCLUSIONS

Based on the data collected during this Assessment, including but not limited to laboratory results, field observations and data evaluation by a professional geologist, and current regulatory guidelines, the following conclusions are made:

- Phase-separated hydrocarbons (PSH) were not observed in any Site wells during the fourth quarter 2011 sampling event.

- On December 21, 2011, depth to groundwater was observed to be between 28.68 (MW-7) to 34.45 (MW-17) feet below top-of-well casings. The groundwater flow direction was interpreted to be generally toward the northwest to west-southwest, with a gradient ranging from approximately 0.001 to 0.03 for the majority of the Site; however, groundwater near MW-19 appears to have a flow direction toward the south.

- The extent of dissolved benzene and MTBE concentrations in groundwater has generally been delineated to the north, east, west, and southwest; however, delineation is not complete to the south-southeast of MW-19.

8 RECOMMENDATIONS

Based on SCS's assessment of the Site, the following recommendations are made:

- Install one additional groundwater monitoring well (MW-20) with a potential step out well (MW-21) toward the south-southeast of MW-19 to further delineate the lateral extent of petroleum hydrocarbon-bearing soil and groundwater (Figure 7). The well(s) will be installed in accordance with SCS's previously approved *Site Assessment Workplan*, dated April 26, 2010.

- Continue semi-annual monitoring and sampling to evaluate the TPH and VOC trends in the monitoring wells at the Site.

- Implement the *Focused HVDPE Pilot Test Workplan*, submitted by SCS on February 19, 2010, including the installation of three observation wells. Results of the focused pilot test will support selection of an appropriate remedial alternative during preparation of the CAP. Installation of the three proposed observation wells at the time wells MW-20 and, if necessary, MW-21 are installed, will be more time and cost efficient than if these two scopes of work are performed separately.

Regarding the installation of new groundwater monitoring well MW-20 and possible step-out well MW-21, SCS proposes the following. Immediately following the installation and development of MW-20, SCS will collect an in-situ groundwater sample for analysis. The sample will be analyzed for TPHg and TPHd in accordance with CA DHS LUFT Method, and for BTEX and fuel oxygenates in accordance with EPA Method 8260B. The in-situ groundwater sample from new well MW-20 will be analyzed on a 24-hour turn around, during which time SCS will proceed with drilling and installation of the proposed on-Site observation wells for the focused HVDPE pilot test. If detectable concentrations of dissolved petroleum hydrocarbons are reported in the in-situ groundwater sample from well MW-20, SCS will then drill and install the proposed step-out well, MW-21.

9 REPORT USAGE AND FUTURE SITE CONDITIONS

This Report is intended for the sole usage of the Client and the parties designated by SCS. Use of this Report is subject to the provisions of the fully executed Contract between the Client and SCS. Any third party usage of this Report shall be subject to the provisions of the Contract, and any unauthorized misuse of or reliance upon the Report shall be without risk or liability to SCS.

The conclusions of this Report are judged to be relevant at the time the work described in this Report was conducted. Future conditions may differ and this Report should not be relied upon to represent future Site conditions unless a qualified consultant familiar with the practice of Phase II environmental assessments in San Diego County is consulted to assess the necessity of updating this Report.

Although this Assessment has attempted to assess the likelihood that the Site has been impacted by a hazardous material/waste release, potential sources of impact may have escaped detection for reasons that include, but are not limited to: 1) inadequate or inaccurate information rightfully provided to SCS by third parties, such as public agencies and other outside sources; 2) the limited scope of this Assessment; and 3) the presence of undetected, unknown, or unreported environmental releases.

10 LIKELIHOOD STATEMENTS

Statements of "likelihood" have been made in this report. Likelihood statements are based on professional judgments of SCS. The term "likelihood," as used herein, pertains to the probability of a match between the prediction for an event and its actual occurrence. The likelihood statement assigns a measure for a "degree of belief" for the match between the prediction for the event and the actual occurrence of the event.

The likelihood statements in this Report are made qualitatively (expressed in words). The qualitative terms can be approximately related to quantitative percentages. The term "low likelihood" is used by SCS to approximate a range of 10 to 20 percent; the term "moderate likelihood" refers to an approximate range of 40 to 60 percent; and the term "high likelihood" refers to an approximate range of 80 to 90 percent.

TABLES

Table 1

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Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-1	363.90 (22-42)	05/25/88	28.73	335.17
		03/10/98	27.03	336.87
		04/05/00	29.62	334.28
	362.84 (22-42)	04/26/02	30.21	332.63
		12/03/02	30.19	332.65
		10/26/07	NM	NM
		01/17/08	PSH	PSH
		04/18/08	29.86	332.98
		07/28/08	30.98	331.86
		12/29/08	29.14	333.70
		06/18/09	30.29	332.55
		11/17/09	31.15	331.69
		04/20/10	28.58	334.26
		12/20/10	29.80	333.04
		04/04/11	28.36	334.48
		12/21/11	29.36	333.48
MW-2	365.40 (24-44)	05/25/88	30.03	335.37
		03/10/98	28.75	336.65
		04/05/00	32.23	333.17
	365.08 (24-44)	04/26/02	31.72	333.36
		12/03/02	31.84	333.24
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	31.06	334.02
		07/28/08	PSH	PSH
		12/29/08	31.50	333.58
		06/18/09	31.56	333.52
		11/17/09	32.86	332.22
		04/20/10	29.08	336.00
		12/20/10	PSH	PSH
		04/04/11	29.41	335.67
		12/21/11	30.93	334.15
MW-3	366.07 (24.5-44.5)	05/25/88	30.83	335.24
		03/10/98	28.25	337.82
		04/05/00	36.65	329.42
	364.16 (24.5-44.5)	04/26/02	31.37	332.79
		12/03/02	31.32	332.84
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	30.91	333.25
		07/28/08	PSH	PSH
		12/29/08	30.54	333.62
		06/18/09	31.33	332.83
		11/17/09	PSH	PSH
		04/20/10	29.54	334.62
		12/20/10	PSH	PSH
		04/04/11	29.32	334.84
		12/21/11	30.41	333.75

Table 1

(Page 2 of 5)

Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-4	362.90 (22-42)	05/25/88	27.68	335.22
		03/10/98	26.46	336.44
		04/05/00	29.98	332.92
	362.38 (22-42)	04/26/02	29.60	332.78
		12/03/02	29.43	332.95
		10/26/07	PSH	PSH
		01/17/08	PSH	PSH
		04/18/08	29.25	333.13
		07/28/08	30.41	331.97
		12/29/08	28.53	333.85
		06/18/09	29.65	332.73
		11/17/09	30.58	331.80
		04/20/10	27.97	334.41
		12/20/10	29.22	333.16
		04/04/11	27.74	334.64
		12/21/11	28.73	333.65
MW-5	NM	03/10/98	27.50	NM
	363.42 (unknown)	04/26/02	30.39	333.03
		12/03/02	30.50	332.92
		10/26/07	31.72	331.70
		01/17/08	NM	NM
		04/18/08	31.07	332.35
		07/28/08	NM	NM
		12/29/08	NM	NM
		Well Destroyed		
MW-6	362.44 (17-42)	04/26/02	29.77	332.67
		12/03/02	29.75	332.69
		10/26/07	31.01	331.43
		01/17/08	29.44	333.00
		04/18/08	29.47	332.97
		07/28/08	30.60	331.84
		12/29/08	28.71	333.73
		06/18/09	29.90	332.54
		11/17/09	30.78	331.66
		04/20/10	28.17	334.27
		12/20/10	29.45	332.99
		04/04/11	27.98	334.46
		12/21/11	28.96	333.48

Table 1

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Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-7	362.57 (17-42)	04/26/02	29.47	333.10
		12/03/02	29.45	333.12
		10/26/07	30.45	332.12
		01/17/08	29.17	333.40
		04/18/08	29.16	333.41
		07/28/08	30.08	332.49
		12/29/08	28.48	334.09
		06/18/09	29.56	333.01
		11/17/09	30.59	331.98
		04/20/10	27.92	334.65
		12/20/10	29.15	333.42
		04/04/11	27.75	334.82
		12/21/11	28.68	333.89
MW-8	364.51 (20.5-40.5)	04/26/02	31.71	332.80
		12/03/02	31.70	332.81
		10/26/07	33.02	331.49
		01/17/08	31.34	333.17
		04/18/08	31.42	333.09
		07/28/08	32.60	331.91
		12/29/08	30.60	333.91
		06/18/09	31.82	332.69
		11/17/09	32.74	331.77
		04/20/10	30.12	334.39
		12/20/10	31.37	333.14
		04/04/11	29.92	334.59
		12/21/11	30.87	333.64
MW-9	362.33 (34-39)	04/18/08	29.49	332.84
		07/28/08	30.58	331.75
		12/29/08	28.68	333.65
		06/18/09	29.90	332.43
		11/17/09	30.75	331.58
		04/20/10	28.15	334.18
		12/20/10	29.43	332.90
		04/04/11	27.95	334.38
		12/21/11	28.90	333.43
MW-10	367.28 (25-40)	04/18/08	32.52	334.76
		07/29/08	33.65	333.63
		12/29/08	32.62	334.66
		06/18/09	32.75	334.53
		11/17/09	33.97	333.31
		04/20/10	30.83	336.45
		12/20/10	32.10	335.18
		04/04/11	30.26	337.02
		12/21/11	31.64	335.64
MW-11	362.48 (23-38)	04/18/08	29.98	332.50
		07/29/08	30.99	331.49
		12/29/08	28.96	333.52
		06/18/09	30.36	332.12
		11/17/09	31.12	331.36
		04/20/10	28.61	333.87
		12/20/10	29.84	332.64
		04/04/11	28.44	334.04
		12/21/11	29.34	333.14

Table 1

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Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-12	361.88 (24-39)	04/18/08	29.55	332.33
		07/29/08	30.49	331.39
		12/29/08	28.45	333.43
		06/18/09	29.94	331.94
		11/17/09	30.65	331.23
		04/20/10	28.17	333.71
		12/20/10	29.40	332.48
		04/04/11	27.93	333.95
		12/21/11	28.88	333.00
MW-13	366.91 (25-45)	04/21/08	32.77	334.14
		07/30/08	34.08	332.83
		12/29/08	32.54	334.37
		06/18/09	33.17	333.74
		11/17/09	34.33	332.58
		04/20/10	31.35	335.56
		12/20/10	32.71	334.20
		04/04/11	31.24	335.67
		12/21/11	31.36	335.55
MW-14	362.79 (23-38)	04/21/08	30.09	332.70
		07/30/08	31.14	331.65
		12/29/08	29.22	333.57
		06/18/09	30.51	332.28
		11/17/09	31.32	331.47
		04/20/10	28.74	334.05
		12/20/10	30.03	332.76
		04/04/11	28.52	334.27
		12/21/11	29.53	333.26
MW-15	362.36 (23.5-38.5)	04/21/08	29.91	332.65
		07/30/08	30.96	331.60
		12/29/08	28.80	333.56
		06/18/09	30.13	332.23
		11/17/09	30.92	331.44
		04/20/10	28.36	334.00
		12/20/10	29.64	332.72
		04/04/11	28.15	334.21
		12/21/11	29.14	333.22
MW-16	362.48 (24-39)	04/21/08	30.04	332.44
		07/30/08	31.02	331.46
		12/29/08	28.95	333.53
		06/18/09	30.47	332.01
		11/17/09	31.18	331.30
		04/20/10	28.66	333.82
		12/20/10	29.94	332.54
		04/04/11	28.41	334.07
		12/21/11	29.42	333.06

Table 1

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Groundwater Elevation Data

11427 Woodside Avenue, Santee, California

Groundwater Monitoring Well	Wellhead Elevation (feet above msl) and Depth of Screen (feet below grade)	Date Measured	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet above msl)
MW-17	367.97 (24.5-44.5)	04/21/08	34.97	333.00
		07/30/08	36.08	331.89
		12/29/08	34.34	333.63
		06/18/09	35.38	332.59
		11/17/09	36.23	331.74
		04/20/10	33.63	334.34
		12/20/10	34.93	333.04
		04/04/11	33.40	334.57
		12/21/11	34.45	333.52
MW-18	362.28 (24-39)	04/04/11	28.60	333.68
		12/21/11	29.62	332.66
MW-19	365.07 (26-41)	04/04/11	31.28	333.79
		12/21/11	32.28	332.79

Notes:

MSL = mean sea level

TOC = top of well casing

PSH = phase-separated hydrocarbons present in well, therefore groundwater elevation was not calculated

NM = well not measured

Wells were surveyed by Southern California Survey initially on April 26, 2002 and updated on March 28, 2008.

Table 2
Phase-Separated Hydrocarbon Monitoring Data
11427 Woodside Avenue, Santee, CA

Date	MW-1			MW-2			MW-3			MW-4		
	DTP	DTW	PT	DTP	DTW	PT	DTP	DTW	PT	DTP	DTW	PT
6/18/2009	NP	30.29	NP	NP	31.56	NP	NP	31.33	NP	NP	29.65	NP
9/4/2009	NP	31.10	NP	32.62	32.65	0.03	32.15	32.18	0.03	NP	30.51	NP
9/18/2009	NP	31.16	NP	32.72	32.73	0.01	32.21	32.26	0.05	NP	30.57	NP
10/2/2009	NP	31.20	NP	NP	32.79	NP	32.26	32.36	0.10	NP	30.61	NP
10/16/2009	NP	31.23	NP	32.82	32.83	0.01	32.29	32.45	0.16	NP	30.64	NP
10/29/2009	NP	31.24	NP	NP	32.90	NP	32.29	32.52	0.23	NP	30.63	NP
11/17/2009	NP	31.15	NP	NP	32.86	NP	32.20	32.48	0.28	NP	30.58	NP
11/30/2009	NP	31.09	NP	NP	32.82	NP	32.10	32.41	0.31	NP	30.48	NP
12/11/2009	NP	30.50	NP	NP	32.41	NP	31.64	31.80	0.16	NP	29.80	NP
12/24/2009	NP	29.42	NP	NP	31.62	NP	NP	30.72	NP	NP	28.79	NP
1/7/2010	NP	29.67	NP	NP	29.03	NP	31.78	31.79	0.01	NP	29.03	NP
1/26/2010	NP	28.69	NP	NP	31.04	NP	NP	30.11	NP	NP	27.98	NP
2/8/2010	NP	28.30	NP	NP	30.08	NP	NP	29.56*	NP	NP	27.68	NP
2/19/2010	NP	28.07	NP	NP	29.32	NP	29.26	29.27	0.01	NP	27.46	NP
3/5/2010	NP	27.83	NP	NP	28.94	NP	NP	29.07*	NP	NP	27.22	NP
3/19/2010	NP	28.12	NP	NP	28.31	NP	NP	29.22	NP	NP	27.51	NP
4/2/2010	NP	28.55	NP	NP	28.61	NP	NP	29.57	NP	NP	27.94	NP
4/20/2010	NP	28.58	NP	NP	29.08	NP	NP	29.54	NP	NP	27.97	NP
12/20/2010	NP	29.80	NP	31.25	31.27	0.02	30.83	30.84	0.01	NP	29.22	NP
4/4/2011	NP	28.36	NP	NP	29.41	NP	NP	29.32	NP	NP	27.74	NP
12/21/2011	NP	29.36	NP	NP	30.93	NP	NP	30.41	NP	NP	28.73	NP

Notes: DTP = Depth to phase-separated hydrocarbons (PSH) below top of casing in feet
DTW = Depth to water below top of casing in feet
PT = PSH thickness in feet
NP = No PSH
* = PSH sheen

Table 3
(Page 1 of 6)
Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-1 (installed 5/11/88)	05/25/88	0.6	NA	NA	0.7	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	2,500	910	340	200	18	240	190	NA	NA	NA	NA
	05/18/98	NA	704	< 500	326	89.5	< 50.0	< 100	< 50.0	NA	NA	NA	NA
	04/05/00	NA	1,800	NA	250	14	34	380	200	NA	NA	NA	NA
	04/26/02	NA	1,100	1,100	230	14	36	220	190	< 40	< 40	500	< 40
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	2,800	980	370	6.6	170	227.8	610	NA	NA	NA	NA
	07/28/08	NA	420	< 500	57	< 0.5	19.0	15	55	NA	NA	NA	NA
	12/29/08	NA	440	720	57	< 1.0	30	26	< 2.0	< 2.0	< 2.0	27	< 2.0
	06/18/09	NA	< 500	< 500	210	1.0	38	17.7	220	< 1.0	< 1.0	140	< 1.0
	11/17/09	NA	< 500	< 500	4.4	0.6	2.5	1.1	1.7	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	42	<0.5	3.7	1.1	81	< 1.0	< 1.0	49	< 1.0
	12/20/10	NA	< 500	< 500	66	<0.5	35	4.6	34	< 1.0	< 1.0	15	< 1.0
	04/04/11	NA	< 500	< 500	78	1.3	9.8	10.4	52	< 1.0	< 1.0	40	< 1.0
	12/21/11	NA	< 500	< 500	130	< 0.5	19	1.0	14	< 1.0	< 1.0	59	< 1.0
MW-2 (installed 5/12/88)	05/25/88	< 0.5	NA	NA	< 0.5	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	330	< 500	20	3.3	25	47	53	NA	NA	NA	NA
	04/04/00	NA	7,600	NA	7.6	3.3	30	59	3,500	NA	NA	NA	NA
	04/26/02	NA	6,000	160,000	9.2	3.9	16	17	3,100	< 40	< 40	500	< 40
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	510	6,400	< 10	< 10	< 10	< 30	1,300	NA	NA	NA	NA
	07/28/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	12/30/08	NA	440	22,000	< 2.5	< 2.5	4.0	< 10	< 5.0	< 5.0	< 5.0	2,100	< 5.0
	06/19/09	NA	< 500	< 500	< 0.5	< 0.5	4.9	< 1.5	8.3	< 1.0	< 1.0	2,000	< 1.0
	11/18/09	NA	2,300	< 500	1.0	0.7	3.4	< 1.5	1.9	< 1.0	< 1.0	1,100	< 1.0
	04/21/10	NA	< 500	7,400	< 0.5	< 0.5	3.7	< 1.5	20	< 1.0	< 1.0	170	< 1.0
	12/20/10	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/06/11	NA	< 500	2,600	< 0.5	< 0.5	< 0.5	< 1.5	13	< 1.0	< 1.0	490	< 1.0
	12/22/11	NA	< 500	3,600	< 0.5	< 0.5	< 0.5	< 1.5	3.5	< 1.0	< 1.0	1,200	< 1.0

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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-3 (installed 5/13/88)	05/25/88	140	NA	NA	19	3.4	NA	1.3	NA	NA	NA	NA	NA
	03/10/98	NA	2,300	5,100	3.6	0.7	0.7	4.1	2,000	NA	NA	NA	NA
	05/18/98	NA	115	< 500	98.5	< 12.5	< 12.5	< 25.0	226	NA	NA	NA	NA
	04/05/00	NA	420	NA	18	1.7	3.9	12	230	NA	NA	NA	NA
	04/26/02	NA	9,700	190,000	92	< 3.0	56	62	590	< 100	< 100	< 1,200	< 100
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	< 500	1,800	2.8	< 1.0	< 1.0	< 3.0	99	NA	NA	NA	NA
	07/28/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	12/30/08	NA	230	3,200	1.7	< 0.5	0.61	< 2.0	110	< 1.0	< 1.0	59	< 1.0
	06/19/09	NA	< 500	< 500	0.5	< 0.5	< 0.5	< 1.5	77	< 1.0	< 1.0	400	< 1.0
	11/17/09	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/21/10	NA	< 500	5,900	1.3	< 0.5	1.2	< 1.5	90	< 1.0	< 1.0	43	< 1.0
	12/20/10	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/06/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	96	< 1.0	< 1.0	9.5	< 1.0
	12/22/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	64	< 1.0	< 1.0	7.0	< 1.0
MW-4 (installed 5/13/88)	05/25/88	6.3	NA	NA	< 0.5	< 0.5	NA	< 0.5	NA	NA	NA	NA	NA
	03/10/98	NA	9,600	3,700	2,400	250	50	430	4,100	NA	NA	NA	NA
	04/04/00	NA	8,700	NA	1,800	< 12	110	790	900	NA	NA	NA	NA
	04/26/02	NA	15,000	95,000	4,500	150	450	1,900	1,500	< 100	< 100	< 1,200	< 100
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	01/17/08	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH	PSH
	04/18/08	NA	2,000	4,500	380	2.9	95	41.0	110.0	NA	NA	NA	NA
	07/28/08	NA	2,100	1,300	410	< 2.5	72.0	< 10	70	NA	NA	NA	NA
	12/30/08	NA	4,900	3,400	88	< 10	20	53	< 20	< 20	< 20	< 200	< 20
	06/18/09	NA	< 500	< 500	370	2.0	58	11.6	89	< 1.0	< 1.0	24	< 1.0
	11/18/09	NA	3,300	2,600	460	11	130	70.4	140	< 1.0	< 1.0	< 5.0	< 1.0
	04/21/10	NA	< 500	< 500	34	0.5	4.7	1.0	33	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	51	1.2	20	4.7	57	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	860	43	2.7	11	8.3	29	< 1.0	< 1.0	< 5.0	< 1.0
	12/22/11	NA	< 500	820	44	1.9	15	6.0	48	< 1.0	< 1.0	< 5.0	< 1.0

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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-5 (instalation unknown)	03/10/98	NA	730	1,700	20	0.6	< 0.30	39	92	NA	NA	NA	NA
	04/26/02	NA	500	2,000	7.3	1.7	2.8	6.8	230	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/17/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	07/28/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/30/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Well Destroyed												
MW-6 (installed 2/26/01)	04/26/02	NA	25,000	9,100	5,300	1,400	1,200	5,900	850	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	570	< 500	21	0.7	48	14	17	NA	NA	NA	NA
	01/17/08	NA	1,400	< 500	9.6	0.6	4.8	8.5	3.5	NA	NA	NA	NA
	04/18/08	NA	2,000	750	500	< 20	210	150	180	NA	NA	NA	NA
	07/28/08	NA	6,900	980	720	7.6	410	540	98	NA	NA	NA	NA
	12/30/08	NA	950	650	55	< 1.0	34	30	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/19/09	NA	< 500	< 500	350	3.1	250	182.3	54	< 1.0	< 1.0	22	< 1.0
	11/18/09	NA	< 500	< 500	90	2.0	75	73.0	25	< 1.0	< 1.0	< 5.0	< 1.0
	04/21/10	NA	1,300	1,500	750	4.1	320	29.7	110	< 1.0	< 1.0	< 5.0	< 1.0
	12/20/10	NA	< 500	< 500	110	< 1.0	16	5.0	12	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	1,200	6,800	990	5.7	550	28.8	160	< 1.0	< 1.0	< 5.0	< 1.0
	12/22/11	NA	< 500	< 500	130	< 5.0	< 5.0	< 15	29	< 10	< 10	< 50	< 10
MW-7 (installed 2/26/01)	04/26/02	NA	1,900	13,000	3.7	1.1	4	7.9	19	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/25/07	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	01/17/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	04/21/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 1.0	< 1.0	< 1.0	< 3.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	15	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	8.7	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	< 500	0.8	< 0.5	0.6	2.8	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/22/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0

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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-8 (installed 4/19/02)	04/26/02	NA	4,800	6,500	50	9.2	170	210	64	NA	NA	NA	NA
	12/03/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/26/07	NA	1,100	790	< 0.5	< 0.5	23	< 0.5	< 1.0	NA	NA	NA	NA
	01/17/08	NA	1,100	570	< 0.5	< 0.5	27	< 1.5	< 1.0	NA	NA	NA	NA
	04/21/08	NA	980	1,200	< 0.5	< 0.5	23	< 1.5	< 1.0	NA	NA	NA	NA
	07/29/08	NA	660	2,100	< 0.5	< 0.5	15	< 2.0	< 1.0	NA	NA	NA	NA
	12/30/08	NA	890	3,000	< 1.0	< 1.0	16	< 4.0	< 2.0	< 2.0	< 2.0	< 20	< 2.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	13	< 1.5	< 1.0	< 1.0	< 1.0	13	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.7	10	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	6.1	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	< 0.5	< 0.5	1.9	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	< 500	< 0.5	< 0.5	5.1	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/11	NA	< 500	< 500	< 0.5	< 0.5	4.3	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-9 (installed 2/4/08)	04/18/08	NA	1,700	560	740	250	270	1,010	170	NA	NA	NA	NA
	07/28/08	NA	1,100	570	230	27	27	65	74	NA	NA	NA	NA
	12/30/08	NA	1,300	< 500	140	10	71	200	21	< 5.0	< 5.0	< 50	< 5.0
	06/19/09	NA	< 500	< 500	50	6.1	34	49.3	55	< 1.0	< 1.0	34	< 1.0
	11/18/09	NA	< 500	< 500	62	8.9	51	89	67	< 1.0	< 1.0	< 5.0	< 1.0
	04/21/10	NA	< 500	< 500	170	28	86	164	64	< 1.0	< 1.0	< 5.0	< 1.0
	12/20/10	NA	< 500	< 500	18	2.9	22	31.3	40	< 1.0	< 1.0	< 5.0	< 1.0
	04/04/11	NA	1,300	500	74	31	84	146	43	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/11	NA	3,800	< 500	16	3.6	22	25.3	5.5	< 1.0	< 1.0	< 5.0	< 1.0
MW-10 (installed 2/5/08)	04/18/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	4.2	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	1.8	< 1.0	< 1.0	20	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.5	< 0.5	< 1.5	6.3	< 1.0	< 1.0	6.3	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	2.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	1.4	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/22/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-11 (installed 2/8/08)	04/18/08	NA	1,800	< 500	22	< 1.0	170	< 3.0	< 2.0	NA	NA	NA	NA
	07/29/08	NA	690	720	4.2	0.81	39	< 2.0	< 1.0	NA	NA	NA	NA
	12/31/08	NA	2,000	1,600	52	6.8	230	11	< 5.0	< 5.0	< 5.0	< 50	< 5.0
	06/18/09	NA	< 500	< 500	5.9	0.6	19	< 1.5	1.6	< 1.0	< 1.0	12	< 1.0
	11/17/09	NA	900	< 500	6.5	1.5	5.5	1.2	2.3	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	3.1	< 0.5	0.7	< 1.5	1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/10	NA	< 500	< 500	28	4.1	22	9.6	1.6	< 1.0	< 1.0	< 5.0	< 1.0
	04/04/11	NA	< 500	600	9.3	0.7	5.7	< 1.5	1.7	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/11	NA	910	1,400	16	1.2	27	2.8	1.1	< 1.0	< 1.0	< 5.0	< 1.0

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Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-12 (installed 2/8/08)	04/18/08	NA	< 500	< 500	< 1.0	< 1.0	2.0	< 3.0	65	NA	NA	NA	NA
	07/29/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	11	NA	NA	NA	NA
	12/31/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	16	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	14	< 1.0	< 1.0	32	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	2.5	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	2.7	< 0.5	< 0.5	< 1.5	4.6	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	12	0.6	0.7	3.6	4.1	< 1.0	< 1.0	< 5.0	< 1.0
	04/04/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	3.2	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	4.9	< 1.0	< 1.0	< 5.0	< 1.0
MW-13 (installed 2/18/08)	04/21/08	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	NA	NA	NA	NA
	07/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	NA	NA	NA	NA
	12/30/08	NA	< 50	< 500	< 0.5	< 0.5	< 0.5	< 2.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0
	06/18/09	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	11	< 1.0
	11/17/09	NA	< 500	< 500	< 0.5	0.6	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/23/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	< 500	< 0.5	< 0.5	1.0	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-14 (installed 2/18/08)	04/21/08	NA	27,000	3,800	5,300	290	2,400	6,460	650	NA	NA	NA	NA
	07/30/08	NA	25,000	12,000	6,600	170	2,400	3,700	270	NA	NA	NA	NA
	12/31/08	NA	18,000	1,000	3,700	< 50	1,500	2,000	570	< 100	< 100	< 1,000	< 100
	06/19/09	NA	< 500	< 500	3,600	160	1,900	2,990	540	< 20	< 20	110	< 20
	11/18/09	NA	6,900	< 500	1,600	54	1,000	944	510	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	3,700	< 500	2,600	210	1,700	3,650	670	< 20	< 20	< 100	< 20
	12/20/10	NA	5,500	2,300	1,900	98	1,400	2,180	670	< 40	< 40	< 200	< 40
	04/05/11	NA	14,000	2,900	2,400	110	1,500	2,759	770	< 40	< 40	< 200	< 40
	12/22/11	NA	17,000	6,000	2,300	< 50	1,800	2,600	340	< 100	< 100	< 500	< 100
MW-15 (installed 2/19/08)	04/21/08	NA	32,000	3,500	2,400	510	4,100	13,380	< 200	NA	NA	NA	NA
	07/30/08	NA	46,000	17,000	2,100	250	3,700	10,000	< 50	NA	NA	NA	NA
	12/31/08	NA	8,400	2,100	620	12	1,500	160	< 20	< 20	< 20	< 200	< 20
	06/19/09	NA	< 500	< 500	820	250	2,800	6,930	35	< 20	< 20	< 100	< 20
	11/18/09	NA	19,000	< 500	910	77	3,700	4,308.9	19	< 10	< 10	< 50	< 10
	04/20/10	NA	1,800	1,500	1,100	130	3,700	10,090	< 100	< 100	< 100	< 500	< 100
	12/21/10	NA	7,100	4,800	800	63	2,600	2,800	< 100	< 100	< 100	< 500	< 100
	04/05/11	NA	21,000	8,400	990	120	3,000	7,180	< 100	< 100	< 100	< 500	< 100
	12/22/11	NA	1,200	720	450	< 50	580	810	< 100	< 100	< 100	< 500	< 100

Table 3
(Page 6 of 6)
Groundwater Analytical Data for TPH and VOCs
11427 Woodside Avenue, Santee, California

Well Number	Sample Date	TPH*	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)
MW-16 (installed 2/16/08)	04/21/08	NA	< 500	< 500	**53**	< 2.5	**77**	< 7.5	**110**	NA	NA	NA	NA
	07/30/08	NA	**1,300**	**780**	**110**	**1.7**	**210**	< 4.0	**160**	NA	NA	NA	NA
	12/31/08	NA	**2,500**	**790**	**470**	**6**	**390**	< 20	< 10	< 10	< 10	< 100	< 10
	06/19/09	NA	< 500	< 500	**120**	**16**	**220**	**33**	**100**	< 20	< 20	**170**	< 20
	11/18/09	NA	**570**	< 500	**110**	**2.5**	**65**	**10.5**	**73**	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	< 10	< 10	< 10	< 30	**33**	< 20	< 20	< 100	< 20
	12/21/10	NA	< 500	< 500	**3.9**	< 1.0	< 1.0	< 1.5	**16**	< 1.0	< 1.0	< 5.0	< 1.0
	04/04/11	NA	< 500	**570**	**11**	**0.7**	**60**	< 1.5	**26**	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/11	NA	< 500	**770**	**10**	< 0.5	**53**	**2.8**	**10**	< 1.0	< 1.0	< 5.0	< 1.0
MW-17 (installed 2/19/08)	04/21/08	NA	**990**	**3,100**	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	NA	NA	NA	NA
	07/30/08	NA	**780**	**11,000**	< 5.0	< 5.0	< 5.0	< 1.5	< 1.0	NA	NA	NA	NA
	12/30/08	NA	**520**	**55,000**	< 5.0	< 5.0	< 5.0	< 20	< 10	< 10	< 10	< 100	< 10
	06/19/09	NA	**1,600**	**730**	< 0.5	**0.7**	< 0.5	< 1.5	**2.4**	< 1.0	< 1.0	**15**	< 1.0
	11/17/09	NA	**550**	< 500	**0.5**	< 0.5	**1.9**	**2.4**	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	04/20/10	NA	< 500	< 500	**0.6**	< 0.5	< 0.5	< 1.5	**29**	< 1.0	< 1.0	**35**	< 1.0
	12/20/10	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	**2.9**	< 1.0	< 1.0	< 5.0	< 1.0
	04/05/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	**1.9**	< 1.0	< 1.0	< 5.0	< 1.0
	12/22/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	**1.0**	< 1.0	< 1.0	< 5.0	< 1.0
MW-18 (installed	04/04/11	NA	**530**	< 500	**0.5**	< 0.5	**0.5**	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
	12/21/11	NA	< 500	< 500	< 0.5	< 0.5	< 0.5	< 1.5	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
MW-19 (installed	04/04/11	NA	**55,000**	**6,100**	**640**	**2,600**	**4,100**	**17,200**	< 100	< 100	< 100	< 500	< 100
	12/22/11	NA	**35,000**	**15,000**	**650**	**1,500**	**3,300**	**6,700**	< 100	< 100	< 100	< 500	< 100

Notes:

Groundwater samples collected by SCS Engineers from June 2009 through 2011.

Groundwater samples collected by Petra Geotechnical, Inc. from October 25, 2007 to December 31, 2008.

Groundwater samples collected by EnecoTech Southwest, Inc. from May 25, 1988 to December 3, 2002.

Results presented in micrograms per liter (µg/L).

Samples were analyzed for gasoline-range (TPHg) and diesel-range (TPHd) total petroleum hydrocarbons in general accordance with CA DHS LUFT Method; and benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), tert-amyl methyl ether (TAME), and t-butanol (TBA) in general accordance with EPA Method 8260B.

< indicates not reported at a concentration above laboratory detection limit, and bold font indicates concentrations above the laboratory reporting limit.

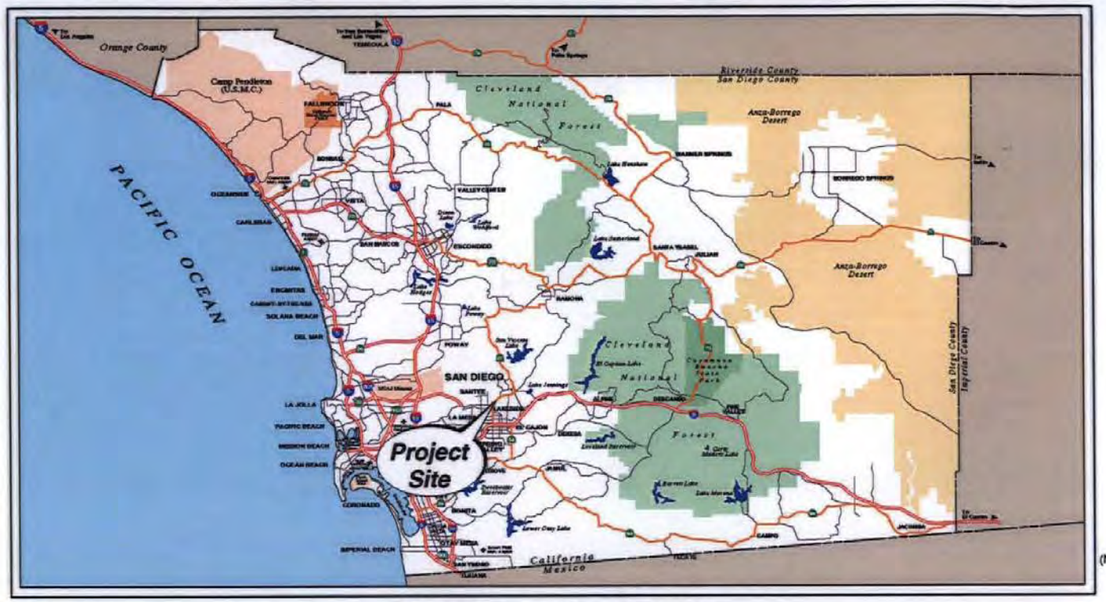
NS indicates well not sampled.

NA indicates not analyzed for particular constituent of concern.

* indicates samples were analyzed by EPA Method 418.1 for total extractable hydrocarbons.

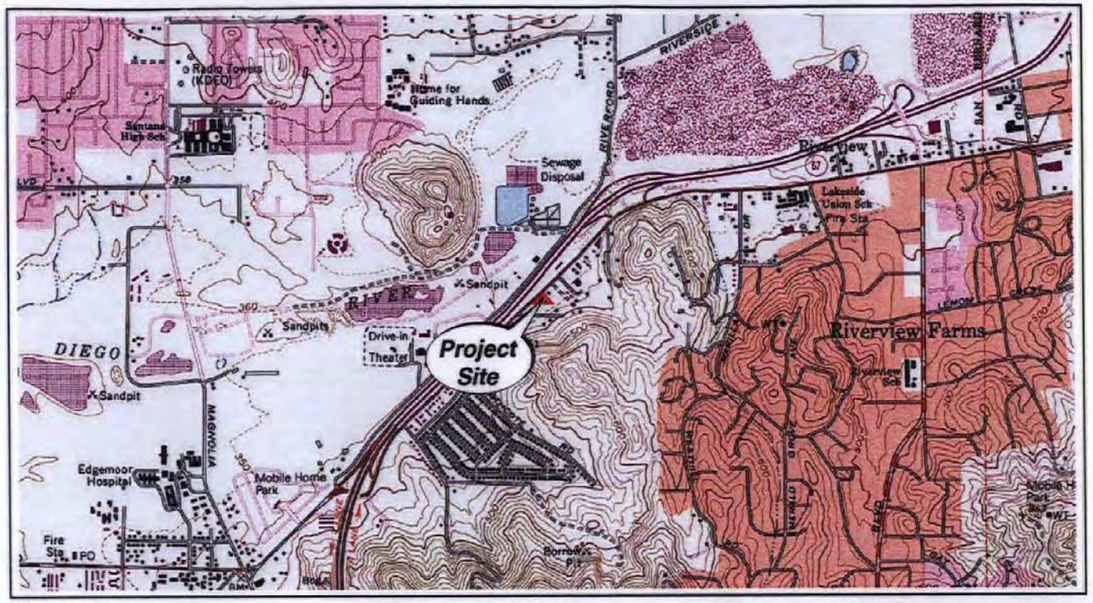
PSH = phase-separated hydrocarbons

FIGURES



North (Not to scale)

REGIONAL SITE LOCATION



North

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

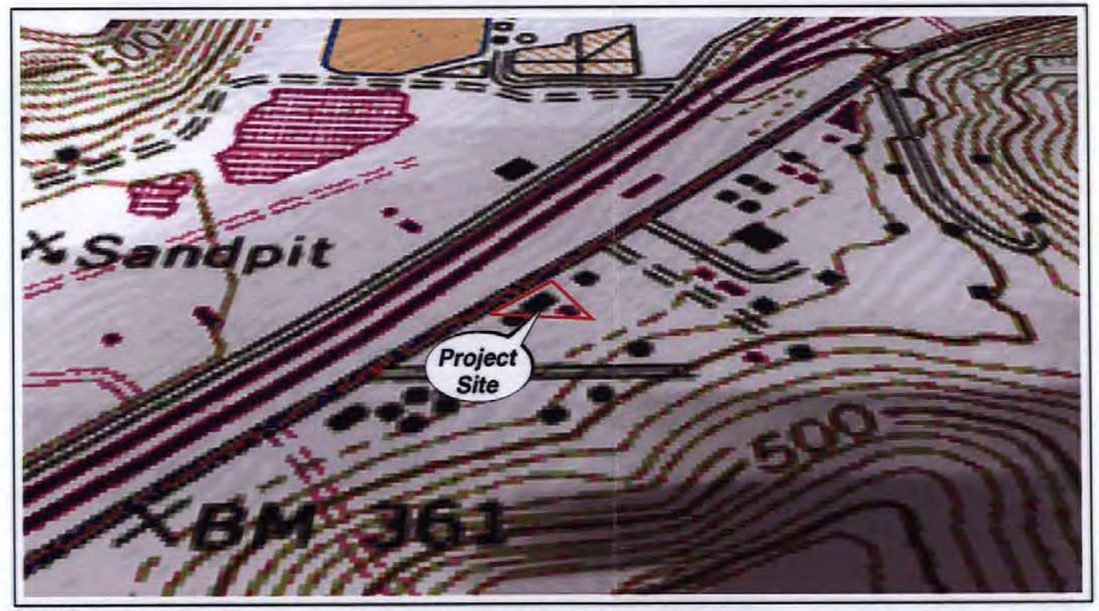
2-DIMENSIONAL SITE LOCATION

0 1,000 2,000 3,000
Approximate Graphic Scale in Feet

North (Not to scale)

Reference:
Google Earth Aerial Photograph
Santee, California - February 2008

SITE AERIAL PHOTOGRAPH



North (Not to scale)

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
El Cajon, California - 1977. Photo revised 1982.

3-DIMENSIONAL SITE LOCATION

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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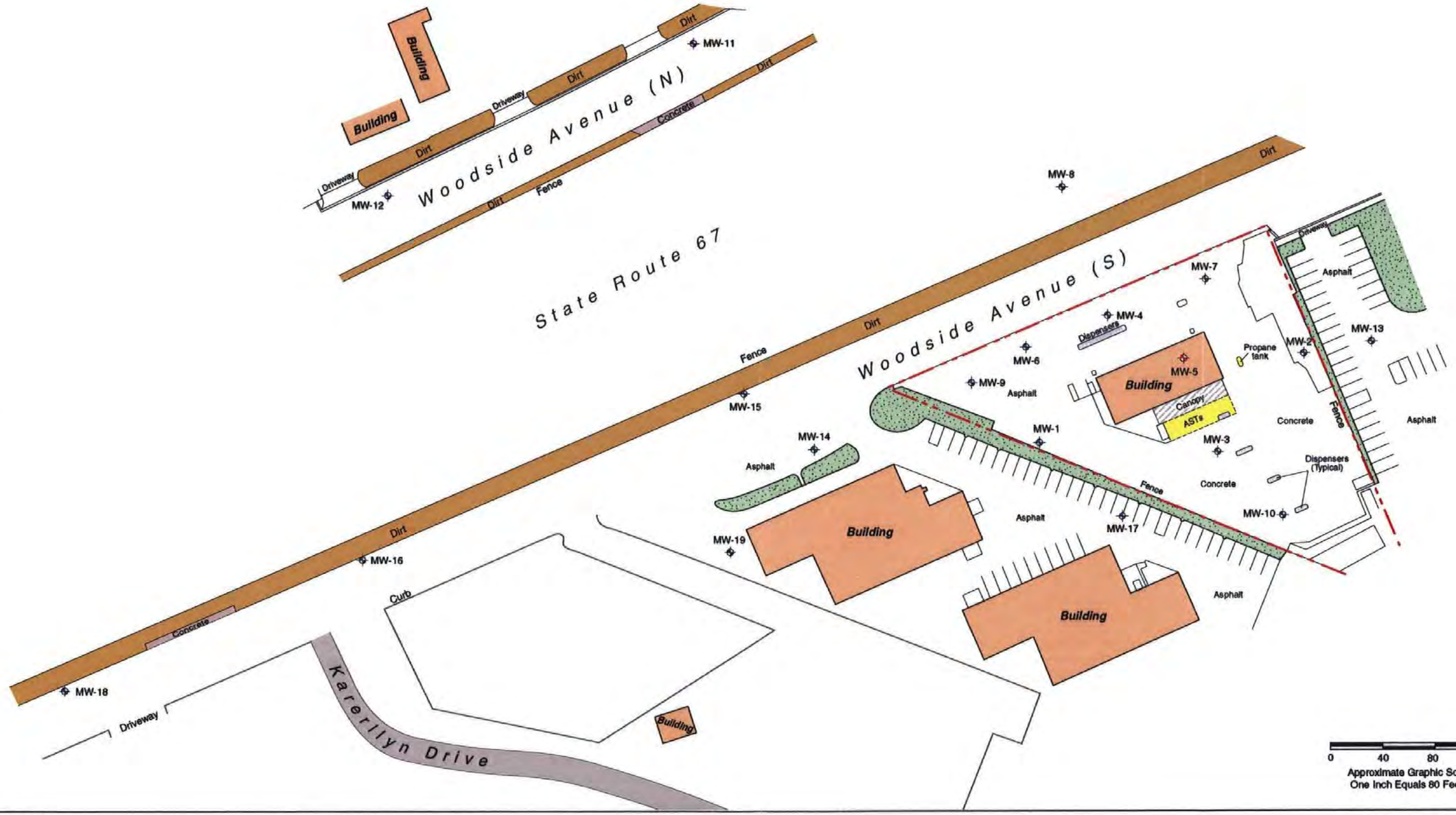
4-WAY SITE LOCATION MAP
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 1

Date Drafted: 11/4/09



EXPLANATION

MW-16 — Groundwater monitoring well location

MW-5 — Well destroyed

Approximate Site boundary

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

AST = aboveground storage tank

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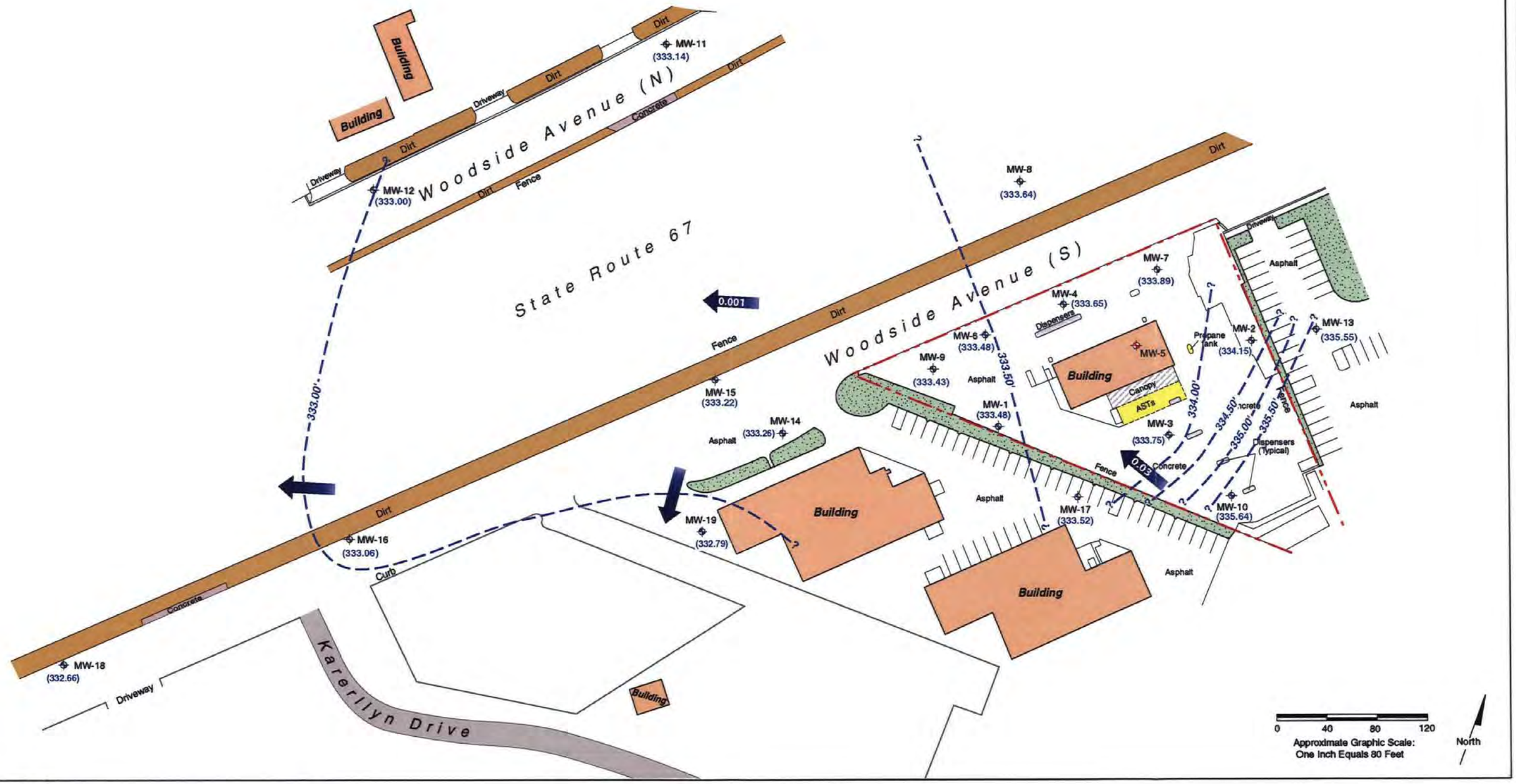
SITE LOCATION MAP

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 2

Date Drafted: 1/25/12



EXPLANATION

MW-16 (333.06) — Groundwater monitoring well location with groundwater elevation in feet above mean sea level.

MW-5 — Well destroyed

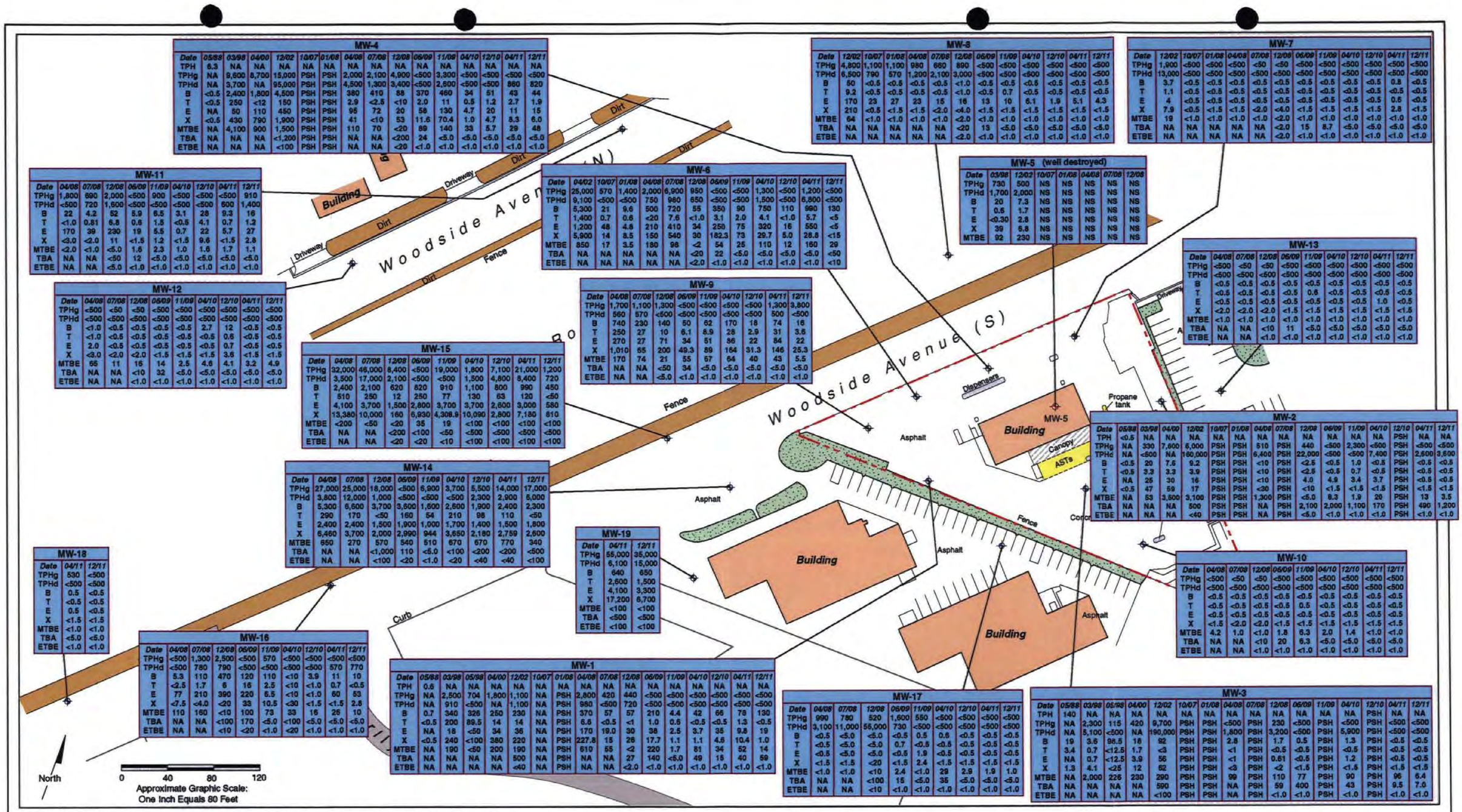
334.50' — Estimated groundwater contour in feet above mean sea level.

0.001 — Interpreted direction of groundwater flow and estimated groundwater gradient.

AST = aboveground storage tank

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS Environmental Consultants 8799 Balboa Avenue, Suite 290 San Diego, California 92123	**GROUNDWATER ELEVATION MAP** **DECEMBER 2011** **Wigington Oil** 11427 Woodside Avenue Santee, California	**Project No.:** **01208473.00** **Figure 3** **Date Drafted:** **1/25/12**



MW-4

Date	05/88	03/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPH	6.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	9,600	8,700	15,000	PSH	PSH	2,000	2,100	4,900	<500	3,300	<500	<500	<500	<500
TPHd	NA	3,700	NA	95,000	PSH	PSH	4,500	1,300	3,400	<500	2,600	<500	<500	860	820
B	<0.5	2,400	1,800	4,500	PSH	PSH	380	410	88	370	460	34	51	43	44
T	<0.5	250	<12	150	PSH	PSH	2.9	<2.5	<10	2.0	11	0.5	1.2	2.7	1.9
E	NA	50	110	450	PSH	PSH	95	72	20	58	130	4.7	20	11	15
X	<0.5	430	790	1,900	PSH	PSH	41	<10	53	11.6	70.4	1.0	4.7	8.3	6.0
MTBE	NA	4,100	900	1,500	PSH	PSH	110	70	<20	89	140	33	5.7	29	48
TBA	NA	NA	NA	<1,200	PSH	PSH	NA	NA	<200	24	<5.0	<5.0	<5.0	<5.0	<5.0
ETBE	NA	NA	NA	<100	PSH	PSH	NA	NA	<20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-8

Date	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPHg	4,800	1,100	1,100	980	660	890	<500	<500	<500	<500	<500	<500
TPHd	6,500	790	570	1,200	2,100	3,000	<500	<500	<500	<500	<500	<500
B	50	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
T	9.2	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	0.7	<0.5	<0.5	<0.5	<0.5
E	170	23	27	23	15	16	13	10	6.1	1.9	5.1	4.3
X	210	<0.5	<1.5	<1.5	<2.0	<4.0	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
MTBE	64	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TBA	NA	NA	NA	NA	NA	<20	13	<5.0	<5.0	<5.0	<5.0	<5.0
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-7

Date	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPHg	1,900	<500	<500	<500	<50	<50	<500	<500	<500	<500	<500	<500
TPHd	13,000	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	3.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5
T	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
E	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5
X	7.9	<0.5	<1.5	<1.5	<2.0	<4.0	<1.5	<1.5	<1.5	<1.5	2.8	<1.5
MTBE	19	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TBA	NA	NA	NA	NA	NA	<2.0	15	8.7	<5.0	<5.0	<5.0	<5.0
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-11

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPHg	1,800	690	2,000	<500	900	<500	<500	<500	910
TPHd	<500	720	1,600	<500	<500	<500	<500	600	1,400
B	22	4.2	52	5.9	6.5	3.1	28	9.3	16
T	<1.0	0.81	6.8	0.6	1.5	<0.5	4.1	0.7	1.2
E	170	39	230	19	5.5	0.7	22	5.7	27
X	<3.0	<2.0	11	<1.5	1.2	<1.5	9.6	<1.5	2.8
MTBE	<2.0	<1.0	<5.0	1.6	2.3	1.0	1.6	1.7	1.1
TBA	NA	NA	<50	12	<5.0	<5.0	<5.0	<5.0	<5.0
ETBE	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-6

Date	04/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPHg	25,000	570	1,400	2,000	6,900	950	<500	<500	1,300	<500	1,200	<500
TPHd	9,100	<500	<500	750	980	650	<500	<500	1,500	<500	6,800	<500
B	5,300	21	9.6	500	720	55	350	90	750	110	990	130
T	1,400	0.7	0.6	<20	7.6	<1.0	3.1	2.0	4.1	<1.0	5.7	<5
E	1,200	48	4.8	210	410	34	250	75	320	16	550	<5
X	5,900	14	8.5	150	540	30	182.3	73	29.7	5.0	28.8	<15
MTBE	850	17	3.5	180	98	<2	54	25	110	12	160	29
TBA	NA	NA	NA	NA	NA	<20	22	<5.0	<5.0	<5.0	<5.0	<50
ETBE	NA	NA	NA	NA	NA	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10

MW-5 (well destroyed)

Date	03/98	12/02	10/07	01/08	04/08	07/08	12/08
TPHg	730	500	NS	NS	NS	NS	NS
TPHd	1,700	2,000	NS	NS	NS	NS	NS
B	20	7.3	NS	NS	NS	NS	NS
T	0.5	1.7	NS	NS	NS	NS	NS
E	<0.30	2.8	NS	NS	NS	NS	NS
X	39	6.8	NS	NS	NS	NS	NS
MTBE	92	230	NS	NS	NS	NS	NS

MW-13

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPHg	<500	<50	<50	<500	<500	<500	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
T	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5
E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.0	<0.5
X	<2.0	<2.0	<2.0	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
MTBE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TBA	NA	NA	<10	11	<5.0	<5.0	<5.0	<5.0	<5.0
ETBE	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-12

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPHg	<500	<50	<50	<500	<500	<500	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	<1.0	<0.5	<0.5	<0.5	<0.5	2.7	12	<0.5	<0.5
T	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5
E	2.0	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5
X	<3.0	<2.0	<2.0	<1.5	<1.5	<1.5	3.6	<1.5	<1.5
MTBE	55	11	16	14	2.5	4.6	4.1	3.2	4.9
TBA	NA	NA	<10	32	<5.0	<5.0	<5.0	<5.0	<5.0
ETBE	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-9

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPHg	1,700	1,100	1,300	<500	<500	<500	<500	1,300	3,800
TPHd	560	570	<500	<500	<500	<500	<500	500	<500
B	740	230	140	50	62	170	18	74	16
T	250	27	10	6.1	8.9	28	2.9	31	3.6
E	270	27	71	34	51	86	22	84	22
X	1,010	55	200	49.3	89	164	31.3	146	25.3
MTBE	170	74	21	55	67	54	40	43	5.5
TBA	NA	NA	<50	34	<5.0	<5.0	<5.0	<5.0	<5.0
ETBE	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-15

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPHg	32,000	46,000	8,400	<500	19,000	1,800	7,100	21,000	1,200
TPHd	3,500	17,000	2,100	<500	<500	1,500	4,800	6,400	720
B	2,400	2,100	620	820	910	1,100	800	990	450
T	510	250	12	250	77	130	63	120	<50
E	4,100	3,700	1,500	2,800	3,700	3,700	2,800	3,000	580
X	13,380	10,000	160	6,930	4,308.9	10,090	2,800	7,180	610
MTBE	<200	<50	<20	35	19	<100	<100	<100	<100
TBA	NA	NA	<200	<100	<50	<500	<500	<500	<500
ETBE	NA	NA	<20	<20	<10	<100	<100	<100	<100

MW-14

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPHg	27,000	25,000	18,000	<500	6,900	3,700	5,500	14,000	17,000
TPHd	3,800	12,000	1,000	<500	<500	<500	2,300	2,900	5,000
B	5,300	6,600	3,700	3,600	1,600	2,600	1,900	2,400	2,300
T	290	170	<50	160	54	210	98	110	<50
E	2,400	2,400	1,500	1,900	1,000	1,700	1,400	1,500	1,800
X	6,460	3,700	2,000	2,990	944	3,650	2,180	2,759	2,600
MTBE	650	270	570	540	510	670	670	770	340
TBA	NA	NA	<1,000	110	<5.0	<100	<200	<200	<500
ETBE	NA	NA	<100	<20	<1.0	<20	<40	<40	<100

MW-19

Date	04/11	12/11
TPHg	55,000	35,000
TPHd	6,100	15,000
B	640	650
T	2,600	1,500
E	4,100	3,300
X	17,200	6,700
MTBE	<100	<100
TBA	<500	<500
ETBE	<100	<100

MW-18

Date	04/11	12/11
TPHg	530	<500
TPHd	<500	<500
B	0.5	<0.5
T	<0.5	<0.5
E	0.5	<0.5
X	<1.5	<1.5
MTBE	<1.0	<1.0
TBA	<5.0	<5.0
ETBE	<1.0	<1.0

MW-16

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPHg	<500	1,300	2,500	<500	570	<500	<500	<500	<500
TPHd	<500	780	790	<500	<500	<500	<500	570	770
B	5.3	110	470	120	110	<10	3.9	11	10
T	<2.5	1.7	6	15	2.5	<10	<1.0	0.7	<0.5
E	77	210	390	220	6.5	<10	<1.0	60	53
X	<7.5	<4.0	<20	33	10.5	<30	<1.5	<1.5	2.8
MTBE	110	160	<10	100	73	33	16	26	10
TBA	NA	NA	<100	170	<5.0	<100	<5.0	<5.0	<5.0
ETBE	NA	NA	<10	<20	<1.0	<20	<1.0	<1.0	<1.0

MW-1

Date	05/88	03/98	05/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPH	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPHg	NA	2,500	704	1,800	1,100	NA	PSH	2,800	420	440	<500	<500	<500	<500	<500	<500
TPHd	NA	910	<500	NA	1,100	NA	PSH	980	<500	720	<500	<500	<500	<500	<500	<500
B	0.7	340	326	250	230	NA	PSH	370	57	57	210	4.4	42	66	78	130
T	<0.5	200	89.5	14	14	NA	PSH	6.6	<0.5	<1	1.0	0.6	<0.5	<0.5	1.3	<0.5
E	NA	18	<50	34	36	NA	PSH	170	19.0	30	38	2.5	3.7	35	9.8	19
X	<0.5	240	<100	380	220	NA	PSH	227.8	15	26	17.7	1.1	1.1	4.8	10.4	1.0
MTBE	NA	190	<50	200	190	NA	PSH	610	55	<2	220	1.7	81	34	52	14
TBA	NA	NA	NA	NA	500	NA	PSH	NA	NA	27	140	<5.0	49	15	40	59
ETBE	NA	NA	NA	NA	<40	NA	PSH	NA	NA	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-17

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPHg	990	780	520	1,600	550	<500	<500	<500	<500
TPHd	3,100	11,000	56,000	730	<500	<500	<500	<500	<500
B	<0.5	<5.0	<5.0	<0.5	0.5	0.6	<0.5	<0.5	<0.5
T	<0.5	<5.0	<5.0	0.7	<0.5	<0.5	<0.5	<0.5	<0.5
E	<0.5	<5.0	<5.0	<0.5	1.9	<0.5	<0.5	<0.5	<0.5
X	<1.5	<1.5	<20	<1.5	2.4	<1.5	<1.5	<1.5	<1.5
MTBE	<1.0	<1.0	<10	2.4	<1.0	29	2.9	1.9	1.0
TBA	NA	NA	<100	15	<5.0	35	<5.0	<5.0	<5.0
ETBE	NA	NA	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-10

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPHg	<500	<50	<50	<500	<500	<500	<500	<500	<500
TPHd	<500	<500	<500	<500	<500	<500	<500	<500	<500
B	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
T	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5
E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
X	<1.5	<2.0	<2.0	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
MTBE	4.2	1.0	<1.0	1.8	6.3	2.0	1.4	<1.0	<1.0
TBA	NA	NA	<10	20	6.3	<5.0	<5.0	<5.0	<5.0
ETBE	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

MW-2

Date	05/88	03/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPH	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	PSH	NA	NA
TPHg	NA	330	7,600	6,000	PSH	PSH	510	PSH	440	<500	2,300	<500	PSH	<500	<500
TPHd	NA	<500	NA	160,000	PSH	PSH	6,400	PSH	22,000	<500	<500	7,400	PSH	2,600	3,600
B	<0.5	20	7.6	9.2	PSH	PSH	<10	PSH	<2.5	<0.5	1.0	<0.5	PSH	<0.5	<0.5
T	<0.5	3.3	3.3	3.9	PSH	PSH	<10	PSH	<2.5	<0.5	0.7	<0.5	PSH	<0.5	<0.5
E	NA	25	30	16	PSH	PSH	<10	PSH	4.0	4.9	3.4	3.7	PSH	<0.5	<0.5
X	<0.5	47	59	17	PSH	PSH	<30	PSH	<10	<1.5	<1.5	<1.5	PSH	<1.5	<1.5
MTBE	NA	53	3,600	3,100	PSH	PSH	1,300	PSH	<5.0	8.3	1.9	20	PSH	13	3.5
TBA	NA	NA	NA	500	PSH	PSH	NA	PSH	2,100	2,000	1,100	170	PSH	490	1,200
ETBE	NA	NA	NA	<40	PSH	PSH	NA	PSH	<5.0	<1.0	<1.0	<1.0	PSH	<1.0	<1.0

MW-3

Date	05/88	03/98	05/98	04/00	12/02	10/07	01/08	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPH	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	PSH	NA	NA
TPHg	NA	2,300	115	420	9,700	PSH	PSH	<500	PSH	230	<500	PSH	<500	PSH	<500	<500
TPHd	NA	5,100	<500	NA	190,000	PSH	PSH	1,800	PSH	3,200	<500	PSH	5,900	PSH	<500	<500
B	19	3.6	98.5	18	92	PSH	PSH	2.8	PSH	1.7	0.5	PSH	1.3	PSH	<0.5	<0.5
T	3.4	0.7	<12.5	1.7	<3	PSH	PSH	<1	PSH	<0.5	<0.5	PSH	<0.5	PSH	<0.5	<0.5
E	NA	0.7	<12.5	3.9	56	PSH	PSH	<1	PSH	0.61	<0.5	PSH	1.2	PSH	<0.5	<0.5
X	1.3	4.1	<25	12	62	PSH	PSH	<3	PSH	<2	<1.5	PSH	<1.5	PSH	<1.5	<1.5
MTBE	NA	2,000	226	230	290	PSH	PSH	99	PSH	110	77	PSH	90	PSH	96	6.4
TBA	NA	NA	NA	NA	590	PSH	PSH	NA	PSH	59	400	PSH	43	PSH	9.5	7.0
ETBE	NA	NA	NA	NA	<100	PSH	PSH	NA	PSH	<1.0	<1.0	PSH	<1.0	PSH	<1.0	<1.0

EXPLANATION

MW-17 — Groundwater monitoring well location

MW-5 — Well destroyed

MW-16

Date	04/08	07/08	12/08	06/09	11/09	04/10	12/10	04/11	12/11
TPHg	<500	1,300	2,500	<500	570	<500	<500	<500	<500
TPHd	<500	780	790	<500	<500	<500	<500	570	770
B	5.3	110	470	120	110	<10	3.9	11	10
T	<2.5	1.7	6	15	2.5	<10	<1.0	0.7	<0.5
E	77	210	390	220	6.5	<10	<1.0	60	53
X	<7.5	<4.0	<20	33	10.5	<30	<1.5	<1.5	2.8
MTBE	110	160	<10	100	73	33	16	26	10
TBA	NA	NA	<100	170	<5.0	<100	<5.0	<5.0	<5.0
ETBE	NA	NA	<10	<20	<1.0	<20	<1.0	<1.0	<1.0

Groundwater samples collected by SCS Engineers beginning in June 2009; Petra Geotechnical, Inc. from October 2007 to December 2008; and Eneco Tech Southwest, Inc. from May 1988 to December 2002. Groundwater samples analyzed for total petroleum hydrocarbons by CA DHS LUFT Method; volatile organic compounds (VOCs) by EPA Method 8260B. All results reported in micrograms per liter (ug/L). < indicates concentration not reported above indicated reporting limit for relevant analyte and analytical method. NA indicates sample not analyzed. PSH indicates phase-separated hydrocarbons. Refer to laboratory reports for full listing of VOCs analyzed.

TPH = total petroleum hydrocarbons
TPHg = total petroleum hydrocarbons as gasoline
TPHd = total petroleum hydrocarbons as diesel
B = benzene
T = toluene
E = ethylbenzene
X = xylenes
MTBE = methyl tertiary buty ether
TBA = tertiary butyl alcohol
ETBE = Ethyl tertiary butyl ether

AST = aboveground storage tank

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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San Diego, California 92123

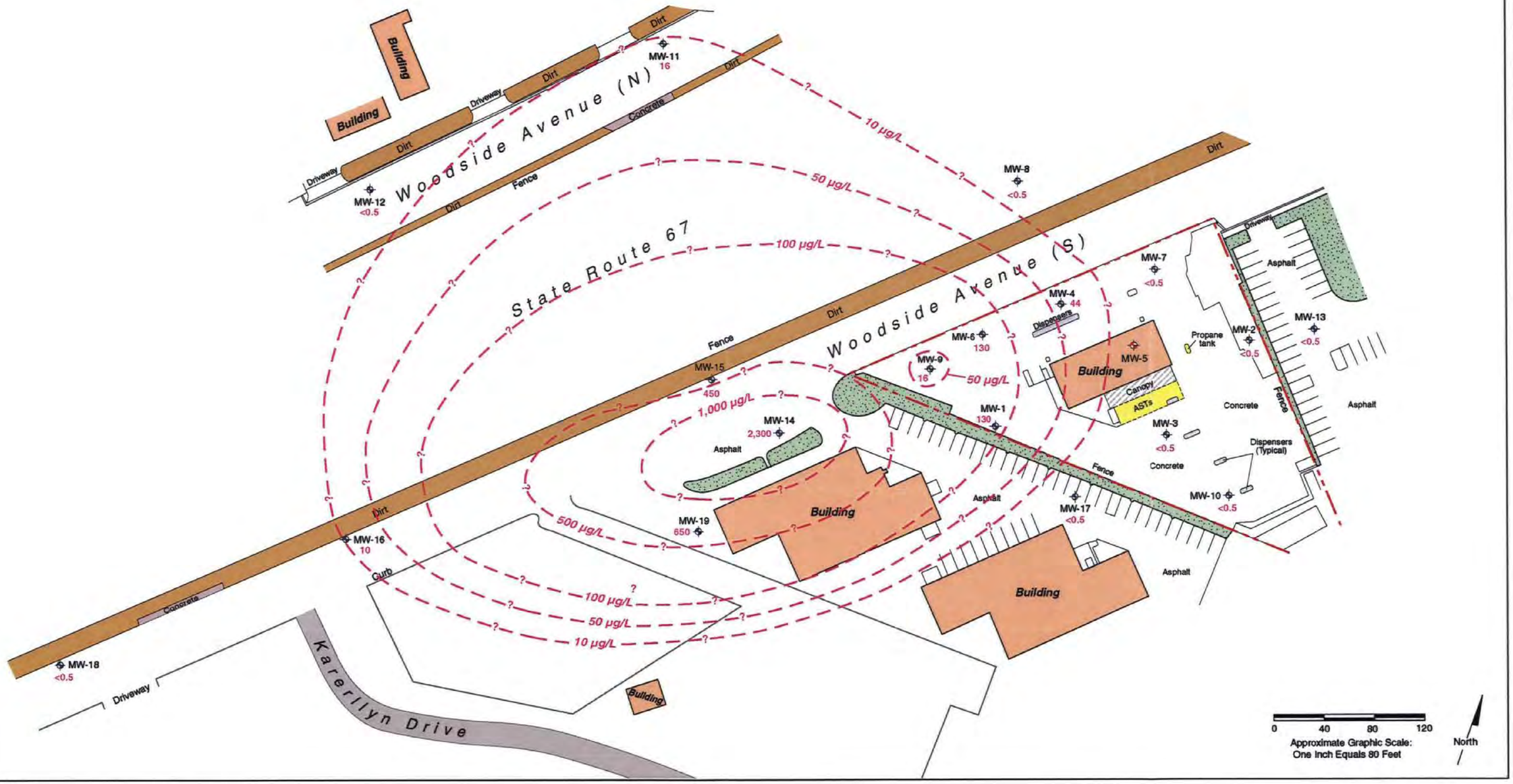
GROUNDWATER SAMPLE ANALYTICAL RESULTS

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 4

Date Drafted: 1/25/12



EXPLANATION

MW-16 10 — Groundwater monitoring well location with reported concentrations of benzene reported in micrograms per liter (µg/L). < indicates not reported above laboratory reporting limit for given analyte.

MW-5 — Well destroyed

100 µg/L — Iso-concentration of benzene reported in µg/L. Dashed where estimated, queried where inferred.

AST = aboveground storage tank

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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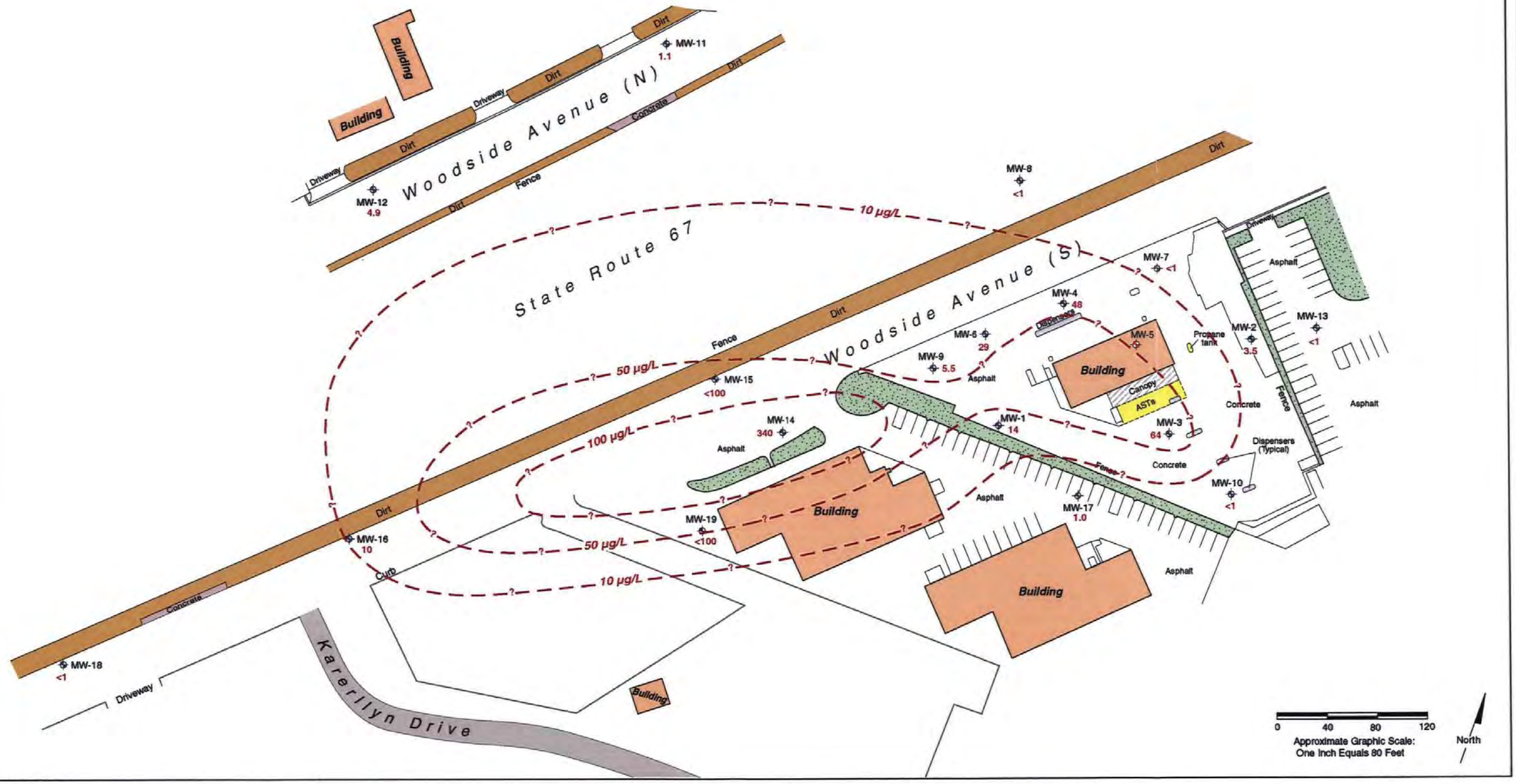
ISO-CONCENTRATION CONTOURS OF BENZENE IN SHALLOW GROUNDWATER - DECEMBER 2011

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 5

Date Drafted: 1/25/12



EXPLANATION

MW-16 / 10 — Groundwater monitoring well location with reported concentrations of methyl tertiary butyl ether (MTBE) reported in micrograms per liter (µg/L). < indicates not reported above laboratory detection limit for given analyte.

MW-5 — Well destroyed

100 — Iso-concentration of MTBE reported in µg/L. Dashed where estimated, queried where inferred.

AST = aboveground storage tank

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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ISO-CONCENTRATION CONTOURS OF MTBE IN SHALLOW GROUNDWATER - DECEMBER 2011

Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 6

Date Drafted: 1/25/12

EXPLANATION

- Approximate Site boundary
- MW-19 — Groundwater monitoring well location
- OW-1 — Proposed observation well location
- MW-20 — Proposed groundwater monitoring well location
- Proposed step-out groundwater monitoring well location

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

0 40 80 120
Approximate Graphic Scale:
One Inch Equals 80 Feet

North

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AERIAL SITE VIEW WITH PROPOSED DOWNGRADIENT GROUNDWATER MONITORING WELL
Wigington Oil
11427 Woodside Avenue
Santee, California

Project No.: 01208473.00

Figure 7

Date Drafted: 1/25/12

APPENDICES

APPENDIX A

GROUNDWATER PURGING AND SAMPLING SHEETS

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8799 Balboa Avenue, Suite 290
San Diego, California 92123

Client:	Wigington Oil	**Project No:** 1208473.00	**Recorded By:**
Site Address:	11427 Woodside Avenue Santee, CA	**Date:** 12/21/2011	CC/AB

WELL MONITORING DATA

WELL NO.	DTB	DTW	DTP	PT	SWE	ELEV-W	ELEV-P
MW-1	41.6	29.36			362.84	333.48	
MW-2	44.6	30.93			365.08	334.15	
MW-3	43.2	30.41			364.16	333.75	
MW-4	41.6	28.73			362.38	333.65	
MW-6	41.8	28.96			362.44	333.48	
MW-7	41.9	28.68			362.57	333.89	
MW-8	39.5	30.87			364.51	333.64	
MW-9	38.3	28.90			362.33	333.43	
MW-10	38.3	31.64			367.28	335.64	
MW-11	37.4	29.34			362.48	333.14	
MW-12	36.2	28.88			361.88	333.00	
MW-13	44.7	31.36			366.91	335.55	
MW-14	36.8	29.53			362.79	333.26	
MW-15	37.2	29.14			362.36	333.22	
MW-16	38.3	29.42			362.48	333.06	
MW-17	44.4	34.45			367.97	333.52	
MW-18	39.1	29.62			362.28	332.66	
MW-19	40.4	32.28			365.07	332.79	

NOTES

WELL NO. - Monitoring well number
DTW - Depth to water from datum
DTP - Depth to product from datum
PT - Product Thickness

DTB - Depth to bottom of well
SWE - Surveyed well elevation in feet
ELEV-W - Relative elevation of water
ELEV-P - Relative elevation of product

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Environmental Consultants
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San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-1
Project Number: 01208473.00 | Date: 12/21/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: AB | Checked by: CER | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 41.6
Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 29.36
Time measured: NA
Water Column (ft.) (WC=WD-SWL): 12.24
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV = 20.8 gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other:
Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☐ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
☐ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
14:23	29.70	0.34	10.5	654	–	7.51	–	18.5
14:35	29.70	0.34	21	637	–	7.22	–	20.1
14:58	29.69	0.33	31.5	646	–	7.35	–	19.7

Borehole Volume: 20.8 (gal) | Total Volume Purge Water: 31.5 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 29.43

SAMPLING INFORMATION

Date & Time Sampled: 12/21/11, 15:15 | Depth to water at time of sampling (feet): 29.36

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-2
Project Number: 01208473.00 | Date: 12/22/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: AB | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 44.6 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 30.93 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 13.67 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV** = 23.25 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other:
Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☒ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
☒ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
9:40	44.25	13.32	23.25	821	-	7.10	-	20.0

Borehole Volume: 23.25 (gal) | Total Volume Purge Water: 23.25 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 33.59

SAMPLING INFORMATION

Date & Time Sampled: 12/22/11, 11:40 | Depth to water at time of sampling (feet): 40.40

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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San Diego, California 92123

WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-3
Project Number: 01208473.00 | Date: 12/22/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: C. Crosby | Checked by: CEH | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 43.2
Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 30.41
Time measured: NA
Water Column (ft.) (WC=WD-SWL): 12.79
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV = 21.75 gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other:
Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☐ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
☐ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
1319								
1333	40.02	9.61	22	948	--	7.15	--	23.53
1342	41.15	10.74	33	968	--	7.14	--	23.59

Borehole Volume: 21.75 (gal) | Total Volume Purge Water: 33 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 32.55

SAMPLING INFORMATION

Date & Time Sampled: 12/22/11 1400 | Depth to water at time of sampling (feet): 32.30

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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8799 Balboa Avenue, Suite 290
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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: MW-4
Project Number: 01208473.00 | Date: 12/22/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: AB | Checked by: CEA | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 41.16 | Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 28.73 | Time measured: NA
Water Column (ft.) (WC=WD-SWL): 12.87 | Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

BV (gal) = 0.041 [CD^2 + P (BD^2-CD^2)](WC)

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 21.9 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other:
Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other:

PURGING AND SAMPLING METHODOLOGIES

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PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
☐ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
12:24	28.97	0.24	11	771	--	7.46	--	17.9
12:35	29.01	0.28	22	757	--	7.33	--	19.6
12:53	29.08	0.35	33	769		7.45		18.8

Borehole Volume: 21.9 (gal) | Total Volume Purge Water: 33 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.80

SAMPLING INFORMATION

Date & Time Sampled: 12/22/11, 13:15 | Depth to water at time of sampling (feet): 28.70

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil | Well No.: GW-6
Project Number: 01208473.00 | Date: 12/22/11
Project Address: 11427 Woodside Avenue, Santee, CA
Well GPS: Latitude: Longitude:
Sampled by: AB | Checked by: CEA | License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12
Casing Diameter (in.) (CD): 2 (4) 6 8
Total Well Depth (ft.) (WD): 41.8
Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 28.96
Time measured: NA
Water Column (ft.) (WC=WD-SWL): 12.84
Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2\text{-}CD^2)](WC)$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 21.8 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP
Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐
pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp
Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other:
Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other:

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☐ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.
☒ Method 2, remove I BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.
☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.
List the date and time the pump was installed: Date:_____ Time:_____
☐ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.
☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
13:40	28.97	0.01	11	787	–	7.46	–	17.8
13:50	28.98	0.02	22	752	–	7.35	–	19.4
14:08	28.97	0.01	33	770	–	7.67	–	18.7

Borehole Volume: 21.8 (gal) | Total Volume Purge Water: 33 (gal) | Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.96

SAMPLING INFORMATION

Date & Time Sampled: 12/22/11, 14:20 | Depth to water at time of sampling (feet): 28.96

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)

SCS ENGINEERS
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WELL PURGING/SAMPLING LOG

Project Name: Wigington Oil		Well No.: MW-7
Project Number: 01208473.00		Date: 12/22/11
Project Address: 11427 Woodside Avenue, Santee, CA		
Well GPS: Latitude:	Longitude:	
Sampled by: AB	Checked by: CEH	License #: 945

WELL SPECIFICATIONS & MEASUREMENTS

Borehole Diameter (in.) (BD): 6 8 (10) 12	
Casing Diameter (in.) (CD): 2 (4) 6 8	
Total Well Depth (ft.) (WD): 41.9	Product thickness (ft.): NA
Static Water Level (ft.) (SWL): 28.68	Time measured: NA
Water Column (ft.) (WC=WD-SWL): 13.22	Filter Pack Porosity (P): 0.30

Borehole Volume (BV) Calculations

$$BV\ (gal) = 0.041\ [CD^2 + P\ (BD^2 - CD^2)](WC)$$

This equation applies to wells constructed straddling the water table only. For submerged screens, document all calculations. Porosity is expressed in decimal form. **BV =** 22.5 **gallons**

PURGING & SAMPLING EQUIPMENT

Water Level Meter Type and ID: Heron OWIP

Purging Equipment/Method: Bladder Pump ☐ Bailer ☒ Centrifugal Pump ☐ Other ☐

pH/Temp/Conductivity Meter Type and ID: Oakton pH/Cond/Temp

Sampler Type: ☐ Teflon Bailer ☒ Disposable Bailer ☐ Bladder Pump ☐ Centrifugal Pump ☐ Other: _____

Decontamination Method: ☐ Steam/High Pressure Wash ☒ 3 Stage (Alconox, tap water & DI rinse) ☐ Other: _____

PURGING AND SAMPLING METHODOLOGIES

Well Recovery Type

☒ Fast -recovers 80% within 2 hours -Methods 1, 2, 3, & 5 ☐ Slow - more than 2 hours to recover 80% -Methods 3, 4, & 5

PURGING METHODS

☐ Method 1, remove 3 BV, sample after well recovers 80% of total purged drawdown.

☒ Method 2, remove 1 BV, test parameters until stable per SAM Manual, sample after well recovers 80% of total purged drawdown.

☐ Method 3, Low-flow - install pump at least 2 hours prior to start of purging. Follow detailed methodology in SAM Manual.

List the date and time the pump was installed: Date:_____ Time:_____

☐ Method 4, remove 1 BV, sample after 2 hours. Note - if well recovers 80% of total purged drawdown, use another method.

☐ Method 5, non-purge method. Only with prior written approval from SAM

PURGING INFORMATION

Time	Water Level (feet below top of casing)	Drawdown (feet)	Water Volume Purged (gal)	Measured Parameters				
				Conductivity (µmhos)	Dissolved Oxygen	pH	Turbidity	Temp (°C)
10:23	28.84	0.16	11.25	705	--	7.28	--	17.3
10:34	28.83	0.15	22.5	678	--	7.01	--	19.2
10:52	28.82	0.14	33.75	701	--	7.26	--	18.5

Borehole Volume: 22.5 (gal) Total Volume Purge Water: 33.75 (gal) Average pumping rate: NA (gpm)

RECOVERY CALCULATIONS

Recovery of 80% of drawdown from purging = SWL + (0.2)(Maximum Drawdown during purging) 28.71

SAMPLING INFORMATION

Date & Time Sampled: 12/22/11, 11:05 Depth to water at time of sampling (feet): 28.68

Quantity	Container Type	Filtered (Y/N)	Sample Preservatives	Analytical Methods to Perform
6	VOA	N	HCl	BTEX+OXY (8260); TPHg/d (8015B)