

June 17, 2014

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**MARC BOOGAY**  
Consulting Engineer

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1584 Whispering Palm Dr.  
Oceanside, CA 92056  
ph 760.407.4000 fax .4004

[boogay.com](http://boogay.com)

Zephyr Partners  
11750 Sorrento Valley Blvd., Ste 130  
San Diego, CA 92121

attn: Jim McMenamin

subj: Aliso Canyon Road, Rancho Santa Fe (the "site"); soil sampling  
with laboratory report

Dear Mr. McMenamin,

Per our agreement-amendment dated June 9, additional efforts were performed to augment a recent Phase I environmental report <sup>1</sup> which assessed threats to the subject site from chemical release. Soil samples were taken and analyzed for suspected contamination by long-lived pesticides such as dichloro-diphenyl-trichloroethane or DDT.

The soil sampling took place on June 10, 2014. Samples were taken in locations deemed to best represent soils as may have been impacted from agricultural usage seen in current site usage and/or as may have followed runoff onto the site from an adjoining plant nursery to its south. (The cited Phase I report did not identify onsite areas as having had agricultural use during historical periods during which long-lived pesticides were popularly used.)

Three locations were chosen, and soil samples were taken from between 6in and 10in depth using a hand-held bucket-auger and manual hammer-driven sampler. Samples were taken in polycarbonate liners which fit into the sampling device; these were labeled and kept chilled by ice for transport to a laboratory. The specimens were shipped to *Asset Laboratories* on June 10 for rushed analyses using EPA Methods 8081a (organo-chlorine pesticides) and 8141a (organo-phosphorus pesticides).

Sample identifications and laboratory results are described in the following table.

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<sup>1</sup> Phase I Environmental Site Assessment, 21-acres along Aliso Canyon Road, Rancho Santa Fe, California, Marc Boogay Consulting Engineer No. 13-1008 dated November 12, 2013.

## Soil Sample Information, Detected Analytes, Screening Levels<sup>2</sup>

Sample Name	A	B	C	Screening Level $\phi^*$
GPS coordinates	33° 2' 52"N, 117° 10' 29"W	33° 2' 50"N, 117° 10' 32"W	33° 2' 51"N, 117° 10' 34"W	
soil description	med. brown clayey sandy silt	med. brown clayey sandy silt	med. brown clayey sandy silt	
4,4 DDE	6.0 $\mu\text{g/Kg}$	n.d.	n.d.	1600 $\mu\text{g/Kg}$
4,4 DDT	n.d.	n.d.	n.d.	1900 $\mu\text{g/Kg}$
4,4 DDD	n.d.	n.d.	n.d.	2200 $\mu\text{g/Kg}$
Chlordane	3.9 $\mu\text{g/Kg}$	n.d.	n.d.	1800 $\mu\text{g/Kg}$

**boldface numbers** denote measured levels in excess of screening level

\*  $\phi$ , based on "residential soil"

$\mu\text{g/Kg}$ , micrograms per kilogram or parts-per-billion

Soil sampling results were compared with EPA-published "regional screening levels" (RSLs)<sup>2</sup> often used for site assessment. All measured concentrations were well under the cited RSLs. These findings are not interpreted to represent significant likelihood for impact to the site from long-lived pesticides.

These additional findings do not change conclusions made in the Phase I; no recognized environmental conditions are identified for the site.

Sincerely,

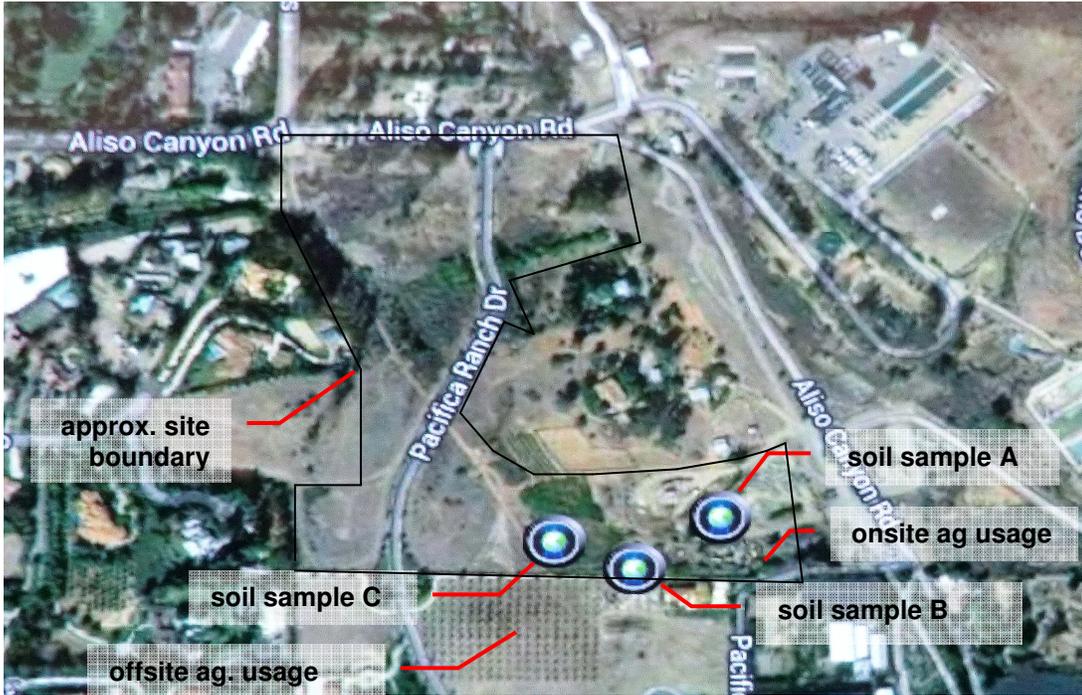


Marc Boogay  
Principal

attached,    photographs  
enclosed,    laboratory report

<sup>2</sup> [www.epa.gov/region9/superfund/prgs](http://www.epa.gov/region9/superfund/prgs).

## Photographs

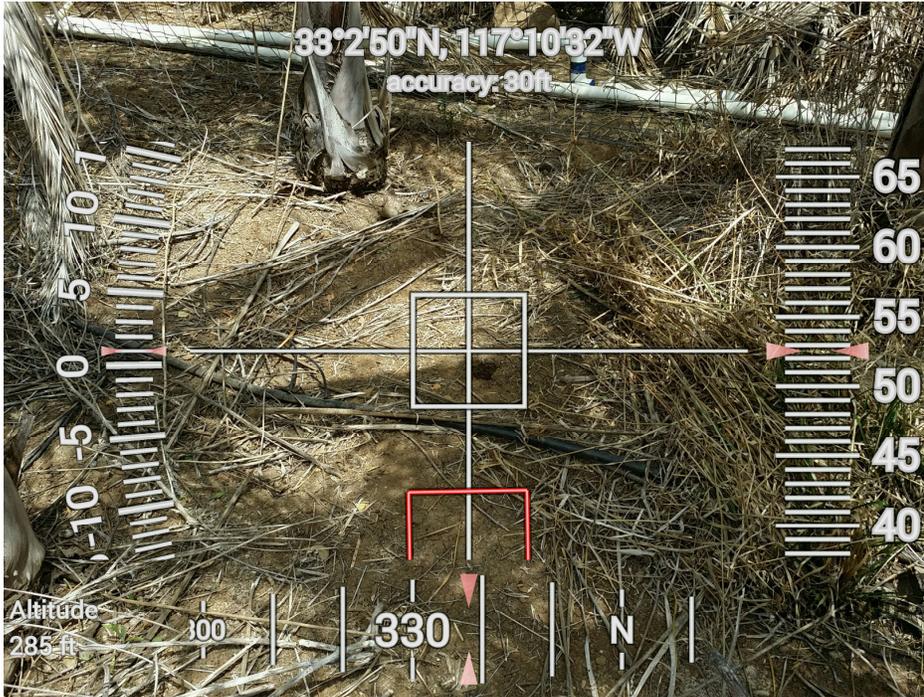


GoogleEarth image annotated to show site boundaries and soil-sample locations.

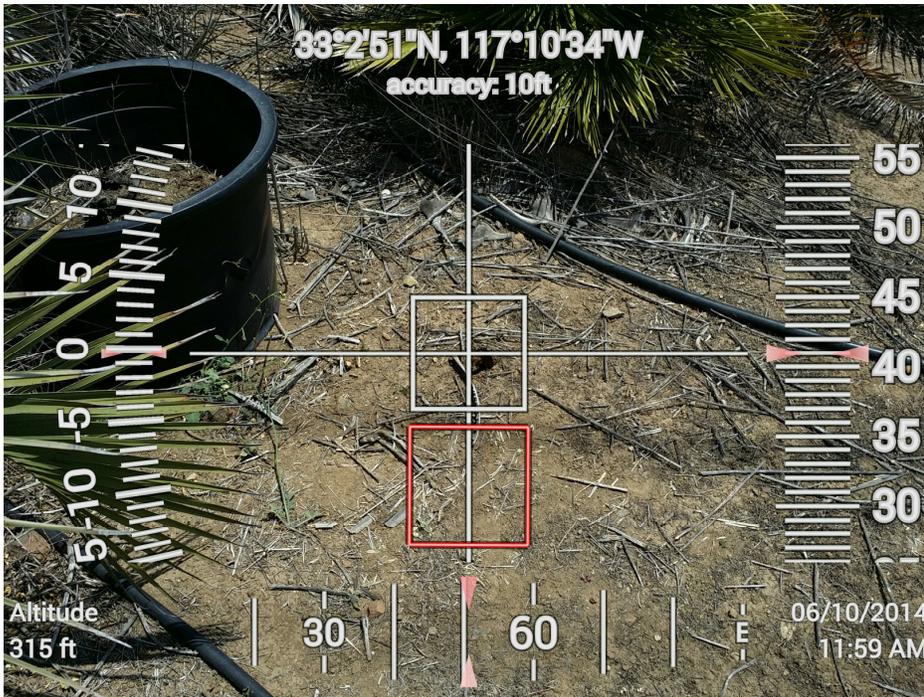


Soil sample A location data.

Photographs, continued



Soil sample B location data.



Soil sample C location data.

June 13, 2014

Marc Boogay  
Marc Boogay Consulting  
1584 Whispering Palm Dr  
Oceanside, CA 92056

CA-ELAP No.:2676  
NV Cert. No.:NV-00922

TEL:  
FAX:

Workorder No.: N012716

RE: aliso phii, 14-0602

Attention: Marc Boogay

Enclosed are the results for sample(s) received on June 11, 2014 by ASSET Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 or Molky Brar at (562)-881-3622 if we can be of further assistance to your company.

Sincerely,



Jose Tenorio Jr.  
Laboratory Director

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**CLIENT:** Marc Boogay Consulting  
**Project:** aliso phii, 14-0602  
**Lab Order:** N012716

**CASE NARRATIVE**

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**SAMPLE RECEIVING/GENERAL COMMENTS:**

Sample was received intact with proper chain of custody documentation.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Samples were analyzed within method holding time.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

**Subcontracted Analyses:**

EPA 8141 was subcontracted to AETL-Burbank,CA.

**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 13-Jun-14

**CLIENT:** Marc Boogay Consulting  
**Lab Order:** N012716  
**Project:** aliso phii, 14-0602  
**Lab ID:** N012716-001

**Client Sample ID:** A  
**Collection Date:** 6/10/2014 11:00:00 AM  
**Matrix:** SOIL

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**ORGANOCHLORINE PESTICIDES BY GC/ECD**

**EPA 3550B**

**EPA 8081A**

RunID: <b>GC7_140611A</b>	QC Batch: <b>45861</b>	PrepDate: <b>6/11/2014</b>	Analyst: <b>MDM</b>
4,4'-DDD	ND 0.39	4.0	µg/Kg 1 6/11/2014 10:24 PM
4,4'-DDE	6.0 0.84	4.0	µg/Kg 1 6/11/2014 10:24 PM
4,4'-DDT	ND 0.43	4.0	µg/Kg 1 6/11/2014 10:24 PM
Aldrin	ND 0.26	2.0	µg/Kg 1 6/11/2014 10:24 PM
alpha-BHC	ND 0.51	2.0	µg/Kg 1 6/11/2014 10:24 PM
alpha-Chlordane	ND 0.21	2.0	µg/Kg 1 6/11/2014 10:24 PM
beta-BHC	ND 0.23	2.0	µg/Kg 1 6/11/2014 10:24 PM
Chlordane	3.9 2.7	17	J µg/Kg 1 6/11/2014 10:24 PM
delta-BHC	ND 0.71	2.0	µg/Kg 1 6/11/2014 10:24 PM
Dieldrin	ND 0.39	4.0	µg/Kg 1 6/11/2014 10:24 PM
Endosulfan I	ND 0.33	2.0	µg/Kg 1 6/11/2014 10:24 PM
Endosulfan II	ND 0.39	4.0	µg/Kg 1 6/11/2014 10:24 PM
Endosulfan sulfate	ND 0.86	4.0	µg/Kg 1 6/11/2014 10:24 PM
Endrin	ND 0.62	4.0	µg/Kg 1 6/11/2014 10:24 PM
Endrin aldehyde	ND 0.41	4.0	µg/Kg 1 6/11/2014 10:24 PM
Endrin ketone	ND 0.38	4.0	µg/Kg 1 6/11/2014 10:24 PM
gamma-BHC	ND 0.26	2.0	µg/Kg 1 6/11/2014 10:24 PM
gamma-Chlordane	6.1 0.38	2.0	µg/Kg 1 6/12/2014 10:55 AM
Heptachlor	ND 0.28	2.0	µg/Kg 1 6/11/2014 10:24 PM
Heptachlor epoxide	ND 0.23	2.0	µg/Kg 1 6/11/2014 10:24 PM
Methoxychlor	ND 2.3	17	µg/Kg 1 6/11/2014 10:24 PM
Toxaphene	ND 10	170	µg/Kg 1 6/11/2014 10:24 PM
Surr: Tetrachloro-m-xylene	71.3 0	19-120	%REC 1 6/11/2014 10:24 PM
Surr: Decachlorobiphenyl	67.0 0	22-141	%REC 1 6/11/2014 10:24 PM

**Qualifiers:** B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 Results are wet unless otherwise specified  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike/Surrogate outside of limits due to matrix interference  
 DO Surrogate Diluted Out



**ASSET LABORATORIES**  
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

3151 W. Post Rd, Las Vegas, NV 89118 P: 702.307.2659 F: 702.307.2691

3 of 8 [www.assetlaboratories.com](http://www.assetlaboratories.com)

**ASSET Laboratories**

**ANALYTICAL RESULTS**

Print Date: 13-Jun-14

**CLIENT:** Marc Boogay Consulting  
**Lab Order:** N012716  
**Project:** aliso phii, 14-0602  
**Lab ID:** N012716-002

**Client Sample ID:** B  
**Collection Date:** 6/10/2014 11:30:00 AM  
**Matrix:** SOIL

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**ORGANOCHLORINE PESTICIDES BY GC/ECD**

**EPA 3550B**

**EPA 8081A**

RunID: <b>GC7_140611A</b>	QC Batch: <b>45861</b>	PrepDate: <b>6/11/2014</b>	Analyst: <b>MDM</b>
4,4'-DDD	ND 0.39	4.0	µg/Kg 1 6/11/2014 10:46 PM
4,4'-DDE	ND 0.84	4.0	µg/Kg 1 6/11/2014 10:46 PM
4,4'-DDT	ND 0.43	4.0	µg/Kg 1 6/11/2014 10:46 PM
Aldrin	ND 0.26	2.0	µg/Kg 1 6/11/2014 10:46 PM
alpha-BHC	ND 0.51	2.0	µg/Kg 1 6/11/2014 10:46 PM
alpha-Chlordane	ND 0.21	2.0	µg/Kg 1 6/11/2014 10:46 PM
beta-BHC	ND 0.23	2.0	µg/Kg 1 6/11/2014 10:46 PM
Chlordane	ND 2.7	17	µg/Kg 1 6/11/2014 10:46 PM
delta-BHC	ND 0.71	2.0	µg/Kg 1 6/11/2014 10:46 PM
Dieldrin	ND 0.39	4.0	µg/Kg 1 6/11/2014 10:46 PM
Endosulfan I	ND 0.33	2.0	µg/Kg 1 6/11/2014 10:46 PM
Endosulfan II	ND 0.39	4.0	µg/Kg 1 6/11/2014 10:46 PM
Endosulfan sulfate	ND 0.86	4.0	µg/Kg 1 6/11/2014 10:46 PM
Endrin	ND 0.62	4.0	µg/Kg 1 6/11/2014 10:46 PM
Endrin aldehyde	ND 0.41	4.0	µg/Kg 1 6/11/2014 10:46 PM
Endrin ketone	ND 0.38	4.0	µg/Kg 1 6/11/2014 10:46 PM
gamma-BHC	ND 0.26	2.0	µg/Kg 1 6/11/2014 10:46 PM
gamma-Chlordane	ND 0.38	2.0	µg/Kg 1 6/11/2014 10:46 PM
Heptachlor	ND 0.28	2.0	µg/Kg 1 6/11/2014 10:46 PM
Heptachlor epoxide	ND 0.23	2.0	µg/Kg 1 6/11/2014 10:46 PM
Methoxychlor	ND 2.3	17	µg/Kg 1 6/11/2014 10:46 PM
Toxaphene	ND 11	170	µg/Kg 1 6/11/2014 10:46 PM
Surr: Tetrachloro-m-xylene	48.9 0	19-120	%REC 1 6/11/2014 10:46 PM
Surr: Decachlorobiphenyl	60.4 0	22-141	%REC 1 6/11/2014 10:46 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit S Spike/Surrogate outside of limits due to matrix interference  
Results are wet unless otherwise specified DO Surrogate Diluted Out



**ASSET LABORATORIES**  
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

3151 W. Post Rd, Las Vegas, NV 89118 P: 702.307.2659 F: 702.307.2691

**CLIENT:** Marc Boogay Consulting  
**Lab Order:** N012716  
**Project:** aliso phii, 14-0602  
**Lab ID:** N012716-003

**Client Sample ID:** C  
**Collection Date:** 6/10/2014 12:00:00 PM  
**Matrix:** SOIL

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**ORGANOCHLORINE PESTICIDES BY GC/ECD**

**EPA 3550B**

**EPA 8081A**

RunID: <b>GC7_140611A</b>	QC Batch: <b>45861</b>	PrepDate: <b>6/11/2014</b>	Analyst: <b>MDM</b>
4,4'-DDD	ND 0.39	4.0	µg/Kg 1 6/11/2014 11:08 PM
4,4'-DDE	ND 0.84	4.0	µg/Kg 1 6/11/2014 11:08 PM
4,4'-DDT	ND 0.43	4.0	µg/Kg 1 6/11/2014 11:08 PM
Aldrin	ND 0.26	2.0	µg/Kg 1 6/11/2014 11:08 PM
alpha-BHC	ND 0.51	2.0	µg/Kg 1 6/11/2014 11:08 PM
alpha-Chlordane	ND 0.21	2.0	µg/Kg 1 6/11/2014 11:08 PM
beta-BHC	ND 0.23	2.0	µg/Kg 1 6/11/2014 11:08 PM
Chlordane	ND 2.7	17	µg/Kg 1 6/11/2014 11:08 PM
delta-BHC	ND 0.71	2.0	µg/Kg 1 6/11/2014 11:08 PM
Dieldrin	ND 0.39	4.0	µg/Kg 1 6/11/2014 11:08 PM
Endosulfan I	ND 0.33	2.0	µg/Kg 1 6/11/2014 11:08 PM
Endosulfan II	ND 0.39	4.0	µg/Kg 1 6/11/2014 11:08 PM
Endosulfan sulfate	ND 0.86	4.0	µg/Kg 1 6/11/2014 11:08 PM
Endrin	ND 0.62	4.0	µg/Kg 1 6/11/2014 11:08 PM
Endrin aldehyde	ND 0.41	4.0	µg/Kg 1 6/11/2014 11:08 PM
Endrin ketone	ND 0.38	4.0	µg/Kg 1 6/11/2014 11:08 PM
gamma-BHC	ND 0.26	2.0	µg/Kg 1 6/11/2014 11:08 PM
gamma-Chlordane	ND 0.38	2.0	µg/Kg 1 6/11/2014 11:08 PM
Heptachlor	ND 0.28	2.0	µg/Kg 1 6/11/2014 11:08 PM
Heptachlor epoxide	ND 0.23	2.0	µg/Kg 1 6/11/2014 11:08 PM
Methoxychlor	ND 2.3	17	µg/Kg 1 6/11/2014 11:08 PM
Toxaphene	ND 11	170	µg/Kg 1 6/11/2014 11:08 PM
Surr: Tetrachloro-m-xylene	43.3 0	19-120	%REC 1 6/11/2014 11:08 PM
Surr: Decachlorobiphenyl	70.6 0	22-141	%REC 1 6/11/2014 11:08 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit S Spike/Surrogate outside of limits due to matrix interference  
Results are wet unless otherwise specified DO Surrogate Diluted Out



**CLIENT:** Marc Boogay Consulting  
**Work Order:** N012716  
**Project:** aliso phii, 14-0602

**ANALYTICAL QC SUMMARY REPORT**

**TestCode: 8081SOIL**

Sample ID: <b>LCS-45861</b>	SampType: <b>LCS</b>	TestCode: <b>8081SOIL</b>	Units: <b>µg/Kg</b>	Prep Date: <b>6/11/2014</b>	RunNo: <b>93757</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>45861</b>	TestNo: <b>EPA 8081A</b>	<b>EPA 3550B</b>	Analysis Date: <b>6/11/2014</b>	SeqNo: <b>1793083</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	14.050	2.0	16.67	0	84.3	57	139				
4,4'-DDE	13.178	2.0	16.67	0	79.1	54	130				
4,4'-DDT	14.020	2.0	16.67	0	84.1	64	134				
Aldrin	11.055	1.0	16.67	0	66.3	40	120				
alpha-BHC	11.908	1.0	16.67	0	71.4	40	120				
alpha-Chlordane	12.840	1.0	16.67	0	77.0	52	120				
beta-BHC	12.607	1.0	16.67	0	75.6	48	120				
delta-BHC	12.597	1.0	16.67	0	75.6	23	120				
Dieldrin	13.017	2.0	16.67	0	78.1	53	130				
Endosulfan I	12.020	1.0	16.67	0	72.1	48	121				
Endosulfan II	13.752	2.0	16.67	0	82.5	59	127				
Endosulfan sulfate	14.080	2.0	16.67	0	84.5	54	127				
Endrin	13.862	2.0	16.67	0	83.2	53	171				
Endrin aldehyde	12.665	2.0	16.67	0	76.0	42	120				
Endrin ketone	13.157	2.0	16.67	0	78.9	33	144				
gamma-BHC	11.997	1.0	16.67	0	72.0	42	120				
gamma-Chlordane	12.925	1.0	16.67	0	77.5	52	125				
Heptachlor	12.350	1.0	16.67	0	74.1	25	139				
Heptachlor epoxide	12.260	1.0	16.67	0	73.5	50	121				
Methoxychlor	15.973	8.5	16.67	0	95.8	55	152				
Surr: Tetrachloro-m-xylene	10.787		16.67		64.7	19	120				
Surr: Decachlorobiphenyl	12.923		16.67		77.5	22	141				

Sample ID: <b>LCSD-45861</b>	SampType: <b>LCSD</b>	TestCode: <b>8081SOIL</b>	Units: <b>µg/Kg</b>	Prep Date: <b>6/11/2014</b>	RunNo: <b>93757</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>45861</b>	TestNo: <b>EPA 8081A</b>	<b>EPA 3550B</b>	Analysis Date: <b>6/11/2014</b>	SeqNo: <b>1793084</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	14.063	2.0	16.67	0	84.4	57	139	14.05	0.0949	20	

**Qualifiers:**

- B Analyte detected in the associated Method Blank
  - J Analyte detected below quantitation limits
  - S Spike/Surrogate outside of limits due to matrix interference
  - E Value above quantitation range
  - ND Not Detected at the Reporting Limit
  - DO Surrogate Diluted Out
  - H Holding times for preparation or analysis exceeded
  - R RPD outside accepted recovery limits
- Calculations are based on raw values



**CLIENT:** Marc Boogay Consulting  
**Work Order:** N012716  
**Project:** aliso phii, 14-0602

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8081SOIL**

Sample ID: <b>LCSD-45861</b>	SampType: <b>LCSD</b>	TestCode: <b>8081SOIL</b>	Units: <b>µg/Kg</b>	Prep Date: <b>6/11/2014</b>	RunNo: <b>93757</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>45861</b>	TestNo: <b>EPA 8081A</b>	<b>EPA 3550B</b>	Analysis Date: <b>6/11/2014</b>	SeqNo: <b>1793084</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDE	13.380	2.0	16.67	0	80.3	54	130	13.18	1.52	20	
4,4'-DDT	14.448	2.0	16.67	0	86.7	64	134	14.02	3.01	20	
Aldrin	11.968	1.0	16.67	0	71.8	40	120	11.06	7.93	20	
alpha-BHC	12.712	1.0	16.67	0	76.3	40	120	11.91	6.53	20	
alpha-Chlordane	13.172	1.0	16.67	0	79.0	52	120	12.84	2.55	20	
beta-BHC	12.675	1.0	16.67	0	76.0	48	120	12.61	0.541	20	
delta-BHC	12.903	1.0	16.67	0	77.4	23	120	12.60	2.41	20	
Dieldrin	13.297	2.0	16.67	0	79.8	53	130	13.02	2.13	20	
Endosulfan I	12.327	1.0	16.67	0	73.9	48	121	12.02	2.52	20	
Endosulfan II	14.018	2.0	16.67	0	84.1	59	127	13.75	1.92	20	
Endosulfan sulfate	14.172	2.0	16.67	0	85.0	54	127	14.08	0.649	20	
Endrin	13.945	2.0	16.67	0	83.7	53	171	13.86	0.599	20	
Endrin aldehyde	12.842	2.0	16.67	0	77.0	42	120	12.66	1.39	20	
Endrin ketone	13.403	2.0	16.67	0	80.4	33	144	13.16	1.86	20	
gamma-BHC	12.578	1.0	16.67	0	75.5	42	120	12.00	4.73	20	
gamma-Chlordane	13.212	1.0	16.67	0	79.3	52	125	12.93	2.19	20	
Heptachlor	13.092	1.0	16.67	0	78.5	25	139	12.35	5.83	20	
Heptachlor epoxide	12.622	1.0	16.67	0	75.7	50	121	12.26	2.91	20	
Methoxychlor	16.303	8.5	16.67	0	97.8	55	152	15.97	2.04	20	
Surr: Tetrachloro-m-xylene	11.395		16.67		68.4	19	120		0		
Surr: Decachlorobiphenyl	12.808		16.67		76.8	22	141		0		

Sample ID: <b>MB-45861</b>	SampType: <b>MBLK</b>	TestCode: <b>8081SOIL</b>	Units: <b>µg/Kg</b>	Prep Date: <b>6/11/2014</b>	RunNo: <b>93757</b>						
Client ID: <b>PBS</b>	Batch ID: <b>45861</b>	TestNo: <b>EPA 8081A</b>	<b>EPA 3550B</b>	Analysis Date: <b>6/11/2014</b>	SeqNo: <b>1793085</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	ND	2.0									
4,4'-DDE	ND	2.0									
4,4'-DDT	ND	2.0									
Aldrin	ND	1.0									

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



**CLIENT:** Marc Boogay Consulting  
**Work Order:** N012716  
**Project:** aliso phii, 14-0602

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8081SOIL**

Sample ID: <b>MB-45861</b>	SampType: <b>MBLK</b>	TestCode: <b>8081SOIL</b>	Units: <b>µg/Kg</b>	Prep Date: <b>6/11/2014</b>	RunNo: <b>93757</b>						
Client ID: <b>PBS</b>	Batch ID: <b>45861</b>	TestNo: <b>EPA 8081A</b>	<b>EPA 3550B</b>	Analysis Date: <b>6/11/2014</b>	SeqNo: <b>1793085</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
alpha-BHC	ND	1.0									
alpha-Chlordane	ND	1.0									
beta-BHC	ND	1.0									
Chlordane	ND	8.5									
delta-BHC	ND	1.0									
Dieldrin	ND	2.0									
Endosulfan I	ND	1.0									
Endosulfan II	ND	2.0									
Endosulfan sulfate	ND	2.0									
Endrin	ND	2.0									
Endrin aldehyde	ND	2.0									
Endrin ketone	ND	2.0									
gamma-BHC	ND	1.0									
gamma-Chlordane	ND	1.0									
Heptachlor	ND	1.0									
Heptachlor epoxide	ND	1.0									
Methoxychlor	ND	8.5									
Toxaphene	ND	85									
Surr: Tetrachloro-m-xylene	9.947		16.67		59.7	19	120				
Surr: Decachlorobiphenyl	13.163		16.67		79.0	22	141				

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |





# ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On: 6/11/2014 Workorder: N012716  
 Rep sample Temp (Deg C): 8.8 IR Gun ID: 2  
 Temp Blank:  Yes  No  
 Carrier name: GSO  
 Last 4 digits of Tracking No.: 0151 Packing Material Used: None  
 Cooling process:  Ice  Ice Pack  Dry Ice  Other  None

## Sample Receipt Checklist

- |   |   |  |   |
|---|---|--|---|
| 1. Shipping container/cooler in good condition?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | Not Present <input type="checkbox"/>            |
| 2. Custody seals intact, signed, dated on shipping container/cooler?                    | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | Not Present <input checked="" type="checkbox"/> |
| 3. Custody seals intact on sample bottles?  | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | Not Present <input checked="" type="checkbox"/> |
| 4. Chain of custody present?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |   |
| 5. Sampler's name present in COC?   | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |   |
| 6. Chain of custody signed when relinquished and received?                              | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |   |
| 7. Chain of custody agrees with sample labels?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |   |
| 8. Samples in proper container/bottle?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |   |
| 9. Sample containers intact?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |   |
| 10. Sufficient sample volume for indicated test?  | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |   |
| 11. All samples received within holding time?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |   |
| 12. Temperature of rep sample or Temp Blank within acceptable limit?                    | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/>                     |
| 13. Water - VOA vials have zero headspace?  | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | NA <input checked="" type="checkbox"/>          |
| 14. Water - pH acceptable upon receipt?<br>Example: pH > 12 for (CN,S); pH<2 for Metals | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | NA <input checked="" type="checkbox"/>          |
| 15. Did the bottle labels indicate correct preservatives used?                          | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | NA <input checked="" type="checkbox"/>          |
| 16. Were there Non-Conformance issues at login?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | NA <input type="checkbox"/>                     |
| Was Client notified?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | NA <input type="checkbox"/>                     |

Comments: Limited samples.

Checklist Completed By AC  6/11/2014

Reviewed By:  06/12/14

**amanda cortes**

---

**From:** Molky Brar [[molky@assetlaboratories.com](mailto:molky@assetlaboratories.com)]  
**Sent:** Wednesday, June 11, 2014 11:10 AM  
**To:** 'Sample Control'; 'Glen Gesmundo'  
**Cc:** 'Marlon Cartin'  
**Subject:** Marc Boogay samples 6-11-14

**Importance:** High

Hi Amanda,

Client will not be able to send more soil, please use less soil per analysis. Per client it is ok to dilute up to 5x only(max).

Thanks!

Sincerely,

*Molky Brar*  
*Business Development Manager*  
*ASSET Laboratories*  
11060 Artesia Blvd. Suite C  
Cerritos, CA 90703  
562-219-7435(phone)  
562-2197436(fax)  
562-881-3622(cell)  
[www.assetlaboratories.com](http://www.assetlaboratories.com)



**ASSET Laboratories**

3151-3153 W Post Rd., Las Vegas, NV 89118

[www.atl-labs.com](http://www.atl-labs.com)

TEL: 7023072659

FAX: 7023072691

# CHAIN-OF-CUSTODY RECORD

**QC Level: RTNE**

Subcontractor:

AETL  
2834 North Naomi Street  
Burbank, CA 91504

TEL: (818) 845-8200  
FAX: (818) 845-8840  
Acct #:

Field Sampler: None Specified

**11-Jun-14**

Sample ID	Matrix	Date Collected	Bottle Type	Requested Tests		
				EPA 8141A		
N012716-001B / A	Soil	6/10/2014 11:00:00 AM	TUBE	1		
N012716-002B / B	Soil	6/10/2014 11:30:00 AM	TUBE	1		
N012716-003B / C	Soil	6/10/2014 12:00:00 PM	TUBE	1		

General Comments: Please email sample receipt acknowledgement to the PM.  
Please use PO#:N012716 For questions, call Marlon at (702)-307-2659. Please e-mail results to [reports@atl-labs.com](mailto:reports@atl-labs.com) by:Next Day Rush.  
Please analyze for 8141. Limited sample. Please do not dilute more than 5x.

		GSO#: 524878449		
<b>Relinquished by:</b> <u>ACortes</u> 6/11/2014	<b>Date/Time</b>		<b>Date/Time</b>	
	1700	<b>Received by:</b> _____		
<b>Relinquished by:</b> _____		<b>Received by:</b> _____		

PLEASE PRESS FIRMLY

**1 FROM**

DATE 6-10-14  
 COMPANY RES  
 ADDRESS 1584 WHISPERING PALM DR.  
 ADDRESS  
 CITY OCEANSIDE  
 STATE ROOM  
 ZIP CODE 92056  
 SENDERS NAME MARC BOOGAY  
 PHONE NUMBER

**2 TO**

COMPANY ASSET LABS  
 NAME  
 PHONE NUMBER  
 ADDRESS 3151 W. POST RD.  
 ADDRESS  
 CITY LAS VEGAS  
 STATE ROOM  
 ZIP CODE 89118

**3** YOUR INTERNAL BILLING REFERENCE WILL APPEAR ON YOUR INVOICE

**SPECIAL INSTRUCTIONS** 117 LABEL ON SHIPPERS COVER



**SHIPPING AIR BILL**

**4** PACKAGE INFORMATION

LETTER (MAX 8 OZ)  
 PACKAGE (WT) \_\_\_\_\_  
 DECLARED VALUE \$ \_\_\_\_\_  
 COD AMOUNT \$ \_\_\_\_\_  
 (CASH NOT ACCEPTED)

PACKAGE LABEL

**5** DELIVERY SERVICE  PRIORITY OVERNIGHT BY 10:30 AM  EARLY PRIORITY BY 8:00 AM  SATURDAY DELIVERY

\*DELIVERY TIMES MAY BE LATER IN SOME AREAS • CONSULT YOUR SERVICE GUIDE OR CALL GOLDEN STATE OVERNIGHT.

**6** RELEASE SIGNATURE \_\_\_\_\_  
SIGN TO AUTHORIZE DELIVERY WITHOUT OBTAINING SIGNATURE

**7** PICK UP INFORMATION

TIME \_\_\_\_\_ DRIVER # \_\_\_\_\_ ROUTE # \_\_\_\_\_



GSOAB107830151

GSOAB107830151 PEEL OFF HERE

**8** GSO TRACKING NUMBER



## American Environmental Testing Laboratory Inc.

2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181  
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

### Ordered By

ASSET Laboratories  
3151-3153 W Post Road  
Las Vegas, NV 89118-

Number of Pages 4  
Date Received 06/12/2014  
Date Reported 06/13/2014

Telephone: (702)307-2659  
Attention: Marlon Cartin

Job Number	Order Date	Client
73475	06/12/2014	ASSET

Project ID: PO# N012716  
Project Name: N012716

Enclosed please find results of analyses of 3 soil samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: \_\_\_\_\_

Approved By: \_\_\_\_\_

Cyrus Razmara, Ph.D.  
Laboratory Director



**ASSET Laboratories**  
 3151-3153 W Post Rd., Las Vegas, NV 89118  
[www.afl-labs.com](http://www.afl-labs.com)  
 TEL: 7023072659 FAX: 7023072691

# CHAIN-OF-CUSTODY RECORD

73475

QC Level: RTNE

**Subcontractor:**

AETL  
 2834 North Naomi Street  
 Burbank, CA 91504

TEL: (818) 845-8200  
 FAX: (818) 845-8840  
 Acct #:

Field Sampler: None Specified

11-Jun-14

Sample ID	Matrix	Date Collected	Bottle Type	Requested Tests	
				EP4 8141A	
N012716-001B / A	Soil	6/10/2014 11:00:00 AM	TUBE	1	73475.01
N012716-002B / B	Soil	6/10/2014 11:30:00 AM	TUBE	1	73475.02
N012716-003B / C	Soil	6/10/2014 12:00:00 PM	TUBE	1	73475.03

General Comments: Please email sample receipt acknowledgement to the PM.  
 Please use PO#:N012716 For questions, call Marlon at (702)-307-2659. Please e-mail results to [reports@afl-labs.com](mailto:reports@afl-labs.com) by:Next Day Rush.  
 Please analyze for 8141. Limited sample. Please do not dilute more than 5x.

		GSO#: 524878449	
Relinquished by: <u>A Cortez</u>	<u>6/11/2014</u>	Date/Time	Date/Time
		1700	
Relinquished by: _____		Received by: <u>Jean Claude</u>	<u>6/12/14 1000</u>
		Received by: _____	

## JIM LIN

---

**From:** reports@atl-labs.com  
**Sent:** Monday, June 16, 2014 8:50 AM  
**To:** jim1@aetlab.com  
**Cc:** 'Marlon Cartin'  
**Subject:** FW: PDF result for Work Order N012716  
**Attachments:** PDF73475.pdf

**Importance:** High

Hi Jim,

Can you please amend the report due to an error on the sample IDs. Please refer to our sub-COC on page 2 of this report (like for example N012716-001B /A).

Thanks,  
Nancy

---

**From:** JIM LIN [<mailto:jim1@aetlab.com>]  
**Sent:** Friday, June 13, 2014 4:08 PM  
**To:** Marlon Cartin (ATL-NV)  
**Cc:** [reports@atl-labs.com](mailto:reports@atl-labs.com)  
**Subject:** PDF result for Work Order N012716

*Hi Marlon,*

*Results for AETL job number 73475.*

*(Original will be in the mail)*

Thank you.

Should you have additional question, please feel free to contact us.

Jim Lin  
Operations Manager  
AETL  
818-845-8200



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Page: 1 A

### Ordered By

ASSET Laboratories  
3151-3153 W Post Road  
Las Vegas, NV 89118-

Project ID: PO# N012716  
Date Received 06/12/2014  
Date Reported 06/13/2014

Telephone: (702) 307-2659  
Attention: Marlon Cartin

Job Number	Order Date	Client
73475	06/12/2014	ASSET

## CERTIFICATE OF ANALYSIS CASE NARRATIVE

AETL received 3 samples with the following specification on 06/12/2014.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
73475.01	N012716-001B/A	06/10/2014	Soil	1
73475.02	N012716-002B/B	06/10/2014	Soil	1
73475.03	N012716-003B/C	06/10/2014	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
(8141A)	06/13/2014	2	Rush	ug/Kg

The samples were analyzed as specified on the enclosed chain of custody. No analytical non-conformances were encountered.

Checked By: 

Approved By: 

Cyrus Razmara, Ph.D.  
Laboratory Director



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## ANALYTICAL RESULTS

### Ordered By

ASSET Laboratories  
3151-3153 W Post Road  
Las Vegas, NV 89118-

Telephone: (702)307-2659

Attn: Marlon Cartin

Page: 2

Project ID: PO# N012716

Project Name: N012716

AETL Job Number	Submitted	Client
73475	06/12/2014	ASSET

Method: (8141A), Organophosphorus Compounds by GC/NPD/FPD

QC Batch No: 061214

Our Lab I.D.		Method Blank	73475.01	73475.02	73475.03	
Client Sample I.D.			N012716-001 B/A	N012716-002 B/B	N012716-003 B/C	
Date Sampled			06/10/2014	06/10/2014	06/10/2014	
Date Prepared		06/12/2014	06/12/2014	06/12/2014	06/12/2014	
Preparation Method		3550B	3550B	3550B	3550B	
Date Analyzed		06/13/2014	06/13/2014	06/13/2014	06/13/2014	
Matrix		Soil	Soil	Soil	Soil	
Units		ug/Kg	ug/Kg	ug/Kg	ug/Kg	
Dilution Factor		1	1	1	1	
Analytes	MDL	PQL	Results	Results	Results	Results
Azinphos-methyl	50	50	ND	ND	ND	ND
Bolstar (Sulprofos)	50	50	ND	ND	ND	ND
Chloropyrifos (Dursban)	50	50	ND	ND	ND	ND
Coumaphos	50	50	ND	ND	ND	ND
Demeton-O & S	50	50	ND	ND	ND	ND
Diazinon	50	50	ND	ND	ND	ND
Dichlorvos (DDVP, Diclorovos)	50	50	ND	ND	ND	ND
Disulfoton	50	50	ND	ND	ND	ND
Ethoprop	50	50	ND	ND	ND	ND
Fensulfothion	50	50	ND	ND	ND	ND
Fenthion	50	50	ND	ND	ND	ND
Malathion	50	50	ND	ND	ND	ND
Merphos	50	50	ND	ND	ND	ND
Methyl parathion (Parathion methyl)	50	50	ND	ND	ND	ND
Mevinphos	100	100	ND	ND	ND	ND
Naled	100	100	ND	ND	ND	ND
Phorate (Phosphorodithioic acid)	50	50	ND	ND	ND	ND
Ronnel	50	50	ND	ND	ND	ND
Tetrachlorvinphos (Stirophos)	50	50	ND	ND	ND	ND
Tokuthion (Prothiofos)	50	50	ND	ND	ND	ND
Trichloronate	50	50	ND	ND	ND	ND



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## ANALYTICAL RESULTS

Page: 3

Project ID: PO# N012716  
Project Name: N012716

AETL Job Number	Submitted	Client
73475	06/12/2014	ASSET

Method: (8141A), Organophosphorus Compounds by GC/NPD/FPD

Our Lab I.D.		Method Blank	73475.01	73475.02	73475.03	
Surrogates	%Rec.Limit	% Rec.	% Rec.	% Rec.	% Rec.	
Tributylphosphate	52-129	86.0	77.6	71.2	73.6	



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## QUALITY CONTROL RESULTS

### Ordered By

ASSET Laboratories  
 3151-3153 W Post Road  
 Las Vegas, NV 89118-

Telephone: (702)307-2659

Attn: Marlon Cartin

Page: 4

Project ID: PO# N012716  
 Project Name: N012716

AETL Job Number	Submitted	Client
73475	06/12/2014	ASSET

Method: (8141A), Organophosphorus Compounds by GC/NPD/FPD

QC Batch No: 061214; Dup or Spiked Sample: 73446.03; LCS: Clean Sand; QC Prepared: 06/12/2014; QC Analyzed: 06/13/2014;  
 Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Bolstar (Sulprofos)	0.00	200	133	66.5	200	143	71.5	7.2	50-150	<40
Ethoprop	0.00	200	159	79.5	200	172	86.0	7.9	50-150	<40
Phorate (Phosphorodithioic acid)	0.00	200	102	51.0	200	111	55.5	8.5	50-150	<40
Ronnel	0.00	200	121	60.5	200	131	65.5	7.9	50-150	<40
<b>Surrogates</b>										
Tributylphosphate	0.00	250	170	67.8	250	182	72.8	7.1	50-150	<40

QC Batch No: 061214; Dup or Spiked Sample: 73446.03; LCS: Clean Sand; QC Prepared: 06/12/2014; QC Analyzed: 06/13/2014;  
 Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit
Bolstar (Sulprofos)	200	168	84.0	200	164	82.0	2.4	50-150	<50
Ethoprop	200	212	106	200	206	103	2.9	50-150	<50
Phorate (Phosphorodithioic acid)	200	137	68.5	200	134	67.0	2.2	50-150	<50
Ronnel	200	158	79.0	200	148	74.0	6.5	50-150	<50
<b>Surrogates</b>									
Tributylphosphate	250	211	84.4	250	210	84.0	<1	50-150	<50



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### Data Qualifiers and Descriptors

#### **Data Qualifier:**

- #: Recovery is not within acceptable control limits.
- \*: In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
- B: Analyte was present in the Method Blank.
- D: Result is from a diluted analysis.
- E: Result is beyond calibration limits and is estimated.
- H: Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
- J: Analyte was detected. However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
- M: Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
- MCL: Maximum Contaminant Level
- NS: No Standard Available
- S6: Surrogate recovery is outside control limits due to matrix interference.
- S8: The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
- X: Results represent LCS and LCSD data.

#### **Definition:**

- %Limi: Percent acceptable limits.
- %REC: Percent recovery.
- Con.L: Acceptable Control Limits
- Conce: Added concentration to the sample.
- LCS: Laboratory Control Sample
- MDL: Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.



## American Environmental Testing Laboratory Inc.

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### Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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