GeoSoils, Inc.

GEO SOILS, INC. 45th ANNIVERSARY 1974-2019

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August 28, 2019

W.O. E6960.2-SC

Ocean Breeze Farms, LLC
1550 South Coast Highway, Suite 201
Laguna Beach, California 92651

Attention: Mr. Jim Conrad

Subject: Addendum to Limited Phase II Environmental Site Assessment, Ocean Breeze Ranch, 5820 West Lilac Road, Bonsall, San Diego County, California 92003, W.O. E6960.1-SC, dated, September 25, 2017, by GeoSoils, Inc.

References:

1. "County of San Diego Tract 5615, Equestrian Center Major Use Permit PDS2016-MUP-16-013, Ocean Breeze Ranch," Revision No. 4, sheets 1, 2, and 3, dated July 31, 2019, by Project Design Consultants.

2. "Phase I Environmental Site Assessment, 5820 West Lilac Road, Bonsall, San Diego County, California 92003," W.O. E6960-SC, dated June 22, 2016, by GeoSoils, Inc.

Dear Mr. Conrad:

In accordance with the request of Mr. Pete Fagrell, with Helios Property Solutions, LLC, GeoSoils, Inc. (GSI) is presenting this addendum to our limited Phase II Environmental Site Assessment (ESA) of the subject property in Bonsall, San Diego County, California, in order to reconcile and clarify the number of groundwater wells present on the site. This addendum does not change the conclusions and recommendations contained in the subject nor referenced GSI reports, but corrects the number of water wells present.

Reference No. 1 indicates that there are six (6) wells on the property, and that five (5) will remain in service, and one abandoned. In contrast, GSI (2017) indicates that there are nine (9) water wells onsite, and that five (5) are no longer in use. Since the wells location was derived from different sources, they are named differently in the consultants documents. The names of the wells are correlated in the table below. In addition, the locations of the wells were field checked. If encountered, the locations were staked and labeled; and position adjusted, if incorrectly located by the available data (see table below). If the wells were not encountered, their reported locations were staked and labeled.

	SOURCE OF WELL LOCATION			
WELL NO.	**PROJECT DESIGN CONSULTANTS (2019) - WELL NAME**	**GSI (2016) GROUNDWATER GRADIENT MAP, FIG. 3 - WELL NAME**	**NAME USED HEREIN**	**COMMENTS**
1	Existing Well No. 1	Well K28	Well K28	To Remain in Service
2	Existing Well No. 2	Wells B5 & B6	Wells B5 & B6	Already Surveyed, To Remain in Service
3	Existing Well	Not Shown/No Records	Wells B5 & B6	Already Surveyed, To be Abandoned
4	Existing Well No. 3	Well 4	Well 4	Already Surveyed, To Remain in Service
5	Existing Well No. 4	Not Shown/No Records	Existing Well No. 4	Already Surveyed, To Remain in Service
6	Existing Well No. 5	Not Shown/No Records	Existing Well No. 5	Already Surveyed, To Remain in Service
7	Not Shown/No Records	Al	Al108	Multiple Listings of same well, Relocated, to be abandoned
8	Not Shown/No Records	Wells A1 & A2	Well A1 & A2	Same Latitude and Longitude (1 well), Relocated, to be abandoned
-	Not Shown/No Records	Well 3	Well 3	Not Observed, Removed from Map
-	Not Shown/No Records	Wells C8 & C9	Wells C8 & C9	Same Latitude and Longitude (1 well), Not Observed, Removed from Map
-	Not Shown/No Records	Well C10	Well C10	Not Observed, Removed from Map
-	Not Shown/No Records	Well 48	Well 48	Not Observed, Removed from Map
-	Not Shown/No Records	Wells D16 & D17	Wells D16 & C17	Offsite, Removed, from Map
`	Not Shown/No Records	Well D18	Well D18	Offsite, Removed from Map
Summary - 8 wells onsite, 3 to be abandoned, and 5 are to remain in service				

Accordingly, the second to last bullet on Page Two, should be revised as follows:

- Five (5) of the eight (8) water wells onsite are to remain in service, and three (3) will be abandoned. The County has requested that the client indicate whether the wells will remain in use, or be destroyed. Further, the County has indicated that the wells will need to be properly abandoned, per DEH protocol.

In addition, the second to last bullet on Page 8 should also be revised, as follows:

- Five (5) of the eight (8) water wells onsite are to remain in service, and three (3) will be abandoned. The County has requested that the client indicate whether the wells will remain in use, or be destroyed. Further, the County has indicated that the wells will need to be properly abandoned, per DEH protocol.

The wells that are to be abandoned or remain in use are indicated on the above table, and their location is shown on Figure 1, following the text of this addendum.

We appreciate the opportunity to be of service to you. If you have any questions pertaining to this report or any other matter, please do not hesitate to call us at (760) 438-3155.

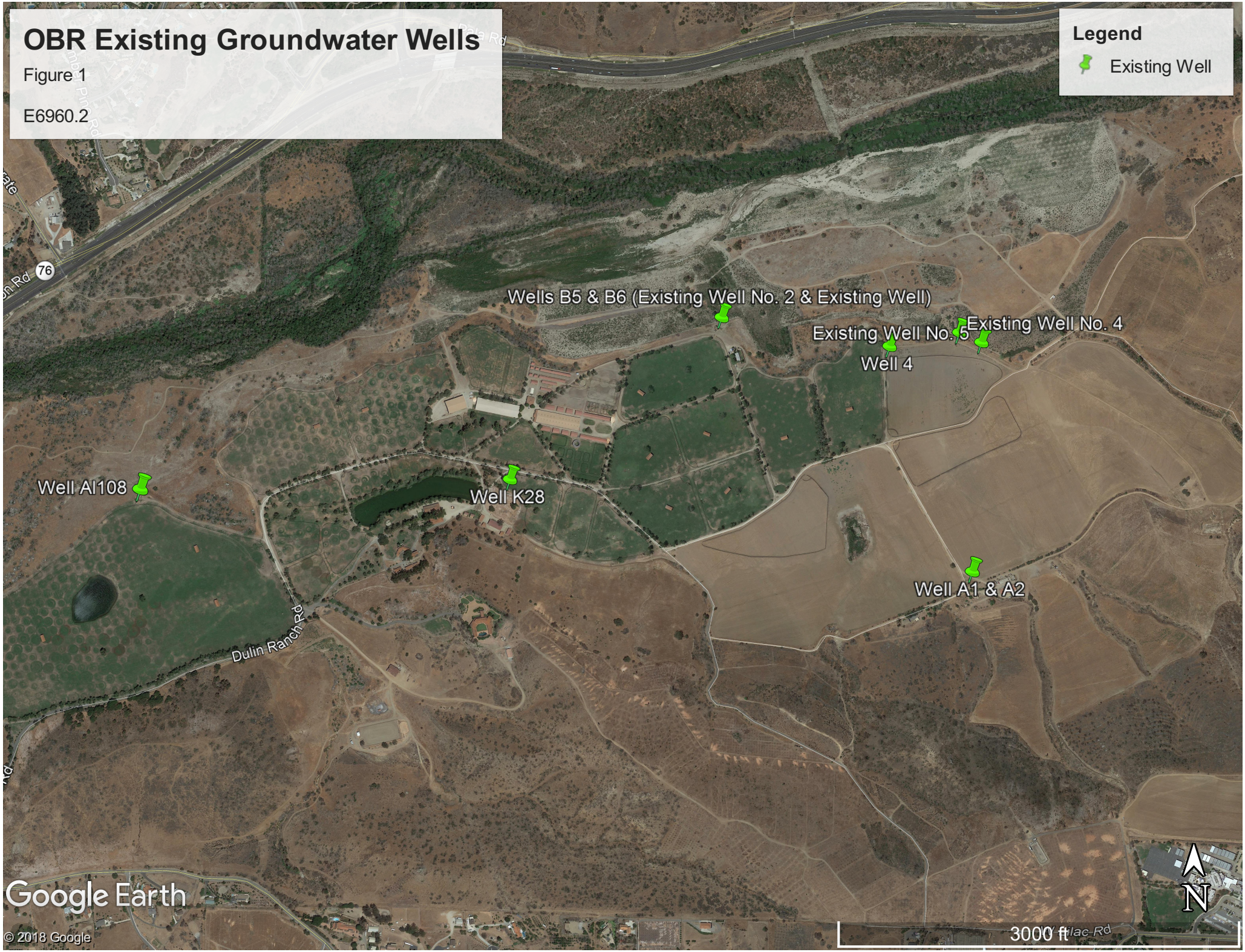
Respectfully submitted,

GeoSoils, Inc.

John P. Franklin
Registered Environmental Property Assessor
NREP 461992, CEG 1340

WP/RB/JPF/jh

Distribution: (3) Addressee


OBR Existing Groundwater Wells
Figure 1
E6960.2
Legend
Existing Well
Wells B5 & B6 (Existing Well No. 2 & Existing Well)
Existing Well No. 5
Existing Well No. 4
Well 4
Well AI108
Well K28
Well A1 & A2
Dulin Ranch Rd
Dale Rd
76
Google Earth
© 2018 Google
3000 ft
N

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT
OCEAN BREEZE RANCH, 5820 WEST LILAC ROAD
BONSALL, SAN DIEGO COUNTY, CALIFORNIA 92003

GeoSoils, Inc.

FOR

OCEAN BREEZE FARMS, LLC
1550 SOUTH COAST HIGHWAY, SUITE 201
LAGUNA BEACH, CALIFORNIA 92651

W.O. E6960.1-SC SEPTEMBER 25, 2017

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September 25, 2017

W.O. E6960.1-SC

Ocean Breeze Farms, LLC
1550 South Coast Highway, Suite 201
Laguna Beach, California 92651

Attention: Mr. Jim Conrad

Subject: Limited Phase II Environmental Site Assessment, Ocean Breeze Ranch, 5820 West Lilac Road, Bonsall, San Diego County, California 92003

Dear Mr. Conrad:

GeoSoils, Inc. (GSI) is pleased to present the results of our Limited Phase II Environmental Site Assessment (ESA) of the subject property in Bonsall, San Diego County, California. This study was conducted for the purpose of further evaluating the potential for the presence, to the extent practical, of hazardous materials/waste and/or petroleum contamination (i.e., recognized environmental conditions [RECs]), including the presence of ASTM E 1527-13 non-scope concerns at the subject site, as well as respond to County of San Diego, Planning and Development Services (2017) review comments.

EXECUTIVE SUMMARY

Based upon the information obtained during the course of this limited Phase II ESA, GSI presents the following summary of findings and conclusions:

- A review of old and new data (see Appendix A), with regard to the potential onsite presence of two older Underground Storage Tanks (UST), indicates that their presence onsite is unlikely. Rather, they are reported to be located west of the site at or near 5646 W. Lilac Road. Accordingly, based on the lines of evidence and new data presented in this evaluation, it is reasonably concluded that the older USTs, do not exist on Ocean Breeze Ranch (OBR), and are not considered an REC.

- Based upon our review of the previous Phase I ESA prepared by GSI (2016b), and County of San Diego Planning and Development (2017) comments, we have conducted a Limited Phase II ESA with non-scope ASTM E1527-13 considerations for the presence of organochlorine and arsenical pesticides, as well as petroleum hydrocarbons, due to the historical agricultural use of the property. Laboratory results presented in this report (Appendix B), show that organochlorine pesticides (OCPs) were not detected above laboratory detection limits, arsenic concentrations were non-detect or below natural background levels for southern California, and

petroleum hydrocarbons were detected at concentrations below generally accepted screening levels and present little risk to human health or groundwater. Based on our previous work and scope of work completed to date, the presence of OCPs, arsenic, and petroleum hydrocarbons do not appear to be an environmental concern in areas proposed for changes in land use.

Based on the GSI (2016b) findings, and the data presented herein under the scope of work completed, this assessment has revealed no evidence of RECs in connection with areas proposed for a change in use within the property, except for the following:

- Concrete stained with an oily substance was observed in the maintenance shed and storage shed (see GSI, 2016b). Based on the limited extent and small volumes observed, the stained concrete represents a *de minimis* condition. No further action is warranted. GSI recommends the proper disposal of a leaking 55-gallon drum located in the storage shed.

- Motor oil, lube oil, small containers of gasoline, and a degreasing unit were observed in the maintenance shed. In addition, an AST was observed. These containers were observed to be in good condition with no signs of spills or leaks. The presence of these materials represent a *de minimis* condition.

- Five of the nine water wells onsite are no longer in use. The uncertainty as to the proper abandonment of the wells is an environmental concern. In addition, the County has requested that the client indicate whether the wells will remain in use, or be destroyed. Further, the County has indicated that the wells will need to be properly abandoned, per DEH protocol.

- Other than the above, this assessment has revealed no evidence of RECs in connection with the property, in areas proposed for a change in use.

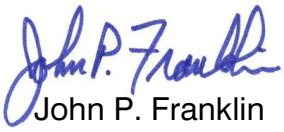
E1527-13 NON-SCOPE CONSIDERATIONS

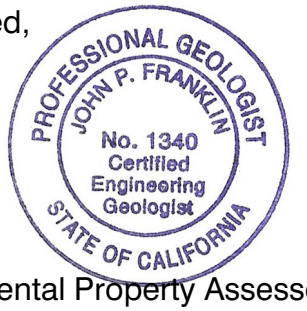
Based on the age of the historical buildings located to the southwest of the main equestrian facilities at the subject site, ACM and LBP are likely present within the building materials of the structures. The potential presence of ACM and LBP represent an environmental concern, and per County criteria, should these buildings be disturbed, surveys would be required to determine the location, presence, and quantities of such.

We appreciate the opportunity to be of service to you. If you have any questions pertaining to this report or any other matter, please do not hesitate to call us at (760) 438-3155.

Respectfully submitted,

GeoSoils, Inc.





John P. Franklin
Registered Environmental Property Assessor, NREP 461992
CEG 1340

WP/RB/JPF/jh

Distribution: (3) Addressee

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LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT
OCEAN BREEZE RANCH, 5820 WEST LILAC ROAD
BONSALL, SAN DIEGO COUNTY, CALIFORNIA 92003

INTRODUCTION

Purpose and Scope

In accordance with our proposal and the Client's (Ocean Breeze Farms, LLC) authorization, GSI has completed this Limited Phase II ESA report covering the subject property, as shown on Figure 1 (Site Location Map). The subject property is described as:

APNs 124-131-48, 124-180-28, 124-180-34 and -35, 125-080-21, 125-131-48, 125-131-54, 126-060-78, 127-191-20, 127-230-59, 127-271-01 and -02
Bonsall, San Diego County, California 92003

This Limited Phase II ESA was prepared for the purpose of further assessing, to the extent practical, the potential for *recognized environmental conditions* from past, present, or future uses at the subject property. A *recognized environmental condition* (REC) is defined by ASTM Standard E 1527-13 as:

> *The presence or likely presence, of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.*

The scope of work included:

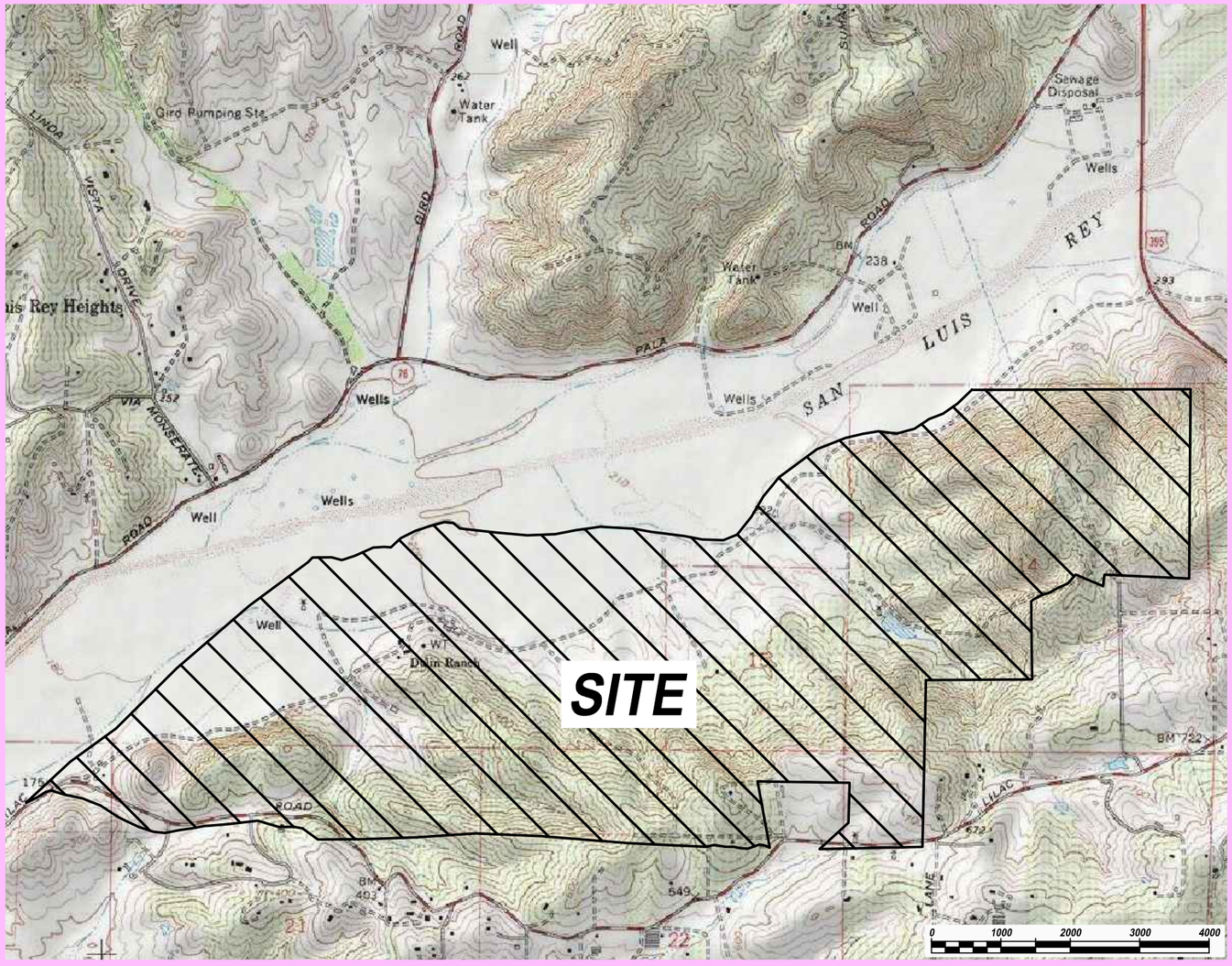
1. A review of our previous Phase I ESA report for the site (GSI, 2016b), including historical aerial photographs and maps, provided therein, as well as information regarding a subsequent review of State of California (1998), regarding hazardous waster and/or substance sites in San Diego County (see Appendix A);

2. Using a hand auger, soil samples were collected at approximately 0.5, 1.0, and 2.0 feet below ground surface (bgs), or refusal, at 18 locations (B-1 through B-18), throughout the site, as discussed herein;

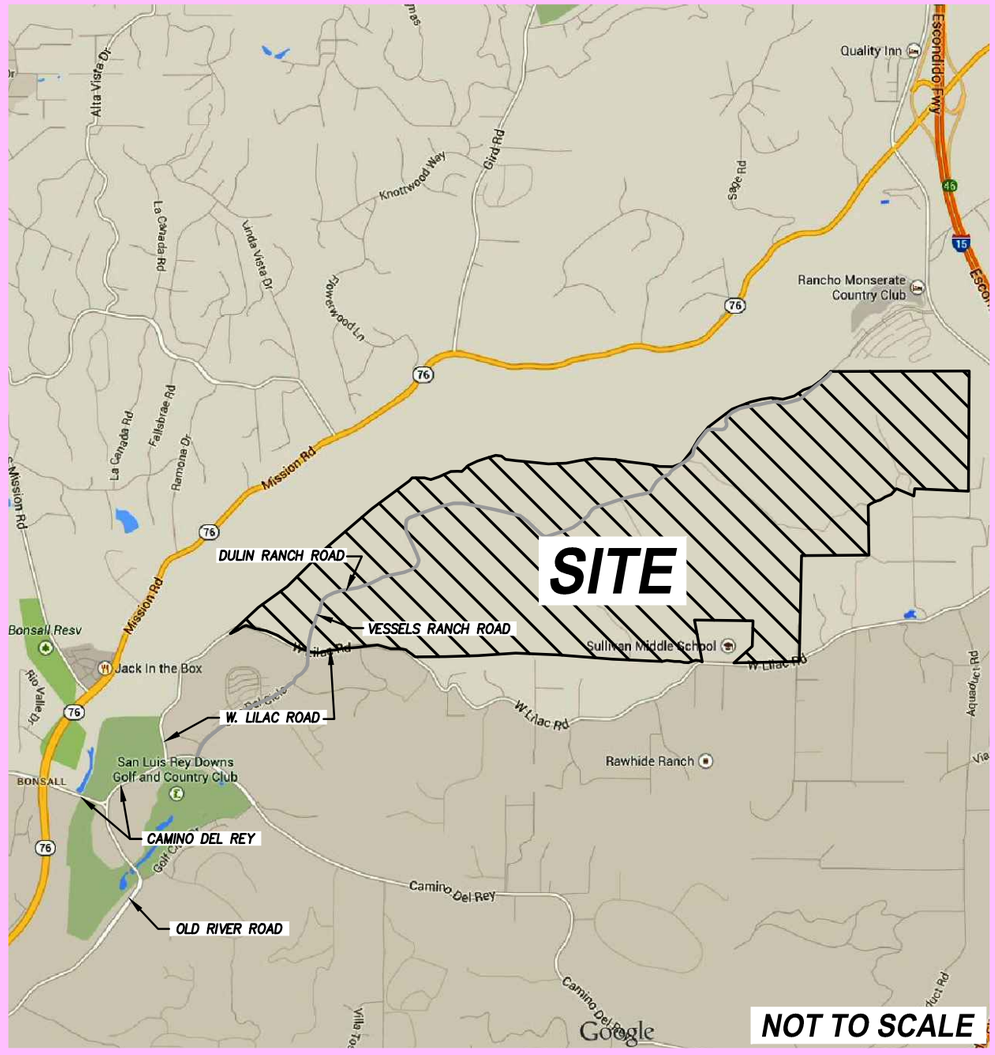
3. Discreet analytical testing by a certified Department of Health Services (DHS) laboratory (Appendix B);

4. Analysis of data; and,

5. Preparation of this report which summarizes our findings, conclusions, and recommendations.



Base Map: TOPO!® ©2003 National Geographic, U.S.G.S. Bonsall Quadrangle, California -- San Diego Co., 7.5 Minute, dated 1975, current, 1975.



Base Map: Google Maps, Copyright 2015 Google, Map Data Copyright 2015 Google

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GeoSoils, Inc.

W.O. E6960-SC

SITE LOCATION MAP

Figure 1

Limitations

This study does not include any of the following:

- Water sampling and analyses, including potable water sources;
- Identification or evaluation of wetlands;
- Identification or evaluation of biological concerns;
- Consideration of possible future contamination of the subject property from adjacent or surrounding facilities or properties;
- Asbestos, methane, radon gas, mold, sludge, lead paint, or electromagnetic evaluation(s); and,
- Air quality evaluation.

Terms and Conditions

This report is intended for the use of the Client (Ocean Breeze Farms, LLC). The contents should not be relied upon by any party other than the aforementioned without the express written consent of GSI.

This report does not consider possible future contamination of the subject property from adjacent or surrounding facilities or properties. All judgments concerning adjoining properties apply only to conditions observed during the time of the on-site reconnaissance.

BACKGROUND INFORMATION

GSI's review of government database records, performed in preparation of GSI (2016b), indicated that, "The subject site was listed as Haznet, San Diego County HMMD, and UST facility. According to database records, the subject site has disposed of a relatively small volume of hazardous waste. In addition, up to four USTs may *(emphasis added)* have been present at the subject site. Two USTs were documented as removed from the subject property, and no leaks, stains, or spills were observed. No documentation pertaining to removal was identified for the two older USTs."

In addition, under non-scope ASTM E1527 considerations, GSI (2016b) noted that "Historical agricultural use of the property has resulted in the potential application of pesticides which were reportedly used on a variety of crops cultivated at the subject site, and represents an environmental concern." Furthermore, the County (2017) has indicated that the site be further evaluated from an environmental standpoint. More specifically they have required that soil testing, associated with a Limited Phase II ESA, be completed in the locations with the highest likelihood of contamination (such as around pesticide mixing areas, petroleum filling areas, in areas where crops were grown), areas with the greatest potential for human exposure to soils, including the location of proposed residential uses.

Based on the above, additional review, sampling, and laboratory testing have been performed in order to further evaluate the possible location of the two USTs, and to evaluate if the agricultural areas of the site that are proposed to undergo a change in use, where new land use could result in the potential for increased human exposure to organochlorine pesticides and arsenical pesticides across the aforementioned areas of the site, and/or petroleum hydrocarbons in mixing/fueling areas.

POTENTIAL PRESENCE OF TWO OLDER USTs

As also indicated in GSI (2016b), "Review of the State Water Resources Control Board listing dated June 1, 1988 indicated that the unleaded tank was in use at the time, but that the regular tank had not been in use since 1970. No information was provided in the UST database listings nor in any other listing regarding the removal of the tanks..... Based on the uncertainty regarding the presence of USTs at the subject site, the Historical UST listing represents an REC."

A review of old and new data (see Appendix A), indicates that there are several lines of evidence that provide a more likely alternative offsite location for these older USTs. First, the address of the site, 5646 W. Lilac Road, plots west of the Ocean Breeze Ranch site (5820 W. Lilac Road), and is offsite, northwest of the street named "Del Cielo Oeste."

Secondly, this is the same location as shown on the Radius Report in GSI (2016b), for Map ID 67 (down groundwater gradient), with the same such address, 5646 W. Lilac Road. Thirdly, a review of aerial photographs (see GSI, 2016b), does not show any structures (islands, parking, buildings, electrical transmission lines, power poles, etc.), that would be associated with a UST facility on the western margin of the Ocean Breeze Ranch (OBR) site, between 5646 and 5820 W. Lilac Road.

Fourthly, the initial review (GSI, 2016b) of the State Water Resources Control Board listing regarding 5646 W. Lilac Road, dated June 1, 1988 provided no information regarding the removal of the tanks; a November, 2016 (new data) review of "San Diego County List of Hazardous and/or Substance Sites," prepared by the State of California Office of Planning and Research and updated to April of 1998 (10 years after the State Water Resources Control Board listing), did not show the 5646 W. Lilac Road site to fall within the boundaries of OBR. Accordingly, it is reasonably concluded that the older USTs discussed above, do not exist on OBR, and therefore, based on the above discussion and new data, are not an REC.

LIMITED SOIL CHARACTERIZATION

The potential presence of residues from the application of OCPs and arsenical pesticides was evaluated in areas proposed for a change in land use. The identified agricultural areas from the Site Map (GSI, 2016b), were overlain on the grading plan for the project (see Plate 1 [Land Use Change Agricultural Impacted Areas]). Where the agricultural areas overlapped the proposed graded areas, such areas were evaluated for the presence of OCPs and arsenical pesticides (EPA Method 8081A and EPA Method 6010B). Other samples were analyzed for total recoverable petroleum hydrocarbons (EPA Method 418.1) and total petroleum hydrocarbons (EPA Method 8015b), in order to evaluate their presence for possible impacts related to the petroleum filling areas associated with USTs.

Over the course of several days in mid-April, 2017, GSI conducted soil sampling in the agricultural areas that overlapped with the proposed land use change, as indicated on Plate 1. Using a hand auger, soil samples were collected at about 0.5, 1.0, and 2.0 feet below ground surface (bgs), or refusal, at 18 boring locations (B-1 through B-18). Sample locations were determined based on areas most likely to contain contamination (low-lying areas and shallow gullies [drainages] within the historic agricultural areas, potential mixing areas, etc.). The approximate locations of Borings B-1 through B-18 are shown on Plate 2 (Soil Sample Location Map). Soil samples were collected in laboratory-provided glass containers and placed on ice, pending delivery to Eurofins Calscience in Garden Grove, California under chain-of-custody protocol.

Results

In order to assess risks to human health, the detected analytes were compared to Regional Screening Levels for residential soil applications (RSL/ESLs [State], 2016), California Human Health Screening Levels (CHHSLs [State], 2010 and 2009a), San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels (SFO [State], 2016), and the California Department of Toxic Substance Control Human Health Risk (HERO [State], 2015). Samples collected in conjunction with this limited Phase II ESA indicated that OCPs were not detected above laboratory detection limits. Slightly elevated levels of Arsenic were detected in a few samples, but at concentrations within the natural background range for southern California (Bradford, et al., 1996; Chernoff, et al., 2008). Detected concentrations of petroleum hydrocarbons were generally below screening levels, per State (2015, and 2016 [SFO]) guidelines. Petroleum hydrocarbon concentrations in excess of screening levels were mostly heavy oil range, non-soluble, and may be considered low risk, *de minimis conditions*.

The test results are summarized in the table below, and actual laboratory analytical reports are provided in Appendix B.

BORING	DEPTH (ft.)	ANALYTE	CONCENTRATION DETECTED (MG/KG)	CHHSL/EPA REGION 9 RSL/SFO or STATE (2016) (MG/KG)	COMMENT
B-1	0.5		ND		
B-2	0.5 (Refusal)	Arsenic	1.07	0.07/0.068/0.01	Exceeds threshold, but within natural background range*
B-3	0.5		ND		
B-4	0.5		ND		
B-5	0.5		ND		
B-6	0.5		ND		
B-7	0.5		ND		
B-8	0.5		ND		
B-9	0.5		ND		
B-10	0.5		ND		
B-11	0.5	Arsenic	1.16	0.07/0.068/0.01	Exceeds threshold, but within natural background range*
B-12	0.5	Arsenic	1.59	0.07/0.068/0.01	Exceeds threshold, but within natural background range*
B-13	0.5	C6-C24	ND	<100	
		C23-C24	14	<230	
		C25-C28	31	<230-5100	
		C29-C32	32	<5100	
		C33-C36	23	<5100	
		C37-C40	7.7	<5100	
		C6-C44 total	120	<100-5100	
		TRPH	210		
B-13	1.5	C6-C44 total	9.2	<100-5100	
		TRPH	61		
B-14	0.5		ND		
B-15	0.5		ND		
B-16	0.5	C6-C44 total	9.3	<100-5100	
		TRPH	43		
B-17	0.5		ND		
B-18	0.5		ND		

*Detected concentrations of Arsenic exceeded the CHHSL/RSL/SFO threshold, but were within the range of natural background concentrations of <12 mg/kg for southern California soils (Bradford, et al., 1996; Chernoff, et al., 2008).

CONCLUSIONS AND RECOMMENDATIONS

Findings

Based upon the information obtained during the course of this Limited Phase II ESA, GSI presents the following summary of our findings:

- A review of old and new data with regard to the potential onsite presence of two older USTs, indicates that it is unlikely that they are located onsite. Rather, they are reported (State, 1998), as located west of the site, at or near 5646 W. Lilac Road. Accordingly, based on the lines of evidence and new data presented in this evaluation, it is reasonably concluded that the older USTs, do not exist on OBR (subject site), and are therefore not considered an REC.

- Based upon our review of the previous Phase I ESA prepared by GSI (2016b), and County of San Diego Planning and Development Services (2017) comments, we have conducted a Limited Phase II Soil Evaluation with non-scope ASTM E1527-13 considerations for the presence of OCBs and arsenical pesticides, due to the historical agricultural use of portions of the property. Laboratory results presented in this report (Appendix B), show that OCPs were not detected above laboratory detection limits, arsenic concentrations were non-detect or below natural background levels for southern California, and petroleum hydrocarbons were detected at concentrations below screening levels and present little risk to human health or groundwater. Based on our previous work and scope of work completed to date, the presence of OCPs, arsenic, and petroleum hydrocarbons do not appear to be an environmental concern in areas proposed for a change in land use at the site.

Conclusions

We have performed a Limited Phase II ESA of the subject property in Bonsall, San Diego County, California the property. This assessment has revealed that the potential presence of two USTs, previously considered as remaining at the subject site in areas proposed for a change in land use, is unlikely, and therefore should not represent an REC. With regard to non-scope ASTM E1527-13 environmental concerns, the potential presence of OCPs, arsenical pesticides, and petroleum hydrocarbons should not be considered an environmental concern in areas proposed for a change in land use (Plates 1 and 2).

Recommendations

Based on the GSI (2016b) findings, and the data presented herein under the scope of work completed, this assessment has revealed no evidence of RECs in connection with areas proposed for a change in land use within the property, except for the following:

- Concrete stained with an oily substance was observed in the maintenance shed and storage shed (see GSI, 2016b). Based on the limited extent and small volumes observed, the stained concrete represents a *de minimis* condition. No further action is warranted. GSI recommends the proper disposal of a leaking 55-gallon drum located in the storage shed.

- Motor oil, lube oil, small containers of gasoline, and a degreasing unit were observed in the maintenance shed. In addition, an AST was observed. These containers were observed to be in good condition with no signs of spills or leaks. The presence of these materials represent a *de minimis* condition.

- Five of the nine water wells onsite are no longer in use. The uncertainty as to the proper abandonment of the wells is an environmental concern. In addition, the County has requested that the client indicate whether the wells will remain in use, or be destroyed. Further, the County has indicated that the wells will need to be properly abandoned, per DEH protocol.

- Other than the above, this assessment has revealed no evidence of RECs in connection with the property, in areas proposed for a change in use.

E1527-13 NON-SCOPE CONSIDERATIONS

Based on the age of the historical buildings located to the southwest of the main equestrian facilities at the subject site, ACM and LBP are likely present within the building materials of the structures. The potential presence of ACM and LBP represent an environmental concern, and per County criteria, should these buildings be disturbed, surveys would be required to determine the location, presence, and quantities of such.

LIMITATIONS

GSI has performed the services for this project in accordance with the terms of a contract between GSI and Client and in accordance with current professional standards for investigations of this type. The conclusions presented in this report are based on the information collected during the study, the present understanding of the site conditions, and professional judgment.

Please note, subsurface and hazardous waste/toxic substance conditions may vary from those provided in historical documents reviewed by GSI. The interpretations and recommendations of GSI are based solely on such information, and/or information supplied by Client. Findings of this investigation based on data provided by others carries no warranty, express or implied, as a result of the usage of such data.

It is possible that future investigations may reveal additional data or variations of the current data which may require the current conclusions and recommendations to be reevaluated. As a result, GSI makes no warranty, either express or implied, as to its findings, opinions, recommendations, specifications, or professional advice except that they were promulgated after being prepared in accordance with generally accepted standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature.

The information in this report is relevant to the date of the site work and should not be relied on to represent conditions at any later date. Facts, conditions, and acceptable risk factors change with time; accordingly, this report should be viewed within this context. Thus, this report brings to completion our scope of services for this project.

APPENDIX A

REFERENCES

APPENDIX A

REFERENCES

Bradford, G.R., Change, A.C., Page, A.L., Bakhtar, D., Frampton, J.A., and Wright, H., 1996, Background concentrations of trace and major elements in California soils, in Kearney Foundation special report, dated March.

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County of San Diego, Planning & Development Services, 2017, Ocean Breeze Ranch tentative map & equestrian center scoping letter, record id: PDS2016-TM-5615, PDS2016-MUP-16-012, PDS2016-MUP-16-013; project address: 5820 West Lilac Road, Bonsall, CA 92003, Bonsall Comunity Plan area; APN: 126-060-78 and eleven others; trust acount no: 2036337-D-03654

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_____, 2016c, Geotechnical discussion of rock hardness, remedial earthwork, and earthwork balance factors, Ocean Breeze Ranch Planning Areas, PA-1, PA-2, and PA-3, Bonsall, San Diego County, California, W.O. 6960-A-SC, dated June 16.

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APPENDIX B

EDR LABORATORY TEST RESULTS

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WORK ORDER NUMBER: 17-04-0932

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: GeoSoils, Inc.

Client Project Name: OBR

Attention: John Franklin
5741 Palmer Way
Carlsbad, CA 92010-7248

Approved for release on 04/20/2017 by:
Terri Chang
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: OBR
Work Order Number: 17-04-0932

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Work Order Narrative

Work Order: 17-04-0932 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 04/12/17. They were assigned to Work Order 17-04-0932.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	GeoSoils, Inc. 5741 Palmer Way Carlsbad, CA 92010-7248	Work Order:	17-04-0932
		Project Name:	OBR
		PO Number:	
		Date/Time Received:	04/12/17 18:45
		Number of Containers:	10
Attn:	John Franklin		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B-1@0.5'	17-04-0932-1	04/11/17 12:04	1	Solid
B-1@1'	17-04-0932-2	04/11/17 12:14	1	Solid
B-2@0.5'	17-04-0932-3	04/11/17 13:23	1	Solid
B-2@1'	17-04-0932-4	04/11/17 13:34	1	Solid
B-3@0.5'	17-04-0932-5	04/11/17 15:32	1	Solid
B-3@1'	17-04-0932-6	04/11/17 15:38	1	Solid
B-3@2'	17-04-0932-7	04/11/17 15:50	1	Solid
B-4@0.5'	17-04-0932-8	04/11/17 16:36	1	Solid
B-4@1'	17-04-0932-9	04/11/17 16:44	1	Solid
B-4@2'	17-04-0932-10	04/11/17 16:52	1	Solid

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/12/17
Work Order: 17-04-0932
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1@0.5'	**17-04-0932-1-A**	**04/11/17 12:04**	**Solid**	**ICP 7300**	**04/18/17**	**04/19/17 14:55**	**170418L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.789	1.05	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2@0.5'	**17-04-0932-3-A**	**04/11/17 13:23**	**Solid**	**ICP 7300**	**04/18/17**	**04/19/17 14:55**	**170418L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	1.07	0.769	1.03	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3@0.5'	**17-04-0932-5-A**	**04/11/17 15:32**	**Solid**	**ICP 7300**	**04/18/17**	**04/19/17 14:58**	**170418L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.739	0.985	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4@0.5'	**17-04-0932-8-A**	**04/11/17 16:36**	**Solid**	**ICP 7300**	**04/18/17**	**04/19/17 14:59**	**170418L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.746	0.995	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-24678**	**N/A**	**Solid**	**ICP 7300**	**04/18/17**	**04/19/17 14:47**	**170418L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.725	0.966	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/12/17
Work Order: 17-04-0932
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1@0.5'	**17-04-0932-1-A**	**04/11/17 12:04**	**Solid**	**GC 41**	**04/13/17**	**04/14/17 12:25**	**170413L04**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	79	24-168	
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/12/17
Work Order: 17-04-0932
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2@0.5'	**17-04-0932-3-A**	**04/11/17 13:23**	**Solid**	**GC 41**	**04/13/17**	**04/14/17 12:40**	**170413L04**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	417	24-168	2,7
2,4,5,6-Tetrachloro-m-Xylene	65	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/12/17
Work Order: 17-04-0932
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3@0.5'	**17-04-0932-5-A**	**04/11/17 15:32**	**Solid**	**GC 41**	**04/13/17**	**04/14/17 12:55**	**170413L04**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	84	24-168	
2,4,5,6-Tetrachloro-m-Xylene	68	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/12/17
Work Order: 17-04-0932
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4@0.5'	**17-04-0932-8-A**	**04/11/17 16:36**	**Solid**	**GC 41**	**04/13/17**	**04/14/17 13:10**	**170413L04**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	84	24-168	
2,4,5,6-Tetrachloro-m-Xylene	65	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/12/17
Work Order: 17-04-0932
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-537-2663**	**N/A**	**Solid**	**GC 41**	**04/13/17**	**04/14/17 11:10**	**170413L04**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	79	24-168	
2,4,5,6-Tetrachloro-m-Xylene	83	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.		Date Received:	04/12/17
5741 Palmer Way		Work Order:	17-04-0932
Carlsbad, CA 92010-7248		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: OBR			Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0915-3	**Sample**	**Solid**	**ICP 7300**	**04/18/17**	**04/19/17 15:10**	**170418S01**
17-04-0915-3	**Matrix Spike**	**Solid**	**ICP 7300**	**04/18/17**	**04/19/17 15:03**	**170418S01**
17-04-0915-3	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**04/18/17**	**04/19/17 15:04**	**170418S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	2.863	25.00	31.03	113	31.96	116	75-125	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.		Date Received:	04/12/17
5741 Palmer Way		Work Order:	17-04-0932
Carlsbad, CA 92010-7248		Preparation:	EPA 3545
		Method:	EPA 8081A
Project: OBR			Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-1@0.5'	**Sample**	**Solid**	**GC 41**	**04/13/17**	**04/14/17 12:25**	**170413S04**
B-1@0.5'	**Matrix Spike**	**Solid**	**GC 41**	**04/13/17**	**04/14/17 11:55**	**170413S04**
B-1@0.5'	**Matrix Spike Duplicate**	**Solid**	**GC 41**	**04/13/17**	**04/14/17 12:10**	**170413S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	25.00	21.89	88	19.40	78	50-135	12	0-25	
Alpha-BHC	ND	25.00	22.34	89	19.22	77	50-135	15	0-25	
Beta-BHC	ND	25.00	21.16	85	19.07	76	50-135	10	0-25	
4,4'-DDD	ND	25.00	22.31	89	21.19	85	50-135	5	0-25	
4,4'-DDE	ND	25.00	25.09	100	23.40	94	50-135	7	0-25	
4,4'-DDT	ND	25.00	22.12	88	21.30	85	50-135	4	0-25	
Delta-BHC	ND	25.00	22.08	88	19.97	80	50-135	10	0-25	
Dieldrin	ND	25.00	23.00	92	20.74	83	50-135	10	0-25	
Endosulfan I	ND	25.00	23.09	92	20.58	82	50-135	11	0-25	
Endosulfan II	ND	25.00	23.36	93	21.93	88	50-135	6	0-25	
Endosulfan Sulfate	ND	25.00	22.35	89	21.61	86	50-135	3	0-25	
Endrin	ND	25.00	23.20	93	21.04	84	50-135	10	0-25	
Endrin Aldehyde	ND	25.00	21.09	84	19.82	79	50-135	6	0-25	
Gamma-BHC	ND	25.00	22.48	90	19.44	78	50-135	15	0-25	
Heptachlor	ND	25.00	22.75	91	19.74	79	50-135	14	0-25	
Heptachlor Epoxide	ND	25.00	21.84	87	19.20	77	50-135	13	0-25	
Methoxychlor	ND	25.00	21.63	87	21.13	85	50-135	2	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS/PDSD

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/12/17
Work Order: 17-04-0932
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
17-04-0915-3	**Sample**	**Solid**	**ICP 7300**	**04/18/17 00:00**	**04/19/17 15:10**	**170418S01**
17-04-0915-3	**PDS**	**Solid**	**ICP 7300**	**04/18/17 00:00**	**04/19/17 15:05**	**170418S01**
17-04-0915-3	**PDSD**	**Solid**	**ICP 7300**	**04/18/17 00:00**	**04/19/17 15:06**	**170418S01**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	PDSD Conc.	PDSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	2.863	25.00	31.80	116	30.50	111	75-125	4	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

GeoSoils, Inc.		Date Received:	04/12/17
5741 Palmer Way		Work Order:	17-04-0932
Carlsbad, CA 92010-7248		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: OBR			Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-24678	**LCS**	**Solid**	**ICP 7300**	**04/18/17**	**04/19/17 14:48**	**170418L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Arsenic	25.00	24.19	97	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

GeoSoils, Inc.		Date Received:	04/12/17
5741 Palmer Way		Work Order:	17-04-0932
Carlsbad, CA 92010-7248		Preparation:	EPA 3545
		Method:	EPA 8081A
Project: OBR			Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-537-2663	**LCS**	**Solid**	**GC 41**	**04/13/17**	**04/14/17 10:55**	**170413L04**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Aldrin	25.00	22.79	91	50-135	36-149	
Alpha-BHC	25.00	24.94	100	50-135	36-149	
Beta-BHC	25.00	23.44	94	50-135	36-149	
4,4'-DDD	25.00	23.48	94	50-135	36-149	
4,4'-DDE	25.00	22.78	91	50-135	36-149	
4,4'-DDT	25.00	23.65	95	50-135	36-149	
Delta-BHC	25.00	23.86	95	50-135	36-149	
Dieldrin	25.00	25.35	101	50-135	36-149	
Endosulfan I	25.00	27.26	109	50-135	36-149	
Endosulfan II	25.00	26.12	104	50-135	36-149	
Endosulfan Sulfate	25.00	24.37	97	50-135	36-149	
Endrin	25.00	24.38	98	50-135	36-149	
Endrin Aldehyde	25.00	23.99	96	50-135	36-149	
Gamma-BHC	25.00	24.91	100	50-135	36-149	
Heptachlor	25.00	25.23	101	50-135	36-149	
Heptachlor Epoxide	25.00	24.30	97	50-135	36-149	
Methoxychlor	25.00	22.26	89	50-135	36-149	

Total number of LCS compounds: 17
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 17-04-0932 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 8081A	EPA 3545	944	GC 41	1

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Glossary of Terms and Qualifiers

Work Order: 17-04-0932 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **17-04-0932**

DATE: 4/11/17

PAGE: 1 OF 1

LABORATORY CLIENT: GEOSOILS, INC.

ADDRESS: 5741 PALMER WAY, SUITE D

CITY: CARLSBAD STATE: CA ZIP: 92010

TEL: 760-438-3155 E-MAIL: jfranklin@geosoilsinc.com

CLIENT PROJECT NAME / NUMBER: OBR

P.O. NO.: E6960.1

PROJECT CONTACT: John Franklin

SAMPLER(S): (PRINT) ATS (AUBREY TAYLOR SMITH)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081) OCP	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	Hold pending Initial Results	6010B - Arsenic		
1	B1 @ 5'	4/11/17	12:04 pm	SOIL	1													/						/		
2	B-1 @ 1'	4/11/17	12:14 pm	SOIL	1																			/		
3	B-2 @ 0.5'	4/11/17	13:23	SOIL	1													/						/		
4	B-2 @ 1'	4/11/17	13:34	SOIL	1																			/		
5	B-3 @ 0.5'	4/11/17	15:32	SOIL	1													/						/		
6	B-3 @ 1'	4/11/17	15:38	SOIL	1																			/		
7	B-3 @ 2'	4/11/17	15:58	SOIL	1																			/		
8	B-4 @ 0.5'	4/11/17	16:36	SOIL	1													/						/		
9	B-4 @ 1'	4/11/17	16:44	SOIL	1																			/		
10	B-4 @ 2'	4/11/17	16:52	SOIL	1																			/		

Relinquished by: (Signature) 4/11/17	Received by: (Signature/Affiliation) EC1	Date: 04/12/17	Time: 1315
Relinquished by: (Signature)	Received by: (Signature/Affiliation) EC1	Date: 04/12/17	Time: 1845
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

06/02/14 Revision

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WORK ORDER NUMBER: 17-04- 0132

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: GEOSOILS, INC

DATE: 04 / 12 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 3.1 °C (w/ CF): 3.1 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 671

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 671

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: lcy

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☑ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, Labeled/Checked by: 1013

s = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH Reviewed by: 681

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WORK ORDER NUMBER: 17-04-1170

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: GeoSoils, Inc.

Client Project Name: OBR

Attention: John Franklin
5741 Palmer Way
Carlsbad, CA 92010-7248

Approved for release on 04/26/2017 by:
Terri Chang
Project Manager

ResultLink

Email your PM

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Client Project Name: OBR
Work Order Number: 17-04-1170

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Work Order Narrative

Work Order: 17-04-1170 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 04/14/17. They were assigned to Work Order 17-04-1170.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	GeoSoils, Inc. 5741 Palmer Way Carlsbad, CA 92010-7248	Work Order:	17-04-1170
		Project Name:	OBR
		PO Number:	
		Date/Time Received:	04/14/17 18:45
		Number of Containers:	15
Attn:	John Franklin		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B-5@0.5'	17-04-1170-1	04/13/17 11:09	1	Solid
B-5@1'	17-04-1170-2	04/13/17 11:20	1	Solid
B-5@2'	17-04-1170-3	04/13/17 11:30	1	Solid
B-6@0.5'	17-04-1170-4	04/13/17 12:31	1	Solid
B-6@1'	17-04-1170-5	04/13/17 12:38	1	Solid
B-6@2'	17-04-1170-6	04/13/17 12:44	1	Solid
B-7@0.5'	17-04-1170-7	04/13/17 13:27	1	Solid
B-7@1'	17-04-1170-8	04/13/17 13:36	1	Solid
B-7@1.5'	17-04-1170-9	04/13/17 13:46	1	Solid
B-8@0.5'	17-04-1170-10	04/13/17 14:37	1	Solid
B-8@1'	17-04-1170-11	04/13/17 14:47	1	Solid
B-8@2'	17-04-1170-12	04/13/17 14:55	1	Solid
B-9@0.5'	17-04-1170-13	04/13/17 15:20	1	Solid
B-9@1'	17-04-1170-14	04/13/17 15:26	1	Solid
B-9@2'	17-04-1170-15	04/13/17 15:35	1	Solid

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/14/17
Work Order: 17-04-1170
Preparation: N/A
Method: EPA 418.1M
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-5@0.5'	**17-04-1170-1-A**	**04/13/17 11:09**	**Solid**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425L02**

Parameter	Result	RL	DF	Qualifiers
TRPH	ND	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-7@0.5'	**17-04-1170-7-A**	**04/13/17 13:27**	**Solid**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425L02**

Parameter	Result	RL	DF	Qualifiers
TRPH	ND	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-8@0.5'	**17-04-1170-10-A**	**04/13/17 14:37**	**Solid**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425L02**

Parameter	Result	RL	DF	Qualifiers
TRPH	ND	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-07-015-2224**	**N/A**	**Solid**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425L02**

Parameter	Result	RL	DF	Qualifiers
TRPH	ND	10	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/14/17
Work Order: 17-04-1170
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-5@0.5'	**17-04-1170-1-A**	**04/13/17 11:09**	**Solid**	**GC 46**	**04/18/17**	**04/18/17 23:22**	**170418B04**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	117	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/14/17
Work Order: 17-04-1170
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-7@0.5'	**17-04-1170-7-A**	**04/13/17 13:27**	**Solid**	**GC 46**	**04/18/17**	**04/18/17 23:43**	**170418B04**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	113	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/14/17
Work Order: 17-04-1170
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-8@0.5'	**17-04-1170-10-A**	**04/13/17 14:37**	**Solid**	**GC 46**	**04/18/17**	**04/19/17 00:04**	**170418B04**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	116	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/14/17
Work Order: 17-04-1170
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-490-2594**	**N/A**	**Solid**	**GC 46**	**04/18/17**	**04/18/17 15:47**	**170418B04**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	89	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/14/17
Work Order: 17-04-1170
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6@0.5'	**17-04-1170-4-A**	**04/13/17 12:31**	**Solid**	**ICP 7300**	**04/18/17**	**04/19/17 16:38**	**170418L09**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.743	0.990	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-9@0.5'	**17-04-1170-13-A**	**04/13/17 15:20**	**Solid**	**ICP 7300**	**04/18/17**	**04/19/17 16:39**	**170418L09**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.739	0.985	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-24676**	**N/A**	**Solid**	**ICP 7300**	**04/18/17**	**04/19/17 16:26**	**170418L09**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.732	0.976	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/14/17
Work Order: 17-04-1170
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6@0.5'	**17-04-1170-4-A**	**04/13/17 12:31**	**Solid**	**GC 51**	**04/17/17**	**04/18/17 14:07**	**170417L04**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	24-168	
2,4,5,6-Tetrachloro-m-Xylene	78	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/14/17
Work Order: 17-04-1170
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-9@0.5'	**17-04-1170-13-A**	**04/13/17 15:20**	**Solid**	**GC 51**	**04/17/17**	**04/18/17 14:22**	**170417L04**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	24-168	
2,4,5,6-Tetrachloro-m-Xylene	76	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Date Received: 04/14/17
Work Order: 17-04-1170
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: OBR

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-537-2664**	**N/A**	**Solid**	**GC 51**	**04/17/17**	**04/18/17 07:13**	**170417L04**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	79	24-168	
2,4,5,6-Tetrachloro-m-Xylene	80	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.		Date Received:	04/14/17
5741 Palmer Way		Work Order:	17-04-1170
Carlsbad, CA 92010-7248		Preparation:	N/A
		Method:	EPA 418.1M
Project: OBR			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0721-1	**Sample**	**Sediment**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425S02**
17-04-0721-1	**Matrix Spike**	**Sediment**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425S02**
17-04-0721-1	**Matrix Spike Duplicate**	**Sediment**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TRPH	179.5	100.0	302.9	123	353.7	174	55-135	15	0-30	3

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.		Date Received:	04/14/17
5741 Palmer Way		Work Order:	17-04-1170
Carlsbad, CA 92010-7248		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: OBR			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0935-1	**Sample**	**Sediment**	**GC 46**	**04/18/17**	**04/18/17 17:30**	**170418S04**
17-04-0935-1	**Matrix Spike**	**Sediment**	**GC 46**	**04/18/17**	**04/18/17 16:49**	**170418S04**
17-04-0935-1	**Matrix Spike Duplicate**	**Sediment**	**GC 46**	**04/18/17**	**04/18/17 17:10**	**170418S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	61.50	400.0	535.2	118	562.5	125	64-130	5	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.		Date Received:	04/14/17
5741 Palmer Way		Work Order:	17-04-1170
Carlsbad, CA 92010-7248		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: OBR			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-03-1903-17	**Sample**	**Concrete**	**ICP 7300**	**04/18/17**	**04/19/17 15:18**	**170418S09**
17-03-1903-17	**Matrix Spike**	**Concrete**	**ICP 7300**	**04/18/17**	**04/19/17 15:19**	**170418S09**
17-03-1903-17	**Matrix Spike Duplicate**	**Concrete**	**ICP 7300**	**04/18/17**	**04/19/17 15:20**	**170418S09**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	9.642	25.00	38.54	116	35.00	101	75-125	10	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.		Date Received:	04/14/17
5741 Palmer Way		Work Order:	17-04-1170
Carlsbad, CA 92010-7248		Preparation:	EPA 3545
		Method:	EPA 8081A
Project: OBR			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1140-7	**Sample**	**Solid**	**GC 51**	**04/17/17**	**04/18/17 08:53**	**170417S04**
17-04-1140-7	**Matrix Spike**	**Solid**	**GC 51**	**04/17/17**	**04/18/17 07:27**	**170417S04**
17-04-1140-7	**Matrix Spike Duplicate**	**Solid**	**GC 51**	**04/17/17**	**04/18/17 07:42**	**170417S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	25.00	17.21	69	17.36	69	50-135	1	0-25	
Alpha-BHC	ND	25.00	17.54	70	17.20	69	50-135	2	0-25	
Beta-BHC	ND	25.00	16.37	65	17.09	68	50-135	4	0-25	
4,4'-DDD	ND	25.00	18.38	74	20.68	83	50-135	12	0-25	
4,4'-DDE	ND	25.00	18.38	74	19.91	80	50-135	8	0-25	
4,4'-DDT	ND	25.00	19.05	76	20.83	83	50-135	9	0-25	
Delta-BHC	ND	25.00	17.51	70	18.52	74	50-135	6	0-25	
Dieldrin	ND	25.00	17.28	69	18.70	75	50-135	8	0-25	
Endosulfan I	ND	25.00	16.97	68	17.93	72	50-135	5	0-25	
Endosulfan II	ND	25.00	18.09	72	20.15	81	50-135	11	0-25	
Endosulfan Sulfate	ND	25.00	17.77	71	19.80	79	50-135	11	0-25	
Endrin	ND	25.00	18.16	73	19.92	80	50-135	9	0-25	
Endrin Aldehyde	ND	25.00	18.21	73	20.50	82	50-135	12	0-25	
Gamma-BHC	ND	25.00	17.69	71	17.46	70	50-135	1	0-25	
Heptachlor	ND	25.00	18.06	72	18.08	72	50-135	0	0-25	
Heptachlor Epoxide	ND	25.00	16.41	66	17.47	70	50-135	6	0-25	
Methoxychlor	ND	25.00	19.17	77	21.41	86	50-135	11	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS/PDSD

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/14/17
Work Order: 17-04-1170
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
17-03-1903-17	**Sample**	**Concrete**	**ICP 7300**	**04/18/17 00:00**	**04/19/17 15:18**	**170418S09**
17-03-1903-17	**PDS**	**Concrete**	**ICP 7300**	**04/18/17 00:00**	**04/19/17 15:21**	**170418S09**
17-03-1903-17	**PDSD**	**Concrete**	**ICP 7300**	**04/18/17 00:00**	**04/19/17 15:21**	**170418S09**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	PDSD Conc.	PDSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	9.642	25.00	36.09	106	37.36	111	75-125	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/14/17
Work Order: 17-04-1170
Preparation: N/A
Method: EPA 418.1M

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-015-2224	**LCS**	**Solid**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425L02**
099-07-015-2224	**LCSD**	**Solid**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425L02**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TRPH	100.0	110.3	110	111.6	112	70-130	1	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/14/17
Work Order: 17-04-1170
Preparation: EPA 3550B
Method: EPA 8015B (M)
Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-490-2594	**LCS**	**Solid**	**GC 46**	**04/18/17**	**04/18/17 16:07**	**170418B04**
099-15-490-2594	**LCSD**	**Solid**	**GC 46**	**04/18/17**	**04/18/17 20:58**	**170418B04**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	400.0	461.1	115	441.0	110	75-123	4	0-12	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

GeoSoils, Inc.		Date Received:	04/14/17
5741 Palmer Way		Work Order:	17-04-1170
Carlsbad, CA 92010-7248		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: OBR			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-24676	**LCS**	**Solid**	**ICP 7300**	**04/18/17**	**04/19/17 14:50**	**170418L09**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Arsenic	25.00	22.67	91	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/14/17
Work Order: 17-04-1170
Preparation: EPA 3545
Method: EPA 8081A

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-537-2664	**LCS**	**Solid**	**GC 51**	**04/17/17**	**04/18/17 12:42**	**170417L04**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Aldrin	25.00	23.97	96	50-135	36-149	
Alpha-BHC	25.00	25.33	101	50-135	36-149	
Beta-BHC	25.00	24.23	97	50-135	36-149	
4,4'-DDD	25.00	28.03	112	50-135	36-149	
4,4'-DDE	25.00	27.98	112	50-135	36-149	
4,4'-DDT	25.00	29.82	119	50-135	36-149	
Delta-BHC	25.00	26.34	105	50-135	36-149	
Dieldrin	25.00	27.24	109	50-135	36-149	
Endosulfan I	25.00	26.79	107	50-135	36-149	
Endosulfan II	25.00	28.38	114	50-135	36-149	
Endosulfan Sulfate	25.00	27.15	109	50-135	36-149	
Endrin	25.00	25.83	103	50-135	36-149	
Endrin Aldehyde	25.00	28.65	115	50-135	36-149	
Gamma-BHC	25.00	25.83	103	50-135	36-149	
Heptachlor	25.00	26.25	105	50-135	36-149	
Heptachlor Epoxide	25.00	25.83	103	50-135	36-149	
Methoxychlor	25.00	27.87	111	50-135	36-149	

Total number of LCS compounds: 17
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 17-04-1170 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 418.1M	N/A	605	IR 2	1
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 8015B (M)	EPA 3550B	972	GC 46	1
EPA 8081A	EPA 3545	669	GC 51	1

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Glossary of Terms and Qualifiers

Work Order: 17-04-1170 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **17-04-1170**

DATE: 4/13/17

PAGE: 1 OF 2

LABORATORY CLIENT: GEOSOILS, INC.

ADDRESS: 5741 PALMER WAY, SUITE D

CITY: CARLSBAD STATE: CA ZIP: 92010

TEL: 760-438-3155 E-MAIL: JFRANKLIN@GEOSOILSINC.COM

CLIENT PROJECT NAME / NUMBER: OBR

P.O. NO.: E6960.1

PROJECT CONTACT: JOHN FRANKLIN

SAMPLER(S): (PRINT) AUBREY TAYLOR SMITH (ATS)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☒ C6-C44	TPH TRPH EPA 418.1	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	HOLD PENDING INITIAL RESULTS	6010B - ARSENIC		
X	B-5 @ 0.5'	4/13/17	11:09 am	SOIL	1						/	/											/			
2	B-5 @ 1'		11:20 am		1																		/			
3	B-5 @ 2'		11:30 am		1																		/			
4	B-6 @ 0.5		12:31 pm		1													/						/		
5	B-6 @ 1'		12:38 pm		1																		/			
6	B-6 @ 2'		12:44 pm		1																		/			
7	B-7 @ 0.5'		13:27		1						/	/														
8	B-7 @ 1'		13:36		1																		/			
9	B-7 @ 1.5'		13:46		1																		/			
10	B-8 @ 0-5'	↓	14:37	↓	1						/	/														

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
4/13/17	ECI	04/14/17	1230
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
	ECI	041417	1845.
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

06/02/14 Revision

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 17-04-1170

DATE: 4/13/17

PAGE: 2 OF 2

LABORATORY CLIENT: GEOSOILS, INC.

ADDRESS: 5741 PALMER WAY, SUITE D

CITY: CARLSBAD STATE: CA ZIP: 92010

TEL: 760-438-3155 E-MAIL: JFRANKLIN@GEOSOILSINC.COM

CLIENT PROJECT NAME / NUMBER: OBR

P.O. NO.: E6960.1

PROJECT CONTACT: JOHN FRANKLIN

SAMPLER(S): (PRINT) AUBREY TAYLOR SMITH (ATS)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH TRPH EPA 418.1	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	HOLD PENDING INITIAL RESULTS	6010B - ARSENIC		
11	B-8 @ 1'	4/13/17	14:47	SOIL	1													/					/			
12	B-8 @ 2'		14:55		1													/					/			
13	B-9 @ 0.5'		15:20		1													/						/		
14	B-9 @ 1'		15:26		1																		/			
15	B-9 @ 2'		15:35		1																		/			

Relinquished by: (Signature)	4/13/17	Received by: (Signature/Affiliation) ECI	Date: 041417 / Time: 1230
Relinquished by: (Signature)		Received by: (Signature/Affiliation) ECI	Date: 041417 / Time: 1845
Relinquished by: (Signature)		Received by: (Signature/Affiliation)	Date: / Time:

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WORK ORDER NUMBER: 17-04- 1170

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: GEOSOILS, INC

DATE: 04 / 14 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 3.2 °C (w/ CF): 3.2 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 671

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 671

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1017

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna_2 ☐ 100PJ ☐ 100PJna_2 ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB

☐ 125PBznna ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 250PB ☐ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☐ 500PB ☐ 1AGB ☐ 1AGBna_2 ☐ 1AGBs ☐ 1PB ☐ 1PBna ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☑ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na_2** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1017

Reviewed by: 681

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Supplemental Report 1

Additional requested analyses have been added to the original report.

WORK ORDER NUMBER: 17-04-1456

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: GeoSoils, Inc.

Client Project Name: OBR

Attention: John Franklin
5741 Palmer Way
Carlsbad, CA 92010-7248

Approved for release on 05/03/2017 by:
Terri Chang
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: OBR
Work Order Number: 17-04-1456

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Work Order Narrative

Work Order: 17-04-1456 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 04/19/17. They were assigned to Work Order 17-04-1456.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	GeoSoils, Inc. 5741 Palmer Way Carlsbad, CA 92010-7248	Work Order:	17-04-1456
		Project Name:	OBR
		PO Number:	
		Date/Time Received:	04/19/17 19:30
		Number of Containers:	15
Attn:	John Franklin		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B-10@0.5'	17-04-1456-1	04/18/17 09:57	1	Solid
B-10@1'	17-04-1456-2	04/18/17 10:15	1	Solid
B-10@2'	17-04-1456-3	04/18/17 10:24	1	Solid
B-11@0.5'	17-04-1456-4	04/18/17 12:35	1	Solid
B-11@1'	17-04-1456-5	04/18/17 12:46	1	Solid
B-11@2'	17-04-1456-6	04/18/17 13:02	1	Solid
B-12@0.5'	17-04-1456-7	04/18/17 13:40	1	Solid
B-12@1'	17-04-1456-8	04/18/17 13:48	1	Solid
B-12@2'	17-04-1456-9	04/18/17 13:56	1	Solid
B-13@0.5'	17-04-1456-10	04/18/17 14:53	1	Solid
B-13@1.5'	17-04-1456-11	04/18/17 15:08	1	Solid
B-14@0.5'	17-04-1456-12	04/18/17 15:57	1	Solid
B-14@1'	17-04-1456-13	04/18/17 16:05	1	Solid
B-14@2'	17-04-1456-14	04/18/17 16:13	1	Solid
B-13@1'	17-04-1456-15	04/18/17 15:01	1	Solid

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/19/17
Work Order: 17-04-1456
Preparation: N/A
Method: EPA 418.1M
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-10@0.5'	**17-04-1456-1-A**	**04/18/17 09:57**	**Solid**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425L02**

Parameter	Result	RL	DF	Qualifiers
TRPH	ND	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-13@0.5'	**17-04-1456-10-A**	**04/18/17 14:53**	**Solid**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425L02**

Parameter	Result	RL	DF	Qualifiers
TRPH	210	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-13@1.5'	**17-04-1456-11-A**	**04/18/17 15:08**	**Solid**	**IR 2**	**05/03/17**	**05/03/17 10:19**	**170503L01**

Parameter	Result	RL	DF	Qualifiers
TRPH	61	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-14@0.5'	**17-04-1456-12-A**	**04/18/17 15:57**	**Solid**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425L02**

Parameter	Result	RL	DF	Qualifiers
TRPH	ND	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-07-015-2224**	**N/A**	**Solid**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425L02**

Parameter	Result	RL	DF	Qualifiers
TRPH	ND	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-07-015-2226**	**N/A**	**Solid**	**IR 2**	**05/03/17**	**05/03/17 10:19**	**170503L01**

Parameter	Result	RL	DF	Qualifiers
TRPH	ND	10	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/19/17
Work Order: 17-04-1456
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-10@0.5'	**17-04-1456-1-A**	**04/18/17 09:57**	**Solid**	**GC 48**	**04/25/17**	**04/26/17 13:16**	**170425B07**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	111	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/19/17
Work Order: 17-04-1456
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-13@0.5'	**17-04-1456-10-A**	**04/18/17 14:53**	**Solid**	**GC 48**	**04/25/17**	**04/25/17 18:08**	**170425B07**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	14	5.0	1.00	
C25-C28	31	5.0	1.00	
C29-C32	32	5.0	1.00	
C33-C36	23	5.0	1.00	
C37-C40	7.7	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	120	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	113	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/19/17
Work Order: 17-04-1456
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-13@1.5'	**17-04-1456-11-A**	**04/18/17 15:08**	**Solid**	**GC 47**	**04/28/17**	**05/01/17 13:33**	**170428B14A**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	9.2	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	106	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/19/17
Work Order: 17-04-1456
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-14@0.5'	**17-04-1456-12-A**	**04/18/17 15:57**	**Solid**	**GC 48**	**04/25/17**	**04/26/17 13:36**	**170425B07**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	109	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/19/17
Work Order: 17-04-1456
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-490-2605**	**N/A**	**Solid**	**GC 48**	**04/25/17**	**04/25/17 16:23**	**170425B07**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	108	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/19/17
Work Order: 17-04-1456
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-490-2612**	**N/A**	**Solid**	**GC 47**	**04/28/17**	**04/30/17 07:38**	**170428B14A**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	90	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/19/17
Work Order: 17-04-1456
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-11@0.5'	**17-04-1456-4-A**	**04/18/17 12:35**	**Solid**	**ICP 7300**	**04/22/17**	**04/25/17 13:14**	**170422L03**

Parameter	Result	RL	DF	Qualifiers
Arsenic	1.16	0.739	0.985	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-12@0.5'	**17-04-1456-7-A**	**04/18/17 13:40**	**Solid**	**ICP 7300**	**04/22/17**	**04/25/17 13:15**	**170422L03**

Parameter	Result	RL	DF	Qualifiers
Arsenic	1.59	0.739	0.985	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-24732**	**N/A**	**Solid**	**ICP 7300**	**04/22/17**	**04/25/17 11:52**	**170422L03**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.735	0.980	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/19/17
Work Order: 17-04-1456
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-11@0.5'	**17-04-1456-4-A**	**04/18/17 12:35**	**Solid**	**GC 44**	**04/20/17**	**04/24/17 06:13**	**170420L09**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	114	24-168	
2,4,5,6-Tetrachloro-m-Xylene	70	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Date Received: 04/19/17
Work Order: 17-04-1456
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: OBR

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-12@0.5'	**17-04-1456-7-A**	**04/18/17 13:40**	**Solid**	**GC 44**	**04/20/17**	**04/24/17 06:27**	**170420L09**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	144	24-168	
2,4,5,6-Tetrachloro-m-Xylene	119	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Date Received: 04/19/17
Work Order: 17-04-1456
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Project: OBR

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-537-2675**	**N/A**	**Solid**	**GC 44**	**04/20/17**	**04/22/17 11:54**	**170420L09**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	84	24-168	
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.		Date Received:	04/19/17
5741 Palmer Way		Work Order:	17-04-1456
Carlsbad, CA 92010-7248		Preparation:	N/A
		Method:	EPA 418.1M
Project: OBR			Page 1 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0721-1	**Sample**	**Sediment**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425S02**
17-04-0721-1	**Matrix Spike**	**Sediment**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425S02**
17-04-0721-1	**Matrix Spike Duplicate**	**Sediment**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TRPH	179.5	100.0	302.9	123	353.7	174	55-135	15	0-30	3

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.		Date Received:	04/19/17
5741 Palmer Way		Work Order:	17-04-1456
Carlsbad, CA 92010-7248		Preparation:	N/A
		Method:	EPA 418.1M
Project: OBR			Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-13@1.5'	**Sample**	**Solid**	**IR 2**	**05/03/17**	**05/03/17 10:19**	**170503S01**
B-13@1.5'	**Matrix Spike**	**Solid**	**IR 2**	**05/03/17**	**05/03/17 10:19**	**170503S01**
B-13@1.5'	**Matrix Spike Duplicate**	**Solid**	**IR 2**	**05/03/17**	**05/03/17 10:19**	**170503S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TRPH	60.66	100.0	191.5	131	201.3	141	55-135	5	0-30	3

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.		Date Received:	04/19/17
5741 Palmer Way		Work Order:	17-04-1456
Carlsbad, CA 92010-7248		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: OBR			Page 3 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1694-1	**Sample**	**Solid**	**GC 47**	**04/28/17**	**04/30/17 09:01**	**170428S14**
17-04-1694-1	**Matrix Spike**	**Solid**	**GC 47**	**04/28/17**	**04/30/17 08:20**	**170428S14**
17-04-1694-1	**Matrix Spike Duplicate**	**Solid**	**GC 47**	**04/28/17**	**04/30/17 08:41**	**170428S14**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	386.4	97	372.4	93	64-130	4	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.		Date Received:	04/19/17
5741 Palmer Way		Work Order:	17-04-1456
Carlsbad, CA 92010-7248		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: OBR			Page 4 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-13@0.5'	**Sample**	**Solid**	**GC 48**	**04/25/17**	**04/25/17 18:08**	**170425S07**
B-13@0.5'	**Matrix Spike**	**Solid**	**GC 48**	**04/25/17**	**04/25/17 17:26**	**170425S07**
B-13@0.5'	**Matrix Spike Duplicate**	**Solid**	**GC 48**	**04/25/17**	**04/25/17 17:48**	**170425S07**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	115.8	400.0	454.9	85	433.2	79	64-130	5	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.		Date Received:	04/19/17
5741 Palmer Way		Work Order:	17-04-1456
Carlsbad, CA 92010-7248		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: OBR			Page 5 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1371-1	**Sample**	**Solid**	**ICP 7300**	**04/22/17**	**04/25/17 12:37**	**170422S03**
17-04-1371-1	**Matrix Spike**	**Solid**	**ICP 7300**	**04/22/17**	**04/25/17 12:37**	**170422S03**
17-04-1371-1	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**04/22/17**	**04/25/17 12:41**	**170422S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	1.241	25.00	26.57	101	25.38	97	75-125	5	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.		Date Received:	04/19/17
5741 Palmer Way		Work Order:	17-04-1456
Carlsbad, CA 92010-7248		Preparation:	EPA 3545
		Method:	EPA 8081A
Project: OBR			Page 6 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1443-1	**Sample**	**Solid**	**GC 44**	**04/20/17**	**04/22/17 12:22**	**170420S09**
17-04-1443-1	**Matrix Spike**	**Solid**	**GC 44**	**04/20/17**	**04/22/17 13:19**	**170420S09**
17-04-1443-1	**Matrix Spike Duplicate**	**Solid**	**GC 44**	**04/20/17**	**04/22/17 13:33**	**170420S09**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	25.00	22.98	92	23.94	96	50-135	4	0-25	
Alpha-BHC	ND	25.00	23.02	92	23.90	96	50-135	4	0-25	
Beta-BHC	ND	25.00	23.72	95	24.59	98	50-135	4	0-25	
4,4'-DDD	ND	25.00	28.56	114	29.60	118	50-135	4	0-25	
4,4'-DDE	ND	25.00	26.85	107	27.95	112	50-135	4	0-25	
4,4'-DDT	ND	25.00	28.73	115	29.82	119	50-135	4	0-25	
Delta-BHC	ND	25.00	25.56	102	26.52	106	50-135	4	0-25	
Dieldrin	ND	25.00	25.62	102	26.66	107	50-135	4	0-25	
Endosulfan I	ND	25.00	25.40	102	26.46	106	50-135	4	0-25	
Endosulfan II	ND	25.00	28.04	112	29.12	116	50-135	4	0-25	
Endosulfan Sulfate	ND	25.00	28.34	113	29.30	117	50-135	3	0-25	
Endrin	ND	25.00	27.32	109	28.42	114	50-135	4	0-25	
Endrin Aldehyde	ND	25.00	27.38	110	28.28	113	50-135	3	0-25	
Gamma-BHC	ND	25.00	23.70	95	24.60	98	50-135	4	0-25	
Heptachlor	ND	25.00	23.30	93	24.29	97	50-135	4	0-25	
Heptachlor Epoxide	ND	25.00	23.40	94	24.39	98	50-135	4	0-25	
Methoxychlor	ND	25.00	28.48	114	29.42	118	50-135	3	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 04/19/17
Work Order: 17-04-1456
Preparation: N/A
Method: EPA 418.1M

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-015-2224	**LCS**	**Solid**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425L02**
099-07-015-2224	**LCSD**	**Solid**	**IR 2**	**04/25/17**	**04/25/17 12:10**	**170425L02**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TRPH	100.0	110.3	110	111.6	112	70-130	1	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

GeoSoils, Inc.		Date Received:	04/19/17
5741 Palmer Way		Work Order:	17-04-1456
Carlsbad, CA 92010-7248		Preparation:	N/A
		Method:	EPA 418.1M
Project: OBR			Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-07-015-2226	**LCS**	**Solid**	**IR 2**	**05/03/17**	**05/03/17 10:19**	**170503L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TRPH	100.0	111.7	112	70-130	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

GeoSoils, Inc.		Date Received:	04/19/17
5741 Palmer Way		Work Order:	17-04-1456
Carlsbad, CA 92010-7248		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: OBR			Page 3 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-2612	**LCS**	**Solid**	**GC 47**	**04/28/17**	**04/30/17 07:59**	**170428B14A**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	377.0	94	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

GeoSoils, Inc.		Date Received:	04/19/17
5741 Palmer Way		Work Order:	17-04-1456
Carlsbad, CA 92010-7248		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: OBR			Page 4 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-2605	**LCS**	**Solid**	**GC 48**	**04/25/17**	**04/25/17 16:44**	**170425B07**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	354.2	89	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

GeoSoils, Inc.		Date Received:	04/19/17
5741 Palmer Way		Work Order:	17-04-1456
Carlsbad, CA 92010-7248		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: OBR			Page 5 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-24732	**LCS**	**Solid**	**ICP 7300**	**04/22/17**	**04/25/17 11:53**	**170422L03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Arsenic	25.00	25.74	103	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

GeoSoils, Inc.		Date Received:	04/19/17
5741 Palmer Way		Work Order:	17-04-1456
Carlsbad, CA 92010-7248		Preparation:	EPA 3545
		Method:	EPA 8081A
Project: OBR			Page 6 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-537-2675	**LCS**	**Solid**	**GC 44**	**04/20/17**	**04/22/17 12:08**	**170420L09**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Aldrin	25.00	25.68	103	50-135	36-149	
Alpha-BHC	25.00	26.44	106	50-135	36-149	
Beta-BHC	25.00	26.45	106	50-135	36-149	
4,4'-DDD	25.00	28.28	113	50-135	36-149	
4,4'-DDE	25.00	27.17	109	50-135	36-149	
4,4'-DDT	25.00	28.64	115	50-135	36-149	
Delta-BHC	25.00	27.14	109	50-135	36-149	
Dieldrin	25.00	27.10	108	50-135	36-149	
Endosulfan I	25.00	27.02	108	50-135	36-149	
Endosulfan II	25.00	28.50	114	50-135	36-149	
Endosulfan Sulfate	25.00	27.53	110	50-135	36-149	
Endrin	25.00	28.58	114	50-135	36-149	
Endrin Aldehyde	25.00	23.57	94	50-135	36-149	
Gamma-BHC	25.00	26.71	107	50-135	36-149	
Heptachlor	25.00	26.95	108	50-135	36-149	
Heptachlor Epoxide	25.00	25.21	101	50-135	36-149	
Methoxychlor	25.00	27.98	112	50-135	36-149	

Total number of LCS compounds: 17
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 17-04-1456 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 418.1M	N/A	605	IR 2	1
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 8015B (M)	EPA 3550B	972	GC 47	1
EPA 8015B (M)	EPA 3550B	972	GC 48	1
EPA 8081A	EPA 3545	944	GC 44	1

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Glossary of Terms and Qualifiers

Work Order: 17-04-1456 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **17-04-1456**

DATE: 4/18/17

PAGE: 1 OF 2

LABORATORY CLIENT: GEOSOILS, INC.

ADDRESS: 5741 PALMER WAY, SUITE D

CITY: CARLSBAD STATE: CA ZIP: 92010

TEL: 760-438-3155 E-MAIL: JFRANKLIN@GEOSOILSINC.COM

CLIENT PROJECT NAME / NUMBER: OBR

P.O. NO.: E6960.1

PROJECT CONTACT: JOHN FRANKLIN

SAMPLER(S): (PRINT) AUBREY TAYLOR SMITH (ATS)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☒ C6-C44	TPH Trpt EPA 418.1	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	HOLD PENDING INITIAL RESULTS	6010B - ARSENIC		
1	B10@0.5'	4/18/17	9:57	SOIL	1						/	/														
2	B-10@1'		10:15	SOIL	1																		/			
3	B-10@2		10:24	SOIL	1																		/			
4	B-11@0.5'		12:35	SOIL	1													/					/	/		
5	B-11@1'		12:46	SOIL	1																		/	/		
6	B-11@2'		13:02	SOIL	1																		/			
7	B-12@0.5'		13:40	SOIL	1													/						/		
8	B-12@1'		13:48	SOIL	1																		/			
9	B-12@2		13:56	SOIL	1																		/			
10	B-13@0.5'		14:53	SOIL	1						/	/														

Relinquished by: (Signature) 4/18/17	Received by: (Signature/Affiliation) ECL	Date: 04/19/17	Time: 12 20
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 4/19/17	Time: 1930
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 17-04-1456

DATE: 4/18/17

PAGE: 2 OF 2

LABORATORY CLIENT: GEOSOILS, INC.

ADDRESS: 5741 PALMER WAY, SUITE D

CITY: CARLSBAD STATE: CA ZIP: 92010

TEL: 760-438-3155 E-MAIL: JFRANKLIN@GEOSOILSINC.COM

CLIENT PROJECT NAME / NUMBER: OBR

P.O. NO.: E6960.1

PROJECT CONTACT: JOHN FRANKLIN

SAMPLER(S): (PRINT) AUBREY TAYLOR SMITH (CATS)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☒ C6-C44	TPH TRPH EPA 418.1	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	HOLD PENDING INITIAL RESULTS			
11	B-13 @ 1.5'	4/18/17	15:08	SOIL	1																		/			
12	B-14 @ 0.5'	"	15:57	SOIL	1						/	/														
13	B-14 @ 1'		16:05	SOIL	1																		/			
14	B-14 @ 2'	↓	16:13	SOIL	1																		/			
15	B-13 @ 1'	4/18/17	15:01	SOIL	1																		/			

Relinquished by: (Signature) 4/18/17	Received by: (Signature/Affiliation) EA	Date: 04/19/17	Time: 1220
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 4/19/17	Time: 1930
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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WORK ORDER NUMBER: 17-04- 1456

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: GEOSOILS, INC

DATE: 04 / 19 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 3.2 °C (w/ CF): 3.2 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 671

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 671

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1110

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☑ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1110

Reviewed by: 681

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Terri Chang

From: John Franklin <jfranklin@geosoilsinc.com>
Sent: Thursday, April 27, 2017 4:30 PM
To: Terri Chang
Subject: Re: OBR / ECI 17-04-1456 Report

Terri,

Please run EPA 418.1 and 8015B on sample B-13 @ 1.5'.

Thank you,

John

John P. Franklin
President

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, California 92010
T: (760) 438-3155
F: (760) 931-0915 fax
www.geosoilsinc.com

On 4/27/2017 3:49 PM, Terri Chang wrote:

> John - please advise if you need any additional testing for this batch. FYI, the extraction holding time for Pesticides and TPH analyses will expire on 5/2.
>
> Thank you.
> Terri
>
> eurofins | Calscience
>
> Terri Chang
> Project Manager
>
> Eurofins Calscience
> 7440 Lincoln Way
> Garden Grove, CA 92841
> USA
> P: +1 714-895-5494
> F: +1 714-894-7501

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WORK ORDER NUMBER: 17-05-0154

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: GeoSoils, Inc.

Client Project Name: OBR

Attention: John Franklin
5741 Palmer Way
Carlsbad, CA 92010-7248

Approved for release on 05/09/2017 by:
Terri Chang
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: OBR
Work Order Number: 17-05-0154

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Work Order Narrative

Work Order: 17-05-0154 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 05/02/17. They were assigned to Work Order 17-05-0154.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	GeoSoils, Inc. 5741 Palmer Way Carlsbad, CA 92010-7248	Work Order:	17-05-0154
		Project Name:	OBR
		PO Number:	
		Date/Time Received:	05/02/17 16:45
		Number of Containers:	11
Attn:	John Franklin		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B-15@0.5'	17-05-0154-1	05/01/17 11:17	1	Solid
B-15@1.0'	17-05-0154-2	05/01/17 11:30	1	Solid
B-15@2'	17-05-0154-3	05/01/17 11:38	1	Solid
B-16@0.5'	17-05-0154-4	05/01/17 11:58	1	Solid
B-16@1'	17-05-0154-5	05/01/17 12:07	1	Solid
B-16@1.5'	17-05-0154-6	05/01/17 12:17	1	Solid
B-17@0.5'	17-05-0154-7	05/01/17 12:57	1	Solid
B-17@1'	17-05-0154-8	05/01/17 13:04	1	Solid
B-18@0.5'	17-05-0154-9	05/01/17 13:31	1	Solid
B-18@1'	17-05-0154-10	05/01/17 13:38	1	Solid
B-18@1.5'	17-05-0154-11	05/01/17 13:45	1	Solid

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 05/02/17
Work Order: 17-05-0154
Preparation: N/A
Method: EPA 418.1M
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-15@0.5'	**17-05-0154-1-A**	**05/01/17 11:17**	**Solid**	**IR 2**	**05/03/17**	**05/03/17 10:19**	**170503L01**

Parameter	Result	RL	DF	Qualifiers
TRPH	ND	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-16@0.5'	**17-05-0154-4-A**	**05/01/17 11:58**	**Solid**	**IR 2**	**05/03/17**	**05/03/17 10:19**	**170503L01**

Parameter	Result	RL	DF	Qualifiers
TRPH	43	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-07-015-2227**	**N/A**	**Solid**	**IR 2**	**05/03/17**	**05/03/17 10:19**	**170503L01**

Parameter	Result	RL	DF	Qualifiers
TRPH	ND	10	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 05/02/17
Work Order: 17-05-0154
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-15@0.5'	**17-05-0154-1-A**	**05/01/17 11:17**	**Solid**	**GC 47**	**05/03/17**	**05/03/17 22:29**	**170503B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	85	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 05/02/17
Work Order: 17-05-0154
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-16@0.5'	**17-05-0154-4-A**	**05/01/17 11:58**	**Solid**	**GC 47**	**05/03/17**	**05/03/17 22:50**	**170503B01**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	9.3	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	98	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 05/02/17
Work Order: 17-05-0154
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-490-2620**	**N/A**	**Solid**	**GC 47**	**05/03/17**	**05/03/17 17:38**	**170503B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	108	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 05/02/17
Work Order: 17-05-0154
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-17@0.5'	**17-05-0154-7-A**	**05/01/17 12:57**	**Solid**	**ICP 7300**	**05/03/17**	**05/04/17 12:36**	**170503L02**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.789	1.05	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-18@0.5'	**17-05-0154-9-A**	**05/01/17 13:31**	**Solid**	**ICP 7300**	**05/03/17**	**05/04/17 12:38**	**170503L02**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.739	0.985	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-24801**	**N/A**	**Solid**	**ICP 7300**	**05/03/17**	**05/03/17 17:31**	**170503L02**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.732	0.976	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 05/02/17
Work Order: 17-05-0154
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-17@0.5'	**17-05-0154-7-A**	**05/01/17 12:57**	**Solid**	**GC 51**	**05/03/17**	**05/06/17 11:22**	**170503L08**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	73	24-168	
2,4,5,6-Tetrachloro-m-Xylene	54	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 05/02/17
Work Order: 17-05-0154
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-18@0.5'	**17-05-0154-9-A**	**05/01/17 13:31**	**Solid**	**GC 51**	**05/03/17**	**05/06/17 11:36**	**170503L08**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	76	24-168	
2,4,5,6-Tetrachloro-m-Xylene	51	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 05/02/17
Work Order: 17-05-0154
Preparation: EPA 3545
Method: EPA 8081A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-537-2685**	**N/A**	**Solid**	**GC 51**	**05/03/17**	**05/06/17 09:28**	**170503L08**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	67	24-168	
2,4,5,6-Tetrachloro-m-Xylene	63	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.		Date Received:	05/02/17
5741 Palmer Way		Work Order:	17-05-0154
Carlsbad, CA 92010-7248		Preparation:	N/A
		Method:	EPA 418.1M
Project: OBR			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1456-11	**Sample**	**Solid**	**IR 2**	**05/03/17**	**05/03/17 10:19**	**170503S01**
17-04-1456-11	**Matrix Spike**	**Solid**	**IR 2**	**05/03/17**	**05/03/17 10:19**	**170503S01**
17-04-1456-11	**Matrix Spike Duplicate**	**Solid**	**IR 2**	**05/03/17**	**05/03/17 10:19**	**170503S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TRPH	60.66	100.0	191.5	131	201.3	141	55-135	5	0-30	3

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.		Date Received:	05/02/17
5741 Palmer Way		Work Order:	17-05-0154
Carlsbad, CA 92010-7248		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: OBR			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-05-0171-5	**Sample**	**Solid**	**GC 47**	**05/03/17**	**05/03/17 20:24**	**170503S01**
17-05-0171-5	**Matrix Spike**	**Solid**	**GC 47**	**05/03/17**	**05/03/17 18:20**	**170503S01**
17-05-0171-5	**Matrix Spike Duplicate**	**Solid**	**GC 47**	**05/03/17**	**05/03/17 18:40**	**170503S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	9.921	400.0	380.3	93	412.5	101	64-130	8	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.		Date Received:	05/02/17
5741 Palmer Way		Work Order:	17-05-0154
Carlsbad, CA 92010-7248		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: OBR			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-05-0149-1	**Sample**	**Solid**	**ICP 7300**	**05/03/17**	**05/03/17 17:33**	**170503S02**
17-05-0149-1	**Matrix Spike**	**Solid**	**ICP 7300**	**05/03/17**	**05/03/17 17:34**	**170503S02**
17-05-0149-1	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**05/03/17**	**05/03/17 17:34**	**170503S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	2.671	25.00	35.17	130	31.16	114	75-125	12	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

GeoSoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010-7248

Project: OBR

Date Received: 05/02/17
Work Order: 17-05-0154
Preparation: EPA 3545
Method: EPA 8081A

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-05-0120-5	**Sample**	**Solid**	**GC 51**	**05/03/17**	**05/06/17 12:33**	**170803S08**
17-05-0120-5	**Matrix Spike**	**Solid**	**GC 51**	**05/03/17**	**05/06/17 09:42**	**170803S08**
17-05-0120-5	**Matrix Spike Duplicate**	**Solid**	**GC 51**	**05/03/17**	**05/06/17 09:56**	**170803S08**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	25.00	13.16	53	18.06	72	50-135	31	0-25	4
Alpha-BHC	ND	25.00	13.61	54	18.69	75	50-135	31	0-25	4
Beta-BHC	ND	25.00	13.18	53	18.44	74	50-135	33	0-25	4
4,4'-DDD	ND	25.00	19.15	77	25.72	103	50-135	29	0-25	4
4,4'-DDE	7.054	25.00	21.31	57	26.69	79	50-135	22	0-25	
4,4'-DDT	ND	25.00	27.19	109	28.59	114	50-135	5	0-25	
Delta-BHC	ND	25.00	13.83	55	19.73	79	50-135	35	0-25	4
Dieldrin	ND	25.00	17.82	71	23.03	92	50-135	25	0-25	
Endosulfan I	ND	25.00	15.09	60	20.12	80	50-135	29	0-25	4
Endosulfan II	ND	25.00	14.60	58	20.67	83	50-135	34	0-25	4
Endosulfan Sulfate	ND	25.00	14.51	58	19.94	80	50-135	32	0-25	4
Endrin	ND	25.00	17.40	70	23.54	94	50-135	30	0-25	4
Endrin Aldehyde	ND	25.00	12.87	51	18.34	73	50-135	35	0-25	4
Gamma-BHC	ND	25.00	14.46	58	19.41	78	50-135	29	0-25	4
Heptachlor	ND	25.00	14.03	56	19.23	77	50-135	31	0-25	4
Heptachlor Epoxide	ND	25.00	17.49	70	21.75	87	50-135	22	0-25	
Methoxychlor	ND	25.00	22.01	88	24.42	98	50-135	10	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

GeoSoils, Inc.		Date Received:	05/02/17
5741 Palmer Way		Work Order:	17-05-0154
Carlsbad, CA 92010-7248		Preparation:	N/A
		Method:	EPA 418.1M
Project: OBR			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-07-015-2227	**LCS**	**Solid**	**IR 2**	**05/03/17**	**05/03/17 10:19**	**170503L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TRPH	100.0	111.7	112	70-130	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

GeoSoils, Inc.		Date Received:	05/02/17
5741 Palmer Way		Work Order:	17-05-0154
Carlsbad, CA 92010-7248		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: OBR			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-2620	**LCS**	**Solid**	**GC 47**	**05/03/17**	**05/03/17 17:59**	**170503B01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	393.3	98	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

GeoSoils, Inc.		Date Received:	05/02/17
5741 Palmer Way		Work Order:	17-05-0154
Carlsbad, CA 92010-7248		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: OBR			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-24801	**LCS**	**Solid**	**ICP 7300**	**05/03/17**	**05/03/17 17:32**	**170503L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Arsenic	25.00	23.89	96	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

GeoSoils, Inc.		Date Received:	05/02/17
5741 Palmer Way		Work Order:	17-05-0154
Carlsbad, CA 92010-7248		Preparation:	EPA 3545
		Method:	EPA 8081A
Project: OBR			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-537-2685	**LCS**	**Solid**	**GC 51**	**05/03/17**	**05/06/17 09:13**	**170503L08**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Aldrin	25.00	16.96	68	50-135	36-149	
Alpha-BHC	25.00	16.79	67	50-135	36-149	
Beta-BHC	25.00	17.08	68	50-135	36-149	
4,4'-DDD	25.00	18.57	74	50-135	36-149	
4,4'-DDE	25.00	18.32	73	50-135	36-149	
4,4'-DDT	25.00	19.02	76	50-135	36-149	
Delta-BHC	25.00	16.47	66	50-135	36-149	
Dieldrin	25.00	17.73	71	50-135	36-149	
Endosulfan I	25.00	17.50	70	50-135	36-149	
Endosulfan II	25.00	18.55	74	50-135	36-149	
Endosulfan Sulfate	25.00	17.82	71	50-135	36-149	
Endrin	25.00	17.82	71	50-135	36-149	
Endrin Aldehyde	25.00	15.11	60	50-135	36-149	
Gamma-BHC	25.00	17.19	69	50-135	36-149	
Heptachlor	25.00	17.80	71	50-135	36-149	
Heptachlor Epoxide	25.00	16.86	67	50-135	36-149	
Methoxychlor	25.00	18.05	72	50-135	36-149	

Total number of LCS compounds: 17
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 17-05-0154 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 418.1M	N/A	605	IR 2	1
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 8015B (M)	EPA 3550B	972	GC 47	1
EPA 8081A	EPA 3545	669	GC 51	1

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Glossary of Terms and Qualifiers

Work Order: 17-05-0154 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **17-05-0154**

DATE: 5/1/17

PAGE: 1 OF 2

LABORATORY CLIENT: GEOSOILS, INC.
ADDRESS: 5741 PALMER WAY, SUITE D
CITY: CARLSBAD STATE: CA ZIP: 92010
TEL: 760-438-3155 E-MAIL: JFRANKLIN@GEOSOILSINC.COM

CLIENT PROJECT NAME / NUMBER: OBR
P.O. NO.: E6960.1
PROJECT CONTACT: JOHN FRANKLIN
SAMPLER(S): (PRINT) AUDREY TAYLOR SMITH (ATS)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☒ C6-C44	TPH TPH EPA 418.1	BTEX / MTBE ☐ 8260 ☐ ___	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081) OCP	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	HOLD PENDING INITIAL RESULTS	6010B - ARSENIC		
1	B15@0.5'	5/1/17	11:17	SOIL	1						/	/											/			
2	B15@1.0		11:30	SOIL	1																		/			
3	B15@2'		11:36	SOIL	1																		/			
4	B-16@0.5'		11:58	SOIL	1						/	/														
5	B-16@1'		12:07	SOIL	1																		/			
6	B-16@1.5'		12:17	SOIL	1																		/			
7	B-17@0.5		12:57	SOIL	1													/						/		
8	B-17@1'		13:01	SOIL	1																		/			
9	B-18@0.5		13:31	SOIL	1													/						/		
10	B-18@1'		13:35	SOIL	1																		/			

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
5/1/17	ECI	05/02/17	1230
	Dannyle ECI	5/2/17	16:45
		Date:	Time:

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 17-05-0154

DATE: 5/1/17

PAGE: 2 OF 2

LABORATORY CLIENT: GEOSOILS, INC.

ADDRESS: 5741 PALMER WAY, SUITE D

CITY: CARLSBAD STATE: CA ZIP: 92010

TEL: (760)438-3155 E-MAIL: JFRANKLIN@GEOSOILSINC.COM

CLIENT PROJECT NAME / NUMBER: OBR

P.O. NO.: EG9660.1

PROJECT CONTACT: JOHN FRANKLIN

SAMPLER(S): (PRINT) AUBREY TAYLOR SMITH (ATS)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081) OCP	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	HOLD PENDING INITIAL RESULTS				
11	B-18@1.5'	5/1/17	13:45	SOIL	1																		/				

Relinquished by: (Signature) 5/1/17	Received by: (Signature/Affiliation) ECL	Date: 05/02/17	Time: 1230
Relinquished by: (Signature)	Received by: (Signature/Affiliation) Dannyle ECL	Date: 5/2/17	Time: 1645
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

06/02/14 Revision

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WORK ORDER NUMBER: 17-05- 0154

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: GEOSOILS, INC

DATE: 05 / 02 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 3,2 °C (w/ CF): 3,2 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 671

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 671

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1110

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: **(Trip Blank Lot Number:** _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☑ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1110

Reviewed by: 70

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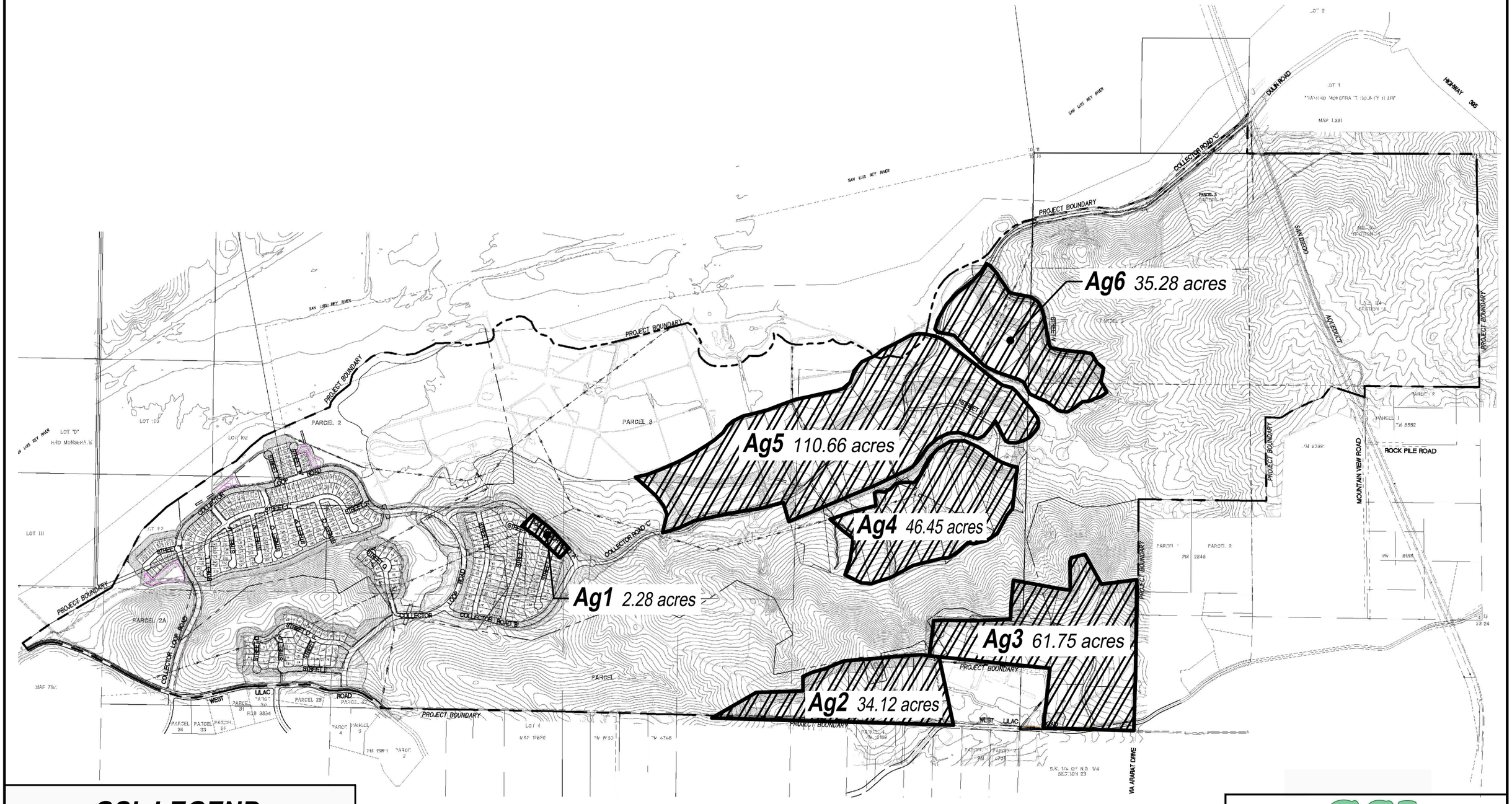

GSI LEGEND

— APPROXIMATE AGRICULTURAL AREA

Ag — AGRICULTURAL AREA NUMBER

GRAPHIC SCALE

1100 0 550 1100 2200

1" = 1100'

ALL LOCATIONS ARE APPROXIMATE

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GeoSoils, Inc.

LAND USE CHANGE AGRICULTURE IMPACTED AREAS

Plate 1

W.O. E6960.1-SC	DATE: 09/17	SCALE: 1" = 1100'

B-4 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	ND	ND	ND	ND	ND	ND	ND	ND

B-3 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	ND	ND	ND	ND	ND	ND	ND	ND

B-6 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	ND	ND	ND	ND	ND	ND	ND	ND

B-11 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	1.16	ND	ND	ND	ND	ND	ND	ND

B-12 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	1.59	ND	ND	ND	ND	ND	ND	ND

B-5 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	ND	ND	ND	ND	ND	ND	ND	ND

B-10 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	ND	ND	ND	ND	ND	ND	ND	ND

B-8 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	ND	ND	ND	ND	ND	ND	ND	ND

B-14 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	ND	ND	ND	ND	ND	ND	ND	ND

B-13 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	ND	14	31	32	23	7.7	120	210
1 ½'	ND	ND	ND	ND	ND	ND	9.2	43

B-16 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	ND	ND	ND	ND	ND	ND	9.3	43

B-15 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	ND	ND	ND	ND	ND	ND	ND	ND

B-18 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	ND	ND	ND	ND	ND	ND	9.3	ND

B-17 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	ND	ND	ND	ND	ND	ND	ND	ND

B-7 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	ND	ND	ND	ND	ND	ND	ND	ND

B-9 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	ND	ND	ND	ND	ND	ND	ND	ND

B-2 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	1.07	ND	ND	ND	ND	ND	ND	ND

B-1 (mg/kg)								
Depth	Arsenic	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C6-C44 Total	TRPH
½'	ND	ND	ND	ND	ND	ND	ND	ND

GSI LEGEND

B-16 — APPROXIMATE LOCATION OF SOIL SAMPLE

— APPROXIMATE AGRICULTURAL AREA

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GRAPHIC SCALE

400 0 200 400 800 1600

1" = 400'

ALL LOCATIONS ARE APPROXIMATE

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PRELIMINARY GRADING PLANS

TRACT _____

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SHEET 1 OF 14

GeoSoils, Inc.

SOIL SAMPLE LOCATION MAP

Plate 2

W.O. E6960.1-SC | DATE: 09/17 | SCALE:1" = 400'