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By Alameda County Environmental Health 2:00 pm, Mar 24, 2017

Project No. 2015-03
February 12, 2016

Mr. Tyler Wood
Lennar Multifamily Communities
492 9th Street Suite 300
Oakland, California 94607

Subject: **PHASE II ENVIRONMENTAL SITE ASSESSMENT**
Parking Lot Parcel
1810 Webster Street
APN 008-0625-018
Oakland, California

- References:
- 1) Phase I Environmental Site Assessment at 1711, 1801, 1805, 1811, 1817 through 1839 Harrison Street; 301 19th Street; 1732 through 1736, 1750, and 1801 Webster Street in Oakland, California
By GeoSolve, Inc.
Dated November 6, 2015
 - 2) Phase II Environmental Site Assessment at 1750 Webster Street and 301 19th Street in Oakland, California
By GeoSolve, Inc.
Dated November 7, 2015

Dear Mr. Wood:

At your request, *GeoSolve, Inc.* had conducted a Phase II Environmental Site Assessment (ESA) for the above referenced property. The subject property for this Phase II ESA includes 1810 Webster Street in Oakland, California. The subject site consists of one parcel bounded by a building along 19th Street to the east, Webster Street to the north, and parking lot parcels to the south and west Assessor Parcel Number (APN) 008-0625-018. The subject site is vacant and used a parking lot. The site vicinity is shown on Figure 1, Site Vicinity Map.

Background

Based on review of older reports documented in our Phase I ESA (Reference 1), elevated concentrations of total petroleum hydrocarbons reported as gasoline (TPHg) and benzene were detected in groundwater up to 200,000 micrograms per liter ($\mu\text{g/L}$) and 14,000 $\mu\text{g/L}$ on the



southern portion of the property along Webster Street. Based on the findings in Reference 1, the elevated concentrations of TPHg, benzene, toluene, ethyl benzene, and total xylenes (BTEX) appear to have originated from 1721 Webster Street, which is situated approximately 300 feet northwest of the subject property and immediately up-gradient.

In November 2015, *GeoSolve, Inc.* advanced one boring on 1750 Webster Street and two borings on 301 19th Street to evaluate the concentrations of petroleum hydrocarbons in subsurface soil and groundwater in our Phase II ESA (Reference 2). Based on the laboratory analytical results of soil samples, concentrations of TPHg, BTEX, or MTBE were not detected in all soil samples analyzed from borings B-1 through B-3 as shown on Table 1, with the exception of total xylenes. Total xylenes was the only chemical constituent detected in soil sample B1-25 at 0.016 mg/Kg, which is significantly below the California Regional Water Quality Control Board – Region 2 (RWQCB) Environmental Screening Level (ESL) of 111 mg/Kg for residential development (Table B, December 2013).

Lead was detected at 170 mg/Kg in soil sample B1-5, which exceeded the residential ESL of 80 mg/Kg and lead was detected below the residential ESL in all other soil samples analyzed from borings B-1 through B-3.

TPHg, BTEX, MTBE and lead were not detected in groundwater samples collected from borings B-2 or B-3. MTBE was not detected in groundwater sample B-1. Lead was detected up to 0.54 micrograms per liter ($\mu\text{g/L}$) in groundwater sample B-1. An elevated concentration of TPHg was detected at 26,000 $\mu\text{g/L}$, which exceed the residential ESL of 500 $\mu\text{g/L}$ in groundwater sample B-1. Benzene, toluene, ethyl benzene and total xylenes exceeded residential ESLs of 27 $\mu\text{g/L}$, 130 $\mu\text{g/L}$ and 100 $\mu\text{g/L}$, respectively.

The purpose of conducting this Phase II ESA is to evaluate the current concentrations of TPHg, BTEX, volatile organic compounds (VOCs) and lead within the subsurface soil and groundwater beneath the subject site prior to purchasing the land.

PHASE II ENVIRONMENTAL SITE ASSESSMENT

Prior to commencement of fieldwork, *GeoSolve, Inc.* visited the subject property, marked three locations with white paint, and contacted underground service alert (USA) 48-hours before drilling activities. In addition, a Site-Specific Health and Safety Plan was prepared for the project, and was kept on site during fieldwork activities. In addition, a drilling permit was obtained from the Alameda County Public Works Department prior to commencement of fieldwork.

Fieldwork

Once USA was notified and the underground utilities were marked, a *GeoSolve, Inc.* field geologist observed Penecore Drilling, Inc., a State-licensed drilling contractor (C57-906899) of Woodland, California, advance three borings (B-1 through B-3) to groundwater on February 2, 2016. The locations of borings B-1 through B-3 are shown on Figure 2. The borings were



advanced using a direct-push drilling rig, equipped with Enviro-Core (dual-tube) sampling system. Each sampling rod was lined with Acetate sample liners and each boring was continuously cored. Each boring was logged in accordance with the Unified Soil Classification System (USCS) and soil samples were hand-sawed at 5-feet, 10-feet, 15-feet, and 20-feet, 25-feet and some to 30-feet below ground surface (bgs). The soil sample ends were covered with Teflon tape, capped, labeled, and placed within a pre-chilled ice chest for temporary storage.

After the soil samples were collected from each boring, clean 1-inch diameter PVC well screening was inserted into each boring and groundwater “grab” samples were collected from each boring using a hand bailer, and decentered into laboratory supplied and pre-hydrochloric acidified 40 milliliter (ml) VOAs. Each VOA was sealed, checked for headspace, labeled, and placed within a pre-chilled ice-chest for temporary storage.

Once soil and groundwater samples were collected from each boring, the borings were backfilled with neat cement to grade.

Soil Sample Description

The subsurface materials encountered at the site included brown fine sandy clay beneath the asphalt with minor fill immediately beneath the asphalt, to approximately 6 feet bgs in boring B-1 and approximately 9 feet in borings B-2 and B-3. The fine sandy clay was underlain by brown silty fine sand in boring B-1 to 7.5 feet bgs, and was underlain by light brown silty clay to approximately 10 feet bgs. The silty clay was underlain by gray brown silty fine sand to approximately 14 feet bgs and was underlain by brown fine sand to approximately 20 feet bgs. The brown fine sand was underlain by dark olive medium sand to approximately 22.5 feet bgs, with a strong hydrocarbon odor. Light brown fine sand with silt was encountered in borings B-2 and B-3 from approximately 9 feet bgs to approximately 11 feet and 13 feet bgs, which was underlain by brown fine sand to approximately 19 feet and 20 feet bgs. The brown fine sand was underlain by dark olive fine to medium sand from 19 feet and 20 feet bgs to approximately 22.5 feet bgs with a strong hydrocarbon odor.

Olive discoloration and strong petroleum odors were noted in borings B-1 through B-3 at approximately 19 feet and 20 feet bgs. Groundwater was encountered at 19 feet bgs in boring B-2 and 20.5 feet bgs in borings B-1 and B-3. Copies of the Boring Logs are attached to this letter report as Appendix A.

Laboratory Methods and Analyses

Selected soil and groundwater samples were delivered under chain-of-custody documentation to McCampbell Analytical, Inc., a State-certified hazardous waste sampling laboratory (Certification No. 1644) in Pittsburg, California.

Soil samples B1-1, B2-1, and B3-1 were analyzed for total lead using Environmental Protection Agency (EPA) SW3050B/SW6010B. Soil samples B1-15, B1-20, B1-22.5, B2-15, B2-20, B2-22.5, B3-15, B3-20, and B3-22.5 and groundwater grab samples B-1, B-2, and B-3 were analyzed



for TPHg, BTEX, volatile organic compounds (VOCs) and methyl tertiary butyl ether (MTBE) using EPA Methods SW5030B/SW8021B/8015m and SW8260B. Groundwater grab samples were also analyzed for lead using EPA Method E200.8, and was filtered prior to analysis.

A summary of laboratory analyses are shown on Tables 1 and 2, Laboratory Analytical Results of Soil Samples and Groundwater Samples and a copy of the McCampbell Analytical, Inc. Laboratory Analytical Report and Chain-of-Custody Documents are attached to Appendix B.

TABLE 1
LABORATORY ANALYTICAL RESULTS OF SOIL SAMPLES
1810 Webster Street
Oakland, California
February 2, 2016

Sample ID	Sample Depth (feet)	TPHg (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	VOCs (mg/Kg)	Lead (mg/Kg)
B1-1	1	NA	NA	NA	NA	NA	NA	NA	7.5
B1-15	15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.10	2.2
B1-20	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.10	1.9
B1-22.5	22.5	390	<0.005	<0.005	2.5	5.3	<0.05	17 ^a	2.6
B2-1	1	NA	NA	NA	NA	NA	NA	NA	130
B2-15	15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.10	2.2
B2-20	20	46	<0.005	<0.005	0.12	<0.005	<0.05	0.14 ^b	4.6
B2-22.5	22.5	660	<0.005	0.34	0.78	0.76	<0.05	8.1 ^c	3.0
B3-1	1	NA	NA	NA	NA	NA	NA	NA	16
B3-15	15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.10	2.2
B3-20	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.10	2.3
B3-22.5	22.5	170	<0.005	0.30	0.39	1.7	<0.05	14 ^d	3.1
<i>ESLs</i>	---	<i>100</i>	<i>0.74</i>	<i>9.3</i>	<i>4.7</i>	<i>111</i>	<i>8.4</i>	<i>100</i>	<i>80</i>

mg/Kg = milligrams per kilogram, equivalent to parts per million (ppm).

NA = not analyzed.

a = 1,2,4-Trimethylbenzene and 4.9 mg/Kg of total xylenes.

b = n-Propyl benzene.

c = n-Propyl benzene and 4.1 mg/Kg n-Butyl benzene.

d = 1,2,4-Trimethylbenzene and 3.4 mg/Kg of total xylenes.



TABLE 2
LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
1810 Webster Street
Oakland, California
February 2, 2016

Sample ID	Sample Depth (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	VOCs (µg/L)	Lead (µg/L)
B-1	20.5	7,500	28	14	45	46	<250	1,200 ^a	21
B-2	19	14,000	66	11	99	21	<0.50	270 ^b	13
B-3	20.5	4,700	110	450	110	300	<0.50	1,200 ^c	5.9
ESLs	---	500	27	130	43	100	1,800	100	80

µg/L = micrograms per liter, equivalent to parts per billion (ppb).

a = t-Butyl alcohol (TBA), 670 µg/L of 1,2,4-Trimethylbenzene and 460 µg/L of total xylenes.

b = n-Propyl benzene, 120 µg/L Naphthalene, and 110 µg/L of ethyl benzene.

c = 1,2,4-Trimethylbenzene, 280 µg/L of benzene, 1,100 µg/L of toluene, and 930 µg/L of total xylenes.

Discussion

Based on the laboratory analytical results of soil samples, concentrations of TPHg, BTEX, or MTBE were not detected in soil samples analyzed from borings B-1 through B-3 at 15 feet and 20 feet bgs as shown on Table 1, with the exception of a minor detection of ethyl benzene at 0.12 mg/Kg at 20 feet bgs in boring B-2. TPHg was detected above the California Regional Water Quality Control Board – Region 2 (RWQCB) Environmental Screening Levels (ESLs) for residential development (December 2013) of 100 mg/Kg. Lead was detected above the ESL of 80 mg/Kg in soil sample B2-1 at one foot bgs at 130 mg/Kg. Lead was detected below the ESL in all other soil samples analyzed. Benzene or MTBE were not detected in any soil sample analyzed from borings B-1 through B-3.

TPHg and benzene were detected above the residential ESLs of 500 micrograms per liter (µg/L) and 27 µg/L in groundwater samples B-1, B-2, and B-3. Elevated concentrations of toluene, ethyl benzene and total xylenes were detected in groundwater sample B-3, which exceeded the residential ESLs of 130 µg/L, 43 µg/L and 100 µg/L, respectively. MTBE was not detected in any groundwater sample analyzed.

Although minor VOCs were detected in both soil and groundwater samples, all VOCs were non-chlorinated.



Conclusions

Based on the field and laboratory analytical results discussed in this Letter Report, *GeoSolve, Inc.* concludes the following:

- No detectable concentrations of TPHg, MTBE or BTEX were reported in all soil samples analyzed from 15-foot and 20-foot bgs in borings B-1 through B-3, with the exception of soil sample B2-20, which indicated a very low concentration of ethyl benzene at 0.12 mg/Kg.
- No detectable concentrations of benzene or MTBE were detected in any soil sample analyzed from borings B-1 through B-3. In addition, no chlorinated VOCs were detected in any soil and/or groundwater sample collected from borings B-1 through B-3.
- Elevated concentrations of TPHg (14,000 µg/L), benzene (110 µg/L), toluene (450 µg/L), ethyl benzene (110 µg/L), and total xylenes (300 µg/L) exceed the residential ESLs in groundwater samples B-1 through B-3. These elevated concentrations of TPHg and BTEX are most likely from the up-gradient and off-site source property at 1721 Webster Street.
- Lead was either not detected or detected below the ESL of 80 mg/Kg in most soil samples analyzed, with the exception of soil sample B2-1, which indicated a lead concentration of 130 mg/Kg.

Recommendations

Based on the conclusions presented in this Letter Report, *GeoSolve, Inc.* concludes the following:

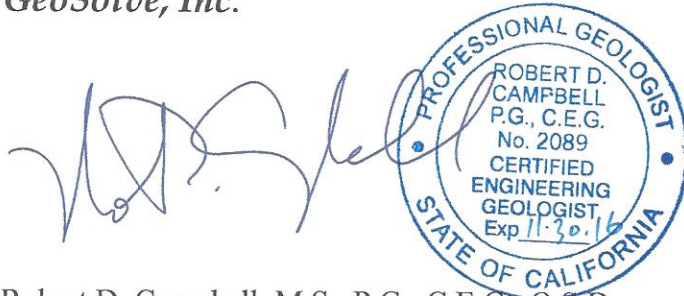
Based on the conclusions presented in this Letter Report, GeoSolve, Inc. recommends no further action is required on the subject property since the groundwater contamination originated from an off-site and up-gradient source according to RWQCB regulations.



If you have any questions or need further information regarding this Phase II ESA, please call us at (925) 963-1198.

Sincerely,

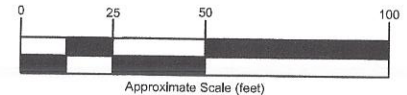
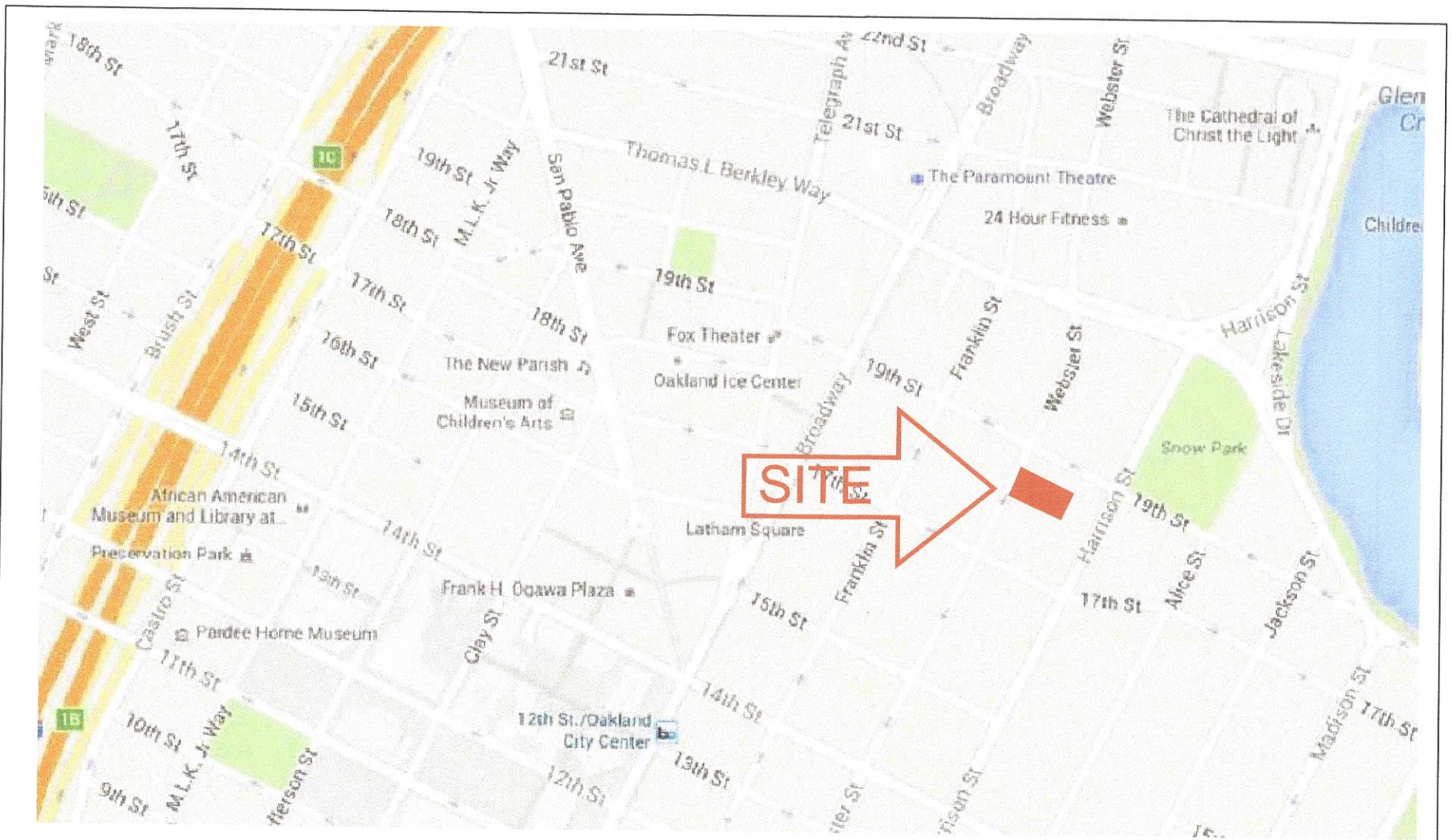
GeoSolve, Inc.



Robert D. Campbell, M.S., P.G., C.E.G., Q.S.D.
Principal Engineering Geologist

Attachments: Figure 1, Site Vicinity Map
Figure 2, Site Plan
Appendix A – Logs of Borings
Appendix B – McCampbell Analytical, Inc. Laboratory Analytical Report and
Chain-of-Custody Documents





GeoSolve, Inc.

Geoscience solutions rather than Status-Quo
 Address: 1807 Santa Rita Rd, Suite D-165
 Pleasanton, California 94566

VICINITY MAP

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
 LENNAR MULTIFAMILY COMMUNITIES, INC.
 1810 WEBSTER STREET
 OAKLAND, CALIFORNIA



Project No. 2016-03	Drawn by: GC
Scale: AS SHOWN	Date: 02/2016

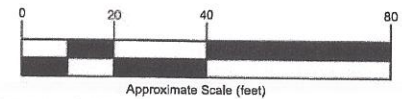
Figure No.

1



LEGEND

-  Approximate Property Boundary
-  Boring Location



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SITE PLAN

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
 LENNAR MULTIFAMILY COMMUNITIES, INC.
 1810 WEBSTER STREET
 OAKLAND, CALIFORNIA

Project No.	2016-03	Drawn by:	GC
Scale:	AS SHOWN	Date:	02/2016


Figure No.

2

APPENDIX A
LOGS OF BORING



Depth (ft)	Soil Samples	Sample No. & Type	Symbol	Soil Description	Unified Soil Classification	Blows/foot 300 ft-lb	Qu - t. s. t. Penetrometer	Dry Density p.c.f.	Moisture % Dry Wt.	Misc. Lab Result
1	B1-1			2 inches of asphalt Dark brown mottled red, silty fine SAND (SM), no odor, moist (FILL)						
2				Brown, fine sandy CLAY (CL), no odor, moist						
3										
4										
5	B1-5			Brown, silty fine SAND (SM), carbonized root fibers, no odor, moist						
6										
7										
8				Light brown, silty CLAY with sand (CL), no odor, moist						
9										
10	B1-10			Gray brown, silty fine SAND (SM), no odor, moist to wet						
11										
12										
13										
14				Brown fine SAND (SP), no odor, very moist to wet						
15	B1-15									
16										
17				very moist to wet at 17 feet						
18										
19										
20	B1-20		▼	Dark olive, fine to medium SAND (SP), strong petroleum odor, wet						
21										
22										
23	B1-22.5			Boring was terminated at 22.5 feet below ground surface (bgs) due to refusal. Groundwater was encountered at 20.5 feet bgs.						
24										
25										
26										
27										
28										
29										
30										

Logged by: RDC	Date Logged: 02/02/16	Diameter: 2.5"	BORING LOG			
 GeoSolve, Inc. <i>Geoscience solutions rather than Status-Quo</i> Address: 1807 Santa Rita Rd, Suite D-165 Pleasanton, California 94566			PHASE II - ENVIRONMENTAL SITE ASSESSMENT LENNAR MULTIFAMILY COMMUNITIES, INC. 1810 WEBSTER STREET OAKLAND, CALIFORNIA			Figure No.
			Project No. 2016-03	Drawn by: GC	Scale: NA	Date: 02/2016

Depth (ft)	Soil Samples Sample No. & Type	Symbol	Soil Description	Unified Soil Classification	Blows/foot 300 ft-lb	Qu - t. s. t. Penetrometer	Dry Density p.c.f.	Moisture % Dry Wt.	Misc. Lab Result
1	B2-1	■	2 inches of asphalt						
2			Dark brown mottled red, silty fine SAND (SM), no odor, moist (FILL)						
3			Brown, fine sandy CLAY (CL), no odor, moist						
4									
5	B2-5	■							
6									
7									
8									
9			Brown, clayey fine SAND (SM), no odor, moist						
10	B2-10	■							
11			Light brown, fine SAND with silt (SP), no odor, very moist						
12									
13									
14			Brown fine SAND (SP), no odor, very moist						
15	B2-15	■							
16									
17									
18									
19		▼							
20	B2-20	■	Dark olive, fine to medium SAND (SP), strong hydrocarbon odor, wet						
21									
22									
23	B2-22.5	■	Boring was terminated at 22.5 feet below ground surface (bgs). Groundwater was encountered at 19 feet bgs.						
24									
25									
26									
27									
28									
29									
30									

Logged by: RDC Date Logged: 02/02/16 Diameter: 2.5"

BORING LOG



GeoSolve, Inc.
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 Address: 1807 Santa Rita Rd, Suite D-165
 Pleasanton, California 94566

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
 LENNAR MULTIFAMILY COMMUNITIES, INC.
 1810 WEBSTER STREET
 OAKLAND, CALIFORNIA

Project No. 2016-03	Drawn by: GC	Scale: NA	Date: 02/2016
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Figure No.
B-2

Depth (ft)	Soil Samples Sample No. & Type	Symbol	Soil Description	Unified Soil Classification	Blows/foot 300 ft-lb	Qu - t. s. t. Penetrometer	Dry Density p.c.f.	Moisture % Dry Wt.	Misc. Lab Result
1	B3-1	■	2 inches of asphalt Dark brown , silty fine SAND with clay(SM), no odor, very moist (FILL)						
2			Brown, clayey fine SAND (SC), no odor, moist						
3			Brown, silty CLAY with fine sand (CL), no odor, moist						
4									
5	B3-5	■							
6									
7									
8									
9									
10	B3-10	■	Brown, fine SAND with silt (SP), no odor, moist						
11									
12									
13									
14			Brown fine SAND (SP), no odor, very moist						
15	B3-15	■							
16									
17									
18									
19									
20	B3-20	■	Dark olive, fine to medium SAND (SP), strong hydrocarbon odor, wet						
21									
22									
23	B3-22.5	■	Boring was terminated at 22.5 feet below ground surface (bgs). Groundwater was encountered at 20.5 feet bgs.						
24									
25									
26									
27									
28									
29									
30									

Logged by: RDC	Date Logged: 02/02/16	Diameter: 2.5"
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BORING LOG



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PHASE II - ENVIRONMENTAL SITE ASSESSMENT
 LENNAR MULTIFAMILY COMMUNITIES, INC.
 1810 WEBSTER STREET
 OAKLAND, CALIFORNIA

Project No. 2016-03	Drawn by: GC	Scale: NA	Date: 02/2016
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Figure No.
B-3

APPENDIX B

**McCAMPBELL ANALYTICAL, INC. LABORATORY ANALYTICAL RESULTS
AND CHAIN-OF-CUSTODY DOCUMENTS**





McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1602148

Report Created for: Geosolve, Inc.

1807 Santa Rita Road, Suite D-165
Pleasanton, CA 94566

Project Contact: Rob Campbell

Project P.O.: 2016-03

Project Name: 2016-03; Lennar-Oakland

Project Received: 02/03/2016

Analytical Report reviewed & approved for release on 02/11/2016 by:

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Geosolve, Inc.
Project: 2016-03; Lennar-Oakland
WorkOrder: 1602148

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Glossary of Terms & Qualifier Definitions

Client: Geosolve, Inc.
Project: 2016-03; Lennar-Oakland
WorkOrder: 1602148

Analytical Qualifiers

S Surrogate spike recovery outside accepted recovery limits
c4 surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
c7 Surrogate value diluted out of range
d1 weakly modified or unmodified gasoline is significant
d7 strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
d9 no recognizable pattern
d17 Reporting limit for MTBE raised due to co-elution with non-target peaks.

Quality Control Qualifiers

F1 MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validated the prep batch.
F2 LCS recovery for this compound is outside of acceptance limits.



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-15	1602148-004A	Soil	02/02/2016	GC10	116226

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	02/06/2016 00:48
tert-Amyl methyl ether (TAME)	ND	0.0050	1	02/06/2016 00:48
Benzene	ND	0.0050	1	02/06/2016 00:48
Bromobenzene	ND	0.0050	1	02/06/2016 00:48
Bromochloromethane	ND	0.0050	1	02/06/2016 00:48
Bromodichloromethane	ND	0.0050	1	02/06/2016 00:48
Bromoform	ND	0.0050	1	02/06/2016 00:48
Bromomethane	ND	0.0050	1	02/06/2016 00:48
2-Butanone (MEK)	ND	0.020	1	02/06/2016 00:48
t-Butyl alcohol (TBA)	ND	0.050	1	02/06/2016 00:48
n-Butyl benzene	ND	0.0050	1	02/06/2016 00:48
sec-Butyl benzene	ND	0.0050	1	02/06/2016 00:48
tert-Butyl benzene	ND	0.0050	1	02/06/2016 00:48
Carbon Disulfide	ND	0.0050	1	02/06/2016 00:48
Carbon Tetrachloride	ND	0.0050	1	02/06/2016 00:48
Chlorobenzene	ND	0.0050	1	02/06/2016 00:48
Chloroethane	ND	0.0050	1	02/06/2016 00:48
Chloroform	ND	0.0050	1	02/06/2016 00:48
Chloromethane	ND	0.0050	1	02/06/2016 00:48
2-Chlorotoluene	ND	0.0050	1	02/06/2016 00:48
4-Chlorotoluene	ND	0.0050	1	02/06/2016 00:48
Dibromochloromethane	ND	0.0050	1	02/06/2016 00:48
1,2-Dibromo-3-chloropropane	ND	0.0040	1	02/06/2016 00:48
1,2-Dibromoethane (EDB)	ND	0.0040	1	02/06/2016 00:48
Dibromomethane	ND	0.0050	1	02/06/2016 00:48
1,2-Dichlorobenzene	ND	0.0050	1	02/06/2016 00:48
1,3-Dichlorobenzene	ND	0.0050	1	02/06/2016 00:48
1,4-Dichlorobenzene	ND	0.0050	1	02/06/2016 00:48
Dichlorodifluoromethane	ND	0.0050	1	02/06/2016 00:48
1,1-Dichloroethane	ND	0.0050	1	02/06/2016 00:48
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	02/06/2016 00:48
1,1-Dichloroethene	ND	0.0050	1	02/06/2016 00:48
cis-1,2-Dichloroethene	ND	0.0050	1	02/06/2016 00:48
trans-1,2-Dichloroethene	ND	0.0050	1	02/06/2016 00:48
1,2-Dichloropropane	ND	0.0050	1	02/06/2016 00:48
1,3-Dichloropropane	ND	0.0050	1	02/06/2016 00:48
2,2-Dichloropropane	ND	0.0050	1	02/06/2016 00:48

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Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-15	1602148-004A	Soil	02/02/2016	GC10	116226
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	02/06/2016 00:48	
cis-1,3-Dichloropropene	ND	0.0050	1	02/06/2016 00:48	
trans-1,3-Dichloropropene	ND	0.0050	1	02/06/2016 00:48	
Diisopropyl ether (DIPE)	ND	0.0050	1	02/06/2016 00:48	
Ethylbenzene	ND	0.0050	1	02/06/2016 00:48	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	02/06/2016 00:48	
Freon 113	ND	0.0050	1	02/06/2016 00:48	
Hexachlorobutadiene	ND	0.0050	1	02/06/2016 00:48	
Hexachloroethane	ND	0.0050	1	02/06/2016 00:48	
2-Hexanone	ND	0.0050	1	02/06/2016 00:48	
Isopropylbenzene	ND	0.0050	1	02/06/2016 00:48	
4-Isopropyl toluene	ND	0.0050	1	02/06/2016 00:48	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	02/06/2016 00:48	
Methylene chloride	ND	0.0050	1	02/06/2016 00:48	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	02/06/2016 00:48	
Naphthalene	ND	0.0050	1	02/06/2016 00:48	
n-Propyl benzene	ND	0.0050	1	02/06/2016 00:48	
Styrene	ND	0.0050	1	02/06/2016 00:48	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	02/06/2016 00:48	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	02/06/2016 00:48	
Tetrachloroethene	ND	0.0050	1	02/06/2016 00:48	
Toluene	ND	0.0050	1	02/06/2016 00:48	
1,2,3-Trichlorobenzene	ND	0.0050	1	02/06/2016 00:48	
1,2,4-Trichlorobenzene	ND	0.0050	1	02/06/2016 00:48	
1,1,1-Trichloroethane	ND	0.0050	1	02/06/2016 00:48	
1,1,2-Trichloroethane	ND	0.0050	1	02/06/2016 00:48	
Trichloroethene	ND	0.0050	1	02/06/2016 00:48	
Trichlorofluoromethane	ND	0.0050	1	02/06/2016 00:48	
1,2,3-Trichloropropane	ND	0.0050	1	02/06/2016 00:48	
1,2,4-Trimethylbenzene	ND	0.0050	1	02/06/2016 00:48	
1,3,5-Trimethylbenzene	ND	0.0050	1	02/06/2016 00:48	
Vinyl Chloride	ND	0.0050	1	02/06/2016 00:48	
Xylenes, Total	ND	0.0050	1	02/06/2016 00:48	

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Analytical Report

Client: Geosolve, Inc.

WorkOrder: 1602148

Date Received: 2/3/16 18:07

Extraction Method: SW5030B

Date Prepared: 2/3/16

Analytical Method: SW8260B

Project: 2016-03; Lennar-Oakland

Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-15	1602148-004A	Soil	02/02/2016	GC10	116226

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	104	70-130		02/06/2016 00:48
Toluene-d8	126	70-130		02/06/2016 00:48
4-BFB	92	70-130		02/06/2016 00:48
Benzene-d6	110	60-140		02/06/2016 00:48
Ethylbenzene-d10	125	60-140		02/06/2016 00:48
1,2-DCB-d4	97	60-140		02/06/2016 00:48

Analyst(s): KF



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-20	1602148-005A	Soil	02/02/2016	GC10	116226

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	02/06/2016 01:28
tert-Amyl methyl ether (TAME)	ND	0.0050	1	02/06/2016 01:28
Benzene	ND	0.0050	1	02/06/2016 01:28
Bromobenzene	ND	0.0050	1	02/06/2016 01:28
Bromochloromethane	ND	0.0050	1	02/06/2016 01:28
Bromodichloromethane	ND	0.0050	1	02/06/2016 01:28
Bromoform	ND	0.0050	1	02/06/2016 01:28
Bromomethane	ND	0.0050	1	02/06/2016 01:28
2-Butanone (MEK)	ND	0.020	1	02/06/2016 01:28
t-Butyl alcohol (TBA)	ND	0.050	1	02/06/2016 01:28
n-Butyl benzene	ND	0.0050	1	02/06/2016 01:28
sec-Butyl benzene	ND	0.0050	1	02/06/2016 01:28
tert-Butyl benzene	ND	0.0050	1	02/06/2016 01:28
Carbon Disulfide	ND	0.0050	1	02/06/2016 01:28
Carbon Tetrachloride	ND	0.0050	1	02/06/2016 01:28
Chlorobenzene	ND	0.0050	1	02/06/2016 01:28
Chloroethane	ND	0.0050	1	02/06/2016 01:28
Chloroform	ND	0.0050	1	02/06/2016 01:28
Chloromethane	ND	0.0050	1	02/06/2016 01:28
2-Chlorotoluene	ND	0.0050	1	02/06/2016 01:28
4-Chlorotoluene	ND	0.0050	1	02/06/2016 01:28
Dibromochloromethane	ND	0.0050	1	02/06/2016 01:28
1,2-Dibromo-3-chloropropane	ND	0.0040	1	02/06/2016 01:28
1,2-Dibromoethane (EDB)	ND	0.0040	1	02/06/2016 01:28
Dibromomethane	ND	0.0050	1	02/06/2016 01:28
1,2-Dichlorobenzene	ND	0.0050	1	02/06/2016 01:28
1,3-Dichlorobenzene	ND	0.0050	1	02/06/2016 01:28
1,4-Dichlorobenzene	ND	0.0050	1	02/06/2016 01:28
Dichlorodifluoromethane	ND	0.0050	1	02/06/2016 01:28
1,1-Dichloroethane	ND	0.0050	1	02/06/2016 01:28
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	02/06/2016 01:28
1,1-Dichloroethene	ND	0.0050	1	02/06/2016 01:28
cis-1,2-Dichloroethene	ND	0.0050	1	02/06/2016 01:28
trans-1,2-Dichloroethene	ND	0.0050	1	02/06/2016 01:28
1,2-Dichloropropane	ND	0.0050	1	02/06/2016 01:28
1,3-Dichloropropane	ND	0.0050	1	02/06/2016 01:28
2,2-Dichloropropane	ND	0.0050	1	02/06/2016 01:28

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Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-20	1602148-005A	Soil	02/02/2016	GC10	116226
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	02/06/2016 01:28	
cis-1,3-Dichloropropene	ND	0.0050	1	02/06/2016 01:28	
trans-1,3-Dichloropropene	ND	0.0050	1	02/06/2016 01:28	
Diisopropyl ether (DIPE)	ND	0.0050	1	02/06/2016 01:28	
Ethylbenzene	ND	0.0050	1	02/06/2016 01:28	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	02/06/2016 01:28	
Freon 113	ND	0.0050	1	02/06/2016 01:28	
Hexachlorobutadiene	ND	0.0050	1	02/06/2016 01:28	
Hexachloroethane	ND	0.0050	1	02/06/2016 01:28	
2-Hexanone	ND	0.0050	1	02/06/2016 01:28	
Isopropylbenzene	ND	0.0050	1	02/06/2016 01:28	
4-Isopropyl toluene	ND	0.0050	1	02/06/2016 01:28	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	02/06/2016 01:28	
Methylene chloride	ND	0.0050	1	02/06/2016 01:28	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	02/06/2016 01:28	
Naphthalene	ND	0.0050	1	02/06/2016 01:28	
n-Propyl benzene	ND	0.0050	1	02/06/2016 01:28	
Styrene	ND	0.0050	1	02/06/2016 01:28	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	02/06/2016 01:28	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	02/06/2016 01:28	
Tetrachloroethene	ND	0.0050	1	02/06/2016 01:28	
Toluene	ND	0.0050	1	02/06/2016 01:28	
1,2,3-Trichlorobenzene	ND	0.0050	1	02/06/2016 01:28	
1,2,4-Trichlorobenzene	ND	0.0050	1	02/06/2016 01:28	
1,1,1-Trichloroethane	ND	0.0050	1	02/06/2016 01:28	
1,1,2-Trichloroethane	ND	0.0050	1	02/06/2016 01:28	
Trichloroethene	ND	0.0050	1	02/06/2016 01:28	
Trichlorofluoromethane	ND	0.0050	1	02/06/2016 01:28	
1,2,3-Trichloropropane	ND	0.0050	1	02/06/2016 01:28	
1,2,4-Trimethylbenzene	ND	0.0050	1	02/06/2016 01:28	
1,3,5-Trimethylbenzene	ND	0.0050	1	02/06/2016 01:28	
Vinyl Chloride	ND	0.0050	1	02/06/2016 01:28	
Xylenes, Total	ND	0.0050	1	02/06/2016 01:28	

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Analytical Report

Client: Geosolve, Inc.

WorkOrder: 1602148

Date Received: 2/3/16 18:07

Extraction Method: SW5030B

Date Prepared: 2/3/16

Analytical Method: SW8260B

Project: 2016-03; Lennar-Oakland

Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-20	1602148-005A	Soil	02/02/2016	GC10	116226

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	105	70-130		02/06/2016 01:28
Toluene-d8	126	70-130		02/06/2016 01:28
4-BFB	92	70-130		02/06/2016 01:28
Benzene-d6	117	60-140		02/06/2016 01:28
Ethylbenzene-d10	133	60-140		02/06/2016 01:28
1,2-DCB-d4	102	60-140		02/06/2016 01:28

Analyst(s): KF



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-22.5	1602148-006A	Soil	02/02/2016	GC16	116226
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	10	100	02/09/2016 01:05	
tert-Amyl methyl ether (TAME)	ND	0.50	100	02/09/2016 01:05	
Benzene	ND	0.50	100	02/09/2016 01:05	
Bromobenzene	ND	0.50	100	02/09/2016 01:05	
Bromochloromethane	ND	0.50	100	02/09/2016 01:05	
Bromodichloromethane	ND	0.50	100	02/09/2016 01:05	
Bromoform	ND	0.50	100	02/09/2016 01:05	
Bromomethane	ND	0.50	100	02/09/2016 01:05	
2-Butanone (MEK)	ND	2.0	100	02/09/2016 01:05	
t-Butyl alcohol (TBA)	ND	5.0	100	02/09/2016 01:05	
n-Butyl benzene	2.5	0.50	100	02/09/2016 01:05	
sec-Butyl benzene	0.55	0.50	100	02/09/2016 01:05	
tert-Butyl benzene	ND	0.50	100	02/09/2016 01:05	
Carbon Disulfide	ND	0.50	100	02/09/2016 01:05	
Carbon Tetrachloride	ND	0.50	100	02/09/2016 01:05	
Chlorobenzene	ND	0.50	100	02/09/2016 01:05	
Chloroethane	ND	0.50	100	02/09/2016 01:05	
Chloroform	ND	0.50	100	02/09/2016 01:05	
Chloromethane	ND	0.50	100	02/09/2016 01:05	
2-Chlorotoluene	ND	0.50	100	02/09/2016 01:05	
4-Chlorotoluene	ND	0.50	100	02/09/2016 01:05	
Dibromochloromethane	ND	0.50	100	02/09/2016 01:05	
1,2-Dibromo-3-chloropropane	ND	0.40	100	02/09/2016 01:05	
1,2-Dibromoethane (EDB)	ND	0.40	100	02/09/2016 01:05	
Dibromomethane	ND	0.50	100	02/09/2016 01:05	
1,2-Dichlorobenzene	ND	0.50	100	02/09/2016 01:05	
1,3-Dichlorobenzene	ND	0.50	100	02/09/2016 01:05	
1,4-Dichlorobenzene	ND	0.50	100	02/09/2016 01:05	
Dichlorodifluoromethane	ND	0.50	100	02/09/2016 01:05	
1,1-Dichloroethane	ND	0.50	100	02/09/2016 01:05	
1,2-Dichloroethane (1,2-DCA)	ND	0.40	100	02/09/2016 01:05	
1,1-Dichloroethene	ND	0.50	100	02/09/2016 01:05	
cis-1,2-Dichloroethene	ND	0.50	100	02/09/2016 01:05	
trans-1,2-Dichloroethene	ND	0.50	100	02/09/2016 01:05	
1,2-Dichloropropane	ND	0.50	100	02/09/2016 01:05	
1,3-Dichloropropane	ND	0.50	100	02/09/2016 01:05	
2,2-Dichloropropane	ND	0.50	100	02/09/2016 01:05	

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Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-22.5	1602148-006A	Soil	02/02/2016	GC16	116226
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.50	100	02/09/2016 01:05	
cis-1,3-Dichloropropene	ND	0.50	100	02/09/2016 01:05	
trans-1,3-Dichloropropene	ND	0.50	100	02/09/2016 01:05	
Diisopropyl ether (DIPE)	ND	0.50	100	02/09/2016 01:05	
Ethylbenzene	3.0	0.50	100	02/09/2016 01:05	
Ethyl tert-butyl ether (ETBE)	ND	0.50	100	02/09/2016 01:05	
Freon 113	ND	0.50	100	02/09/2016 01:05	
Hexachlorobutadiene	ND	0.50	100	02/09/2016 01:05	
Hexachloroethane	ND	0.50	100	02/09/2016 01:05	
2-Hexanone	ND	0.50	100	02/09/2016 01:05	
Isopropylbenzene	1.3	0.50	100	02/09/2016 01:05	
4-Isopropyl toluene	ND	0.50	100	02/09/2016 01:05	
Methyl-t-butyl ether (MTBE)	ND	0.50	100	02/09/2016 01:05	
Methylene chloride	ND	0.50	100	02/09/2016 01:05	
4-Methyl-2-pentanone (MIBK)	ND	0.50	100	02/09/2016 01:05	
Naphthalene	2.3	0.50	100	02/09/2016 01:05	
n-Propyl benzene	4.0	0.50	100	02/09/2016 01:05	
Styrene	ND	0.50	100	02/09/2016 01:05	
1,1,1,2-Tetrachloroethane	ND	0.50	100	02/09/2016 01:05	
1,1,2,2-Tetrachloroethane	ND	0.50	100	02/09/2016 01:05	
Tetrachloroethene	ND	0.50	100	02/09/2016 01:05	
Toluene	ND	0.50	100	02/09/2016 01:05	
1,2,3-Trichlorobenzene	ND	0.50	100	02/09/2016 01:05	
1,2,4-Trichlorobenzene	ND	0.50	100	02/09/2016 01:05	
1,1,1-Trichloroethane	ND	0.50	100	02/09/2016 01:05	
1,1,2-Trichloroethane	ND	0.50	100	02/09/2016 01:05	
Trichloroethene	ND	0.50	100	02/09/2016 01:05	
Trichlorofluoromethane	ND	0.50	100	02/09/2016 01:05	
1,2,3-Trichloropropane	ND	0.50	100	02/09/2016 01:05	
1,2,4-Trimethylbenzene	17	0.50	100	02/09/2016 01:05	
1,3,5-Trimethylbenzene	3.8	0.50	100	02/09/2016 01:05	
Vinyl Chloride	ND	0.50	100	02/09/2016 01:05	
Xylenes, Total	4.9	0.50	100	02/09/2016 01:05	

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Analytical Report

Client: Geosolve, Inc.

WorkOrder: 1602148

Date Received: 2/3/16 18:07

Extraction Method: SW5030B

Date Prepared: 2/3/16

Analytical Method: SW8260B

Project: 2016-03; Lennar-Oakland

Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-22.5	1602148-006A	Soil	02/02/2016	GC16	116226

Analytes	Result		RL	DF	Date Analyzed
Surrogates	REC (%)	Qualifiers	Limits		
Dibromofluoromethane	104		70-130		02/09/2016 01:05
Toluene-d8	102		70-130		02/09/2016 01:05
4-BFB	107		70-130		02/09/2016 01:05
Benzene-d6	346	S	60-140		02/09/2016 01:05
Ethylbenzene-d10	286	S	60-140		02/09/2016 01:05
1,2-DCB-d4	106		60-140		02/09/2016 01:05

Analyst(s): KF

Analytical Comments: c7



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-15	1602148-010A	Soil	02/02/2016	GC10	116226
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	02/06/2016 02:07	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	02/06/2016 02:07	
Benzene	ND	0.0050	1	02/06/2016 02:07	
Bromobenzene	ND	0.0050	1	02/06/2016 02:07	
Bromochloromethane	ND	0.0050	1	02/06/2016 02:07	
Bromodichloromethane	ND	0.0050	1	02/06/2016 02:07	
Bromoform	ND	0.0050	1	02/06/2016 02:07	
Bromomethane	ND	0.0050	1	02/06/2016 02:07	
2-Butanone (MEK)	ND	0.020	1	02/06/2016 02:07	
t-Butyl alcohol (TBA)	ND	0.050	1	02/06/2016 02:07	
n-Butyl benzene	ND	0.0050	1	02/06/2016 02:07	
sec-Butyl benzene	ND	0.0050	1	02/06/2016 02:07	
tert-Butyl benzene	ND	0.0050	1	02/06/2016 02:07	
Carbon Disulfide	ND	0.0050	1	02/06/2016 02:07	
Carbon Tetrachloride	ND	0.0050	1	02/06/2016 02:07	
Chlorobenzene	ND	0.0050	1	02/06/2016 02:07	
Chloroethane	ND	0.0050	1	02/06/2016 02:07	
Chloroform	ND	0.0050	1	02/06/2016 02:07	
Chloromethane	ND	0.0050	1	02/06/2016 02:07	
2-Chlorotoluene	ND	0.0050	1	02/06/2016 02:07	
4-Chlorotoluene	ND	0.0050	1	02/06/2016 02:07	
Dibromochloromethane	ND	0.0050	1	02/06/2016 02:07	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	02/06/2016 02:07	
1,2-Dibromoethane (EDB)	ND	0.0040	1	02/06/2016 02:07	
Dibromomethane	ND	0.0050	1	02/06/2016 02:07	
1,2-Dichlorobenzene	ND	0.0050	1	02/06/2016 02:07	
1,3-Dichlorobenzene	ND	0.0050	1	02/06/2016 02:07	
1,4-Dichlorobenzene	ND	0.0050	1	02/06/2016 02:07	
Dichlorodifluoromethane	ND	0.0050	1	02/06/2016 02:07	
1,1-Dichloroethane	ND	0.0050	1	02/06/2016 02:07	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	02/06/2016 02:07	
1,1-Dichloroethene	ND	0.0050	1	02/06/2016 02:07	
cis-1,2-Dichloroethene	ND	0.0050	1	02/06/2016 02:07	
trans-1,2-Dichloroethene	ND	0.0050	1	02/06/2016 02:07	
1,2-Dichloropropane	ND	0.0050	1	02/06/2016 02:07	
1,3-Dichloropropane	ND	0.0050	1	02/06/2016 02:07	
2,2-Dichloropropane	ND	0.0050	1	02/06/2016 02:07	

(Cont.)



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-15	1602148-010A	Soil	02/02/2016	GC10	116226
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	02/06/2016 02:07	
cis-1,3-Dichloropropene	ND	0.0050	1	02/06/2016 02:07	
trans-1,3-Dichloropropene	ND	0.0050	1	02/06/2016 02:07	
Diisopropyl ether (DIPE)	ND	0.0050	1	02/06/2016 02:07	
Ethylbenzene	ND	0.0050	1	02/06/2016 02:07	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	02/06/2016 02:07	
Freon 113	ND	0.0050	1	02/06/2016 02:07	
Hexachlorobutadiene	ND	0.0050	1	02/06/2016 02:07	
Hexachloroethane	ND	0.0050	1	02/06/2016 02:07	
2-Hexanone	ND	0.0050	1	02/06/2016 02:07	
Isopropylbenzene	ND	0.0050	1	02/06/2016 02:07	
4-Isopropyl toluene	ND	0.0050	1	02/06/2016 02:07	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	02/06/2016 02:07	
Methylene chloride	ND	0.0050	1	02/06/2016 02:07	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	02/06/2016 02:07	
Naphthalene	ND	0.0050	1	02/06/2016 02:07	
n-Propyl benzene	ND	0.0050	1	02/06/2016 02:07	
Styrene	ND	0.0050	1	02/06/2016 02:07	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	02/06/2016 02:07	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	02/06/2016 02:07	
Tetrachloroethene	ND	0.0050	1	02/06/2016 02:07	
Toluene	ND	0.0050	1	02/06/2016 02:07	
1,2,3-Trichlorobenzene	ND	0.0050	1	02/06/2016 02:07	
1,2,4-Trichlorobenzene	ND	0.0050	1	02/06/2016 02:07	
1,1,1-Trichloroethane	ND	0.0050	1	02/06/2016 02:07	
1,1,2-Trichloroethane	ND	0.0050	1	02/06/2016 02:07	
Trichloroethene	ND	0.0050	1	02/06/2016 02:07	
Trichlorofluoromethane	ND	0.0050	1	02/06/2016 02:07	
1,2,3-Trichloropropane	ND	0.0050	1	02/06/2016 02:07	
1,2,4-Trimethylbenzene	ND	0.0050	1	02/06/2016 02:07	
1,3,5-Trimethylbenzene	ND	0.0050	1	02/06/2016 02:07	
Vinyl Chloride	ND	0.0050	1	02/06/2016 02:07	
Xylenes, Total	ND	0.0050	1	02/06/2016 02:07	

(Cont.)

 Angela Rydelius, Lab Manager



Analytical Report

Client: Geosolve, Inc.

WorkOrder: 1602148

Date Received: 2/3/16 18:07

Extraction Method: SW5030B

Date Prepared: 2/3/16

Analytical Method: SW8260B

Project: 2016-03; Lennar-Oakland

Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-15	1602148-010A	Soil	02/02/2016	GC10	116226

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	105	70-130		02/06/2016 02:07
Toluene-d8	125	70-130		02/06/2016 02:07
4-BFB	91	70-130		02/06/2016 02:07
Benzene-d6	107	60-140		02/06/2016 02:07
Ethylbenzene-d10	120	60-140		02/06/2016 02:07
1,2-DCB-d4	95	60-140		02/06/2016 02:07

Analyst(s): KF



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-20	1602148-011A	Soil	02/02/2016	GC16	116226
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	1.0	10	02/08/2016 23:45	
tert-Amyl methyl ether (TAME)	ND	0.050	10	02/08/2016 23:45	
Benzene	ND	0.050	10	02/08/2016 23:45	
Bromobenzene	ND	0.050	10	02/08/2016 23:45	
Bromochloromethane	ND	0.050	10	02/08/2016 23:45	
Bromodichloromethane	ND	0.050	10	02/08/2016 23:45	
Bromoform	ND	0.050	10	02/08/2016 23:45	
Bromomethane	ND	0.050	10	02/08/2016 23:45	
2-Butanone (MEK)	ND	0.20	10	02/08/2016 23:45	
t-Butyl alcohol (TBA)	ND	0.50	10	02/08/2016 23:45	
n-Butyl benzene	0.13	0.050	10	02/08/2016 23:45	
sec-Butyl benzene	ND	0.050	10	02/08/2016 23:45	
tert-Butyl benzene	ND	0.050	10	02/08/2016 23:45	
Carbon Disulfide	ND	0.050	10	02/08/2016 23:45	
Carbon Tetrachloride	ND	0.050	10	02/08/2016 23:45	
Chlorobenzene	ND	0.050	10	02/08/2016 23:45	
Chloroethane	ND	0.050	10	02/08/2016 23:45	
Chloroform	ND	0.050	10	02/08/2016 23:45	
Chloromethane	ND	0.050	10	02/08/2016 23:45	
2-Chlorotoluene	ND	0.050	10	02/08/2016 23:45	
4-Chlorotoluene	ND	0.050	10	02/08/2016 23:45	
Dibromochloromethane	ND	0.050	10	02/08/2016 23:45	
1,2-Dibromo-3-chloropropane	ND	0.040	10	02/08/2016 23:45	
1,2-Dibromoethane (EDB)	ND	0.040	10	02/08/2016 23:45	
Dibromomethane	ND	0.050	10	02/08/2016 23:45	
1,2-Dichlorobenzene	ND	0.050	10	02/08/2016 23:45	
1,3-Dichlorobenzene	ND	0.050	10	02/08/2016 23:45	
1,4-Dichlorobenzene	ND	0.050	10	02/08/2016 23:45	
Dichlorodifluoromethane	ND	0.050	10	02/08/2016 23:45	
1,1-Dichloroethane	ND	0.050	10	02/08/2016 23:45	
1,2-Dichloroethane (1,2-DCA)	ND	0.040	10	02/08/2016 23:45	
1,1-Dichloroethene	ND	0.050	10	02/08/2016 23:45	
cis-1,2-Dichloroethene	ND	0.050	10	02/08/2016 23:45	
trans-1,2-Dichloroethene	ND	0.050	10	02/08/2016 23:45	
1,2-Dichloropropane	ND	0.050	10	02/08/2016 23:45	
1,3-Dichloropropane	ND	0.050	10	02/08/2016 23:45	
2,2-Dichloropropane	ND	0.050	10	02/08/2016 23:45	

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Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-20	1602148-011A	Soil	02/02/2016	GC16	116226
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.050	10	02/08/2016 23:45	
cis-1,3-Dichloropropene	ND	0.050	10	02/08/2016 23:45	
trans-1,3-Dichloropropene	ND	0.050	10	02/08/2016 23:45	
Diisopropyl ether (DIPE)	ND	0.050	10	02/08/2016 23:45	
Ethylbenzene	ND	0.050	10	02/08/2016 23:45	
Ethyl tert-butyl ether (ETBE)	ND	0.050	10	02/08/2016 23:45	
Freon 113	ND	0.050	10	02/08/2016 23:45	
Hexachlorobutadiene	ND	0.050	10	02/08/2016 23:45	
Hexachloroethane	ND	0.050	10	02/08/2016 23:45	
2-Hexanone	ND	0.050	10	02/08/2016 23:45	
Isopropylbenzene	ND	0.050	10	02/08/2016 23:45	
4-Isopropyl toluene	ND	0.050	10	02/08/2016 23:45	
Methyl-t-butyl ether (MTBE)	ND	0.050	10	02/08/2016 23:45	
Methylene chloride	ND	0.050	10	02/08/2016 23:45	
4-Methyl-2-pentanone (MIBK)	ND	0.050	10	02/08/2016 23:45	
Naphthalene	ND	0.050	10	02/08/2016 23:45	
n-Propyl benzene	0.14	0.050	10	02/08/2016 23:45	
Styrene	ND	0.050	10	02/08/2016 23:45	
1,1,1,2-Tetrachloroethane	ND	0.050	10	02/08/2016 23:45	
1,1,2,2-Tetrachloroethane	ND	0.050	10	02/08/2016 23:45	
Tetrachloroethene	ND	0.050	10	02/08/2016 23:45	
Toluene	ND	0.050	10	02/08/2016 23:45	
1,2,3-Trichlorobenzene	ND	0.050	10	02/08/2016 23:45	
1,2,4-Trichlorobenzene	ND	0.050	10	02/08/2016 23:45	
1,1,1-Trichloroethane	ND	0.050	10	02/08/2016 23:45	
1,1,2-Trichloroethane	ND	0.050	10	02/08/2016 23:45	
Trichloroethene	ND	0.050	10	02/08/2016 23:45	
Trichlorofluoromethane	ND	0.050	10	02/08/2016 23:45	
1,2,3-Trichloropropane	ND	0.050	10	02/08/2016 23:45	
1,2,4-Trimethylbenzene	ND	0.050	10	02/08/2016 23:45	
1,3,5-Trimethylbenzene	ND	0.050	10	02/08/2016 23:45	
Vinyl Chloride	ND	0.050	10	02/08/2016 23:45	
Xylenes, Total	ND	0.050	10	02/08/2016 23:45	

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Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-20	1602148-011A	Soil	02/02/2016	GC16	116226

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	104	70-130		02/08/2016 23:45
Toluene-d8	106	70-130		02/08/2016 23:45
4-BFB	106	70-130		02/08/2016 23:45
Benzene-d6	108	60-140		02/08/2016 23:45
Ethylbenzene-d10	121	60-140		02/08/2016 23:45
1,2-DCB-d4	91	60-140		02/08/2016 23:45

Analyst(s): KF



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-22.5	1602148-012A	Soil	02/02/2016	GC16	116226

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	100	02/09/2016 00:25
tert-Amyl methyl ether (TAME)	ND	0.50	100	02/09/2016 00:25
Benzene	ND	0.50	100	02/09/2016 00:25
Bromobenzene	ND	0.50	100	02/09/2016 00:25
Bromochloromethane	ND	0.50	100	02/09/2016 00:25
Bromodichloromethane	ND	0.50	100	02/09/2016 00:25
Bromoform	ND	0.50	100	02/09/2016 00:25
Bromomethane	ND	0.50	100	02/09/2016 00:25
2-Butanone (MEK)	ND	2.0	100	02/09/2016 00:25
t-Butyl alcohol (TBA)	ND	5.0	100	02/09/2016 00:25
n-Butyl benzene	4.1	0.50	100	02/09/2016 00:25
sec-Butyl benzene	1.2	0.50	100	02/09/2016 00:25
tert-Butyl benzene	0.79	0.50	100	02/09/2016 00:25
Carbon Disulfide	ND	0.50	100	02/09/2016 00:25
Carbon Tetrachloride	ND	0.50	100	02/09/2016 00:25
Chlorobenzene	ND	0.50	100	02/09/2016 00:25
Chloroethane	ND	0.50	100	02/09/2016 00:25
Chloroform	ND	0.50	100	02/09/2016 00:25
Chloromethane	ND	0.50	100	02/09/2016 00:25
2-Chlorotoluene	ND	0.50	100	02/09/2016 00:25
4-Chlorotoluene	ND	0.50	100	02/09/2016 00:25
Dibromochloromethane	ND	0.50	100	02/09/2016 00:25
1,2-Dibromo-3-chloropropane	ND	0.40	100	02/09/2016 00:25
1,2-Dibromoethane (EDB)	ND	0.40	100	02/09/2016 00:25
Dibromomethane	ND	0.50	100	02/09/2016 00:25
1,2-Dichlorobenzene	ND	0.50	100	02/09/2016 00:25
1,3-Dichlorobenzene	ND	0.50	100	02/09/2016 00:25
1,4-Dichlorobenzene	ND	0.50	100	02/09/2016 00:25
Dichlorodifluoromethane	ND	0.50	100	02/09/2016 00:25
1,1-Dichloroethane	ND	0.50	100	02/09/2016 00:25
1,2-Dichloroethane (1,2-DCA)	ND	0.40	100	02/09/2016 00:25
1,1-Dichloroethene	ND	0.50	100	02/09/2016 00:25
cis-1,2-Dichloroethene	ND	0.50	100	02/09/2016 00:25
trans-1,2-Dichloroethene	ND	0.50	100	02/09/2016 00:25
1,2-Dichloropropane	ND	0.50	100	02/09/2016 00:25
1,3-Dichloropropane	ND	0.50	100	02/09/2016 00:25
2,2-Dichloropropane	ND	0.50	100	02/09/2016 00:25

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Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-22.5	1602148-012A	Soil	02/02/2016	GC16	116226
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.50	100	02/09/2016 00:25	
cis-1,3-Dichloropropene	ND	0.50	100	02/09/2016 00:25	
trans-1,3-Dichloropropene	ND	0.50	100	02/09/2016 00:25	
Diisopropyl ether (DIPE)	ND	0.50	100	02/09/2016 00:25	
Ethylbenzene	1.3	0.50	100	02/09/2016 00:25	
Ethyl tert-butyl ether (ETBE)	ND	0.50	100	02/09/2016 00:25	
Freon 113	ND	0.50	100	02/09/2016 00:25	
Hexachlorobutadiene	ND	0.50	100	02/09/2016 00:25	
Hexachloroethane	ND	0.50	100	02/09/2016 00:25	
2-Hexanone	ND	0.50	100	02/09/2016 00:25	
Isopropylbenzene	1.8	0.50	100	02/09/2016 00:25	
4-Isopropyl toluene	ND	0.50	100	02/09/2016 00:25	
Methyl-t-butyl ether (MTBE)	ND	0.50	100	02/09/2016 00:25	
Methylene chloride	ND	0.50	100	02/09/2016 00:25	
4-Methyl-2-pentanone (MIBK)	ND	0.50	100	02/09/2016 00:25	
Naphthalene	ND	0.50	100	02/09/2016 00:25	
n-Propyl benzene	8.1	0.50	100	02/09/2016 00:25	
Styrene	ND	0.50	100	02/09/2016 00:25	
1,1,1,2-Tetrachloroethane	ND	0.50	100	02/09/2016 00:25	
1,1,2,2-Tetrachloroethane	ND	0.50	100	02/09/2016 00:25	
Tetrachloroethene	ND	0.50	100	02/09/2016 00:25	
Toluene	ND	0.50	100	02/09/2016 00:25	
1,2,3-Trichlorobenzene	ND	0.50	100	02/09/2016 00:25	
1,2,4-Trichlorobenzene	ND	0.50	100	02/09/2016 00:25	
1,1,1-Trichloroethane	ND	0.50	100	02/09/2016 00:25	
1,1,2-Trichloroethane	ND	0.50	100	02/09/2016 00:25	
Trichloroethene	ND	0.50	100	02/09/2016 00:25	
Trichlorofluoromethane	ND	0.50	100	02/09/2016 00:25	
1,2,3-Trichloropropane	ND	0.50	100	02/09/2016 00:25	
1,2,4-Trimethylbenzene	0.84	0.50	100	02/09/2016 00:25	
1,3,5-Trimethylbenzene	ND	0.50	100	02/09/2016 00:25	
Vinyl Chloride	ND	0.50	100	02/09/2016 00:25	
Xylenes, Total	ND	0.50	100	02/09/2016 00:25	

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Analytical Report

Client: Geosolve, Inc.

WorkOrder: 1602148

Date Received: 2/3/16 18:07

Extraction Method: SW5030B

Date Prepared: 2/3/16

Analytical Method: SW8260B

Project: 2016-03; Lennar-Oakland

Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-22.5	1602148-012A	Soil	02/02/2016	GC16	116226

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>		
Dibromofluoromethane	106		70-130		02/09/2016 00:25
Toluene-d8	110		70-130		02/09/2016 00:25
4-BFB	101		70-130		02/09/2016 00:25
Benzene-d6	344	S	60-140		02/09/2016 00:25
Ethylbenzene-d10	482	S	60-140		02/09/2016 00:25
1,2-DCB-d4	103		60-140		02/09/2016 00:25

Analyst(s): KF

Analytical Comments: c7



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-15	1602148-016A	Soil	02/02/2016	GC10	116226

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	02/06/2016 02:47
tert-Amyl methyl ether (TAME)	ND	0.0050	1	02/06/2016 02:47
Benzene	ND	0.0050	1	02/06/2016 02:47
Bromobenzene	ND	0.0050	1	02/06/2016 02:47
Bromochloromethane	ND	0.0050	1	02/06/2016 02:47
Bromodichloromethane	ND	0.0050	1	02/06/2016 02:47
Bromoform	ND	0.0050	1	02/06/2016 02:47
Bromomethane	ND	0.0050	1	02/06/2016 02:47
2-Butanone (MEK)	ND	0.020	1	02/06/2016 02:47
t-Butyl alcohol (TBA)	ND	0.050	1	02/06/2016 02:47
n-Butyl benzene	ND	0.0050	1	02/06/2016 02:47
sec-Butyl benzene	ND	0.0050	1	02/06/2016 02:47
tert-Butyl benzene	ND	0.0050	1	02/06/2016 02:47
Carbon Disulfide	ND	0.0050	1	02/06/2016 02:47
Carbon Tetrachloride	ND	0.0050	1	02/06/2016 02:47
Chlorobenzene	ND	0.0050	1	02/06/2016 02:47
Chloroethane	ND	0.0050	1	02/06/2016 02:47
Chloroform	ND	0.0050	1	02/06/2016 02:47
Chloromethane	ND	0.0050	1	02/06/2016 02:47
2-Chlorotoluene	ND	0.0050	1	02/06/2016 02:47
4-Chlorotoluene	ND	0.0050	1	02/06/2016 02:47
Dibromochloromethane	ND	0.0050	1	02/06/2016 02:47
1,2-Dibromo-3-chloropropane	ND	0.0040	1	02/06/2016 02:47
1,2-Dibromoethane (EDB)	ND	0.0040	1	02/06/2016 02:47
Dibromomethane	ND	0.0050	1	02/06/2016 02:47
1,2-Dichlorobenzene	ND	0.0050	1	02/06/2016 02:47
1,3-Dichlorobenzene	ND	0.0050	1	02/06/2016 02:47
1,4-Dichlorobenzene	ND	0.0050	1	02/06/2016 02:47
Dichlorodifluoromethane	ND	0.0050	1	02/06/2016 02:47
1,1-Dichloroethane	ND	0.0050	1	02/06/2016 02:47
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	02/06/2016 02:47
1,1-Dichloroethene	ND	0.0050	1	02/06/2016 02:47
cis-1,2-Dichloroethene	ND	0.0050	1	02/06/2016 02:47
trans-1,2-Dichloroethene	ND	0.0050	1	02/06/2016 02:47
1,2-Dichloropropane	ND	0.0050	1	02/06/2016 02:47
1,3-Dichloropropane	ND	0.0050	1	02/06/2016 02:47
2,2-Dichloropropane	ND	0.0050	1	02/06/2016 02:47

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Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-15	1602148-016A	Soil	02/02/2016	GC10	116226
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	02/06/2016 02:47	
cis-1,3-Dichloropropene	ND	0.0050	1	02/06/2016 02:47	
trans-1,3-Dichloropropene	ND	0.0050	1	02/06/2016 02:47	
Diisopropyl ether (DIPE)	ND	0.0050	1	02/06/2016 02:47	
Ethylbenzene	ND	0.0050	1	02/06/2016 02:47	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	02/06/2016 02:47	
Freon 113	ND	0.0050	1	02/06/2016 02:47	
Hexachlorobutadiene	ND	0.0050	1	02/06/2016 02:47	
Hexachloroethane	ND	0.0050	1	02/06/2016 02:47	
2-Hexanone	ND	0.0050	1	02/06/2016 02:47	
Isopropylbenzene	ND	0.0050	1	02/06/2016 02:47	
4-Isopropyl toluene	ND	0.0050	1	02/06/2016 02:47	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	02/06/2016 02:47	
Methylene chloride	ND	0.0050	1	02/06/2016 02:47	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	02/06/2016 02:47	
Naphthalene	ND	0.0050	1	02/06/2016 02:47	
n-Propyl benzene	ND	0.0050	1	02/06/2016 02:47	
Styrene	ND	0.0050	1	02/06/2016 02:47	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	02/06/2016 02:47	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	02/06/2016 02:47	
Tetrachloroethene	ND	0.0050	1	02/06/2016 02:47	
Toluene	ND	0.0050	1	02/06/2016 02:47	
1,2,3-Trichlorobenzene	ND	0.0050	1	02/06/2016 02:47	
1,2,4-Trichlorobenzene	ND	0.0050	1	02/06/2016 02:47	
1,1,1-Trichloroethane	ND	0.0050	1	02/06/2016 02:47	
1,1,2-Trichloroethane	ND	0.0050	1	02/06/2016 02:47	
Trichloroethene	ND	0.0050	1	02/06/2016 02:47	
Trichlorofluoromethane	ND	0.0050	1	02/06/2016 02:47	
1,2,3-Trichloropropane	ND	0.0050	1	02/06/2016 02:47	
1,2,4-Trimethylbenzene	ND	0.0050	1	02/06/2016 02:47	
1,3,5-Trimethylbenzene	ND	0.0050	1	02/06/2016 02:47	
Vinyl Chloride	ND	0.0050	1	02/06/2016 02:47	
Xylenes, Total	ND	0.0050	1	02/06/2016 02:47	

(Cont.)



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-15	1602148-016A	Soil	02/02/2016	GC10	116226

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	105	70-130		02/06/2016 02:47
Toluene-d8	126	70-130		02/06/2016 02:47
4-BFB	90	70-130		02/06/2016 02:47
Benzene-d6	111	60-140		02/06/2016 02:47
Ethylbenzene-d10	119	60-140		02/06/2016 02:47
1,2-DCB-d4	101	60-140		02/06/2016 02:47

Analyst(s): KF



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-20	1602148-017A	Soil	02/02/2016	GC10	116226

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	02/06/2016 03:27
tert-Amyl methyl ether (TAME)	ND	0.0050	1	02/06/2016 03:27
Benzene	ND	0.0050	1	02/06/2016 03:27
Bromobenzene	ND	0.0050	1	02/06/2016 03:27
Bromochloromethane	ND	0.0050	1	02/06/2016 03:27
Bromodichloromethane	ND	0.0050	1	02/06/2016 03:27
Bromoform	ND	0.0050	1	02/06/2016 03:27
Bromomethane	ND	0.0050	1	02/06/2016 03:27
2-Butanone (MEK)	ND	0.020	1	02/06/2016 03:27
t-Butyl alcohol (TBA)	ND	0.050	1	02/06/2016 03:27
n-Butyl benzene	ND	0.0050	1	02/06/2016 03:27
sec-Butyl benzene	ND	0.0050	1	02/06/2016 03:27
tert-Butyl benzene	ND	0.0050	1	02/06/2016 03:27
Carbon Disulfide	ND	0.0050	1	02/06/2016 03:27
Carbon Tetrachloride	ND	0.0050	1	02/06/2016 03:27
Chlorobenzene	ND	0.0050	1	02/06/2016 03:27
Chloroethane	ND	0.0050	1	02/06/2016 03:27
Chloroform	ND	0.0050	1	02/06/2016 03:27
Chloromethane	ND	0.0050	1	02/06/2016 03:27
2-Chlorotoluene	ND	0.0050	1	02/06/2016 03:27
4-Chlorotoluene	ND	0.0050	1	02/06/2016 03:27
Dibromochloromethane	ND	0.0050	1	02/06/2016 03:27
1,2-Dibromo-3-chloropropane	ND	0.0040	1	02/06/2016 03:27
1,2-Dibromoethane (EDB)	ND	0.0040	1	02/06/2016 03:27
Dibromomethane	ND	0.0050	1	02/06/2016 03:27
1,2-Dichlorobenzene	ND	0.0050	1	02/06/2016 03:27
1,3-Dichlorobenzene	ND	0.0050	1	02/06/2016 03:27
1,4-Dichlorobenzene	ND	0.0050	1	02/06/2016 03:27
Dichlorodifluoromethane	ND	0.0050	1	02/06/2016 03:27
1,1-Dichloroethane	ND	0.0050	1	02/06/2016 03:27
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	02/06/2016 03:27
1,1-Dichloroethene	ND	0.0050	1	02/06/2016 03:27
cis-1,2-Dichloroethene	ND	0.0050	1	02/06/2016 03:27
trans-1,2-Dichloroethene	ND	0.0050	1	02/06/2016 03:27
1,2-Dichloropropane	ND	0.0050	1	02/06/2016 03:27
1,3-Dichloropropane	ND	0.0050	1	02/06/2016 03:27
2,2-Dichloropropane	ND	0.0050	1	02/06/2016 03:27

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Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-20	1602148-017A	Soil	02/02/2016	GC10	116226
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	02/06/2016 03:27	
cis-1,3-Dichloropropene	ND	0.0050	1	02/06/2016 03:27	
trans-1,3-Dichloropropene	ND	0.0050	1	02/06/2016 03:27	
Diisopropyl ether (DIPE)	ND	0.0050	1	02/06/2016 03:27	
Ethylbenzene	ND	0.0050	1	02/06/2016 03:27	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	02/06/2016 03:27	
Freon 113	ND	0.0050	1	02/06/2016 03:27	
Hexachlorobutadiene	ND	0.0050	1	02/06/2016 03:27	
Hexachloroethane	ND	0.0050	1	02/06/2016 03:27	
2-Hexanone	ND	0.0050	1	02/06/2016 03:27	
Isopropylbenzene	ND	0.0050	1	02/06/2016 03:27	
4-Isopropyl toluene	ND	0.0050	1	02/06/2016 03:27	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	02/06/2016 03:27	
Methylene chloride	ND	0.0050	1	02/06/2016 03:27	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	02/06/2016 03:27	
Naphthalene	ND	0.0050	1	02/06/2016 03:27	
n-Propyl benzene	ND	0.0050	1	02/06/2016 03:27	
Styrene	ND	0.0050	1	02/06/2016 03:27	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	02/06/2016 03:27	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	02/06/2016 03:27	
Tetrachloroethene	ND	0.0050	1	02/06/2016 03:27	
Toluene	ND	0.0050	1	02/06/2016 03:27	
1,2,3-Trichlorobenzene	ND	0.0050	1	02/06/2016 03:27	
1,2,4-Trichlorobenzene	ND	0.0050	1	02/06/2016 03:27	
1,1,1-Trichloroethane	ND	0.0050	1	02/06/2016 03:27	
1,1,2-Trichloroethane	ND	0.0050	1	02/06/2016 03:27	
Trichloroethene	ND	0.0050	1	02/06/2016 03:27	
Trichlorofluoromethane	ND	0.0050	1	02/06/2016 03:27	
1,2,3-Trichloropropane	ND	0.0050	1	02/06/2016 03:27	
1,2,4-Trimethylbenzene	ND	0.0050	1	02/06/2016 03:27	
1,3,5-Trimethylbenzene	ND	0.0050	1	02/06/2016 03:27	
Vinyl Chloride	ND	0.0050	1	02/06/2016 03:27	
Xylenes, Total	ND	0.0050	1	02/06/2016 03:27	

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Analytical Report

Client: Geosolve, Inc.

WorkOrder: 1602148

Date Received: 2/3/16 18:07

Extraction Method: SW5030B

Date Prepared: 2/3/16

Analytical Method: SW8260B

Project: 2016-03; Lennar-Oakland

Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-20	1602148-017A	Soil	02/02/2016	GC10	116226

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	104	70-130		02/06/2016 03:27
Toluene-d8	126	70-130		02/06/2016 03:27
4-BFB	92	70-130		02/06/2016 03:27
Benzene-d6	113	60-140		02/06/2016 03:27
Ethylbenzene-d10	128	60-140		02/06/2016 03:27
1,2-DCB-d4	100	60-140		02/06/2016 03:27

Analyst(s): KF



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-22.5	1602148-018A	Soil	02/02/2016	GC28	116229
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	10	100	02/10/2016 15:00	
tert-Amyl methyl ether (TAME)	ND	0.50	100	02/10/2016 15:00	
Benzene	ND	0.50	100	02/10/2016 15:00	
Bromobenzene	ND	0.50	100	02/10/2016 15:00	
Bromochloromethane	ND	0.50	100	02/10/2016 15:00	
Bromodichloromethane	ND	0.50	100	02/10/2016 15:00	
Bromoform	ND	0.50	100	02/10/2016 15:00	
Bromomethane	ND	0.50	100	02/10/2016 15:00	
2-Butanone (MEK)	ND	2.0	100	02/10/2016 15:00	
t-Butyl alcohol (TBA)	ND	5.0	100	02/10/2016 15:00	
n-Butyl benzene	1.5	0.50	100	02/10/2016 15:00	
sec-Butyl benzene	ND	0.50	100	02/10/2016 15:00	
tert-Butyl benzene	ND	0.50	100	02/10/2016 15:00	
Carbon Disulfide	ND	0.50	100	02/10/2016 15:00	
Carbon Tetrachloride	ND	0.50	100	02/10/2016 15:00	
Chlorobenzene	ND	0.50	100	02/10/2016 15:00	
Chloroethane	ND	0.50	100	02/10/2016 15:00	
Chloroform	ND	0.50	100	02/10/2016 15:00	
Chloromethane	ND	0.50	100	02/10/2016 15:00	
2-Chlorotoluene	ND	0.50	100	02/10/2016 15:00	
4-Chlorotoluene	ND	0.50	100	02/10/2016 15:00	
Dibromochloromethane	ND	0.50	100	02/10/2016 15:00	
1,2-Dibromo-3-chloropropane	ND	0.40	100	02/10/2016 15:00	
1,2-Dibromoethane (EDB)	ND	0.40	100	02/10/2016 15:00	
Dibromomethane	ND	0.50	100	02/10/2016 15:00	
1,2-Dichlorobenzene	ND	0.50	100	02/10/2016 15:00	
1,3-Dichlorobenzene	ND	0.50	100	02/10/2016 15:00	
1,4-Dichlorobenzene	ND	0.50	100	02/10/2016 15:00	
Dichlorodifluoromethane	ND	0.50	100	02/10/2016 15:00	
1,1-Dichloroethane	ND	0.50	100	02/10/2016 15:00	
1,2-Dichloroethane (1,2-DCA)	ND	0.40	100	02/10/2016 15:00	
1,1-Dichloroethene	ND	0.50	100	02/10/2016 15:00	
cis-1,2-Dichloroethene	ND	0.50	100	02/10/2016 15:00	
trans-1,2-Dichloroethene	ND	0.50	100	02/10/2016 15:00	
1,2-Dichloropropane	ND	0.50	100	02/10/2016 15:00	
1,3-Dichloropropane	ND	0.50	100	02/10/2016 15:00	
2,2-Dichloropropane	ND	0.50	100	02/10/2016 15:00	

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Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-22.5	1602148-018A	Soil	02/02/2016	GC28	116229
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.50	100	02/10/2016 15:00	
cis-1,3-Dichloropropene	ND	0.50	100	02/10/2016 15:00	
trans-1,3-Dichloropropene	ND	0.50	100	02/10/2016 15:00	
Diisopropyl ether (DIPE)	ND	0.50	100	02/10/2016 15:00	
Ethylbenzene	0.98	0.50	100	02/10/2016 15:00	
Ethyl tert-butyl ether (ETBE)	ND	0.50	100	02/10/2016 15:00	
Freon 113	ND	0.50	100	02/10/2016 15:00	
Hexachlorobutadiene	ND	0.50	100	02/10/2016 15:00	
Hexachloroethane	ND	0.50	100	02/10/2016 15:00	
2-Hexanone	ND	0.50	100	02/10/2016 15:00	
Isopropylbenzene	0.78	0.50	100	02/10/2016 15:00	
4-Isopropyl toluene	ND	0.50	100	02/10/2016 15:00	
Methyl-t-butyl ether (MTBE)	ND	0.50	100	02/10/2016 15:00	
Methylene chloride	ND	0.50	100	02/10/2016 15:00	
4-Methyl-2-pentanone (MIBK)	ND	0.50	100	02/10/2016 15:00	
Naphthalene	1.4	0.50	100	02/10/2016 15:00	
n-Propyl benzene	2.2	0.50	100	02/10/2016 15:00	
Styrene	ND	0.50	100	02/10/2016 15:00	
1,1,1,2-Tetrachloroethane	ND	0.50	100	02/10/2016 15:00	
1,1,2,2-Tetrachloroethane	ND	0.50	100	02/10/2016 15:00	
Tetrachloroethene	ND	0.50	100	02/10/2016 15:00	
Toluene	0.64	0.50	100	02/10/2016 15:00	
1,2,3-Trichlorobenzene	ND	0.50	100	02/10/2016 15:00	
1,2,4-Trichlorobenzene	ND	0.50	100	02/10/2016 15:00	
1,1,1-Trichloroethane	ND	0.50	100	02/10/2016 15:00	
1,1,2-Trichloroethane	ND	0.50	100	02/10/2016 15:00	
Trichloroethene	ND	0.50	100	02/10/2016 15:00	
Trichlorofluoromethane	ND	0.50	100	02/10/2016 15:00	
1,2,3-Trichloropropane	ND	0.50	100	02/10/2016 15:00	
1,2,4-Trimethylbenzene	14	0.50	100	02/10/2016 15:00	
1,3,5-Trimethylbenzene	3.4	0.50	100	02/10/2016 15:00	
Vinyl Chloride	ND	0.50	100	02/10/2016 15:00	
Xylenes, Total	3.4	0.50	100	02/10/2016 15:00	

(Cont.)



Analytical Report

Client: Geosolve, Inc.

WorkOrder: 1602148

Date Received: 2/3/16 18:07

Extraction Method: SW5030B

Date Prepared: 2/3/16

Analytical Method: SW8260B

Project: 2016-03; Lennar-Oakland

Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-22.5	1602148-018A	Soil	02/02/2016	GC28	116229

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	
Dibromofluoromethane	108		70-130	02/10/2016 15:00
Toluene-d8	91		70-130	02/10/2016 15:00
4-BFB	82		70-130	02/10/2016 15:00
Benzene-d6	69		60-140	02/10/2016 15:00
Ethylbenzene-d10	53	S	60-140	02/10/2016 15:00
1,2-DCB-d4	87		60-140	02/10/2016 15:00

Analyst(s): AK

Analytical Comments: c7



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/9/16-2/10/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1	1602148-019B	Water	02/02/2016	GC16	116416
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		250	25	02/10/2016 16:35
tert-Amyl methyl ether (TAME)	ND		12	25	02/10/2016 16:35
Benzene	ND		12	25	02/10/2016 16:35
Bromobenzene	ND		12	25	02/10/2016 16:35
Bromochloromethane	ND		12	25	02/10/2016 16:35
Bromodichloromethane	ND		12	25	02/10/2016 16:35
Bromoform	ND		12	25	02/10/2016 16:35
Bromomethane	ND		12	25	02/10/2016 16:35
2-Butanone (MEK)	99		50	25	02/10/2016 16:35
t-Butyl alcohol (TBA)	1200		50	25	02/10/2016 16:35
n-Butyl benzene	44		12	25	02/10/2016 16:35
sec-Butyl benzene	15		12	25	02/10/2016 16:35
tert-Butyl benzene	ND		12	25	02/10/2016 16:35
Carbon Disulfide	ND		12	25	02/10/2016 16:35
Carbon Tetrachloride	ND		12	25	02/10/2016 16:35
Chlorobenzene	ND		12	25	02/10/2016 16:35
Chloroethane	ND		12	25	02/10/2016 16:35
Chloroform	ND		12	25	02/10/2016 16:35
Chloromethane	ND		12	25	02/10/2016 16:35
2-Chlorotoluene	ND		12	25	02/10/2016 16:35
4-Chlorotoluene	ND		12	25	02/10/2016 16:35
Dibromochloromethane	ND		12	25	02/10/2016 16:35
1,2-Dibromo-3-chloropropane	ND		5.0	25	02/10/2016 16:35
1,2-Dibromoethane (EDB)	ND		12	25	02/10/2016 16:35
Dibromomethane	ND		12	25	02/10/2016 16:35
1,2-Dichlorobenzene	ND		12	25	02/10/2016 16:35
1,3-Dichlorobenzene	ND		12	25	02/10/2016 16:35
1,4-Dichlorobenzene	ND		12	25	02/10/2016 16:35
Dichlorodifluoromethane	ND		12	25	02/10/2016 16:35
1,1-Dichloroethane	ND		12	25	02/10/2016 16:35
1,2-Dichloroethane (1,2-DCA)	ND		12	25	02/10/2016 16:35
1,1-Dichloroethene	ND		12	25	02/10/2016 16:35
cis-1,2-Dichloroethene	ND		12	25	02/10/2016 16:35
trans-1,2-Dichloroethene	ND		12	25	02/10/2016 16:35
1,2-Dichloropropane	ND		12	25	02/10/2016 16:35
1,3-Dichloropropane	ND		12	25	02/10/2016 16:35
2,2-Dichloropropane	ND		12	25	02/10/2016 16:35

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Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/9/16-2/10/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1	1602148-019B	Water	02/02/2016	GC16	116416
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1-Dichloropropene	ND		12	25	02/10/2016 16:35
cis-1,3-Dichloropropene	ND		12	25	02/10/2016 16:35
trans-1,3-Dichloropropene	ND		12	25	02/10/2016 16:35
Diisopropyl ether (DIPE)	ND		12	25	02/10/2016 16:35
Ethylbenzene	310		12	25	02/10/2016 16:35
Ethyl tert-butyl ether (ETBE)	ND		12	25	02/10/2016 16:35
Freon 113	ND		12	25	02/10/2016 16:35
Hexachlorobutadiene	ND		12	25	02/10/2016 16:35
Hexachloroethane	ND		12	25	02/10/2016 16:35
2-Hexanone	ND		12	25	02/10/2016 16:35
Isopropylbenzene	69		12	25	02/10/2016 16:35
4-Isopropyl toluene	ND		12	25	02/10/2016 16:35
Methyl-t-butyl ether (MTBE)	ND		12	25	02/10/2016 16:35
Methylene chloride	ND		12	25	02/10/2016 16:35
4-Methyl-2-pentanone (MIBK)	ND		12	25	02/10/2016 16:35
Naphthalene	150		12	25	02/10/2016 16:35
n-Propyl benzene	160		12	25	02/10/2016 16:35
Styrene	ND		12	25	02/10/2016 16:35
1,1,1,2-Tetrachloroethane	ND		12	25	02/10/2016 16:35
1,1,2,2-Tetrachloroethane	ND		12	25	02/10/2016 16:35
Tetrachloroethene	ND		12	25	02/10/2016 16:35
Toluene	20		12	25	02/10/2016 16:35
1,2,3-Trichlorobenzene	ND		12	25	02/10/2016 16:35
1,2,4-Trichlorobenzene	ND		12	25	02/10/2016 16:35
1,1,1-Trichloroethane	ND		12	25	02/10/2016 16:35
1,1,2-Trichloroethane	ND		12	25	02/10/2016 16:35
Trichloroethene	ND		12	25	02/10/2016 16:35
Trichlorofluoromethane	ND		12	25	02/10/2016 16:35
1,2,3-Trichloropropane	ND		12	25	02/10/2016 16:35
1,2,4-Trimethylbenzene	670		12	25	02/10/2016 16:35
1,3,5-Trimethylbenzene	150		12	25	02/10/2016 16:35
Vinyl Chloride	ND		12	25	02/10/2016 16:35
Xylenes, Total	460		12	25	02/10/2016 16:35

(Cont.)



Analytical Report

Client: Geosolve, Inc. **WorkOrder:** 1602148
Date Received: 2/3/16 18:07 **Extraction Method:** SW5030B
Date Prepared: 2/9/16-2/10/16 **Analytical Method:** SW8260B
Project: 2016-03; Lennar-Oakland **Unit:** µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1	1602148-019B	Water	02/02/2016	GC16	116416
Analytes	Result	RL	DF	Date Analyzed	
Surrogates	REC (%)	Limits			
Dibromofluoromethane	106	70-130		02/10/2016 16:35	
Toluene-d8	96	70-130		02/10/2016 16:35	
4-BFB	107	70-130		02/10/2016 16:35	
Analyst(s): AK					

(Cont.)



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/9/16-2/10/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2	1602148-020B	Water	02/02/2016	GC10	116418
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		100	10	02/09/2016 13:17
tert-Amyl methyl ether (TAME)	ND		5.0	10	02/09/2016 13:17
Benzene	55		5.0	10	02/09/2016 13:17
Bromobenzene	ND		5.0	10	02/09/2016 13:17
Bromochloromethane	ND		5.0	10	02/09/2016 13:17
Bromodichloromethane	ND		5.0	10	02/09/2016 13:17
Bromoform	ND		5.0	10	02/09/2016 13:17
Bromomethane	ND		5.0	10	02/09/2016 13:17
2-Butanone (MEK)	ND		20	10	02/09/2016 13:17
t-Butyl alcohol (TBA)	ND		20	10	02/09/2016 13:17
n-Butyl benzene	65		5.0	10	02/09/2016 13:17
sec-Butyl benzene	35		5.0	10	02/09/2016 13:17
tert-Butyl benzene	29		5.0	10	02/09/2016 13:17
Carbon Disulfide	ND		5.0	10	02/09/2016 13:17
Carbon Tetrachloride	ND		5.0	10	02/09/2016 13:17
Chlorobenzene	ND		5.0	10	02/09/2016 13:17
Chloroethane	ND		5.0	10	02/09/2016 13:17
Chloroform	ND		5.0	10	02/09/2016 13:17
Chloromethane	ND		5.0	10	02/09/2016 13:17
2-Chlorotoluene	ND		5.0	10	02/09/2016 13:17
4-Chlorotoluene	ND		5.0	10	02/09/2016 13:17
Dibromochloromethane	ND		5.0	10	02/09/2016 13:17
1,2-Dibromo-3-chloropropane	ND		2.0	10	02/09/2016 13:17
1,2-Dibromoethane (EDB)	ND		5.0	10	02/09/2016 13:17
Dibromomethane	ND		5.0	10	02/09/2016 13:17
1,2-Dichlorobenzene	ND		5.0	10	02/09/2016 13:17
1,3-Dichlorobenzene	ND		5.0	10	02/09/2016 13:17
1,4-Dichlorobenzene	ND		5.0	10	02/09/2016 13:17
Dichlorodifluoromethane	ND		5.0	10	02/09/2016 13:17
1,1-Dichloroethane	ND		5.0	10	02/09/2016 13:17
1,2-Dichloroethane (1,2-DCA)	ND		5.0	10	02/09/2016 13:17
1,1-Dichloroethene	ND		5.0	10	02/09/2016 13:17
cis-1,2-Dichloroethene	8.8		5.0	10	02/09/2016 13:17
trans-1,2-Dichloroethene	ND		5.0	10	02/09/2016 13:17
1,2-Dichloropropane	ND		5.0	10	02/09/2016 13:17
1,3-Dichloropropane	ND		5.0	10	02/09/2016 13:17
2,2-Dichloropropane	ND		5.0	10	02/09/2016 13:17

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Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/9/16-2/10/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2	1602148-020B	Water	02/02/2016	GC10	116418
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1-Dichloropropene	ND		5.0	10	02/09/2016 13:17
cis-1,3-Dichloropropene	ND		5.0	10	02/09/2016 13:17
trans-1,3-Dichloropropene	ND		5.0	10	02/09/2016 13:17
Diisopropyl ether (DIPE)	ND		5.0	10	02/09/2016 13:17
Ethylbenzene	110		5.0	10	02/09/2016 13:17
Ethyl tert-butyl ether (ETBE)	ND		5.0	10	02/09/2016 13:17
Freon 113	ND		5.0	10	02/09/2016 13:17
Hexachlorobutadiene	ND		5.0	10	02/09/2016 13:17
Hexachloroethane	ND		5.0	10	02/09/2016 13:17
2-Hexanone	ND		5.0	10	02/09/2016 13:17
Isopropylbenzene	86		5.0	10	02/09/2016 13:17
4-Isopropyl toluene	7.4		5.0	10	02/09/2016 13:17
Methyl-t-butyl ether (MTBE)	ND		5.0	10	02/09/2016 13:17
Methylene chloride	ND		5.0	10	02/09/2016 13:17
4-Methyl-2-pentanone (MIBK)	ND		5.0	10	02/09/2016 13:17
Naphthalene	120		5.0	10	02/09/2016 13:17
n-Propyl benzene	270		5.0	10	02/09/2016 13:17
Styrene	ND		5.0	10	02/09/2016 13:17
1,1,1,2-Tetrachloroethane	ND		5.0	10	02/09/2016 13:17
1,1,2,2-Tetrachloroethane	ND		5.0	10	02/09/2016 13:17
Tetrachloroethene	ND		5.0	10	02/09/2016 13:17
Toluene	ND		5.0	10	02/09/2016 13:17
1,2,3-Trichlorobenzene	ND		5.0	10	02/09/2016 13:17
1,2,4-Trichlorobenzene	ND		5.0	10	02/09/2016 13:17
1,1,1-Trichloroethane	ND		5.0	10	02/09/2016 13:17
1,1,2-Trichloroethane	ND		5.0	10	02/09/2016 13:17
Trichloroethene	ND		5.0	10	02/09/2016 13:17
Trichlorofluoromethane	ND		5.0	10	02/09/2016 13:17
1,2,3-Trichloropropane	ND		5.0	10	02/09/2016 13:17
1,2,4-Trimethylbenzene	12		5.0	10	02/09/2016 13:17
1,3,5-Trimethylbenzene	ND		5.0	10	02/09/2016 13:17
Vinyl Chloride	ND		5.0	10	02/09/2016 13:17
Xylenes, Total	15		5.0	10	02/09/2016 13:17

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Analytical Report

Client: Geosolve, Inc.

WorkOrder: 1602148

Date Received: 2/3/16 18:07

Extraction Method: SW5030B

Date Prepared: 2/9/16-2/10/16

Analytical Method: SW8260B

Project: 2016-03; Lennar-Oakland

Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2	1602148-020B	Water	02/02/2016	GC10	116418

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	111	70-130		02/09/2016 13:17
Toluene-d8	113	70-130		02/09/2016 13:17
4-BFB	101	70-130		02/09/2016 13:17

Analyst(s): KF



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/9/16-2/10/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-3	1602148-021B	Water	02/02/2016	GC10	116416
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	1000	100	02/10/2016 16:52	
tert-Amyl methyl ether (TAME)	ND	50	100	02/10/2016 16:52	
Benzene	280	50	100	02/10/2016 16:52	
Bromobenzene	ND	50	100	02/10/2016 16:52	
Bromochloromethane	ND	50	100	02/10/2016 16:52	
Bromodichloromethane	ND	50	100	02/10/2016 16:52	
Bromoform	ND	50	100	02/10/2016 16:52	
Bromomethane	ND	50	100	02/10/2016 16:52	
2-Butanone (MEK)	ND	200	100	02/10/2016 16:52	
t-Butyl alcohol (TBA)	ND	200	100	02/10/2016 16:52	
n-Butyl benzene	ND	50	100	02/10/2016 16:52	
sec-Butyl benzene	ND	50	100	02/10/2016 16:52	
tert-Butyl benzene	ND	50	100	02/10/2016 16:52	
Carbon Disulfide	ND	50	100	02/10/2016 16:52	
Carbon Tetrachloride	ND	50	100	02/10/2016 16:52	
Chlorobenzene	ND	50	100	02/10/2016 16:52	
Chloroethane	ND	50	100	02/10/2016 16:52	
Chloroform	ND	50	100	02/10/2016 16:52	
Chloromethane	ND	50	100	02/10/2016 16:52	
2-Chlorotoluene	ND	50	100	02/10/2016 16:52	
4-Chlorotoluene	ND	50	100	02/10/2016 16:52	
Dibromochloromethane	ND	50	100	02/10/2016 16:52	
1,2-Dibromo-3-chloropropane	ND	20	100	02/10/2016 16:52	
1,2-Dibromoethane (EDB)	ND	50	100	02/10/2016 16:52	
Dibromomethane	ND	50	100	02/10/2016 16:52	
1,2-Dichlorobenzene	ND	50	100	02/10/2016 16:52	
1,3-Dichlorobenzene	ND	50	100	02/10/2016 16:52	
1,4-Dichlorobenzene	ND	50	100	02/10/2016 16:52	
Dichlorodifluoromethane	ND	50	100	02/10/2016 16:52	
1,1-Dichloroethane	ND	50	100	02/10/2016 16:52	
1,2-Dichloroethane (1,2-DCA)	ND	50	100	02/10/2016 16:52	
1,1-Dichloroethene	ND	50	100	02/10/2016 16:52	
cis-1,2-Dichloroethene	ND	50	100	02/10/2016 16:52	
trans-1,2-Dichloroethene	ND	50	100	02/10/2016 16:52	
1,2-Dichloropropane	ND	50	100	02/10/2016 16:52	
1,3-Dichloropropane	ND	50	100	02/10/2016 16:52	
2,2-Dichloropropane	ND	50	100	02/10/2016 16:52	

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Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/9/16-2/10/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-3	1602148-021B	Water	02/02/2016	GC10	116416
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1-Dichloropropene	ND		50	100	02/10/2016 16:52
cis-1,3-Dichloropropene	ND		50	100	02/10/2016 16:52
trans-1,3-Dichloropropene	ND		50	100	02/10/2016 16:52
Diisopropyl ether (DIPE)	ND		50	100	02/10/2016 16:52
Ethylbenzene	340		50	100	02/10/2016 16:52
Ethyl tert-butyl ether (ETBE)	ND		50	100	02/10/2016 16:52
Freon 113	ND		50	100	02/10/2016 16:52
Hexachlorobutadiene	ND		50	100	02/10/2016 16:52
Hexachloroethane	ND		50	100	02/10/2016 16:52
2-Hexanone	ND		50	100	02/10/2016 16:52
Isopropylbenzene	80		50	100	02/10/2016 16:52
4-Isopropyl toluene	ND		50	100	02/10/2016 16:52
Methyl-t-butyl ether (MTBE)	ND		50	100	02/10/2016 16:52
Methylene chloride	ND		50	100	02/10/2016 16:52
4-Methyl-2-pentanone (MIBK)	ND		50	100	02/10/2016 16:52
Naphthalene	240		50	100	02/10/2016 16:52
n-Propyl benzene	150		50	100	02/10/2016 16:52
Styrene	ND		50	100	02/10/2016 16:52
1,1,1,2-Tetrachloroethane	ND		50	100	02/10/2016 16:52
1,1,2,2-Tetrachloroethane	ND		50	100	02/10/2016 16:52
Tetrachloroethene	ND		50	100	02/10/2016 16:52
Toluene	1100		50	100	02/10/2016 16:52
1,2,3-Trichlorobenzene	ND		50	100	02/10/2016 16:52
1,2,4-Trichlorobenzene	ND		50	100	02/10/2016 16:52
1,1,1-Trichloroethane	ND		50	100	02/10/2016 16:52
1,1,2-Trichloroethane	ND		50	100	02/10/2016 16:52
Trichloroethene	ND		50	100	02/10/2016 16:52
Trichlorofluoromethane	ND		50	100	02/10/2016 16:52
1,2,3-Trichloropropane	ND		50	100	02/10/2016 16:52
1,2,4-Trimethylbenzene	1200		50	100	02/10/2016 16:52
1,3,5-Trimethylbenzene	170		50	100	02/10/2016 16:52
Vinyl Chloride	ND		50	100	02/10/2016 16:52
Xylenes, Total	930		50	100	02/10/2016 16:52

(Cont.)



Analytical Report

Client: Geosolve, Inc.

WorkOrder: 1602148

Date Received: 2/3/16 18:07

Extraction Method: SW5030B

Date Prepared: 2/9/16-2/10/16

Analytical Method: SW8260B

Project: 2016-03; Lennar-Oakland

Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-3	1602148-021B	Water	02/02/2016	GC10	116416

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	109	70-130		02/10/2016 16:52
Toluene-d8	112	70-130		02/10/2016 16:52
4-BFB	86	70-130		02/10/2016 16:52

Analyst(s): AK



Analytical Report

Client: Geosolve, Inc.	WorkOrder: 1602148
Date Received: 2/3/16 18:07	Extraction Method: SW5030B
Date Prepared: 2/3/16	Analytical Method: SW8021B/8015Bm
Project: 2016-03; Lennar-Oakland	Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-15	1602148-004A	Soil	02/02/2016	GC7	116227

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	02/05/2016 16:23
MTBE	ND	0.050	1	02/05/2016 16:23
Benzene	ND	0.0050	1	02/05/2016 16:23
Toluene	ND	0.0050	1	02/05/2016 16:23
Ethylbenzene	ND	0.0050	1	02/05/2016 16:23
Xylenes	ND	0.015	1	02/05/2016 16:23
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	100	70-130		02/05/2016 16:23

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-20	1602148-005A	Soil	02/02/2016	GC19	116227

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	02/05/2016 21:27
MTBE	ND	0.050	1	02/05/2016 21:27
Benzene	ND	0.0050	1	02/05/2016 21:27
Toluene	ND	0.0050	1	02/05/2016 21:27
Ethylbenzene	ND	0.0050	1	02/05/2016 21:27
Xylenes	ND	0.015	1	02/05/2016 21:27
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	110	70-130		02/05/2016 21:27

Analyst(s): IA



Analytical Report

Client: Geosolve, Inc. **WorkOrder:** 1602148
Date Received: 2/3/16 18:07 **Extraction Method:** SW5030B
Date Prepared: 2/3/16 **Analytical Method:** SW8021B/8015Bm
Project: 2016-03; Lennar-Oakland **Unit:** mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-22.5	1602148-006A	Soil	02/02/2016	GC7	116227

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	390	50	50	02/08/2016 12:20
MTBE	ND	2.5	50	02/08/2016 12:20
Benzene	ND	0.25	50	02/08/2016 12:20
Toluene	ND	0.25	50	02/08/2016 12:20
Ethylbenzene	2.5	0.25	50	02/08/2016 12:20
Xylenes	5.3	0.75	50	02/08/2016 12:20

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	121	70-130	02/08/2016 12:20

Analyst(s): IA

Analytical Comments: d7,d9

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-15	1602148-010A	Soil	02/02/2016	GC7	116227

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	02/05/2016 17:54
MTBE	ND	0.050	1	02/05/2016 17:54
Benzene	ND	0.0050	1	02/05/2016 17:54
Toluene	ND	0.0050	1	02/05/2016 17:54
Ethylbenzene	ND	0.0050	1	02/05/2016 17:54
Xylenes	ND	0.015	1	02/05/2016 17:54

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	114	70-130	02/05/2016 17:54

Analyst(s): IA

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Analytical Report

Client: Geosolve, Inc.

WorkOrder: 1602148

Date Received: 2/3/16 18:07

Extraction Method: SW5030B

Date Prepared: 2/3/16

Analytical Method: SW8021B/8015Bm

Project: 2016-03; Lennar-Oakland

Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-15	1602148-016A	Soil	02/02/2016	GC7	116227

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	02/05/2016 18:24
MTBE	ND	0.050	1	02/05/2016 18:24
Benzene	ND	0.0050	1	02/05/2016 18:24
Toluene	ND	0.0050	1	02/05/2016 18:24
Ethylbenzene	ND	0.0050	1	02/05/2016 18:24
Xylenes	ND	0.015	1	02/05/2016 18:24
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	104	70-130		02/05/2016 18:24

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-20	1602148-017A	Soil	02/02/2016	GC7	116227

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	02/05/2016 19:25
MTBE	ND	0.050	1	02/05/2016 19:25
Benzene	ND	0.0050	1	02/05/2016 19:25
Toluene	ND	0.0050	1	02/05/2016 19:25
Ethylbenzene	ND	0.0050	1	02/05/2016 19:25
Xylenes	ND	0.015	1	02/05/2016 19:25
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	96	70-130		02/05/2016 19:25

Analyst(s): IA

(Cont.)



Analytical Report

Client: Geosolve, Inc. **WorkOrder:** 1602148
Date Received: 2/3/16 18:07 **Extraction Method:** SW5030B
Date Prepared: 2/6/16 **Analytical Method:** SW8021B/8015Bm
Project: 2016-03; Lennar-Oakland **Unit:** µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1	1602148-019A	Water	02/02/2016	GC3	116361

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	7500	500	10	02/06/2016 18:44
MTBE	ND	50	10	02/06/2016 18:44
Benzene	28	5.0	10	02/06/2016 18:44
Toluene	14	5.0	10	02/06/2016 18:44
Ethylbenzene	45	5.0	10	02/06/2016 18:44
Xylenes	46	15	10	02/06/2016 18:44

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
aaa-TFT	137	S	70-130	02/06/2016 18:44

Analyst(s): IA Analytical Comments: d1,c4

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2	1602148-020A	Water	02/02/2016	GC3	116361

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	14,000	500	10	02/06/2016 20:43
MTBE	ND	110	10	02/06/2016 20:43
Benzene	66	5.0	10	02/06/2016 20:43
Toluene	11	5.0	10	02/06/2016 20:43
Ethylbenzene	99	5.0	10	02/06/2016 20:43
Xylenes	21	15	10	02/06/2016 20:43

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
aaa-TFT	168	S	70-130	02/06/2016 20:43

Analyst(s): IA Analytical Comments: d1,d17,c4

(Cont.)



Analytical Report

Client: Geosolve, Inc. **WorkOrder:** 1602148
Date Received: 2/3/16 18:07 **Extraction Method:** SW5030B
Date Prepared: 2/6/16 **Analytical Method:** SW8021B/8015Bm
Project: 2016-03; Lennar-Oakland **Unit:** µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-3	1602148-021A	Water	02/02/2016	GC3	116361

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	4700	500	10	02/06/2016 22:12
MTBE	ND	50	10	02/06/2016 22:12
Benzene	110	5.0	10	02/06/2016 22:12
Toluene	450	5.0	10	02/06/2016 22:12
Ethylbenzene	110	5.0	10	02/06/2016 22:12
Xylenes	300	15	10	02/06/2016 22:12

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	104	70-130	02/06/2016 22:12

Analyst(s): IA

Analytical Comments: d1



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-1	1602148-001A	Soil	02/02/2016	ICP-MS1	116201
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	7.5		0.50	1	02/04/2016 16:07
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Terbium	104		70-130		02/04/2016 16:07
<u>Analyst(s):</u> DVH					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-15	1602148-004A	Soil	02/02/2016	ICP-MS3	116228
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	2.2		0.50	1	02/04/2016 11:45
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Terbium	104		70-130		02/04/2016 11:45
<u>Analyst(s):</u> AC					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-20	1602148-005A	Soil	02/02/2016	ICP-MS1	116228
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	1.9		0.50	1	02/04/2016 16:13
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Terbium	107		70-130		02/04/2016 16:13
<u>Analyst(s):</u> DVH					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-22.5	1602148-006A	Soil	02/02/2016	ICP-MS1	116228
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	2.6		0.50	1	02/04/2016 16:31
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Terbium	110		70-130		02/04/2016 16:31
<u>Analyst(s):</u> AC					

(Cont.)



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-1	1602148-007A	Soil	02/02/2016	ICP-MS1	116228
<u>Analytes</u>					
Lead	Result		RL	DF	Date Analyzed
	130		0.50	1	02/04/2016 16:37
<u>Surrogates</u>					
Terbium	REC (%)		Limits		
	104		70-130		02/04/2016 16:37
Analyst(s): AC					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-15	1602148-010A	Soil	02/02/2016	ICP-MS1	116228
<u>Analytes</u>					
Lead	Result		RL	DF	Date Analyzed
	2.2		0.50	1	02/04/2016 16:43
<u>Surrogates</u>					
Terbium	REC (%)		Limits		
	105		70-130		02/04/2016 16:43
Analyst(s): AC					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-20	1602148-011A	Soil	02/02/2016	ICP-MS1	116228
<u>Analytes</u>					
Lead	Result		RL	DF	Date Analyzed
	4.6		0.50	1	02/04/2016 16:49
<u>Surrogates</u>					
Terbium	REC (%)		Limits		
	106		70-130		02/04/2016 16:49
Analyst(s): AC					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B2-22.5	1602148-012A	Soil	02/02/2016	ICP-MS1	116228
<u>Analytes</u>					
Lead	Result		RL	DF	Date Analyzed
	3.0		0.50	1	02/04/2016 16:55
<u>Surrogates</u>					
Terbium	REC (%)		Limits		
	109		70-130		02/04/2016 16:55
Analyst(s): AC					

(Cont.)



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-1	1602148-013A	Soil	02/02/2016	ICP-MS1	116228
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead		16	0.50	1	02/04/2016 17:01
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
Terbium		105	70-130		02/04/2016 17:01
<u>Analyst(s):</u> AC					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-15	1602148-016A	Soil	02/02/2016	ICP-MS1	116228
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead		2.2	0.50	1	02/04/2016 17:26
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
Terbium		107	70-130		02/04/2016 17:26
<u>Analyst(s):</u> AC					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-20	1602148-017A	Soil	02/02/2016	ICP-MS1	116228
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead		2.3	0.50	1	02/04/2016 17:44
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
Terbium		106	70-130		02/04/2016 17:44
<u>Analyst(s):</u> AC					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-22.5	1602148-018A	Soil	02/02/2016	ICP-MS1	116228
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead		3.1	0.50	1	02/04/2016 17:50
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
Terbium		108	70-130		02/04/2016 17:50
<u>Analyst(s):</u> AC					



Analytical Report

Client: Geosolve, Inc.
Date Received: 2/3/16 18:07
Date Prepared: 2/3/16
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1	1602148-019C	Water	02/02/2016	ICP-MS2	116162

Analytes	Result	RL	DF	Date Analyzed
Lead	21	5.0	10	02/04/2016 16:43
Surrogates	REC (%)	Limits		
Terbium	103	70-130		02/04/2016 16:43

Analyst(s): AC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2	1602148-020C	Water	02/02/2016	ICP-MS2	116162

Analytes	Result	RL	DF	Date Analyzed
Lead	13	5.0	10	02/04/2016 16:49
Surrogates	REC (%)	Limits		
Terbium	101	70-130		02/04/2016 16:49

Analyst(s): AC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-3	1602148-021C	Water	02/02/2016	ICP-MS2	116162

Analytes	Result	RL	DF	Date Analyzed
Lead	5.9	5.0	10	02/04/2016 17:07
Surrogates	REC (%)	Limits		
Terbium	103	70-130		02/04/2016 17:07

Analyst(s): AC



Quality Control Report

Client: Geosolve, Inc.
Date Prepared: 2/3/16
Date Analyzed: 2/4/16
Instrument: GC18, GC28
Matrix: Soil
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
BatchID: 116226
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-116226
 1602146-011AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0611	0.0050	0.050	-	122, F2	53-116
Benzene	ND	0.0594	0.0050	0.050	-	119	63-137
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.248	0.050	0.20	-	124	41-135
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0546	0.0050	0.050	-	109	77-121
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0558	0.0040	0.050	-	112	67-119
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0609	0.0040	0.050	-	122	58-135
1,1-Dichloroethene	ND	0.0533	0.0050	0.050	-	107	42-145
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-

(Cont.)



Quality Control Report

Client: Geosolve, Inc.
Date Prepared: 2/3/16
Date Analyzed: 2/4/16
Instrument: GC18, GC28
Matrix: Soil
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
BatchID: 116226
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-116226
 1602146-011AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
Diisopropyl ether (DIPE)	ND	0.0629	0.0050	0.050	-	126	52-129
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0624	0.0050	0.050	-	125	53-125
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0590	0.0050	0.050	-	118	58-122
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0513	0.0050	0.050	-	103	76-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0594	0.0050	0.050	-	119	72-132
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-

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Quality Control Report

Client:	Geosolve, Inc.	WorkOrder:	1602148
Date Prepared:	2/3/16	BatchID:	116226
Date Analyzed:	2/4/16	Extraction Method:	SW5030B
Instrument:	GC18, GC28	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	2016-03; Lennar-Oakland	Sample ID:	MB/LCS-116226 1602146-011AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	0.125	0.150		0.12	100	120	70-130
Toluene-d8	0.136	0.135		0.12	109	108	70-130
4-BFB	0.0110	0.0124		0.012	88	99	70-130
Benzene-d6	0.105	0.125		0.10	105	125	60-140
Ethylbenzene-d10	0.115	0.116		0.10	115	116	60-140
1,2-DCB-d4	0.0872	0.108		0.10	87	108	60-140

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0584	0.0579	0.050	ND<0.010	117,F1	116,F1	56-94	0.718	20
Benzene	NR	NR	0.050	0.05987	NR	NR	60-106	NR	20
t-Butyl alcohol (TBA)	0.304	0.318	0.20	ND<0.10	134	141,F1	56-140	4.40	20
Chlorobenzene	0.0503	0.0489	0.050	ND<0.010	101	98	61-108	2.91	20
1,2-Dibromoethane (EDB)	0.0502	0.0505	0.050	ND<0.0080	100	101	54-119	0.609	20
1,2-Dichloroethane (1,2-DCA)	0.0586	0.0581	0.050	ND<0.0080	117,F1	116,F1	48-115	0.872	20
1,1-Dichloroethene	0.0497	0.0487	0.050	ND<0.010	99	97	46-111	2.07	20
Diisopropyl ether (DIPE)	0.0577	0.0588	0.050	ND<0.010	115,F1	118,F1	53-111	1.84	20
Ethyl tert-butyl ether (ETBE)	0.0567	0.0584	0.050	ND<0.010	113,F1	117,F1	61-104	2.82	20
Methyl-t-butyl ether (MTBE)	NR	NR	0.050	0.2056	NR	NR	58-107	NR	20
Toluene	NR	NR	0.050	0.05215	NR	NR	64-114	NR	20
Trichloroethene	0.0545	0.0526	0.050	ND<0.010	109	105	60-116	3.56	20
Surrogate Recovery									
Dibromofluoromethane	0.152	0.152	0.12		121	122	70-130	0.504	20
Toluene-d8	0.129	0.131	0.12		103	105	70-130	1.29	20
4-BFB	0.0115	0.0119	0.012		92	95	88-121	3.94	20
Benzene-d6	0.114	0.116	0.10		114	116	60-140	1.16	20
Ethylbenzene-d10	0.106	0.106	0.10		106	106	60-140	0	20
1,2-DCB-d4	0.0992	0.101	0.10		99	101	60-140	1.75	20

(Cont.)



Quality Control Report

Client: Geosolve, Inc.
Date Prepared: 2/3/16
Date Analyzed: 2/4/16
Instrument: GC10, GC16
Matrix: Soil
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
BatchID: 116229
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-116229
 1602148-018AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0406	0.0050	0.050	-	81	53-116
Benzene	ND	0.0470	0.0050	0.050	-	94	63-137
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.186	0.050	0.20	-	93	41-135
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0458	0.0050	0.050	-	92	77-121
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0428	0.0040	0.050	-	86	67-119
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0471	0.0040	0.050	-	94	58-135
1,1-Dichloroethene	ND	0.0439	0.0050	0.050	-	88	42-145
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-

(Cont.)



Quality Control Report

Client: Geosolve, Inc.
Date Prepared: 2/3/16
Date Analyzed: 2/4/16
Instrument: GC10, GC16
Matrix: Soil
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
BatchID: 116229
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-116229
 1602148-018AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
Diisopropyl ether (DIPE)	ND	0.0460	0.0050	0.050	-	92	52-129
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0440	0.0050	0.050	-	88	53-125
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0426	0.0050	0.050	-	85	58-122
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0489	0.0050	0.050	-	98	76-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0483	0.0050	0.050	-	97	72-132
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-

(Cont.)



Quality Control Report

Client: Geosolve, Inc.
Date Prepared: 2/3/16
Date Analyzed: 2/4/16
Instrument: GC10, GC16
Matrix: Soil
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
BatchID: 116229
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-116229
 1602148-018AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	0.131	0.125		0.12	105	100	70-130
Toluene-d8	0.159	0.159		0.12	127	127	70-130
4-BFB	0.0121	0.0122		0.012	97	97	70-130
Benzene-d6	0.111	0.117		0.10	111	117	60-140
Ethylbenzene-d10	0.127	0.138		0.10	127	138	60-140
1,2-DCB-d4	0.106	0.0799		0.10	106	80	60-140

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	NR	NR		ND<0.5	NR	NR	-	NR	
Benzene	NR	NR		ND<0.5	NR	NR	-	NR	
t-Butyl alcohol (TBA)	NR	NR		ND<5	NR	NR	-	NR	
Chlorobenzene	NR	NR		ND<0.5	NR	NR	-	NR	
1,2-Dibromoethane (EDB)	NR	NR		ND<0.4	NR	NR	-	NR	
1,2-Dichloroethane (1,2-DCA)	NR	NR		ND<0.4	NR	NR	-	NR	
1,1-Dichloroethene	NR	NR		ND<0.5	NR	NR	-	NR	
Diisopropyl ether (DIPE)	NR	NR		ND<0.5	NR	NR	-	NR	
Ethyl tert-butyl ether (ETBE)	NR	NR		ND<0.5	NR	NR	-	NR	
Methyl-t-butyl ether (MTBE)	NR	NR		ND<0.5	NR	NR	-	NR	
Toluene	NR	NR		0.64	NR	NR	-	NR	
Trichloroethene	NR	NR		ND<0.5	NR	NR	-	NR	

Surrogate Recovery									
Dibromofluoromethane	NR	NR			NR	NR	-	NR	
Toluene-d8	NR	NR			NR	NR	-	NR	
4-BFB	NR	NR			NR	NR	-	NR	
Benzene-d6	NR	NR			NR	NR	-	NR	
Ethylbenzene-d10	NR	NR			NR	NR	-	NR	
1,2-DCB-d4	NR	NR			NR	NR	-	NR	



Quality Control Report

Client: Geosolve, Inc.
Date Prepared: 2/8/16
Date Analyzed: 2/8/16
Instrument: GC10
Matrix: Water
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
BatchID: 116416
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-116416
 1602187-001CMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	12.6	0.50	10	-	126	54-140
Benzene	ND	12.2	0.50	10	-	122	47-158
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	42.8	2.0	40	-	107	42-140
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	11.9	0.50	10	-	119	43-157
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	11.7	0.50	10	-	117	44-155
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	11.6	0.50	10	-	116	66-125
1,1-Dichloroethene	ND	11.6	0.50	10	-	116	47-149
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-

(Cont.)



Quality Control Report

Client: Geosolve, Inc.
Date Prepared: 2/8/16
Date Analyzed: 2/8/16
Instrument: GC10
Matrix: Water
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
BatchID: 116416
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-116416
 1602187-001CMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
Diisopropyl ether (DIPE)	ND	12.2	0.50	10	-	122	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	12.6	0.50	10	-	126	55-137
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	12.0	0.50	10	-	120	53-139
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	11.3	0.50	10	-	113	52-137
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	12.0	0.50	10	-	120	43-157
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

(Cont.)



Quality Control Report

Client: Geosolve, Inc.
Date Prepared: 2/8/16
Date Analyzed: 2/8/16
Instrument: GC10
Matrix: Water
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
BatchID: 116416
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-116416
 1602187-001CMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	27.0	27.9		25	108	111	70-130
Toluene-d8	28.7	28.6		25	115	114	70-130
4-BFB	2.05	2.20		2.5	82	88	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	13.9	12.9	10	ND	139	129	69-139	7.77	20
Benzene	12.5	11.6	10	ND	125	116	69-141	7.70	20
t-Butyl alcohol (TBA)	52.5	50.2	40	ND	129	123	41-152	4.43	20
Chlorobenzene	12.6	11.6	10	ND	126,F1	116	77-120	8.15	20
1,2-Dibromoethane (EDB)	13.4	12.5	10	ND	134	125	76-135	7.11	20
1,2-Dichloroethane (1,2-DCA)	12.7	11.7	10	ND	127	117	73-139	8.01	20
1,1-Dichloroethene	12.1	11.2	10	ND	121	112	59-140	7.73	20
Diisopropyl ether (DIPE)	12.0	11.0	10	ND	120	110	72-140	8.21	20
Ethyl tert-butyl ether (ETBE)	13.0	12.0	10	ND	130	120	71-140	8.17	20
Methyl-t-butyl ether (MTBE)	13.5	12.6	10	ND	135	125	73-139	7.46	20
Toluene	11.8	10.9	10	ND	114	105	71-128	7.96	20
Trichloroethene	12.8	11.7	10	ND	128	117	64-132	8.36	20
Surrogate Recovery									
Dibromofluoromethane	28.0	27.7	25		112	111	73-131	1.22	20
Toluene-d8	28.7	28.8	25		115	115	72-117	0	20
4-BFB	2.44	2.47	2.5		98	99	74-116	1.25	20

(Cont.)



Quality Control Report

Client: Geosolve, Inc.
Date Prepared: 2/8/16
Date Analyzed: 2/8/16
Instrument: GC28
Matrix: Water
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
BatchID: 116418
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-116418
 1602099-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	11.2	0.50	10	-	112	54-140
Benzene	ND	11.0	0.50	10	-	110	47-158
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	48.6	2.0	40	-	122	42-140
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	11.4	0.50	10	-	114	43-157
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	11.4	0.50	10	-	114	44-155
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	11.0	0.50	10	-	110	66-125
1,1-Dichloroethene	ND	12.1	0.50	10	-	121	47-149
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-

(Cont.)



Quality Control Report

Client: Geosolve, Inc.
Date Prepared: 2/8/16
Date Analyzed: 2/8/16
Instrument: GC28
Matrix: Water
Project: 2016-03; Lennar-Oakland

WorkOrder: 1602148
BatchID: 116418
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-116418
 1602099-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
Diisopropyl ether (DIPE)	ND	11.4	0.50	10	-	114	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	10.9	0.50	10	-	109	55-137
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	11.5	0.50	10	-	115	53-139
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	9.80	0.50	10	-	98	52-137
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	11.6	0.50	10	-	115	43-157
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

(Cont.)



Quality Control Report

Client: Geosolve, Inc.	WorkOrder: 1602148
Date Prepared: 2/8/16	BatchID: 116418
Date Analyzed: 2/8/16	Extraction Method: SW5030B
Instrument: GC28	Analytical Method: SW8260B
Matrix: Water	Unit: µg/L
Project: 2016-03; Lennar-Oakland	Sample ID: MB/LCS-116418 1602099-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	26.8	27.4		25	107	110	70-130
Toluene-d8	24.7	24.5		25	99	98	70-130
4-BFB	2.03	2.09		2.5	81	84	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	11.2	10.9	10	ND	112	109	69-139	2.98	20
Benzene	10.3	10.0	10	ND	103	100	69-141	2.84	20
t-Butyl alcohol (TBA)	51.8	47.4	40	ND	130	118	41-152	8.99	20
Chlorobenzene	10.8	10.8	10	ND	108	108	77-120	0	20
1,2-Dibromoethane (EDB)	11.6	11.5	10	ND	116	115	76-135	1.33	20
1,2-Dichloroethane (1,2-DCA)	10.6	10.3	10	ND	106	103	73-139	2.67	20
1,1-Dichloroethene	11.1	10.2	10	ND	111	102	59-140	8.28	20
Diisopropyl ether (DIPE)	10.8	10.6	10	ND	108	106	72-140	2.23	20
Ethyl tert-butyl ether (ETBE)	10.6	10.3	10	ND	106	103	71-140	2.79	20
Methyl-t-butyl ether (MTBE)	11.6	11.2	10	ND	117	112	73-139	3.62	20
Toluene	9.24	9.20	10	ND	92	92	71-128	0	20
Trichloroethene	10.9	10.7	10	ND	109	107	64-132	1.47	20
Surrogate Recovery									
Dibromofluoromethane	27.3	27.3	25		109	109	70-130	0	20
Toluene-d8	24.4	24.4	25		98	98	70-130	0	20
4-BFB	2.14	2.09	2.5		85	84	70-130	2.15	20



Quality Control Report

Client: Geosolve, Inc.	WorkOrder: 1602148
Date Prepared: 2/3/16	BatchID: 116227
Date Analyzed: 2/4/16	Extraction Method: SW5030B
Instrument: GC7	Analytical Method: SW8021B/8015Bm
Matrix: Soil	Unit: mg/Kg
Project: 2016-03; Lennar-Oakland	Sample ID: MB/LCS-116227 1602148-011AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.534	0.40	0.60	-	89	70-130
MTBE	ND	0.0794	0.050	0.10	-	79	70-130
Benzene	ND	0.0926	0.0050	0.10	-	93	70-130
Toluene	ND	0.0905	0.0050	0.10	-	91	70-130
Ethylbenzene	ND	0.0919	0.0050	0.10	-	92	70-130
Xylenes	ND	0.292	0.015	0.30	-	97	70-130

Surrogate Recovery

2-Fluorotoluene	0.105	0.110		0.10	105	109	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	NR	NR		9.2	NR	NR	-	NR	
MTBE	NR	NR		ND<0.5	NR	NR	-	NR	
Benzene	NR	NR		ND<0.05	NR	NR	-	NR	
Toluene	NR	NR		ND<0.05	NR	NR	-	NR	
Ethylbenzene	NR	NR		0.12	NR	NR	-	NR	
Xylenes	NR	NR		ND<0.15	NR	NR	-	NR	

Surrogate Recovery

2-Fluorotoluene	NR	NR			NR	NR	-	NR	
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Quality Control Report

Client:	Geosolve, Inc.	WorkOrder:	1602148
Date Prepared:	2/2/16	BatchID:	116162
Date Analyzed:	2/3/16	Extraction Method:	E200.8
Instrument:	ICP-MS1	Analytical Method:	E200.8
Matrix:	Water	Unit:	µg/L
Project:	2016-03; Lennar-Oakland	Sample ID:	MB/LCS-116162 1602118-001EMS/MSD

QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	51.5	0.50	50	-	103	85-115
Surrogate Recovery							
Terbium	768	786		750	102	105	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	50.4	51.7	50	ND	101	103	70-130	2.41	20
Surrogate Recovery									
Terbium	770	789	750		103	105	70-130	2.44	20



Quality Control Report

Client: Geosolve, Inc.	WorkOrder: 1602148
Date Prepared: 2/3/16	BatchID: 116201
Date Analyzed: 2/3/16	Extraction Method: SW3050B
Instrument: ICP-MS2	Analytical Method: SW6020
Matrix: Soil	Unit: mg/Kg
Project: 2016-03; Lennar-Oakland	Sample ID: MB/LCS-116201 1602120-009AMS/MSD

QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	51.8	0.50	50	-	104	75-125
Surrogate Recovery							
Terbium	509	514		500	102	103	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	66.1	65.0	50	18.21	96	94	75-125	1.66	20
Surrogate Recovery									
Terbium	521	498	500		104	100	70-130	4.53	20



Quality Control Report

Client: Geosolve, Inc.	WorkOrder: 1602148
Date Prepared: 2/3/16	BatchID: 116228
Date Analyzed: 2/4/16	Extraction Method: SW3050B
Instrument: ICP-MS3	Analytical Method: SW6020
Matrix: Soil	Unit: mg/Kg
Project: 2016-03; Lennar-Oakland	Sample ID: MB/LCS-116228 1602148-004AMS/MSD

QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	52.2	0.50	50	-	104	75-125
Surrogate Recovery							
Terbium	522	508		500	104	102	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	54.2	55.3	50	2.222	104	106	75-125	2.16	20
Surrogate Recovery									
Terbium	514	527	500		103	105	70-130	2.54	20



Quality Control Report

Client: Geosolve, Inc.	WorkOrder: 1602148
Date Prepared: 2/6/16	BatchID: 116361
Date Analyzed: 2/6/16	Extraction Method: SW5030B
Instrument: GC3	Analytical Method: SW8021B/8015Bm
Matrix: Water	Unit: µg/L
Project: 2016-03; Lennar-Oakland	Sample ID: MB/LCS-116361 1602188-002AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	60.8	40	60	-	101	70-130
MTBE	ND	8.38	5.0	10	-	84	70-130
Benzene	ND	9.55	0.50	10	-	96	70-130
Toluene	ND	9.70	0.50	10	-	97	70-130
Ethylbenzene	ND	9.87	0.50	10	-	99	70-130
Xylenes	ND	29.9	1.5	30	-	100	70-130

Surrogate Recovery

aaa-TFT	10.1	9.50		10	101	95	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	60.7	59.6	60	ND	101	99	70-130	1.91	20
MTBE	8.48	8.26	10	ND	85	83	70-130	2.54	20
Benzene	9.44	9.37	10	ND	94	94	70-130	0	20
Toluene	9.58	9.53	10	ND	96	95	70-130	0.568	20
Ethylbenzene	9.80	9.64	10	ND	98	96	70-130	1.66	20
Xylenes	29.6	29.3	30	ND	99	98	70-130	1.03	20

Surrogate Recovery

aaa-TFT	9.45	9.49	10		95	95	70-130	0	20
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1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1602148

ClientCode: GSP

WaterTrax
 WriteOn
 EDF
 Excel
 EQUIS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

Rob Campbell
Geosolve, Inc.
1807 Santa Rita Road, Suite D-165
Pleasanton, CA 94566
(925) 963-1198 FAX:

Email: rcampbell@geosolve-inc.com
cc/3rd Party:
PO: 2016-03
ProjectNo: 2016-03; Lennar-Oakland

Bill to:

Lisa Campbell
Geosolve, Inc.
1807 Santa Rita Road, Suite D-165
Pleasanton, CA 94566
lcampbell@geosolve-inc.com

Requested TAT: 5 days;

Date Received: 02/03/2016
Date Logged: 02/03/2016

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1602148-001	B1-1	Soil	2/2/2016	<input type="checkbox"/>					A							
1602148-004	B1-15	Soil	2/2/2016	<input type="checkbox"/>	A		A		A							
1602148-005	B1-20	Soil	2/2/2016	<input type="checkbox"/>	A		A		A							
1602148-006	B1-22.5	Soil	2/2/2016	<input type="checkbox"/>	A		A		A							
1602148-007	B2-1	Soil	2/2/2016	<input type="checkbox"/>					A							
1602148-010	B2-15	Soil	2/2/2016	<input type="checkbox"/>	A		A		A							
1602148-011	B2-20	Soil	2/2/2016	<input type="checkbox"/>	A		A		A							
1602148-012	B2-22.5	Soil	2/2/2016	<input type="checkbox"/>	A		A		A							
1602148-013	B3-1	Soil	2/2/2016	<input type="checkbox"/>					A							
1602148-016	B3-15	Soil	2/2/2016	<input type="checkbox"/>	A		A		A							
1602148-017	B3-20	Soil	2/2/2016	<input type="checkbox"/>	A		A		A							
1602148-018	B3-22.5	Soil	2/2/2016	<input type="checkbox"/>	A		A		A							
1602148-019	B-1	Water	2/2/2016	<input type="checkbox"/>		B		A		C						
1602148-020	B-2	Water	2/2/2016	<input type="checkbox"/>		B		A		C						
1602148-021	B-3	Water	2/2/2016	<input type="checkbox"/>		B		A		C						

Test Legend:

1	8260B_S	2	8260B_W	3	G-MBTEX_S	4	G-MBTEX_W
5	PBMS_TTLC_S	6	PBMS_TTLC_W	7		8	
9		10		11		12	

Prepared by: Briana Cutino

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: GEOSOLVE, INC.
Project: 2016-03; Lennar-Oakland
Comments:

QC Level: LEVEL 2
Client Contact: Rob Campbell
Contact's Email: rcampbell@geosolve-inc.com

Work Order: 1602148
Date Logged: 2/3/2016

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Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1602148-001A	B1-1	Soil	SW6020 (Lead)	1	Acetate Liner	<input type="checkbox"/>	2/2/2016	5 days		<input type="checkbox"/>	
1602148-002A	B1-5	Soil		1	Acetate Liner	<input type="checkbox"/>	2/2/2016			<input checked="" type="checkbox"/>	
1602148-003A	B1-10	Soil		1	Acetate Liner	<input type="checkbox"/>	2/2/2016			<input checked="" type="checkbox"/>	
1602148-004A	B1-15	Soil	SW6020 (Lead)	1	Acetate Liner	<input type="checkbox"/>	2/2/2016	5 days		<input type="checkbox"/>	
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1602148-005A	B1-20	Soil	SW6020 (Lead)	1	Acetate Liner	<input type="checkbox"/>	2/2/2016	5 days		<input type="checkbox"/>	
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1602148-006A	B1-22.5	Soil	SW6020 (Lead)	1	Acetate Liner	<input type="checkbox"/>	2/2/2016	5 days		<input type="checkbox"/>	
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1602148-007A	B2-1	Soil	SW6020 (Lead)	1	Acetate Liner	<input type="checkbox"/>	2/2/2016	5 days		<input type="checkbox"/>	
1602148-008A	B2-5	Soil		1	Acetate Liner	<input type="checkbox"/>	2/2/2016			<input checked="" type="checkbox"/>	
1602148-009A	B2-10	Soil		1	Acetate Liner	<input type="checkbox"/>	2/2/2016			<input checked="" type="checkbox"/>	
1602148-010A	B2-15	Soil	SW6020 (Lead)	1	Acetate Liner	<input type="checkbox"/>	2/2/2016	5 days		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).
 - MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



WORK ORDER SUMMARY

Client Name: GEOSOLVE, INC.
Project: 2016-03; Lennar-Oakland
Comments:

QC Level: LEVEL 2
Client Contact: Rob Campbell
Contact's Email: rcampbell@geosolve-inc.com

Work Order: 1602148
Date Logged: 2/3/2016

WaterTrax
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 ThirdParty
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Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1602148-010A	B2-15	Soil	SW8021B/8015Bm (G/MBTEX)	1	Acetate Liner	<input type="checkbox"/>	2/2/2016	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1602148-011A	B2-20	Soil	SW6020 (Lead)	1	Acetate Liner	<input type="checkbox"/>	2/2/2016	5 days		<input type="checkbox"/>	
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1602148-012A	B2-22.5	Soil	SW6020 (Lead)	1	Acetate Liner	<input type="checkbox"/>	2/2/2016	5 days		<input type="checkbox"/>	
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1602148-013A	B3-1	Soil	SW6020 (Lead)	1	Acetate Liner	<input type="checkbox"/>	2/2/2016	5 days		<input type="checkbox"/>	
1602148-014A	B3-5	Soil		1	Acetate Liner	<input type="checkbox"/>	2/2/2016			<input checked="" type="checkbox"/>	
1602148-015A	B3-10	Soil		1	Acetate Liner	<input type="checkbox"/>	2/2/2016			<input checked="" type="checkbox"/>	
1602148-016A	B3-15	Soil	SW6020 (Lead)	1	Acetate Liner	<input type="checkbox"/>	2/2/2016	5 days		<input type="checkbox"/>	
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1602148-017A	B3-20	Soil	SW6020 (Lead)	1	Acetate Liner	<input type="checkbox"/>	2/2/2016	5 days		<input type="checkbox"/>	
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).
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WORK ORDER SUMMARY

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Project: 2016-03; Lennar-Oakland
Comments:

QC Level: LEVEL 2
Client Contact: Rob Campbell
Contact's Email: rcampbell@geosolve-inc.com

Work Order: 1602148
Date Logged: 2/3/2016

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Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1602148-017A	B3-20	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	2/2/2016	5 days		<input type="checkbox"/>	
1602148-018A	B3-22.5	Soil	SW6020 (Lead)	1	Acetate Liner	<input type="checkbox"/>	2/2/2016	5 days		<input type="checkbox"/>	
			SW8021B/8015Bm (G/MBTEX)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1602148-019A	B-1	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	<input type="checkbox"/>	2/2/2016	5 days	Trace	<input type="checkbox"/>	
1602148-019B	B-1	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	2/2/2016	5 days	Trace	<input type="checkbox"/>	
1602148-019C	B-1	Water	E200.8 (Lead)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/2/2016	5 days	Trace	<input type="checkbox"/>	
1602148-020A	B-2	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	<input type="checkbox"/>	2/2/2016	5 days	Trace	<input type="checkbox"/>	
1602148-020B	B-2	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	2/2/2016	5 days	Trace	<input type="checkbox"/>	
1602148-020C	B-2	Water	E200.8 (Lead)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/2/2016	5 days	Trace	<input type="checkbox"/>	
1602148-021A	B-3	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	<input type="checkbox"/>	2/2/2016	5 days	Trace	<input type="checkbox"/>	
1602148-021B	B-3	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	2/2/2016	5 days	Trace	<input type="checkbox"/>	
1602148-021C	B-3	Water	E200.8 (Lead)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/2/2016	5 days	Trace	<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).
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11002148



McC Campbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburg, Ca. 94565-1701
 www.mcccampbell.com / main@mcccampbell.com
 Telephone: (877) 252-9262 / Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: RUSH 1 DAY 2 DAY 3 DAY 5 DAY 10 DAY
 GeoTracker EDF PDF EDD Write On (DW) EQUIS
 Effluent Sample Requiring "J" flag UST Clean Up Fund Project ; Claim # _____

Report To: Rob Campbell Bill To: GeoSolve, Inc.
 Company: GeoSolve, Inc.
1807 Santa Rita Rd #D165 Pleasanton, CA 94566
 Tele: (925) 963-1198 E-Mail: rcampbell@geosolve-inc.com
 Project #: 2016-03 Project Name: Lennar - Oakland
 Project Location: 810 Webster St Purchase Order# 2016-03
 Sampler Signature: [Signature]

Analysis Request

SAMPLE ID	Location/ Field Point Name	SAMPLING		# Containers	MATRIX							METHOD PRESERVED			Analysis Request														Total Lead	Hold									
		Date	Time		Ground Water	Waste Water	Drinking Water	Sea Water	Soil	Air	Sludge	Other	HCL	HNO ₃	Other	BTEX & TPH as Gas (8021/8015) / METRE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664/5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's; Aroclors only	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic CI Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAS)	CAM 17 Metals (200.8 / 6020)***	LUFT 5 Metals (200.8 / 6020)***			Metals (200.8 / 6020)***	Lab to Filter sample for Dissolved metals analysis							
B1-1		2-2-16		1						X																												X	
B1-5				1						X																												X	
B1-10				1						X																											X		
B1-15				1						X																											X		
B1-20				1						X																											X		
B1-22.5				1						X																											X		
B2-1				1						X																											X		
B2-5				1						X																											X		
B2-10				1						X																											X		
B2-15				1						X																											X		
B2-20				1						X																											X		

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

**If metals are requested for water samples and the water type is not specified on the chain of custody, then MAI will default to metals by E200.8.

Relinquished By: <u>[Signature]</u>	Date: <u>2-2-16</u>	Time: <u>1:05</u>	Received By: <u>[Signature]</u>
Relinquished By: <u>[Signature]</u>	Date: <u>2/3/16</u>	Time: <u>1:05</u>	Received By: <u>[Signature]</u>
Relinquished By: _____	Date: _____	Time: _____	Received By: _____

ICE/P 33 COMMENTS:
 GOOD CONDITION _____
 HEAD SPACE ABSENT _____
 DECHLORINATED IN LAB _____
 APPROPRIATE CONTAINERS _____
 PRESERVED IN LAB _____
 VOAS O&G METALS OTHER HAZARDOUS:
 PRESERVATION _____ pH 2

1 of 2



Sample Receipt Checklist

Client Name: Geosolve, Inc. Date and Time Received: 2/3/2016 17:05
Project Name: 2016-03; Lennar-Oakland Date Logged: 2/3/2016
WorkOrder No: 1602148 Matrix: Soil/Water Received by: Briana Cutino
Carrier: Benjamin Yslas (MAI Courier) Logged by: Briana Cutino

Chain of Custody (COC) Information

Chain of custody present? Yes [checked] No []
Chain of custody signed when relinquished and received? Yes [checked] No []
Chain of custody agrees with sample labels? Yes [checked] No []
Sample IDs noted by Client on COC? Yes [checked] No []
Date and Time of collection noted by Client on COC? Yes [checked] No []
Sampler's name noted on COC? Yes [checked] No []

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes [] No [] NA [checked]
Shipping container/cooler in good condition? Yes [checked] No []
Samples in proper containers/bottles? Yes [checked] No []
Sample containers intact? Yes [checked] No []
Sufficient sample volume for indicated test? Yes [checked] No []

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes [checked] No []
Sample/Temp Blank temperature Temp: 3.3°C NA []
Water - VOA vials have zero headspace / no bubbles? Yes [checked] No [] NA []
Sample labels checked for correct preservation? Yes [checked] No []
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes [checked] No [] NA []
Samples Received on Ice? Yes [checked] No []
(Ice Type: WET ICE)

UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes [] No [] NA [checked]
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes [] No [] NA [checked]

* NOTE: If the "No" box is checked, see comments below.

Comments: