

Environmental Restoration Services

Site Investigations * Fuel Tank Closures and Installations * Site Remediation * Regulatory Reporting

UNDERGROUND TANK TECHNICAL CLOSURE REPORT

Client name: Green Oak Builders
Mailing address: 888 Brannan St. #101
San Francisco, CA 94103

Job Site address: 3101 35th Ave., Oakland

Removal date: 1-27-15 EPA # CAC002799088

ERS supervisor: Ben Halsted

Transporter Product : Maximum Oil Service
EPA # : CAL000188867
Telephone # : 888-609-2629

Product destination :	Riverbank Oil Transfer (rinsate)	Ramos Environmental Services(oil)
EPA # :	CAL000190816	CAD044003558
Address :	5300 Claus Rd. Riverbank, CA 95367	1515 S. River Rd. W. Sacramento, CA 95691
Telephone # :	209-863-8181	916-371-5747
Manifest # :	013043531JJK,	013043530JJK,

Tank transporter : ERS
EPA # : Non-Haz
Mailing address : PO Box 2006.
Menlo Park, CA 94026

Tank Destination : Standard Iron Metals
EPA # : Non-Haz
TSD # : Non-Haz
Address : 4525 San Leandro St., Oakland , CA 94601
Telephone : 510-535-0222
Manifest # : Non-Haz (see Closure Cert.).

Inspector : Cesar Avila Date: 1-27-15
Agency : Oakland Fire Time: 9:30 am

Did inspector grant permission to remove tanks? yes
Did inspector specify soil sample locations? yes
Did inspector specify analysis required? yes

PO Box 2006 *Menlo Park California 94026 *Phone 408/655-9434 * Ben@envirest.com

RECEIVED

By Alameda County Environmental Health 3:23 pm, May 19, 2015

Tests required EPA Method 8260B Fuel components and TPH/gasoline
 EPA Method 6010B Total Lead

Additional Tests – waste oil pit and stockpile
 EPA Method 8015 Diesel and motor oil
 EPA Method 8270 PAHs and PNAs
 EPA Method 8082 PCBs
 EPA Method 6020 LUFT five metals

Lab name : McCampbell Analytical
 Address : 1534 Willow Pass Rd., Pittsburg, CA 94565
 Telephone # : 925 252-9269

Was additional excavation ordered by inspector? no
 Final excavation dimensions: 8 by 8 by 7.5 deep at waste oil pit, 12 by 12 by 9 deep at UST pit

Were samples taken from limits of excavation? No, from bottom
 How were samples (soil) obtained: Excavator bucket/Teflon gloved hand driven liner,
 SW TP d 9.5' from bulk material retrieved by hand auger

Were sample(s) taken from below dispenser(s)? yes
 How were sample(s) (soil) obtained: Teflon gloved hand driven liner

Sample #	Depth Location	Analysis
WO d 7.5'	excavation bottom middle @ 7.5'	8260B, 6010B, 8015, 8270, 8082, 6020
T1 d 9'	excavation bottom middle @ 9'	8260B, 6010B
T2 d 9'	excavation bottom middle @ 9'	8260B, 6010B
Disp. SW d 3'	excavation bottom middle @ 3'	8260B, 6010B
Disp. NW d 3'	excavation bottom middle @ 3'	8260B, 6010B
Disp. SE d 3.5'	excavation bottom middle @ 3.5'	8260B, 6010B
Disp. NE d 3'	excavation bottom middle @ 3'	8260B, 6010B

Was excavated material sampled? yes
 How were samples (soil) obtained: Teflon gloved hand driven liner, 4 points

Sample #s : Dispenser SP, WO SP, Main TP SP
 Analysis : 8260B, 6010B, plus 8015, 8270, 8082, 6020 for WO SP

TANK INFO (T-1)

Tank location :	see Fig 1	Tank coating :	none
Tank age :	unknown	Condition of tank :	small holes
Tank material :	steel	Backfill material :	native
Depth to tank top :	4 feet	Water in excavation :	none
Tank dimensions :	4 by 4	Sample Locations :	see Fig. 1
Tank capacity :	350 gallons	# of soil samples :	1
Tank usage :	gasoline	Container :	6" stainless
LEL reading :	0%	# of water samples :	0
Oxygen reading :	20.9%	Type of soil :	silty clay/clayey silt

TANK INFO (T-2)

Tank location	:	see Fig 1	Tank coating	:	none
Tank age	:	unknown	Condition of tank	:	small holes
Tank material	:	steel	Backfill material	:	native
Depth to tank top	:	4 feet	Water in excavation	:	none
Tank dimensions	:	4 by 4	Sample Locations	:	see Fig. 1
Tank capacity	:	350 gallons	# of soil samples	:	1
Tank usage	:	gasoline	Container	:	6" stainless
LEL reading	:	0%	# of water samples	:	0
Oxygen reading	:	20.9%	Type of soil	:	silty clay/clayey silt

TANK INFO (T-WO)

Tank location	:	see Fig 1	Tank coating	:	none
Tank age	:	unknown	Condition of tank	:	good
Tank material	:	steel	Backfill material	:	native
Depth to tank top	:	2 feet	Water in excavation	:	perched surface
Tank dimensions	:	4 by 4	Sample Locations	:	see Fig. 1
Tank capacity	:	350 gallons	# of soil samples	:	1
Tank usage	:	used oil	Container	:	6" stainless
LEL reading	:	0%	# of water samples	:	0
Oxygen reading	:	20.9%	Type of soil	:	silty clay/clayey silt

PROJECT OVERVIEW

Environmental Restoration Services (ERS) removed three 350 gallon underground tanks at 3101 35th Ave., Oakland, California. The scope of work included the following items:

1. Obtain Removal Permits from the Oakland Fire Dept.
2. Provide for the removal of the tanks. Inspect the tanks for signs of leakage. Provide for the proper disposal of the tanks.
3. Obtain samples at the direction of the City Fire Inspector. Have the samples analyzed at a State Certified Laboratory.
4. Preparation and submittal of a Tank Closure Report.

TANK HISTORY AND DESCRIPTION

The tanks were of undetermined age but based on a building department map, were installed prior to 1961. The tank sizes were 4 by 4 feet with an approximate capacity of 350 gallons.

EXCAVATION AND CLEANING OF TANK

Prior to removal on January 19, 2015, the tops of the tanks were exposed and opened. All remaining tank product was removed from each tank and stored on-site in 55-gallon drums. The tanks were then pressure washed with detergent and the rinsate vacuumed into 55 gallon drums. The tanks were then pressure washed with clean water and the rinsate vacuumed dry into 55 gallon drums.

On January 27, 2015, Ben Halsted., Licensed Haz Materials Removal Contractor, reexamined the interiors of the tanks to ensure that they were visually free from product, sludge, scale, rinsate and debris. The oxygen (O₂) level and lower explosive limit (LEL) within the tanks was then checked using a Hydrocarbon Surveyor. LEL and O₂ measurements were taken at the bottom, center and top of the tank. The LEL measurements were zero, with the O₂ measurement at 20.9%.

Ben Halsted then certified the tanks as being rendered non-hazardous by completing the Unified Program Consolidated Form (UPCF) "Hazardous Waste Tank Closure Certification" for tanks. A copy of the certificate accompanied the tanks to the final destination location and is attached to this report.

The tanks were then transported as non-regulated to Standard Iron Metals (Standard) at 4525 San Leandro St., Oakland, CA, and were recycled as scrap steel. The Standard weight certificate is attached to this report.

On January 20, 2015, 100 gallons of tank cleaning rinsate and 125 gallons of oil were removed by Maximum Oil Service (EPA # CAL000188867) of Vallejo, CA under consolidated manifests #013043530JJK and 013043531JJK. The tank cleaning rinsate was transported to Riverbank Oil Transfer EPA # (CAL000190816) of Riverbank, CA for recycling. The tank oil was transported to Ramos Environmental Services EPA # (CAD044003558) of W. Sacramento, CA for recycling. The disposal receipt is attached to this report.

SAMPLING PROCEDURE

On January 27, 2015, ERS recovered three soil samples (T1 d 9', T2 d 9' and WO d 7.5') from approximately 1.5 feet beneath the tank bottoms, which was at approximately 9' bgs for the gas tanks (T1 and T2), and approximately 7.5 bgs for the waste oil tank. The samples were collected as instructed by the Fire Inspector. The soil samples were recovered within two inch diameter by six inch long sleeves. Soil from each sample location was brought to the surface using an excavator bucket. The sample tubes were hand driven into the soil within the bucket until the tubes were completely filled. The liners were sealed with Teflon sheet and plastic caps.

Also on January 27, 2015, four soil samples ((Disp. SW d 3', Disp. NW d 3', Disp. SE d 3.5' and Disp. NE d 4') were collected from between three and 3.5 feet bgs at two pump island locations. The samples were also collected as instructed by the Fire Inspector, and were collected by hand driving the sample tubes directly into the subsurface soils.

At a former tank pit location adjacent to these pump islands, another soil sample was collected by first excavating with a backhoe to about six feet bgs and then extending the hole with a hand auger to about 9.5 bgs. The soil sample was collected as described above from the bulk material retrieved with the hand auger.

Three stockpile samples (Dispenser SP, WO SP, Main TP SP) were collected from stockpiles representing the dispenser and pipe trench soils, the waste oil tank pit soils, and the two adjacent gas tank pit soils. The samples were recovered from four discrete locations at each stockpile, by filling 2" by 6" stainless tubes completely using a gloved hand. Each stainless liner was then sealed with Teflon sheet and plastic caps.

All samples were transported on ice to McCampbell Analytical of Pittsburg, CA, under proper Chain-of-Custody procedures.

SAMPLE ANALYTICAL RESULTS

Benzene, toluene, ethylbenzene and xylenes, MTBE, and other fuel oxygenates and lead scavengers were not detected in any of the samples (EPA Method 9260), except for 0.32 parts per million (ppm) of xylenes that were detected in the sample from the waste oil stockpile (WO SP).

Total Petroleum Hydrocarbons (TPH) as gasoline was detected in three in situ samples, at a concentration of 230 ppm in Disp. SW d 3', at a concentration of 850 ppm in Disp. NW d 3', and at a concentration of 180 ppm in SW TP d 9.5'. These concentrations are in excess of the residential Environmental Screening Level (ESL) of 100 ppm. TPH as gasoline was also detected in the waste oil stockpile sample (WO SP) at a concentration of 32 ppm.

Lead was detected in all of the samples at concentrations ranging between 6.5 and 170 ppm. None of the in situ sample detections were in excess of the ESL.

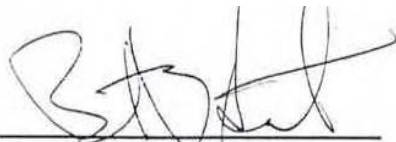
PCBs (EPA Method 8082) and semi-volatile organic compounds (EPA Method 8270) were not detected in the sample from the waste oil pit (WO d 7.5') and the waste oil stockpile (WO SP), except for up to 1.2 ppm of naphthalene compounds in the sample from the waste oil stockpile. Diesel and motor oil were not detected in the sample from the waste oil pit, but were detected in the waste oil stockpile sample at concentrations of 84 and 360 ppm, respectively. Cadmium, chromium, nickel and zinc detected in these samples were below the residential ESLs, and appeared to be naturally occurring background concentrations. Soil stockpiles remain on-site, covered with plastic sheet, and are being profiled for disposal through Republic Services Inc. (Republic), to one or more of the Republic landfill sites.

Analytical results above the laboratory detection limits for all soil samples are summarized on the tables attached to this report. The Chain-of-Custody, laboratory analytical report is also attached to this report.

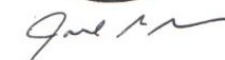
Based on these findings, ERS recommends additional excavation in the vicinity of the western dispenser samples, and further investigation in the vicinity of the tank pit represented by soil sample TP SW d 9.5'. It should be noted that concentrations of dissolved hydrocarbons in groundwater were detected in a monitoring well installed by others, that is located within School Street This well, MW-6, was placed in front of the Property by the consultant for the down gradient leaking tank case at 3055 35th Avenue. A report on the Geotracker database by Weber, Hayes & Associates (WHA) entitled "Quarterly Groundwater Monitoring Report, Former Exxon Station, 3055 35th Avenue", dated May 14, 2013, indicates that for the March, 2014 sampling, 1,800 ppb of Total Petroleum Hydrocarbons (TPH) as gasoline, 710 ppb of diesel, and 230 ppb of benzene were detected in this well, significantly above the Water Quality Objective of 1,000 and one ppb for TPH as gasoline and benzene, respectively.

If there are any questions regarding this report, please call Ben Halsted at 408 655-9434.

Respectfully submitted,



Ben Halsted
Project Manager



Joel G. Greger
CEG No. EG 1633

ATTACHMENTS:

FIGURE 1

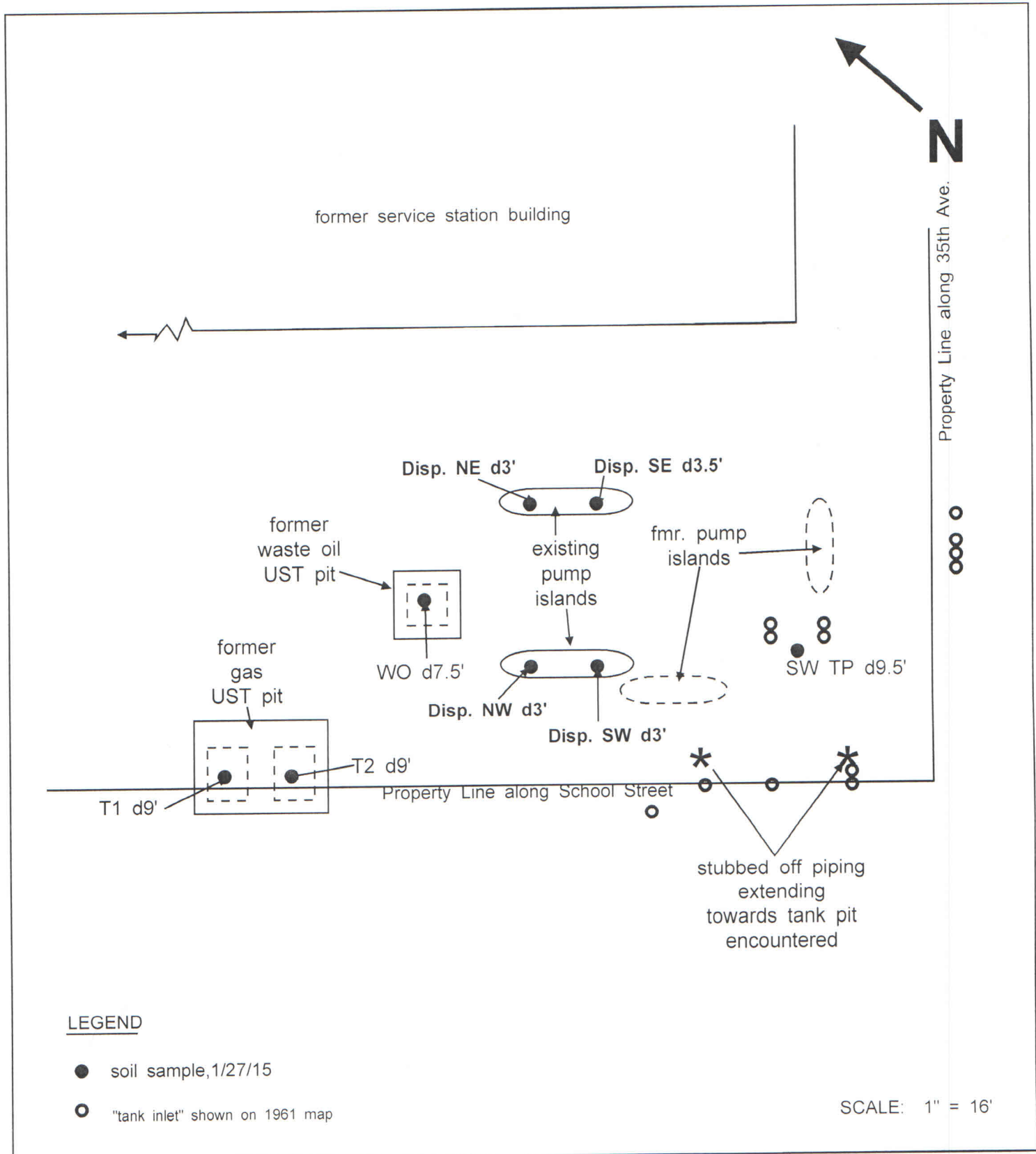
TABLES 1 and 2

TANK CLOSURE CERTIFICATE and

WEIGHT CERTIFICATE

TANK PRODUCT/RINSATE DISPOSAL RECEIPT

**LABORATORY ANALYTICAL RESULTS w/
CHAIN-OF-CUSTODY**



Former Service Station 3101 35th Ave. Oakland, California	Figure No: 1	Date: Jan. 28, 2015
		Drawn By: Joel Greger

Site Plan - Sample Locations

TABLE 1
SOIL ANALYTICAL RESULTS
3101 35th Ave.
Oakland, California

Samples collected on 1/27/15

Sample No.	TPHd (ppm)	TPHmo (ppm)	TPHg (ppm)	8260 inc BTEX, MTBE (ppm)	8270 (ppm)
WO d 7.5'	<1.0	<5.0	<0.25	ND	ND
T1 d 9'	NA	NA	<0.25	ND	NA
T2 d 9'	NA	NA	<0.25	ND	NA
Disp. SW d 3'	NA	NA	230	ND	NA
Disp. NW d 3'	NA	NA	850	ND	NA
Disp. SE d 3.5'	NA	NA	<0.25	ND	NA
Disp. NE d 3'	NA	NA	<0.25	ND	NA
SW TP d 9.5'	NA	NA	180	ND	NA
Dispenser SP	NA	NA	<0.25	ND	NA
Main TP SP	NA	NA	<0.25	ND	NA
WO SP	84	360	32	0.32 xylenes	*
Res./Comm. ESL - < 3m	100/110	100/500	100/500	2.3/2.3 (xylenes)	varies

EXPLANATION:

ppm = parts per million

NA = not analyzed

ANALYTICAL METHODS:

TPHd/TPHmo = Total Petroleum Hydrocarbons as diesel/motor oil according to EPA Method

TPHg = Total Petroleum Hydrocarbons as gasoline according to EPA Method 8260

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes according to EPA Method 8260.

MTBE = Methyl tertiary butyl ether according to EPA Method 8260.

8270 = semivolatile organic compounds by EPA Method 8270.

ESL - Environmental Screening Level - commercial, groundwater is a resource Table A, 2013.

* 0.66 ppm of 1-Methylnaphthalene, 1.2 ppm of 2-Methylbnaphthalene and 0.71 ppm of naphthalene were dete

TABLE 2
SOIL ANALYTICAL RESULTS - METALS
3101 35th Avenue
Samples collected on 1-27-15

Sample No. Depth (feet)	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Nickel (ppm)	Zinc (ppm)
WO D 7.5'	<0.25	46	6.9	100	120
T1 d 9'	NA	NA	6.5	NA	NA
T2 d 9'	NA	NA	9.7	NA	NA
Disp. SW d 3'	NA	NA	25	NA	NA
Disp. NW d 3'	NA	NA	35	NA	NA
Disp. SE d 3.5'	NA	NA	13	NA	NA
Disp. NE d 3'	NA	NA	8.3	NA	NA
SW TP d 9.5'	NA	NA	18	NA	NA
Dispenser SP	NA	NA	170	NA	NA
Main TP SP	NA	NA	43	NA	NA
WO SP	0.32	52	65	80	160
Res./Comm. ESL - < 3m	12/12	1000/2500 (total)	80/320	150/150	600/600
Background *	0.05-1.7	23-1579	12.4-97.1	9-509	88-236
Background **	1.1	58	7.0	68	64

EXPLANATION:

ppm = parts per million

* = Background concentration range in California soils- Bedford et. al (1986)

** = Lawrence Berkeley National Laboratory (LBNL) Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory , Table 3: Summary Statistics for Background

ESL - Environmental Screening Level - groundwater is a resource, Table A, 2013.



Send Payment to:
Maximum Oil Service
 164 Hobbes Way #207
 Vallejo, CA 94591

Invoice No. **34812**

Date **1-20-15**

GENERATOR	Name	Green Oaks Builders	Bill to	Environmental Restoration	
	Address	3101 35th Ave	Address	PO 2006	
	City	Oakland	City	Merid Park	
	State		State	94026	
	Zip		Zip		
Phone	(510) 928-7888	Fax		Phone	(908) 655-9434
Customer EPA #	CA0002799088		Contact		

DESCRIPTION	WASTE CODE	MANIFEST #	QTY	RATE	AMOUNT
Non RCRA Hazardous Waste, Liquid (Used Oil) <input type="checkbox"/> Industrial <input type="checkbox"/> Lubricating	CA 221	013043530 JJK	125	2⁰⁰	250⁰⁰
Non RCRA Hazardous Waste, Liquid (Oil Waste)	CA 223	013043531 JJK	100	2⁵⁰	250⁰⁰
Non RCRA Hazardous Waste, Liquid (Used Antifreeze)	CA 133	JJK			
Transportation		Truck Time	1	9.5	9.5
Test	Pass / Fuel	Test Kit	1	30	30
Drained Used Oil Filters					

PLEASE PAY FROM THIS INVOICE. A service charge of 1.5% per month shall be charged on past due accounts.

TERMS: NET 15 DAYS

TOTAL **\$ 625**

Consolidated Manifest

Source: Collector Station Industrial Marine Agricultural Govt.

PO # **5953**
 Check # **5953**

NOTE: Some facilities may require oil out of state for processing and recycling

Riverbank Oil Transfer
 5301 Clark Road
 Riverbank, CA 95971
 CAL 916 391 814

Evergreen Oil
 5660 Smith Avenue
 Newark, CA 94560
 CAL 925 837 4 8

BEST
 2400 Almond Dr
 Silver Springs, NV 89429
 NV 862 358 483

Bango Oil
 20011 Bango Rd
 Fallon, NV 89426
 NV 860 091 855

DR. D. KAY
 7300 Canyon Way
 Oiler, CA 95622
 CAL 930 012 802

Bayview Oil Transfer
 216 Mineral Street
 Santa Cruz, CA 95062
 CAL 408 543 222

Thermo Fluids
 555 Co. Street
 Sparks, NV 89421
 NV 862 510

Generator certifies that the above named waste stream has not been mixed with any other waste. Further, there has been established a program to reduce the volume & toxicity of waste generated where feasible and practicable.

Driver Signature **[Signature]** Generator Signature **[Signature]** Print

Please keep a copy of this invoice in a "Hazardous Waste" file for three (3) years as required by State law.

EPA # CAL00018867 DTSC # 3670 CA339919
 Maximum Oil Service, LLC Fax 707-548-2804
 1-888-609-2MAX or 1-888-700-4MAX

**UNIFIED PROGRAM CONSOLIDATED FORM
HAZARDOUS WASTE
HAZARDOUS WASTE TANK CLOSURE CERTIFICATION**

Page 1 of 1

I. FACILITY IDENTIFICATION

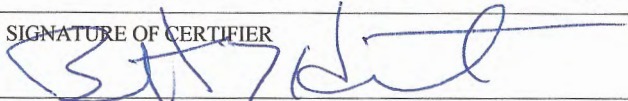
BUSINESS NAME (Same as FACILITY NAME or DBA - Doing Business As) ^{3.}	FACILITY ID#
Vacant Parcel at 3101 35 th Ave., Oakland	
TANK OWNER NAME 740.	
Green Oak Builders Inc.	
TANK OWNER ADDRESS 741.	
888 Brannan St. #101.	
TANK OWNER CITY 742.	STATE 743. ZIP CODE 744.
San Francisco	CA 94103

II. TANK CLOSURE INFORMATION

TANK INTERIOR ATMOSPHERE READINGS	Tank ID # <small>(Attach additional copies of this page for more than three tanks)</small>	Concentration of Flammable Vapor						Concentration of Oxygen					
		Top		Center		Bottom		Top	Center	Bottom			
1	350R 745.	0.0	746a.	0.0	746b.	0.0	746c.	20.9	747a.	20.9	747b.	20.9	747c.
2	350P 748.	0.0	749a.	0.0	749b.	0.0	749c.	20.9	750a.	20.9	750b.	20.9	750c.
3	350W/O 751.	0.0	752a.	0.0	752b.	0.0	752c.	20.9	753a.	20.9	753b.	20.9	753c.

III. CERTIFICATION

On examination of the tank, I certify the tank is visually free from product, sludge, scale (thin, flaky residual of tank contents), rinsate and debris. I further certify that the information provided herein is true and accurate to the best of my knowledge.

SIGNATURE OF CERTIFIER  NAME OF CERTIFIER (Print) 754. BENNETT T HALSTED TITLE OF CERTIFIER 755. HAZ REMOVAL CONTRACTOR ADDRESS 756. PO BOX 2006 CITY 757. MENLO PARK PHONE 758. 408 655 9434 DATE 759. CERTIFICATION TIME 1/27/15 10:00 am	STATUS OR AFFILIATION OF CERTIFYING PERSON Certifier is a representative of the CUPA, authorized agency, or LIA: 760. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Name of CUPA, authorized agency, or LIA: 761. N/A If certifier is other than CUPA / LIA check appropriate box below: 762. <input type="checkbox"/> a. Certified Industrial Hygienist (CIH) <input type="checkbox"/> b. Certified Safety Professional (CSP) <input type="checkbox"/> c. Certified Marine Chemist (CMC) <input type="checkbox"/> d. Registered Environmental Health Specialist (REHS) <input type="checkbox"/> e. Professional Engineer (PE) <input type="checkbox"/> f. Class II Registered Environmental Assessor <input checked="" type="checkbox"/> g. Contractors' State License Board licensed contractor (with hazardous substance removal certification)
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TANK PREVIOUSLY HELD FLAMMABLE OR COMBUSTIBLE MATERIALS 763.
 (If yes, the tank interior atmosphere shall be re-checked with a combustible gas indicator prior to work being conducted on the tank.) Yes No

CERTIFIER'S TANK MANAGEMENT INSTRUCTIONS FOR SCRAP DEALER, DISPOSAL FACILITY, ETC: 764.
 Safe for man, safe for fire.

A copy of this certificate shall accompany the tank to the recycling/disposal facility and be provided to the agency overseeing tank closure (i.e. CUPA or other authorized local agency); the owner and/or operator of the tank system; and the tank removal contractor.



CUSTOMER COPY

Standard Iron Metals
4525 San Leandro St
Oakland, CA 94601
Phone (510) 535-0222
RC - 10992

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

Cust No 49453

BENNETT THOMPSON HALSTED
6103 SHADYGROVE DR
CUPERTINO CA 95014
Driver's Licence: N6300299 CA
Vehicle Plate: 8X69782

Table with 7 columns: Commodity, Gross, Tare, Net, UnitPrice, UM, Amount. Row 1: UNPREP HMS, 11710, 9550, 2160, \$0.025, NET, \$54.00. Row 2: Total, \$54.00.

BILL OF SALE

I HEREBY STATE THAT I AM THE LAWFUL OWNER OF THE MATERIAL DESCRIBED HEREON, THAT I HAVE A RIGHT TO SELL SAME, AND THAT FOR PAYMENT RECEIVED IN FULL, HEREBY ACKNOWLEDGE, I SELL AND CONVEY TITLE OF SAME TO STANDARD IRON METALS. I DECLARE UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT.

EXECUTED AT OAKLAND, CA. THIS DATE: 1/27/2015 Purchase Tag # 353327

I received from SIMCO the amount of \$54.00

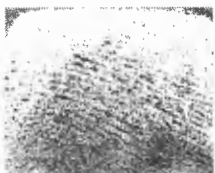
Standard Iron Metals. Weighmaster:
DEPUTY Mendoza, Rogelio
WEIGHED AT 4525 San Leandro St, Oakland CA

Handwritten signature of Bennett Thompson Halsted
Seller's Signature

HOLD HARMLESS AGREEMENT

Seller will indemnify and hold buyer harmless from damages, demands and liabilities, including reasonable attorney's fees, resulting from breach of any warranty hereunder and driver agrees to be responsible for damage to vehicle during unloading.

PAID BY CASH
\$54.00 1/27/2015





McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1501782

Report Created for: Environmental Restoration Services
500 Santa Cruz Ave.
Menlo Park, CA 94025

Project Contact: Ben Halsted
Project P.O.:
Project Name: 3101 35th Ave., Oakland

Project Received: 01/27/2015

Analytical Report reviewed & approved for release on 01/29/2015 by:

Question about
your data?

[Click here to email
McC Campbell](#)

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: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
WorkOrder: 1501782

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
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
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
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
TEQ	Toxicity Equivalence

Analytical Qualifiers

a1	sample diluted due to matrix interference
a3	sample diluted due to high organic content.
e2	diesel range compounds are significant; no recognizable pattern
e4	gasoline range compounds are significant.
e7	oil range compounds are significant
h4	sulfuric acid permanganate (EPA 3665) cleanup

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.
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Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/27/15

WorkOrder: 1501782
Extraction Method: SW3550B
Analytical Method: SW8082
Unit: mg/kg

Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
WOd7.5'	1501782-001A	Soil	01/27/2015 11:11	GC5A	100462

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.050	1	01/28/2015 00:08
Aroclor1221	ND	0.050	1	01/28/2015 00:08
Aroclor1232	ND	0.050	1	01/28/2015 00:08
Aroclor1242	ND	0.050	1	01/28/2015 00:08
Aroclor1248	ND	0.050	1	01/28/2015 00:08
Aroclor1254	ND	0.050	1	01/28/2015 00:08
Aroclor1260	ND	0.050	1	01/28/2015 00:08
PCBs, total	ND	0.050	1	01/28/2015 00:08

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	91	70-130	01/28/2015 00:08

Analyst(s): SS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
WO SP	1501782-009A	Soil	01/27/2015 12:27	GC5A	100462

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	1.0	20	01/29/2015 11:59
Aroclor1221	ND	1.0	20	01/29/2015 11:59
Aroclor1232	ND	1.0	20	01/29/2015 11:59
Aroclor1242	ND	1.0	20	01/29/2015 11:59
Aroclor1248	ND	1.0	20	01/29/2015 11:59
Aroclor1254	ND	1.0	20	01/29/2015 11:59
Aroclor1260	ND	1.0	20	01/29/2015 11:59
PCBs, total	ND	1.0	20	01/29/2015 11:59

Surrogates	REC (%)	Limits	Analytical Comments	Date Analyzed
Decachlorobiphenyl	116	70-130	a1,h4	01/29/2015 11:59

Analyst(s): SS



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/27/15

WorkOrder: 1501782
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Oxygenates, MBTEX & Lead Scavengers by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
W0d7.5'	1501782-001A	Soil	01/27/2015 11:11	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/31/2015 19:30
Benzene	ND	0.0050	1	01/31/2015 19:30
t-Butyl alcohol (TBA)	ND	0.050	1	01/31/2015 19:30
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/31/2015 19:30
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/31/2015 19:30
Diisopropyl ether (DIPE)	ND	0.0050	1	01/31/2015 19:30
Ethylbenzene	ND	0.0050	1	01/31/2015 19:30
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/31/2015 19:30
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/31/2015 19:30
Toluene	ND	0.0050	1	01/31/2015 19:30
Xylenes, Total	ND	0.0050	1	01/31/2015 19:30

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	93	70-130	01/31/2015 19:30
Toluene-d8	93	70-130	01/31/2015 19:30

Analyst(s): KF

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
T1d9'	1501782-002A	Soil	01/27/2015 11:22	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/31/2015 20:13
Benzene	ND	0.0050	1	01/31/2015 20:13
t-Butyl alcohol (TBA)	ND	0.050	1	01/31/2015 20:13
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/31/2015 20:13
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/31/2015 20:13
Diisopropyl ether (DIPE)	ND	0.0050	1	01/31/2015 20:13
Ethylbenzene	ND	0.0050	1	01/31/2015 20:13
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/31/2015 20:13
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/31/2015 20:13
Toluene	ND	0.0050	1	01/31/2015 20:13
Xylenes, Total	ND	0.0050	1	01/31/2015 20:13

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	92	70-130	01/31/2015 20:13
Toluene-d8	93	70-130	01/31/2015 20:13

Analyst(s): KF

(Cont.)



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/27/15

WorkOrder: 1501782
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Oxygenates, MBTEX & Lead Scavengers by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
T2d9'	1501782-003A	Soil	01/27/2015 11:30	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/31/2015 20:55
Benzene	ND	0.0050	1	01/31/2015 20:55
t-Butyl alcohol (TBA)	ND	0.050	1	01/31/2015 20:55
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/31/2015 20:55
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/31/2015 20:55
Diisopropyl ether (DIPE)	ND	0.0050	1	01/31/2015 20:55
Ethylbenzene	ND	0.0050	1	01/31/2015 20:55
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/31/2015 20:55
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/31/2015 20:55
Toluene	ND	0.0050	1	01/31/2015 20:55
Xylenes, Total	ND	0.0050	1	01/31/2015 20:55
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	93	70-130		01/31/2015 20:55
Toluene-d8	93	70-130		01/31/2015 20:55

Analyst(s): KF

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Disp. SWd3'	1501782-004A	Soil	01/27/2015 11:42	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	1.0	200	01/31/2015 21:37
Benzene	ND	1.0	200	01/31/2015 21:37
t-Butyl alcohol (TBA)	ND	10	200	01/31/2015 21:37
1,2-Dibromoethane (EDB)	ND	0.80	200	01/31/2015 21:37
1,2-Dichloroethane (1,2-DCA)	ND	0.80	200	01/31/2015 21:37
Diisopropyl ether (DIPE)	ND	1.0	200	01/31/2015 21:37
Ethylbenzene	ND	1.0	200	01/31/2015 21:37
Ethyl tert-butyl ether (ETBE)	ND	1.0	200	01/31/2015 21:37
Methyl-t-butyl ether (MTBE)	ND	1.0	200	01/31/2015 21:37
Toluene	ND	1.0	200	01/31/2015 21:37
Xylenes, Total	ND	1.0	200	01/31/2015 21:37
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a3	
Dibromofluoromethane	96	70-130		01/31/2015 21:37
Toluene-d8	87	70-130		01/31/2015 21:37

Analyst(s): KF

(Cont.)



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/27/15

WorkOrder: 1501782
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Oxygenates, MBTEX & Lead Scavengers by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Disp. NWd3'	1501782-005A	Soil	01/27/2015 11:47	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	1.0	200	01/31/2015 22:20
Benzene	ND	1.0	200	01/31/2015 22:20
t-Butyl alcohol (TBA)	ND	10	200	01/31/2015 22:20
1,2-Dibromoethane (EDB)	ND	0.80	200	01/31/2015 22:20
1,2-Dichloroethane (1,2-DCA)	ND	0.80	200	01/31/2015 22:20
Diisopropyl ether (DIPE)	ND	1.0	200	01/31/2015 22:20
Ethylbenzene	ND	1.0	200	01/31/2015 22:20
Ethyl tert-butyl ether (ETBE)	ND	1.0	200	01/31/2015 22:20
Methyl-t-butyl ether (MTBE)	ND	1.0	200	01/31/2015 22:20
Toluene	ND	1.0	200	01/31/2015 22:20
Xylenes, Total	ND	1.0	200	01/31/2015 22:20

Surrogates	REC (%)	Limits	Analytical Comments: a3
Dibromofluoromethane	94	70-130	01/31/2015 22:20
Toluene-d8	89	70-130	01/31/2015 22:20

Analyst(s): KF

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Disp. SEd3.5'	1501782-006A	Soil	01/27/2015 11:53	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/31/2015 23:02
Benzene	ND	0.0050	1	01/31/2015 23:02
t-Butyl alcohol (TBA)	ND	0.050	1	01/31/2015 23:02
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/31/2015 23:02
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/31/2015 23:02
Diisopropyl ether (DIPE)	ND	0.0050	1	01/31/2015 23:02
Ethylbenzene	ND	0.0050	1	01/31/2015 23:02
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/31/2015 23:02
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/31/2015 23:02
Toluene	ND	0.0050	1	01/31/2015 23:02
Xylenes, Total	ND	0.0050	1	01/31/2015 23:02

Surrogates	REC (%)	Limits
Dibromofluoromethane	92	70-130
Toluene-d8	93	70-130

Analyst(s): KF

(Cont.)



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/27/15

WorkOrder: 1501782
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Oxygenates, MBTEX & Lead Scavengers by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Disp. NEd3'	1501782-007A	Soil	01/27/2015 11:59	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/31/2015 23:45
Benzene	ND	0.0050	1	01/31/2015 23:45
t-Butyl alcohol (TBA)	ND	0.050	1	01/31/2015 23:45
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/31/2015 23:45
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/31/2015 23:45
Diisopropyl ether (DIPE)	ND	0.0050	1	01/31/2015 23:45
Ethylbenzene	ND	0.0050	1	01/31/2015 23:45
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/31/2015 23:45
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/31/2015 23:45
Toluene	ND	0.0050	1	01/31/2015 23:45
Xylenes, Total	ND	0.0050	1	01/31/2015 23:45
Surrogates	REC (%)	Limits		
Dibromofluoromethane	92	70-130		01/31/2015 23:45
Toluene-d8	93	70-130		01/31/2015 23:45

Analyst(s): KF

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Dispenser SP	1501782-008A	Soil	01/27/2015 12:22	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	02/01/2015 00:27
Benzene	ND	0.0050	1	02/01/2015 00:27
t-Butyl alcohol (TBA)	ND	0.050	1	02/01/2015 00:27
1,2-Dibromoethane (EDB)	ND	0.0040	1	02/01/2015 00:27
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	02/01/2015 00:27
Diisopropyl ether (DIPE)	ND	0.0050	1	02/01/2015 00:27
Ethylbenzene	ND	0.0050	1	02/01/2015 00:27
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	02/01/2015 00:27
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	02/01/2015 00:27
Toluene	ND	0.0050	1	02/01/2015 00:27
Xylenes, Total	ND	0.0050	1	02/01/2015 00:27
Surrogates	REC (%)	Limits		
Dibromofluoromethane	93	70-130		02/01/2015 00:27
Toluene-d8	95	70-130		02/01/2015 00:27

Analyst(s): KF

(Cont.)



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/27/15

WorkOrder: 1501782
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Oxygenates, MBTEX & Lead Scavengers by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
WO SP	1501782-009A	Soil	01/27/2015 12:27	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.050	10	02/03/2015 20:07
Benzene	ND	0.050	10	02/03/2015 20:07
t-Butyl alcohol (TBA)	ND	0.50	10	02/03/2015 20:07
1,2-Dibromoethane (EDB)	ND	0.040	10	02/03/2015 20:07
1,2-Dichloroethane (1,2-DCA)	ND	0.040	10	02/03/2015 20:07
Diisopropyl ether (DIPE)	ND	0.050	10	02/03/2015 20:07
Ethylbenzene	ND	0.050	10	02/03/2015 20:07
Ethyl tert-butyl ether (ETBE)	ND	0.050	10	02/03/2015 20:07
Methyl-t-butyl ether (MTBE)	ND	0.050	10	02/03/2015 20:07
Toluene	ND	0.050	10	02/03/2015 20:07
Xylenes, Total	0.32	0.050	10	02/03/2015 20:07

Surrogates	REC (%)	Limits
Dibromofluoromethane	96	70-130
Toluene-d8	86	70-130

Analyst(s): KF

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MainTP SP	1501782-010A	Soil	01/27/2015 12:30	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	02/01/2015 01:52
Benzene	ND	0.0050	1	02/01/2015 01:52
t-Butyl alcohol (TBA)	ND	0.050	1	02/01/2015 01:52
1,2-Dibromoethane (EDB)	ND	0.0040	1	02/01/2015 01:52
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	02/01/2015 01:52
Diisopropyl ether (DIPE)	ND	0.0050	1	02/01/2015 01:52
Ethylbenzene	ND	0.0050	1	02/01/2015 01:52
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	02/01/2015 01:52
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	02/01/2015 01:52
Toluene	ND	0.0050	1	02/01/2015 01:52
Xylenes, Total	ND	0.0050	1	02/01/2015 01:52

Surrogates	REC (%)	Limits
Dibromofluoromethane	93	70-130
Toluene-d8	94	70-130

Analyst(s): KF

(Cont.)



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/27/15

WorkOrder: 1501782
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Oxygenates, MBTEX & Lead Scavengers by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SW Tpd9.5'	1501782-011A	Soil	01/27/2015 12:20	GC16	100444

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
tert-Amyl methyl ether (TAME)	ND	0.10	20	02/03/2015 20:49
Benzene	ND	0.10	20	02/03/2015 20:49
t-Butyl alcohol (TBA)	ND	1.0	20	02/03/2015 20:49
1,2-Dibromoethane (EDB)	ND	0.080	20	02/03/2015 20:49
1,2-Dichloroethane (1,2-DCA)	ND	0.080	20	02/03/2015 20:49
Diisopropyl ether (DIPE)	ND	0.10	20	02/03/2015 20:49
Ethylbenzene	ND	0.10	20	02/03/2015 20:49
Ethyl tert-butyl ether (ETBE)	ND	0.10	20	02/03/2015 20:49
Methyl-t-butyl ether (MTBE)	ND	0.10	20	02/03/2015 20:49
Toluene	ND	0.10	20	02/03/2015 20:49
Xylenes, Total	ND	0.10	20	02/03/2015 20:49

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a3
Dibromofluoromethane	96	70-130	02/03/2015 20:49
Toluene-d8	87	70-130	02/03/2015 20:49

Analyst(s): KF



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/27/15

WorkOrder: 1501782
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

TPH(g) by Purge & Trap and GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
W0d7.5'	1501782-001A	Soil	01/27/2015 11:11	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	01/31/2015 19:30
Surrogates	REC (%)	Limits		
Dibromofluoromethane	107	70-130		01/31/2015 19:30

Analyst(s): KF

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
T1d9'	1501782-002A	Soil	01/27/2015 11:22	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	01/31/2015 20:13
Surrogates	REC (%)	Limits		
Dibromofluoromethane	104	70-130		01/31/2015 20:13

Analyst(s): KF

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
T2d9'	1501782-003A	Soil	01/27/2015 11:30	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	01/31/2015 20:55
Surrogates	REC (%)	Limits		
Dibromofluoromethane	106	70-130		01/31/2015 20:55

Analyst(s): KF

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Disp. SWd3'	1501782-004A	Soil	01/27/2015 11:42	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	230	50	200	01/31/2015 21:37
Surrogates	REC (%)	Limits		
Dibromofluoromethane	101	70-130		01/31/2015 21:37

Analyst(s): KF

(Cont.)



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/27/15

WorkOrder: 1501782
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

TPH(g) by Purge & Trap and GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Disp. NWd3'	1501782-005A	Soil	01/27/2015 11:47	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	850	50	200	01/31/2015 22:20
Surrogates	REC (%)	Limits		
Dibromofluoromethane	101	70-130		01/31/2015 22:20

Analyst(s): KF

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Disp. SEd3.5'	1501782-006A	Soil	01/27/2015 11:53	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	01/31/2015 23:02
Surrogates	REC (%)	Limits		
Dibromofluoromethane	105	70-130		01/31/2015 23:02

Analyst(s): KF

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Disp. NEd3'	1501782-007A	Soil	01/27/2015 11:59	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	01/31/2015 23:45
Surrogates	REC (%)	Limits		
Dibromofluoromethane	104	70-130		01/31/2015 23:45

Analyst(s): KF

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Dispenser SP	1501782-008A	Soil	01/27/2015 12:22	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	6.0	0.25	1	02/01/2015 00:27
Surrogates	REC (%)	Limits		
Dibromofluoromethane	106	70-130		02/01/2015 00:27

Analyst(s): KF

(Cont.)



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/27/15

WorkOrder: 1501782
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

TPH(g) by Purge & Trap and GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
WO SP	1501782-009A	Soil	01/27/2015 12:27	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	32	2.5	10	02/03/2015 20:07
Surrogates	REC (%)	Limits		
Dibromofluoromethane	101	70-130		02/03/2015 20:07

Analyst(s): KF

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MainTP SP	1501782-010A	Soil	01/27/2015 12:30	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	02/01/2015 01:52
Surrogates	REC (%)	Limits		
Dibromofluoromethane	107	70-130		02/01/2015 01:52

Analyst(s): KF

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SW TPd9.5'	1501782-011A	Soil	01/27/2015 12:20	GC16	100444

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	180	5.0	20	02/03/2015 20:49
Surrogates	REC (%)	Limits		
Dibromofluoromethane	102	70-130		02/03/2015 20:49

Analyst(s): KF



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/29/15

WorkOrder: 1501782
Extraction Method: SW3550B
Analytical Method: SW8270C-SIM
Unit: mg/kg

Polynuclear Aromatic Hydrocarbons (PAHs / PNAs) using SIM Mode by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
W0d7.5'	1501782-001A	Soil	01/27/2015 11:11	GC35	100537

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.010	1	01/29/2015 23:32
Acenaphthylene	ND	0.010	1	01/29/2015 23:32
Anthracene	ND	0.010	1	01/29/2015 23:32
Benzo (a) anthracene	ND	0.010	1	01/29/2015 23:32
Benzo (b) fluoranthene	ND	0.010	1	01/29/2015 23:32
Benzo (k) fluoranthene	ND	0.010	1	01/29/2015 23:32
Benzo (g,h,i) perylene	ND	0.010	1	01/29/2015 23:32
Benzo (a) pyrene	ND	0.010	1	01/29/2015 23:32
Chrysene	ND	0.010	1	01/29/2015 23:32
Dibenzo (a,h) anthracene	ND	0.010	1	01/29/2015 23:32
Fluoranthene	ND	0.010	1	01/29/2015 23:32
Fluorene	ND	0.010	1	01/29/2015 23:32
Indeno (1,2,3-cd) pyrene	ND	0.010	1	01/29/2015 23:32
1-Methylnaphthalene	ND	0.010	1	01/29/2015 23:32
2-Methylnaphthalene	ND	0.010	1	01/29/2015 23:32
Naphthalene	ND	0.010	1	01/29/2015 23:32
Phenanthrene	ND	0.010	1	01/29/2015 23:32
Pyrene	ND	0.010	1	01/29/2015 23:32

Surrogates	REC (%)	Limits	Date Analyzed
1-Fluoronaphthalene	89	30-130	01/29/2015 23:32
2-Fluorobiphenyl	87	30-130	01/29/2015 23:32

Analyst(s): HK



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/29/15

WorkOrder: 1501782
Extraction Method: SW3550B
Analytical Method: SW8270C-SIM
Unit: mg/kg

Polynuclear Aromatic Hydrocarbons (PAHs / PNAs) using SIM Mode by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
WO SP	1501782-009A	Soil	01/27/2015 12:27	GC35	100537

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.10	10	01/30/2015 16:34
Acenaphthylene	ND	0.10	10	01/30/2015 16:34
Anthracene	ND	0.10	10	01/30/2015 16:34
Benzo (a) anthracene	ND	0.10	10	01/30/2015 16:34
Benzo (b) fluoranthene	ND	0.10	10	01/30/2015 16:34
Benzo (k) fluoranthene	ND	0.10	10	01/30/2015 16:34
Benzo (g,h,i) perylene	ND	0.10	10	01/30/2015 16:34
Benzo (a) pyrene	ND	0.10	10	01/30/2015 16:34
Chrysene	ND	0.10	10	01/30/2015 16:34
Dibenzo (a,h) anthracene	ND	0.10	10	01/30/2015 16:34
Fluoranthene	ND	0.10	10	01/30/2015 16:34
Fluorene	ND	0.10	10	01/30/2015 16:34
Indeno (1,2,3-cd) pyrene	ND	0.10	10	01/30/2015 16:34
1-Methylnaphthalene	0.66	0.10	10	01/30/2015 16:34
2-Methylnaphthalene	1.2	0.10	10	01/30/2015 16:34
Naphthalene	0.71	0.10	10	01/30/2015 16:34
Phenanthrene	ND	0.10	10	01/30/2015 16:34
Pyrene	ND	0.10	10	01/30/2015 16:34

Surrogates	REC (%)	Limits	Date Analyzed
1-Fluoronaphthalene	107	30-130	01/30/2015 16:34
2-Fluorobiphenyl	88	30-130	01/30/2015 16:34

Analyst(s): HK



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/27/15

WorkOrder: 1501782
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

LUFT 5 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
W0d7.5'	1501782-001A	Soil/TOTAL	01/27/2015 11:11	ICP-MS2	100446

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	01/28/2015 15:26
Chromium	46	0.50	1	01/28/2015 15:26
Lead	6.9	0.50	1	01/28/2015 15:26
Nickel	100	0.50	1	01/28/2015 15:26
Zinc	120	5.0	1	01/28/2015 15:26

Surrogates	REC (%)	Limits	Date Analyzed
Tb 350.917	113	70-130	01/28/2015 15:26

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
WO SP	1501782-009A	Soil/TOTAL	01/27/2015 12:27	ICP-MS2	100446

Analytes	Result	RL	DF	Date Analyzed
Cadmium	0.32	0.25	1	01/28/2015 15:44
Chromium	52	0.50	1	01/28/2015 15:44
Lead	65	0.50	1	01/28/2015 15:44
Nickel	80	0.50	1	01/28/2015 15:44
Zinc	160	5.0	1	01/28/2015 15:44

Surrogates	REC (%)	Limits	Date Analyzed
Tb 350.917	118	70-130	01/28/2015 15:44

Analyst(s): DVH



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/27/15

WorkOrder: 1501782
Extraction Method: SW3050B
Analytical Method: SW6010B
Unit: mg/Kg

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
T1d9'	1501782-002A	Soil/TOTAL	01/27/2015 11:22	ICP-JY	100463

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	6.5	5.0	1	01/28/2015 14:58
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	108	70-130		01/28/2015 14:58

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
T2d9'	1501782-003A	Soil/TOTAL	01/27/2015 11:30	ICP-JY	100463

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	9.7	5.0	1	01/28/2015 15:06
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	106	70-130		01/28/2015 15:06

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Disp. SWd3'	1501782-004A	Soil/TOTAL	01/27/2015 11:42	ICP-JY	100463

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	25	5.0	1	01/28/2015 15:08
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	105	70-130		01/28/2015 15:08

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Disp. NWd3'	1501782-005A	Soil/TOTAL	01/27/2015 11:47	ICP-JY	100463

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	35	5.0	1	01/28/2015 15:10
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	104	70-130		01/28/2015 15:10

Analyst(s): DVH

(Cont.)



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/27/15

WorkOrder: 1501782
Extraction Method: SW3050B
Analytical Method: SW6010B
Unit: mg/Kg

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Disp. SEd3.5'	1501782-006A	Soil/TOTAL	01/27/2015 11:53	ICP-JY	100463

Analytes	Result	RL	DF	Date Analyzed
Lead	13	5.0	1	01/28/2015 15:13
Surrogates	REC (%)	Limits		
Tb 350.917	103	70-130		01/28/2015 15:13

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Disp. NEd3'	1501782-007A	Soil/TOTAL	01/27/2015 11:59	ICP-JY	100463

Analytes	Result	RL	DF	Date Analyzed
Lead	8.3	5.0	1	01/28/2015 15:15
Surrogates	REC (%)	Limits		
Tb 350.917	108	70-130		01/28/2015 15:15

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Dispenser SP	1501782-008A	Soil/TOTAL	01/27/2015 12:22	ICP-JY	100463

Analytes	Result	RL	DF	Date Analyzed
Lead	170	5.0	1	01/28/2015 15:23
Surrogates	REC (%)	Limits		
Tb 350.917	103	70-130		01/28/2015 15:23

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MainTP SP	1501782-010A	Soil/TOTAL	01/27/2015 12:30	ICP-JY	100463

Analytes	Result	RL	DF	Date Analyzed
Lead	43	5.0	1	01/28/2015 15:25
Surrogates	REC (%)	Limits		
Tb 350.917	108	70-130		01/28/2015 15:25

Analyst(s): DVH

(Cont.)



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/27/15

WorkOrder: 1501782
Extraction Method: SW3050B
Analytical Method: SW6010B
Unit: mg/Kg

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SW TPd9.5'	1501782-011A	Soil/TOTAL	01/27/2015 12:20	ICP-JY	100463

Analytes	Result	RL	DF	Date Analyzed
Lead	18	5.0	1	01/28/2015 15:27

Surrogates	REC (%)	Limits	Date Analyzed
Tb 350.917	106	70-130	01/28/2015 15:27

Analyst(s): DVH



Analytical Report

Client: Environmental Restoration Services
Project: 3101 35th Ave., Oakland
Date Received: 1/27/15 16:30
Date Prepared: 1/27/15

WorkOrder: 1501782
Extraction Method: SW3550B/3630C
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
WOd7.5'	1501782-001A	Soil	01/27/2015 11:11	GC6B	100428

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND	1.0	1	01/29/2015 07:45
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/29/2015 07:45

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	105	70-130	01/29/2015 07:45

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
WO SP	1501782-009A	Soil	01/27/2015 12:27	GC11B	100428

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	84	50	50	01/29/2015 03:35
TPH-Motor Oil (C18-C36)	360	250	50	01/29/2015 03:35

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	107	70-130	01/29/2015 03:35

Analyst(s): TK



Quality Control Report

Client: Environmental Restoration Services
Date Prepared: 1/27/15
Date Analyzed: 1/27/15
Instrument: GC5A
Matrix: Soil
Project: 3101 35th Ave., Oakland

WorkOrder: 1501782
BatchID: 100462
Extraction Method: SW3550B
Analytical Method: SW8082
Unit: mg/kg
Sample ID: MB/LCS-100462
 1501782-001AMS/MSD

QC Summary Report for SW8082

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	0.160	0.050	0.15	-	107	70-130
PCBs, total	ND	-	0.050	-	-	-	-

Surrogate Recovery

Decachlorobiphenyl	0.0455	0.0447		0.050	91	89	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
Aroclor1260	0.156	0.184	0.15	ND	104	123	70-130	16.5	30

Surrogate Recovery

Decachlorobiphenyl	0.0432	0.0484	0.050		86	97	70-130	11.3	30
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Quality Control Report

Client: Environmental Restoration Services
Date Prepared: 1/27/15
Date Analyzed: 1/28/15
Instrument: GC10
Matrix: Soil
Project: 3101 35th Ave., Oakland

WorkOrder: 1501782
BatchID: 100444
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/Kg
Sample ID: MB/LCS-100444
 1501769-001AMS/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	0.0398	0.0050	0.050	-	80	53-116
Benzene	ND	0.0492	0.0050	0.050	-	98	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	0.192	0.050	0.20	-	96	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	-	0.0050	-	-	-	-
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	0.0412	0.0040	0.050	-	82	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	0.0446	0.0040	0.050	-	89	58-135
1,1-Dichloroethene	ND	-	0.0050	-	-	-	-
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	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)



Quality Control Report

Client: Environmental Restoration Services
Date Prepared: 1/27/15
Date Analyzed: 1/28/15
Instrument: GC10
Matrix: Soil
Project: 3101 35th Ave., Oakland

WorkOrder: 1501782
BatchID: 100444
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/Kg
Sample ID: MB/LCS-100444
 1501769-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.0442	0.0050	0.050	-	88	52-129
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0424	0.0050	0.050	-	85	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	0.0429	0.0050	0.050	-	86	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	0.0467	0.0050	0.050	-	93	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	-	0.0050	-	-	-	-
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	-	-	-	-

Surrogate Recovery

Dibromofluoromethane	0.114	0.110		0.12	91	88	72-126
Toluene-d8	0.137	0.137		0.12	110	110	81-115
4-BFB	0.0126	0.0122		0.012	101	97	55-127

(Cont.)



Quality Control Report

Client: Environmental Restoration Services
Date Prepared: 1/27/15
Date Analyzed: 1/28/15
Instrument: GC10
Matrix: Soil
Project: 3101 35th Ave., Oakland

WorkOrder: 1501782
BatchID: 100444
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/Kg
Sample ID: MB/LCS-100444
 1501769-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0373	0.0350	0.050	ND	75	70	70-130	6.42	20
Benzene	0.0422	0.0402	0.050	ND	84	80	70-130	4.92	20
t-Butyl alcohol (TBA)	0.155	0.151	0.20	ND	77	76	70-130	2.29	20
1,2-Dibromoethane (EDB)	0.0408	0.0374	0.050	ND	82	75	70-130	8.69	20
1,2-Dichloroethane (1,2-DCA)	0.0408	0.0385	0.050	ND	82	77	70-130	5.77	20
Diisopropyl ether (DIPE)	0.0403	0.0383	0.050	ND	81	77	70-130	5.00	20
Ethyl tert-butyl ether (ETBE)	0.0389	0.0368	0.050	ND	78	74	70-130	5.42	20
Methyl-t-butyl ether (MTBE)	0.0396	0.0375	0.050	ND	79	75	70-130	5.35	20
Toluene	0.0412	0.0390	0.050	ND	82	78	70-130	5.66	20
Surrogate Recovery									
Dibromofluoromethane	0.117	0.117	0.12		93	94	70-130	0.265	20
Toluene-d8	0.140	0.136	0.12		112	108	70-130	2.86	20
4-BFB	0.0144	0.0140	0.012		115	112	70-130	2.32	20



Quality Control Report

Client: Environmental Restoration Services
Date Prepared: 1/27/15
Date Analyzed: 1/28/15
Instrument: GC10
Matrix: Soil
Project: 3101 35th Ave., Oakland

WorkOrder: 1501782
BatchID: 100444
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-100444

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
VOC (C6-C12)	ND	3.73	0.25	3.2	-	117	74-142
Surrogate Recovery							
Dibromofluoromethane	0.141	0.128		0.12	113	102	72-126



Quality Control Report

Client: Environmental Restoration Services
Date Prepared: 1/29/15
Date Analyzed: 1/29/15
Instrument: GC35
Matrix: Soil
Project: 3101 35th Ave., Oakland

WorkOrder: 1501782
BatchID: 100537
Extraction Method: SW3550B
Analytical Method: SW8270C-SIM
Unit: mg/kg
Sample ID: MB/LCS-100537
 1501782-001AMS/MSD

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	-	0.010	-	-	-	-
Acenaphthylene	ND	-	0.010	-	-	-	-
Anthracene	ND	-	0.010	-	-	-	-
Benzo (a) anthracene	ND	-	0.010	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.010	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.010	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.010	-	-	-	-
Benzo (a) pyrene	ND	0.183	0.010	0.20	-	92	30-130
Chrysene	ND	0.164	0.010	0.20	-	82	30-130
Dibenzo (a,h) anthracene	ND	-	0.010	-	-	-	-
Fluoranthene	ND	-	0.010	-	-	-	-
Fluorene	ND	-	0.010	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.010	-	-	-	-
1-Methylnaphthalene	ND	0.205	0.010	0.20	-	103	30-130
2-Methylnaphthalene	ND	0.198	0.010	0.20	-	99	30-130
Naphthalene	ND	-	0.010	-	-	-	-
Phenanthrene	ND	0.181	0.010	0.20	-	91	30-130
Pyrene	ND	0.158	0.010	0.20	-	79	30-130

Surrogate Recovery

1-Fluoronaphthalene	0.435	0.435		0.50	87	87	30-130
2-Fluorobiphenyl	0.435	0.435		0.50	87	87	30-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Benzo (a) pyrene	0.188	0.180	0.20	ND	94	90	30-130	4.19	30
Chrysene	0.173	0.169	0.20	ND	86	84	30-130	2.36	30
1-Methylnaphthalene	0.223	0.207	0.20	ND	111	104	30-130	7.26	30
2-Methylnaphthalene	0.217	0.200	0.20	ND	108	100	30-130	8.35	30
Phenanthrene	0.192	0.188	0.20	ND	96	94	30-130	2.00	30
Pyrene	0.162	0.164	0.20	ND	81	82	30-130	0.848	30

Surrogate Recovery

1-Fluoronaphthalene	0.460	0.450	0.50		92	90	30-130	2.28	30
2-Fluorobiphenyl	0.460	0.444	0.50		92	89	30-130	3.55	30



Quality Control Report

Client: Environmental Restoration Services
Date Prepared: 1/27/15
Date Analyzed: 1/28/15
Instrument: ICP-MS2
Matrix: Soil
Project: 3101 35th Ave., Oakland

WorkOrder: 1501782
BatchID: 100446
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-100446
 1501769-001AMS/MSD

QC Summary Report for LUFT 5 Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Cadmium	ND	50.1	0.25	50	-	100	75-125
Chromium	ND	52.5	0.50	50	-	105	75-125
Lead	ND	52.0	0.50	50	-	104	75-125
Nickel	ND	52.6	0.50	50	-	105	75-125
Zinc	ND	506	5.0	500	-	101	75-125

Surrogate Recovery

Tb 350.917	543	475		500	109	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
Cadmium	54.0	52.6	50	ND	108	105	75-125	2.66	20
Chromium	112	124	50	47.99	129,F1	152,F1	75-125	9.81	20
Lead	81.3	95.2	50	29.95	103	130,F1	75-125	15.7	20
Nickel	NR	NR	50	77.19	NR	NR	75-125	NR	20
Zinc	590	582	500	50.05	108	106	75-125	1.43	20

Surrogate Recovery

Tb 350.917	528	505	500		106	101	70-130	4.41	20
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Quality Control Report

Client: Environmental Restoration Services
Date Prepared: 1/27/15
Date Analyzed: 1/28/15
Instrument: ICP-JY
Matrix: Soil
Project: 3101 35th Ave., Oakland

WorkOrder: 1501782
BatchID: 100463
Extraction Method: SW3050B
Analytical Method: SW6010B
Unit: mg/Kg
Sample ID: MB/LCS-100463
 1501782-002AMS/MSD

QC Summary Report for SW6010B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	47.9	5.0	50	-	96	75-125
Surrogate Recovery							
Tb 350.917	542	512		500	108	102	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	61.8	59.4	50	6.468	111	106	75-125	4.04	25
Surrogate Recovery									
Tb 350.917	544	546	500		109	109	70-130	0	20



Quality Control Report

Client: Environmental Restoration Services
Date Prepared: 1/26/15
Date Analyzed: 1/27/15
Instrument: GC2A
Matrix: Soil
Project: 3101 35th Ave., Oakland

WorkOrder: 1501782
BatchID: 100428
Extraction Method: SW3550B/3630C
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS-100428
 1501748-001AMS/MSD

QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	37.7	1.0	40	-	94	70-130
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-

Surrogate Recovery

C9	26.0	26.3		25	104	105	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-Diesel (C10-C23)	37.2	37.4	40	ND	91	91	70-130	0	30

Surrogate Recovery

C9	26.2	26.3	25		105	105	70-130	0	30
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1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1501782

ClientCode: ERSM

WaterTrax WriteOn EDF Excel EQUS Email HardCopy ThirdParty J-flag

Report to:

Ben Halsted
Environmental Restoration Services
500 Santa Cruz Ave.
Menlo Park, CA 94025
650-325-3216 FAX: 650-327-2984

Email: ben@envirest.com
cc/3rd Party: joelgreger2@gmail.com;
PO:
ProjectNo: 3101 35th Ave., Oakland

Bill to:

Accounts Payable
Environmental Restoration Services
500 Santa Cruz Ave.
Menlo Park, CA 94025

Requested TAT:

5 days

Date Received: 01/27/2015

Date Printed: 02/04/2015

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
1501782-001	WOd7.5'	Soil	1/27/2015 11:11	<input type="checkbox"/>	A	A	A	A	A		A					
1501782-002	T1d9'	Soil	1/27/2015 11:22	<input type="checkbox"/>		A	A				A					
1501782-003	T2d9'	Soil	1/27/2015 11:30	<input type="checkbox"/>		A	A				A					
1501782-004	Disp. SWd3'	Soil	1/27/2015 11:42	<input type="checkbox"/>		A	A				A					
1501782-005	Disp. NWd3'	Soil	1/27/2015 11:47	<input type="checkbox"/>		A	A				A					
1501782-006	Disp. SEd3.5'	Soil	1/27/2015 11:53	<input type="checkbox"/>		A	A				A					
1501782-007	Disp. NEd3'	Soil	1/27/2015 11:59	<input type="checkbox"/>		A	A				A					
1501782-008	Dispenser SP	Soil	1/27/2015 12:22	<input type="checkbox"/>		A	A				A					
1501782-009	WO SP	Soil	1/27/2015 12:27	<input type="checkbox"/>	A	A	A	A	A		A					
1501782-010	MainTP SP	Soil	1/27/2015 12:30	<input type="checkbox"/>		A	A				A					
1501782-011	SW TPd9.5'	Soil	1/27/2015 12:20	<input type="checkbox"/>		A	A				A					

Test Legend:

1	8082_PCB_S	2	260B_MBTEXOXPBSCV_S	3	8260GAS_S	4	8270_PNA_S	5	LUFTMS_S
6	PB_S	7	TPH(DMO)WSG_S	8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A contain testgroup.

Prepared by: Jena Alfaro

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: ENVIRONMENTAL RESTORATION SERVICES

QC Level: LEVEL 2

Work Order: 1501782

Project: 3101 35th Ave., Oakland

Client Contact: Ben Halsted

Date Received: 1/27/2015

Comments:

Contact's Email: ben@envirest.com

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1501782-001A	W0d7.5'	Soil	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	1/27/2015 11:11	5 days		<input type="checkbox"/>	
			SW6020 (LUFT)			<input type="checkbox"/>		5 days			
			SW8270C (PAHs/PNAs)			<input type="checkbox"/>		5 days			
			TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B			<input type="checkbox"/>		5 days			
			SW8082 (PCBs Only)			<input type="checkbox"/>		5 days			
1501782-002A	T1d9'	Soil	SW6010B (Lead)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	1/27/2015 11:22	5 days		<input type="checkbox"/>	
			TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B			<input type="checkbox"/>		5 days			
1501782-003A	T2d9'	Soil	SW6010B (Lead)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	1/27/2015 11:30	5 days		<input type="checkbox"/>	
			TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B			<input type="checkbox"/>		5 days			
1501782-004A	Disp. SWd3'	Soil	SW6010B (Lead)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	1/27/2015 11:42	5 days		<input type="checkbox"/>	
			TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B			<input type="checkbox"/>		5 days			
1501782-005A	Disp. NWd3'	Soil	SW6010B (Lead)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	1/27/2015 11:47	5 days		<input type="checkbox"/>	
			TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B			<input type="checkbox"/>		5 days			
1501782-006A	Disp. SEd3.5'	Soil	SW6010B (Lead)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	1/27/2015 11:53	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: ENVIRONMENTAL RESTORATION SERVICES

QC Level: LEVEL 2

Work Order: 1501782

Project: 3101 35th Ave., Oakland

Client Contact: Ben Halsted

Date Received: 1/27/2015

Comments:

Contact's Email: ben@envirest.com

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1501782-006A	Disp. SEd3.5'	Soil	TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	1/27/2015 11:53	5 days		<input type="checkbox"/>	
1501782-007A	Disp. NEd3'	Soil	SW6010B (Lead) TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B	1	Stainless Steel tube 2"x6"	<input type="checkbox"/> <input type="checkbox"/>	1/27/2015 11:59	5 days 5 days		<input type="checkbox"/> <input type="checkbox"/>	
1501782-008A	Dispenser SP	Soil	SW6010B (Lead) TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B	1	Stainless Steel tube 2"x6"	<input type="checkbox"/> <input type="checkbox"/>	1/27/2015 12:22	5 days 5 days		<input type="checkbox"/> <input type="checkbox"/>	
1501782-009A	WO SP	Soil	SW8015B (TPH-d,mo w/ S.G. Clean-Up) SW6020 (LUFT) SW8270C (PAHs/PNAs) TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B SW8082 (PCBs Only)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1/27/2015 12:27	5 days 5 days 5 days 5 days 5 days		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
1501782-010A	MainTP SP	Soil	SW6010B (Lead) TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B	1	Stainless Steel tube 2"x6"	<input type="checkbox"/> <input type="checkbox"/>	1/27/2015 12:30	5 days 5 days		<input type="checkbox"/> <input type="checkbox"/>	
1501782-011A	SW TPd9.5'	Soil	SW6010B (Lead) TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B	1	Stainless Steel tube 2"x6"	<input type="checkbox"/> <input type="checkbox"/>	1/27/2015 12:20	5 days 5 days		<input type="checkbox"/> <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.



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

1501782

Also send results to ben@envirrest.com

CHAIN OF CUSTODY RECORD

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

Report To: Joel Greger Bill To: ERS - Ben Halsted
 Company: Environmental Restoration Services (ERS)
Pob 2006, Menlo Park CA 94026
 Tele: (510) 5935382 E-Mail: joel greger 2@gmail.com
 Project #: _____ Project Name: 3101 35th Ave
 Project Location: 3101 35th Ave Oakland Purchase Order# _____
 Sampler Signature: Joel Greger

Analysis Request

SAMPLE ID	Location/ Field Point Name	SAMPLING		# Containers	MATRIX										METHOD PRESERVED ICE	BTEX & TPH as Gas (8021/8015) MTBE	TPH as Diesel (8015) Motor Oil w/ R Solvs E/B&F	Total Petroleum Oil & Grease (1664/5526)	Total Petroleum Hydrocarbons (418.1)	EPA 505/608/8081 (CI Pesticides)	EPA 608/8087 PCB's ; Aroclors / Congeners	EPA 507/8141 (NP Pesticides)	EPA 515/8151 (Acidic CI Herbicides)	EPA 524.2/624/8260 (VOC's) BTEX MTBE The TOXYS Field Sampling Lab	EPA 525.2/625/8270 (SVOC's)	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	Total Lead
		Date	Time		Ground Water	Waste Water	Drinking Water	Sea Water	Soil	Air	Sludge	Other	HCL	HNO ₃																	
WO d 7.5'		1/27/15	11:01 AM	1						X																					X
+ 10 9'			11:02	1																											X
+ 20 9'			11:30	1																											X
Disp SW d 3'			11:42	1																											X
Disp NW d 3'			11:47	1																											X
Disp SE d 3.5'			11:53	1																											X
Disp NE d 3'			11:59	1																											X
Dispenser SP			12:22 PM	1																											X
WO SP			12:29 PM	1															X												X
Main TP SP			12:30 PM	1																											X
SW TP d 9.5'			12:20 PM	1																											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>Joel Greger</u> Date: <u>1/27/15</u> Time: <u>12:25 PM</u> Received By: _____ Date: _____ Time: _____	ICE/1" <u>L-15</u> GOOD CONDITION _____ HEAD SPACE ABSENT _____ DECLORINATED IN LAB _____ APPROPRIATE CONTAINERS _____ PRESERVED IN LAB _____ VOAS O&G METALS OTHER HAZARDOUS: PRESERVATION _____ pH<2 _____	COMMENTS:
Relinquished By: _____ Date: <u>1/27/15</u> Time: <u>14:10</u> Received By: _____		
Relinquished By: _____ Date: _____ Time: _____ Received By: _____		



Sample Receipt Checklist

Client Name: **Environmental Restoration Services**
 Project Name: **3101 35th Ave., Oakland**
 WorkOrder No: **1501782** Matrix: Soil

Date and Time Received: **1/27/2015 4:30:31 PM**
 LogIn Reviewed by: **Jena Alfaro**
 Carrier: Daniel (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Sample/Temp Blank temperature Temp: 2.3°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No NA
 Sample labels checked for correct preservation? Yes No
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes No NA
 Samples Received on Ice? Yes No
 (Ice Type: WET ICE)

UCMR3 Samples:

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

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

 Comments: