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By Alameda County Environmental Health at 2:38 pm, Jan 05, 2015

November 13, 2014

Mr. Mark Detterman
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6540

I, Reid Settlemier, hereby authorize ERAS Environmental, Inc. to submit the Addl Lmtd Soil Invest for 3037-3115 Adeline St., Oakland in Oakland, California, dated December 23, 2014 to the Alameda County Health Care Services Agency.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Signature: _____

Printed Name: B. Reid Settlemier

Reid Settlemier
RWW Properties LLC
6114 LaSalle Avenue, #535
Oakland, CA 94611
reid@rww-llc.com

ERAS Environmental, Inc.

1533 B Street
Hayward, CA 94541

(510) 247-9885 Facsimile: (510) 886-5399 info@eras.biz

December 23, 2014

Mr. John Murray
John Murray Productions
1196 32nd Street
Oakland, CA 94608

and

Mr. Reid Settlemier
RWW Properties LLC
6114 LaSalle Avenue, #535
Oakland, CA 94611

Subject: Additional Limited Soil Investigation
3037-3115 Adeline Street, Oakland, California
ERAS Project Number 14063D

Dear Mr. Murray and Mr. Settlemier:

ERAS Environmental, Inc. (ERAS) is pleased to present the results of the limited subsurface investigation for the collection of a soil sample at 3037-3115 Adeline Street in Oakland, California (the "Property"). ERAS performed a subsurface soil investigation project and the results were summarized in a report dated November 13, 2014. Elevated concentrations of total petroleum hydrocarbons quantified as diesel range organics (TPH-dro[1]) and oil range organics (TPH-oro) were detected in ERAS boring B-2.

In a letter dated November 25, 2014 additional investigation was requested by Mr. Mark Detterman of the Alameda County Health Care Services Agency (ACHCSA). Specifically Mr. Detterman requested additional laboratory analyses of the soil in the vicinity B-2. A copy of the letter is included as **Attachment B**.

The location of the Property is shown on **Figure 1** and the boring locations are shown on **Figure 2**

[1] TPH-gro, TPH-dro, and TPH-oro are methods that compare analytical results to standards for gasoline, diesel and motor oil, respectively. Therefore analytical results are estimates of quantities based on what would be expected for the range of hydrocarbon results for the standard. Gasoline range organics (gro) are those hydrocarbon compounds that are in the range of C6 to C10, diesel range organics (dro) are those hydrocarbon compounds that are in the range of C10 to C23, and oil range organics (oro) are those hydrocarbon compounds that are in the range of C18 to C36. There can be overlap in reporting methods as well as identification of compounds that fall within the standard that may not necessarily be derived from gasoline, diesel, or oil.

included as **Attachment A**.

BACKGROUND

Phase 1 and Phase 2 investigations have recently been performed on the Property.

Phase 1 Investigation

A Phase 1 Environmental Site Assessment (ESA) was conducted by Rincon Associates, Inc. (Rincon) and the results were presented in a report dated November 15, 2013. Rincon identified the following information for the Property.

- A bronze foundry operated at part of the Property (3037 and 3101 Adeline Street) from at least 1928 to 1963.

- Machine shops operated at 3101 and 3115 Adeline Street from at least 1951 until 1959.

- Six nearby historic auto stations were listed on the environmental database. Rincon indicated these sites were located hydrologically up-gradient and there is potential that contamination from these sites could have impacted groundwater beneath the subject property.

Rincon concluded foundry operations can involve the use of heavy metals including copper, lead, nickel and zinc. Machine shop operations can involve the use of cutting oil and degreasing solvents. Rincon indicated the former use of the Property represented a potential recognized environmental condition (REC) and recommended a subsurface investigation.

Soil and Groundwater Investigation

-Partner Investigation

A Phase 2 soil and groundwater investigation was performed by Partner Engineering and Science, Inc. (Partner). A total of 5 soil borings were drilled on the Property in the general areas of the former foundry and machine shops. The locations of the borings are shown on the Boring Location Map in **Appendix A**.

Partner reported concentrations of TPH-dro and TPH-oro in Boring PES-B2 at 3 feet and 7 feet. Concentrations of TPH-dro and TPH-oro were 1,200 milligrams per kilogram (mg/Kg) and 950 mg/Kg at 3 feet and 1,600 and 860 mg/Kg at 7 feet. Concentrations of TPH-dro were above the California Regional Water Quality Control Board Environmental Screening Level (ESL) of 110 mg/Kg (Table A, RWQCB, December 2013). The sample from 3 feet also contained total petroleum hydrocarbons as gasoline (TPH-gro) at a concentration of 46 mg/Kg. Partner does not appear to have had the laboratory run silica gel cleanup on the samples prior to analysis to remove biogenic hydrocarbon interferences.

Naphthalene was detected at 5.3 mg/Kg in the sample from Boring PES-B2 at 3 feet. This concentration was above the ESL of 1.2 mg/Kg (Table A, RWQCB, December 2013). No other concentrations of TPH-dro, TPH-oro or naphthalene were detected in soil samples.

Lead and copper were detected in soil at 3 feet in borings PES-B1 and PESB-2 which appear to be above background concentrations. However the maximum concentration of copper of 1,200 mg/Kg is below the ESL of 5,000 mg/Kg (Table A, RWQCB, December 2013). The maximum concentration of lead of 140 mg/Kg is below the ESL of 320 mg/Kg (Table A, RWQCB, December 2013).

No concentrations of TPH-dro or TPH-oro were detected in groundwater samples from Borings PES-B1 and PES-B2. Volatile organic compounds (VOCs) were not detected in the groundwater sample collected from PES-B1. Naphthalene was not detected in the groundwater sample from PES-B2. No groundwater samples were collected from borings PES-B3, PES-B4, or PES-B5.

-ERAS Investigation

ERAS collected soil samples from seven soil borings on October 21, 2014. The locations of the borings are shown on **Figure 2**.

Borings B-1, B-3, B-4, and B-7 were advanced to a depth of 12 feet bgs, borings B-2 and B-6 were advanced to 16 feet bgs, and boring B-8 was advanced to 4 feet bgs.

Soil samples were collected from the following depths from each boring:

B-1	1.5-2 feet bgs, 3-3.5 feet bgs, and 9-9.5 feet bgs
B-2	2-2.5 feet bgs, 3-3.5 feet bgs, 7.5-8 feet bgs, and 15.5-16 feet bgs
B-3	2-2.5 feet bgs, 3-3.5 feet bgs, 7.5-8 feet bgs, and 11.5-12 feet bgs
B-4	3-3.5 feet bgs, 7.5-8 feet bgs, and 9.5-10 feet bgs
B-6	1.5-2 feet bgs, 2.5-3 feet bgs, 7.5-8 feet bgs, and 15.5-16 feet bgs
B-7	2-2.5 feet bgs, 3-3.5 feet bgs, 7.5-8 feet bgs, and 11.5-12 feet bgs
B-8	1.5-2 feet bgs

The soil samples collected from the zone of 1.5-2.5 feet bgs and 2.5-3.5 feet bgs were analyzed for TPH-gro by EPA Method SW8021B/8015B, TPH-dro and TPH-oro by EPA Method SW8015B, and copper, lead, and tin by EPA Method SW6020 with the exception of borings B-1, B-4, and B-7 where the 2.-3.5 foot sample was only analyzed for the three metals and not the hydrocarbons

The soil samples collected from depth greater than 3.5 feet bgs were analyzed for only the presence of the hydrocarbons.

The results of the soil sample analyses are presented in the table below.

Sample ID	Date	TPH-gro	TPH-dro	TPH-dro*	TPH-oro	TPH-oro*	Copper	Lead	Tin
		(mg/Kg)							
B-1, 1.5-2	21-Oct-14	<1	<1.0	NA	<5.0	NA	210	25	<5.0
B-1, 3-3.5	21-Oct-14	NA	NA	NA	NA	NA	22	6.7	<5.0
B-1, 9-9.5	21-Oct-14	<1	11	NA	100	NA	NA	NA	NA
B-1, 10.5-11	21-Oct-14	<1	<1.0	NA	<5.0	NA	NA	NA	NA
B-2, 2-2.5	21-Oct-14	**540**	**17,000**	**20,000**	**8,700**	**11,000**	**1,200**	**650**	78
B-2, 3-3.5	21-Oct-14	190	**270**	NA	<250	NA	24	7.8	<5
B-2, 7.5-8	21-Oct-14	200	**2,700**	NA	**1,700**	NA	NA	NA	NA
B-2, 15.5-16	21-Oct-14	4.1	49	NA	38	NA	NA	NA	NA
B-3, 2-2.5	21-Oct-14	<1	**480**	NA	430	NA	31	7.0	<5
B-3, 3-3.5	21-Oct-14	150	**370**	NA	<250	NA	22	8.8	<5
B-3, 7.5-8	21-Oct-14	<1	**120**	NA	100	NA	NA	NA	NA
B-3, 11.5-12	21-Oct-14	<1	<5.0	NA	<5.0	NA	NA	NA	NA
B-4, 3-3.5	21-Oct-14	NA	NA	NA	NA	NA	18	5.8	<5
B-4, 7.5-8	21-Oct-14	<1	<5.0	NA	<5.0	NA	NA	NA	NA
B-4, 9.5-10	21-Oct-14	<1	1.2	NA	<5.0	NA	NA	NA	NA
B-6, 1.5-2	21-Oct-14	55	**1,400**	NA	**1,200**	NA	**380**	120	20
B-6, 2.5-3	21-Oct-14	180	**670**	NA	280	NA	22	7.1	<5
B-6, 7.5-8	21-Oct-14	40	**480**	NA	280	NA	NA	NA	NA
B-6, 15.5-16	21-Oct-14	<1	<1.0	NA	<5.0	NA	NA	NA	NA
B-7, 2-2.5	21-Oct-14	<1	<1.0	NA	<5.0	NA	87	18	<5
B-7, 3-3.5	21-Oct-14	NA	NA	NA	NA	NA	18	7.1	<5
B-7, 7.5-8	21-Oct-14	<1	3.1	NA	14	NA	NA	NA	NA
B-7, 11.5-12	21-Oct-14	<1	<1.0	NA	<5.0	NA	NA	NA	NA
B-8, 1.5-2	21-Oct-14	NA	NA	NA	NA	NA	23	10	<5
ESL <3m		500	110	110	500	500	230	320	-
ESL >3m		770	110	110	1000	1000	5,000	320	-

Notes

NA = Not Analyzed (mg/Kg) = Milligrams per Kilogram

Bold Type Indicates Reported Value Above the ESL.

TPH-gro = Total petroleum hydrocarbons quantified as gasoline range organics

TPH-dro = Total petroleum hydrocarbons quantified as diesel range organics

TPH-oro = Total petroleum hydrocarbons quantified as oil range organics

TPH-dro* = Total petroleum hydrocarbons quantified as diesel range organics run without silica gel cleanup

TPH-oro* = Total petroleum hydrocarbons quantified as oil range organics run without silica gel cleanup

ESL <3m = environmental screening limits set forth by the RWQCQ for soil shallower than 3 meters on a commercial Property where groundwater is considered a potential source of drinking water

ESL >3m = environmental screening limits set forth by the RWQCQ for soil deeper than 3 meters on a commercial Property where groundwater is considered a potential source of drinking water

The concentrations of the contaminants of concern above the ESL appear to be limited to the area of borings B-2, B-3, B-6, and PES-B2. Concentrations of contaminants above the ESL were detected to a depth of approximately 8 feet bgs. Samples collected at depths of 12 feet bgs did not contain concentrations above the ESLs. Based on the depth to water (17.5 to 19.5 feet bgs), the lack of groundwater contamination in the prior borings (PES-B1 & -B2), the attenuation of the degree of contamination in the soil samples with depth above 12 ft bgs, and the concentrations of deeper soil samples in comparison to the ESLs, contaminants detected in the soil column do not appear to pose a risk of contamination to groundwater beneath the Property.

REGIONAL GEOLOGY/HYDROLOGY

The Property is in the southern part of the City of Oakland in the San Francisco Bay area. The San Francisco Bay area occupies a broad alluvial valley that slopes gently northward and is flanked by alluvial fans deposited at the foot of the Diablo Range to the east and the Santa Cruz Mountains to the west. Surface topography in the immediate vicinity of the Property is gently sloping down to the west towards Oakland Outer Harbor.

The Property is at an elevation of approximately 20 feet above Mean Sea Level according to the United States Geological Survey (USGS) Oakland East Quadrangle California 7.5 Minute Series topographic map.

Materials underlying the site are unconsolidated deposits of near shore and beach sediments, deposited in Oakland Bay at higher sea level stands. At shallow depths beneath these sediments are chert, greywacke, serpentine and shale bedrock that are a part of the Cretaceous to Jurassic-aged Franciscan Formation. Bedrock is exposed to the east-northeast on the upland surfaces.

The subject site is located on the San Francisco Bay Plain in the northernmost part of the Santa Clara Valley Groundwater Basin, (DWR, 1967), the surface of which slopes gently down toward west.

The regional groundwater flow follows the topography, moving from areas of higher elevation to areas of lower elevation. The regional groundwater flow direction in the area of the Property is estimated to be toward the west-southwest toward the Oakland Outer Harbor.

Based on the previous borings drilled on the Property, the subsurface sediments consist of mostly medium stiff to stiff clay to the depths explored of approximately 20 feet. Coarser sediments were observed in Boring PES-B1 at approximately 10-15 feet. Groundwater was reported in the borings at depths of approximately 17.5 to 19.5 feet.

FIELD WORK PERFORMED

One soil boring was advanced near ERAS previous boring B-2 using hand digging equipment on December 4th, 2014 to collect a soil sample for laboratory analysis. The sample was labeled B-2-2.5 and was collected from a depth of 2 to 2.5 feet below ground surface.

The Standard Operating Procedures for soil sampling used hand digging equipment is included as **Attachment C**.

A strong petroleum hydrocarbon odor was detected during the collection of the soil sample.

ANALYTICAL RESULTS

The soil sample was transported under chain-of-custody procedures to McCampbell Analytical, a state-certified laboratory in Pittsburg, California. The laboratory report and chain of custody form are included as **Attachment D**.

The sample was analyzed for the presence of polychlorinated dibenzo-p-dioxins (PCDD's) and polychlorinated dibenzofurans (PCDF's) by EPA Method E1613, semi-volatile organic compounds (SVOC's) by EPA Method SW8270C, poly chlorinated biphenyl's (PCB's) by EPA Method SW8082, and TPH-dro and oro by EPA Method SW8015B. Below were the compounds detected:

	B-2-2.5	WHO-TEF	ESL
PCDD's & PCDF's	Results in pg/g		pg/g
1,2,3,4,6,7,8-HpCDD	4.16	0.01	180
OCDD	8.42	0.0003	6,000
2,3,4,7,8-PeCDF	4.10	0.3	60
1,2,3,4,7,8-HxCDF	5.42	0.1	18
1,2,3,6,7,8-HxCDF	5.42	0.1	18
2,3,4,6,7,8-HxCDF	8.82	0.1	18
1,2,3,4,6,7,8-HpCDF	31.9	0.01	180
Total tetradioxins	5.70		
Total heptadioxins	8.76		
Total tetrafurans	19.6		
Total heptafurans	31.9		
Total hexafurans	60.6		
Total pentafurans	23.7		
SVOC's	Results in mg/Kg		ESL
2-methylnapththalene	**31**		0.25
PCB's			
Non detected above their respective detection limit			
TPH	Results in mg/Kg		ESL
TPH-dro	**3,500**		110
TPH-oro	**2,200**		500

Table Notes:
pg/g = grams per picogram
WHO-TEF = World Health Organization Toxic Equivalency Factor
ESL – environmental screening limits set forth by the California Regional Water Quality Control Board as of December 2013

Each dioxin compound is assigned a Toxic Equivalency Factor, or WHO-TEF. This factor denotes a given dioxin compound's toxicity relative to 2,3,7,8-TCDD, which is assigned the maximum toxicity designation of one. The ESL for 2,3,7,8-TCDD is 0.000018 mg/Kg or $1.8x10^{-9}$ picograms per Kg or $1.8\ x10^{-12}$ picograms per gram.

Other dioxin compounds are given equal or lower numbers, with each number roughly proportional to its toxicity relative to that of 2,3,7,8-TCDD. Developed by the World Health Organization, TEFs are used extensively by scientists and governments around the world. Since individual ESL's are not provided for the various dioxin compounds to determine an ESL the WHO-TEF was applied to the ESL for 2,3,7,8-TCDD.

No concentrations of the dioxin compounds detected were above their respective ESLs. The only concentration of SVOC's detected was 2-methylnaphthalene at 31 mg/Kg which is above the ESL of 0.25 mg/Kg. TPH-dro and TPH-oro were also detected above their respective ESL's of 110 mg/Kg and 500 mg/Kg. TPH-dro was detected at 3,500 mg/Kg and TPH-oro was detected at 2,200 mg/Kg.

CONCLUSIONS AND RECOMMENDATIONS

A sample collected from the vicinity of former boring B-2 from a depth of 2-2.5 feet bgs was analyzed for polychlorinated dibenzo-p-dioxins (PCDD's) and polychlorinated dibenzofurans (PCDF's) by EPA Method E1613, semi volatile organic compounds (SVOC's) by EPA Method SW8270C, poly chlorinated biphenyl's (PCB's) by EPA Method SW8082, and TPH-dro and oro by EPA Method SW8015B.

No concentrations of PCDD's, PCDF's, or PCB's were detected above their respective ESL's. The only concentration of SVOC's detected was 2-methylnaphthalene at 31 mg/Kg which is above the ESL of 0.25 mg/Kg. TPH-dro and TPH-oro were also detected above their respective ESL's of 110 mg/Kg and 500 mg/Kg. TPH-dro was detected at 3,500 mg/Kg and TPH-oro was detected at 2,200 mg/Kg.

ERAS recommends that a Site Management Plan and Deed Restriction since it is unlikely that all contaminant impacted soil beneath the Property could be removed due to the development of the Property. Moreover, the results of the analyses indicate a relatively rapid decline in concentration of contaminants with distance from the source; indicating a low potential for exposure to human and ecological receptors, especially with the proposed institutional controls implemented.

CERTIFICATION

Our firm has prepared this report for the Client's exclusive use for this particular project and in general accordance with the accepted standard of practice that exists in Northern California at the time the investigation was performed. No other representations, expressed or implied, and no warranty or guarantee is included or intended. No subsurface investigation is complete enough to guarantee that no contamination exists on a particular site and the judgments leading to conclusions and recommendations are generally made based on the data collected according to the scope of work performed and are therefore potentially limited and incomplete. More extensive studies can tend to reduce the uncertainties associated with this type of investigation.

This report may be used only by the client and only for the purposes stated within a reasonable time from its issuance. Land use, site conditions (both on-site and off-site) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the client who wishes to use this report shall notify ERAS of such intended use. Based on the intended use of report, ERAS may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release ERAS from any liability resulting from the use of this report by any unauthorized party.

If you have questions or comments regarding this report please contact Andrew Savage at 510-247-9885 x302, or by e-mail andrew@eras.biz.

ERAS thanks you for the opportunity to serve you.

Sincerely,
ERAS Environmental, Inc.

Curtis Payton
California Registered Professional Geologist 5608

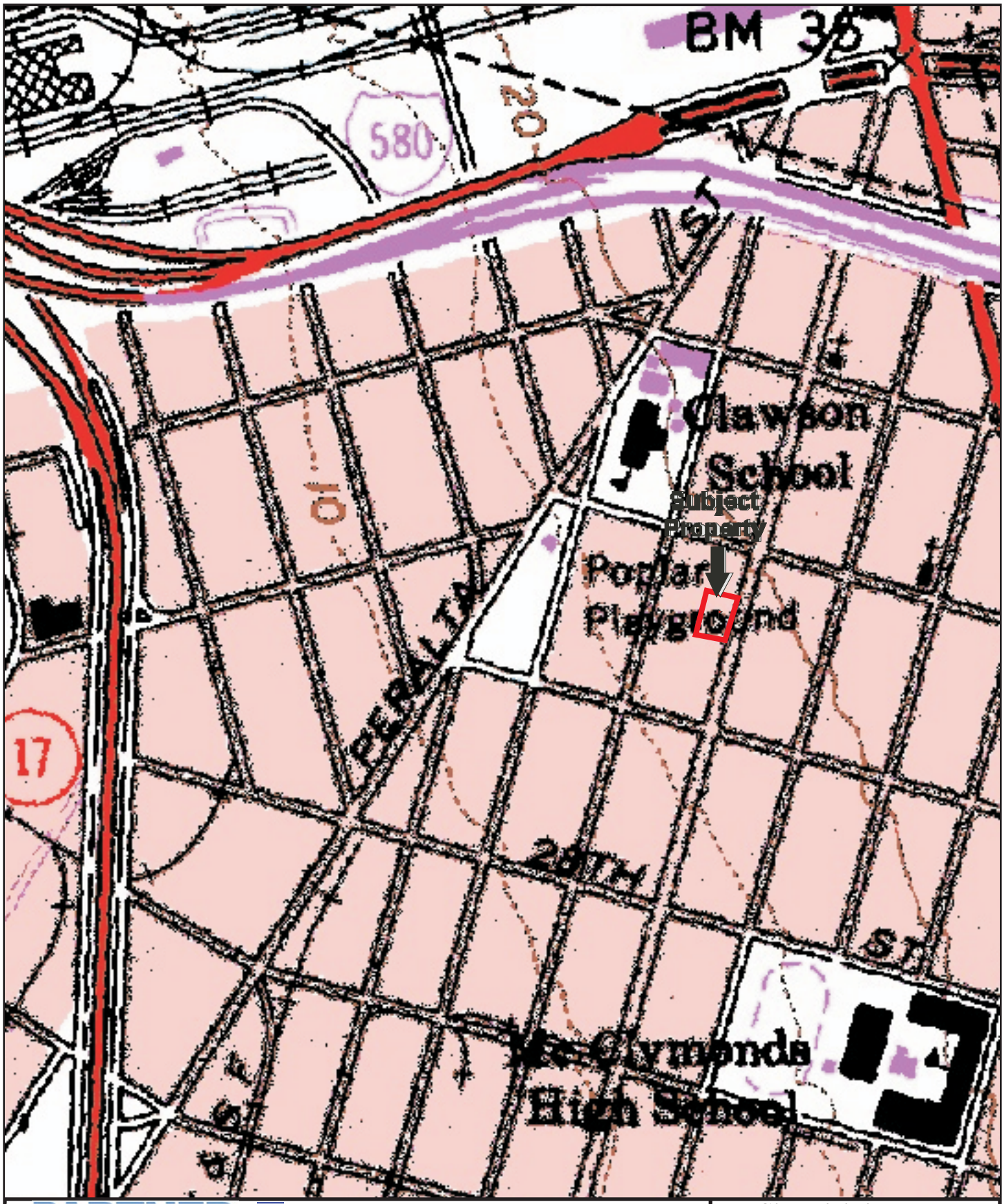
Andrew Savage
Project Geologist

Attachments

A Figures
B ACHCSA Letter
C Standard Operating Procedures
D Laboratory Reports and Chain of Custody Form

ATTACHMENT A

FIGURES

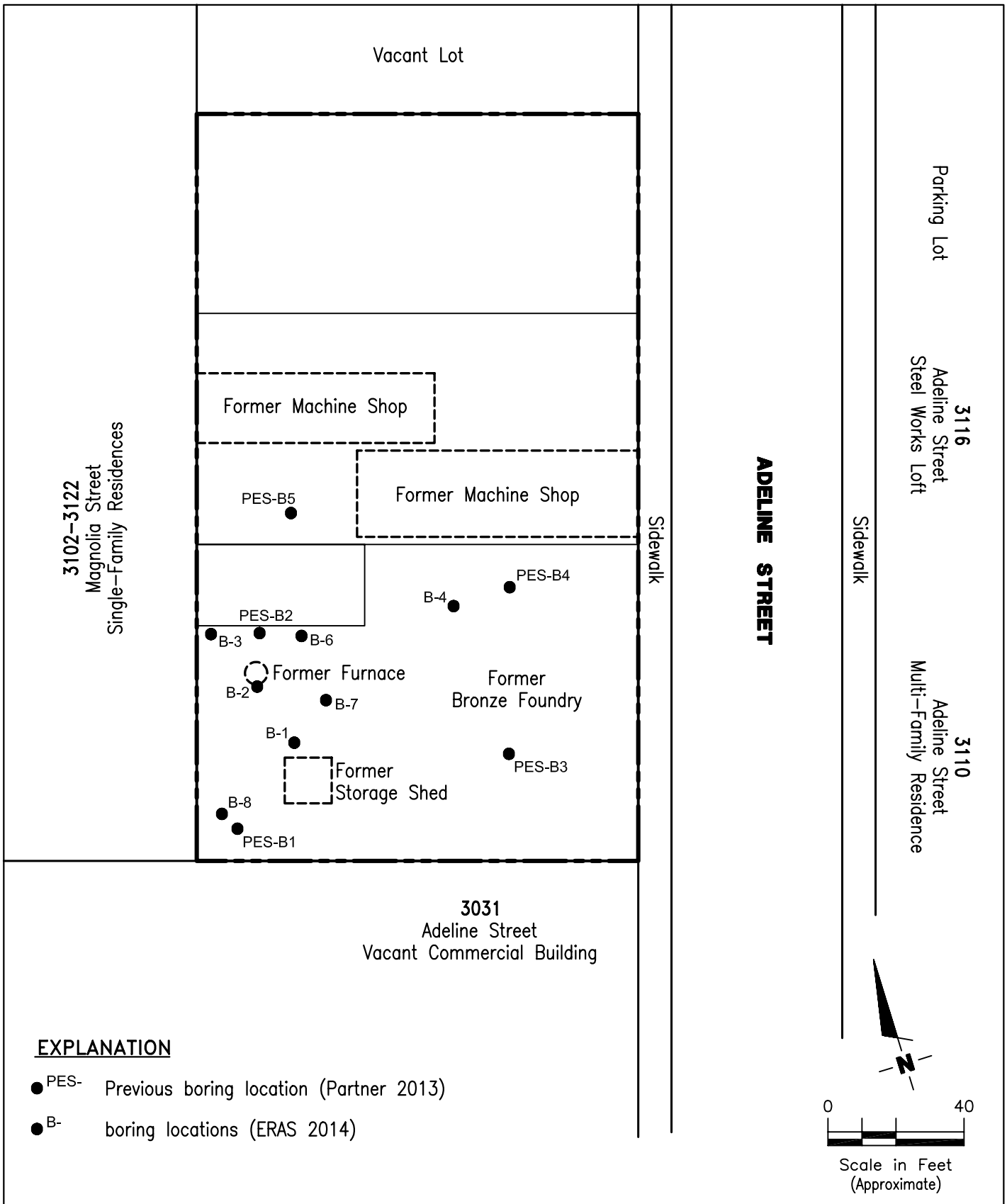


USGS Oakland West Quadrangle
Version: 1980

Site Vicinity Map

Figure	
1	

3037, 3101 & 3115 Adeline Street
Oakland, California 94608



BORING LOCATION MAP

DATE		JOB NUMBER
10/14	–	14157B
REVIEWED BY	3037, 3101 & 3115 Adeline Street	FIGURE
AS	Oakland, California	2

ERAS Environmental Inc.

ERAS 11-02-2014 Boring location map.dwg

ATTACHMENT B

ACHCSA LETTER

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

November 25, 2014

Mr. John Murray
John Murray Productions
1196 32nd Street, Oakland, CA 94608
(Sent via email to johnm@johnmurray.com)

Mr. Reid Settlemier
RWW Properties LLC
6114 LaSalle Avenue, #535
Oakland, CA 94611
(Sent via email to reid@rww-llc.com)

Subject: Work Plan Request; Site Cleanup Program (SCP) Case No. RO0003142, Adeline Foundry, 3037-3115 Adeline Street, Oakland, CA 94608

Dear Mr. Murray and Mr. Settlemier:

Alameda County Environmental Health (ACEH) has reviewed the case file including the *Subsurface Soil Investigation Report,* dated November 13, 2014. The report was prepared and submitted on your behalf by ERAS Environmental Inc. (ERAS). Thank you for submitting the report.

Based on ACEH staff review of the case file, we request that you address the following technical comments and send us the reports described below.

TECHNICAL COMMENTS

1. **Work Plan Request** – The referenced report indicates that an area of soil contamination is present in the vicinity of soil bores PES-B2, B-2, B-6, and B-3 at the subject site, that the contamination appears to be limited to a depth less than approximately 10 – 15 feet below grade surface (bgs), and that it does not appear to impact groundwater. These bore locations appear to be associated with a former furnace for the former bronze foundry once located at the site. The northerly extent of the contamination is undefined but is inaccessible beneath the southerly building at the site. Concentrations up to 540 milligrams per kilogram (mg/kg) Total Petroleum Hydrocarbons as gasoline (TPHg), 20,000 mg/kg TPH as diesel (TPHd), 11,000 mg/kg TPH as oil (TPHo), 1,200 mg/kg copper, and 650 mg/kg lead were detected.

   Because some of the hydrocarbon concentrations are particularly elevated and the fuel stock is unknown, ACEH requests a brief work plan for the collection and submittal of shallow soil samples for additional laboratory analysis, some not previously analyzed for at the site. This includes analysis for semi-volatile organic compounds (SVOCs), including poly-aromatic compounds (PAHs) and pentachlorophenol, poly-chlorinated biphenyls (PCBs), dioxins, and creosote by appropriate EPA analytical methods. Please be aware that PAH analysis must include naphthalene, acenaphthene, acenaphthylene, anthracene, chrysene, fluorine, fluoranthene, phenanthrene, pyrene, benzo(b)fluoranthene, benzo(a)pyrene, benzo(k)fluoranthene, benzo(a)anthracene, indeno(1,2,3-c,d)pyrene, dibenzo(a,b)anthracene, and benzo(g,h,i)perylene. Please submit the work plan by the date identified below.

2. **GeoTracker Compliance** – A review of the State Water Resources Control Board's (SWRCB) GeoTracker website indicates the site has not been claimed. Because this is a state requirement, ACEH requests that the site be claimed in GeoTracker by the date identified below.

   In accordance with California Code of Regulations, Title 23, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1, beginning September 1, 2001, all analytical data, including monitoring well samples, submitted in a report to a regulatory agency as part of the UST or LUST program, must be transmitted electronically to the SWRCB GeoTracker system via the internet. Also, beginning January 1, 2002, all permanent monitoring points utilized to collect groundwater samples (i.e.

monitoring wells) and submitted in a report to a regulatory agency, must be surveyed (top of casing) to mean sea level and latitude and longitude to sub-meter accuracy using NAD 83. A California licensed surveyor may be required to perform this work. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs, including SCP programs such as this site. Additionally, pursuant to California Code of Regulations, Title 23, Division 3, Chapter 30, Articles 1 and 2, Sections 3893, 3894, and 3895, beginning July 1, 2005, the successful submittal of electronic information (i.e. report in PDF format) shall replace the requirement for the submittal of a paper copy. Please claim your site and upload all future submittals to GeoTracker and ACEH's ftp server by the date specified below. Electronic reporting is described below on the attachments.

Additional information regarding the SWRCB's GeoTracker website may be obtained online at http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/ and http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml) or by contacting the GeoTracker Help Desk at geotracker@waterboards.ca.gov or (866) 480-1028.

3. **Site Management Plan and Deed Restriction** – At present, it appears that there are limited volatile compounds beneath the site (however, this can change with the addition of additional data requested above), and that it is unlikely that the full extent of contamination can be successfully removed due to the presence of the southern onsite building. Additionally, contaminated soil is isolated from the surface by approximately 2 feet of fill material (baserock). Consequently, it appears that there are two methods to manage residual contaminated soil beneath the site. These include:

    - Interim remedial excavation of known areas of contaminated soil, and
    - Management of residual soil with a Site Manage Plan (SMP) and a Deed Restriction.

    Because it is unlikely that all contaminated soil can be removed, it appears likely that a SMP and deed restriction would still be required after a remedial excavation. ACEH has been informed that the use of a SMP and deed restriction has been discussed with you by your consultant and that this is the preferred option by you for the site. As you may know, the intent of a SMP to define health and safety protocols for future subsurface work, and procedures for the characterization and management of contaminated soil and groundwater when subsurface intrusion is necessary, such as for utility repair, building expansion, or site redevelopment. A deed restriction is required for all Site Cleanup Program (SCP) cases to document the presence of contamination for future landowners. The SMP should also define contaminated areas, should additional characterization be required at a future date. As indicated above, provided there is limited additional contaminants that change the understanding of low contaminant volatility at the site, an SMP and deed restriction appear appropriate at the site.

    Consequently, ACEH requests the submittal of a draft SMP and deed restriction in conjunction with the results of the planned work, by the date identified below.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Mark Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with Attachment 1 and the specified file naming convention below, according to the following schedule:

- **December 12, 2014** – Work Plan
  File to be named: RO3142_SWI_R_yyyy-mm-dd

- **December 19, 2014** – Claim Geotracker and Upload Required Documents
  File to be named: RO3142_CORRES_L_yyyy-mm-dd

- **60 Days After Work Plan Approval** – Site Investigation
  File to be named: RO3142_SWI_R_yyyy-mm-dd

Online case files are available for review at the following website: http://www.acgov.org/aceh/index.htm. If your email address does not appear on the cover page of this notification, ACEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

Should you have any questions, please contact me at (510) 567--6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Digitally signed by Mark E. Detterman
DN: cn=Mark E. Detterman, o, ou, email, c=US
Date: 2014.11.25 17:00:38 -08'00'

Mark E. Detterman, P.G., C.E.G.
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions

cc: Clinton Stockton, John Murray Productions, Inc, 1196 32nd Street, Oakland, CA 94608; (Sent via E-mail to: Clinton@johnmurray.com)

David Siegel, ERAS Environmental, Inc., 1533 B Street, Hayward, CA 94541 (Sent via E-mail to: dave@eras.biz)

Dilan Roe (sent via electronic mail to dilan.roe@acgov.org)
Mark Detterman, ACEH, (sent via electronic mail to mark.detterman@acgov.org)
Geotracker, Electronic File

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**REVISION DATE:** May 15, 2014
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ATTACHMENT C

STANDARD OPERATING PROCEDURES

STANDARD OPERATING PROCEDURE– HAND BORINGS

SOIL CORING AND SAMPLING PROCEDURES

Prior to drilling, the surface is either cored if concrete or hammered through using a pick, if asphalt.

A hand operated coring device equipped with a 3-inch diameter auger bit is advanced into the soil until full. The auger is removed and emptied and this process is repeated until the desired depth is reached. The hand auger is removed and a slide hammer core sampling device, equipped with two 3-inch long, 2-inch diameter brass liners is advanced six inches into the undisturbed soil at the bottom of the borehole.

One of the 3-inch liners is selected and the ends of the tube are covered with Teflon liner and sealed with plastic caps. The soil-filled liner is labeled with the borehole number, sample depth, site location, date, and time. The samples are placed in bags and stored in a cooler containing ice. Soil from the core adjacent to the interval selected for analyses is placed in a plastic zip-top bag. The soil is allowed to volatilize for a period of time, depending on the ambient temperature. The soil is scanned with a flame-ionization detector (FID) or photo-ionization detector (PID).

All sample barrels, rods, and tools are cleaned with Alconox or equivalent detergent and de-ionized water. All rinsate from the cleaning is contained in covered 5-gallon plastic buckets or 55-gallon drums at the project site.

BOREHOLE GROUTING FOR HAND BORINGS

Upon completion of soil and water sampling, boreholes will be abandoned with neat cement grout. If the borehole was advanced into groundwater, the grout is pumped through a grouting tube positioned at the bottom of the borehole.

ATTACHMENT D

LABORATORY REPORT AND
CHAIN OF CUSTODY FORM

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1412318

Report Created for: ERAS Environmental, Inc.
1533 B Street
Hayward, CA 94541

Project Contact: Andrew Savage
Project P.O.:
Project Name: #14063D

Project Received: 12/05/2014

Analytical Report reviewed & approved for release on 12/18/2014 by:

Question about your data?

Click here to email McCampbell

Angela Rydelius,
Laboratory Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: ERAS Environmental, Inc.
Project: #14063D
WorkOrder: 1412318

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

a3	sample diluted due to high organic content.
a4	reporting limits raised due to the sample's matrix prohibiting a full volume extraction.
e1/e2	unmodified or weakly modified diesel is significant; and/or diesel range compounds are significant; no recognizable pattern
e1/e	unmodified or weakly modified diesel is significant; and/or value above quantitation range
e7	oil range compounds are significant
e8	kerosene/kerosene range/jet fuel range
h4	sulfuric acid permanganate (EPA 3665) cleanup

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	ERAS Environmental, Inc.	**WorkOrder:**	1412318
Project:	#14063D	**Extraction Method:**	E1613
Date Received:	12/5/14 21:38	**Analytical Method:**	E1613
Date Prepared:	12/11/14	**Unit:**	pg/g

Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-2-2.5	**1412318-001A**	**Soil**	**12/04/2014 12:25**	**GC36**	**98887**

Analytes	ITEF	Result	RL	DF	Ion Ratio	RRT	TEQ	Date Analyzed
2,3,7,8-TCDD		ND	0.500	1				12/15/2014 12:43
1,2,3,7,8-PeCDD		ND	2.50	1				12/15/2014 12:43
1,2,3,4,7,8-HxCDD		ND	2.50	1				12/15/2014 12:43
1,2,3,6,7,8-HxCDD		ND	2.50	1				12/15/2014 12:43
1,2,3,7,8,9-HxCDD		ND	2.50	1				12/15/2014 12:43
1,2,3,4,6,7,8-HpCDD	0.01	**4.16**	2.50	1	1.16	1	0.0416	12/15/2014 12:43
OCDD	0.001	**8.42**	5.00	1	1.02	1	0.00842	12/15/2014 12:43
2,3,7,8-TCDF		ND	0.500	1				12/15/2014 12:43
2,3,4,7,8-PeCDF	0.5	**4.10**	2.50	1	1.62	1	2.05	12/15/2014 12:43
1,2,3,7,8-PeCDF		ND	2.50	1				12/15/2014 12:43
1,2,3,4,7,8-HxCDF	0.1	**5.42**	2.50	1	1.22	1	0.542	12/15/2014 12:43
1,2,3,6,7,8-HxCDF	0.1	**5.42**	2.50	1	1.19	1	0.542	12/15/2014 12:43
1,2,3,7,8,9-HxCDF		ND	2.50	1				12/15/2014 12:43
2,3,4,6,7,8-HxCDF	0.1	**8.82**	2.50	1	1.11	1	0.882	12/15/2014 12:43
1,2,3,4,6,7,8-HpCDF	0.01	**31.9**	2.50	1	1.04	1	0.319	12/15/2014 12:43
1,2,3,4,7,8,9-HpCDF		ND	2.50	1				12/15/2014 12:43
OCDF		ND	5.00	1				12/15/2014 12:43
Total-Tetradioxins		**5.70**	0.500	1				12/15/2014 12:43
Total-Heptadioxins		**8.76**	2.50	1				12/15/2014 12:43
Total-Hexadioxins		ND	2.50	1				12/15/2014 12:43
Total-Pentadioxins		ND	2.50	1				12/15/2014 12:43
Total-Tetrafurans		**19.6**	0.500	1				12/15/2014 12:43
Total-Heptafurans		**31.9**	2.50	1				12/15/2014 12:43
Total-Hexafurans		**60.6**	2.50	1				12/15/2014 12:43
Total-Pentafurans		**23.7**	2.50	1				12/15/2014 12:43
						Total TEQ:	4.39	

Cleanup Standard	REC (%)	Limits	
37Cl-2,3,7,8-TCDD	108	35-197	12/15/2014 12:43
Labeled Compound Recovery			
13C-2,3,7,8-TCDD	90	25-164	12/15/2014 12:43
13C-1,2,3,7,8-PeCDD	91	25-181	12/15/2014 12:43
13C-1,2,3,4,7,8-HxCDD	85	32-141	12/15/2014 12:43
13C-1,2,3,6,7,8-HxCDD	73	28-139	12/15/2014 12:43
13C-1,2,3,4,6,7,8-HpCDD	67	23-140	12/15/2014 12:43
13C-OCDD	61	17-157	12/15/2014 12:43
13C-2,3,7,8-TCDF	104	24-169	12/15/2014 12:43

(Cont.)

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Analytical Report

Client:	ERAS Environmental, Inc.	**WorkOrder:**	1412318
Project:	#14063D	**Extraction Method:**	E1613
Date Received:	12/5/14 21:38	**Analytical Method:**	E1613
Date Prepared:	12/11/14	**Unit:**	pg/g

Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-2-2.5	**1412318-001A**	**Soil**	**12/04/2014 12:25**	**GC36**	**98887**

Analytes	ITEF	Result	RL	DF	Ion Ratio	RRT	TEQ	Date Analyzed
13C-1,2,3,7,8-PeCDF		95	24-185					12/15/2014 12:43
13C-2,3,4,7,8-PeCDF		85	21-178					12/15/2014 12:43
13C-1,2,3,4,7,8-HxCDF		79	26-152					12/15/2014 12:43
13C-1,2,3,6,7,8-HxCDF		74	26-123					12/15/2014 12:43
13C-2,3,4,6,7,8-HxCDF		85	28-136					12/15/2014 12:43
13C-1,2,3,7,8,9-HxCDF		82	29-147					12/15/2014 12:43
13C-1,2,3,4,6,7,8-HpCDF		60	28-143					12/15/2014 12:43
13C-1,2,3,4,7,8,9-HpCDF		72	26-138					12/15/2014 12:43

Analyst(s): MG

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Analytical Report

Client:	ERAS Environmental, Inc.	**WorkOrder:**	1412318
Project:	#14063D	**Extraction Method:**	SW3550B
Date Received:	12/5/14 21:38	**Analytical Method:**	SW8082
Date Prepared:	12/5/14	**Unit:**	mg/kg

Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-2-2.5	**1412318-001A**	**Soil**	**12/04/2014 12:25**	**GC22**	**98654**

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.050	1	12/09/2014 00:37
Aroclor1221	ND	0.050	1	12/09/2014 00:37
Aroclor1232	ND	0.050	1	12/09/2014 00:37
Aroclor1242	ND	0.050	1	12/09/2014 00:37
Aroclor1248	ND	0.050	1	12/09/2014 00:37
Aroclor1254	ND	0.050	1	12/09/2014 00:37
Aroclor1260	ND	0.050	1	12/09/2014 00:37
PCBs, total	ND	0.050	1	12/09/2014 00:37

Surrogates	REC (%)	Limits	Analytical Comments: h4	
Decachlorobiphenyl	93	70-130		12/09/2014 00:37

Analyst(s): SS

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Analytical Report

Client:	ERAS Environmental, Inc.	**WorkOrder:**	1412318
Project:	#14063D	**Extraction Method:**	SW3550B
Date Received:	12/5/14 21:38	**Analytical Method:**	SW8270C
Date Prepared:	12/5/14	**Unit:**	mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-2-2.5	**1412318-001A**	**Soil**	**12/04/2014 12:25**	**GC17**	**98629**

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	10	5	12/09/2014 22:37
Acenaphthylene	ND	10	5	12/09/2014 22:37
Acetochlor	ND	10	5	12/09/2014 22:37
Anthracene	ND	10	5	12/09/2014 22:37
Benzidine	ND	52	5	12/09/2014 22:37
Benzo (a) anthracene	ND	10	5	12/09/2014 22:37
Benzo (b) fluoranthene	ND	10	5	12/09/2014 22:37
Benzo (k) fluoranthene	ND	10	5	12/09/2014 22:37
Benzo (g,h,i) perylene	ND	10	5	12/09/2014 22:37
Benzo (a) pyrene	ND	10	5	12/09/2014 22:37
Benzyl Alcohol	ND	52	5	12/09/2014 22:37
1,1-Biphenyl	ND	10	5	12/09/2014 22:37
Bis (2-chloroethoxy) Methane	ND	10	5	12/09/2014 22:37
Bis (2-chloroethyl) Ether	ND	10	5	12/09/2014 22:37
Bis (2-chloroisopropyl) Ether	ND	10	5	12/09/2014 22:37
Bis (2-ethylhexyl) Adipate	ND	10	5	12/09/2014 22:37
Bis (2-ethylhexyl) Phthalate	ND	10	5	12/09/2014 22:37
4-Bromophenyl Phenyl Ether	ND	10	5	12/09/2014 22:37
Butylbenzyl Phthalate	ND	10	5	12/09/2014 22:37
4-Chloroaniline	ND	20	5	12/09/2014 22:37
4-Chloro-3-methylphenol	ND	10	5	12/09/2014 22:37
2-Chloronaphthalene	ND	10	5	12/09/2014 22:37
2-Chlorophenol	ND	10	5	12/09/2014 22:37
4-Chlorophenyl Phenyl Ether	ND	10	5	12/09/2014 22:37
Chrysene	ND	10	5	12/09/2014 22:37
Dibenzo (a,h) anthracene	ND	10	5	12/09/2014 22:37
Dibenzofuran	ND	10	5	12/09/2014 22:37
Di-n-butyl Phthalate	ND	10	5	12/09/2014 22:37
1,2-Dichlorobenzene	ND	10	5	12/09/2014 22:37
1,3-Dichlorobenzene	ND	10	5	12/09/2014 22:37
1,4-Dichlorobenzene	ND	10	5	12/09/2014 22:37
3,3-Dichlorobenzidine	ND	20	5	12/09/2014 22:37
2,4-Dichlorophenol	ND	10	5	12/09/2014 22:37
Diethyl Phthalate	ND	10	5	12/09/2014 22:37
2,4-Dimethylphenol	ND	10	5	12/09/2014 22:37
Dimethyl Phthalate	ND	10	5	12/09/2014 22:37
4,6-Dinitro-2-methylphenol	ND	52	5	12/09/2014 22:37
2,4-Dinitrophenol	ND	250	5	12/09/2014 22:37

(Cont.)

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Semi-Volatile Organics by GC/MS (Basic Target List)

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B-2-2.5	**1412318-001A**	**Soil**	**12/04/2014 12:25**	**GC17**	**98629**

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	10	5	12/09/2014 22:37
2,6-Dinitrotoluene	ND	10	5	12/09/2014 22:37
Di-n-octyl Phthalate	ND	20	5	12/09/2014 22:37
1,2-Diphenylhydrazine	ND	10	5	12/09/2014 22:37
Fluoranthene	ND	10	5	12/09/2014 22:37
Fluorene	ND	10	5	12/09/2014 22:37
Hexachlorobenzene	ND	10	5	12/09/2014 22:37
Hexachlorobutadiene	ND	10	5	12/09/2014 22:37
Hexachlorocyclopentadiene	ND	52	5	12/09/2014 22:37
Hexachloroethane	ND	10	5	12/09/2014 22:37
Indeno (1,2,3-cd) pyrene	ND	10	5	12/09/2014 22:37
Isophorone	ND	10	5	12/09/2014 22:37
2-Methylnaphthalene	**31**	10	5	12/09/2014 22:37
2-Methylphenol (o-Cresol)	ND	10	5	12/09/2014 22:37
3 & 4-Methylphenol (m,p-Cresol)	ND	10	5	12/09/2014 22:37
Naphthalene	ND	10	5	12/09/2014 22:37
2-Nitroaniline	ND	52	5	12/09/2014 22:37
3-Nitroaniline	ND	52	5	12/09/2014 22:37
4-Nitroaniline	ND	52	5	12/09/2014 22:37
Nitrobenzene	ND	10	5	12/09/2014 22:37
2-Nitrophenol	ND	52	5	12/09/2014 22:37
4-Nitrophenol	ND	52	5	12/09/2014 22:37
N-Nitrosodiphenylamine	ND	10	5	12/09/2014 22:37
N-Nitrosodi-n-propylamine	ND	10	5	12/09/2014 22:37
Pentachlorophenol	ND	52	5	12/09/2014 22:37
Phenanthrene	ND	10	5	12/09/2014 22:37
Phenol	ND	10	5	12/09/2014 22:37
Pyrene	ND	10	5	12/09/2014 22:37
1,2,4-Trichlorobenzene	ND	10	5	12/09/2014 22:37
2,4,5-Trichlorophenol	ND	10	5	12/09/2014 22:37
2,4,6-Trichlorophenol	ND	10	5	12/09/2014 22:37

(Cont.)

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Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-2-2.5	**1412318-001A**	**Soil**	**12/04/2014 12:25**	**GC17**	**98629**

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits	Analytical Comments: a3,a4	
2-Fluorophenol	96	30-130		12/09/2014 22:37
Phenol-d5	93	30-130		12/09/2014 22:37
Nitrobenzene-d5	99	30-130		12/09/2014 22:37
2-Fluorobiphenyl	99	30-130		12/09/2014 22:37
2,4,6-Tribromophenol	101	16-130		12/09/2014 22:37
4-Terphenyl-d14	89	30-130		12/09/2014 22:37

Analyst(s): HK

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Analytical Report

Client:	ERAS Environmental, Inc.	**WorkOrder:**	1412318
Project:	#14063D	**Extraction Method:**	SW3550B/3630C
Date Received:	12/5/14 21:38	**Analytical Method:**	SW8015B
Date Prepared:	12/5/14	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-2-2.5	**1412318-001A**	**Soil**	**12/04/2014 12:25**	**GC6A**	**98653**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**3500**	100	100	12/07/2014 17:19
TPH-Motor Oil (C18-C36)	**2200**	500	100	12/07/2014 17:19

Surrogates	REC (%)	Limits	Analytical Comments: e8,e7,e1/e2
C9	106	70-130	12/07/2014 17:19

Analyst(s): TK

CLIENT: ERAS Environmental, Inc.
Work Order: 1412318
Project: #14063D

ANALYTICAL QC SUMMARY REPORT

BatchID: 98887

SampleID **MB-98887**	TestCode: **1613_FULL_S**			Units: **pg/g**		Prep Date: **12/11/2014**			
Batch ID: **98887**	TestNo: **E1613**			Run ID: **GC36_141218B**		Analysis Date: **12/15/2014**			
Analyte	Result	PQL	SPKValue	SPKRefVal	%REC	Limits	RPDRefVal	%RPD	RPDLimit	Qual
2,3,7,8-TCDD	ND	0.500				-				
1,2,3,7,8-PeCDD	ND	2.50				-				
1,2,3,4,7,8-HxCDD	ND	2.50				-				
1,2,3,6,7,8-HxCDD	ND	2.50				-				
1,2,3,7,8,9-HxCDD	ND	2.50				-				
1,2,3,4,6,7,8-HpCDD	ND	2.50				-				
OCDD	ND	5.00				-				
2,3,7,8-TCDF	ND	0.500				-				
2,3,4,7,8-PeCDF	ND	2.50				-				
1,2,3,7,8-PeCDF	ND	2.50				-				
1,2,3,4,7,8-HxCDF	ND	2.50				-				
1,2,3,6,7,8-HxCDF	ND	2.50				-				
1,2,3,7,8,9-HxCDF	ND	2.50				-				
2,3,4,6,7,8-HxCDF	ND	2.50				-				
1,2,3,4,6,7,8-HpCDF	ND	2.50				-				
1,2,3,4,7,8,9-HpCDF	ND	2.50				-				
OCDF	ND	5.00				-				
Cleanup Standard										
37Cl-2,3,7,8-TCDD	12.9		10		129	35 - 197				
Labeled Compound Recovery										
13C-2,3,7,8-TCDD	101		100		101	25 - 164				
13C-1,2,3,7,8-PeCDD	132		100		132	25 - 181				
13C-1,2,3,4,7,8-HxCDD	83.2		100		83	32 - 141				
13C-1,2,3,6,7,8-HxCDD	81.2		100		81	28 - 130				
13C-1,2,3,4,6,7,8-HpCDD	99.4		100		99	23 - 140				
13C-OCDD	166		200		83	17 - 157				
13C-2,3,7,8-TCDF	97.6		100		98	24 - 169				
13C-1,2,3,7,8-PeCDF	128		100		128	24 - 185				
13C-2,3,4,7,8-PeCDF	131		100		131	21 - 178				
13C-1,2,3,4,7,8-HxCDF	78.1		100		78	26 - 152				
13C-1,2,3,6,7,8-HxCDF	71.3		100		71	26 - 123				
13C-2,3,4,6,7,8-HxCDF	76.9		100		77	28 - 136				
13C-1,2,3,7,8,9-HxCDF	86.2		100		86	29 - 147				
13C-1,2,3,4,6,7,8-HpCDF	91.0		100		91	28 - 143				
13C-1,2,3,4,7,8,9-HpCDF	96.0		100		96	26 - 138				

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
M - Estimate Maximum Possible Concentration
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

CLIENT: ERAS Environmental, Inc.
Work Order: 1412318
Project: #14063D

ANALYTICAL QC SUMMARY REPORT

BatchID: 98887

SampleID **LCS-98887**	TestCode: **1613_FULL_S**	Units: **pg/g**	Prep Date: **12/11/2014**
Batch ID: **98887**	TestNo: **E1613**	Run ID: **GC36_141218C**	Analysis Date: **12/15/2014**

Analyte	Result	PQL	SPKValue	SPKRefVal	%REC	Limits	RPDRefVal	%RPD	RPDLimit	Qual
2,3,7,8-TCDD	11.3	0.500	10	0	113	67 - 158				
1,2,3,7,8-PeCDD	55.2	2.50	50	0.12	110	70 - 142				
1,2,3,4,7,8-HxCDD	52.5	2.50	50	0	105	70 - 164				
1,2,3,6,7,8-HxCDD	51.6	2.50	50	0.12	103	76 - 134				
1,2,3,7,8,9-HxCDD	56.6	2.50	50	0.14	113	64 - 162				
1,2,3,4,6,7,8-HpCDD	51.4	2.50	50	0	103	70 - 140				
OCDD	101	5.00	100	0	101	78 - 144				
2,3,7,8-TCDF	10.4	0.500	10	0	104	75 - 158				
2,3,4,7,8-PeCDF	49.9	2.50	50	0.16	99	68 - 160				
1,2,3,7,8-PeCDF	49.2	2.50	50	0.12	98	80 - 134				
1,2,3,4,7,8-HxCDF	51.1	2.50	50	0	102	72 - 134				
1,2,3,6,7,8-HxCDF	50.1	2.50	50	0.14	100	84 - 130				
1,2,3,7,8,9-HxCDF	50.6	2.50	50	0.1	101	78 - 130				
2,3,4,6,7,8-HxCDF	50.9	2.50	50	0	102	70 - 156				
1,2,3,4,6,7,8-HpCDF	50.6	2.50	50	0	101	82 - 122				
1,2,3,4,7,8,9-HpCDF	49.8	2.50	50	0	100	78 - 138				
OCDF	93.9	5.00	100	0	94	63 - 170				
Cleanup Standard										
37Cl-2,3,7,8-TCDD	13.4		10		134	31 - 191				
Labeled Compound Recovery										
13C-2,3,7,8-TCDD	108		100		108	20 - 175				
13C-1,2,3,7,8-PeCDD	146		100		146	21 - 227				
13C-1,2,3,4,7,8-HxCDD	83.3		100		83	21 - 193				
13C-1,2,3,6,7,8-HxCDD	81.1		100		81	25 - 163				
13C-1,2,3,4,6,7,8-HpCDD	86.5		100		86	26 - 166				
13C-OCDD	153		200		76	13 - 199				
13C-2,3,7,8-TCDF	105		100		105	22 - 152				
13C-1,2,3,7,8-PeCDF	129		100		129	21 - 192				
13C-2,3,4,7,8-PeCDF	136		100		136	13 - 328				
13C-1,2,3,4,7,8-HxCDF	79.4		100		79	19 - 202				
13C-1,2,3,6,7,8-HxCDF	77.4		100		77	21 - 159				
13C-2,3,4,6,7,8-HxCDF	78.7		100		79	22 - 176				
13C-1,2,3,7,8,9-HxCDF	84.3		100		84	17 - 205				
13C-1,2,3,4,6,7,8-HpCDF	81.3		100		81	21 - 158				
13C-1,2,3,4,7,8,9-HpCDF	81.6		100		82	20 - 186				

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
M - Estimate Maximum Possible Concentration
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

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Angela Rydelius, Lab Manager

CLIENT: ERAS Environmental, Inc.
Work Order: 1412318
Project: #14063D

ANALYTICAL QC SUMMARY REPORT

BatchID: 98887

SampleID **1412318-001AMS** TestCode: **1613_FULL_S** Units: **pg/g** Prep Date: **12/11/2014**
Batch ID: **98887** TestNo: **E1613** Run ID: **GC36_141218D** Analysis Date: **12/15/2014**

Analyte	Result	PQL	SPKValue	SPKRefVal	%REC	Limits	RPDRefVal	%RPD	RPDLimit	Qual
2,3,7,8-TCDD	13.5	0.500	10	0	135	67 - 158				
1,2,3,7,8-PeCDD	56.8	2.50	50	0	114	70 - 142				
1,2,3,4,7,8-HxCDD	54.3	2.50	50	0	109	70 - 164				
1,2,3,6,7,8-HxCDD	54.2	2.50	50	1.64	105	76 - 134				
1,2,3,7,8,9-HxCDD	58.9	2.50	50	0	118	64 - 162				
1,2,3,4,6,7,8-HpCDD	56.6	2.50	50	4.16	105	70 - 140				
OCDD	116	5.00	100	8.42	107	78 - 144				
2,3,7,8-TCDF	14.1	0.500	10	0	141	75 - 158				
2,3,4,7,8-PeCDF	54.0	2.50	50	4.1	100	68 - 160				
1,2,3,7,8-PeCDF	52.0	2.50	50	0	104	80 - 134				
1,2,3,4,7,8-HxCDF	57.2	2.50	50	5.42	104	72 - 134				
1,2,3,6,7,8-HxCDF	57.9	2.50	50	5.42	105	84 - 130				
1,2,3,7,8,9-HxCDF	56.3	2.50	50	0	113	78 - 130				
2,3,4,6,7,8-HxCDF	61.5	2.50	50	8.82	105	70 - 156				
1,2,3,4,6,7,8-HpCDF	80.5	2.50	50	31.88	97	82 - 122				
1,2,3,4,7,8,9-HpCDF	49.4	2.50	50	0	99	78 - 138				
OCDF	105	5.00	100	4.2	101	63 - 170				
Cleanup Standard										
37Cl-2,3,7,8-TCDD	11.9		10		119	31 - 191				
Labeled Compound Recovery										
13C-2,3,7,8-TCDD	94.3		100		94	20 - 175				
13C-1,2,3,7,8-PeCDD	104		100		104	21 - 227				
13C-1,2,3,4,7,8-HxCDD	83.6		100		84	21 - 193				
13C-1,2,3,6,7,8-HxCDD	74.2		100		74	25 - 163				
13C-1,2,3,4,6,7,8-HpCDD	65.8		100		66	26 - 166				
13C-OCDD	106		200		53	13 - 199				
13C-2,3,7,8-TCDF	119		100		119	22 - 152				
13C-1,2,3,7,8-PeCDF	114		100		114	21 - 192				
13C-2,3,4,7,8-PeCDF	99.6		100		100	13 - 328				
13C-1,2,3,4,7,8-HxCDF	84.9		100		85	19 - 202				
13C-1,2,3,6,7,8-HxCDF	76.8		100		77	21 - 159				
13C-2,3,4,6,7,8-HxCDF	83.7		100		84	22 - 176				
13C-1,2,3,7,8,9-HxCDF	80.9		100		81	17 - 205				
13C-1,2,3,4,6,7,8-HpCDF	62.4		100		62	21 - 158				
13C-1,2,3,4,7,8,9-HpCDF	69.8		100		70	20 - 186				

Qualifiers:

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J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
M - Estimate Maximum Possible Concentration
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

CDPH ELAP 1644 ♦ NELAP 4033ORELAP

Angela Rydelius, Lab Manager

CLIENT: ERAS Environmental, Inc.
Work Order: 1412318
Project: #14063D

ANALYTICAL QC SUMMARY REPORT

BatchID: 98887

SampleID **1412318-001AMSD** TestCode: **1613_FULL_S** Units: **pg/g** Prep Date: **12/11/2014**
Batch ID: **98887** TestNo: **E1613** Run ID: **GC36_141218D** Analysis Date: **12/15/2014**

Analyte	Result	PQL	SPKValue	SPKRefVal	%REC	Limits	RPDRefVal	%RPD	RPDLimit	Qual
2,3,7,8-TCDD	13.0	0.500	10	0	130	67 - 158	13.52	3.77	20	
1,2,3,7,8-PeCDD	53.5	2.50	50	0	107	70 - 142	56.82	5.98	20	
1,2,3,4,7,8-HxCDD	53.6	2.50	50	0	107	70 - 164	54.26	1.15	20	
1,2,3,6,7,8-HxCDD	52.0	2.50	50	1.64	101	76 - 134	54.2	4.10	20	
1,2,3,7,8,9-HxCDD	58.5	2.50	50	0	117	64 - 162	58.88	0.647	20	
1,2,3,4,6,7,8-HpCDD	57.7	2.50	50	4.16	107	70 - 140	56.64	1.89	20	
OCDD	114	5.00	100	8.42	106	78 - 144	115.8	1.50	20	
2,3,7,8-TCDF	12.7	0.500	10	0	127	75 - 158	14.14	10.7	20	
2,3,4,7,8-PeCDF	54.3	2.50	50	4.1	100	68 - 160	53.96	0.665	20	
1,2,3,7,8-PeCDF	49.7	2.50	50	0	99	80 - 134	52	4.44	20	
1,2,3,4,7,8-HxCDF	52.9	2.50	50	5.42	95	72 - 134	57.18	7.70	20	
1,2,3,6,7,8-HxCDF	55.3	2.50	50	5.42	100	84 - 130	57.86	4.52	20	
1,2,3,7,8,9-HxCDF	49.1	2.50	50	0	98	78 - 130	56.28	13.6	20	
2,3,4,6,7,8-HxCDF	59.9	2.50	50	8.82	102	70 - 156	61.52	2.67	20	
1,2,3,4,6,7,8-HpCDF	77.1	2.50	50	31.88	90	82 - 122	80.52	4.37	20	
1,2,3,4,7,8,9-HpCDF	47.4	2.50	50	0	95	78 - 138	49.44	4.17	20	
OCDF	102	5.00	100	4.2	98	63 - 170	105.1	3.09	20	
Cleanup Standard										
37Cl-2,3,7,8-TCDD	11.9		10		119	31 - 191				
Labeled Compound Recovery										
13C-2,3,7,8-TCDD	98.3		100		98	20 - 175				
13C-1,2,3,7,8-PeCDD	114		100		113	21 - 227				
13C-1,2,3,4,7,8-HxCDD	82.0		100		82	21 - 193				
13C-1,2,3,6,7,8-HxCDD	70.9		100		71	25 - 163				
13C-1,2,3,4,6,7,8-HpCDD	66.9		100		67	26 - 166				
13C-OCDD	109		200		55	13 - 199				
13C-2,3,7,8-TCDF	126		100		126	22 - 152				
13C-1,2,3,7,8-PeCDF	125		100		125	21 - 192				
13C-2,3,4,7,8-PeCDF	107		100		107	13 - 328				
13C-1,2,3,4,7,8-HxCDF	83.9		100		84	19 - 202				
13C-1,2,3,6,7,8-HxCDF	75.5		100		76	21 - 159				
13C-2,3,4,6,7,8-HxCDF	80.0		100		80	22 - 176				
13C-1,2,3,7,8,9-HxCDF	81.1		100		81	17 - 205				
13C-1,2,3,4,6,7,8-HpCDF	60.4		100		60	21 - 158				
13C-1,2,3,4,7,8,9-HpCDF	68.9		100		69	20 - 186				

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
M - Estimate Maximum Possible Concentration
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

CDPH ELAP 1644 ♦ NELAP 4033ORELAP

Angela Rydelius, Lab Manager

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Quality Control Report

Client:	ERAS Environmental, Inc.	**WorkOrder:**	1412318
Date Prepared:	12/5/14	**BatchID:**	98654
Date Analyzed:	12/8/14 - 12/9/14	**Extraction Method:**	SW3550B
Instrument:	GC22	**Analytical Method:**	SW8082
Matrix:	Soil	**Unit:**	mg/kg
Project:	#14063D	**Sample ID:**	MB/LCS-98654 1412318-001AMS/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	0.126	0.050	0.15	-	84	70-130
PCBs, total	ND	-	0.050	-	-	-	-
Surrogate Recovery							
Decachlorobiphenyl	0.0504	0.0519		0.050	101	104	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aroclor1260	0.171	0.164	0.15	ND	114	109	70-130	4.11	30
Surrogate Recovery									
Decachlorobiphenyl	0.0460	0.0437	0.050		92	87	70-130	5.10	30

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Quality Control Report

Client:	ERAS Environmental, Inc.	**WorkOrder:**	1412318
Date Prepared:	12/5/14	**BatchID:**	98629
Date Analyzed:	12/8/14	**Extraction Method:**	SW3550B
Instrument:	GC17	**Analytical Method:**	SW8270C
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#14063D	**Sample ID:**	MB/LCS-98629 1412240-008AMS/MSD

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	3.93	0.25	5	-	79	30-130
Acenaphthylene	ND	-	0.25	-	-	-	-
Acetochlor	ND	-	0.25	-	-	-	-
Anthracene	ND	-	0.25	-	-	-	-
Benzidine	ND	-	1.3	-	-	-	-
Benzo (a) anthracene	ND	-	0.25	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.25	-	-	-	-
Benzo (a) pyrene	ND	-	0.25	-	-	-	-
Benzyl Alcohol	ND	-	1.3	-	-	-	-
1,1-Biphenyl	ND	-	0.25	-	-	-	-
Bis (2-chloroethoxy) Methane	ND	-	0.25	-	-	-	-
Bis (2-chloroethyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-chloroisopropyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Adipate	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	-	0.25	-	-	-	-
4-Bromophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Butylbenzyl Phthalate	ND	-	0.25	-	-	-	-
4-Chloroaniline	ND	-	0.50	-	-	-	-
4-Chloro-3-methylphenol	ND	4.40	0.25	5	-	88	30-130
2-Chloronaphthalene	ND	-	0.25	-	-	-	-
2-Chlorophenol	ND	4.02	0.25	5	-	80	30-130
4-Chlorophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Chrysene	ND	-	0.25	-	-	-	-
Dibenzo (a,h) anthracene	ND	-	0.25	-	-	-	-
Dibenzofuran	ND	-	0.25	-	-	-	-
Di-n-butyl Phthalate	ND	-	0.25	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,4-Dichlorobenzene	ND	3.45	0.25	5	-	69	30-130
3,3-Dichlorobenzidine	ND	-	0.50	-	-	-	-
2,4-Dichlorophenol	ND	-	0.25	-	-	-	-
Diethyl Phthalate	ND	-	0.25	-	-	-	-
2,4-Dimethylphenol	ND	-	0.25	-	-	-	-
Dimethyl Phthalate	ND	-	0.25	-	-	-	-
4,6-Dinitro-2-methylphenol	ND	-	1.3	-	-	-	-
2,4-Dinitrophenol	ND	-	6.3	-	-	-	-
2,4-Dinitrotoluene	ND	4.26	0.25	5	-	85	30-130
2,6-Dinitrotoluene	ND	-	0.25	-	-	-	-

(Cont.)

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Quality Control Report

Client:	ERAS Environmental, Inc.	**WorkOrder:**	1412318
Date Prepared:	12/5/14	**BatchID:**	98629
Date Analyzed:	12/8/14	**Extraction Method:**	SW3550B
Instrument:	GC17	**Analytical Method:**	SW8270C
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#14063D	**Sample ID:**	MB/LCS-98629 1412240-008AMS/MSD

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Di-n-octyl Phthalate	ND	-	0.50	-	-	-	-
1,2-Diphenylhydrazine	ND	-	0.25	-	-	-	-
Fluoranthene	ND	-	0.25	-	-	-	-
Fluorene	ND	-	0.25	-	-	-	-
Hexachlorobenzene	ND	-	0.25	-	-	-	-
Hexachlorobutadiene	ND	-	0.25	-	-	-	-
Hexachlorocyclopentadiene	ND	-	1.3	-	-	-	-
Hexachloroethane	ND	-	0.25	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.25	-	-	-	-
Isophorone	ND	-	0.25	-	-	-	-
2-Methylnaphthalene	ND	-	0.25	-	-	-	-
2-Methylphenol (o-Cresol)	ND	-	0.25	-	-	-	-
Naphthalene	ND	-	0.25	-	-	-	-
2-Nitroaniline	ND	-	1.3	-	-	-	-
3-Nitroaniline	ND	-	1.3	-	-	-	-
4-Nitroaniline	ND	-	1.3	-	-	-	-
Nitrobenzene	ND	-	0.25	-	-	-	-
2-Nitrophenol	ND	-	1.3	-	-	-	-
4-Nitrophenol	ND	3.99	1.3	5	-	80	30-130
N-Nitrosodiphenylamine	ND	-	0.25	-	-	-	-
N-Nitrosodi-n-propylamine	ND	3.39	0.25	5	-	68	30-130
Pentachlorophenol	ND	2.86	1.3	5	-	57	30-130
Phenanthrene	ND	-	0.25	-	-	-	-
Phenol	ND	3.98	0.25	5	-	80	30-130
Pyrene	ND	3.84	0.25	5	-	77	30-130
1,2,4-Trichlorobenzene	ND	4.28	0.25	5	-	86	30-130
2,4,5-Trichlorophenol	ND	-	0.25	-	-	-	-
2,4,6-Trichlorophenol	ND	-	0.25	-	-	-	-
Surrogate Recovery							
2-Fluorophenol	4.25	3.97		5	85	79	30-130
Phenol-d5	3.94	3.63		5	79	73	30-130
Nitrobenzene-d5	4.13	4.06		5	83	81	30-130
2-Fluorobiphenyl	3.88	3.74		5	78	75	30-130
2,4,6-Tribromophenol	2.57	3.04		5	51	61	16-130
4-Terphenyl-d14	3.97	3.72		5	79	74	30-130

(Cont.)

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Quality Control Report

Client:	ERAS Environmental, Inc.	**WorkOrder:**	1412318
Date Prepared:	12/5/14	**BatchID:**	98629
Date Analyzed:	12/8/14	**Extraction Method:**	SW3550B
Instrument:	GC17	**Analytical Method:**	SW8270C
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#14063D	**Sample ID:**	MB/LCS-98629 1412240-008AMS/MSD

QC Summary Report for SW8270C

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acenaphthene	3.99	4.37	5	ND	80	87	30-130	9.10	30
4-Chloro-3-methylphenol	4.51	4.64	5	ND	90	93	30-130	2.86	30
2-Chlorophenol	4.22	4.18	5	ND	84	84	30-130	0	30
1,4-Dichlorobenzene	3.31	3.38	5	ND	66	68	30-130	2.04	30
2,4-Dinitrotoluene	4.36	4.82	5	ND	87	96	30-130	10.0	30
4-Nitrophenol	4.23	4.74	5	ND	85	95	30-130	11.4	30
N-Nitrosodi-n-propylamine	3.43	3.44	5	ND	69	69	30-130	0	30
Pentachlorophenol	3.50	3.83	5	ND	70	77	30-130	8.91	30
Phenol	4.54	4.45	5	0.4456	82	80	30-130	2.01	30
Pyrene	4.13	4.18	5	ND	83	84	30-130	1.16	30
1,2,4-Trichlorobenzene	3.99	4.18	5	ND	80	83	30-130	4.57	30
Surrogate Recovery									
2-Fluorophenol	3.92	3.93	5		78	79	30-130	0.266	30
Phenol-d5	3.72	3.66	5		74	73	30-130	1.61	30
Nitrobenzene-d5	3.74	3.87	5		75	77	30-130	3.37	30
2-Fluorobiphenyl	3.66	4.01	5		73	80	30-130	8.92	30
2,4,6-Tribromophenol	2.93	3.08	5		59	62	16-130	4.78	30
4-Terphenyl-d14	4.03	4.06	5		81	81	30-130	0	30

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Quality Control Report

Client:	ERAS Environmental, Inc.	**WorkOrder:**	1412318
Date Prepared:	12/5/14	**BatchID:**	98653
Date Analyzed:	12/7/14	**Extraction Method:**	SW3550B/3630C
Instrument:	GC6A	**Analytical Method:**	SW8015B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#14063D	**Sample ID:**	MB/LCS-98653 1412318-001AMS/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	42.9	1.0	40	-	107	70-130
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
Surrogate Recovery							
C9	21.2	21.8		25	85	87	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	NR	NR		3500	NR	NR	-	NR	
Surrogate Recovery									
C9	NR	NR			NR	NR	-	NR	

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1412318 **ClientCode: ERAS**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Andrew Savage
ERAS Environmental, Inc.
1533 B Street
Hayward, CA 94541
(510) 247-9885 FAX: (510) 886-5399

Email: info@eras.biz; andrew@eras.biz
cc/3rd Party:
PO:
ProjectNo: #14063D

Bill to:
Kasey Cordoza
ERAS Environmental, Inc.
1533 B Street
Hayward, CA 94541

Requested TAT: 5 days

Date Received: **12/05/2014**
Date Printed: **12/12/2014**

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
1412318-001	B-2-2.5	Soil	12/4/2014 12:25	☐	A	A	A	A								

Test Legend:

1	1613_FULL_S	2	8082A_PCB_S	3	8270D_S	4	TPH(DMO)WSG_S	5	
6		7		8		9		10	
11		12							

Prepared by: Agustina Venegas

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.

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WORK ORDER SUMMARY

Client Name: ERAS ENVIRONMENTAL, INC. **QC Level:** LEVEL 2 **Work Order:** 1412318
Project: #14063D **Client Contact:** Andrew Savage **Date Received:** 12/5/2014
Comments: **Contact's Email:** info@eras.biz; andrew@eras.biz

☐ 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
1412318-001A	B-2-2.5	Soil	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	1	Brass Tube (2x3 Liner)	☐	12/4/2014 12:25	5 days		☐	
			SW8270C (SVOCs)			☐		5 days		☐	
			SW8082 (PCBs Only)			☐		5 days		☐	
			E1613 (PCDDs & PCDFs)			☐		15 days		☐	

*** NOTE: 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).**

CHAIN OF CUSTODY FORM

14123|8

McCampbell Analytical, Inc
1534 Willow Pass Rd.
Pittsburg, CA 94565
877.252.9262
925.252.9269 - fax

Turnaround Time:	Rush	24Hr	48 Hr	72 Hr	X 5 Day
Geotracker:	PDF	Excel	Write On (DW		

Report To: ERAS **Bill To:** ERAS
Company: ERAS Environmental, Inc.
Email: info@eras.biz
Telephone: 510-247-9885 **Fax:** 510-886-5399
Project # 14063D
Project location 3037-3115 Adeline Street
Sampler: Andrew Savage

Sample ID	Location/Field Point Name	Sampling Date	Sampling Time	# of Containers	Container Type	Matrix: Soil	Matrix: Water	Matrix: Waste	Matrix:	Preservative: HCL	Preservative: H2SO4	Preservative: HNO3	Preservative: ICE	Preservative: None	TPH-diesel and oil EPA 8015 with silica gel cleanup	EPA 8270 Full List	Dioxins by EPA 1613	PCB's by EPA 8082	Other	Comments
B-2-2.5		12/4/2014	12:25	1	Tube	X							X		X	X	X	X		

RELINQUISHED BY:

Relinquished by:	Date: 12-4-14	Time: 1240	Recieved by:
Relinquished by:	Date: 12/5	Time: 1855	Recieved by: Agustina V.
Relinquished by:	Date:	Time:	Recieved by:

RECEIVED BY:

ICE/t°	3.0
Condition	
Head space absent	
Dechlorinated in lab	
Appropriate containers	
Preserved in Lab	
	VOA's O&G Metals Other
Preservation	pH<2

Comments: Please PDF

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Sample Receipt Checklist

Client Name: **ERAS Environmental, Inc.**
Date and Time Received: **12/5/2014 9:38:47 PM**

Project Name: **#14063D**
LogIn Reviewed by: Agustina Venegas

WorkOrder №: **1412318** Matrix: Soil
Carrier: Benjamin Yslas (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: 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:

ATTACHMENT A

FIGURES

ATTACHMENT B

ACHCSA LETTER

ATTACHMENT C

STANDARD OPERATING PROCEDURES

STANDARD OPERATING PROCEDURE– HAND BORINGS

SOIL CORING AND SAMPLING PROCEDURES

Prior to drilling, the surface is either cored if concrete or hammered through using a pick, if asphalt.

A hand operated coring device equipped with a 3-inch diameter auger bit is advanced into the soil until full. The auger is removed and emptied and this process is repeated until the desired depth is reached. The hand auger is removed and a slide hammer core sampling device, equipped with two 3-inch long, 2-inch diameter brass liners is advanced six inches into the undisturbed soil at the bottom of the borehole.

One of the 3-inch liners is selected and the ends of the tube are covered with Teflon liner and sealed with plastic caps. The soil-filled liner is labeled with the borehole number, sample depth, site location, date, and time. The samples are placed in bags and stored in a cooler containing ice. Soil from the core adjacent to the interval selected for analyses is placed in a plastic zip-top bag. The soil is allowed to volatilize for a period of time, depending on the ambient temperature. The soil is scanned with a flame-ionization detector (FID) or photo-ionization detector (PID).

All sample barrels, rods, and tools are cleaned with Alconox or equivalent detergent and de-ionized water. All rinsate from the cleaning is contained in covered 5-gallon plastic buckets or 55-gallon drums at the project site.

BOREHOLE GROUTING FOR HAND BORINGS

Upon completion of soil and water sampling, boreholes will be abandoned with neat cement grout. If the borehole was advanced into groundwater, the grout is pumped through a grouting tube positioned at the bottom of the borehole.

ATTACHMENT D

LABORATORY REPORT AND
CHAIN OF CUSTODY FORM