



AEI Consultants

Environmental & Engineering Services

November 25, 2014

LIMITED PHASE II SUBSURFACE INVESTIGATION

Property Identification:

745 Kevin Court
Oakland, California

AEI Project No. 336488

Prepared for:

Mr. Joseph Bernardini
Bernardini Enterprises Inc.
P.O. Box 1563
Burlingame, CA 94011

Prepared by:

AEI Consultants
2500 Camino Diablo
Walnut Creek, California 94597
(925) 746-6000

Environmental & Engineering Due Diligence

Site Investigation & Remediation

Energy Performance & Benchmarking

Industrial Hygiene

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AEI Consultants

Environmental & Engineering Services

November 25, 2014

Mr. Joseph Bernardini
Bernardini Enterprises Inc.
P.O. Box 1563
Burlingame, California 94011

Subject: Limited Phase II Subsurface Investigation
745 Kevin Court
Oakland, California
AEI Project No. 336488

AEI Consultants (AEI) has prepared this report to document the results of a Limited Phase II Subsurface Investigation (Phase II) performed at the above referenced subject property (Figures 1 and 2). This investigation was completed in general accordance with the authorized scope of services outlined in our authorized proposal number 39144.

The scope of work for the Phase II investigation was based on information provided by the owner of the property during our Site visit on October, 23, 2014. The objective of this work was to generate information relating to the presence or absence of a former gasoline underground storage tank (UST) which was reportedly removed from the Site in 1991 and assess the area for potential environmental impacts associated with the former UST.

1.0 SITE DESCRIPTION

The subject property consists of a storage and hauling yard located on the north side of Kevin Court in a commercial and industrial area of Oakland, California (Figure 2). A single story building located on the subject property is currently occupied by Bernardini Enterprises, Inc.

The subject property is covered by asphalt and gravel pavement. The general land use in the vicinity of the subject property is commercial.

The groundwater flow direction beneath the subject property is inferred to be toward San Leandro Bay, approximately 2,000 feet to the west of the Site. Groundwater beneath the Site is tidally influenced and occurs between 3 and 10 feet below ground surface (bgs).

Based on a review of the United States Geological Survey (USGS) San Francisco Bay Quadrangle Geologic Map, the area surrounding the subject property is underlain by fine-grained sediments typical of marshy-intertidal areas mixed with imported fill material.

Refer to Section 4.1 below for additional information on the site geology and groundwater conditions.

2.0 BACKGROUND

A Phase I Environmental Site Assessment (ESA) was performed by ERAS Environmental, Inc. (ERAS) as detailed in their report dated October 6, 2014. According to the Phase I ESA, the property was marshland until at least 1946. From 1958 through 1964, the land had been reclaimed as dry land but remained vacant and undeveloped. By 1974, the property was developed with sheds on the west side of the property and by 1981 the existing buildings were present on the east and west sides of the property. The property was occupied by a roofing company, under the names of Sun Roofing and Elliot & Elliot Roofing from the time it was developed in approximately 1964.

Based on information provided to AEI during our Site visit, a 1,000-gallon gasoline UST was formerly located adjacent to the northern wall of the existing office building. An existing 1,000-gallon aboveground (AST) gasoline storage tank is currently located in the east-central portion of the property.

According to information provided by the owner, the former gasoline UST was reportedly removed from the Site in 1991. This information is consistent with notations on Oakland Fire Department records, which also indicate the UST was removed in 1991; however, no specific documentation of UST removal actions, confirmation sampling, or remedial activities associated with the UST have been identified.

Due to the lack of documentation related to its disposition, the Phase I ESA identified the former gasoline UST as a Recognized Environmental Condition (REC). As a result, ERAS recommended that a subsurface investigation be completed to evaluate potential environmental impacts related to the former UST.

3.0 INVESTIGATION EFFORTS

In accordance with the recommendations contained in the Phase I ESA, AEI was requested to perform a limited subsurface investigation, including the collection of groundwater samples from the area of the former gasoline UST and the existing gasoline AST. All work was performed under the oversight of a licensed professional.

3.1 Health and Safety Plan

A site-specific health and safety plan was prepared, reviewed by onsite personnel, and kept onsite for the duration of the fieldwork.

3.2 Permitting and Utility Clearance

Drilling permits were obtained from Alameda County Department of Public Works (ACDPW) for this investigation (Appendix A). The public underground utility locating service USA North was notified to identify public utilities in the work area. In addition, the private utility locating company (Foresite of Pleasant Hill, California) was contracted to clear the proposed boring locations for underground utilities and scan the area for evidence of the former UST.

3.3 Drilling

On November 10, 2014, four borings (SB-1, HP-2, HP-3 and HP-4) were advanced on the subject property for collection of groundwater samples (Figure 2). The borings were advanced

by Environmental Control Associates of Aptos, California using a truck mounted direct-push drilling rig. The borings were advanced to depths between 8 and 10 feet bgs using 2.25 outer diameter drilling rods. The locations of the borings are described below.

- Boring SB-1 was advanced in the center of the reported location of former gasoline UST, in the southwest portion of the subject property.
- Boring HP-2 was advanced adjacent to the south end of the reported location of former gasoline UST, in the southwest corner of the subject property.
- Boring HP-3 was advanced adjacent to the north end of the former gasoline UST, in the southwest corner of the subject property.
- Boring HP-4 was advanced adjacent to the existing 1,000-gallon gasoline AST, in the eastern portion of the subject property.

Soil samples were collected from boring SB-1 using direct-push drilling rods equipped with acetate sample liners. Soil cores were collected continuously from near ground surface to the bottom of the borehole. After each interval, the core was retrieved and transferred to the AEI geologist to be logged using the Unified Soil Classification System. In addition, the soil cores were field-screened for the presence of volatile organic compounds (VOCs) using a photo ionization detector (PID). Geologic characteristics and PID readings from the soil cores retrieved from boring SB-1 were recorded on the geologic log (Appendix B).

Due to the shallow depth to groundwater (less than 4 feet bgs), no soil samples were retained for laboratory analysis.

Down-hole equipment was decontaminated using a triple rinse system containing detergent prior to initiation of drilling activities and between successive borings.

3.4 Groundwater Sample Collection

Groundwater samples were collected from the borings on November 10, 2014. Groundwater was collected from boring SB-1 by placing a temporary polyvinyl chloride (PVC) casing into the borehole, allowing the borehole to recharge with groundwater, and collecting a sample using a peristaltic pump equipped with clean disposable tubing.

Groundwater samples were collected from the borings HP-2 through HP-4 using a Geoprobe® SP-15 (SP-15) groundwater sampling device. To collect the samples, the tooling was advanced to approximately 10 feet bgs in borings HP-2, HP-3, HP-4. Once the tooling reached the target depth, the rods were retracted to expose a stainless steel screen and allow groundwater to enter the borehole. Groundwater samples were then collected using a peristaltic pump equipped with clean disposable tubing.

Groundwater samples were collected directly into laboratory-supplied pre-preserved containers. Following collection, the samples were labeled with unique identifiers and placed in an iced cooler for transportation to the analytical laboratory.

3.5 Boring Destruction

Following completion of sample collection and removal of tooling, the borings were backfilled with neat cement grout as required by the permitting agency and completed at the surface with concrete to match the surrounding conditions.

3.6 Laboratory Analyses

The samples were transferred under appropriate chain-of-custody documentation to McCampbell Analytics, Inc. of Pittsburg, California for analysis. The number and types of samples submitted for laboratory analysis are described below.

Four groundwater samples (one from each boring) were analyzed for:

- Total Petroleum Hydrocarbons as gasoline (TPH-g) by EPA Method 8260
- Benzene, toluene, ethylbenzene, xylenes, and methyl-tert-butyl ether (MTBE) by EPA Methods 8260.

A copy of the laboratory reporting package is provided in Appendix C.

3.7 Investigation Derived Wastes

Investigation derived waste was staged onsite in sealed, label, containers pending characterization for disposal.

4.0 FINDINGS

For the purpose of providing context to the data obtained during this investigation, analytical results are compared to the San Francisco Bay Regional Water Quality Control Board's (RWQCB's) Environmental Screening Levels (ESLs) for commercial land use where groundwater is a potential drinking water resource.

4.1 Geology and Hydrogeology

Sediment encountered in the borings completed at the Site generally consisted of silty fill and manmade material to a depth of approximately 6.5 feet bgs (Appendix B). This material was underlain by a high plasticity clay unit which appeared to represent native sediments.

Groundwater was encountered in all four borings completed at the Site. The depth to groundwater ranged between approximately 3.7 and 4.6 feet bgs.

4.2 Groundwater Sample Analytical Results

Groundwater analytical results are summarized in Table 1 and discussed briefly below.

- Gasoline constituents were detected in the samples from the three borings completed in the vicinity of the former gasoline UST (SB-1, HP-2, and HP-3).
- Three compounds (TPH-g, benzene, and toluene) were detected above their respective ESLs. The highest concentrations of each of the three compounds were detected in the sample from HP-3, which was completed at the north end of the reported location of the former gasoline UST.
- All constituents were below the analytical reporting limits in the sample from HP-4, which was completed adjacent to the existing AST.

5.0 SUMMARY AND CONCLUSIONS

AEI completed a subsurface investigation at the subject property to evaluate potential environmental impacts related to a former gasoline UST and existing gasoline AST on the subject property. No evidence of the former UST was identified by the utility scan performed in the area.

The analytical results of from the groundwater samples collected from the Site identified gasoline constituents including TPH-g, benzene, and toluene above ESL concentration in samples from the three borings completed in the vicinity of the former gasoline UST (SB-1, HP-2, and HP-3). The highest concentrations of gasoline constituents were detected in the sample from HP-3, which was completed at the north end of the reported location of the former gasoline UST. These results are consistent with the presence of gasoline-contaminated soils in the area of the former gasoline UST which appear to be acting as the source of groundwater impacts.

All constituents were below the analytical reporting limits in the sample from HP-4, which was completed adjacent to the existing AST.

Based on these results, AEI recommends additional environmental activities to address impacted soil and groundwater in the vicinity of the former UST. AEI also recommends that the owner of the property file an Unauthorized Release Report with the ACDPW and RWQCB and apply for acceptance into the State of California's Underground Storage Tank Cleanup Fund to solicit reimbursement of investigation and remediation costs associated with the former UST.

6.0 REPORT LIMITATIONS AND RELIANCE


This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the requested information, subject to scope of work for which AEI was retained and limitations inherent in this type of work, but it cannot be assumed that they are representative of areas not sampled. This report should not be regarded as a guarantee that no further contamination beyond that which could have been detected within the scope of this investigation is present beneath the subject property. Undocumented, unauthorized releases of hazardous material, the remains of which are not readily identifiable by visual inspection and are of different chemical constituents, are difficult and often impossible to detect within the scope of a chemical specific investigation.

Any conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document. These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work. No other warranty, either expressed or implied, has been made.

This investigation was prepared for the sole use and benefit of Mr. Joseph Bernardini. All reports, both verbal and written, whether in draft or final, are for the benefit of Mr. Joseph Bernardini. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of AEI. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with AEI granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against AEI, its officers, employees, vendors, successors or assigns. Reliance is provided in accordance with AEI's Proposal and Standard Terms & Conditions executed by Mr. Joseph Bernardini on October 29, 2014. The limitation of liability defined in the Terms and Conditions is the aggregate limit of AEI's liability to the client and all relying parties.

If there are any questions regarding our investigation, please do not hesitate to contact AEI at (925) 746-6000.

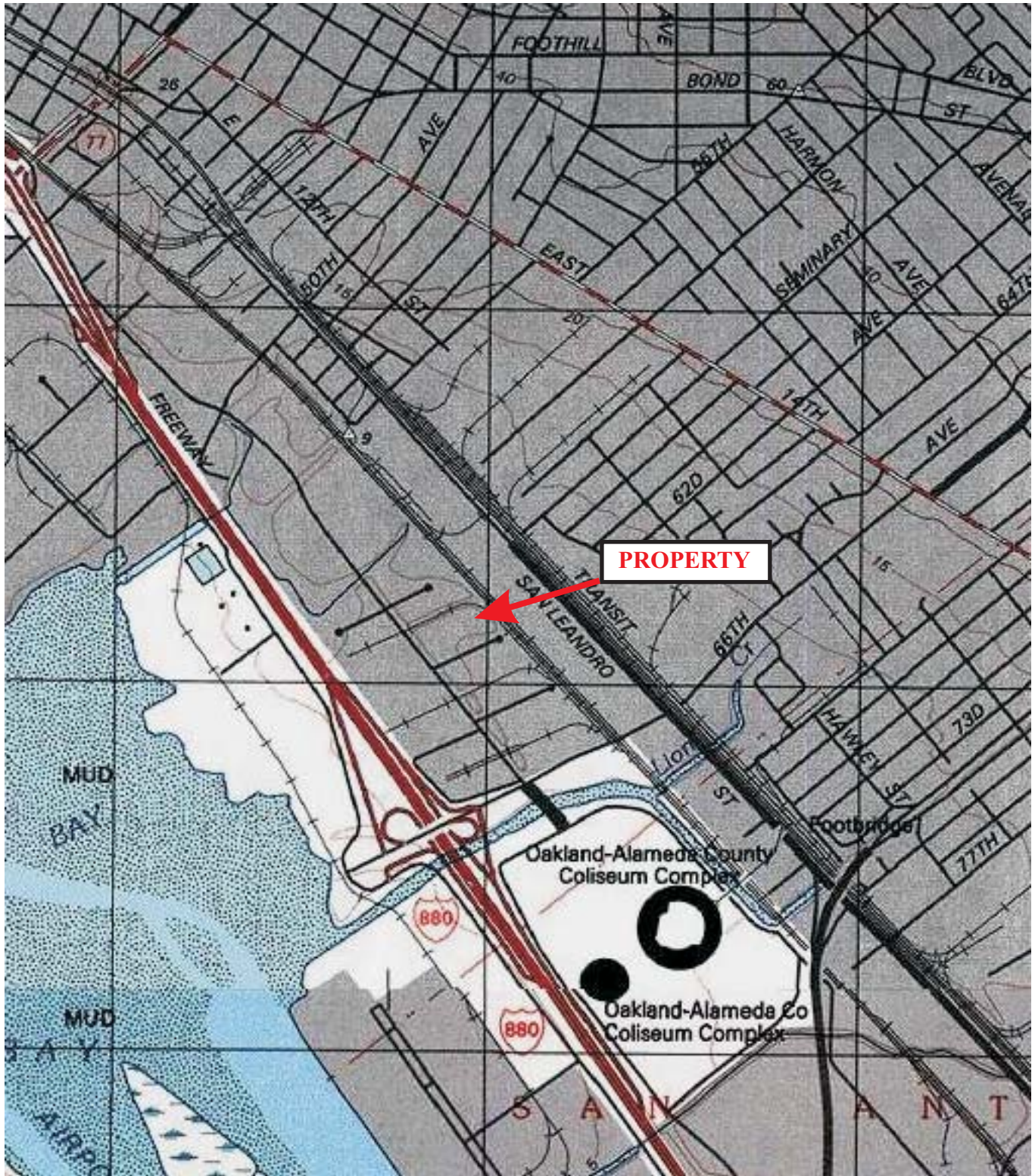
Sincerely,
AEI Consultants


Mallory Zaunius
Environmental Staff Scientist


David Provance
Senior Project Manager, PG



FIGURES



LEGEND

Date: 1997
 Source: USGS



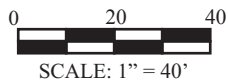
AEI CONSULTANTS

2500 CAMINO DIABLO, WALNUT CREEK, CALIFORNIA






SITE LOCATION MAP

745 Kevin Court
 Oakland California

FIGURE 1
 Project No. 336488



LEGEND

-  Soil Boring
-  Former Underground Storage Tank
-  Hydro-punch Boring
-  Above Ground Storage Tank
-  Approximate Property Boundary

AEI CONSULTANTS

2500 CAMINO DIABLO, WALNUT CREEK, CALIFORNIA

SITE MAP

745 Kevin Court
Oakland, California

FIGURE 2
Project No. 336488

TABLES

TABLE 1: GROUNDWATER SAMPLE DATA SUMMARY
745 Kevin Court, Oakland, CA

Location ID	Date	Depth (feet bgs)	TPH-g (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Remaining VOCs (µg/L)
SB-1-W	11/10/2014	3.71	330	<10	3.4	3.7	0.65	1.1	<MRL
HP-2	11/10/2014	3.75	6,200	<50	73	12	<5.0	13	<MRL
HP-3	11/10/2014	3.97	160	<10	<0.50	0.94	<0.50	<0.50	<MRL
HP-4	11/10/2014	4.61	<50	<5.0	<0.50	<0.50	<0.50	<0.50	<MRL

Comparison Values:

Table F-1a: Groundwater Screening Levels	100	5.0	1.0	2.0	30	20	varies
Table F-1b: Groundwater Screening Levels	500	1800	27	130	43	100	varies

Notes:

- µg/L micrograms per liter
- <MRL less than the method reporting limit
- bgs below ground surface
- TPH-g Total Petroleum Hydrocarbons as Gasoline
- MTBE Methyl-tert-Butyl-ether
- VOCs Volatile Organic Compounds
- Bold** Result exceeds one or more applicable Comparison Value

Comparison Values:

ESL Table F1-a: Groundwater Screening Levels (groundwater is a current or potential drinking water resource)
 From December 2013 ESL Workbook, prepared by the San Francisco Bay Regional Water Quality Control Board
 ESL Table F1-b: Groundwater Screening Levels (groundwater is not a current or potential drinking water resource)
 From December 2013 ESL Workbook, prepared by the San Francisco Bay Regional Water Quality Control Board

APPENDIX A

PERMITS

Alameda County Public Works Agency - Water Resources Well Permit



Public Works Agency
—Alameda County—

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 11/05/2014 By jamesy

Permit Numbers: W2014-1060
Permits Valid from 11/11/2014 to 11/11/2014

Application Id: 1415212485429
Site Location: 745 Kevin Court, Oakland, CA
Project Start Date: 11/11/2014
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

City of Project Site:Oakland

Completion Date:11/11/2014

Applicant: AEI - Mallory Zaunius
2500 Camino Diablo, Walnut Creek, CA 94597
Property Owner: Robert A Elliot Sr
408 Silverchief, Danville, CA 94526
Client: Bernardini Enterprises Inc.
PO Box 1563, Burlingame, CA 94011

Phone: 925-746-6066

Phone: --

Phone: 650-958-6356

Receipt Number: WR2014-0450 Total Due: \$265.00
Payer Name : AEI Total Amount Paid: \$265.00
Paid By: CHECK PAID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 4 Boreholes
Driller: Envr. Control Associates - Lic #: 695970 - Method: DP

Work Total: \$265.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2014-1060	11/05/2014	02/09/2015	4	2.00 in.	10.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

6. NOTE:

Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory

Alameda County Public Works Agency - Water Resources Well Permit

agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

7. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

9. Work approved for Nov 11, 2014 County Holiday work. "Spot check Inspection" on Monday November 12, 2014.

APPENDIX B
BORING LOGS



AEI Consultants

BORING NUMBER SB-1

PAGE 1 OF 1

CLIENT Joseph Bernardini

PROJECT NUMBER 336488

DATE STARTED 11/10/14 COMPLETED 11/10/14

DRILLING CONTRACTOR ECA

DRILLING METHOD Direct Push

LOGGED BY M. Zaunius CHECKED BY David Provance

NOTES Boring in center of previous UST

PROJECT NAME _____

PROJECT LOCATION 745 Kevin Court, Oakland, CA

GROUND ELEVATION _____ HOLE SIZE 2.25 inches

GROUND WATER LEVELS:

AT TIME OF DRILLING --- Groundwater encountered at 3.71'

AT END OF DRILLING ---

AFTER DRILLING ---

AEI BORING - GINT STD US LAB.GDT - 11/24/14 09:01 - P:\SITE MITIGATION PROJECTS\330000 SERIES\336488 PHII (KEVIN CT) OAKLAND - MZ\GINT BORING LOGS\LITHOLOGY LOG.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0						
				0.3	Asphalt	
				4.0	Silty fill material, loose, very drark grey brown, moist.	
5				5.5	Silty fill material, soft, saturated, dark grey, strong odor.	
				6.5	Silty fill material, soft, saturated, color chnages to grey-black, strong odor, oil/sheen can been seen on core.	
				10.0	(CH) High plasticity clay, greyish green, soft, saturated, strong odor.	

Bottom of borehole at 10.0 feet.

APPENDIX C
LABORATORY ANALYTICAL REPORTS



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1411355

Report Created for: AEI Consultants
2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597

Project Contact: Mallory Zaunius
Project P.O.:
Project Name: #336488; Mark Elliott

Project Received: 11/10/2014

Analytical Report reviewed & approved for release on 11/14/2014 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: AEI Consultants
Project: #336488; Mark Elliott
WorkOrder: 1411355

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

S	spike recovery outside accepted recovery limits
b1	aqueous sample that contains greater than ~1 vol. % sediment
b6	lighter than water immiscible sheen/product is present
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
d1	weakly modified or unmodified gasoline is significant
d17	Reporting limit for MTBE raised due to co-elution with non-target peaks.



Analytical Report

Client: AEI Consultants
Project: #336488; Mark Elliott
Date Received: 11/10/14 16:06
Date Prepared: 11/12/14-11/13/14

WorkOrder: 1411355
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SB-1-W	1411355-001A	Water	11/10/2014 09:30	GC3	97736

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	330	50	1	11/12/2014 22:59
MTBE	ND	10	1	11/12/2014 22:59
Benzene	3.4	0.50	1	11/12/2014 22:59
Toluene	3.7	0.50	1	11/12/2014 22:59
Ethylbenzene	0.65	0.50	1	11/12/2014 22:59
Xylenes	1.1	0.50	1	11/12/2014 22:59

Surrogates	REC (%)	Qualifiers	Limits	Analytical Comments: d1,c4,d17,b1
aaa-TFT_2	135	S	70-130	11/12/2014 22:59

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
HP-2	1411355-002A	Water	11/10/2014 09:43	GC3	97736

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	6200	500	10	11/13/2014 01:56
MTBE	ND	50	10	11/13/2014 01:56
Benzene	73	5.0	10	11/13/2014 01:56
Toluene	12	5.0	10	11/13/2014 01:56
Ethylbenzene	ND	5.0	10	11/13/2014 01:56
Xylenes	13	5.0	10	11/13/2014 01:56

Surrogates	REC (%)	Qualifiers	Limits	Analytical Comments: d1,c4,b6,b1
aaa-TFT_2	136	S	70-130	11/13/2014 01:56

Analyst(s): IA

(Cont.)



Analytical Report

Client: AEI Consultants
Project: #336488; Mark Elliott
Date Received: 11/10/14 16:06
Date Prepared: 11/12/14-11/13/14

WorkOrder: 1411355
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
HP-3	1411355-003A	Water	11/10/2014 10:15	GC3	97736

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	160	50	1	11/12/2014 23:29
MTBE	ND	10	1	11/12/2014 23:29
Benzene	ND	0.50	1	11/12/2014 23:29
Toluene	0.94	0.50	1	11/12/2014 23:29
Ethylbenzene	ND	0.50	1	11/12/2014 23:29
Xylenes	ND	0.50	1	11/12/2014 23:29

Surrogates	REC (%)	Qualifiers	Limits	Analytical Comments: d1,c4,d17,b1
aaa-TFT_2	137	S	70-130	11/12/2014 23:29

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
HP-4	1411355-004A	Water	11/10/2014 10:30	GC3	97736

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	11/12/2014 23:58
MTBE	ND	5.0	1	11/12/2014 23:58
Benzene	ND	0.50	1	11/12/2014 23:58
Toluene	ND	0.50	1	11/12/2014 23:58
Ethylbenzene	ND	0.50	1	11/12/2014 23:58
Xylenes	ND	0.50	1	11/12/2014 23:58

Surrogates	REC (%)	Limits	Analytical Comments: b1
aaa-TFT_2	108	70-130	11/12/2014 23:58

Analyst(s): IA



Quality Control Report

Client: AEI Consultants
Date Prepared: 11/12/14
Date Analyzed: 11/12/14
Instrument: GC3
Matrix: Water
Project: #336488; Mark Elliott

WorkOrder: 1411355
BatchID: 97736
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L
Sample ID: MB/LCS-97736
 1411383-005AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	63.1	40	60	-	105	70-130
MTBE	ND	9.72	5.0	10	-	92	70-130
Benzene	ND	10.0	0.50	10	-	100	70-130
Toluene	ND	10.2	0.50	10	-	102	70-130
Ethylbenzene	ND	10.3	0.50	10	-	101	70-130
Xylenes	ND	30.9	0.50	30	-	103	70-130

Surrogate Recovery

aaa-TFT_2	10.1	9.64		10	101	96	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	57.1	58.1	60	ND	95	97	70-130	1.73	20
MTBE	9.34	9.34	10	ND	93	93	70-130	0	20
Benzene	9.94	10.3	10	ND	99	103	70-130	3.13	20
Toluene	10.0	10.4	10	ND	100	104	70-130	4.07	20
Ethylbenzene	10.1	10.4	10	ND	100	104	70-130	3.81	20
Xylenes	30.3	31.4	30	ND	101	104	70-130	3.42	20

Surrogate Recovery

aaa-TFT_2	10.0	10.3	10		100	103	70-130	2.12	20
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1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1411355

ClientCode: AEL

WaterTrax
 WriteOn
 EDF
 Excel
 EQulS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:
 Mallory Zaunius
 AEI Consultants
 2500 Camino Diablo, Ste.#200
 Walnut Creek, CA 94597
 (925) 283-6000 FAX: (925) 944-2895

Email: mzaunius@aeiconsultants.com
 cc/3rd Party:
 PO:
 ProjectNo: #336488; Mark Elliott

Bill to:
 Sara Guerin
 AEI Consultants
 2500 Camino Diablo, Ste. #200
 Walnut Creek, CA 94597
 AccountsPayable@AEIConsultants.co

Requested TAT: 5 days

Date Received: 11/10/2014

Date Printed: 11/10/2014

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	
1411355-001	SB-1-W	Water	11/10/2014 9:30	<input type="checkbox"/>	A												
1411355-002	HP-2	Water	11/10/2014 9:43	<input type="checkbox"/>	A												
1411355-003	HP-3	Water	11/10/2014 10:15	<input type="checkbox"/>	A												
1411355-004	HP-4	Water	11/10/2014 10:30	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTEx_W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Shana Carter

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: AEI CONSULTANTS
Project: #336488; Mark Elliott
Comments:

QC Level: LEVEL 2
Client Contact: Mallory Zaunius
Contact's Email: mzaunius@aeiconsultants.com

Work Order: 1411355
Date Received: 11/10/2014

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
1411355-001A	SB-1-W	Water	SW8021B/8015Bm (G/MBTEX)	3	VOA w/ HCl	<input type="checkbox"/>	11/10/2014 9:30	5 days	1%+	<input type="checkbox"/>	
1411355-002A	HP-2	Water	SW8021B/8015Bm (G/MBTEX)	3	VOA w/ HCl	<input type="checkbox"/>	11/10/2014 9:43	5 days	1%+	<input type="checkbox"/>	
1411355-003A	HP-3	Water	SW8021B/8015Bm (G/MBTEX)	3	VOA w/ HCl	<input type="checkbox"/>	11/10/2014 10:15	5 days	1%+	<input type="checkbox"/>	
1411355-004A	HP-4	Water	SW8021B/8015Bm (G/MBTEX)	3	VOA w/ HCl	<input type="checkbox"/>	11/10/2014 10:30	5 days	1%+	<input type="checkbox"/>	

*** 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).**



Sample Receipt Checklist

Client Name: **AEI Consultants** Date and Time Received: **11/10/2014 4:06:06 PM**
 Project Name: **#336488; Mark Elliott** LogIn Reviewed by: **Shana Carter**
 WorkOrder No: **1411355** Matrix: Water 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: 1°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: