



PORT OF OAKLAND

RECEIVED

4:37 pm, Nov 30, 2009

Alameda County
Environmental Health

November 17, 2009

Ms. Barbara Jakub
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

**RE: UPS- Oakland Hub
Underground Storage Tank Removal Field Activities Observations**

Dear Ms. Jakub:

Please find enclosed the report entitled *Underground Storage Tank Removal Field Activities Observations UPS Facility, 8400 Pardee Drive, CA ("Report")* dated June 11, 2009, prepared by URS Corporation on behalf of the Port of Oakland.

If you have any questions or comments regarding the results, please contact Douglas Herman at (510) 627-1184.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached report prepared by URS Corporation are true and correct to the best of my knowledge.

Sincerely,

Douglas Herman
Environmental Scientist
Environmental Programs and Planning

Enclosure: Underground Storage Tank Removal Field Activities Observations UPS Facility, 8400 Pardee Drive, CA

Cc w/encl. Michele Heffes
Christine Noma
Deborah Ballati



June 11, 2009
26817415.01000

Mr. Douglas Herman
Port of Oakland
530 Water Street
Oakland, California 94607

Subject: UPS Facility, 8400 Pardee Drive, Oakland, California

Re: Underground Storage Tank Removal Field Activities Observations

Dear Mr. Herman:

URS Corporation (URS) has prepared this report to document observations made during field activities associated with the removal of three underground storage tanks (USTs) at the United Parcel Service (UPS) facility located at 8400 Pardee Drive in Oakland, California (the site). UPS leases the site from the Port of Oakland (the Port). The environmental work described herein was conducted by ARCADIS on behalf of UPS. URS observed a portion of the field activities conducted by ARCADIS on behalf of the Port.

SCOPE OF WORK

ARCADIS prepared a *UST Removal Work Plan & Field Sampling Plan* on behalf of UPS (Work Plan),¹ which provided details on the approach and the methodology to be used by ARCADIS to complete the field activities associated with the tank removal. The Work Plan was provided by the Port to URS for review prior to mobilization to the site. URS was on site for eight days between April 2 and 24, 2009, during performance of the tank removal field program. The field activities observed by URS included the following:

- UST removal;
- soil and groundwater sample collection;
- material off-haul;
- Petrox application;
- excavation backfill; and
- groundwater monitoring well installation.

In its role as a Port representative, URS did not observe all activities conducted by ARCADIS as part of the tank removal field program. Field observations of the six activities listed above are provided in the following section.

¹ ARCADIS, 2009, *UST Removal Work Plan & Field Sampling Plan, UPS-Oakland Hub, 8400 Pardee Drive, Oakland, CA*, March 26.

FIELD OBSERVATIONS

URS documented observed field activities through the use of detailed field notes, digital photography, and sketches. Daily field records and sketches are provided in Appendix A. Select photographs are provided in Appendix B. Observations made during each phase of the field program are described in detail below.

UST Removal

A URS representative observed the removal of three 10,000-gallon, single-walled diesel USTs (Tanks 1 through 3; Figure 1) on April 2, 2009. When URS arrived on site, the tanks had been almost completely exposed in an approximately 60-foot-long by 45-foot-wide by 8-foot-deep excavation. Piping was observed at the tops of the tanks, and two dispenser islands and associated piping (North Dispenser Island and South Dispenser Island; Figure 1) were observed south of the tanks. The concrete pad to the south, east, and west of the dispenser islands was observed to be intact. Tanks 1 and 3 were not observed to have any holes. Tank 2 had been lifted from its original location in the excavation, and a rectangular hole was observed at its eastern end. According to an on-site ARCADIS representative, the hole originally was smaller and triangular, and was speculated to have been created during initial excavation activities. The hole was subsequently enlarged to accommodate removal of material from within the tank (i.e., water and gravel). These activities were conducted prior to URS' arrival on site. Stained soil was observed around all three tanks and groundwater with a sheen was observed beneath Tank 2. Stockpile 1 was observed south of the excavation (Figure 1). URS was informed by ARCADIS that the stockpile consisted of soil removed from on top of the tanks. URS estimated the volume of Stockpile 1 on April 2 to be approximately 60 to 80 cubic yards.

Tank removal was conducted under the direction of on-site ARCADIS representatives. A representative from the City of Oakland Office of the Fire Marshall (OFM) was on site during tank removal activities. Prior to removal, each tank was filled with approximately 400 pounds of dry ice and the oxygen level and lower explosive limit (LEL) were measured. Oxygen readings were 10 percent and LEL readings ranged from 2 to 5 percent. Tank removal was performed by Balch Petroleum (Balch), of Milpitas, California, and the tanks were labeled and transported off site by Evergreen Oil, Inc. (EOI), of Newark, California. URS did not observe washing of the tanks prior to off-site transport. Water in the tanks and excavation was pumped out by PSC Environmental and disposed of as oil and water at EOI's facility. The two dispenser islands were demolished after the removal of the tanks and the concrete, piping, and scrap metal waste generated were transported to NorCal Rock (NorCal), located in Richmond, California.

Following removal of the USTs, on April 3, 2009, URS observed additional soil removal from the bottom of the existing excavation. The soil was stockpiled to the north of the excavation (Stockpile 2; Figure 1). URS estimated the volume of Stockpile 2 to be approximately 40 to 60 cubic yards.

Soil and Groundwater Sample Collection

A URS representative observed the collection of 29 soil samples and one groundwater sample by ARCADIS on April 2 and 3, 2009. Sampling locations for samples observed by URS are presented on Figure 1. Soil samples were collected from the following locations:

- excavation sidewalls – eight samples (sample IDs: North wall 1 and 2 and Sidewall 3 through 8);
- on-site Stockpile 1 – two samples (sample IDs: Stockpile 1 and Stockpile 2);
- other on-site stockpiles – three samples (sample IDs: SP-3, SP-4, and SP-5; sampling not observed by URS);
- beneath the dispenser islands located south of the USTs – two samples (sample IDs: Dispenser North and Dispenser South);²
- within the footprints of the three former USTs – nine soil samples (sample IDs: T1-N, T1-C, T1-S, T2-N, T2-C, T2-S, T3-N, T3-C, and T3-S) and one groundwater sample (sample ID: Tank Hole 1); and
- backfill material sources – three samples (sample IDs: Fill Material 1 [pea gravel provided by Balch] and Fill Material 2 and Fill Material 3 [Class II recycled asphalt from NorCal Urban Quarry in Oakland, California]; sampling not observed by URS).

Regarding the two stockpile samples, although they are identified as Stockpile 1 and Stockpile 2, URS observed that only one bulk sample was collected on April 2 from Stockpile 1 (Stockpile 2 was not generated until April 3). The chain-of-custody confirms that both samples were collected on April 2. Furthermore, based on the sample collection activities observed by URS, four-point composite samples were not collected from the stockpile for every 75 to 100 cubic feet of material in accordance with OFM requirements and as prescribed in the Work Plan. URS documented the collection of one soil sample from Stockpile 2 on April 3, 2009; however, based on the chain-of-custody documentation provided to URS by ARCADIS, it is not clear if this sample was submitted to the laboratory for analysis. Stockpile 2 may have been sampled and sent for laboratory analyses on April 20, 2009, as samples SP-3, SP-4, and/or SP-5; however, it is unclear based on the chain-of-custody documentation provided to URS.

URS observed soil sample collection by ARCADIS. Soil samples were collected in sealable plastic bags. Soil samples collected from within the excavation were collected directly from the excavator bucket. ARCADIS then used a photoionization detector to collect a reading from inside the plastic bag. Soil was then transferred from the plastic bag into a glass jar, which was then sealed, labeled, and placed in an ice-chilled sample cooler. Sample handling such as what

² Although URS observed the collection of these two samples, they do not appear on chain-of-custody records provided to URS by ARCADIS; therefore, it is unclear whether they were analyzed.

was observed by URS is inconsistent with the standard of care typically used for soil sample collection, particularly considering that samples were to be analyzed for volatile constituents.

The groundwater sample (sample ID: Tank Hole 1) was collected at sample location T2-S (Figure 1) by filling 40-milliliter volatile organic analysis (VOA) vials directly from the water ponded in the excavation. The VOA vials were sealed, labeled, and placed in an ice-chilled sample cooler.

Soil and groundwater samples were submitted to TestAmerica of Pleasanton, California, a state-certified analytical laboratory, for analysis for total petroleum hydrocarbons quantified as gasoline-range organics (TPH-GRO) and as diesel-range organics (TPH-DRO) (all samples) and for benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tertiary butyl ether (MTBE) (all but sidewall samples). However, the Work Plan stated that all sidewall samples would be analyzed for BTEX and MTBE, in addition to TPH compounds.

Analytical results for the sidewall samples and the Stockpile 1 sample were provided to URS by ARCADIS and are included in Appendix C; no other analytical data were provided to URS. As shown in the data tables, the concentrations of TPH-GRO and TPH-DRO exceed the respective non-drinking water soil screening criteria in two and six sidewall samples, respectively. There were no exceedances for the stockpile sample data. The recycled asphalt (i.e., samples Fill Material 2 and 3) had exceedances of TPH-DRO, two polynuclear aromatic hydrocarbons, and arsenic. According to ARCADIS, as this material is recycled asphalt, these concentrations are to be expected.³

Material Off-haul

A URS representative observed the off-haul, under ARCADIS oversight, of approximately 320 cubic yards of material from the tank excavation on April 3, 2009. The material consisted of pea gravel mixed with native material. The material was transported by S&S Trucking for disposal at the Richmond Landfill located in Richmond, California. On April 21, 2009, URS noted that Stockpile 2 was no longer on site. URS did not observe the off-haul of Stockpile 2. It is unknown whether Stockpile 2 was used as backfill in the excavation or transported off site for disposal.

Petrox Application

Petrox is a product that contains a highly concentrated solution of live bacteria strains that consume petroleum hydrocarbons and is used to remediate sites affected by petroleum hydrocarbon releases to soil and groundwater. A URS representative observed the application of six 55-gallon plastic garbage cans of Petrox to the excavation on April 16, 2009. ARCADIS attached a sump pump to a garden hose with a dripping nozzle and placed the pump in the garbage cans. The Petrox then was applied to the sidewalls and bottom of the excavation.

³ ARCADIS, pers. comm., May 1, 2009.

ARCADIS walked around the excavation and allowed the hose to drip onto the sidewalls. ARCADIS then placed the hose at various locations in the bottom of the excavation.

Excavation Backfill

URS representatives observed backfill of the excavation on April 20 to 23, 2009. Prior to placement of backfill, URS observed that the sidewalls and base of the excavation contained stained material that had not been overexcavated. Backfill consisted of a lower zone, a middle zone, and an upper zone. The lower zone was backfilled with material from Stockpile 1 and pea gravel imported from the Balch yard. Stockpile 1 had been sampled and analyzed prior to its placement within the excavation and was evaluated to be clean based on analytical results (Table 1). The pea gravel imported from the Balch yard was sampled and analyzed after being placed in the excavation and was evaluated to be clean based on analytical results. Material from Stockpile 2 was to comprise a portion of the backfill in the lower zone according to a Balch representative; however, it is unclear whether this material was sampled, analyzed, and placed within the excavation. Filter fabric was placed on top of the pea gravel. The middle zone was backfilled with spoils stockpiled near the southeastern corner of the UPS property. The spoils originated from an excavation unrelated to the tank removal field program, which was conducted in conjunction with the installation of footings for an aboveground storage tank. It is unclear whether the footing spoils were sampled and analyzed prior to being used as backfill. The upper zone was backfilled with Class II recycled asphalt. The recycled asphalt was sampled and analyzed after being placed in the excavation and was determined to have detectable concentration of TPH-DRO, polynuclear aromatic hydrocarbons, and arsenic, as stated previously.

Based on the analytical data received from ARCADIS (Appendix C), it is unclear whether samples were collected and analyzed from Stockpile 2 and the footing excavation spoils. To URS' knowledge, Stockpile 2 and the footing excavation spoils were not analyzed prior to the commencement of backfill activities. In addition, the footing excavation spoils and Class II recycled baserock were not analyzed for geotechnical parameters, and testing was not performed to confirm that 90 percent compaction was achieved for either of these materials. In URS' professional opinion, the backfill activities were not performed using a standard of care employed by professionals in this industry.

Groundwater Monitoring Well Installation

Prior to initiating well installation activities, ARCADIS obtained a well installation permit from Alameda County Public Works. The proposed scope of work included the advancement of one soil boring and the installation of a groundwater monitoring well in the borehole. On April 24, 2009, a URS geologist observed Gregg Drilling and Testing, Inc. (Gregg), of Martinez, California, advance soil boring MW-4 using 8-inch-outer-diameter hollow-stem augers to approximately 18 feet bgs. ARCADIS informed the URS geologist that no soil samples would be collected or logged. The URS representative suggested that, at a minimum, one sample should be collected from the native material underlying the base rock. A soil sample was

collected using a California split-spoon sampler containing brass tubes from 16.5 feet to 18 feet bgs. The URS geologist examined the soil sample and classified it as a moist, gray clay consisting of 75 percent clay, 20 percent silt, and 5 percent sand.

Monitoring well MW-4 was constructed of 2-inch-diameter, Schedule 40 polyvinyl chloride (PVC) blank casing and 0.010-inch, factory-slotted PVC well screen. The screened interval was selected to be 15 feet in length, extending from approximately 3 feet to 18 feet bgs. The well was completed with #2/12 filter pack placed within the annulus from the bottom of the borehole to approximately 1 foot above the top of the well screen. The well was then surged using a plastic bailer for approximately 5 minutes. A 1-foot-thick bentonite transition seal was placed above the filter pack and water was added to hydrate the chips. After allowing the bentonite chips to hydrate, 1 foot of grout was placed above the bentonite under the oversight of Vicki Hamlin of Alameda County Health Services Agency. ARCADIS measured depth to groundwater to be 7.22 feet bgs below the top of casing. ARCADIS informed URS that the well box would be set at a later date.

URS noted that the 15-foot screen length is excessive, particularly because ACHSA typically prefers shorter well screens. Moreover, ARCADIS did not generate a lithologic log for the well bore; however, ACHSA and the Department of Water Resources require lithologic logs to be included with well installation documentation. Finally, the on-site ARCADIS representative was unclear as to the requirements for well development.

Health and Safety

URS also made observations regarding health and safety during the field program. URS observed unsafe acts and unsafe conditions while monitoring field activities at the site. The following items illustrate a lack of consideration for health and safety requirements at the site:

- A tailgate safety meeting should be conducted prior to the start of field activities. This meeting should outline associated chemical, physical, and biological hazards and discuss mitigations for these hazards. Emergency procedures and routes to the closest hospital should also be discussed. Neither ARCADIS nor Balch representatives conducted daily tailgate safety meetings.
- During tank removal and backfill activities, the Balch crew wore their personal protective equipment intermittently (e.g., hardhats, gloves, and safety glasses).
- An ARCADIS representative entered the unshored excavation to retrieve the groundwater sample.
- An ARCADIS representative arrived on site to apply Petrox around an unprotected excavation without an assistant. When working around an unprotected excavation, the buddy system should be always be used.

CONCLUSIONS

Tank removal field activities were conducted in general accordance with the Work Plan. However, URS observed several inconsistencies with respect to adherence to the Work Plan and the standard of care employed by professionals conducting similar work in this industry. The major inconsistencies with respect to the Work Plan were the following:

- The tanks were not observed by URS to have been washed prior to off-site disposal.
- Because it was unclear whether all backfill sources were sampled and analyzed, it cannot be confirmed that all backfill was clean.
- Backfilling was not performed in 12-inch lifts, as prescribed in the Work Plan, and no compaction testing was performed during backfilling; therefore, it cannot be confirmed that backfill was compacted to 90 percent.
- Stockpile sampling was not conducted in accordance with OFM requirements, as described in the Work Plan (i.e., one four-point composite for every 75 to 100 cubic feet).
- Sidewall sampling was not conducted in accordance with the Work Plan: because the tank bottoms were submerged in groundwater, soil samples were to be collected from the soil-water interface, and samples were to be analyzed for BTEX and MTBE in addition to TPH compounds.

Other major issues observed during performance of the tank removal field activities included the following:

- Impacted soil was left in place and was not over-excavated.
- Stockpile 2 may not have been sampled and analyzed prior to use as backfill or off-site disposal.

LIMITATIONS

As used in this letter report, the term "observation" implies only that we observed the progress of the work with which we agreed to be involved. Based on our observations, we developed an opinion as to whether that work was performed using a standard of care equal to, or greater than, the degree of skill and attentiveness ordinarily used by reputable professionals, with a level of experience and training similar to the consultant, performing under circumstances similar to those required by this Agreement.

Mr. Douglas Herman
Port of Oakland
June 11, 2009
Page 8 of 8

If you have any questions regarding this letter report, please do not hesitate to contact either of the undersigned at (510) 893-3600.

Sincerely,

URS CORPORATION


Jennifer Mendonca
Staff Geologist

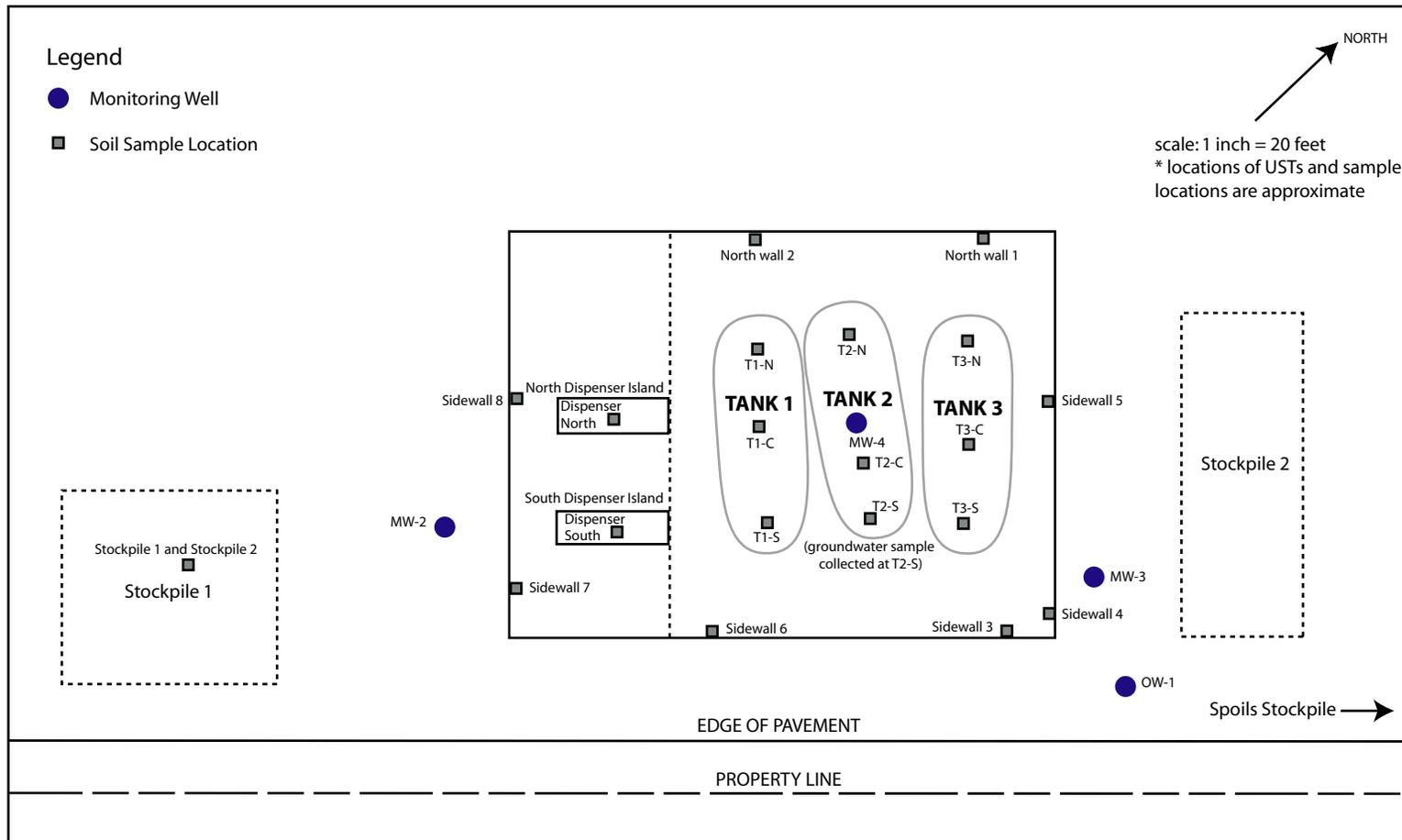

Christopher L. Vais
Project Director

Attachments:

Figure 1	Site Plan
Appendix A -	Daily Field Reports and Sketches
Appendix B	Site Photographs
Appendix C	Laboratory Data Provided by ARCADIS

FIGURES

Figure 1: Site Plan



APPENDIX A
DAILY FIELD REPORTS AND SKETCHES



Daily Field Report

Project Number 26817415	Page No. 1 of 3
-----------------------------------	------------------------

Report No. 1	Date Thursday April 2, 2009
------------------------	---------------------------------------

Project ID UPS-Oakland Hub UST Removal and Field Sampling	Field Representative Jennifer Mendonça
---	--

Project Address 8400 Pardee Drive, Oakland, CA	Weather Conditions morning clouds, sunny and windy in afternoon, 50-60°F
--	--

On-Site Personnel and Visitors

Name	Representing	Arrived	Departed
Jennifer Mendonça	URS Corporation	735	1600
Doug Herman	Port of Oakland	858	914
Gina France	ARCADIS	on-site	1600
Hugh Devry	ARCADIS	on-site	1600
Samuel Inguanzo	Balch Petroleum	on-site	1600
Adam Zawistowski	Balch Petroleum	on-site	1600
Chris Maggiora (operator)	Balch Petroleum	on-site	1600
Garett Romele	Balch Petroleum	on-site	1600
Sandy Lawrence	Balch Petroleum	on-site	1600
Bill Balch	Balch Petroleum	1030	~1300
Nelson Ye	UPS	on-site	~1500
Jason Schoon	UPS	visited the site	various times th
2 Workers	UPS	1325	~1400
Juan Garcia	PSC Environmental	on-site	955
Keith Matthews	Oakland Fire Department	1209	1415
Sheryl Skillern	Oakland Fire Department	1345	1415
3 Drivers	ECI		
1 Driver	Test America	1514	~1530
1 Driver and 1 Assistant	Mavry Welding Supply	1133	1134

Equipment Observed in Use on Site

E9508 Hydraulic Excavator (Balch Petroleum)	Vacuum Tank Truck (PSC)
John Deere 710D Backhoe Loader (Balch Petroleum)	5-Gas Meter (Arcadis)
Cordless Drill (Balch Petroleum)	Electric Saw (Balch Petroleum)
Dump Truck (Balch Petroleum)	Gastech Tank-Techtor (Balch Petroleum)
4 trucks with end dump trailers (S&S Trucking)	Toyota Forklift (UPS)
3 flat-bed trucks (ECI)	

Materials Removed From Site

None

Samples Collected

Sample ID	Type	Location	Approximate Time
Sidewall 1	soil	northwestern corner of excavation	1432
Sidewall 2	soil	western wall of excavation	1449
T1-N	soil	Tank 1 footprint - north end	1313-1345
T1-C	soil	Tank 1 footprint - center	1313-1345
T1-S	soil	Tank 1 footprint - south end	1313-1345

Samples Collected (cont.)

Sample ID	Type	Location	Approximate Time
T2-N	soil	Tank 2 footprint - north end	1313-1345
T2-C	soil	Tank 2 footprint - center	1313-1345
T2-S	soil	Tank 2 footprint - south end	1313-1345
T2-S	water	Tank 2 footprint - south end	1313-1345
T3-N	soil	Tank 3 footprint - north end	1313-1345
T3-C	soil	Tank 3 footprint - center	1313-1345
T3-S	soil	Tank 3 footprint - south end	1313-1345
Dispenser North	soil	center of dispenser footprint	1400-1410
Dispenser South	soil	center of dispenser footprint	1400-1410
Stockpile 1	soil	middle of stockpile	1528

Site Activities

745 to 755	<p>Gina (Arcadis) briefs me on yesterday's site activities. She shows me the location of a triangular hole located on the east end of tank 2. According to Gina, it is unclear how the hole was formed. However, Arcadis believes it was formed during excavation activities for this project. Because water and gravel fill were observed within the tank, a larger square hole was cut below the triangular hole to remove the water and gravel from the tank. The pumped water was disposed at Evergreen Oil, Inc. in Newark, CA and classified as oil and water. The gravel was shoveled back into the excavation. Gina also shows the location of Stockpile 1, located south of the excavation. The material, comprised of gravel fill removed from above the tanks, has not been tested yet, but is assumed to be clean. If the lab results support that assumption, the fill will be reused as backfill in the current excavation.</p>
745 to 920	<p>Balch Petroleum (Balch) crew removes piping from the tops of tanks 1, 2, and 3. Piping is cut and piled near the northeastern corner of the site. Juan (PSC) hooks up hose to vacuum truck and Balch crew pumps water from beneath tanks 1 and 2 and from within tanks 1, 2, and 3. I had a brief discussion with Nelson Ye (UPS) regarding the storm water drain located near dispenser south. I asked Nelson if the storm water drain was still active and expressed concern about the presence of contaminated soil entering the system during construction activities. Nelson and I walked over and examined the drain. Nelson identified a valve nearby and said he believed this valve could close access to the storm water drain system and said he believed the system had already been closed. Nelson also said that he would have the Balch crew cover the grate with plastic tomorrow.</p>
932 to 950	<p>Balch crew breaks up concrete near the dispenser islands and loads into dump truck. The light post on dispenser north is removed by the excavator and placed near the southwestern corner of the site.</p>
1000 to 1110	<p>Balch crew adds approximately 10 5-gallon buckets of dry ice (approx. 400 pounds) to tanks 1, 2, and 3. Prior to the addition of dry ice in tank 2, the square-shaped piece cut from the eastern end is bolted back in place and the edges are wiped with acetone and sealed with duct tape. The triangular hole and a former pipe opening located on the top of the tank near the eastern end are also wiped with acetone and sealed with duct tape. The Balch crew continues to load concrete from the dispenser island area into the dump truck and begins hand-digging beneath dispensers north and south.</p>

Site Activities

1110 to 1154	The Balch crew continues to load concrete from the dispenser island area into the dump truck and begins hand-digging beneath dispensers north and south. A driver and an assistant from Mavry Welding Supply arrive on site to pick up the dry ice bins.
1209 to 1345	Keith Matthews (Oakland Fire Department) arrives on site to observe the removal of tanks 1, 2, and 3. Bill Balch (Balch) measures the Lower Explosive Limits (LEL) and oxygen content of each tank: Tank 1: 5% LEL, 10% oxygen, Tank 2: 2% LEL, 10% oxygen, Tank 3: 2% LEL, 10% oxygen. Balch crew attaches straps to each tank and lifts each tank out of the excavation using the hydraulic excavator and places each tank on an ECI flat bed truck. Each tank is secured to the truck using straps. The piping removed from the top of each tank is also loaded on to an ECI flat bed truck and secured using straps. Once loaded and secured, the ECI trucks leave the site with the tanks for disposal. Arcadis collects samples T1-N, T1-C, T1-S, T2-N, T2-C, T2-S (soil and groundwater), T3-N, T3-C, and T3-S. All samples were collected at the fill/water interface, per the request of Keith Matthews, with the exceptions of T2-N and T2-C, where no water was present.
1346 to 1415	The Balch crew returns to the dispenser island area and removes dispenser island north and south. Arcadis collects samples dispenser north and dispenser south.
1415 to 1500	Balch crew begin cleaning the northwestern sidewalls of the excavation and breaking up concrete curb along western wall of the excavation. Arcadis collects sidewall sample 1 and 2.
1514 to 1556	A driver from Test America arrives to pick up the Arcadis samples for lab analysis. Arcadis collects sample Stockpile 1. Once sampling is complete, Balch crew covers Stockpile 1 with plastic sheeting and places fencing around the excavation and equipment.
1600	All personnel off site.

Attachments:

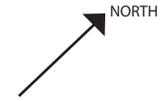
1. Photo log
2. Site Sketch

Field Representative	Reviewed By
Date	Date

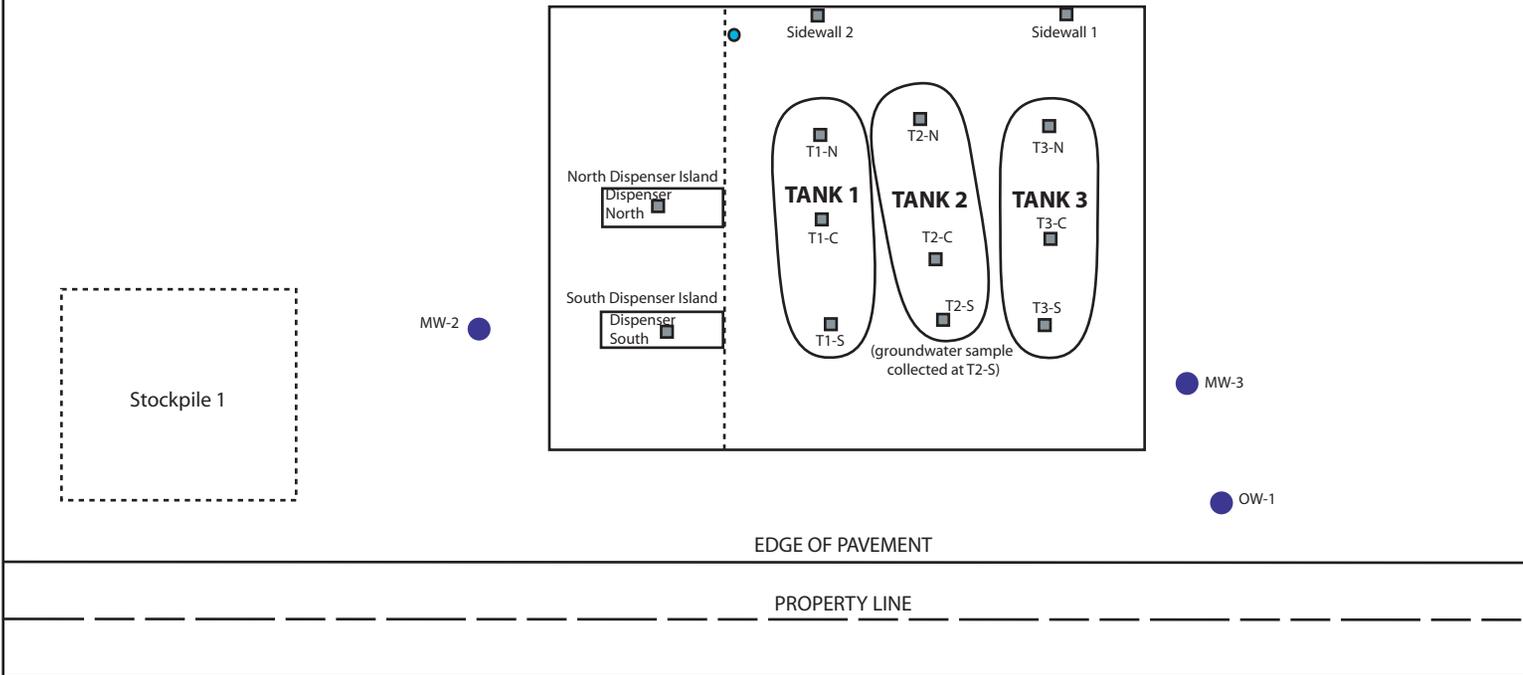
UPS-Oakland Hub UST Removal Site Sketch
Project No. 26817415
Date: April 2, 2009
Field Representative: Jennifer Mendonca

Legend

- Monitoring Well
- Soil Sample Location
- Location of Live Water Line



scale: 1 inch = 20 feet
* locations of USTs and sample locations are approximate





Project Number 26817415	Page No. 1 of 3
Report No. 2	Date Friday April 3, 2009

Project ID UPS-Oakland Hub UST Removal and Field Sampling	Field Representative Jennifer Mendonça
Project Address 8400 Pardee Drive, Oakland, CA	Weather Conditions sunny, windy, 50-60°F

On-Site Personnel and Visitors

Name	Representing	Arrived	Departed
Jennifer Mendonça	URS Corporation	645	1535
Doug Herman	Port of Oakland	1011	1043
Gina France	ARCADIS	705	1535
Loretta Kwon	ARCADIS	705	1535
Hugh Devry	ARCADIS	705	1535
Adam Zawistowski	Balch Petroleum	659	1535
Chris Maggiora (operator)	Balch Petroleum	658	1535
Garett Romele	Balch Petroleum	659	1535
Nelson Ye	UPS	829/1250	~1000/1535
Jason Schoon	UPS	859	910
Carlos Medina	UPS	859	929
Jeff Pulido	Cruz Brothers	756	845
Nicolas Buller	Cruz Brothers	756	845
3 Drivers (trucks TRL-S170, TRL-S171, TRL-S152)	S&S Trucking	--	--
1 Driver (truck TRL-S126)	S&S Trucking	--	--
1 Driver	Test America	1430	1500
1 Driver	Balch Petroleum	1430	~1515

Equipment Observed in Use on Site

E9508 Hydraulic Excavator (Balch Petroleum)	Keck Meter (Arcadis)
John Deere 710D Backhoe Loader (Balch Petroleum)	Utility Location Equipment (Cruz Brothers)
Cordless Drill (Balch Petroleum)	5-Gas Meter (Arcadis)
2 Dump Trucks (Balch Petroleum)	Electric Saw (Balch Petroleum)
4 trucks with end dump trailers (S&S Trucking)	

Materials Removed From Site

6 dump truck loads of concrete and scrap material (Balch Petroleum)
location: NorCal Rock (Richmond, CA)
16 end dump trailer loads (between 20 and 45 yds each)
location: Richmond Landfill (Richmond, CA)
TRL-S170: 5 loads; TRL-S171: 5 loads; TRL-S152: 5 loads; TRL-S126: 1 load

Samples Collected

Sample ID	Type	Location	Approximate Time
Sidewall 3	Soil	eastern wall of excavation	903
Sidewall 4	Soil	northeastern corner of excavation	907
Sidewall 5	Soil	northern wall of excavation	910
Sidewall 6	Soil	eastern wall of excavation	1243
Sidewall 7	Soil	southeastern corner of excavation	1346
Sidewall 8	Soil	southern wall of excavation	1453
Stockpile 2	Soil	middle of stockpile	1445-1510

Site Activities

710	Gina (Arcadis) conducts site safety meeting for myself and Loretta Kwon (Arcadis).
715 to 752	Removal of fill material begins in the northwest section of the excavation. Material is directly loaded into trucks TRL-S170, TRL-S171, TRL-S152, and TRL-S126 and, when full, the trucks leave the site to dispose of the material. Amongst the removed fill, the remains of monitoring well MW-1 are found and placed aside for later disposal. The Balch Petroleum (Balch) crew begins breaking up concrete in the vicinity of the former dispenser islands and loads the material into one of their dump trucks using the backhoe loader. When full, the dump truck leaves site to dispose of the material. The excavation footprint is extended approximately 3 feet to the north as a result of sloughing of the sidewalls.
756 to 910	Cruz Brothers arrive on site at the request of Arcadis to conduct a utility locate of the asphalt areas adjacent to the excavation footprint. Balch crew members lay down plastic sheeting and straw rolls north of the excavation footprint to create the Stockpile 2 area and begin the placement of "clean fill" from the northeast portion of the excavation. Concrete in the vicinity of the former dispenser islands continues to be broken up and loaded into one of the Balch dump trucks. When full, the dump truck leaves site to dispose of the material. Arcadis collects sidewall samples 3, 4, and 5.
915 to 1035	Removal and off haul of fill continues in the northwest section of the excavation. Material is directly loaded into trucks TRL-S170, TRL-S171, and TRL-S152 and, when full, the trucks leave the site to dispose of the material. Removal and stockpiling of "clean fill" continues along the northern portion of the excavation. The material is loaded into the second Balch dump truck and placed in the Stockpile 2 area. Two dump truck loads of "clean fill" are placed in Stockpile 2. Concrete in the vicinity of the former dispenser islands continues to be broken up and loaded into one of the Balch dump trucks. When full, the dump truck leaves site to dispose of the material.
1054 to 1150	Removal and off haul of fill continues in the northwest section of the excavation. Material is directly loaded into trucks TRL-S170, TRL-S171, and TRL-S152 and, when full, the trucks leave the site to dispose of the material. Concrete in the vicinity of the former dispenser islands continues to be broken up and loaded into one of the Balch dump trucks. When full, the dump truck leaves site to dispose of the material.
1150 to 1230	Lunch
1233 to 1356	Removal and off haul of fill continues in the southeastern portion of the excavation. Material is directly loaded into trucks TRL-S170, TRL-S171, and TRL-S152 and, when full, the trucks leave the site to dispose of the material. Concrete in the vicinity of the former dispenser islands continues to be broken up and loaded into one of the Balch dump trucks. When full, the dump truck leaves site to dispose of the material. Arcadis collects sidewall samples 6 and 7.
1424 to 1510	Removal and off haul of fill continues in the southeastern portion of the excavation. Material is directly loaded into trucks TRL-S170, TRL-S171, and TRL-S152 and, when full, the trucks leave the site to dispose of the material. Concrete in the vicinity of the former dispenser islands continues to be broken up and loaded into

Site Activities

1424 to 1510	one of the Balch dump trucks. When full, the dump truck leaves site to dispose of the material. A driver with Balch arrives on site to deliver straw rolls and Balch crew members assist in unloading the rolls from the truck. Balch crew members also begin covering Stockpiles 1 and 2 with plastic sheeting. Arcadis collects sidewall sample 8 and Stockpile 2 sample and gauges monitoring wells MW-2, MW-3, and OW-1. A driver from Test America arrives to pick up Arcadis soil samples for lab analysis.
1517 to 1530	Balch crew finishes covering Stockpiles 1 and 2 and places straw rolls around the excavation. Balch crew also places fencing around the excavation and equipment.
1535	All personnel off site.

Attachments:

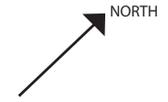
1. Photo log
2. Site Sketch

Field Representative**Reviewed By****Date****Date**

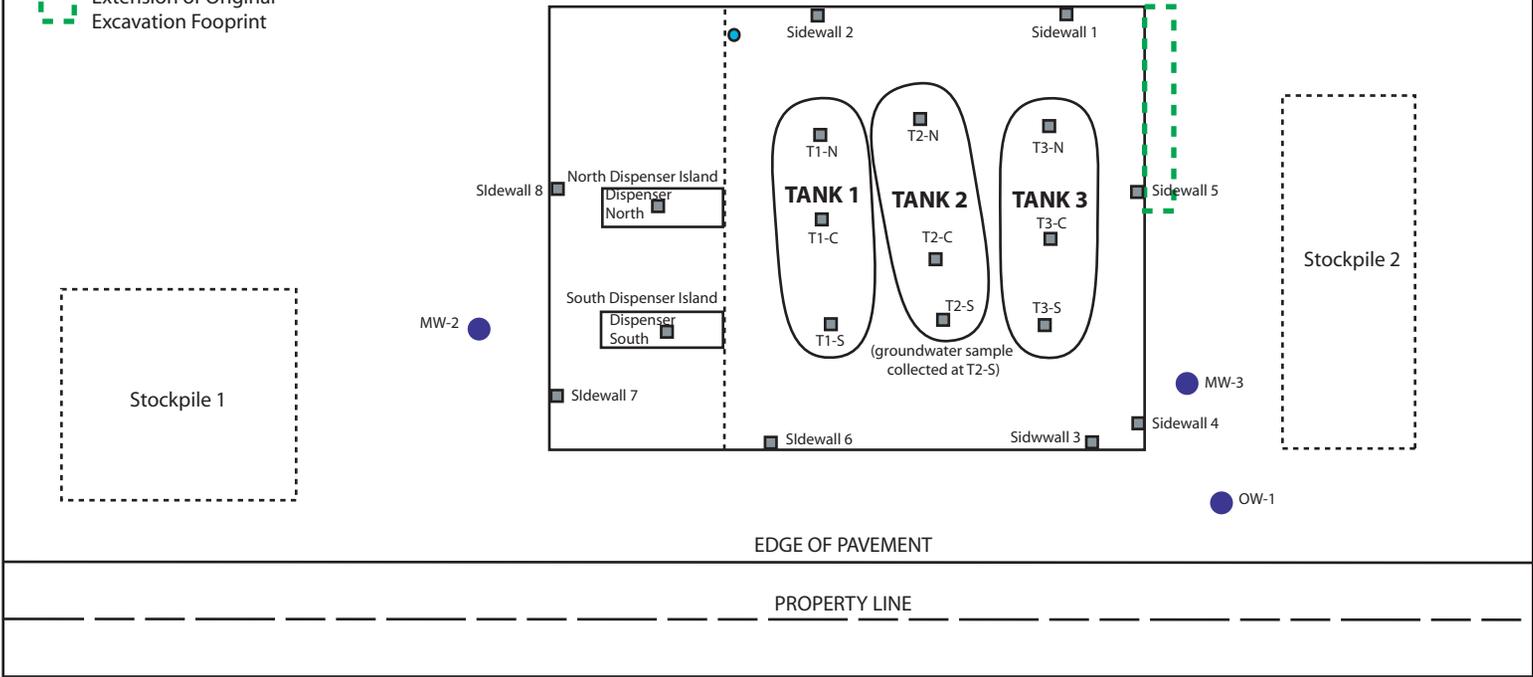
UPS-Oakland Hub UST Removal Site Sketch
Project No. 26817415
Date: April 3, 2009
Field Representative: Jennifer Mendonca

Legend

- Monitoring Well
- Soil Sample Location
- Location of Live Water Line
- Extension of Original Excavation Footprint



scale: 1 inch = 20 feet
 * locations of USTs and sample locations are approximate



Arrival Date/ Time: 16 APRIL 2009 / 10:45
 Location: UPS / 8400 PARDEC RD, OAKLAND, CA
 Employees: SHANNON COUCH / LORETTA KWAN (ARCADIS)
 Weather Conditions: CLEAR / COOL ~ HIGH 60'S
 PPE Required: _____
 Purpose of Visit: APPLICATION OF PETROX TO EXCAVATION SIDEWALLS

Time	Actions Taken/ Observations/ Notes
10:45	ARRIVE ON SITE: TALK WITH SECURITY GUARD
10:48	CHECK IN AT GUARD GATE
11:00	ARRIVE AT TANK PIT EXCAVATION: CALL LORETTA KWAN FROM ARCADIS. SHE IS AT THE BART STATION.
11:10	LEAVE FOR BART STATION TO PICK UP L. KWAN
11:30	ARRIVE BACK ON SITE / CHECK IN
11:34	HELP LORETTA REMOVE EQUIPMENT FROM HER VEHICLE
11:38	HOLD HEALTH & SAFETY BRIEFING
12:00	SET UP / HOOK HOSE TO SUMP PUMP AND GENERATOR / OBTAIN PETROX DATA SHEET FROM L. KWAN. EACH BAG OF PETROX IS HYDRATED IN 55-GALLON DRUM W/ 50 GALLONS OF WATER.
12:05	1 START APPLYING PETROX TO WESTERN EDGE OF EXCAVATION WHERE STAINING OCCURS. (SEE PHOTOS 1-3) USE 55 gal @ 12:20
12:25	2 APPLY PETROX TO GW IN TANK PIT (SEE PHOTOS 3-9) FINISH 55 gal @ 12:38
12:43	KEITH MATTHEWS FROM CITY OF OAKLAND H2O MAT FIRE INSPECTION BUREAU ARRIVES ON SITE / ASKS FOR BUSINESS CARDS.
12:45	K. MATTHEWS LEAVES SITE
13:00	3 GO BUY HOSE @ WALMART (LORETTA STARTED 3RD BATCH IN GW PUDDLES IN MIDDLE OF EXCAVATION AT 12:45 AND NORTHERN WALL)
13:15	4 BEGIN 4TH BATCH OF PETROX ON NW CORNER OF PIT
14:45	5 START ON SOUTHERN WALL OF TANK PIT WITH PETROX APPLICATION AND FINISH BATCH BY PLACING HOSE IN PUDDLE IN EXCAVATION PIT

Departure Time: _____



Project Number 26817415	Page No. 1 of 2
Report No. 3	Date April 20, 2009

Project ID UPS-Oakland Hub UST Removal and Field Sampling	Field Representative Jennifer Mendonça
Project Address 8400 Pardee Drive, Oakland, CA	Weather Conditions sunny, warm, 60-85°F

On-Site Personnel and Visitors

Name	Representing	Arrived	Departed
Jennifer Mendonça	URS Corporation	705	1035
Francisco Flores	Balch Petroleum	onsite	--
Chris Maggiora (operator)	Balch Petroleum	754	--
Peter Starick	Balch Petroleum	825	--
Micahel (Mechanic)	Balch Petroleum	948	--

Equipment Observed in Use on Site

E9508 Hydraulic Excavator (Balch Petroleum)
John Deere 710D Backhoe Loader (Balch Petroleum)
1 Dump Trucks (Balch Petroleum)
E9510 Sheepsfoot Compactor (Balch Petroleum)
1 truck with end dump trailer (Balch Petroleum)

Site Activities

<p>I engaged in discussions with Loretta (Arcadis) and Chris (Balch Petroleum) regarding the source and placement of fill within the excavation. The excavation will incorporate 4 different fill sources. At the base of the excavation, pea gravel imported from the Balch Petroleum yard (no analytical or geotechnical data available) and material from Stockpile 1 (Arcadis will provide analytical data) will be placed into the excavation using the hydraulic excavator. Filter fabric will be placed above the pea gravel. Next, footing excavation spoils from the installation of an above-ground tank on the UPS will be placed into the excavation using the hydraulic excavator and compacted using a sheepsfoot compactor. The material is currently stockpiled at the southeast corner of the property. No analytical or geotechnical data is available and, based on a quick visual inspection, I estimate that between 1 and 5% of the clasts in this material are greater than 6 inches in length. It is unknown whether geotechnical testing of this material has been scheduled. Next, Class II baserock will be placed into the excavation using the hydraulic excavator and compacted using a sheepsfoot compactor. The source of the material, according to Chris, is a quarry in Oakland, however I could not confirm the name or location of this quarry today. No geotechnical or analytical data are available for this material, however, the quarry may be able to provide this information when their identity and location are confirmed. It is unknown whether geotechnical testing of this material has been scheduled. Finally, asphalt of unknown thickness will cap the excavation.</p>	
825 to 1000	Balch Petroleum crew began the placement of pea gravel fill from the Balch Petroleum yard into the excavation using the hydraulic excavator. At the start of the fill placement, the excavation was approximately 7-8 feet deep. Approximately 12 to 18 inches of material was placed within the excavation.
1000	Fill placement halted due to mechanical issues with the John Deere backhoe loader.

Attachments:

- 1. Photo log

Field Representative	Reviewed By
Date	Date

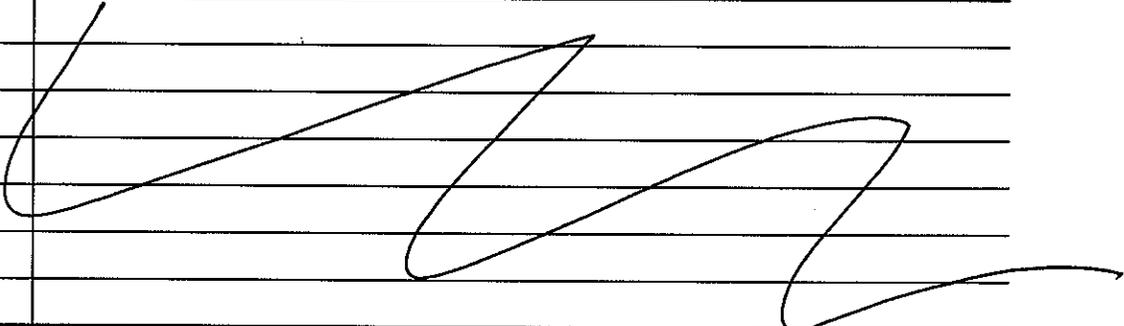
Arrival Date/ Time: 21 APRIL 09 / 7:45
 Location: UPS - OAKLAND
 Employees: F. FLORES, C. MAGGARIO, P. STARICK (BALCH) &
 Weather Conditions: SUNNY / WARM / ~ 70's
 PPE Required: _____
 Purpose of Visit: OBSERVE TANK PIT BACKFILL

S. COUCH
(URS)

Time	Actions Taken/ Observations/ Notes
7:45	ARRIVE ONSITE / F. FLORES IS ONSITE LOOK @ EXCAVATION - THERE ARE NO STOCKPILES.
8:00	CALL J. MENDONCA OF URS TO DISCUSS STOCKPILE SITUATION. SHE ^{THOUGHT} WE WERE NOT GOING TO PUT THE SOIL FROM THE EXCAVATION UNTIL UNTIL IT HAD BEEN TESTED.
8:24	BALCH EMPLOYEE FRANCISCO FLORES TELLS ME THEY WILL START BACKFILLING W/ FILL FROM AN AST REMOVAL PROJECT. THIS SOIL IS LOCATED IN THE SE CORNER OF THE UPS PROPERTY
8:30	C. MAGGARIO & PETER STARICK ARRIVE ONSITE - SPEAK W/ CHRIS ABOUT TODAY'S ACTIVITIES. HE TELLS ME THAT THE WILL START WITH THE AST SOIL STOCKPILE AND BASE ROCK FROM THE QUARRY IS ON ITS WAY.
8:36	CHRIS & FRANCISCO ROLL OUT FILTER FABRIC TO PLACE ON TOP THE PEZ GRAVEL IN THE EXCAVATION. FABRIC IS THEN PLACED.
8:51	CHRIS MOVES BACKHOE AND CHANGES OUT EXCAVATOR BUCKET.
8:58	START BRINGING SOIL FROM STOCKPILE ON SE CORNER OF UPS PROPERTY OVER TO THE EXCAVATION - CHRIS BEGINS COMPACTION. THE EXCAVATION IS CURRENTLY 6-7' DEEP.
8:58 - 9:31	CONTINUE BRINGING SOIL TO EXCAVATION AND COMPACT W/ SHEEPSFOOT COMPACTOR

Departure Time: _____

Arrival Date/ Time: 21 APRIL 09 / 7:45
Location: UPS - OAKLAND
Employees: _____
Weather Conditions: _____
PPE Required: _____
Purpose of Visit: _____

Time	Actions Taken/ Observations/ Notes
9:32	DUMP TRUCK CONTAINING BASE ROCK ARRIVES ONSITE - CHRIS CONTINUES COMPACTION
10:05	BRING MORE SOIL FROM SE CORNER INTO EXCAVATION - KEEP COMPACTING THIS CONTINUES UNTIL ...
11:09	LAST LOAD OF SOIL FROM SE CORNER IS DUMPED INTO EXCAVATION.
11:13	PETER ARRIVES W/MORE BASE ROCK. ASK HIM WHERE IT CAME FROM: NOR-CAL ROCK INC. 477 ROLAND WAY, OAKLAND, CA 510. 636. 9860 ROCK → CLASS II AB
11:19	B. ROCK IS DUMPED INTO EXCAVATION / CHRIS COMPACTS.
12:00	LEAVE SITE
	

Departure Time: 12:00

Arrival Date/ Time: 22 APRIL 09 / 7:00 A.M.
 Location: UPS - OAKLAND
 Employees: ← M. MAGGIZIO, P. STARIG, F. FLORES (BALCH)
 Weather Conditions: SUNNY/WARM N 70S SHANNON COUCH (URS)
 PPE Required: _____
 Purpose of Visit: OBSERVE BACKFILLING OF
UST PIT

Time	Actions Taken/ Observations/ Notes
7:00	ARRIVE AT GATE AND WAIT FOR VPS MANAGER TO SIGN ME IN.
7:10	DRIVE TO SITE OF EXCAVATION
7:20	F. FLORES OF BALCH IS ON SITE
7:25	PETER S AND CHRIS M. FROM BALCH ARRIVE
7:33	TALK WITH CHRIS ABOUT TODAY'S ACTIVITIES. HE INFORMS ME THEY WILL HAVE TWO DUMP TRUCKS INSTEAD OF ONE. HE ALSO TELLS ME ARCADIS WILL BE INSTALLING A WELL ON FRIDAY.
7:36	CHRIS BEGINS COMPACTING A SMALL PILE OF BASE ROCK.
7:41	SHEEPSFOOT COMPACTOR QUILTS. IT HAS RUN OUT OF GAS.
7:53	COMPACTOR IS NOW RUNNING
8:08	A LOAD OF BASE ROCK ARRIVES.
8:21	ANOTHER LOAD OF BASE ROCK ARRIVES. COMPACTATION CONTINUES.
9:02	ANOTHER LOAD OF B.R. ARRIVES, COMPACTATION CONTINUES.
9:14	ANOTHER LOAD OF B.R. ARRIVES, COMPACTATION CONTINUES.
9:33	BALCH EMPLOYEES TAKE A BREAK
9:40	CHRIS BEGINS COMPACTING B.R. AGAIN
9:42	LORETTA KWONG FROM ARCADIS ARRIVES ON SITE. CHRIS M. STOPS WORK.
9:49	ANOTHER LOAD OF B.R. ARRIVES.
9:55	L. KWONG IS TALKING ABOUT COLLECTING A SAMPLE OF THE CLASS II AB FOR SUBMITTAL TO A LAB. SHE GRABS SOME

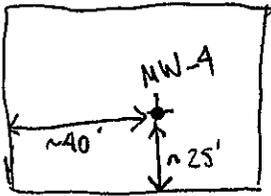
Departure Time: _____

Arrival Date/ Time: 23 APRIL 09 / 7:11 A.M.
 Location: UPS OAKLAND
 Employees: G. MAGGIONE, R. F. FLORES, P. STARICK (BALCH), S. COUCH (UPS)
 Weather Conditions: OVERCAST / 50'S
 PPE Required: _____
 Purpose of Visit: OBSERVE BACKFILL OF VST EXCAVATION.

Time	Actions Taken/ Observations/ Notes
7:11	ARRIVE ONSITE (BALCH EMPLOYEES LISTED ABOVE ARE ALREADY ONSITE. PETER IS TAKING OFF TO GET BASE ROCK THERE IS APPROX. 2.5-3 FEET LEFT TO FILL THE PIT.
7:55	TRUCK ARRIVES W/BASE ROCK/COMPACTION CONTINUES
8:00	ANOTHER TRUCK ARRIVES W/BASE ROCK COMPACTING CONTINUES. I CALL L. KWONG TO GET START TIME FOR THE WELL INSTALL.
8:35	TALK WITH CHRIS M. ABOUT COMPACTING TESTING. HE SAYS IT IS NOT IN HIS CONTRACT AND THAT UPS WOULD MAKE THE DECISION.
8:36	ANOTHER TRUCK ARRIVES WITH BASE ROCK
8:40	" "
9:09	WAITING FOR MORE BASE ROCK
9:21	TWO TRUCKS W/BASE ROCK ARRIVE. CHRIS CONTINUES COMPACTING
10:02	ANOTHER TRUCK ARRIVES COMPACTION CONTINUES
10:18	" "
10:48	" "
11:00	LEAVE SITE

Departure Time: 11:00

Arrival Date/ Time: 24 APRIL 09
 Location: UPS - OAKLAND
 Employees: S. COUCH, L. KWONG (ARCADIS) JASON NEFF & PEDRO TORRES (GREGG)
 Weather Conditions: OVERCAST/COLD/~50s
 PPE Required: HARD HAT, SAFETY VEST, STEEL-TOED BOOTS, SAFETY GLASSES, EAR PLUGS
 Purpose of Visit: OBSERVE MONITORING WELL INSTALL

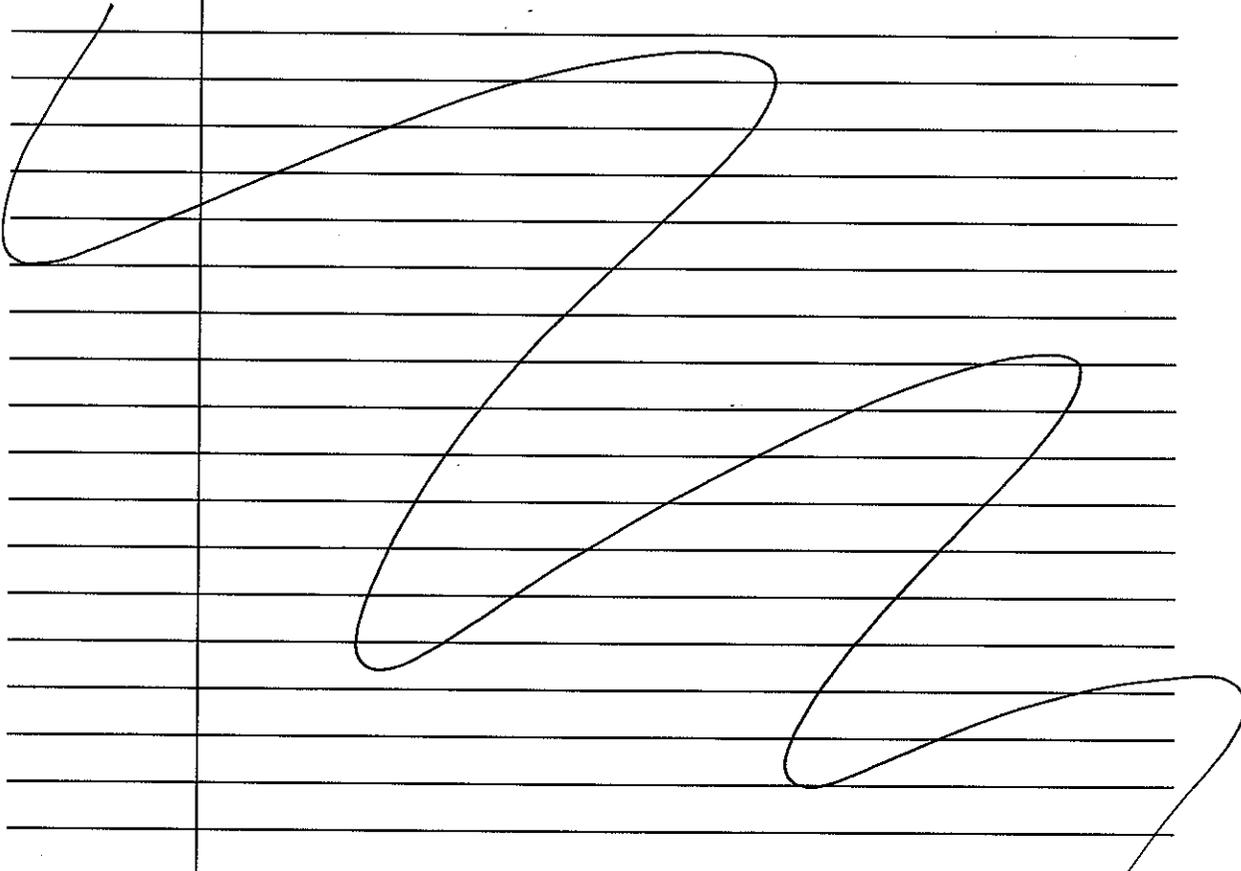


Time	Actions Taken/ Observations/ Notes
8:54	ARRIVE ONSITE: LORETTA KWONG (ARCADIS), JASON NEFF & PEDRO TORRES (GREGG DRILLING) ONSITE.
9:04	KWONG ASKS DRILLERS IF THEY CAN DEVELOP WELL TODAY. I TELL HER YOU CANNOT DEVELOP A WELL UNTIL THE GROUT HAS SET. SUGGEST TO HER THAT SURGING THE SAND PACK TODAY IS A REQUIREMENT.
9:06	DISCUSS WELL LOCATION WITH DRILLERS TALK W/ LORETTA ABOUT WELL SPECS. THE WELL WILL BE 18' BGS WITH 0.010 SLOT / 2/12 SAND 2" SCHED. 40 PVC.
<	LORETTA TELLS ME GW IS ~4-5 BGS I ASK WHY THE WELL IS SO DEEP THEN - SHE DOESN'T KNOW. I FOOT OF SAND & 1 FOOT OF BENTONITE WILL BE PLACED ABOVE THE SCREEN
9:10	GET RIG UP ON MW LOCATION
9:30	RIG HAS ENCOUNTERED CONCRETE @ ~12' BGS ... MOVE RIG OVER 5'
9:44	HIT CONCRETE @ 12' BGS AGAIN.
9:54	MOVE RIG 2' W & 2' S.
10:05	VICKI HAMLIN OF ALAMEDA COUNTY PUBLIC WORKS ARRIVES TO INSPECT THE SEAL.
10:08	I REMIND LORETTA SHE SHOULD COLLECT & LOG THE NATIVE MATERIAL
10:10	SAMPLE COLLECT W/ CA. SPLIT SPOON! @ 16.5 - 18' BGS. → 75% cloy, 20% silt, 5% sand wet. looks like a gley - BUT I DON'T HAVE A MUNSSELL.

Loretta is not logging the borehole because of backfill. I tell her she should collect at least the native material below the base rock.

Departure Time: _____

Arrival Date/ Time: 24 APRIL 09
Location: UPS - OAKLAND
Employees: _____
Weather Conditions: _____
PPE Required: _____
Purpose of Visit: _____

Time	Actions Taken/ Observations/ Notes
10:18	REACH TOTAL DEPTH OF 18' BGS - START SETTING THE GN MON. WELL.
10:20	START SANDING THE WELL
10:39	FINISH SAND / SURGE SAND PACK
10:48	FINISH SURGING THE SAND PACK SAND PACK DROPS 7" - ADD MORE SAND - TO 1' ABOVE SCREEN
10:50	ADD BENTONITE CHIPS & HYDRATE DEPTH TO H ₂ O → 7.22'
11:00	Leave site
	

Departure Time: 11:00

APPENDIX B
SITE PHOTOGRAPHS

UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
002

Date:
4/2/2009

Direction Photo
Taken:

Southwest

Description:

View of tanks 1 and 2.
Note hole in the eastern
end of tank 2.



Photo No.
006

Date:
4/2/2009

Direction Photo
Taken:

Southwest

Description:

View of dispensers 1 and
2 and the surrounding
concrete pad. Note the
storm drain in the left
corner of the photo.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
007

Date:
4/2/2009

Direction Photo
Taken:

Northwest

Description:

Eastern half of tank 3.
PSC environmental truck
(red) in the background.



Photo No.
009

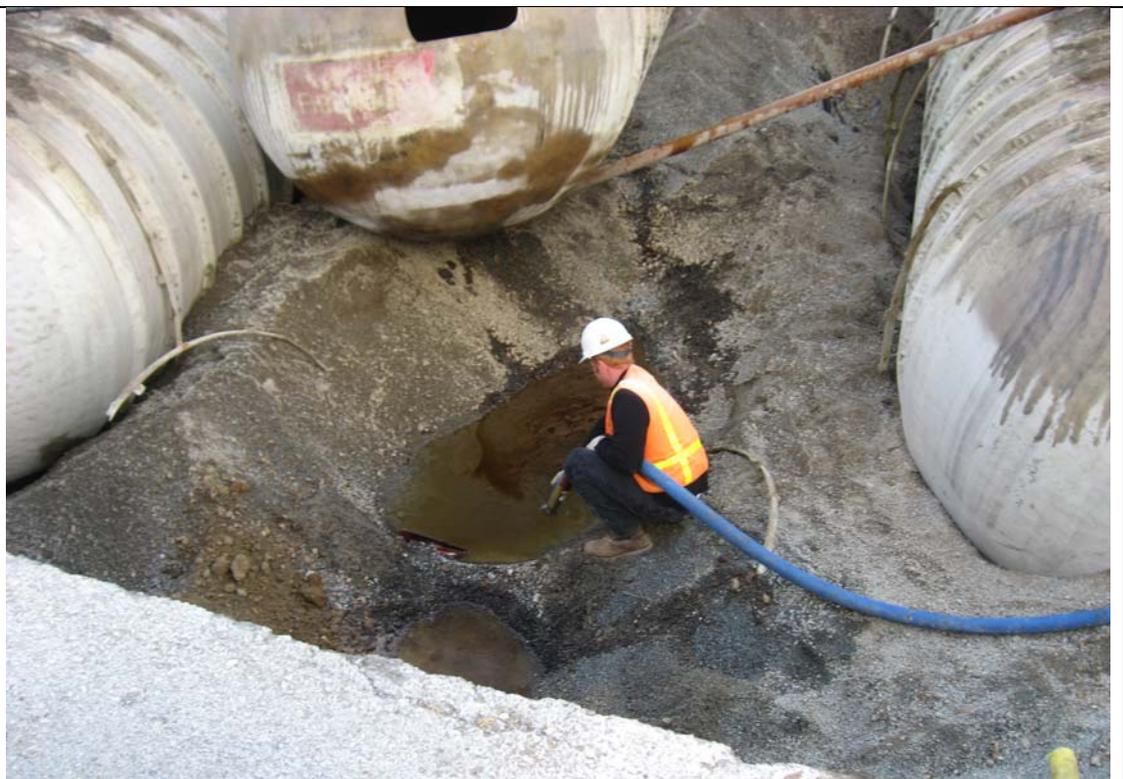
Date:
4/2/2009

Direction Photo
Taken:

Down

Description:

Balch Petroleum crew
member pumping water
from beneath tank 2. Note
the presence of product
on the surface of the
water.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
010

Date:
4/2/2009

Direction Photo
Taken:

West

Description:

Balch Petroleum crew removing piping from tank 3 and pumping groundwater from beneath tank 3.



Photo No.
014

Date:
4/2/2009

Direction Photo
Taken:

East

Description:

Location of Stockpile 1 in relation to the southern end of the excavation. Balch Petroleum dump truck for scale.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
016

Date:
4/2/2009

Direction Photo
Taken:

Southwest

Description:

Balch Petroleum crew
pumping water from within
tank 2.



Photo No.
022

Date:
4/2/2009

Direction Photo
Taken:

Southeast

Description:

View of eastern edge of
the excavation in relation
to the property boundary.
Gina France (Arcadis) for
scale.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
027

Date:
4/2/2009

Direction Photo
Taken:

West

Description:

Balch Petroleum crew
removing piping from tank
3.



Photo No.
039

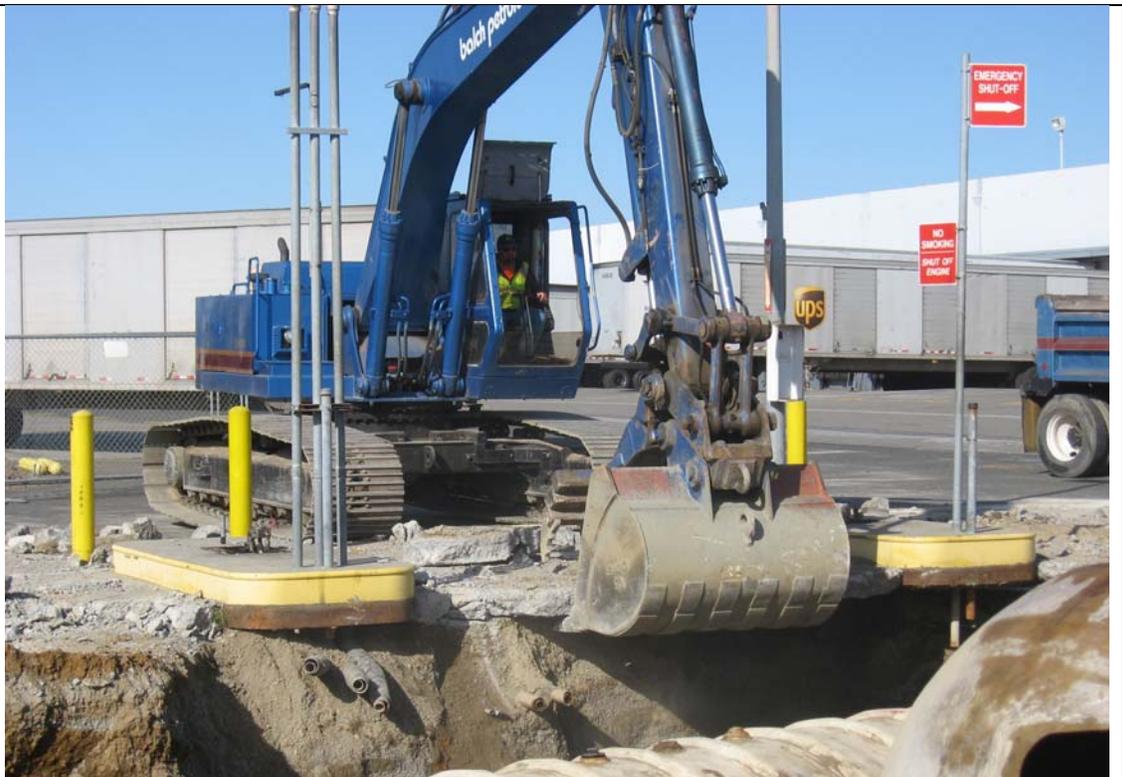
Date:
4/2/2009

Direction Photo
Taken:

Southwest

Description:

Balch Petroleum hydraulic
excavator breaking up
concrete pad around
dispenser islands.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
049

Date:
4/2/2009

Direction Photo
Taken:

West

Description:

Balch Petroleum crew removing lamp post from dispenser north.



Photo No.
061

Date:
4/2/2009

Direction Photo
Taken:

Southeast

Description:

Balch Petroleum crew adding dry ice to tank 2.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
062

Date:
4/2/2009

Direction Photo
Taken:

Southeast

Description:

Balch Petroleum crew
gathering dry ice.



Photo No.
073

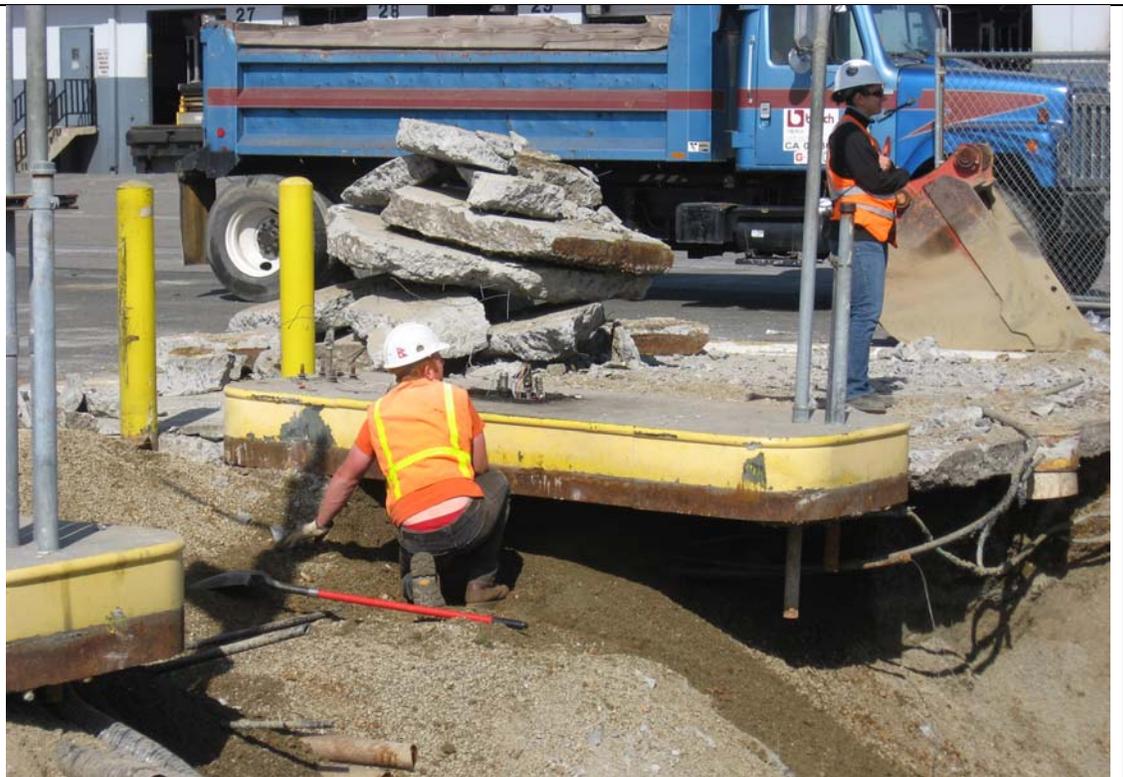
Date:
4/2/2009

Direction Photo
Taken:

Southwest

Description:

Balch Petroleum crew
hand digging beneath
dispenser north.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
083

Date:
4/2/2009

Direction Photo
Taken:

Down

Description:

Balch Petroleum crew re-attaching cut section from tank 2.



Photo No.
090

Date:
4/2/2009

Direction Photo
Taken:

West

Description:

Balch Petroleum crew repositioning tank 2 within the excavation. Note duct tape seal around the cut section and over the original triangular hole.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
098

Date:
4/2/2009

Direction Photo
Taken:

Northwest

Description:

Balch Petroleum crew applying duct tape seal to piping opening on the top of tank 2.



Photo No.
108

Date:
4/2/2009

Direction Photo
Taken:

Southeast

Description:

Bill Balch (Balch Petroleum) measuring explosive limits in tank 2.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
117

Date:
4/2/2009

Direction Photo
Taken:

West

Description:

Balch Petroleum crew removing tank 2 from the excavation.



Photo No.
122

Date:
4/2/2009

Direction Photo
Taken:

West

Description:

Placement and securing of tank 2 to the ECI flatbed truck.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
127

Date:
4/2/2009

Direction Photo Taken:

Southwest

Description:

Removal of tank 3 from the excavation.



Photo No.
136

Date:
4/2/2009

Direction Photo Taken:

Down

Description:

View of tank 3 footprint. Note the presence of product in the underlying groundwater and staining of the fill near the groundwater interface.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
139

Date:
4/2/2009

Direction Photo
Taken:

West

Description:

Balch Petroleum crew securing tank 3 to the ECI flatbed truck. Note the spray-painted number at the end of the tank.



Photo No.
141

Date:
4/2/2009

Direction Photo
Taken:

Northwest

Description:

View of the end of tank 2.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
143

Date:
4/2/2009

Direction Photo Taken:

Southwest

Description:

Removal of tank 1 from the excavation.



Photo No.
145

Date:
4/2/2009

Direction Photo Taken:

West

Description:

View of the footprint beneath tank 1. Note that the photo is stretched (artifact from placement into this photolog) and the presence of product in the groundwater.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
147

Date:
4/2/2009

Direction Photo Taken:

Down

Description:

Close-up of product in groundwater beneath tank 1. Note that the photo is stretched (artifact from placement into this photolog).



Photo No.
154

Date:
4/2/2009

Direction Photo Taken:

East

Description:

View of piping removed from the tanks prior to their removal from the excavation. These pipes were taken along with the tanks by ECI for disposal.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
155

Date:
4/2/2009

Direction Photo
Taken:

Southwest

Description:

View of the end of tank 1.



Photo No.
156

Date:
4/2/2009

Direction Photo
Taken:

Southwest

Description:

Balch Petroleum crew under the direction of Arcadis collection samples of fill in tank 1 footprint for analysis.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
158

Date:
4/2/2009

Direction Photo
Taken:

Northwest

Description:

Balch Petroleum crew under the direction of Arcadis collection samples of fill in tank 2 footprint for analysis.



Photo No.
161

Date:
4/2/2009

Direction Photo
Taken:

West

Description:

Balch Petroleum crew under the direction of Arcadis collection samples of fill in tank 3 footprint for analysis.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
167

Date:
4/2/2009

Direction Photo Taken:

Down

Description:

Hugh Devry (Arcadis) collecting groundwater sample in tank 2 footprint.



Photo No.
170

Date:
4/2/2009

Direction Photo Taken:

Southwest

Description:

Balch Petroleum crew loading piping onto ECI truck for disposal.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
174

Date:
4/2/2009

Direction Photo Taken:

Southwest

Description:

Balch Petroleum crew demolishing dispenser north.



Photo No.
176

Date:
4/2/2009

Direction Photo Taken:

South

Description:

Balch Petroleum crew demolishing dispenser south.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
181

Date:
4/2/2009

Direction Photo Taken:

West

Description:

View of northwest corner of the excavation.



Photo No.
194

Date:
4/2/2009

Direction Photo Taken:

Northwest

Description:

Hugh Devry (Arcadis) collecting sidewall sample 1.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
195

Date:
4/2/2009

Direction Photo Taken:

Southwest

Description:

View of western wall of the excavation. Nelson Ye (UPS) near the excavator.



Photo No.
200

Date:
4/2/2009

Direction Photo Taken:

South

Description:

View of the southern half of the excavation.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
203

Date:
4/2/2009

Direction Photo Taken:

East

Description:

Balch Petroleum crew covering stockpile 1.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
207

Date:
4/3/2009

Direction Photo
Taken:

West

Description:

Loading of excavated fill
on to end dump trailer for
disposal.



Photo No.
209

Date:
4/3/2009

Direction Photo
Taken:

Northwest

Description:

Casing for monitoring well
MW-1 destroyed during
excavation.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
210

Date:
4/3/2009

Direction Photo
Taken:

Southwest

Description:

Balch Petroleum crew breaking up concrete around former dispenser islands.



Photo No.
211

Date:
4/3/2009

Direction Photo
Taken:

Northwest

Description:

View of northwestern corner of the excavation.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
213

Date:
4/3/2009

Direction Photo
Taken:

Southwest

Description:

Balch Petroleum crew
loading concrete into
dump truck.



Photo No.
214

Date:
4/3/2009

Direction Photo
Taken:

Northwest

Description:

Location of Stockpile 2
along the north side of the
excavation.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
215

Date:
4/3/2009

Direction Photo
Taken:

North

Description:

Placement of "clean fill" in
Stockpile 2 area.



Photo No.
219

Date:
4/3/2009

Direction Photo
Taken:

North

Description:

View of northeastern
corner of the excavation.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
222

Date:
4/3/2009

Direction Photo Taken:

Northwest

Description:

Balch Petroleum dump truck placing "clean fill" in Stockpile 2.



Photo No.
223

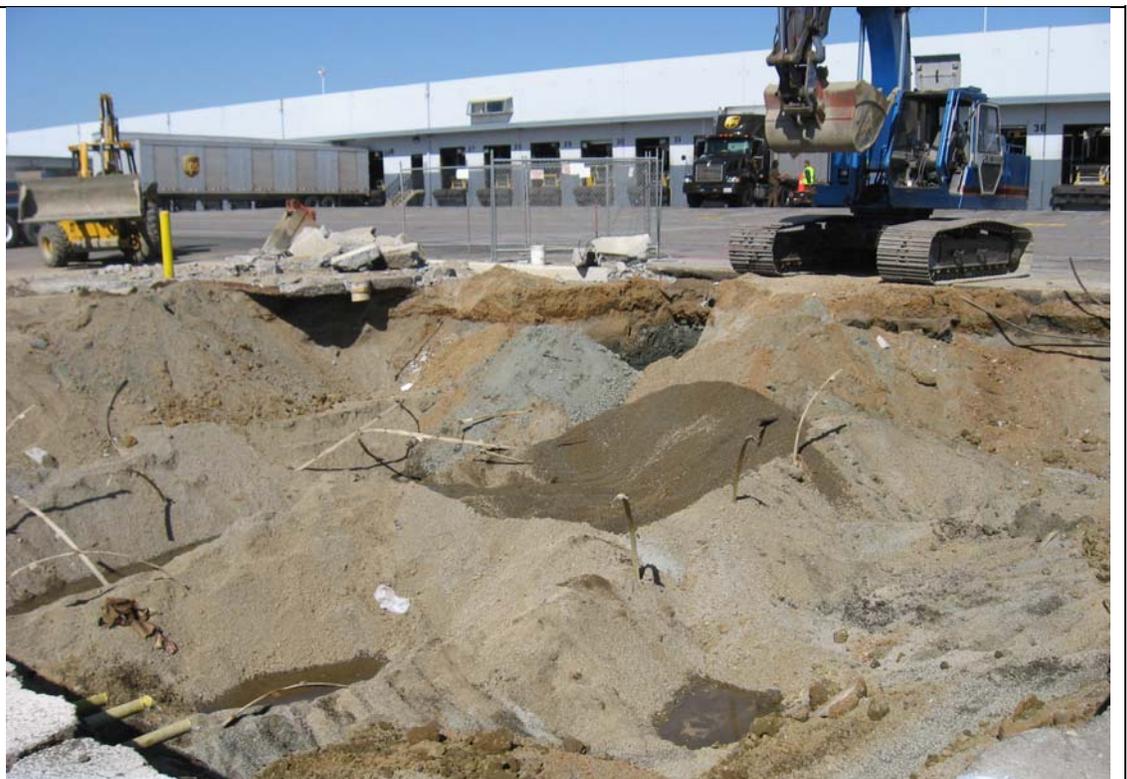
Date:
4/3/2009

Direction Photo Taken:

Southwest

Description:

View of excavation looking southwest. Note the presence of groundwater in the foreground.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
227

Date:
4/3/2009

Direction Photo Taken:

Southwest

Description:

View of the western wall and southwestern corner of the excavation.



Photo No.
232

Date:
4/3/2009

Direction Photo Taken:

Southwest

Description:

View of the southern wall of the excavation.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
235

Date:
4/3/2009

Direction Photo
Taken:

Southwest

Description:

Balch Petroleum crew breaking up concrete pad in the vicinity of the former dispenser islands.



Photo No.
236

Date:
4/3/2009

Direction Photo
Taken:

South

Description:

View of the southeast corner of the excavation.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
239

Date:
4/3/2009

Direction Photo
Taken:

East

Description:

View of the eastern wall of the excavation. Note the groundwater in the foreground. Nelson Ye (UPS) and Hugh Devry (Arcadis) in the background.



Photo No.
240

Date:
4/3/2009

Direction Photo
Taken:

Southwest

Description:

View of the southern wall of the excavation and Balch Petroleum crew loading concrete into the dump truck.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
241

Date:
4/3/2009

Direction Photo Taken:

South

Description:

Loretta Kwon and Hugh Devry (Arcadis) collecting sidewall sample 7.



Photo No.
242

Date:
4/3/2009

Direction Photo Taken:

South

Description:

View of the southeastern corner of the excavation and the location of sample sidewall 7.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
245

Date:
4/3/2009

Direction Photo Taken:

South

Description:

View of the southeastern corner of the excavation. Covered Stockpile 1 in the background,



Photo No.
246

Date:
4/3/2009

Direction Photo Taken:

Southwest

Description:

Excavation of area beneath the former dispenser islands.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
249

Date:
4/3/2009

Direction Photo Taken:

Southwest

Description:

Closer view of material exposed in the southern wall of the excavation.



Photo No.
250

Date:
4/3/2009

Direction Photo Taken:

Southwest

Description:

Hugh Devry (Arcadis) collecting sample Sidewall 8 from the excavator bucket.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
251

Date:
4/3/2009

Direction Photo Taken:

Southwest

Description:

Gina France (Arcadis) gauging monitoring well MW-3.



Photo No.
252

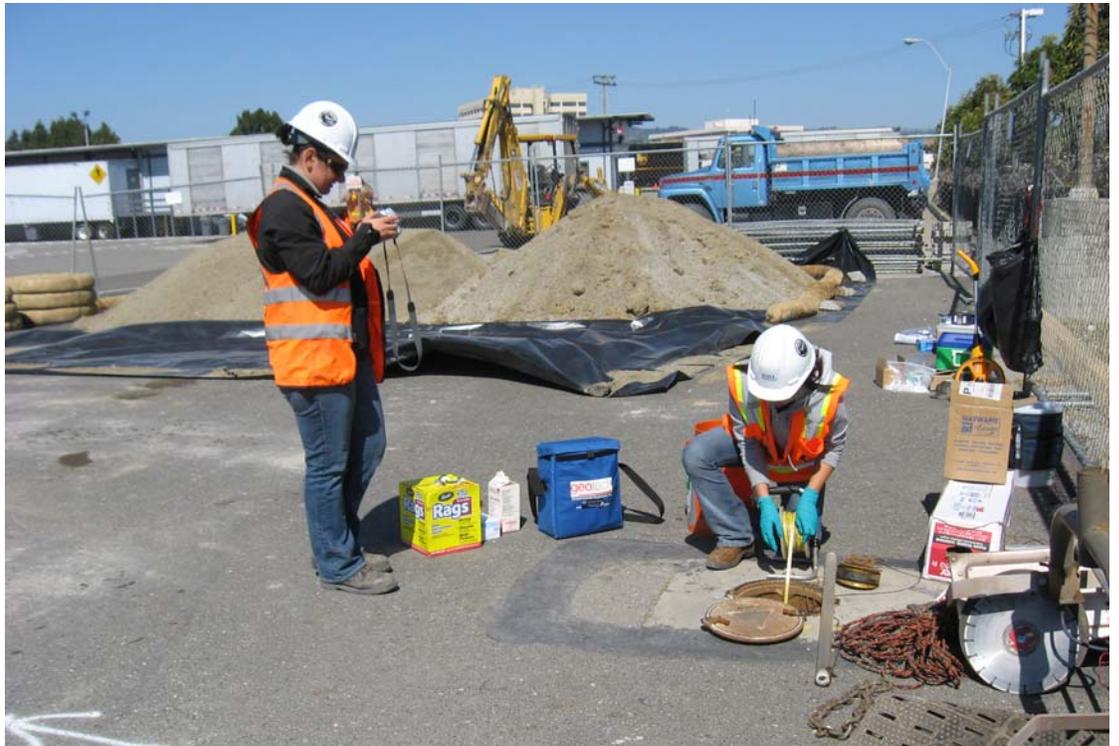
Date:
4/3/2009

Direction Photo Taken:

North

Description:

Gina France and Loretta Kwon (Arcadis) gauging monitoring well OW-1.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
253

Date:
4/3/2009

Direction Photo
Taken:

Southwest

Description:

View of southern wall of
excavation.



Photo No.
256

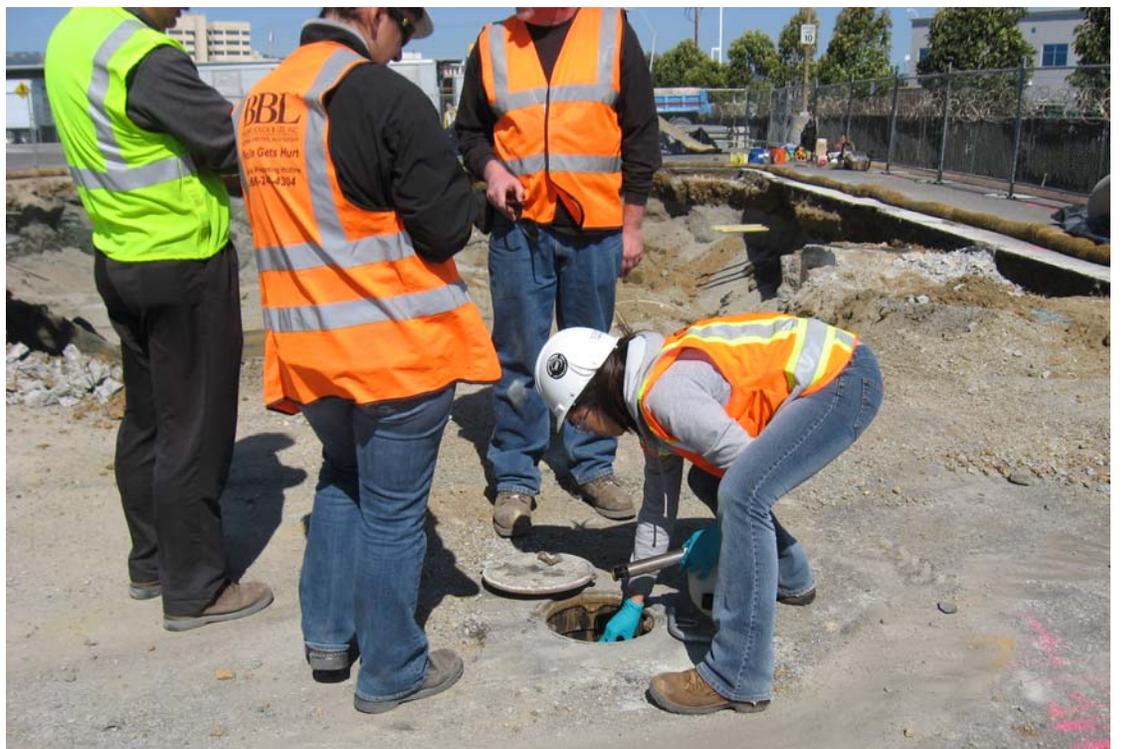
Date:
4/3/2009

Direction Photo
Taken:

NW to SE

Description:

Loretta Kwon (Arcadis)
gauging monitoring well
MW-2.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
258

Date:
4/3/2009

Direction Photo Taken:

South

Description:

Balch Petroleum crew placing straw rolls around excavation.



Photo No.
259

Date:
4/3/2009

Direction Photo Taken:

South

Description:

Balch Petroleum crew covering Stockpile 2 with plastic sheeting. Loretta Kwon (Arcadis) in foreground.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
001

Date:
4/20/2009

Direction Photo
Taken:

East

Description:

Stockpile of pea gravel from Balch Petroleum yard. Stockpile 2 is on the left edge of the photo.



Photo No.
003

Date:
4/20/2009

Direction Photo
Taken:

Southeast

Description:

View of the excavation prior to the placement of the pea gravel fill.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
004

Date:
4/20/2009

Direction Photo Taken:

Northeast

Description:

View of the footing excavation spoils stockpile located at the southeastern property corner.



Photo No.
005

Date:
4/20/2009

Direction Photo Taken:

Northwest

Description:

View of the footing excavation spoils stockpile located at the southeastern property corner.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
007

Date:
4/20/2009

Direction Photo Taken:

South

Description:

View of the southern half of the excavation. Note the in-place material located along the southwestern corner of the excavation in the vicinity of former dispenser island north.



Photo No.
011

Date:
4/20/2009

Direction Photo Taken:

Southeast

Description:

Balch Petroleum distributing pea gravel fill within the excavation.



UPS-Oakland Hub UST Removal and Field Sampling

URS Project No. 26817415

Photo No.
014

Date:
4/20/2009

Direction Photo Taken:

Southwest

Description:

Balch Petroleum distributing pea gravel fill within the excavation.



APPENDIX C
LABORATORY DATA PROVIDED BY ARCADIS

UPS-Oakland Hub
8400 Pardee Drive
Oakland, California 94612
Global ID T0600100939

Table 1: Soil Analytical Data: April 2009

Sample ID	Date	US EPA Method 8260B (mg/kg)						Method 8015
		Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	TPH-GRO	TPH-DRO
North Wall 1	4/2/2009	NA	NA	NA	NA	NA	7.0	1,100
North Wall 2	4/2/2009	NA	NA	NA	NA	NA	< 0.29	24
Sidewall 3	4/3/2009	NA	NA	NA	NA	NA	400	11,000
Sidewall 4	4/3/2009	NA	NA	NA	NA	NA	540	17,000
Sidewall 5	4/3/2009	NA	NA	NA	NA	NA	220	2,900
Sidewall 6	4/3/2009	NA	NA	NA	NA	NA	680	29,000
Sidewall 7	4/3/2009	NA	NA	NA	NA	NA	240	360
Sidewall 8	4/3/2009	NA	NA	NA	NA	NA	56	1,400
ESLs Shallow Soil Non-Drinking water (mg/kg)		0.38	9.3	32	11	5.6	500	400
ESLs Shallow Soil Drinking water (mg/kg)		0.044	2.9	3.3	2.3	0.023	100	100

Table 2: Stockpiled Soil Analytical Data: April 2009

Sample ID	Date	US EPA Method 8260B (mg/kg)						Method 8015
		Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	TPH-GRO	TPH-DRO
Stockpile 1	4/2/2009	< 1.1	< 1.1	< 1.1	< 2.2	< 1.1	< 54	140
Stockpile 2	4/2/2009	< 0.00094	< 0.00094	< 0.00094	< 0.0019	< 0.00094	< 0.047	41
ESLs Shallow Soil Non-Drinking water (mg/kg)		0.38	9.3	32	11	5.6	500	400
ESLs Shallow Soil Drinking water (mg/kg)		0.044	2.9	3.3	2.3	0.023	100	100

UPS-Oakland Hub
8400 Pardee Drive
Oakland, California 94612
Global ID T0600100939

Table 3: Fill Material Analytical Data: April 2009

Sample ID	Date	US EPA Method 8260B (mg/kg)						Method 8015
		Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	TPH-GRO	TPH-DRO
Fill Material 1	4/22/2009	< 1.2	< 1.2	< 1.2	< 2.4	< 1.2	< 60	< 0.99
Fill Material 2	4/22/2009	< 0.72	< 0.72	< 0.72	< 1.4	< 0.72	< 36	690
Fill Material 3	4/22/2009	< 0.91	< 0.91	< 0.91	< 1.8	< 0.91	< 46	640
ESLs Shallow Soil Non-Drinking water (mg/kg)		0.38	9.3	32	11	5.6	500	400
ESLs Shallow Soil Drinking water (mg/kg)		0.044	2.9	3.3	2.3	0.023	100	100

Sample ID	Date	US EPA Method 8270C (mg/kg)															
		Naphthalene	Acenaphthene	Acenaphthylene	Flourene	Phenanthrene	Anthracene	Benzo[a]anthracene	Chrysene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Benzo[g,h,i]perylene	Indeno[1,2,3-cd] pyrene	Fluoranthene	Pyrene	Dibenz(a,h)anthracene
Fill Material 1	4/22/2009	< 0.0049	< 0.0049	< 0.0049	< 0.0049	0.0058	< 0.0049	0.021	0.025	0.027	0.043	0.016	0.03	0.028	0.034	0.029	0.0078
Fill Material 2	4/22/2009	< 1.2	< 1.2	< 1.2	< 1.2	1.7	< 1.2	< 1.2	< 1.2	1.3	1.7	< 1.2	< 1.2	< 1.2	2.3	1.9	< 1.2
Fill Material 3	4/22/2009	< 1.2	< 1.2	< 1.2	< 1.2	2.6	< 1.2	1.4	1.3	1.5	1.9	< 1.2	< 1.2	< 1.2	3.4	2.6	< 1.2
ESLs Shallow Soil Non-Drinking water (mg/kg)		1.5	19	13	8.9	11	2.8	1.3	13	0.13	1.3	1.3	27	1.3	40	85	0.38
ESLs Shallow Soil Drinking water (mg/kg)		0.46	16	13	8.9	11	2.8	1.3	13	0.13	1.3	1.3	27	1.3	40	85	0.38

Sample ID	Date	US EPA Method 6010B (mg/kg)							7471A
		Arsenic	Barium	Cadium	Chromium	Lead	Selenium	Silver	Mercury
Fill Material 1	4/22/2009	1.6	25	< 0.51	13	2	< 2.0	< 1.0	< 0.32
Fill Material 2	4/22/2009	NS	NS	NS	NS	NS	NS	NS	0.36
Fill Material 3	4/22/2009	6.1	130	< 0.49	33	26	< 1.9	1.9	0.41
ESLs Shallow Soil Non-Drinking water (mg/kg)		5.5	1500	7.4	58	750	10	40	10
ESLs Shallow Soil Drinking water (mg/kg)		5.5	1500	7.4	58	750	10	40	10

- Notes:
1. MTBE = Methyl tert-butyl ether
 2. TBA = Tert-butyl alcohol
 3. ETBE = Ether Tert-butyl ether
 4. TPH-G = Total Petroleum Hydrocarbons - gasoline
 5. TPH-D = Total Petroleum Hydrocarbons - diesel
 6. DIPE = Di-isopropyl ether
 7. TAME = Tert-amyl methyl ether
 8. Concentrations are in mg/kg (milligrams per kilogram)
 9. < = analyzed constituent was not detected above the laboratory detection limits
 10. Bolded values are above the ESLs Shallow Soil Non-Drinking Water Standard
 11. *Italic* values are above the ESLs Shallow Soil Drinking Water Standards
 12. ESL = Environmental Screening Levels per the San Francisco Bay Regional Water Quality Control Board; ESLs are for shallow soil, potential drinking water in residential land use, per Doug Young.
 13. NA = No ESL is on file for the specific constituent
 14. NS = Constituent not sampled for
 15. Fill Material 1 is the sample from the fill material from Balch's lot
 16. Fill Material 2 and 3 are the samples from the recycled base rock from Nor-Cal Rock, Inc.