Ultramar, Inc.

December 22, 2010

Mr. Jerry Wickham
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

SUBJECT: SUBUSRFACE INVESTIGATION REPORT
FORMER BEACON STATION NO. 12574
22315 REDWOOD ROAD RWQCB Case No. 01-0167
CASTRO VALLEY, CALIFORNIA ACDEH: RO0000355

Mr. Wickham:

Please find enclosed the **Subsurface Investigation Report** for the above-referenced facility. Pursuant to your requests, I declare, under penalty of perjury, that the following information and/or recommendations contained in the attached report are true and correct to the best of my knowledge.

Please call if you have any questions or comments regarding this letter or the enclosed report (210) 345-4663.

Sincerely,
ULTRAMAR INC.

C. Shay Wideman
Director – Environmental Liability Management

Enclosures

cc w/o encl. Mr. Ken Mateik, Horizon Environmental

HORIZON ENVIRONMENTAL INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

December 22, 2010

Mr. Jerry Wickham
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Subject: **Subsurface Investigation Report**
Former Beacon Station 12574 RWQCB Case No. 01-0167
22315 Redwood Road, Castro Valley, California ACEHS Case No. 00355

Mr. Wickham:

At the request of Ultramar Inc., Horizon Environmental Inc. (Horizon) is forwarding the enclosed *Subsurface Investigation Report* dated December 22, 2010.

Please call Horizon at 916-939-2170 if you have any questions or require additional information.

Sincerely,
HORIZON ENVIRONMENTAL INC.

Karen P. Liptak
Staff Geologist

Enclosure

cc: Mr. C. Shay Wideman, Valero Energy Corp.
Mr. Allen Shin, Banya Investment LLC
Mr. Bill Courtney, Property Manager
Mr. Ali Kashikar
Mr. Phillip and Mrs. Meeiru Tai

4970 Windplay Drive, #C5 • El Dorado Hills, CA 95762 • (916) 939-2170 • FAX (916) 939-2172
P.O. Box 5283 • Bakersfield, CA 93388 • (661) 589-8389 • FAX (661) 589-1456

HORIZON ENVIRONMENTAL INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

December 22, 2010

Mr. Jerry Wickham, Senior HazMat Specialist
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-2213

Subject: **Subsurface Investigation Report**
Former Beacon Station No. 12574 RWQCB Case No. 01-0167
22315 Redwood Road, Castro Valley, California ACEHS Case No. 00355

Mr. Wideman:

At the request of Ultramar Inc. (Ultramar), Horizon Environmental Inc. (Horizon) has prepared this Subsurface Investigation Report for the former Beacon Station No. 12574 (Site) located in Castro Valley, California (Figure 1). Horizon prepared and submitted a Work Plan for Subsurface Investigation (Horizon, May 27, 2010) to investigate petroleum hydrocarbons in soil and groundwater beneath the Site, and later utilize the results to prepare a Site Conceptual Model (SCM), a Tier 2 Risk-Based Corrective Action (RBCA) analysis, and a Corrective Action Plan (CAP) for the Site. This work was conditionally approved by the Alameda County Environmental Health Services (ACEHS) in their letters dated July 19 and October 4, 2010 (see Attachment A). The ACEHS requested that results of the subsurface investigation be presented in this technical report in advance of a Draft CAP.

The work performed included: preparation of a Site-specific Health and Safety Plan; installation of one offsite soil gas sampling location (SG-7) and collection of soil gas samples; drilling and installation of three onsite vapor extraction wells (VW-1, VW-2 and VW-3), three onsite vapor probe wells (VP-1, VP-2 and VP-3), and one offsite replacement groundwater monitoring well (MW-5A); collecting vapor, soil, and groundwater samples from the borings; submitting the vapor, soil and groundwater samples for laboratory analysis; and preparing this report which presents the field procedures, results, and conclusions subsequent to completion of the work. Proposed offsite soil gas probe SG-6 for the collection of offsite soil gas samples to the west of the Site was not installed, as no access has been granted by the offsite property owner.

Site Description

The Site is located on the southwestern corner of the intersection of Redwood Road and Grove Way in Castro Valley, California. The Site is bounded by Grove Way to the north, Redwood Road to the east, a vacant office building to the south, and private residences to the west. Chevron #9-2960 was formerly located at 2416 Grove Avenue, northeast of the Beacon Site and across the intersection of Grove Avenue and Redwood Road. The Chevron site is an open Fuel Leak case (RWQCB Case No. 01-0346 and ACEHS Case No. 0275).

Existing Site facilities include a 7-11 convenience store and other commercial buildings situated on the western portion of the Site property, and a parking lot and landscaping areas situated on the central and eastern portions of the Site. Former service station facilities included eight former USTs located in the southern portion of the Site, six former dispenser islands and associated former fuel distribution piping located in the northern and eastern portions of the Site. There are currently five groundwater monitoring wells (MW-1 through MW-4 and MW-6) associated with the Site. Wells MW-1 through MW-4 are located within the Site boundaries, while well MW-6 is located offsite to the south of the Site on an adjoining property. Well MW-5 was destroyed in 2004 by a third party due to offsite construction activities. Locations of these and other pertinent Site features are shown on the Site Map (Figure 2) and the Site Area Map (Figure 3).

Site Background

Ultramar leased the Site and operated a retail service station from 1981 to 1987. Prior to 1981, the Site had been leased and operated by Shell Oil Company (Shell). Information provided by Ultramar indicates that the former Beacon Site facilities included four former fuel USTs located in the southeastern portion of the property and one former waste-oil UST located in the southwestern portion of the property. These USTs were removed by Ultramar in 1987. Three former fuel USTs located to the west of the former Beacon USTs existed and were removed by Shell Oil Company sometime prior to 1981 (Acton, Mickelson, van Dam, Inc., November 1994). Acton, Mickelson, van Dam, Inc. (AMD) indicated that at least one previous generation of USTs had been installed and used at the Site by Shell, however, no records have been located for the removal of the previous generation of Shell USTs. According to the 1994 AMD report, Ultramar was not aware of any specific incidents in which gasoline leaked from or was spilled during filling of any of the former Beacon USTs in use during their Site lease period (AMD, 1994).

The five former Beacon USTs were removed from the Site on May 5, 1987. These USTs consisted of one 500-gallon waste oil UST (Tank T1), two 5,000-gallon diesel USTs (Tanks T2 and T4), an 8,000-gallon gasoline UST (Tank T3), and a 7,000-gallon gasoline UST (Tank T5). Records made available by Ultramar indicate that these USTs were originally installed and owned by Shell (AMD, 1994). Analytical results of soil samples collected at the time of the UST removals indicated the presence of petroleum constituents in soil underlying the USTs. Over-excavation of the UST basin to a depth of approximately 20 feet below surface grade (bsg) was performed in May 1987. After completion of the over-excavation work, laboratory analysis of seven soil samples collected at the limit of the over-excavation indicated concentrations of 125.5, 208.7, and 1,989 milligrams per kilogram (mg/Kg or parts per million [ppm]) of total volatile hydrocarbons (AMD, 1994) primarily along the northern side of the over-excavated UST basin.

In May 2009, Horizon retained CalClean, Inc. (CalClean) of Tustin, California to conduct high-vacuum dual-phase extraction (HVDPE) remedial testing at the Site. Approximately 220 pounds of vapor-equivalent Total Petroleum Hydrocarbons as gasoline (TPHg) and 1.6 pounds of vapor-equivalent Benzene were removed from the subsurface, and approximately 1,660 gallons of groundwater were extracted from wells MW-1 and MW-2 during the 48 hours of remedial testing. The results of the testing indicated HVDPE is effective in

extracting gasoline vapors from the vadose zone soils beneath the former USTs, and in capturing impacted groundwater from beneath the Site, as reported in the High Vacuum Dual-Phase Extraction Testing Report (Horizon, June 30, 2009).

In December 2009, Horizon retained TEG Northern California (TEG) of Rancho Cordova, California to advance five onsite direct-push soil gas probes (SG-1 through SG-5), and to collect and analyze the soil gas samples in TEG's mobile lab. The analytical soil gas results indicated that elevated concentrations of gasoline hydrocarbons are present primarily in shallow soil gas samples SG-1 and SG-3 located near the former USTs and dispensers. The highest concentrations were encountered in sample location SG-3, which was located adjacent to the front of the commercial building at the Site, as reported in the Soil Gas Survey and Soil Assessment Report (Horizon, January 2010).

Also in December 2009, Horizon and Well Test Inc. (WTI) of San Jose, California, advanced onsite borings B-1 through B-5 to collect subsurface soil and groundwater samples. The boring locations were selected based on approximate locations of the former USTs and dispenser islands. The analytical soil and groundwater results indicated that elevated concentrations of petroleum hydrocarbons are present in saturated soils beneath the western portion of the former UST basin, and are also present in unsaturated and saturated soils beneath the former eastern dispenser islands, as reported in the Soil Gas Survey and Soil Assessment Report (Horizon, January 2010).

Quarterly groundwater monitoring and sampling has been performed at the Site since 1992. Historical groundwater level data has indicated that groundwater has been present beneath the Site between the depths of approximately 14 to 22 feet bsg, and the direction of groundwater flow beneath the Site has been consistently to the south-southwest. A more detailed Site history will be presented in the comprehensive Site Conceptual Model (SCM) to be prepared after the current report.

PRE-FIELD WORK ACTIVITIES

Prior to conducting the onsite field work, Horizon obtained verbal access from the current property owners/managers, and the current tenants of the onsite businesses were notified of the proposed field work. Offsite access was received from the property owner for the sampling of soil gas location SG-7 south of the Site at 22341 Redwood Road, while no offsite access was received from the property owners for the sampling of soil gas location SG-6 west of the Site at 22236 North Sixth Street.

Permitting

Horizon obtained Well Permit No.W2010-0707 from the Alameda County Public Works Agency (ACPWA) for advancing soil boring SG-7 on the property located at 22341 Redwood Road, Well Permit No.W2010-0708 for advancing six borings for wells at the Site, and Well Permit No.W2010-0709 for advancing one boring for a monitoring well in North Sixth Street to the west of the Site (see Attachment A). On October 14, 2010, the ACPWA and ACEHS were notified of the scheduled field work, Underground Services

Alert (USA) was notified for locations of underground utilities, and a Site-specific Health and Safety Plan was prepared. All activities were completed in compliance with the State of California Water Resources Control Board's Leaking Underground Fuel Tanks (LUFT) Manual, the Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sites, and ACPWA and ACEHS guidelines.

OFFSITE SOIL GAS SAMPLING

Field Work

As proposed in the Work Plan Addendum for Subsurface Investigation (Horizon, September 9, 2010), offsite soil gas sampling location SG-7, as shown on the Site Map (Figure 2), was selected on the basis of accessibility in the area of the estimated impacted groundwater plume beneath the Kashikar property at 22341 Redwood Road south of the Site, based on historical groundwater monitoring data. It is Horizon's understanding that the property owner, Mr. Al Kashikar, plans to develop this commercial property in the future.

Horizon retained Air Toxics Limited (ATL), a State-certified laboratory in Folsom, California (NELAP Certification No. 02110CA) to supply soil gas sampling containers and to analyze the soil gas samples in their laboratory. The soil gas sampling was conducted according to Horizon's Field Methods and Procedures – Hand-Driven Soil Gas Investigation presented in Attachment B, and the soil gas probe advancement, installation, and sampling was conducted by a Horizon geologist. The field procedures implemented were recommended in the California Environmental Protection Agency (Cal-EPA) Advisory-Active Soil Gas Investigations (2003), and the Department of Toxic Substances Control (DTSC/Cal-EPA) Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (2005), and were developed by the Los Angeles Regional Water Quality Board (RWQCB).

Field work at soil gas sampling location SG-7 was conducted on October 6, 2010. The asphalt surface was cored and cleared for utilities with a hand auger to a depth of approximately 3 feet bsg. A temporary soil gas probe contained within steel drive rods was advanced through the bottom of the hand-augered boring using an AMS Gas Vapor Probe Kit to a target depth of approximately 5 feet bsg. The drive rod was pulled back to expose the inlet of the soil gas probe, and the availability of the subsurface soil gas was determined with a vacuum pump. Immediately after the probe installation, the drive rods were removed and hydrated bentonite was used to seal from bottom of the hand-augered borehole to the ground surface to prevent ambient air intrusion from occurring.

After soil conditions equilibrated for approximately 30 minutes, a volume of 42 cubic centimeters (cc), representing one calculated internal volume for the tubing used and the annular subsurface space around the probe tip, was purged at a rate of less than 200 milliliters per minute (ml/min) with a new gas-tight plastic syringe. During the previous soil gas sampling performed at onsite locations SG-1 through SG-5 in December 2009, one equipment purge volume was utilized for the purging methodology. To support the quality control during sampling activity, one duplicate soil gas sample was collected simultaneously

to the primary soil gas sample in separate Summa canisters connected via a three-way valve. One-liter Summa canisters were connected with laboratory-supplied flow controllers (regulators) pre-set to sampling rates of 150 ml/min, which were used to collect both soil gas samples. Leak check compound 1,1-difluoroethane (DFA) was injected under a "shroud' around the sample tubing and drive rod before sampling to evaluate whether leakage was present. At the completion of the sampling, the borehole was backfilled with neat cement and capped with concrete tinted to match the surrounding asphalt.

Laboratory Analyses

The one-liter Summa canisters were submitted under chain-of-custody (COC) documentation to the ATL laboratory in Folsom, California. The two soil gas samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg), the volatile aromatic compounds benzene, toluene, ethylbenzene and xylenes (BTEX), the fuel oxygenate methyl-t-butyl ether (MTBE), and the leak check compound 1,1-difluoroethane (DFA) by Modified Environmental Protection Agency (EPA) Method TO-15 using a Gas Chromatograph/Mass Spectrometer (GC/MS) in the full-scan mode. The soil gas analytical data is presented in the attached ATL report in Attachment C.

Results of Offsite Soil Gas Sampling

The laboratory analytical results for the two soil gas samples collected during offsite sampling are summarized in Table 1 and indicate the following:

- Concentrations of 20 micrograms per cubic centimeter ($\mu g/m^3$) of toluene and 5 $\mu g/m^3$ of m,p-xylene isomers were reported in soil gas sample SG-7;
- A concentration of 18 $\mu g/m^3$ of DFA was reported in soil gas sample SG-7 Dup;
- No concentrations of TPHg, other volatile aromatics compounds of the BTEX group, or MTBE were reported in the two soil gas samples.

The soil gas analytical data was compared to the Region 2 (San Francisco Bay) RWQCB Shallow Soil Gas Environmental Screening Levels (ESLs) and to the California Human Health Screening Levels (CHHSLs) for Indoor Air and Soil Gas developed by the Office of Environmental Health Hazard Assessment (OEHHA), which are included in Attachment C. The ESLs and CHHSLs were developed to screen sites for potential human health concerns and are concentration values that Cal EPA considers to be below thresholds of concern for risks to human health.

Shallow soil gas concentrations reported from offsite sample location SG-7 are below the Region 2 ESL and CHHSL listed values for residential and commercial sites. The concentration of DFA reported in the duplicate soil gas sample at a value just above the laboratory reporting limit, is considered insignificant to the integrity of the sampling assembly, as the saturated concentration of DFA within the shroud would be much, much higher than the low concentration of 18 $\mu g/m^3$ of DFA reported, indicating very little leakage. Generally, less than one percent leakage is deemed acceptable by most regulatory agencies.

WELL INSTALLATIONS

Field Work

Horizon retained All Well Abandonment (AWA) of Diamond Springs, California (C-57 License No. 843074) to perform drilling and well installation activities as proposed in the Work Plan for Subsurface Investigation (Horizon, May 27, 2010). On October 19 and 20, 2010, a Horizon geologist observed the drilling and sampling of onsite borings VP-1, VP-2, VP-3, VW-1, VW-2, VW-3, and offsite boring MW-5A. AWA utilized a Landra L-10 hollow-stem auger drill rig to perform the drilling and well installation activities. The six onsite borings were advanced at the locations shown on the Site Map (Figure 2), and offsite boring MW-5A was advanced at the location in North Sixth Street to the west of the Site shown on the Site Area Map (Figure 3). All sampling work was conducted in conformance with Horizon's Field Methods and Procedures included in Attachment B. After asphalt coring and hand-augering the first four feet to avoid contact with underground utilities, soil samples were collected at five-foot or less intervals from the borings, with the exception of boring VW-3 where soil samples were continuously collected below a depth of approximately 10 feet to the bottom of the boring, as requested by the ACEHS.

Soil samples were evaluated in the field for the presence of petroleum hydrocarbon vapors with a portable ionization detector (PID). The subsurface soils from each boring were classified using the Unified Soil Classification System (USCS), and are shown on the Boring Logs, included in Attachment D. The sediments present beneath the Site consist primarily of sandy silt (ML) to depths of approximately 6 to 8 feet bsg, underlain by silty sand (SM) and localized silty gravel (GM) to the maximum depths of the onsite borings at approximately 20 feet bsg. Any evidence of petroleum hydrocarbons, such as discoloration or odor, was recorded on the boring logs. During the drilling of these six borings, groundwater was only encountered in boring VW-1 at a depth of approximately 19 feet bsg.

The sediments encountered in offsite boring MW-5A, located within North Sixth Street, consist of sandy silt (ML) to a depth of approximately 7½ feet bsg, underlain by silty sand (SM) and gravel (SM/GM) between depths of approximately 7½ to 18 feet bsg, silt (ML) between depths of approximately 18 to 20 feet bsg, and sandy silt (ML) to silty sand and gravel (SM/GM) between depths of approximately 20 to 30 feet bsg. Groundwater was encountered at a depth of approximately 25 feet bsg.

Well Installations

As proposed in the Work Plan, vapor points VP-1, VP-2, and VP-3 were constructed of two-inch diameter polyvinyl chloride (PVC) casing screened between the depths of approximately 5 and 8 feet bsg; vapor extraction wells VW-1 and VW-2 were constructed of four-inch diameter PVC casing screened between the depths of approximately 10 and 20 feet bsg; and vapor extraction well VW-3 was constructed of four-inch diameter PVC casing screened between the depths of approximately 15 and 20 feet bsg. Offsite groundwater monitoring well MW-5A was constructed of two-inch diameter PVC casing screened between the depths of approximately 10 and 30 feet bsg, which was five feet deeper than

proposed in the Work Plan, because groundwater was encountered during drilling at a depth of approximately 25 feet bsg. The construction details are shown on the Boring Logs.

During the well construction activities, the annular well seals were inspected by Mr. John Shouldice, Building Inspector with the ACPWA. The top of each well casing was secured with a locking water-tight expansion cap and a steel, water-tight, traffic box set slightly above grade.

At the request of the ACPWA, the soil cuttings generated during the drilling were stored in DOT-approved metal drums at the Site. Four discrete soil samples were collected from the cuttings for compositing and analysis at the laboratory. After profiling, the drummed cuttings were transported by Horizon under Non-Hazardous manifest to Forward Landfill, a Class II disposal facility. A copy of the Non-Hazardous manifest is included in Attachment E.

Well Development and Sampling

Horizon personnel performed well development and sampling of groundwater monitoring well MW-5A on November 1, 2010. The groundwater sampling was conducted in accordance with Horizon's Field Methods and Procedures presented in Attachment B. The static depth-to-water (DTW) level was recorded on the Monitoring Well Data Sheets included in Attachment D, and was measured at a depth of 15.1 feet bsg. Purged water was transported by Horizon to InStrat, a state-licensed facility in Rio Vista, California, for disposal. The Non-Hazardous Waste Manifest for the purge water is included in Attachment E.

LABORATORY ANALYSES

Soil samples collected from borings VP-1, VP-2, VP-3, VW-1, VW-2, VW-3, and MW-5A, and the groundwater sample collected from well MW-5A were contained in chilled storage for transport to the selected analytical laboratory. The soil and groundwater samples were submitted under Chain-of-Custody to Kiff Analytical, a State-certified laboratory in Davis, California (NELAP Certification No. 08263CA).

Thirteen soil samples were selected from the seven borings for laboratory analysis. All soil samples were analyzed for TPHg, BTEX, and the fuel oxygenate MTBE, using EPA Method 8260B. Additionally, six soil samples collected from borings VW-1 VW-2, and VW-3 were analyzed for total petroleum hydrocarbons as diesel (TPHd) using EPA Method 8015M, and the composited soil sample from the drill cuttings was analyzed for total lead by EPA Method 6010.

The groundwater sample collected from well MW-5A was analyzed for TPHg, BTEX, and the fuel oxygenates MTBE, diisopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), tert-amyl methyl ether (TAME) and tert-butanol (TBA), and the lead scavenger compounds 1,2-dichloroethane (DCA) and 1,2-dibromoethane (DBA) using EPA Method 8260B. Analytical results for the soil and groundwater samples are summarized in Tables 2 and 3,

respectively. Laboratory analytical data sheets and Chain-of-Custody reports are included in Attachment F.

WELLHEAD SURVEY

Horizon retained Virgil Chavez Land surveying of Vallejo, California, a state-licensed land surveyor (PLS No. 6323) to survey onsite remedial wells VP-1, VP-2, VP-3, VW-1, VW-2, and VW-3, and offsite groundwater monitoring well MW-5A, and to resurvey existing groundwater monitoring wells MW-1 through MW-4 and MW-6 for 2010 Global Positioning System (GPS) locations (X and Y coordinates) and elevations (Z coordinates) using a GeoTracker electronic data format (EDF). On November 10, 2010, the survey was completed based on the California State Coordinate System, Zone 4 (NAD 83 datum). A copy of the well survey report is presented in Attachment G.

RESULTS

The field data and the laboratory analytical results for the soil and groundwater samples collected during this subsurface investigation are summarized in Tables 1, 2 and 3, and indicate the following:

Soil Gas:

- The laboratory analytical results indicate that the soil gas concentrations are below the Region 2 ESL and CHHSL listed values for residential and commercial sites at offsite location SG-7 on the Kashikar property located at 22341 Redwood Road.

Soil:

- Laboratory analytical results from onsite borings VW-2 (north of the former Shell USTs), VW-3 (south of the former Shell USTs), and VP-2 (northwest of the former Shell USTs) indicate the presence of diesel and gasoline hydrocarbons at depths between 10 to 20 feet bsg. No concentrations of diesel and gasoline hydrocarbons were reported from onsite borings VW-1 (just north of the former eastern dispensers), VP-1 (west of the former Shell USTs), and VP-3 (west of the former western dispensers). No concentrations of gasoline hydrocarbons were reported from offsite boring MW-5A in North Sixth Street.
- The TPHd concentrations ranged between 120 milligrams per kilogram (mg/Kg) or parts per million (ppm) from a depth of 10 feet bsg in boring VW-3 (south of the former Shell USTs), to 1.1 ppm of TPHd at a depth of 15 feet bsg from boring VW-2 (north of the former Shell USTs).
- The TPHg concentrations ranged between 1,100 ppm at a depth of 20 feet bsg in boring VW-2 to 1.7 ppm of TPHg at a depth of 10 feet bsg in boring VW-3.
- Benzene concentrations ranged between 0.21 ppm at a depth of 20 feet bsg in boring VW-2 and 0.019 ppm at a depth of 20 feet bsg in boring VW-3.
- No concentrations of MTBE were reported in the 12 soil samples from the borings.

Groundwater:

- Dissolved concentrations of the fuel oxygenate MTBE and the lead scavenger compound DCA were the only hydrocarbon constituents reported in the groundwater sample collected from groundwater monitoring well MW-5A (Table 3).
- As mentioned in the Semi-Annual Groundwater Monitoring Reports submitted by Horizon since 2004, the historical groundwater flow direction beneath the Site has consistently been to the southwest towards North Sixth Street.

CONCLUSIONS

Based on field and analytical data collected during this and previous subsurface investigations, Horizon concludes the following:

1. The soil gas concentrations reported at offsite location SG-7 on the Kashikar property at 22341 Redwood Road are below thresholds of concern for risks to human health.
2. The former eastern dispenser island appears to have been the source area of the gasoline impacts reported in soil samples from borings VW-2, B-4 and B-5, and the source area of the diesel impacts reported in soil samples from boring VW-2.
3. The southern end of the former northern dispenser island appears to have been the source area of the gasoline impacts reported in soil samples from borings VP-2 and soil gas location SG-3.
4. The two former USTs T2 and T4 or one of the former Shell USTs appear to have been the source(s) of the diesel impacts reported in soil samples from boring VW-3.
5. The analytical groundwater results from offsite monitoring well MW-5A indicate that dissolved MTBE in groundwater has migrated to beneath North Sixth Street downgradient from the Site. This well appears to be close to the distal end of the dissolved MTBE plume.

RECOMMENDATIONS

Based on the above results and conclusions, Horizon recommends the following:

1. Prior to submitting the Corrective Action Plan (CAP) report requested by the ACEHS, Horizon recommends that soil vapor extraction (SVE) feasibility testing be performed to evaluate the suitability of SVE as a remedial technology for the Site. Vapor wells VW-2 and VW-3 will be utilized as the vapor extraction wells, and surrounding wells VP-1, VP-2, VP-3, MW-1, MW-2 and VW-1 can be utilized as observation wells to evaluate the radius of influence (ROI) parameters.
2. After completion of the SVE remedial testing, Horizon will proceed with preparation of the requested Site Conceptual Model (SCM) and [Draft] CAP, which will include cost-effective remedial alternatives for the soil and groundwater based on the previous investigations, and feasibility testing work.
3. Preparation of a Risk-Based Corrective Action (RBCA) analysis for the Site to evaluate the risks to human health and the environment, and to propose site-specific target levels

(SSTLs) as cleanup criteria for the petroleum hydrocarbons present in soil and groundwater beneath the Site area. This analysis will be included in the SCM / CAP report.

4. Incorporate well MW-5A into the semi-annual groundwater monitoring program for the Site.

DISTRIBUTION

A copy of this report should be forwarded to:

Mr. Bill Courtney, Property Manager
Banya Investments LLC
20632 Redwood Road, Suite B
Castro Valley, California 94546

Mr. Allen Shin, Property Owner
Banya Investments LLC
3011 Cabrillo Avenue
San Ramon, California 94583

Mr. Ali Kashikar
P.O. Box 20307
Castro Valley, California 94546

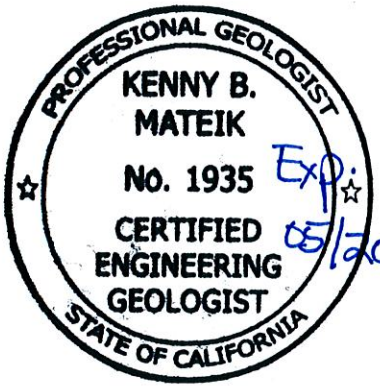
Mr. Phillip and Mrs. Meeiru Tai
33366 Croation Way
Union City, California 94587

If you have any questions, please contact Horizon at (916) 939-2170.

Sincerely,
HORIZON ENVIRONMENTAL INC.

Gary Barker
Senior Project Manager

Kenny B. Mateik
Professional Geologist, C.E.G. No. 1935

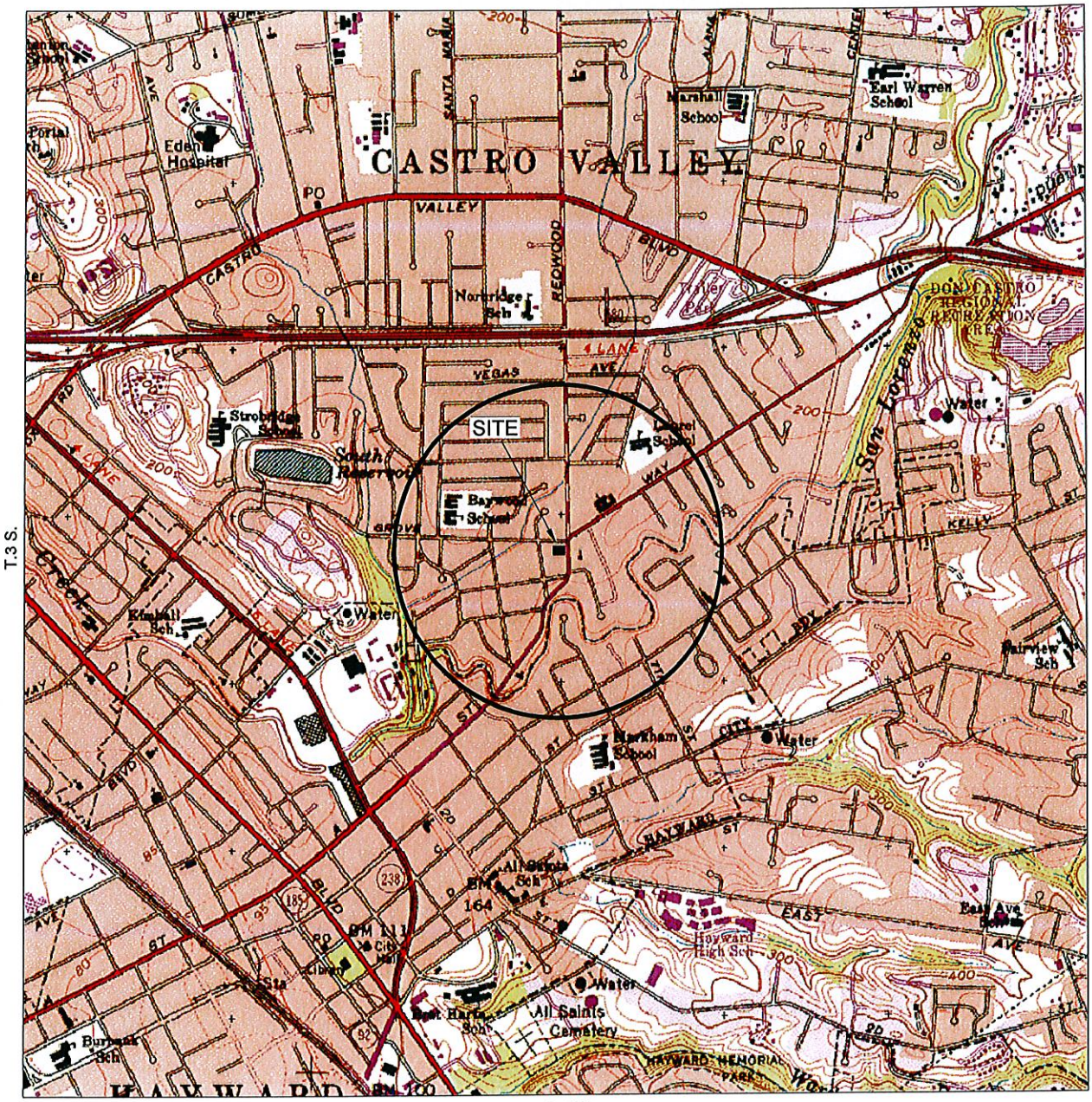


Emil D. Kruck
Project Geologist

Attachments:

Figure 1:	Site Location Map
Figure 2:	Site Map
Figure 3:	Site Area Map
Figure 4:	Benzene Isoconcentration Map
Table 1:	Cumulative Soil Gas Analytical Data
Table 2:	Cumulative Soil Analytical Data
Table 3:	Groundwater Analytical Data for Well MW-5A
Attachment A:	Alameda County EHS Correspondence Alameda County Public Works Agency Permits
Attachment B:	Horizon's Field Methods and Procedures
Attachment C:	Soil Gas Survey Analytical Data (TEG Report) CHHSL and ESL Tables
Attachment D:	Boring Logs and Monitoring Well Data Sheets
Attachment E:	Non-Hazardous Waste Manifests and Landfill Receipt
Attachment F:	Laboratory Analytical Data
Attachment G:	Well Survey Report

c: Mr. C. Shay Wideman, Ultramar Inc.



GENERAL NOTES:
BASE MAP FROM U.S.G.S.
HAYWARD, CA.
7.5 MINUTE TOPOGRAPHIC
PHOTOREVISED 1980

QUADRANGLE LOCATION

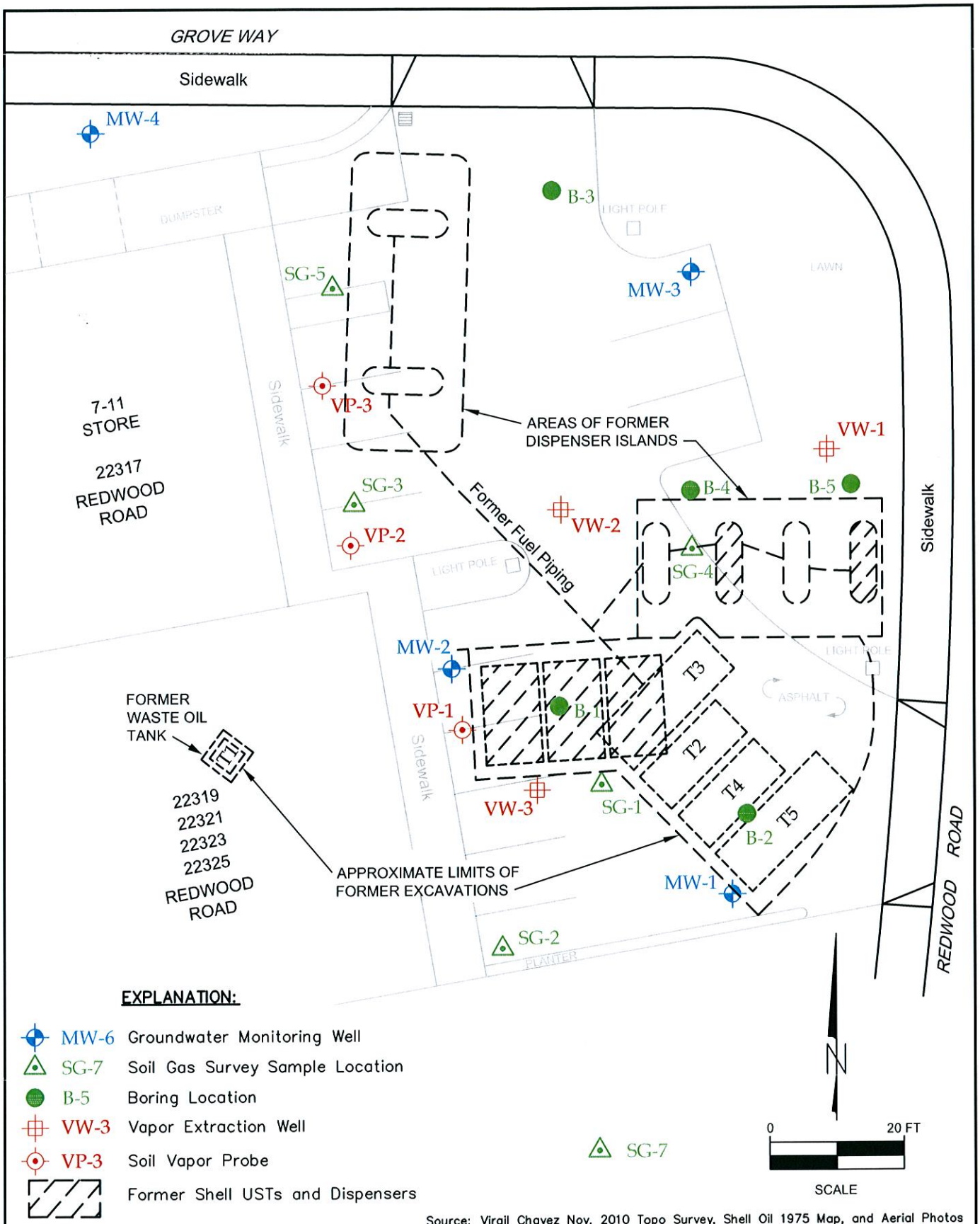
0 2000 FT

SCALE 1:24,000

NORTH

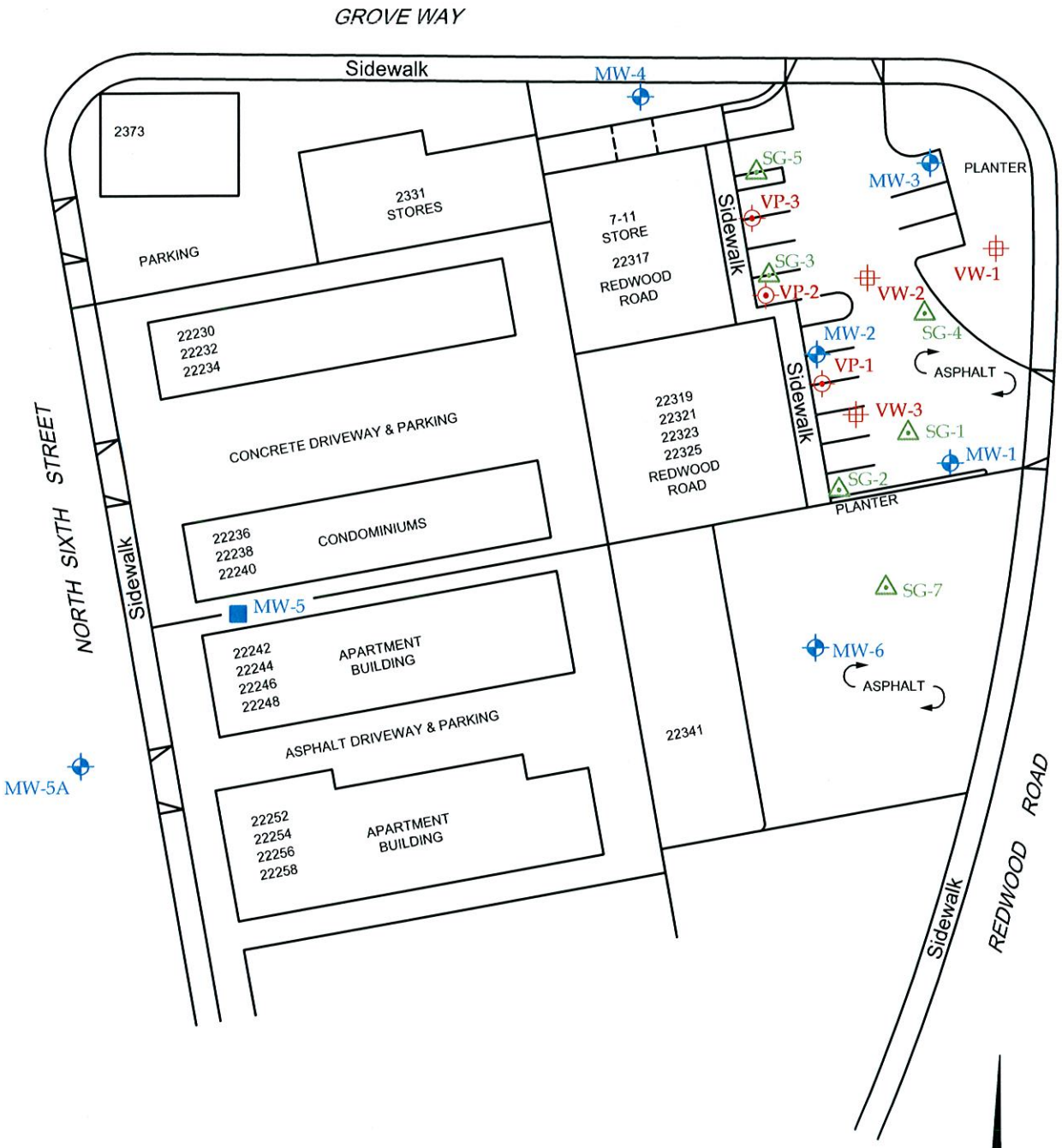
HORIZON ENVIRONMENTAL INC.

Project Number: 1574.41	Drawn By: M. LaCoste	SITE LOCATION MAP	FIGURE 1
Prepared By: K. Liptak	Date: 10/7/04	FORMER BEACON STATION NO. 12574	
Reviewed By: K. Mateik	Revised Date:	22315 REDWOOD ROAD CASTRO VALLEY, CA.	



Source: Virgil Chavez Nov. 2010 Topo Survey, Shell Oil 1975 Map, and Aerial Photos

HORIZON ENVIRONMENTAL INC.		SITE MAP	FIGURE
Project Number: 1574.13 Prepared By: E. Kruck Reviewed By: K. Mateik	Drawn By: C. Bechtell Date: Revised Date:	FORMER BEACON STATION NO. 12574 22315 REDWOOD ROAD CASTRO VALLEY, CA.	2



EXPLANATION:

- MW-6 Groundwater Monitoring Well
- SG-7 Soil Gas Location
- VW-3 Vapor Extraction Well
- VP-3 Soil Vapor Probe
- MW-5 Abandoned Monitoring Well

Source: Virgil Chavez Nov. 2010 Topo Survey, Shell Oil 1975 Map, and Aerial Photos

HORIZON ENVIRONMENTAL INC.		SITE AREA MAP	FIGURE
Project Number: 1574.13 Prepared By: E. Kruck Reviewed By: K. Mateik	Drawn By: C. Bechtell Date: Revised Date:	FORMER BEACON STATION NO. 12574 22315 REDWOOD ROAD CASTRO VALLEY, CA.	3

Table 1
Cumulative Soil Gas Analytical Data
Former Beacon Station No. 12574
22315 Redwood Road, Castro Valley, California

Chemical	Region 2 ESL values Residential µg/m3	Region 2 ESL values Commercial µg/m3	CHHSL values Residential µg/m3	CHHSL values Commercial µg/m3	Date Sampled / Laboratory R L[1] µg/m3	12/21/09 SG-1 1 PV µg/m3	12/21/09 SG-2 1 PV µg/m3	12/21/09 SG-2-Dup 1 PV µg/m3	12/21/09 SG-3 1 PV µg/m3	12/21/09 SG-4 1 PV µg/m3	12/21/09 SG-5 1 PV µg/m3	12/21/09 SG-5 3 PV µg/m3	12/21/09 SG-5 7 PV µg/m3
Benzene	84	280	36.2	122	34	97	100	100	350	76	220	180	140
Toluene	63,000	180,000	135,000	378,000	200	350	840	760	1,300	360	2,300	2,400	2,000
Ethylbenzene	980	3,300	NL	NL	100	110	230	240	110,000	110	340	400	360
total Xylenes	21,000	58,000	315,000	879,000	300	300	1,130	1,280	102,700	570	1,520	2,120	1,890
MTBE	9,400	31,000	4,000	13,400	100	< 100	<100	<100	<100	<100	<100	<100	<100
1,1-DFA	NL	NL	NL	NL	10,000	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000	< 10,000
TPHg	10,000	29,000	NL	NL	10,000	3,600,000	17,000	16,000	13,000,000	<10,000	23,000	22,000	19,000

Chemical	Region 2 ESL values Residential µg/m3	Region 2 ESL values Commercial µg/m3	CHHSL values Residential µg/m3	CHHSL values Commercial µg/m3	Date Sampled / Laboratory R L[2] µg/m3	10/06/10 SG-7 1 PV µg/m3	Laboratory R L µg/m3	10/06/10 SG-7-Dup 1 PV µg/m3
Benzene	84	280	36.2	122	3.5	< 3.5	3.3	< 3.3
Toluene	63,000	180,000	135,000	378,000	4.1	20	3.9	< 3.9
Ethylbenzene	980	3,300	NL	NL	4.8	< 4.8	4.5	< 4.5
total Xylenes	21,000	58,000	315,000	879,000	4.8	5.0	4.5	< 4.5
MTBE	9,400	31,000	4,000	13,400	4.0	< 4.0	3.8	< 3.8
1,1-DFA	NL	NL	NL	NL	12	< 12	11	18
TPHg	10,000	29,000	NL	NL	220	< 220	210	< 210

Notes:

µg/m^3 = micrograms per cubic meter of vapor

MTBE = Methyl-t-butyl ether

1,1-DFA = 1,1 Diflouroethane (leak tracing compound)

TPHg = total petroleum hydrocarbons as gasoline (gasoline range)

RL[1] = Reporting Limit by TEG mobile laboratory

RL[2] = Reporting Limit by ATL laboratory

NL = Not listed

PV = Purge Volume

Table 2 - Cumulative Soil Analytical Data
Former Beacon Station No. 12574
22315 Redwood Road, Castro Valley, California

Sample Number	Location on Figures 2 or 3	Date Sampled	Sample Depth (bsg)	TPHd (ppm)	TPHg (ppm)	B (ppm)	T (ppm)	E (ppm)	X (ppm)	MTBE (ppm)
VW 1-15	VW-1	10/19/10	15	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
VW 2-15	VW-2	10/19/10	15	1.1	<1.0	0.031	0.014	0.010	0.049	<0.0050
VW 2-20	VW-2	10/19/10	20	97	1,100	0.21	0.95	2.2	12	<0.0050
VW 3-10	VW-3	10/20/10	10	120	1.7	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
VW 3-16	VW-3	10/20/10	16	<1.0	<1.0	0.027	<0.0050	0.044	<0.0050	<0.0050
VW 3-20	VW-3	10/20/10	20	<1.0	<1.0	0.019	<0.0050	<0.0050	<0.0050	<0.0050
VP 1-8	VP-1	10/20/10	8	na	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
VP 2-8	VP-2	10/19/10	8	na	210	<0.025	<0.025	2.1	6.3	<0.025
VP 2-20	VP-2	10/19/10	20	na	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
VP 3-8	VP-3	10/19/10	8	na	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
MW 5A-10	MW-5A	10/20/10	10	na	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
MW 5A-20	MW-5A	10/20/10	20	na	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
MW 5A-30	MW-5A	10/20/10	30	na	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B-1-8	B1	12/23/09	8 feet	na	1.7	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B-1-18	B1	12/23/09	18 feet	na	<1.0	0.022	<0.0050	<0.0050	<0.0050	<0.0050
B-1-22	B1	12/23/09	22 feet	na	560	0.56	2.2	5.8	34	<0.090
B-1-26	B1	12/23/09	26 feet	na	17	0.038	0.070	0.12	0.87	<0.0050
B-2-12	B2	12/22/09	12 feet	na	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B-2-20	B2	12/22/09	20 feet	na	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B-2-24	B2	12/22//09	24 feet	na	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B-2-28	B2	12/22/09	28 feet	na	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B-3-20	B3	12/23/09	20 feet	na	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B-3-26	B3	12/23/09	26 feet	na	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050

Table 2 - Cumulative Soil Analytical Data
Former Beacon Station No. 12574
22315 Redwood Road, Castro Valley, California

Sample Number	Location on Figures 2 or 3	Date Sampled	Sample Depth (bsg)	TPHd (ppm)	TPHg (ppm)	B (ppm)	T (ppm)	E (ppm)	X (ppm)	MTBE (ppm)
B-4-10	B4	12/22/09	10 feet	na	930	<0.060	<0.060	0.31	0.19	<0.060
B-4-20	B4	12/22/09	20 feet	na	1,200	1.1	3.6	5.6	32	<0.15
B-4-27	B4	12/22/09	24 feet	na	<1.0	0.12	<0.0050	0.0076	<0.0050	0.11
B-5-20	B5	12/22/09	20 feet	na	2,800	2.0	26	36	210	<0.50
B-5-24	B5	12/22/09	24 feet	na	21	0.014	0.035	0.088	0.54	<0.0050
B-5-28	B5	12/22/09	28 feet	na	4.7	0.75	0.55	0.11	0.61	0.0071
MW8-5'	MW-8	05/14/93	5 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW8-10'	MW-8	05/14/93	10 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW8-15'	MW-8	05/14/93	15 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW8-20'	MW-8	05/14/93	20 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW7-5'	MW-7	05/14/93	5 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW7-10'	MW-7	05/14/93	10 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW7-15'	MW-7	05/14/93	15 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW7-20'	MW-7	05/14/93	20 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW6-5'	MW-6	05/14/93	5 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW6-10'	MW-6	05/14/93	10 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW6-15'	MW-6	05/14/93	15 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW6-20'	MW-6	05/14/93	20 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW5-5'	MW-5	05/14/93	5 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW5-10'	MW-5	05/14/93	10 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW5-15'	MW-5	05/14/93	15 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW5-20'	MW-5	05/14/93	20 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na

Table 2 - Cumulative Soil Analytical Data
Former Beacon Station No. 12574
22315 Redwood Road, Castro Valley, California

Sample Number	Location on Figures 2 or 3	Date Sampled	Sample Depth (bsg)	TPHd (ppm)	TPHg (ppm)	B (ppm)	T (ppm)	E (ppm)	X (ppm)	MTBE (ppm)
MW4-5'	**MW-4**	05/14/93	5 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW4-10'	**MW-4**	05/14/93	10 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW4-15'	**MW-4**	05/14/93	15 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW4-20'	**MW-4**	05/14/93	20 feet	na	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	na
MW3-15'	**MW-3**	03/26/91	15 feet	<10	<1.0	<0.005	<0.005	<0.005	<0.005	na
MW3-20'	**MW-3**	03/26/91	20 feet	<10	**230**	<0.005	**0.18**	**0.44**	**5.9**	na
MW2-10'	**MW-2**	03/26/91	10 feet	<10	**8.1**	**0.01**	**0.26**	**0.11**	**0.68**	na
MW2-15'	**MW-2**	03/26/91	15 feet	<10	**3,200**	**19**	**120**	**42**	**240**	na
MW2-20'	**MW-2**	03/26/91	20 feet	<10	**14,000**	**0.39**	**0.22**	**0.11**	**0.41**	na
MW1-15'	**MW-1**	03/26/91	15 feet	<10	<1.0	**0.16**	**0.10**	**0.010**	**0.050**	na
MW1-20'	**MW-1**	03/26/91	20 feet	<10	**3,200**	**13**	**110**	**33**	**300**	na
S-20-T2Nb	**T2**	05/18/87	20 feet	na	**8.67**	na	na	na	na	na
S-20-T2S	**T2**	05/18/87	20 feet	na	**0.73**	na	na	na	na	na
S-20-T4N	**T4**	05/18/87	20 feet	na	**125.5**	na	na	na	na	na
S-20-T4Nb	**T4**	05/18/87	20 feet	<5	**0.98**	na	na	na	na	na
S-20-T4NF	**T4**	05/18/87	20 feet	**53**	**208.7**	na	na	na	na	na
S-20-T4d	**T4**	05/18/87	20 feet	**1,192**	**1,989**	na	na	na	na	na
S-20-T5N	**T5**	05/18/87	20 feet	na	**1.27**	na	na	na	na	na

Table 2 - Cumulative Soil Analytical Data
Former Beacon Station No. 12574
22315 Redwood Road, Castro Valley, California

Sample Number	Location on Figures 2 or 3	Date Sampled	Sample Depth (bsg)	TPHd (ppm)	TPHg (ppm)	B (ppm)	T (ppm)	E (ppm)	X (ppm)	MTBE (ppm)
S-10-T1N	T1	05/05/87	10 feet	<5	3.09	<0.05	0.07	<0.05	0.14	na
S-13-T2N	T2	05/05/87	13 feet	<5	4.38	<0.05	0.21	0.08	0.49	na
S-13-T2S	T2	05/05/87	13 feet	2,898	3,264	89	148	81	559	na
S-13-T3N	T3	05/05/87	13 feet	na	35.23	<0.05	0.62	0.70	5.50	na
S-13-T3S	T3	05/05/87	13 feet	na	4.58	<0.05	0.13	0.15	0.64	na
S-13-T4N	T4	05/05/87	13 feet	1,846	1,725	78	248	90	386	na
S-13-T4S	T4	05/05/87	13 feet	201	122.5	2.8	13.3	5.5	27.6	na
S-13-T5N	T5	05/05/87	13 feet	na	687	23	76	20	181	na
S-13-T5S	T5	05/05/87	13 feet	na	3.95	<0.05	0.18	0.09	0.37	na

Notes:

TPHg = total petroleum hydrocarbons as gasoline

TVH = total volatile hydrocarbons

B = benzene

T = toluene

E = ethylbenzene

X = xylenes

TPHd = total petroleum hydrocarbons as diesel

TEH = total extractable hydrocarbons

MTBE= methyl tertiary butyl ether

ppm = parts per million

< = less than indicated detection level

bsg = below surface grade

Table 3 - Groundwater Analytical Data
Former Beacon Station No. 12574
22315 Redwood Road, Castro Valley, California

Sample Number	Date Sampled	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenz. (ppb)	Xylenes (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	TBA (ppb)	DCA (ppb)	DBA (ppb)
MW-5A	11/01/10	<50	<0.50	<0.50	<0.50	<0.50	**18**	<0.50	<0.50	<0.50	<0.50	**0.59**	<0.50

Notes:

TPHg = total petroleum hydrocarbons as gasoline

MTBE = methyl t-butyl ether

DIPE = diisopropyl ether

ETBE = ethyl-tert-butyl ether

TAME = tert-amyl methyl ether

TBA = tertiary butyl alcohol

< = less than indicated detection level

ppb = parts per billion

DCA = 1,2-dichloroetahne

DBA = 1,2 dibromoethane

ATTACHMENT A

ALAMEDA COUNTY HEALTH SERVICES

CORRESPONDENCE

AND

ALAMEDA COUNTY PUBLIC WORKS AGENCY

PERMITS

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

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

October 4, 2010

Mr. C. Shay Wideman
Ultramar, Inc.
One Valero Way
San Antonio, TX 78249-1616

Castro Group LLC
2021 Francisco Street
Berkeley, CA 94709-2213

Ms. Mary Moore
EMB Group LLC & Mary Moore
Re Trust 611 Marlin Court
Redwood City, CA 94065-1214

Mr. Allen Shin
Banya Investments LLC
3011 Cabrillo Avenue
San Ramon, CA 94583

Mr. Paul Wilson
1238 Stanyan Street
San Francisco, CA 94117

Subject: Work Plan Addendum Approval for Fuel Leak Case No. RO0000355 and Geotracker Global ID T0600100155, Beacon #12574, 22315 Redwood Road, Castro Valley, CA 94546

Dear Mr. Wideman, Castro Group LLC, Ms. Moore, Mr. Shin, and Mr. Wilson:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the recently submitted document entitled, *"Work Plan Addendum for Subsurface Investigation, Former Beacon Station No. 12574, 22315 Redwood Road, Castro Valley, CA,"* dated September 9, 2010 (Work Plan Addendum). The Work Plan Addendum, which was prepared on your behalf by Horizon Environmental, Inc., describes the sampling and analytical methods to be used for proposed soil vapor sampling.

The proposed scope of work is acceptable and may be implemented as proposed. We request that you perform the proposed work and send us the reports described below.

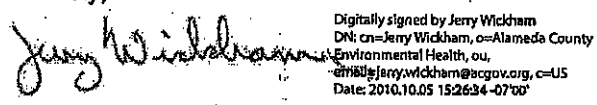
TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **October 13, 2010** – Third Quarter 2010, Semi-Annual Groundwater Monitoring Report
- **December 19, 2010** – Subsurface Investigation Report
- **January 21, 2011** – SCM/Draft CAP

If you have any questions, please call me at 510-567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,



Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachment: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Gary Barker, Horizon Environmental, Inc., 4970 Windplay Drive, #C5, El Dorado Hills, CA 95762

Kenny Mateik, Horizon Environmental, Inc., 4970 Windplay Drive, #C5, El Dorado Hills, CA 95762

Robert Ehlers, Valero, 685 West Third Street, Hanford, CA 93230

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Jerry Wickham, ACEH

Geotracker, File

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

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

July 19, 2010

Mr. C. Shay Wideman
Ultramar, Inc.
One Valero Way
San Antonio, TX 78249-1616

Castro Group LLC
2021 Francisco Street
Berkeley, CA 94709-2213

1574.13

Ms. Mary Moore
EMB Group LLC & Mary Moore
Re Trust 611 Marlin Court
Redwood City, CA 94065-1214

Mr. Allen Shin
Banya Investments LLC
3011 Cabrillo Avenue
San Ramon, CA 94583

Mr. Paul Wilson
1238 Stanyan Street
San Francisco, CA 94117

Subject: Conditional Work Plan Approval for Fuel Leak Case No. RO0000355 and Geotracker Global ID T0600100155, Beacon #12574, 22315 Redwood Road, Castro Valley, CA 94546

Dear Mr. Wideman, Castro Group LLC, Ms. Moore, Mr. Shin, and Mr. Wilson:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the recently submitted document entitled, *"Work Plan for Subsurface Investigation,"* dated May 27, 2010 (Work Plan). The Work Plan, which was prepared on your behalf by Horizon Environmental, Inc., proposes the installation of three soil vapor probes, two vapor extraction wells, and one groundwater monitoring well.

The proposed scope of work is conditionally approved and may be implemented provided that the technical comments below are incorporated during the proposed activities. Submittal of a revised Work Plan or Work Plan Addendum is not required unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed. We request that you address the following technical comment, perform the proposed work, and send us the reports described below.

TECHNICAL COMMENTS

1. **Replacement Well MW-5A.** The proposed installation of downgradient well MW-5A is acceptable. Please include sampling of well MW-5A in the semi-annual groundwater monitoring program. Please present results from well installation in the Subsurface Investigation report requested below.

2. **Installation of Vapor Extraction Wells.** The proposed locations for the vapor extraction wells are acceptable. We request that soils be continuously sampled for logging purposes during the installation of vapor extraction wells in order to provide sufficient information for evaluation of the performance of the wells and to adjust the screen intervals if necessary based on encountered soil conditions during well installation. Please present results from well installation and sampling in the Subsurface Investigation Report requested below.

3. **Sampling of Vapor Probes.** We request that the soil vapor probes be sampled following installation. Please submit a brief Work Plan Addendum describing the sampling and analytical methods for soil vapor samples from the probes.

4. **Preparation of SCM/CAP.** The preparation of a SCM/Draft CAP will be necessary for cleanup of the site. We request that you prepare a Draft Corrective Action Plan (Draft CAP) that meets the provisions of section 2725 of the UST regulations (CCR, Title 23, Chapter 16, section 2600, et seq.) and includes the following minimum information:

   - Proposed cleanup goals and the basis for cleanup goals.
   - Summary of site characterization data.
   - Receptor information including likely future land use scenarios, adjacent land use and sensitive receptors, and potential groundwater receptors.
   - Evaluation of remedial alternatives including discussion of feasibility and limitations for each remedial alternative.
   - Detailed description of proposed remediation including confirmation sampling and monitoring during implementation.
   - Post-remediation monitoring.
   - Schedule for implementation of cleanup.

   Public participation is a requirement for the Corrective Action Plan process. Therefore, we request that you submit a Draft CAP for ACEH review. Upon ACEH approval of a Draft CAP, ACEH will notify potentially affected members of the public who live or own property in the surrounding area of the proposed remediation described in the Draft CAP. Public comments on the proposed remediation will be accepted for a 30-day period.

5. **Detailed Well Survey.** In order to identify potential receptors for the fuel hydrocarbon plume from your site, we request that you locate all water supply wells within a radius of 2,000 feet of the subject site. We recommend that you obtain well information from both Alameda County Public Works Agency and the State of California Department of Water Resources. Submittal of maps showing the location of all wells identified in your study, and the use of tables to report the data collected as part of your survey are required. Please provide a table that includes the well designation, location, total depth, diameter, screen interval, date of well installation, current status, historic use, and owner of the wells. In addition, please provide well logs and completion records for wells downgradient from the site that are potential receptors. Results of the detailed well survey are to be included in the SCM/Draft CAP discussed in technical comment 4.

6. **Groundwater Monitoring.** Please continue the groundwater monitoring program on the current semi-annual basis. Please present the groundwater sampling results in the Groundwater Monitoring Reports requested below.

7. **Off-site Soil Gas Sampling Locations.** We understand that an access agreement has been completed for sampling at proposed off-site soil vapor sampling location SG-7. Please present results from sampling of SG-7 in the Subsurface Investigation Report requested below. Based on communications to date with ACEH, it appears that the land owner for proposed soil vapor sampling

location SG-6 is continuing to refuse access. You may discontinue attempts to obtain an access agreement for SG-6 at this time. ACHE will respond to the off-site land owner's latest communications.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **August 31, 2010** – Work Plan Addendum for Soil Vapor Sampling and Analyses
- **October 13, 2010** – Third Quarter 2010, Semi-Annual Groundwater Monitoring Report
- **November 19, 2010** – Subsurface Investigation Report
- **December 21, 2010** – SCM/Draft CAP

If you have any questions, please call me at 510-567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Digitally signed by Jerry Wickham
DN: cn=Jerry Wickham, o, ou, email=jerry.wickham@acgov.org, c=US
Date: 2010.07.20 15:47:12 -07'00'

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Gary Barker, Horizon Environmental, Inc., 4970 Windplay Drive, #C5, El Dorado Hills, CA 95762

Kenny Mateik, Horizon Environmental, Inc., 4970 Windplay Drive, #C5, El Dorado Hills, CA 95762

Robert Ehlers, Valero, 685 West Third Street, Hanford, CA 93230

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Jerry Wickham, ACEH

Geotracker, File

Alameda County Public Works Agency - Water Resources Well Permit

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

Application Approved on: 09/28/2010 By jamesy

Permit Numbers: W2010-0707 to W2010-0708
Permits Valid from 10/06/2010 to 10/07/2010

Application Id:	1285621382057	**City of Project Site:** Castro Valley
Site Location:	22315/22341 Redwood Rd, Castro Valley, CA	
Project Start Date:	10/06/2010	**Completion Date:** 10/07/2010
Assigned Inspector:	Contact John Shouldice at (510) 670-5424 or johns@acpwa.org	
Applicant:	Horizon Environmental - Emil D Kruck 4970 Windplay Dr #5, El Dorado Hills, CA 95762	**Phone:** 916-939-2170
Property Owner:	Castro Group LLC c/o Bill Courtney 2021 Francisco St., Berkeley, CA 94709	**Phone:** 510-782-1102
Client:	Ultramar Inc. 1 Valero Wy, San Antonio, TX 78249	**Phone:** 210-345-4663

	Total Due:	$530.00
Receipt Number: WR2010-0325	**Total Amount Paid:**	$530.00
Payer Name : Horizon Environmental	Paid By: CHECK	**PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Geotechnical Study/CPT's - 1 Boreholes
Driller: Horizon Environmental - Lic #: 0000000 - Method: Hand **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2010-0707	09/28/2010	01/04/2011	1	4.00 in.	5.00 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.

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. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an 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.

5. Applicant shall contact John Shouldice for an inspection time at 510-670-5424 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.

6. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

7. 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.

8. 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.

9. 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.

Remediation Well Destruction-Vapor Remediation Well - 6 Wells
Driller: All Well Abandonment - Lic #: 848359 - Method: Hand **Work Total: $265.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2010-0708	09/28/2010	01/04/2011	VP1	8.00 in.	2.00 in.	4.00 ft	8.00 ft			
W2010-0708	09/28/2010	01/04/2011	VP2	8.00 in.	2.00 in.	4.00 ft	8.00 ft			
W2010-0708	09/28/2010	01/04/2011	VP3	8.00 in.	2.00 in.	4.00 ft	8.00 ft			
W2010-0708	09/28/2010	01/04/2011	VW1	10.00 in.	4.00 in.	10.00 ft	20.00 ft			
W2010-0708	09/28/2010	01/04/2011	VW2	10.00 in.	4.00 in.	10.00 ft	20.00 ft			
W2010-0708	09/28/2010	01/04/2011	VW3	10.00 in.	4.00 in.	13.00 ft	20.00 ft			

Specific Work Permit Conditions

1. 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.

2. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter

10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

5. Applicant shall contact John Shouldice for an inspection time at 510-670-5424 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.

6. Remove the Christy box or similar structure. Destroy well by overdrilling & Tremie Grouting with Cement. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing.

7. 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.

8. 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.

Alameda County Public Works Agency - Water Resources Well Permit

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

Application Approved on: 09/28/2010 By jamesy

Permit Numbers: W2010-0709
Permits Valid from 10/06/2010 to 10/07/2010

Application Id:	1285623143860	**City of Project Site:** Castro Valley
Site Location:	250' south of Grove Wy, eastern road shoulder of N 6th Street, Castro Valley, CA	
Project Start Date:	10/06/2010	**Completion Date:** 10/07/2010
Assigned Inspector:	Contact John Shouldice at (510) 670-5424 or johns@acpwa.org	
Applicant:	Horizon Environmental Inc. - Emil D Kruck 4970 Windplay Dr #5, El Dorado Hills, CA 95762	**Phone:** 916-939-2170
Property Owner:	C Shay Wideman - Ultramar Inc. 1 Valero Wy, San Antonio, TX 78249	**Phone:** 210-345-4663
Client:	C Shay Wideman - Ultramar Inc. 1 Valero Wy, San Antonio, TX 78249	**Phone:** 210-345-4663 x

	Total Due:	$397.00
Receipt Number: WR2010-0326	**Total Amount Paid:**	$397.00
Payer Name : Horizon Environmental	Paid By: CHECK	**PAID IN FULL**

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 1 Wells
Driller: All Well Abandonment - Lic #: 848359 - Method: hstem **Work Total: $397.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2010-0709	09/28/2010	01/04/2011	MW-5A	8.00 in.	2.00 in.	6.00 ft	25.00 ft

Specific Work Permit Conditions

1. 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.

2. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an 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.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and

mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

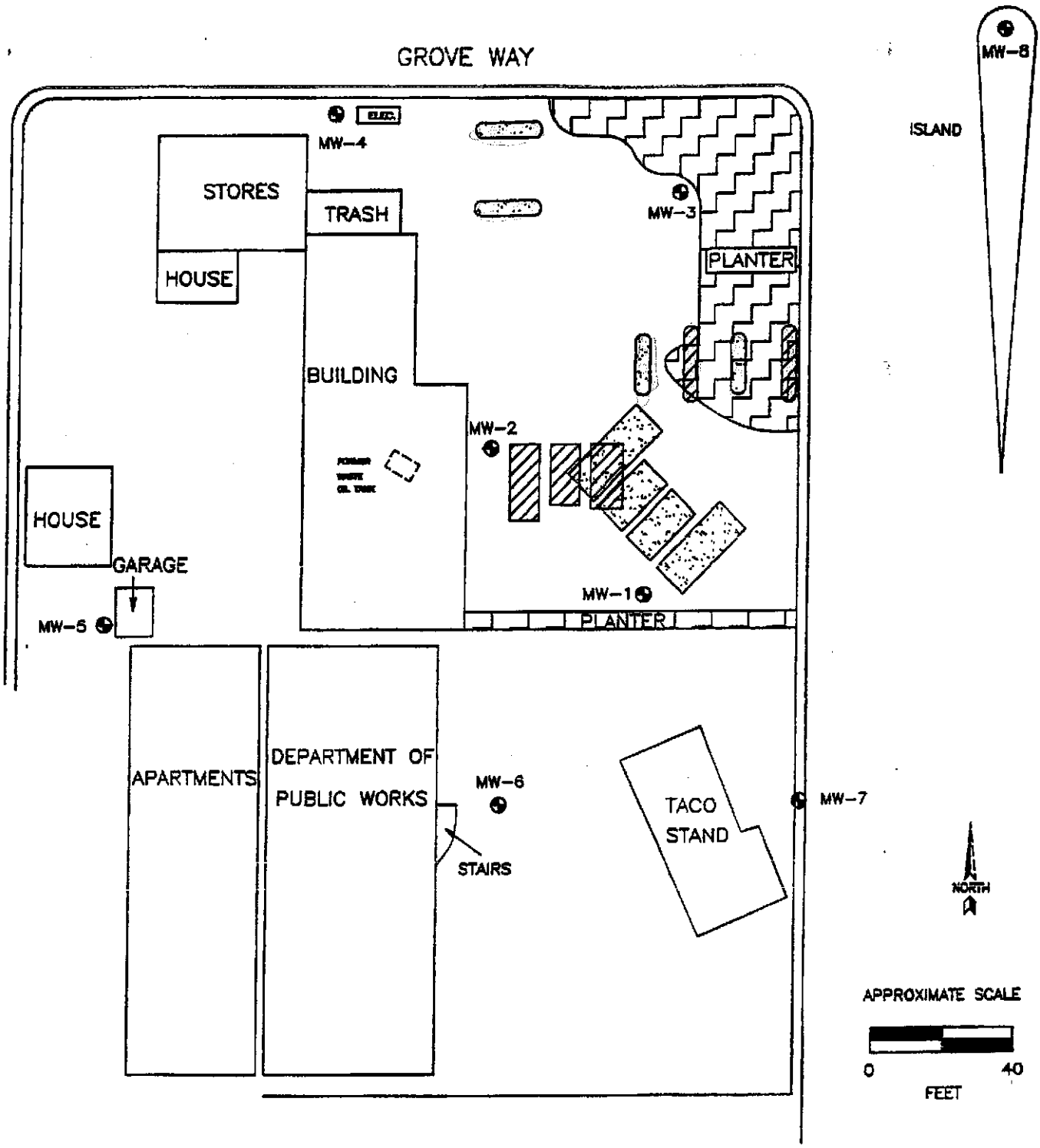
6. Applicant shall contact John Shouldice for an inspection time at 510-670-5424 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

8. Minimum surface seal thickness is two inches of cement grout placed by tremie

9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.

10. 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.



LEGEND

MW-6 — GROUND WATER MONITORING WELL AND NUMBER

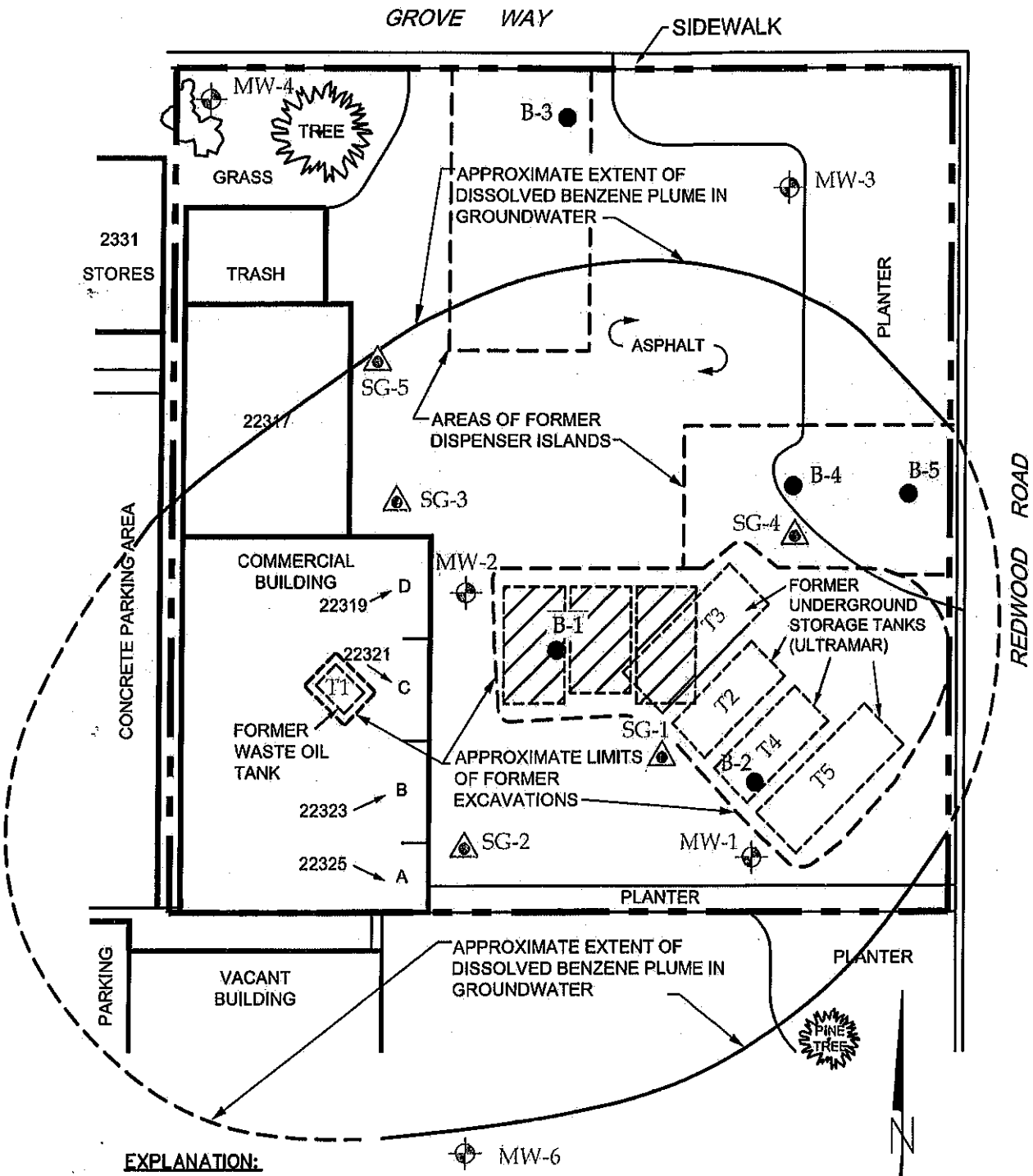
FIRST LOCATION OF TANKS AND PUMP ISLANDS

SECOND LOCATION OF TANKS AND PUMP ISLANDS

FIGURE 2
SITE MAP
FORMER BEACON STATION #574
22315 REDWOOD ROAD
CASTRO VALLEY, CA

Project No. 19021.02	Drawn SAL
File No. UL021SM	Prepared HEH
Revision	Reviewed

Acton • Mickelson • van Dam, Inc.
Consulting Scientists, Engineers, and Geologists
4511 Golden Foothill Parkway, #1
El Dorado Hills, California 95762
(916) 939-7550



Source: Figure Modified From Survey Drawing Prepared By Others For Ultramar

HORIZON ENVIRONMENTAL INC.		SITE MAP	FIGURE
Project Number: 1574.11 Prepared By: K. Mateik Reviewed By: G. Barker	Drawn By: C. Bechtell Date: 12/09 Revised Date:	FORMER BEACON STATION NO. 12574 22315 REDWOOD ROAD CASTRO VALLEY, CA.	2

ATTACHMENT B

HORIZON ENVIRONMENTAL INC.

FIELD METHODS AND PROCEDURES

HORIZON ENVIRONMENTAL INC.

FIELD METHODS AND PROCEDURES
HAND - DRIVEN SOIL GAS INVESTIGATIONS

The following section describes general field procedures employed by Horizon Environmental Inc. (Horizon) in performance of hand-driven soil gas investigations.

1.0 HEALTH AND SAFETY PLAN

Horizon and subcontractors at the site shall conduct fieldwork in compliance with guidelines established in a Site Health and Safety Plan (SHSP). The SHSP is a document that describes the hazards that may be encountered in the field and specifies protective equipment, work procedures, and emergency information. A copy of the SHSP shall be available at the site for reference by appropriate parties during site work.

2.0 LOCATING UNDERGROUND UTILITIES

The location of underground utilities shall be researched with the assistance of Underground Service Alert (USA) prior to commencement of subsurface work. Horizon shall outline the proposed excavation areas and otherwise label the site with white paint according to USA requirements. USA contacts the owners of the various utilities in the vicinity of the site and requests marking of underground utility locations. The soil gas sample location shall be manually cleared by hand-auger boring to a depth of approximately 3 feet below surface grade.

3.0 SOIL GAS PROBE INSTALLATION

Soil gas probe installation shall be conducted by Horizon or with oversight by Horizon personnel. Manual hand-augering at each sampling location shall precede soil gas probe advancement. Soil descriptions and observations shall be recorded on a boring log.

Following hand auger utility clearance, a length of Teflon tubing shall be cut from the tubing stock approximately 6 inches longer than the appropriately assembled soil gas probe. The soil gas probe shall be assembled from the sampling tip by attaching one end of 3/16" (0.187") inside diameter (ID) sample Teflon tubing, cut to an appropriate length, to the barbed nipple of the dedicated tip. The tubing shall be fed through the Tip Drive End, the appropriate number of hollow extension rods, and through the Extension Drive Adapter exiting through the slot on the side of the adapter. The end of tubing exposed through the Extension Drive Adapter shall be sealed with a plastic tight fitting cap or safety valve, and kept clean by wrapping the tubing in a clean plastic bag.

The upper end of the sample tubing shall be secured with a clean wire tie, and the drive tip end of the soil gas probe assembly shall be placed at the bottom of the hand-auger boring. The Slide Hammer or an electric hammer drill shall be

attached to the Slide Hammer Adapter and the soil gas probe shall be hand-driven to the target depth.

After the probe is driven to target depth, the Tip Drive End shall be retracted by applying an upward force to the hollow extension rods either manually or with a mechanical jack. The Extension Drive Adapter shall be retracted approximately one inch to expose the inlet ports in the Dedicated Tip. A manual vacuum pump shall be used to confirm flow and a vacuum of less than 10 Hg". If maximum vacuum values are exceeded, the Dedicated Tip may be driven an additional distance or an alternate soil gas sampling location may be selected.

If the maximum vacuum values are not exceeded, the Tip Drive End, the hollow extension rods, and the Extension Drive Adapter shall be retracted completely leaving the Dedicated Tip attached to the sample tubing in place in the bottom of the boring. After the drive assembly is removed, approximately one inch of sand shall be placed at the bottom of the hand auger boring and around the sample tubing. One foot of dry bentonite chips and sufficient hydrated bentonite shall be placed around the sample tubing to within two feet of the ground surface to prevent ambient air intrusion into the soil gas sample interval.

4.0 PURGE VOLUME

Subsurface conditions shall be allowed to equilibrate for at least 40 minutes following probe installation and prior to purging, leak test, and soil gas sampling.

The purge volume ("dead space volume") shall be calculated based on summation of the internal volume of tubing used and the annular space around the probe tip. The purge volume and sampling flow shall be conducted at the same rate. The purge volume, flow rate, and duration of the purge shall be recorded in the field notes. A purge volume based on preliminary soil vapor testing or a standard default of three purge volume test shall be conducted if a single soil gas sampling location is planned, to ensure stagnant or ambient air is removed from the sampling system and the vapor sample is representative of the subsurface conditions.

5.0 LEAK TEST

Leak tests shall be conducted at the soil gas test location using the Advisory document recommendations.

6.0 PURGE/SAMPLE FLOW RATE

Purging, flow rate evaluation, and soil gas sampling shall also conform to the Advisory document recommendations.

7.0 SOIL GAS SAMPLING

Soil gas sample shall be collected in gas-tight, opaque 250mL or other appropriate volume Summa canisters.

7.0 ANALYSIS OF SOIL GAS SAMPLES

For Quality Assurance and Quality Control (QA/QC) purposes one duplicate sample shall be collected in separate 250 mL volume or other appropriate Summa canister per project per day at the same location and depth as the rest of the samples collected.

Soil gas sample analyses shall be performed by qualified personnel and a state-certified analytical laboratory. All volatile organic compounds (VOC) samples shall be analyzed by Modified EPA Method TO-15 (5&20ppbv). The VOC target compounds shall be at minimum the specific compounds based on the history and conditions of the site plus the leak check compound utilized during sampling.

8.0 SOIL GAS PROBE ABANDONMENT

After collection of the soil gas sample, the sample tubing shall be abandoned in place along with the dedicated sampling tip. The above ground portion of the sample tubing shall be cut off, securely crimped off and folded over within the open borehole.

9.0 BOREHOLE ABANDONMENT AND SURFACE RESTORATION

The upper 12 inches of the hand-augered borehole shall be backfilled with hand-compacted native soil or, alternately, with hydrated bentonite, over the abandoned tubing up to and within the level of the pavement or concrete. The boring surface shall be restored to pre-existing conditions utilizing either cold patch asphalt for surrounding asphalt paving or quick-set cement tinted to match the surrounding concrete or pavement.

HORIZON ENVIRONMENTAL INC.
FIELD METHODS AND PROCEDURES

The following sections describe field methods and procedures that are utilized by Horizon Environmental Inc. (Horizon) in performance of applicable project tasks.

HEALTH AND SAFETY PLAN

Fieldwork performed by Horizon and subcontractors at the site will be conducted according to guidelines established in a Site Health and Safety Plan (SHSP). The SHSP is a document that describes the hazards that may be encountered in the field and specifies protective equipment, work procedures, and emergency information. A copy of the SHSP will be at the site and available for reference by appropriate parties during work at the site.

LOCATING UNDERGROUND UTILITIES

Prior to commencement of subsurface work, the location of underground utilities will be researched with the assistance of Underground Service Alert (USA). USA will contact the owners of the various utilities in the vicinity of the site to have the utility owners mark the locations of their underground utilities. Prior to bore hole drilling or advancement, the boring/well locations will be investigated by manual hand augering to verify clearance of underground utilities.

SOIL BORING AND SOIL SAMPLING PROTOCOL

Soil boring and soil sampling will be conducted under the supervision of a Horizon geologist. The soil borings will be advanced using a truck-mounted hollow-stem auger drilling rig. To reduce the chances of cross-contamination between boreholes, downhole drilling equipment and sampling equipment will be cleaned between borings. To reduce cross-contamination between samples, the split-barrel sampler will be washed in a soap solution and double-rinsed between each sampling event.

Soil sampling will be conducted in accordance with ASTM 1586-84. Using this procedure, a split-barrel sampler (California-type sampler) lined with brass or steel sample sleeves will be driven into the soil at approximately five-foot intervals by a 140-pound hammer falling 30 inches. The number of blow counts required to advance the sampler through 6-inch intervals for 18 inches will be recorded at each sample interval. Generally, the bottom soil sample sleeve will be sealed using Teflon sheets and plastic caps, labeled and promptly placed in an iced cooler for transport to the laboratory.

Soil samples will be described in the Unified Soil Classification System. Generally, the upper portions of each soil sample will be extruded from the sample sleeve, placed in a plastic bag, and sealed for later screening with a photo-ionization detector (PID) or comparable device. After the portion of the soil sample is placed in the plastic bag, it will be allowed to release volatile of petroleum hydrocarbon vapors into the head space. The head space vapors will then be screened with the PID. The highest observed reading will be recorded on the boring log.

Drill cuttings samples will be collected from containers or soil stockpiles for characterization analyses. Four discrete samples will be collected per 50 cubic yards of cuttings. The characterization samples will be collected from the stockpiled soil by selecting random

locations accessible around the soil pile, removing approximately six inches of soil, and driving a clean sample sleeve into the soil pile at the selected location. The number of samples collected will be based on the estimated amount of stockpiled soil. The samples collected will be prepared and chilled for transport under Chain-of-Custody protocol, and sent to a State-certified laboratory for the analyses requested.

GROUNDWATER DEPTH EVALUATION

Depth to groundwater will be measured to the nearest 0.01-foot using an electronic hand-held water level indicator. The tip of the probe will be examined to evaluate whether a separate-phase hydrocarbon (SPH) sheen was present.

MONITORING WELL DEVELOPMENT/PURGING AND SAMPLING

Following installation, the wells will be surged with a surge block to remove fines from the sand pack. After surging, groundwater will be purged from each well using a bailer or pumping method to remove sediment and enhance representative sample quality.

Groundwater sampling events conducted after the initial well development will be preceded by purging a minimum of three well casing volumes. Purge water will be monitored for the parameters temperature, pH, and conductivity until stabilized. Wells will be allowed to recharge to 80% of the static water level prior to sampling. If wells dewater, they will be allowed to recharge for a minimum of one hour prior to sampling.

After the water level stabilizes, a sample will be collected with a clean or disposable bailer. Samples will be decanted into lab-prepared vials with no head space, labeled, placed into iced coolers, and transported to the lab for analysis. Groundwater samples will be transported to the lab and analyzed within the EPA-specified holding time for requested analyses. Sample labels will contain the following information: job number; sample date; time of sample collection; and a sample number unique to that sample. Samples will be analyzed by a California-certified laboratory

A Chain-of-Custody form will be completed to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them will relinquish the samples by signing the Chain-of-Custody form and noting the time. The Sample Control Officer at the laboratory will then verify the sample integrity and confirm that the sample was collected in the proper container, preserved correctly, and that there is an adequate volume for analysis.

WELLHEAD LOCATION AND ELEVATION SURVEY

The top of each new well riser will be measured to allow correlation of the groundwater levels at the site. The measured point on each well riser will be marked to help insure future groundwater level measurements are taken from the same location. The survey will be conducted by a licensed professional land surveyor to GeoTracker specifications.

ATTACHMENT C

SOIL GAS SURVEY ANALYTICAL REPORT

CHHSLs and ESLs TABLES

Air Toxics LTD.
Laboratory Services Since 1989

10/20/2010
Mr. Emil Kruck
Horizon Environmental Inc.
4970 Windplay Drive
Suite 5
El Dorado Hills CA 95762

Project Name: Former Beacon Sta. 12574
Project #: 1574.13
Workorder #: 1010128

Dear Mr. Emil Kruck

The following report includes the data for the above referenced project for sample(s) received on 10/7/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Karen Lopez at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Karen Lopez

Karen Lopez
Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1010128

Work Order Summary

CLIENT:	Mr. Emil Kruck Horizon Environmental Inc. 4970 Windplay Drive Suite 5 El Dorado Hills, CA 95762	**BILL TO:**	Mr. Emil Kruck Horizon Environmental Inc. 4970 Windplay Drive Suite 5 El Dorado Hills, CA 95762
PHONE:	916-939-2170	**P.O. #**	1574.13
FAX:	916-939-2172	**PROJECT #**	1574.13 Former Beacon Sta. 12574
DATE RECEIVED:	10/07/2010	**CONTACT:**	Karen Lopez
DATE COMPLETED:	10/20/2010		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SG-7	Modified TO-15	2.5 "Hg	15 psi
02A	SG-7-Dup	Modified TO-15	1.0 "Hg	15 psi
03A	Lab Blank	Modified TO-15	NA	NA
04A	CCV	Modified TO-15	NA	NA
05A	LCS	Modified TO-15	NA	NA
05AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Linda D. Truman DATE: 10/20/10

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Horizon Environmental Inc.
Workorder# 1010128

Two 1 Liter Summa Canister samples were received on October 07, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SG-7

Lab ID#: 1010128-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.1	5.3	4.1	20
m,p-Xylene	1.1	1.1	4.8	5.0

Client Sample ID: SG-7-Dup

Lab ID#: 1010128-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	4.2	6.6	11	18

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Client Sample ID: SG-7

Lab ID#: 1010128-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2101930**	**Date of Collection:**	**10/6/10 1:20:00 AM**
Dil. Factor:	**2.20**	**Date of Analysis:**	**10/19/10 10:47 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	1.1	Not Detected	4.0	Not Detected
Benzene	1.1	Not Detected	3.5	Not Detected
Toluene	1.1	5.3	4.1	20
Ethyl Benzene	1.1	Not Detected	4.8	Not Detected
m,p-Xylene	1.1	1.1	4.8	5.0
o-Xylene	1.1	Not Detected	4.8	Not Detected
TPH ref. to Gasoline (MW=100)	55	Not Detected	220	Not Detected
1,1-Difluoroethane	4.4	Not Detected	12	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SG-7-Dup

Lab ID#: 1010128-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2101929**	**Date of Collection:**	**10/6/10 1:16:00 AM**
Dil. Factor:	**2.09**	**Date of Analysis:**	**10/19/10 10:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	1.0	Not Detected	3.8	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
m,p-Xylene	1.0	Not Detected	4.5	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
TPH ref. to Gasoline (MW=100)	52	Not Detected	210	Not Detected
1,1-Difluoroethane	4.2	6.6	11	18

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	95	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1010128-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2101908**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/19/10 11:06 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
TPH ref. to Gasoline (MW=100)	25	Not Detected	100	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	95	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 1010128-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2101902**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/19/10 08:35 AM**	

Compound	%Recovery
Methyl tert-butyl ether	105
Benzene	101
Toluene	102
Ethyl Benzene	104
m,p-Xylene	107
o-Xylene	105
TPH ref. to Gasoline (MW=100)	100
1,1-Difluoroethane	101

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1010128-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2101903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/19/10 09:01 AM**	

Compound	%Recovery
Methyl tert-butyl ether	108
Benzene	104
Toluene	101
Ethyl Benzene	109
m,p-Xylene	111
o-Xylene	107
TPH ref. to Gasoline (MW=100)	Not Spiked
1,1-Difluoroethane	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: LCSD

Lab ID#: 1010128-05AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2101904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/19/10 09:23 AM**	

Compound	%Recovery
Methyl tert-butyl ether	109
Benzene	105
Toluene	101
Ethyl Benzene	112
m,p-Xylene	115
o-Xylene	113
TPH ref. to Gasoline (MW=100)	Not Spiked
1,1-Difluoroethane	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	105	70-130

SORBENT SAMPLE COLLECTION

@ Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

1010128

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: KEN MATEIK
Collected by: (Print and Sign) EMIL D. KRUCK / Emil D Kruck
Company: HORIZON ENVIRONMENTAL INC
Email: ekruck@horizonenvironmental.net
Address: 4990 Windplay Dr. City: El Dorado Hills State: CA Zip: 95762
Phone: (916) 939-2170 Fax: (916) 939-2172

Project Info:
P.O. #: 1574.13
Project #: 1574.13
Project Name: Former Beacon Sta ~~12574~~ 12574 EDK 10/6/10

Turn Around Time:
☒ Normal
☐ Rush
specify

Circle Reporting Units: ppbv, ppmv, (ug/m3) circled, mg/m3

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01A	SG-7	34622	10-6-10	1:15	1:20	5	2	TO-15 full scan
02A	SG-7-DUP	21023	10-6-10	1:15	1:16	1	2	TO-15 full scan

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Emil D Kruck	10/7/10 12:33	Anne E. Wirth ATL	10/7/10 12:33

Pump Calibration Information — Not applicable EDK
~~Pre-test Flow Rate: 190 mL/min~~ (NA) EDK
~~Post-test Flow Rate: 200 mL/min~~ (NA) EDK
~~Average Flow Rate: 175 mL/min~~ (NA) EDK
~~Notes: SG-7 DUP intake 7200 mL/min~~ (NA) EDK

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Hand Delivered		NA	Good	Yes No (None) circled	

Table E-2. Shallow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (volatile chemicals only)

	Physical State		Residential Exposure			Commercial/Industrial Land Use		
Chemcial			Lowest Residential ($\mu g/m^3$)	Carcinogenic Effects ($\mu g/m^3$)	Noncarcinogenic Effects ($\mu g/m^3$)	Lowest C/I ($\mu g/m^3$)	Carcinogenic Effects ($\mu g/m^3$)	Noncarcinogenic Effects ($\mu g/m^3$)
Acenaphthene	V	S	4.4E+04		4.4E+04	1.2E+05		1.2E+05
Acenaphthylene	V	S	2.2E+04		2.2E+04	6.1E+04		6.1E+04
Acetone	V	L	6.6E+05		6.6E+05	1.8E+06		1.8E+06
Aldrin	NV	S						
Anthracene	V	S	2.2E+05		2.2E+05	6.1E+05		6.1E+05
Antimony	NV	S						
Arsenic	NV	S						
Barium	NV	S						
Benzene	V	L	8.4E+01	8.4E+01	6.3E+03	2.8E+02	2.8E+02	1.8E+04
Benzo(a)anthracene	NV	S						
Benzo(b)fluoranthene	NV	S						
Benzo(k)fluoranthene	NV	S						
Benzo(g,h,i)perylene	NV	S						
Benzo(a)pyrene	NV	S						
Beryllium	NV	S						
1,1-Biphenyl	V	S						
Bis(2-chloroethyl) ether	V	L	7.4E+00	7.4E+00		2.5E+01	2.5E+01	
Bis(2-chloroisopropyl) ether	V	L	3.4E+00	3.4E+00	2.9E+04	1.2E+01	1.2E+01	8.2E+04
Bis(2-ethylhexyl) phthalate	NV	S						
Boron	NV	S						
Bromodichloromethane	V	L	1.4E+02	1.4E+02	1.5E+04	4.6E+02	4.6E+02	4.1E+04
Bromoform (Tribromomethane)	NV	S						
Bromomethane	V	G	1.0E+03		1.0E+03	2.9E+03		2.9E+03
Cadmium	NV	S						
Carbon tetrachloride	V	L	1.9E+01	1.9E+01	8.3E+03	6.3E+01	6.3E+01	2.3E+04
Chlordane	NV	S						
p-Chloroaniline	NV	S						
Chlorobenzene	V	L	2.1E+05		2.1E+05	5.8E+05		5.8E+05
Chloroethane	V	G	2.1E+04		2.1E+04	5.8E+04		5.8E+04
Chloroform	V	L	4.6E+02	4.6E+02	6.3E+04	1.5E+03	1.5E+03	1.8E+05
Chloromethane	V	G	1.9E+04		1.9E+04	5.3E+04		5.3E+04
2-Chlorophenol	V	L	3.7E+03		3.7E+03	1.0E+04		1.0E+04
Chromium (total)	NV	S						
Chromium III	NV	S						
Chromium VI	NV	S						

Table E-2. Shallow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (volatile chemicals only)

Chemcial	Physical State		Residential Exposure			Commercial/Industrial Land Use		
			Lowest Residential	Carcinogenic Effects	Noncarcinogenic Effects	Lowest C/I	Carcinogenic Effects	Noncarcinogenic Effects
			($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)
Fluorene	V	S	2.9E+04		2.9E+04	8.2E+04		8.2E+04
Heptachlor	NV	S						
Heptachlor epoxide	NV	S						
Hexachlorobenzene	NV	S						
Hexachlorobutadiene	NV	S						
γ-Hexachlorocyclohexane (Lindane)	NV	S						
Hexachloroethane	NV	S						
Indeno(1,2,3-c,d)pyrene	NV	S						
Lead	NV	S						
Mercury (elemental)	V	S	1.9E+01		1.9E+01	5.3E+01		5.3E+01
Methoxychlor	NV	S						
Methylene chloride	V	L	5.2E+03	5.2E+03	8.3E+04	1.7E+04	1.7E+04	2.3E+05
Methyl ethyl ketone	V	L	1.0E+06		1.0E+06	2.9E+06		2.9E+06
Methyl isobutyl ketone	V	L	6.3E+05		6.3E+05	1.8E+06		1.8E+06
Methyl mercury	NV	S						
2-Methylnaphthalene	V	S						
tert-Butyl methyl ether	V	L	9.4E+03	9.4E+03	6.3E+05	3.1E+04	3.1E+04	1.8E+06
Molybdenum	NV	S						
Naphthalene	V	S	7.2E+01	7.2E+01	6.3E+02	2.4E+02	2.4E+02	1.8E+03
Nickel	NV	S						
Pentachlorophenol	NV	S						
Perchlorate	NV	S						
Phenanthrene	V	S	2.2E+04		2.2E+04	6.1E+04		6.1E+04
Phenol	NV	S						
Polychlorinated biphenyls (PCBs)	NV	S						
Pyrene	V	S	2.2E+04		2.2E+04	6.1E+04		6.1E+04
Selenium	NV	S						
Silver	NV	S						
Styrene	V	L	1.9E+05		1.9E+05	5.3E+05		5.3E+05
tert-Butyl alcohol	V	L						
1,1,1,2-Tetrachloroethane	V	L	3.2E+02	3.2E+02		1.1E+03	1.1E+03	
1,1,2,2-Tetrachloroethane	V	L	4.2E+01	4.2E+01	4.4E+04	1.4E+02	1.4E+02	1.2E+05
Tetrachloroethene	V	L	4.1E+02	4.1E+02	8.3E+04	1.4E+03	1.4E+03	2.3E+05
Thallium	NV	S						
Toluene	V	L	6.3E+04		6.3E+04	1.8E+05		1.8E+05

Table E-2. Shallow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (volatile chemicals only)

Chemcial	Physical State		Residential Exposure			Commercial/Industrial Land Use		
			Lowest Residential ($\mu g/m^3$)	Carcinogenic Effects ($\mu g/m^3$)	Noncarcinogenic Effects ($\mu g/m^3$)	Lowest C/I ($\mu g/m^3$)	Carcinogenic Effects ($\mu g/m^3$)	Noncarcinogenic Effects ($\mu g/m^3$)
Chrysene	NV	S						
Cobalt	NV	S						
Copper	NV	S						
Cyanide	NV	S	1.5E+04		1.5E+04	4.1E+04		4.1E+04
Dibenz(a,h)anthracene	NV	S						
Dibromochloromethane	V	S						
1,2-dibromo-3-chloropropane	V	L	1.3E+00	1.3E+00	4.2E+01	4.3E+00	4.3E+00	1.2E+02
1,2-Dibromoethane	V	S	4.1E+00	4.1E+00	1.9E+03	1.4E+01	1.4E+01	5.3E+03
1,2-Dichlorobenzene	V	L	4.2E+04		4.2E+04	1.2E+05		1.2E+05
1,3-Dichlorobenzene	V	L	2.2E+04		2.2E+04	6.1E+04		6.1E+04
1,4-Dichlorobenzene	V	S	2.2E+02	2.2E+02	1.7E+05	7.4E+02	7.4E+02	4.7E+05
3,3-Dichlorobenzidine	NV	S						
Dichlorodiphenyldichloroethane (DDD)	NV	S						
Dichlorodiphenyldichloroethene (DDE)	NV	S						
Dichlorodiphenyltrichloroethane (DDT)	NV	S						
1,1-Dichloroethane	V	L	1.5E+03	1.5E+03	1.0E+05	5.1E+03	5.1E+03	2.9E+05
1,2-Dichloroethane	V	L	9.4E+01	9.4E+01	1.0E+03	3.1E+02	3.1E+02	2.9E+03
1,1-Dichloroethene	V	L	4.2E+04		4.2E+04	1.2E+05		1.2E+05
cis-1,2-Dichloroethene	V	L	7.3E+03		7.3E+03	2.0E+04		2.0E+04
trans-1,2-Dichloroethene	V	L	1.5E+04		1.5E+04	4.1E+04		4.1E+04
2,4-Dichlorophenol	NV	S						
1,2-Dichloropropane	V	L	2.4E+02	2.4E+02	8.3E+02	8.2E+02	8.2E+02	2.3E+03
1,3-Dichloropropene	V	L	1.5E+02	1.5E+02	4.2E+03	5.1E+02	5.1E+02	1.2E+04
Dieldrin	NV	S						
Diethyl phthalate	NV	S						
Dimethyl phthalate	NV	S						
2,4-Dimethylphenol	V	S						
2,4-Dinitrophenol	NV	S						
2,4-Dinitrotoluene	NV	S						
1,4-Dioxane	NV	L						
Dioxin (2,3,7,8-TCDD)	NV	S						
Endosulfan	NV	S						
Endrin	NV	S						
Ethylbenzene	V	L	9.8E+02	9.8E+02	2.1E+05	3.3E+03	3.3E+03	5.8E+05
Fluoranthene	NV	S						

Table E-2. Shallow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (volatile chemicals only)

Chemcial	Physical State		Residential Exposure			Commercial/Industrial Land Use		
			Lowest Residential	Carcinogenic Effects	Noncarcinogenic Effects	Lowest C/I	Carcinogenic Effects	Noncarcinogenic Effects
			($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)
Toxaphene	NV	S						
TPH (gasolines)	V	L	1.0E+04		1.0E+04	2.9E+04		2.9E+04
TPH (middle distillates)	V	L	1.0E+04		1.0E+04	2.9E+04		2.9E+04
TPH (residual fuels)	NV	L/S						
1,2,4-Trichlorobenzene	V	L	8.3E+02		8.3E+02	2.3E+03		2.3E+03
1,1,1-Trichloroethane	V	L	4.6E+05		4.6E+05	1.3E+06		1.3E+06
1,1,2-Trichloroethane	V	L	1.5E+02	1.5E+02	2.9E+03	5.1E+02	5.1E+02	8.2E+03
Trichloroethene	V	L	1.2E+03	1.2E+03	1.3E+05	4.1E+03	4.1E+03	3.5E+05
2,4,5-Trichlorophenol	V	S	7.3E+04		7.3E+04	2.0E+05		2.0E+05
2,4,6-Trichlorophenol	NV	S						
Vanadium	NV	S						
Vinyl chloride	V	G	3.1E+01	3.1E+01	2.1E+04	1.0E+02	1.0E+02	5.8E+04
Xylenes	V	L	2.1E+04		2.1E+04	5.8E+04		5.8E+04
Zinc	NV	S						

Notes:

Soil gas screening levels intended to be protective of indoor air quality, calculated for volatile chemicals only.
Physical state of chemical at ambient conditions (V - volatile, NV - nonvolatile, S - solid, L - liquid, G - gas).
Chemical considered to be volatile if Henry's Law constant (atm m^3/mole) $>10^{-5}$ and molecular weight <200 (see Table E-1).
Dibromochloromethane, dibromochloropropane and pyrene considered volatile for purposes of modeling (USEPA 2004).
Target cancer risk = 1E-06, Target Hazard Quotient = 0.2 for all chemicals.
Residential soil gas:indoor air attenuation factor = 0.001 (1/1000). Commercial/industrial soil gas:indoor air attenuation factor = 0.0005 (1/2000).
Soil gas screening level for ethanol based on potential indoor air nuisance concerns (refer to Section 5.3.3 and Table H series).
soils or limited soil impacts and no groundwater source of VOCs.

Table 2. California Human Health Screening Levels for Indoor Air and Soil Gas

Chemical	[1]Indoor Air Human Health Screening Levels ($\mu g/m^3$)		[2]Shallow Soil Gas Human Health Screening Levels (Vapor Intrusion) ($\mu g/m^3$)	
	Residential Land Use	Commercial/ Industrial Land Use Only	Residential Land Use	Commercial/ Industrial Land Use Only
Benzene	8.40 E-02	1.41 E-01	3.62 E+01	1.22 E+02
Carbon Tetrachloride	5.79 E-02	9.73 E-02	2.51 E+01	8.46 E+01
1,2-Dichloroethane	1.16 E-01	1.95 E-01	4.96 E+01	1.67 E+02
cis-1,2-Dichloroethylene	3.65 E+01	5.11 E+01	1.59 E+04	4.44 E+04
trans-1,2-Dichloroethylene	7.30 E+01	1.02 E+02	3.19 E+04	8.87 E+04
Ethylbenzene	Postponed[3]	Postponed[3]	Postponed[3]	Postponed[3]
Mercury, elemental	9.40 E-02	1.31 E-01	4.45 E+01	1.25 E+02
Methyl tert-Butyl Ether	9.35 E+00	1.57 E+01	4.00 E+03	1.34 E+04
Naphthalene	7.20 E-02	1.20 E-01	3.19 E+01	1.06 E+02
Tetrachloroethylene	4.12 E-01	6.93 E-01	1.80 E+02	6.03 E+02
Tetraethyl Lead	3.65 E-04	5.11 E-04	2.06 E-01	5.78 E-01
Toluene	3.13 E+02	4.38 E+02	1.35 E+05	3.78 E+05
1,1,1-Trichloroethane	2.29 E+03	3.21 E+03	9.91 E+05	2.79 E+06
Trichloroethylene	1.22 E+00	2.04 E+00	5.28 E+02	1.77 E+03
Vinyl Chloride	3.11 E-02	5.24 E-02	1.33 E+01	4.48 E+01
m-Xylene	7.30 E+02	1.02 E+03	3.19 E+05	8.87 E+05
o-Xylene	7.30 E+02	1.02 E+03	3.15 E+05[4]	8.79 E+05[4]
p-Xylene	7.30 E+02	1.02 E+03	3.17 E+05	8.87 E+05

Reference: Appendix 1, OEHHA Target Indoor Air Concentrations and Soil-Gas Screening Numbers for Existing Buildings under Residential and Industrial/Commercial land uses.

Notes:

1. "Residential Land Use" screening levels generally considered adequate for other sensitive uses (e.g., day-care centers, hospitals, etc.). Commercial/industrial properties should be evaluated using both residential and commercial/industrial CHHSLs. A deed restriction that prohibits use of the property for sensitive purposes may be required at sites that are evaluated and/or remediated under a commercial/industrial land use scenario only.
Calculation of cumulative risk may be required at sites where multiple contaminants with similar health effects are present.
Carcinogens: CHHSLS based on target cancer risk of 10-6. Cal/EPA cancer slope factors used when available.
Noncarcinogens: CHHSLS based on target hazard quotient of 1.0.
2. Soil Gas: Screening levels based on soil gas data collected <1.5 meters (five feet) below a building foundation or the ground surface. Intended for evaluation of potential vapor intrusion into buildings and subsequent impacts to indoor-air. Soil gas data should be collected and evaluated at all sites with significant areas of VOC-impacted soil. Screening levels also apply to sites that overlie plumes of VOC-impacted groundwater.
3. Calculation of a screening number for the chemical has been postponed (pp) until the toxicity criterion currently being developed by OEHHA is published as a final document.
4. Representative Screening Numbers for mixed xylenes. The representative value for mixed xylenes is based on the calculated lowest one amongst the three isomers.

ATTACHMENT D

BORING LOGS

AND

MONITORING WELL DATA SHEETS

HORIZON ENVIRONMENTAL INC.
4970 Windplay Drive, Suite 5
El Dorado Hills, California 95762
(916) 939-2170 -- Fax: (916) 939-2172

Well No. VP-1

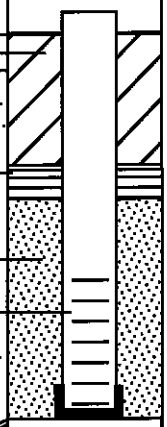
Drilling Company: Slagle Drilling
Date Drilled: 10/20/10
Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon Sampler

Project No.: 1574.13
Site: Former Beacon 12574
Location: Castro Valley, CA
Geologist: Craig Roth

Depth In Feet	Sample Number	Blow Count	Inches Driven	Inches Recovered	PID Reading (ppm)	Sampling Interval	Soil Description/ Comments
						0	asphalt first 3 inches
						1	base rock to 2 feet
						2	
		9				3	
	4	16	18	17	2	4	SANDY SILT (ML): olive brown, fine grained, moist, very stiff, no odor
5		21				5	
						6	
		17				7	
	8	22	18	15	22	8	SILTY SAND AND GRAVEL (SM/GM): olive brown, medium to coarse grained, moist, dense, has odor
		41				9	
10						10	
						11	
						12	
						13	
						14	
15						15	
						16	
						17	
						18	
						19	
20						20	
						21	
						22	
						23	
						24	
25						25	
						26	
						27	
						28	
						29	
30						30	

Total Depth = 8 feet

Well Construction



HORIZON ENVIRONMENTAL INC.
4970 Windplay Drive, Suite 5
El Dorado Hills, California 95762
(916) 939-2170 -- Fax: (916) 939-2172

Well No. VP-2

Drilling Company: Slagle Drilling
Date Drilled: 10/19/10
Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon Sampler

Project No.: 1574.13
Site: Former Beacon 12574
Location: Castro Valley, CA
Geologist: Craig Roth

Depth In Feet	Sample Number	Blow Count	Inches Driven	Inches Recovered	PID Reading (ppm)	Sampling Interval	Soil Description/ Comments
						0	asphalt first 3 inches
						1	road base to 1.5 feet
						2	
						3	
		9				4	
5	5	11 13	18	18	1	5	SANDY SILT (ML): grayish green, medium grained, moist, very stiff, no odor
						6	
						7	
						8	
		27				9	
10	10	38 45	18	16	31	10	SILTY SAND (SM): gray, fine to medium grained, moist, very dense, has odor
						11	
						12	
						13	
		12				14	
15	15	26 50	18	15	27	15	SILTY SAND (SM): grayish green, fine to medium grained, very moist, very dense, has odor
						16	
						17	
						18	
		35				19	SILTY SAND (SM): brown to gray, medium to coarse grained, very moist, very dense, slight odor
20	20	50/5"	11	9	5	20	
						21	Total Depth: 20 feet
						22	
						23	
						24	
25						25	
						26	
						27	
						28	
						29	
30						30	

Well Construction: *neat cement*; *10-inch diameter bore hole*; *bentonite*; *#3 sand*; *2" diameter PVC 0.020" slot screen*; *bentonite*; *8-inch diameter bore hole*; *soil cuttings*

HORIZON ENVIRONMENTAL INC.
4970 Windplay Drive, Suite 5
El Dorado Hills, California 95762
(916) 939-2170 -- Fax: (916) 939-2172

Well No. VP-3

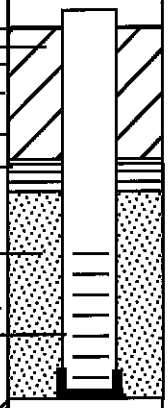
Drilling Company: Slagle Drilling
Date Drilled: 10/19/10
Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon Sampler

Project No.: 1574.13
Site: Former Beacon 12574
Location: Castro Valley, CA
Geologist: Craig Roth

Depth In Feet	Sample Number	Blow Count	Inches Driven	Inches Recovered	PID Reading (ppm)	Sampling Interval	Soil Description/ Comments
						0	asphalt first 3 inches
						1	base rock with concrete debris to 1.5 feet
						2	
						3	
	4	19 28 36	18	8	1	4	SANDY SILT (ML): dark olive brown, medium grained, moist, medium to low plasticity, very stiff to hard, no odor
5						5	
						6	
						7	
	8	39 50/5"	11	7	3	8	SILTY SAND (SM): gray, fine to medium grained, moist, very dense, no odor
						9	
10						10	
						11	
						12	
						13	
						14	
15						15	
						16	
						17	
						18	
						19	
20						20	
						21	
						22	
						23	
						24	
25						25	
						26	
						27	
						28	
						29	
30						30	

Total Depth = 8 feet

Well Construction



HORIZON ENVIRONMENTAL INC.
4970 Windplay Drive, Suite 5
El Dorado Hills, California 95762
(916) 939-2170 -- Fax: (916) 939-2172

Well No. VW-1

Drilling Company: Slagle Drilling
Date Drilled: 10/19/10
Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon Sampler

Project No.: 1574.13
Site: Former Beacon 12574
Location: Castro Valley, CA
Geologist: Craig Roth

Depth In Feet	Sample Number	Blow Count	Inches Driven	Inches Recovered	PID Reading (ppm)	Sampling Interval	Soil Description/ Comments	Well Construction
						0	grass and roots first 3 inches	neat cement
						1		
						2		
						3	SANDY SILT (ML): brown, fine grained, moist	10-inch diameter bore hole
		7				4		
5	5	8 12	18	17	0	5	SANDY SILT (ML): olive brown, fine grained, moist, medium plasticity, very stiff, no odor	
						6		
						7		
						8		bentonite
						9	SILTY SAND (SM): brown, medium to coarse grained, trace gravel, moist, very dense, no odor	
10	10	28 50/5"	11	11	1	10		
						11		
						12		#3 sand
						13		
						14	SILTY SAND (SM): brown, medium to coarse grained, trace gravel, moist, very dense, has odor	
15	15	29 50/5"	11	10	1172	15		
						16	color change to grayish green at 16 feet	4" diameter PVC 0.020" slot screen
						17		
						18		
						19	▽ groundwater at 19 feet	
		29						
20	20	34 40	18	16	1755	20	SILTY SAND (SM): grayish green, medium to coarse grained, wet, very dense, has odor	
						21		
						22	Total Depth = 20 feet	
						23		
						24		
25						25		
						26		
						27		
						28		
						29		
30						30		

HORIZON ENVIRONMENTAL INC.
4970 Windplay Drive, Suite 5
El Dorado Hills, California 95762
(916) 939-2170 -- Fax: (916) 939-2172

Well No. VW-2

Drilling Company: Slagle Drilling
Date Drilled: 10/19/10
Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon Sampler

Project No.: 1574.13
Site: Former Beacon 12574
Location: Castro Valley, CA
Geologist: Craig Roth

Depth In Feet	Sample Number	Blow Count	Inches Driven	Inches Recovered	PID Reading (ppm)	Sampling Interval	Soil Description/ Comments	Well Construction
						0	asphalt first 3 inches	
						1	*neat cement*	
						2		
						3	SANDY SILT (ML): grayish green to olive brown, moist	
						4	*10-inch diameter bore hole*	
5	5	11 13 17	18	15	0	5	SANDY SILT (ML): grayish green, fine grained, moist, very stiff, medium plasticity, no odor	
						6		
						7		
						8	*bentonite*	
						9		
10	10	32 39 49	18	14	1	10	SILTY SAND (SM): olive brown to grayish green, fine to medium grained, trace gravel, moist, very dense, no odor	
						11		
						12	*#3 sand*	
						13		
		34 50/5"				14		
15	15		11	9	10	15	SILTY SAND AND GRAVEL (SM / GM): olive brown, medium grained, moist, very dense, has odor	
						16		
						17	*4" diameter PVC 0.020" slot screen*	
						18		
		39 42 50/5"				19		
20	20		17	13	80	20	SILTY SAND (SM): olive brown to yellow, fine to medium grained, moist, very dense, has odor	
						21	Total Depth = 20 feet	
						22		
						23		
25						24		
						25		
						26		
						27		
						28		
						29		
30						30		

HORIZON ENVIRONMENTAL INC.
4970 Windplay Drive, Suite 5
El Dorado Hills, California 95762
(916) 939-2170 -- Fax: (916) 939-2172

Well No. VW-3

Drilling Company: Slagle Drilling
Date Drilled: 10/20/10
Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon Sampler

Project No.: 1574.13
Site: Former Beacon 12574
Location: Castro Valley, CA
Geologist: Craig Roth

Depth In Feet	Sample Number	Blow Count	Inches Driven	Inches Recovered	PID Reading (ppm)	Sampling Interval	Soil Description/ Comments
						0	asphalt first 3 inches
						1	road base to 2.5 feet
						2	
						3	
						4	
5	5	11 13 17	18	15	7	5	tank pit gravel - backfill, no odor
						6	
						7	
						8	
		18				9	
10	10	23 36	18	15	5	10	SILTY SAND AND GRAVEL (SM / GM): grayish green, coarse grained, moist, dense, no odor
		35				11	
	11.5	44 50/5"	17	14	13	12	SILTY SAND (SM): grayish green, coarse grained, moist, very dense, has odor
		15					
	13	37 50/5"	17	15	22	13	SILTY SAND (SM): grayish green, coarse grained, moist, very dense, has odor
		19				14	SILTY SAND (SM): grayish green, coarse grained, moist, very dense, has odor
15	14.5	39 50	18	16	37	15	
	16	14 35 50	17	15	1238	16	SILTY SAND (SM): blue gray brown, fine to medium grained, very moist, very dense, has odor
						17	
	18	35 39 50	18	16	25	18	
						19	SILTY SAND (SM): brown, medium to coarse grained, very moist, very dense, has odor
20	20	38 14 50/4"	16	13	125	20	
						21	Total Depth = 20 feet
						22	
						23	
						24	
25						25	
						26	
						27	
						28	
						29	
30						30	

Well Construction: *neat cement*; *10-inch diameter bore hole*; *bentonite*; *#3 sand*; *4" diameter PVC 0.020" slot screen*

HORIZON ENVIRONMENTAL INC.
4970 Windplay Drive, Suite 5
El Dorado Hills, California 95762
(916) 939-2170 -- Fax: (916) 939-2172

Well No. MW-5A

Drilling Company: Slagle Drilling
Date Drilled: 10/20/10
Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon Sampler

Project No.: 1574.13
Site: Former Beacon 12574
Location: Castro Valley, CA
Geologist: Craig Roth

Depth In Feet	Sample Number	Blow Count	Inches Driven	Inches Recovered	PID Reading (ppm)	Sampling Interval	Soil Description/ Comments
						0	asphalt first 4 inches and base rock 8 inches
						1	*neat cement*
						2	SILT (ML): dark brown, moist, firm, medium plasticity, no odor
						3	*8-inch diameter bore hole*
		3				4	
5	5	5 9	18	18	3	5	SANDY SILT (ML): brown to olive brown, very fine grained, moist, firm, low plasticity, no odor
						6	
						7	
						8	*bentonite*
		5				9	SILTY SAND (SM): olive brown, fine to medium grained, moist, medium dense, no odor
10	10	7 11	18	18	3	10	
						11	
						12	*#2 x #12 sand*
						13	
		17				14	SILTY SAND AND GRAVEL (SM /GM): brown to orange brown, medium to coarse grained, moist, very dense, no odor
15	15	27 39	18	15	4	15	
						16	
						17	*2" diameter PVC 0.010" slot screen*
						18	
		8				19	SILT (ML): blue gray to gray green, moist, very stiff, no odor
20	20	13 21	18	16	4	20	SANDY SILT (ML): olive brown, fine grained, very moist, very stiff, no odor
						21	
						22	
						23	
						24	
		15				25	▽ water at 25 feet
25	25	28 47	18	17	3		SILTY SAND (SM): bluish green, fine grained, very moist to wet, dense, no odor
						26	
						27	
						28	
		8				29	SILTY SAND AND GRAVEL (SM / GM): dark gray, medium to coarse grained, medium dense, wet, no odor
30	30	8 12	18	16	1	30	

Total Depth = 30 feet

HORIZON ENVIRONMENTAL INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

1 of 2

MONITORING WELL DATA

Station No. Former Beacon 12574	Location Castro Valley
Address 22315 Redwood Rd	Job No. 1574.13
Well No. MW5-A	Date 11-1-10

T.D. - D.T.W.	x *VF	= Casing Volume
29.41 - 15.11	x 0.17	= 2.43

*VF= gal./ft.	2" x 0.17 3" x 0.38	4" x 0.66 6" x 1.50

Gals. Purged	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Conduct.	1496	1461	1411	1355	1292	1230	1152
P/H	6.97	6.9	6.9	6.8	6.8	6.8	6.7
Temp (°F)	69	69	68	68	67	67	67
Turbid	yes	yes	yes	yes	yes	yes	slight
Product/Sheen	no	no	no	no	no	no	no
Time 1101							
Odor	no	no	no	no	no	no	no

Total Volume Purged: ~~500~~ 20

Total Gallons Purged: 50

Sample Containers: VOAs

H_2O Stored? 55 gal drum - delivered to Instruct

Purging Equipment: Steel Bails & 12 volt pump

Sampling Equipment: Disp Bailer

D.T.W. after purging: 17.38

Comments:

Sample at 17.38 DTW at 1208 hrs

C. Kelly

Technician

C.Bell

HORIZON ENVIRONMENTAL INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

2 of 2

MONITORING WELL DATA

Station No. Former Beacon 7570	Location Castro Valley
Address	Job No. 1574.13
Well No. MW5-A	Date 11-1-10

T.D.	- D.T.W.	x *VF	= Casing Volume
	-	x	=

*VF= gal./ft.	2" x 0.17 3" x 0.38	4" x 0.66 6" x 1.50

55 gal

Gals. Purged	2.5	2.5	2.5			25gal	
Conduct.	1145	1137	1140			1132	
P/H	6.68	6.7	6.7			6.7	
Temp (°F)	67	67	67			67	
Turbid	slight	slight	slight			very slight	
Product/Sheen	no	no	no				sample at
Time	→	→	1130			~~1140~~	1208 hrs
Odor	no	no	no			1148 hr	

Total Volume Purged:

Purging Equipment:

Total Gallons Purged:

Sampling Equipment:

Sample Containers:

D.T.W. after purging:

H_2O Stored?

Comments:

Technician

ATTACHMENT E

NON-HAZARDOUS WASTE MANIFESTS

AND

LANDFILL RECEIPT

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. Hzw 10-88

2. Page 1 of 1

3. Generator's Name and Mailing Address: Former Bezcon # 12574, 22315 Redwood Rd, Castro Valley

Horizon Env.

4. Generator's Phone ( )

5. Transporter 1 Company Name: Horizon Environmental

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address: Instrat, 1105 c Airport Rd, Rio Vista, CA

10. US EPA ID Number: CAD000 150 599

E. State Facility's ID

F. Facility's Phone: (707) 374-3834

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non Hazardous well development water	1	Poly	30	gal.
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

Colors- Clear

odors- ø

Solids- ø

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

GENERATOR

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

SNR

Printed/Typed Name | Signature | Date: Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Instrat

Printed/Typed Name: Pat Rick McGonagle | Signature | Date: Month 11 Day 1 Year 10

NON-HAZARDOUS WASTE

☐ Keller Canyon Sanitary Landfill
901 Bailey Road
Pittsburg, CA 94565
Phone (925) 458-9800
Fax (925) 458-9891

☐ Coffin Butte Landfill
28972 Coffin Bu[illegible]oad
Corvallis, OR 97330
Phone (541) 745-2018
Fax (541) 745-3826

☐ Ox Mountain Sanitary Landfill
12310 San Mateo Road
Half Moon Bay, CA 94019
Phone (650) 726-1819
Fax (650) 726-9183

☐ Newby Island Sani[illegible]y Landfill
1601 [illegible] Landing Road
Milpitas, CA 95035
Phone (408) 945-2800
Fax (408) 262-2871

☒ Forward Landfill
9999 S. Austin Road
Manteca, CA 95336
Phone (209) 982-4298
Fax (209) 982-1009

NON-HAZARDOUS WASTE MANIFEST

GENERATOR
Ultramar, Inc.
MAILING ADDRESS
One Valero Way
CITY, STATE, ZIP
San Antonio, TX 78249
PHONE
(210) 345-4663
CONTACT PERSON
C. Shay Wideman
SIGNATURE OF AUTHORIZED AGENT / TITLE | DATE
* Emil D. Kreuck / Agent for Ultramar | 11/11/10

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or title 22 of the California code of regulations, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, If the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.

WASTE TYPE:
☒ DISPOSAL ☐ SLUDGE
☐ CONSTRUCTION ☐ WOOD
☐ DEBRIS ☐ OTHER
☐ SPECIAL WASTE

GENERATING FACILITY Former Beacon 12.574
22315 Redwood Road CASTRO VALLEY

WASTE ACCEPTANCE NO.
— **9797**

REQUIRED PERSONAL PROTECTIVE EQUIPMENT
☒ GLOVES ☐ GOGGLES ☐ RESPIRATOR ☒ HARD HAT
☐ TY-VEK ☒ SAFETY VEST

SPECIAL HANDLING PROCEDURES:

RECEIVING FACILITY

TRANSPORTER
Horizon Environmental Inc.
ADDRESS
4970 Windplay Drive, Suite 5
CITY, STATE, ZIP
El Dorado Hills, CA 95762
PHONE
(916) 939-2170
SIGNATURE OF AUTHORIZED AGENT OR DRIVER | DATE
* [signature] | 11-16-10

NOTES: | VEHICLE LICENSE NUMBER | TRUCK NUMBER
7L39423 | 607

END DUMP	BOTTOM DUMP	TRANSFER
☐	☐	☐

ROLL-OFF(S)	FLAT-BED	VAN	DRUMS
☐	☐	☐	☐

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

CUBIC YARDS
1 Drums

DISPOSAL METHOD: (TO BE COMPLETED BY LANDFILL)

	DISPOSE	OTHER
☐ SOIL		
☐ CONSTRUCTION DEBRIS		
☐ NON-FRIABLE ASBESTOS		
☐ WOOD		
☐ ASH		
☐ SPECIAL OTHER		

REMARKS

FACILITY TICKET NUMBER

SIGNATURE OF AUTHORIZED AGENT | DATE
* [signature] | 11/16/10

SCHEDULING MUST BE MADE PRIOR TO 3:00 P.M. THE DAY PRIOR TO EXPECTED ARRIVAL. ANY UNSCHEDULED LOADS ARE SUBJECT TO REFUSAL UPON ARRIVAL. ONGOING DAILY DELIVERIES MUST BE SCHEDULED WITH THE LANDFILL THE DAY BEFORE.

FORWARD INCORPORATED

9999 South Austin Road
Manteca, CA 95336
Landfill: 209-982-4298 Fax: 209-982-1009
Resource Recovery: 209-982-4298

1145 West Charter Way
Stockton, CA 95206
Main Office: 209-466-4482
Fax: 209-466-1667

DATE: 1/11/10

TRUCK LIC #:

CUSTOMER NO. 9797 Horizon TRUCK NO. 007

TRAILER LIC #:

BILL TO: Valero Energy Corporation

311225

SIZE YDS	DESCRIPTION	NOTES		
	☐ REFUSE ☐ TREATED WOOD		17480	GROSS
	☐ SLUDGE ☐ ASH		10540	TARE
	☐ ASBESTOS ☐ NON-FRIABLE ASBESTOS		6940	NET
H Drums	☒ I SOIL ☐ SOIL ☐ STOCKPILE		3.47	TONS

IN 3:40 AM/PM

OUT ______ AM/PM

Signed ______

ATTACHMENT F

SOIL AND GROUNDWATER

ANALYTICAL DATA

KIFF Analytical LLC

Report Number : 75062
Date : 10/27/2010

Laboratory Results

Ken Mateik
Horizon Environmental
4970 Windplay Drive, Suite 5
El Dorado Hills, CA 95762

Subject : 13 Soil Samples
Project Name : Former Beacon 12574-Soil
Project Number : 1574.13
P.O. Number : 12574-039

Dear Mr. Mateik,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 75062
Date : 10/27/2010

Subject : 13 Soil Samples
Project Name : Former Beacon 12574-Soil
Project Number : 1574.13
P.O. Number : 12574-039

Case Narrative

Matrix Spike/Matrix Spike Duplicate results associated with samples VW 1-15, VW 2-15, VW 2-20, VW 3-10, VW 3-16, and VW 3-20 for the analyte TPH as Diesel were affected by the analyte concentrations already present in the un-spiked sample.

Matrix Spike/Matrix Spike Duplicate results associated with samples MW 5A-10, MW 5A-20, MW 5A-30, VP 1-8, VP 2-8, VP 3-8, and VP 2-20 for the analyte Benzene were affected by the analyte concentrations already present in the un-spiked sample.

KIFF Analytical LLC

Report Number : 75062
Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**
Project Number : **1574.13**

Sample : **VW 1-15** Matrix : Soil Lab Number : 75062-03
Sample Date :10/19/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 01:20
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 01:20
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 01:20
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 01:20
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 01:20
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/23/10 01:20
1,2-Dichloroethane-d4 (Surr)	99.4		% Recovery	EPA 8260B	10/23/10 01:20
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	10/23/10 01:20
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	10/25/10 15:22
Octacosane (Diesel Surrogate)	77.6		% Recovery	M EPA 8015	10/25/10 15:22

KIFF Analytical LLC

Report Number : 75062
Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**
Project Number : **1574.13**

Sample : **VW 2-15** Matrix : Soil Lab Number : 75062-07
Sample Date :10/19/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**0.031**	0.0050	mg/Kg	EPA 8260B	10/23/10 01:57
Toluene	**0.014**	0.0050	mg/Kg	EPA 8260B	10/23/10 01:57
Ethylbenzene	**0.011**	0.0050	mg/Kg	EPA 8260B	10/23/10 01:57
Total Xylenes	**0.049**	0.0050	mg/Kg	EPA 8260B	10/23/10 01:57
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 01:57
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/23/10 01:57
1,2-Dichloroethane-d4 (Surr)	98.3		% Recovery	EPA 8260B	10/23/10 01:57
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	10/23/10 01:57
TPH as Diesel	**1.1**	1.0	mg/Kg	M EPA 8015	10/25/10 15:57
(Note: Some hydrocarbons lower-boiling, some higher-boiling than Diesel.)					
Octacosane (Diesel Surrogate)	90.6		% Recovery	M EPA 8015	10/25/10 15:57

KIFF Analytical LLC

Report Number : 75062
Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**
Project Number : **1574.13**

Sample : **VW 2-20** Matrix : Soil Lab Number : 75062-08
Sample Date :10/19/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**0.21**	0.030	mg/Kg	EPA 8260B	10/26/10 01:36
Toluene	**0.95**	0.030	mg/Kg	EPA 8260B	10/26/10 01:36
Ethylbenzene	**2.2**	0.030	mg/Kg	EPA 8260B	10/26/10 01:36
Total Xylenes	**12**	0.030	mg/Kg	EPA 8260B	10/26/10 01:36
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 13:08
TPH as Gasoline	**1100**	20	mg/Kg	EPA 8260B	10/27/10 15:40
1,2-Dichloroethane-d4 (Surr)	81.3		% Recovery	EPA 8260B	10/26/10 01:36
Toluene - d8 (Surr)	82.9		% Recovery	EPA 8260B	10/26/10 01:36
2-Bromochlorobenzene (Surr)	89.9		% Recovery	EPA 8260B	10/26/10 01:36
TPH as Diesel	**97**	1.0	mg/Kg	M EPA 8015	10/25/10 14:47
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Diesel Surrogate)	80.0		% Recovery	M EPA 8015	10/25/10 14:47

KIFF Analytical LLC

Report Number : 75062
Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**
Project Number : **1574.13**

Sample : **VW 3-10** Matrix : Soil Lab Number : 75062-10
Sample Date :10/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 03:13
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 03:13
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 03:13
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 03:13
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 03:13
TPH as Gasoline	**1.7**	1.0	mg/Kg	EPA 8260B	10/23/10 03:13
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	10/23/10 03:13
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	10/23/10 03:13
TPH as Diesel	**120**	5.0	mg/Kg	M EPA 8015	10/26/10 10:46
Octacosane (Diesel Surrogate)	91.7		% Recovery	M EPA 8015	10/26/10 10:46

KIFF Analytical LLC

Report Number : 75062
Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**
Project Number : **1574.13**

Sample : **VW 3-16** Matrix : Soil Lab Number : 75062-14
Sample Date :10/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**0.027**	0.0050	mg/Kg	EPA 8260B	10/23/10 03:53
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 03:53
Ethylbenzene	**0.044**	0.0050	mg/Kg	EPA 8260B	10/23/10 03:53
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 03:53
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 03:53
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/23/10 03:53
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	10/23/10 03:53
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	10/23/10 03:53
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	10/25/10 16:01
Octacosane (Diesel Surrogate)	75.1		% Recovery	M EPA 8015	10/25/10 16:01

KIFF Analytical LLC

Report Number : 75062
Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**
Project Number : **1574.13**

Sample : **VW 3-20** Matrix : Soil Lab Number : 75062-16
Sample Date :10/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**0.019**	0.0050	mg/Kg	EPA 8260B	10/23/10 04:31
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 04:31
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 04:31
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 04:31
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 04:31
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/23/10 04:31
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	10/23/10 04:31
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	10/23/10 04:31
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	10/26/10 00:01
Octacosane (Diesel Surrogate)	70.2		% Recovery	M EPA 8015	10/26/10 00:01

KIFF Analytical LLC

Report Number : 75062
Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**
Project Number : **1574.13**

Sample : **MW 5A-10** Matrix : Soil Lab Number : 75062-18
Sample Date :10/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 00:20
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 00:20
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 00:20
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 00:20
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 00:20
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/23/10 00:20
1,2-Dichloroethane-d4 (Surr)	98.4		% Recovery	EPA 8260B	10/23/10 00:20
Toluene - d8 (Surr)	91.2		% Recovery	EPA 8260B	10/23/10 00:20

KIFF Analytical LLC

Report Number : 75062
Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**
Project Number : **1574.13**

Sample : **MW 5A-20** Matrix : Soil Lab Number : 75062-20
Sample Date :10/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 00:52
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 00:52
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 00:52
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 00:52
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 00:52
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/23/10 00:52
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	10/23/10 00:52
Toluene - d8 (Surr)	91.2		% Recovery	EPA 8260B	10/23/10 00:52

KIFF Analytical LLC

Report Number : 75062
Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**
Project Number : **1574.13**

Sample : **MW 5A-30** Matrix : Soil Lab Number : 75062-22
Sample Date :10/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 01:24
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 01:24
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 01:24
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 01:24
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 01:24
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/23/10 01:24
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	10/23/10 01:24
Toluene - d8 (Surr)	91.8		% Recovery	EPA 8260B	10/23/10 01:24

KIFF Analytical LLC

Report Number : 75062
Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**
Project Number : **1574.13**

Sample : **VP 1-8** Matrix : Soil Lab Number : 75062-24
Sample Date :10/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 06:12
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 06:12
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 06:12
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 06:12
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 06:12
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/23/10 06:12
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	10/23/10 06:12
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	10/23/10 06:12

KIFF Analytical LLC

Report Number : 75062
Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**
Project Number : **1574.13**

Sample : **VP 2-8** Matrix : Soil Lab Number : 75062-26
Sample Date :10/19/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.025	0.025	mg/Kg	EPA 8260B	10/23/10 05:12
Toluene	< 0.025	0.025	mg/Kg	EPA 8260B	10/23/10 05:12
Ethylbenzene	**2.1**	0.025	mg/Kg	EPA 8260B	10/23/10 05:12
Total Xylenes	**6.3**	0.025	mg/Kg	EPA 8260B	10/23/10 05:12
Methyl-t-butyl ether (MTBE)	< 0.025	0.025	mg/Kg	EPA 8260B	10/23/10 05:12
TPH as Gasoline	**210**	2.5	mg/Kg	EPA 8260B	10/23/10 05:12
1,2-Dichloroethane-d4 (Surr)	99.6		% Recovery	EPA 8260B	10/23/10 05:12
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	10/23/10 05:12
2-Bromochlorobenzene (Surr)	97.2		% Recovery	EPA 8260B	10/23/10 05:12

KIFF Analytical LLC

Report Number : 75062
Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**
Project Number : **1574.13**

Sample : **VP 3-8** Matrix : Soil Lab Number : 75062-28
Sample Date :10/19/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 06:51
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 06:51
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 06:51
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 06:51
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 06:51
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/23/10 06:51
1,2-Dichloroethane-d4 (Surr)	108		% Recovery	EPA 8260B	10/23/10 06:51
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	10/23/10 06:51

KIFF Analytical LLC

Report Number : 75062
Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**
Project Number : **1574.13**

Sample : **VP 2-20** Matrix : Soil Lab Number : 75062-30
Sample Date :10/19/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 07:26
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 07:26
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 07:26
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 07:26
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/23/10 07:26
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/23/10 07:26
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	10/23/10 07:26
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	10/23/10 07:26

Report Number : 75062

Date : 10/27/2010

QC Report : Method Blank Data

Project Name : **Former Beacon 12574-Soil**

Project Number : **1574.13**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	10/25/2010
Octacosane (Diesel Surrogate)	70.0		%	M EPA 8015	10/25/2010
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/21/2010
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/21/2010
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/21/2010
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/21/2010
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/21/2010
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/21/2010
1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	10/21/2010
Toluene - d8 (Surr)	99.1		%	EPA 8260B	10/21/2010
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/22/2010
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/22/2010
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/22/2010
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/22/2010
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/22/2010
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/22/2010
1,2-Dichloroethane-d4 (Surr)	99.7		%	EPA 8260B	10/22/2010
Toluene - d8 (Surr)	93.0		%	EPA 8260B	10/22/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/25/2010
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/25/2010
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/25/2010
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/25/2010
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/25/2010
1,2-Dichloroethane-d4 (Surr)	98.6		%	EPA 8260B	10/25/2010
Toluene - d8 (Surr)	99.0		%	EPA 8260B	10/25/2010

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 75062

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**

Project Number : **1574.13**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel														
	75054-04	150	19.7	19.6	271	370	mg/Kg	M EPA 8015	10/25/10	**620**	**1130**	**58.3**	60-140	25
Benzene														
	75008-01	<0.0050	0.0381	0.0391	0.0405	0.0419	mg/Kg	EPA 8260B	10/22/10	106	107	0.804	67.9-120	25
Ethylbenzene														
	75008-01	<0.0050	0.0381	0.0391	0.0411	0.0428	mg/Kg	EPA 8260B	10/22/10	108	109	1.33	65.5-127	25
Methyl-t-butyl ether														
	75008-01	<0.0050	0.0381	0.0391	0.0332	0.0327	mg/Kg	EPA 8260B	10/22/10	87.3	83.5	4.36	57.0-122	25
P + M Xylene														
	75008-01	<0.0050	0.0381	0.0391	0.0395	0.0410	mg/Kg	EPA 8260B	10/22/10	104	105	1.09	62.5-124	25
Toluene														
	75008-01	<0.0050	0.0381	0.0391	0.0396	0.0410	mg/Kg	EPA 8260B	10/22/10	104	105	0.824	65.7-120	25
Benzene														
	75007-12	0.10	0.0399	0.0397	0.119	0.113	mg/Kg	EPA 8260B	10/22/10	**45.2**	**31.6**	**35.4**	67.9-120	25
Ethylbenzene														
	75007-12	<0.0050	0.0399	0.0397	0.0407	0.0407	mg/Kg	EPA 8260B	10/22/10	102	102	0.447	65.5-127	25
Methyl-t-butyl ether														
	75007-12	<0.0050	0.0399	0.0397	0.0364	0.0366	mg/Kg	EPA 8260B	10/22/10	91.3	92.1	0.900	57.0-122	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 75062

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**

Project Number : **1574.13**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
P + M Xylene														
	75007-12	<0.0050	0.0399	0.0397	0.0386	0.0380	mg/Kg	EPA 8260B	10/22/10	96.6	95.8	0.876	62.5-124	25
Toluene														
	75007-12	<0.0050	0.0399	0.0397	0.0376	0.0384	mg/Kg	EPA 8260B	10/22/10	94.2	96.8	2.65	65.7-120	25
Benzene														
	75085-01	<0.0050	0.0396	0.0394	0.0386	0.0342	mg/Kg	EPA 8260B	10/25/10	97.5	86.8	11.6	67.9-120	25
Ethylbenzene														
	75085-01	<0.0050	0.0396	0.0394	0.0381	0.0333	mg/Kg	EPA 8260B	10/25/10	96.3	84.5	13.0	65.5-127	25
P + M Xylene														
	75085-01	<0.0050	0.0396	0.0394	0.0372	0.0323	mg/Kg	EPA 8260B	10/25/10	93.8	82.2	13.2	62.5-124	25
Toluene														
	75085-01	<0.0050	0.0396	0.0394	0.0375	0.0332	mg/Kg	EPA 8260B	10/25/10	94.7	84.3	11.6	65.7-120	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 75062

QC Report : Laboratory Control Sample (LCS)

Date : 10/27/2010

Project Name : **Former Beacon 12574-Soil**

Project Number : **1574.13**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
TPH as Diesel	20.0	mg/Kg	M EPA 8015	10/25/10	82.6	70-130
Benzene	0.0382	mg/Kg	EPA 8260B	10/21/10	103	67.9-120
Ethylbenzene	0.0382	mg/Kg	EPA 8260B	10/21/10	105	65.5-127
Methyl-t-butyl ether	0.0382	mg/Kg	EPA 8260B	10/21/10	84.0	57.0-122
P + M Xylene	0.0382	mg/Kg	EPA 8260B	10/21/10	102	62.5-124
Toluene	0.0382	mg/Kg	EPA 8260B	10/21/10	101	65.7-120
Benzene	0.0400	mg/Kg	EPA 8260B	10/22/10	96.6	67.9-120
Ethylbenzene	0.0400	mg/Kg	EPA 8260B	10/22/10	100	65.5-127
Methyl-t-butyl ether	0.0400	mg/Kg	EPA 8260B	10/22/10	96.3	57.0-122
P + M Xylene	0.0400	mg/Kg	EPA 8260B	10/22/10	97.4	62.5-124
Toluene	0.0400	mg/Kg	EPA 8260B	10/22/10	91.3	65.7-120
Benzene	0.0391	mg/Kg	EPA 8260B	10/25/10	105	67.9-120
Ethylbenzene	0.0391	mg/Kg	EPA 8260B	10/25/10	107	65.5-127
P + M Xylene	0.0391	mg/Kg	EPA 8260B	10/25/10	104	62.5-124
Toluene	0.0391	mg/Kg	EPA 8260B	10/25/10	102	65.7-120

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KIFF Analytical LLC

2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 75062

Page 1 of 3

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): KEN MATEIK	California EDF Report? ☑ Yes ☐ No
Company / Address: Horizon Environmental 4970 Windplay Drive, Suite 5, El Dorado Hills, CA 95762	Sampling Company Log Code: HEIE
Phone #: 916 - 939 - 2170 / Fax #: 916 - 939 - 2172	Global ID: T0600100155
Project #: 1574.13 / P.O. #: 12574-039	EDF Deliverable To (Email Address): kiffanalytical.com
Project Name: **Former Beacon 12574-Soil**	Sampler Signature: Craig Roth
Project Address: **22315 Redwood Road, Castro Valley, CA 94546**	

Sample Designation	Date	Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Preservative: HCl	Preservative: HNO_3	Preservative: None	Preservative: Ice	Matrix: Water	Matrix: SOIL	Matrix: Air	Analysis Request: MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	Analysis Request: MTBE (EPA 8260B) @ 0.5 ppb	Analysis Request: BTEX (EPA 8260B)	Analysis Request: TPH Gas (EPA 8260B)	Analysis Request: 5 Oxygenates (EPA 8260B)	Analysis Request: 7 Oxygenates(EPA 8260B)	Analysis Request: Lead Scav(1,2 DCA & 1,2 EDB-EPA 8260B)	Analysis Request: Volatile Halocarbons(EPA 8260B)	Analysis Request: Volatile Organics Full List(EPA 8260B)	Analysis Request: Volatile Organics (EPA 524.2 Drinking Water)	Analysis Request: TPH as Diesel (EPA 8015M)	Analysis Request: TPH as Motor Oil (EPA 8015M)	Analysis Request: Total Lead (EPA 6010)	Analysis Request: W.E.T. Lead (STLC)	Analysis Request: HOLD	TAT	For Lab Use Only
VW 1-5	10-19-10	1015		X							X		X																X	~~1wk~~	01
VW 1-10		1023																											X	~~1wk~~	02
VW 1-15		1034														X	X	X							X					1 wk	03
VW 1-20		1041																											X	~~1wk~~	04
VW2-5		1425																											X	~~1wk~~	05
VW2-10		1437																											X	~~1wk~~	06
VW2-15		1448														X	X	X							X					1 wk	07
VW2-20	10-19-10	1456														X	X	X							X					1 wk	08
VW3-5	10-20-10	1127																											X	~~1wk~~	09
VW3-10	10-20-10	1140		X							X		X			X	X	X							X					1 wk	10

TAT: ☐ 12 hr ☐ 24 hr ☐ 48hr ☐ 72 hr ☑ 1 wk

Relinquished by:	Date	Time	Received by:
Craig Roth	10-22-10	1038	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	10-22-10	1038	Kiff Analytical

Remarks:

STANDARD TURN AROUND TIME (One Week)

Bill to: ULTRAMAR Inc.
Attention: Mr. C. Shay Wideman

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

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Fax: 530.297.4802

SRG # / Lab No. 75062

Page 2 of 3

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): KEN MATEIK	California EDF Report? ☑ Yes ☐ No
Company / Address: Horizon Environmental 4970 Windplay Drive, Suite 5, El Dorado Hills, CA 95762	Sampling Company Log Code: HEIE
Phone #: 916 - 939 - 2170 / Fax #: 916 - 939 - 2172	Global ID: T0600100155
Project #: 1574.13 / P.O. #: 12574-039	EDF Deliverable To (Email Address): kiffanalytical.com
Project Name: Former Beacon 12574-Soil	Sampler Signature: Craig Roth
Project Address: 22315 Redwood Road, Castro Valley, CA 94546	

Sample Designation	Sampling: Date	Sampling: Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Preservative: HCl	Preservative: HNO_3	Preservative: None	Preservative: Ice	Matrix: Water	Matrix: SOIL	Matrix: Air	MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B)	Lead Scav (1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)	W.E.T. Lead (STLC)	HOLD	TAT	For Lab Use Only
VW3-11.5	10-20-10	1149		X							X		X																X	~~1 wk~~	11
VW3-13		1155																											X	~~1 wk~~	12
VW3-14.5		1201																											X	~~1 wk~~	13
VW3-16		1207														X	X	X							X					1 wk	14
VW3-18.5		1215																											X	~~1 wk~~	15
VW3-20	10-20-10	1223														X	X	X							X					1 wk	16
MW5A-5		0858																											X	~~1 wk~~	17
MW5A-10		0908														X	X	X												1 wk	18
MW5A-15		0918																											X	~~1 wk~~	19
MW5A-20	10-20-10	0924		X							X		X			X	X	X							X					1 wk	20

Relinquished by:	Date	Time	Received by:
Craig Roth	10-22-10	1038	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	102210	1048	Kiff Analytical

Remarks:

STANDARD TURN AROUND TIME (One Week)

Bill to: ULTRAMAR Inc.
Attention: Mr. C. Shay Wideman

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

Page 2 of 3

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Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 75062

Page 3 of 3

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): KEN MATEIK	California EDF Report? ☑ Yes ☐ No
Company / Address: Horizon Environmental 4970 Windplay Drive, Suite 5, El Dorado Hills, CA 95762	Sampling Company Log Code: HEIE
Phone #: 916 - 939 - 2170 / Fax #: 916 - 939 - 2172	Global ID: T0600100155
Project #: 1574.13 / P.O. #: 12574-039	EDF Deliverable To (Email Address): kiffanalytical.com
Project Name: **Former Beacon 12574-Soil**	Sampler Signature: Craig Roth
Project Address: **22315 Redwood Road, Castro Valley, CA 94546**	

Sample Designation	Sampling: Date	Sampling: Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Preservative: HCl	Preservative: HNO_3	Preservative: None	Preservative: Ice	Matrix: Water	Matrix: SOIL	Matrix: Air	MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates(EPA 8260B)	Lead Scav.(1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons(EPA 8260B)	Volatile Organics Full List(EPA 8260B)	Volatile Organics(EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)	W.E.T. Lead (STLC)	HOLD	TAT	For Lab Use Only
MW5A-25	10-20-10	0937		X							X		X																X	~~1 wk~~	21
MW5A-30	10-20-10	0955														X	X	X												1 wk	22
VP1-4	10-20-10	1335																											X	~~1 wk~~	23
VP1-8	10-20-10	1340														X	X	X												1 wk	24
VP2-5	10-19-10	1222																											X	~~1 wk~~	25
VP2-8	10-19-10	1305														X	X	X												1 wk	26
VP3-4	10-19-10	1616																											X	~~1 wk~~	27
VP3-8	10-19-10	1634														X	X	X												1 wk	28
VP2-15	10-19-10	1318																											X	~~1 wk~~	29
VP2-20	10-19-10	1336														X	X	X												1 wk	30

	Date	Time	
Relinquished by: Craig Roth	10-22-10	1038	Received by:
Relinquished by:			Received by:
Relinquished by:	10 22 10	1038	Received by Laboratory: Kiff Analytical

Remarks:

STANDARD TURN AROUND TIME (One Week)

Bill to: ULTRAMAR Inc.
Attention: Mr. C. Shay Wideman

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

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KIFF Analytical LLC

SAMPLE RECEIPT CHECKLIST

RECEIVER Initials: CAY

SRG#: 25062 Date: 102210

Project ID: Former Beacon 12574-Soil

Method of Receipt: ☒ Courier ☐ Over-the-counter ☐ Shipper

COC Inspection

Is COC present?	☒ Yes	☐ No			
Custody seals on shipping container?	☐ Intact	☐ Broken	☐ Not present	☒ N/A	
Is COC Signed by Relinquisher?	☒ Yes	☐ No	Dated?	☒ Yes	☐ No
Is sampler name legibly indicated on COC?	☒ Yes	☐ No			
Is analysis or hold requested for all samples	☒ Yes	☐ No			
Is the turnaround time indicated on COC?	☒ Yes	☐ No			
Is COC free of whiteout and uninitialed cross-outs?	☐ Yes	☐ No, Whiteout	☒ No, Cross-outs		

Sample Inspection

Coolant Present: ☒ Yes ☐ No (includes water)

Temperature °C 1.4 Therm. ID# 12-5 Initial EMA Date/Time 102210 1237 ☐ N/A

Are there custody seals on sample containers?	☐ Intact	☐ Broken	☒ Not present	
Do containers match COC?	☒ Yes	☐ No	☐ No, COC lists absent sample(s)	☐ No, Extra sample(s) present
Are there samples matrices other than soil, water, air or carbon?	☐ Yes	☒ No		
Are any sample containers broken, leaking or damaged?	☐ Yes	☒ No		
Are preservatives indicated?	☐ Yes, on sample containers	☐ Yes, on COC	☐ Not indicated	☒ N/A
Are preservatives correct for analyses requested?	☐ Yes	☐ No	☒ N/A	
Are samples within holding time for analyses requested?	☒ Yes	☐ No		
Are the correct sample containers used for the analyses requested?	☒ Yes	☐ No		
Is there sufficient sample to perform testing?	☒ Yes	☐ No		
Does any sample contain product, have strong odor or are otherwise suspected to be hot?	☐ Yes	☒ No		

Receipt Details

Matrix SO Container type Sleeve # of containers received 30

Matrix _____ Container type _____ # of containers received _____

Matrix _____ Container type _____ # of containers received _____

Date and Time Sample Put into Temp Storage Date: 102210 Time: 1308

Quicklog

Are the Sample ID's indicated:	☐ On COC	☐ On sample container(s)	☒ On Both	☐ Not indicated	
If Sample ID's are listed on both COC and containers, do they all match?	☒ Yes	☐ No	☐ N/A		
Is the Project ID indicated:	☐ On COC	☐ On sample container(s)	☒ On Both	☐ Not indicated	
If project ID is listed on both COC and containers, do they all match?	☒ Yes	☐ No	☐ N/A		
Are the sample collection dates indicated:	☐ On COC	☐ On sample container(s)	☒ On Both	☐ Not indicated	
If collection dates are listed on both COC and containers, do they all match?	☒ Yes	☐ No	☐ N/A		
Are the sample collection times indicated:	☐ On COC	☐ On sample container(s)	☒ On Both	☐ Not indicated	
If collection times are listed on both COC and containers, do they all match?	☒ Yes	☐ No	☐ N/A		

COMMENTS:

KIFF Analytical LLC

Report Number : 75063
Date : 10/25/2010

Laboratory Results

Ken Mateik
Horizon Environmental
4970 Windplay Drive, Suite 5
El Dorado Hills, CA 95762

Subject : 1 Soil Sample
Project Name : Former Beacon 12574-Stockpile
Project Number : 1574.13
P.O. Number : 12574-039

Dear Mr. Mateik,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 75063
Date : 10/25/2010

Project Name : **Former Beacon 12574-Stockpile**
Project Number : **1574.13**

Sample : **SP ABCD** Matrix : Soil Lab Number : 75063-01
Sample Date :10/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Lead	**6.7**	0.50	mg/Kg	EPA 6010B	10/25/10 14:05
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/22/10 15:18
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/22/10 15:18
Ethylbenzene	**0.011**	0.0050	mg/Kg	EPA 8260B	10/22/10 15:18
Total Xylenes	**0.048**	0.0050	mg/Kg	EPA 8260B	10/22/10 15:18
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/22/10 15:18
TPH as Gasoline	**1.2**	1.0	mg/Kg	EPA 8260B	10/22/10 15:18
1,2-Dichloroethane-d4 (Surr)	105		% Recovery	EPA 8260B	10/22/10 15:18
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	10/22/10 15:18

Report Number : 75063

Date : 10/25/2010

QC Report : Method Blank Data

Project Name : **Former Beacon 12574-Stockpile**

Project Number : **1574.13**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	< 0.50	0.50	mg/Kg	EPA 6010B	10/25/2010
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/21/2010
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/21/2010
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/21/2010
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/21/2010
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	10/21/2010
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/21/2010
1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	10/21/2010
Toluene - d8 (Surr)	99.1		%	EPA 8260B	10/21/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

KIFF ANALYTICAL, LLC

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Report Number : 75063

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 10/25/2010

Project Name : **Former Beacon 12574-Stockpile**

Project Number : **1574.13**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Lead														
	75050-01	2.5	50.0	50.0	43.4	43.4	mg/Kg	EPA 6010B	10/25/10	81.7	81.7	0.0691	75-125	20
Benzene														
	75008-01	<0.0050	0.0381	0.0391	0.0405	0.0419	mg/Kg	EPA 8260B	10/22/10	106	107	0.804	67.9-120	25
Ethylbenzene														
	75008-01	<0.0050	0.0381	0.0391	0.0411	0.0428	mg/Kg	EPA 8260B	10/22/10	108	109	1.33	65.5-127	25
Methyl-t-butyl ether														
	75008-01	<0.0050	0.0381	0.0391	0.0332	0.0327	mg/Kg	EPA 8260B	10/22/10	87.3	83.5	4.36	57.0-122	25
P + M Xylene														
	75008-01	<0.0050	0.0381	0.0391	0.0395	0.0410	mg/Kg	EPA 8260B	10/22/10	104	105	1.09	62.5-124	25
Toluene														
	75008-01	<0.0050	0.0381	0.0391	0.0396	0.0410	mg/Kg	EPA 8260B	10/22/10	104	105	0.824	65.7-120	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 75063

QC Report : Laboratory Control Sample (LCS)

Date : 10/25/2010

Project Name : **Former Beacon 12574-Stockpile**

Project Number : **1574.13**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Lead	50.0	mg/Kg	EPA 6010B	10/25/10	104	85-115
Benzene	0.0382	mg/Kg	EPA 8260B	10/21/10	103	67.9-120
Ethylbenzene	0.0382	mg/Kg	EPA 8260B	10/21/10	105	65.5-127
Methyl-t-butyl ether	0.0382	mg/Kg	EPA 8260B	10/21/10	84.0	57.0-122
P + M Xylene	0.0382	mg/Kg	EPA 8260B	10/21/10	102	62.5-124
Toluene	0.0382	mg/Kg	EPA 8260B	10/21/10	101	65.7-120

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

KIFF Analytical LLC

2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 75063

Page 1 of 1

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): KEN MATEIK	California EDF Report? ☑ Yes ☐ No
Company / Address: Horizon Environmental 4970 Windplay Drive, Suite 5, El Dorado Hills, CA 95762	Sampling Company Log Code: HEIE
Phone #: 916 - 939 - 2170 / Fax #: 916 - 939 - 2172	Global ID: T0600100155
Project #: 1574.13 / P.O. #: 12574-039	EDF Deliverable To (Email Address): kiffanalytical.com
Project Name: **Former Beacon 12574-Stockpile**	Sampler Signature: Craig Roth
Project Address: **22315 Redwood Road Castro Valley, CA 94546**	

Sample Designation	Sampling: Date	Sampling: Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Preservative: HCl	Preservative: HNO_3	Preservative: None	Preservative: Ice	Matrix: Water	Matrix: SOIL	Matrix: Air	MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates(EPA 8260B)	Lead Scav.(1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons(EPA 8260B)	Volatile Organics Full List(EPA 8260B)	Volatile Organics(EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)	W.E.T. Lead (STLC)	TAT	For Lab Use Only
SP ABCD	10-20-10	1400		4							X		X			X	X	X									X			01

Analysis Request — TAT: ☐ 12 hr ☒ 24 hr ☐ 48hr ☐ 72 hr ☐ 1 wk

Relinquished by:	Date	Time	Received by:
[signature]	10-22-10	1039	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	102210	1039	Kiff Analytical

Remarks:

24-HOURS TURN AROUND TIME

4 point-sample to be composited into one sample

Bill to: ULTRAMAR Inc.
Attention: Mr. C. Shay Wideman

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

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KIFF Analytical LLC

SAMPLE RECEIPT CHECKLIST

RECEIVER Initials

SRG#: 75063 Date: 102210

Project ID: Former Beacon 12574-Stockpile

Method of Receipt: ☒ Courier ☐ Over-the-counter ☐ Shipper

COC Inspection

Is COC present?	☒ Yes	☐ No	
Custody seals on shipping container?	☐ Intact	☐ Broken ☐ Not present	☒ N/A
Is COC Signed by Relinquisher? ☒ Yes ☐ No Dated?	☒ Yes	☐ No	
Is sampler name legibly indicated on COC?	☒ Yes	☐ No	
Is analysis or hold requested for all samples	☒ Yes	☐ No	
Is the turnaround time indicated on COC?	☒ Yes	☐ No	
Is COC free of whiteout and uninitialed cross-outs?	☒ Yes	☐ No, Whiteout ☐ No, Cross-outs	

Sample Inspection

Coolant Present: ☒ Yes ☐ No (includes water)

Temperature °C 1.4 Therm. ID# IR-5 Initial EAJ Date/Time 102210 1237 ☐ N/A

Are there custody seals on sample containers?	☐ Intact	☐ Broken	☒ Not present
Do containers match COC? ☒ Yes ☐ No ☐ No, COC lists absent sample(s)		☐ No, Extra sample(s) present	
Are there samples matrices other than soil, water, air or carbon?	☐ Yes	☒ No	
Are any sample containers broken, leaking or damaged?	☐ Yes	☒ No	
Are preservatives indicated? ☐ Yes, on sample containers	☐ Yes, on COC	☐ Not indicated	☒ N/A
Are preservatives correct for analyses requested?	☐ Yes	☐ No	☒ N/A
Are samples within holding time for analyses requested?	☒ Yes	☐ No	
Are the correct sample containers used for the analyses requested?	☒ Yes	☐ No	
Is there sufficient sample to perform testing?	☒ Yes	☐ No	

Does any sample contain product, have strong odor or are otherwise suspected to be hot? ☐ Yes ☒ No

Receipt Details

Matrix SO	Container type Sleeve	# of containers received 4
Matrix	Container type	# of containers received
Matrix	Container type	# of containers received

Date and Time Sample Put into Temp Storage Date: 102210 Time: 1239

Quicklog

Are the Sample ID's indicated:	☐ On COC	☐ On sample container(s)	☒ On Both	☐ Not indicated
If Sample ID's are listed on both COC and containers, do they all match?	☒ Yes	☐ No		☐ N/A
Is the Project ID indicated:	☐ On COC	☐ On sample container(s)	☒ On Both	☐ Not indicated
If project ID is listed on both COC and containers, do they all match?	☒ Yes	☐ No		☐ N/A
Are the sample collection dates indicated:	☐ On COC	☐ On sample container(s)	☒ On Both	☐ Not indicated
If collection dates are listed on both COC and containers, do they all match?	☒ Yes	☐ No		☐ N/A
Are the sample collection times indicated:	☐ On COC	☐ On sample container(s)	☒ On Both	☐ Not indicated
If collection times are listed on both COC and containers, do they all match?	☒ Yes	☐ No		☐ N/A

COMMENTS:

KIFF Analytical LLC

Report Number : 75203
Date : 11/05/2010

Laboratory Results

Ken Mateik
Horizon Environmental
4970 Windplay Drive, Suite 5
El Dorado Hills, CA 95762

Subject : 1 Water Sample
Project Name : Former Beacon 12574
Project Number : 1574.13
P.O. Number : 12574-039

Dear Mr. Mateik,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 75203
Date : 11/05/2010

Project Name : **Former Beacon 12574**
Project Number : **1574.13**

Sample : **MW-5A** Matrix : Water Lab Number : 75203-01
Sample Date :11/01/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	11/05/10 00:22
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/05/10 00:22
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/05/10 00:22
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/05/10 00:22
Methyl-t-butyl ether (MTBE)	**18**	0.50	ug/L	EPA 8260B	11/05/10 00:22
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/05/10 00:22
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/05/10 00:22
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/05/10 00:22
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	11/05/10 00:22
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	11/05/10 00:22
1,2-Dichloroethane	**0.59**	0.50	ug/L	EPA 8260B	11/05/10 00:22
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	11/05/10 00:22
1,2-Dichloroethane-d4 (Surr)	98.7		% Recovery	EPA 8260B	11/05/10 00:22
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	11/05/10 00:22

Report Number : 75203

Date : 11/05/2010

QC Report : Method Blank Data

Project Name : **Former Beacon 12574**

Project Number : **1574.13**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	11/04/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/04/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/04/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/04/2010
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/04/2010
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/04/2010
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	11/04/2010
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	11/04/2010
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/04/2010
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	11/04/2010
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	11/04/2010
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	11/04/2010
1,2-Dichloroethane-d4 (Surr)	99.4		%	EPA 8260B	11/04/2010
Toluene - d8 (Surr)	100		%	EPA 8260B	11/04/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 75203

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 11/05/2010

Project Name : **Former Beacon 12574**

Project Number : **1574.13**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
1,2-Dibromoethane														
	75210-08	<0.50	40.0	40.0	38.3	38.2	ug/L	EPA 8260B	11/4/10	95.9	95.5	0.345	80-120	25
1,2-Dichloroethane														
	75210-08	<0.50	40.0	40.0	40.6	39.7	ug/L	EPA 8260B	11/4/10	101	99.3	2.11	75.7-122	25
Benzene														
	75210-08	140	40.0	40.0	179	177	ug/L	EPA 8260B	11/4/10	97.2	92.4	4.95	80-120	25
Diisopropyl ether														
	75210-08	<0.50	40.1	40.1	37.8	38.0	ug/L	EPA 8260B	11/4/10	94.3	94.8	0.481	80-120	25
Ethyl-tert-butyl ether														
	75210-08	<0.50	40.1	40.1	37.8	38.4	ug/L	EPA 8260B	11/4/10	94.3	95.9	1.71	76.5-120	25
Ethylbenzene														
	75210-08	14	40.0	40.0	54.1	53.2	ug/L	EPA 8260B	11/4/10	100	98.0	2.22	80-120	25
Methyl-t-butyl ether														
	75210-08	10	40.0	40.0	48.1	48.3	ug/L	EPA 8260B	11/4/10	94.7	95.1	0.421	69.7-121	25
P + M Xylene														
	75210-08	30	40.0	40.0	69.5	67.2	ug/L	EPA 8260B	11/4/10	98.5	92.6	6.11	76.8-120	25
Tert-Butanol														
	75210-08	13	200	200	206	202	ug/L	EPA 8260B	11/4/10	96.2	94.5	1.85	80-120	25
Tert-amyl-methyl ether														
	75210-08	<0.50	40.2	40.2	38.8	38.7	ug/L	EPA 8260B	11/4/10	96.5	96.2	0.299	78.9-120	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 75203

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 11/05/2010

Project Name : **Former Beacon 12574**

Project Number : **1574.13**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Toluene														
	75210-08	17	40.0	40.0	54.5	54.0	ug/L	EPA 8260B	11/4/10	93.1	91.9	1.34	80-120	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 75203

QC Report : Laboratory Control Sample (LCS)

Date : 11/05/2010

Project Name : **Former Beacon 12574**

Project Number : **1574.13**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
1,2-Dibromoethane	40.0	ug/L	EPA 8260B	11/4/10	95.8	80-120
1,2-Dichloroethane	40.0	ug/L	EPA 8260B	11/4/10	103	75.7-122
Benzene	40.0	ug/L	EPA 8260B	11/4/10	93.2	80-120
Diisopropyl ether	40.1	ug/L	EPA 8260B	11/4/10	95.9	80-120
Ethyl-tert-butyl ether	40.1	ug/L	EPA 8260B	11/4/10	96.3	76.5-120
Ethylbenzene	40.0	ug/L	EPA 8260B	11/4/10	99.0	80-120
Methyl-t-butyl ether	40.0	ug/L	EPA 8260B	11/4/10	94.0	69.7-121
P + M Xylene	40.0	ug/L	EPA 8260B	11/4/10	93.8	76.8-120
TPH as Gasoline	505	ug/L	EPA 8260B	11/4/10	97.3	70.0-130
Tert-Butanol	200	ug/L	EPA 8260B	11/4/10	94.3	80-120
Tert-amyl-methyl ether	40.2	ug/L	EPA 8260B	11/4/10	99.0	78.9-120
Toluene	40.0	ug/L	EPA 8260B	11/4/10	93.3	80-120

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

KIFF Analytical LLC

2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 75203

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): KEN MATEIK	California EDF Report? ☑ Yes ☐ No
Company / Address: Horizon Environmental, 4970 Windplay Drive, Suite 5, El Dorado Hills, CA 95762	Sampling Company Log Code: HEIE
Phone #: 916 - 939 - 2170 / Fax #: 916 - 939 - 2172	Global ID: T0600100155
Project #: 1574.13 / P.O. #: 12574-039	EDF Deliverable To (Email Address): kiffanalytical.com
Project Name: Former Beacon 12574	Sampler Signature: Craig Roth
Project Address: 22315 Redwood Road, Castro Valley, CA 94546	

Sample Designation	Sampling: Date	Sampling: Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Preservative: HCl	Preservative: HNO_3	Preservative: None	Preservative: ICE	Matrix: WATER	Matrix: Soil	Matrix: Air	MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B)	Lead Scav.(1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)	W.E.T. Lead (STLC)	TAT	For Lab Use Only
MW-5A	11-1-10	1208	4					X			X	X					X	X	X		X									1 wk

TAT: ☐ 12 hr ☐ 24 hr ☐ 48hr ☐ 72 hr ☑ 1 wk

Relinquished by	Date	Time	Received by
Craig Roth	11-3-10	958	
	11/03/10	0958	Kiff Analytical

Remarks: **STANDARD TURN AROUND TIME (One Week)**

Bill to: ULTRAMAR Inc.
Attention: Mr. C. Shay Wideman

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

Distribution: White - Lab; Copy - Originator
Rev: 051805

KIFF Analytical LLC

SAMPLE RECEIPT CHECKLIST

RECEIVER Initials

SRG#: 75203 Date: 110310

Project ID: Former Beacon 12574

Method of Receipt: ☑ Courier ☐ Over-the-counter ☐ Shipper

COC Inspection

Is COC present?	☑ Yes	☐ No	
Custody seals on shipping container?	☐ Intact	☐ Broken	☐ Not present ☑ N/A
Is COC Signed by Relinquisher? ☑ Yes ☐ No Dated?	☑ Yes	☐ No	
Is sampler name legibly indicated on COC?	☑ Yes	☐ No	
Is analysis or hold requested for all samples	☑ Yes	☐ No	
Is the turnaround time indicated on COC?	☑ Yes	☐ No	
Is COC free of whiteout and uninitialed cross-outs?	☑ Yes	☐ No, Whiteout	☐ No, Cross-outs

Sample Inspection

Coolant Present: ☑ Yes ☐ No (includes water)

Temperature °C 3.0 Therm. ID# IR-5 Initial [illegible] Date/Time 110310 1249 ☐ N/A

Are there custody seals on sample containers?	☐ Intact	☐ Broken	☑ Not present	
Do containers match COC? ☑ Yes ☐ No ☐ No, COC lists absent sample(s)	☐ No, Extra sample(s) present			
Are there samples matrices other than soil, water, air or carbon?	☐ Yes	☑ No		
Are any sample containers broken, leaking or damaged?	☐ Yes	☑ No		
Are preservatives indicated? ☑ Yes, on sample containers	☑ Yes, on COC	☐ Not indicated	☐ N/A	
Are preservatives correct for analyses requested?	☑ Yes	☐ No	☐ N/A	
Are samples within holding time for analyses requested?	☑ Yes	☐ No		
Are the correct sample containers used for the analyses requested?	☑ Yes	☐ No		
Is there sufficient sample to perform testing?	☑ Yes	☐ No		

Does any sample contain product, have strong odor or are otherwise suspected to be hot? ☐ Yes ☑ No

Receipt Details

Matrix WA Container type Jar # of containers received 4

Matrix _____ Container type _____ # of containers received _____

Matrix _____ Container type _____ # of containers received _____

Date and Time Sample Put into Temp Storage Date: 110310 Time: 1305

Quicklog

Are the Sample ID's indicated:	☐ On COC	☐ On sample container(s)	☑ On Both	☐ Not indicated
If Sample ID's are listed on both COC and containers, do they all match?	☑ Yes	☐ No	☐ N/A	
Is the Project ID indicated:	☐ On COC	☐ On sample container(s)	☑ On Both	☐ Not indicated
If project ID is listed on both COC and containers, do they all match?	☑ Yes	☐ No	☐ N/A	
Are the sample collection dates indicated:	☐ On COC	☐ On sample container(s)	☑ On Both	☐ Not indicated
If collection dates are listed on both COC and containers, do they all match?	☑ Yes	☐ No	☐ N/A	
Are the sample collection times indicated:	☐ On COC	☐ On sample container(s)	☑ On Both	☐ Not indicated
If collection times are listed on both COC and containers, do they all match?	☑ Yes	☐ No	☐ N/A	

COMMENTS:

ATTACHMENT G

WELL SURVEY REPORT

Virgil Chavez Land Surveying
721 Tuolumne Street
Vallejo, California 94590
(707) 553-2476 • Fax (707) 553-8698

November 17, 2010
Project No.: 3128-00

Emil Kruck
Horizon Environmental Inc.
4970 Windplay Drive, Suite 5
El Dorado Hills, Ca 95762

Subject: Monitoring Well Survey
22315 Redwood Road
Castro Valley, Ca.

Dear Emil:

This is to confirm that we have proceeded at your request to survey the monitoring wells located at the above referenced location. The survey was completed on November 10, 2010. The benchmark for this survey was a monument at the intersection of C and 1st Streets, Hayward . The latitude, longitude and coordinates are for top of casings and are based on the California State Coordinate System, Zone III (NAD83), Epoch 2002. Benchmark Elevation 118.78 feet (NGVD 29).

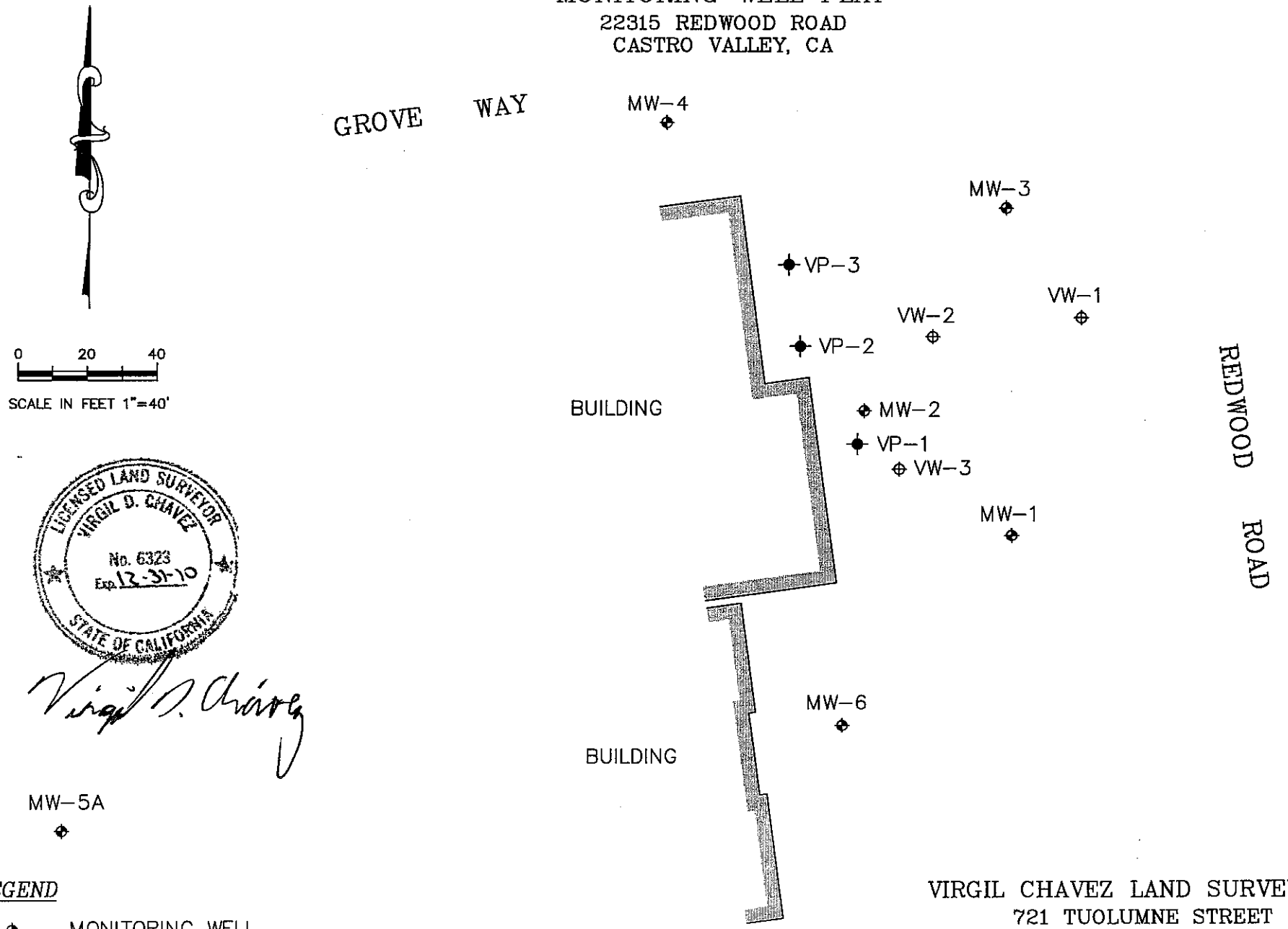
Latitude	Longitude	Northing	Easting	Elev.	Desc.
				157.02	RIM MW-1
37.6837298	-122.0738351	2075253.21	6106257.20	156.83	TOC MW-1
				156.09	RIM MW-2
37.6838281	-122.0739858	2075289.73	6106214.18	155.46	TOC MW-2
				157.55	RIM MW-3
37.6839913	-122.0738465	2075348.46	6106255.50	157.37	TOC MW-3
				152.63	RIM MW-4
37.6840544	-122.0741903	2075373.11	6106156.42	152.26	TOC MW-4
				146.83	RIM MW-5A
37.6834807	-122.0747834	2075167.14	6105981.29	146.36	TOC MW-5A
				154.52	RIM MW-6
37.6835745	-122.0740031	2075197.50	6106207.63	154.27	TOC MW-6
				156.27	RIM VP-1
37.6838015	-122.0739921	2075280.08	6106212.20	155.65	TOC VP-1
				156.29	RIM VP-2
37.6838789	-122.0740515	2075308.56	6106195.50	156.01	TOC VP-2
				156.19	RIM VP-3
37.6839436	-122.0740645	2075332.18	6106192.13	155.70	TOC VP-3
				160.11	RIM VW-1
37.6839055	-122.0737695	2075316.85	6106277.26	159.82	TOC VW-1
				156.28	RIM VW-2
37.6838881	-122.0739182	2075311.26	6106234.11	155.46	TOC VW-2
				156.04	RIM VW-3
37.6837817	-122.0739496	2075272.68	6106224.39	155.71	TOC VW-3

Sincerely,

Virgil D. Chavez, PLS 6323

MONITORING WELL PLAT

22315 REDWOOD ROAD
CASTRO VALLEY, CA



LICENSED LAND SURVEYOR
VIRGIL D. CHAVEZ
No. 6323
Exp. 12-31-10
STATE OF CALIFORNIA

LEGEND

- ⊕ – MONITORING WELL
- ⊕ – VAPOR EXTRACTION WELL
- ✦ – SOIL VAPOR PROBE

DRAWING NO. 312800

VIRGIL CHAVEZ LAND SURVEYING
721 TUOLUMNE STREET
VALLEJO, CALIFORNIA
(707) 553-2476

NOVEMBER, 2010 SCALE: 1"=40'