February 17, 2015

RECEIVED

By Alameda County Environmental Health at 11:20 am, Feb 23, 2015

To Whom it May Concern:

Attached is the "Site Management Plan" for the former YRC Inc. (formerly known as Roadway Express) d.b.a. YRC Freight, property located at 1708 Wood Street in Oakland, CA 94607, Fuel Leak Case No. RO0000039. I declare, under penalty of perjury, that the information and/or recommendations contained in the attached report are true and correct to the best of my knowledge.

YRC Freight is a subsidiary or YRC Worldwide Inc., as Manager – Environmental Services and Properties of YRC Freight, I have been charged by YRC Worldwide Inc., to represent YRC Freight.

Sincerely,

m Y- Bunk

Ruben D. Byerley

Manager – Environmental Services and Properties.



February 17, 2015

Keith Nowell Hazardous Materials Specialist Alameda County Environmental Health 1131 Harbor Bay Parkway Alameda, CA 94502-6540

Re: Site Management Plan Former Roadway Express Facility (REX) 1708 Wood Street, Oakland, CA GeoTracker ID#: TO600102107 ACEH ID #: RO0000039 RB Case #: 01-2291 Burns& McDonnell Project: 79379

Dear Mr. Nowell:

On behalf of YRC Worldwide Inc. (YRC), Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) is pleased to present this *Site Management Plan* regarding the Former YRC facility located at 1708 Wood Street, Oakland, CA (Site) [Figures 1 and 2]. In 2011, the Site was sold by YRC to PSAI Partners IV, LLC (Owner).

As of this writing, Alameda County Environmental Health's (ACEH) is in the process of granting regulatory closure contingent upon ACEH approval of an SMP. YRC has conducted cleanup to commercial standards as required by ACEH. Although YRC has excavated petroleum hydrocarbons to the extent feasible relating to the leaking underground storage tank ACEH case number RO0000039 (ACEH Case), there is some potential for some residual petroleum hydrocarbons to remain in soil and groundwater beneath the Site. There is also potential for residual metals to remain as a result of historical industrial activities and potential contaminants in import fill, possibly, unrelated to YRC. This designed to help guide those who may be required to access soil and groundwater beneath the Site. This document will be kept on file by the lead regulator(s), ACEH and the San Francisco Bay Region-Regional Water Quality Control board (RWCQB). Previous environmental investigations, cleanup, and regulatory oversight of the Site are summarized for the public on the California State Water Resources Control Board GeoTracker website (2014).

For ease of description, the Site has been subdivided into two areas designated Area 1 and Area 2 (Figure 2). The description of each area is found below.

• Area 1 (also known as the Northwestern UST Area): Is located in the northwestern portion of the Site. Two historical Underground Storage Tanks (USTs) with unknown contents (unrelated and unused by YRC) were identified in this area in May 1987. The capacities of the two USTs are estimated to between 2,000-gallon to 8,000-gallon and 10,000 gallons, respectively. Due to structural concerns, the two USTs were emptied of contents and abandoned-in-place (sand slurry



and grout). In October 2011, these two USTs and product and vent piping were removed in a shored excavation under the oversight of the ACEH and the City of Oakland Fire Department (OFD). The cleanup for this Northwestern UST Area was conducted under existing ACEH Case ID#: RO0000039, previously assigned to Area 2 below.

- There are no groundwater monitoring wells located in Area 1 to document the potential for residual groundwater contamination in this area (Figure 3).
- Area 2 (also known as the Central Eastern UST Area and Oil Water Separator Area): Is located in the central eastern portion of the Site. In March 1987, two USTs, one 10,000-gallon gasoline UST and one 6,000-gallon motor oil UST, were removed from Area 2, leaving one 10,000 gallon diesel UST and an oil water separator (OWS) in service. In April 1996, the 10,000-gallon diesel UST, fuel dispenser, dispenser island, and all associated piping were removed. The OWS and its associated clean-out line were removed in November 2011.

ACEH Case ID#: RO0000039 is assigned to both the Central Eastern UST and Oil Water Separator Areas. Note that previous reports had incorrectly referred to the smaller UST as a 2000gallon waste oil UST. However, Burns & McDonnell confirmed that the smaller UST was a 6,000-gallon motor oil UST (*Request for Closure – Site Conceptual Model* - Burns & McDonnell, 2014).

• Six groundwater monitoring wells are screened in two distinct groundwater zones in Area 2 (Figure 4).

1.0 CONTAMINANTS OF CONCERN

The primary contaminants of concern (COCs) at the Site relating to ACEH Case ID#: RO0000039 (Area 2) are petroleum hydrocarbons. Although YRC has excavated petroleum hydrocarbons to the extent feasible relating to the leaking underground storage tank ACEH case number RO0000039 (ACEH Case), there is some potential for some, there is a potential for COCs to remain in soil and groundwater at the Site at levels close to or above the Environmental Screening Levels (ESLs) established by the RWQCB. The COCs that may potentially remain at or above ESLs include Total Petroleum Hydrocarbons (TPH) compounds as gasoline (TPHg), total petroleum hydrocarbon compounds as diesel (TPHd) and TPH as motor oil (TPHmo). Soil analytical data for TPHd and TPHmo for the "area of concern" is depicted in Figure 4. Other COCs that have been detected during various soil and groundwater assessments include: several semi-volatile organic compounds, benzene, toluene, ethylbenzene, and xylenes, and trichloroethylene. During the purchase of the Site, the Owner's consultant ACC (*Phase II ESA- Limited Soil and Groundwater Investigation -* ACC, 2013) also identified other COCs, including metals and other analytes, in the soil and groundwater below the Site potentially originating from historical industrial use at the Site and potential contaminants in import fill, unrelated to YRC and the ACEH Case. The Owner has a full copy of the ACC report, which has also been uploaded to Geotracker.

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Site Management Plan February 17, 2015 Page 3

ACC has observed that soil at the Site could be potentially impacted by TPHg, TPHd, and TPHmo, metals (arsenic, barium, cadmium, copper, lead, vanadium, and zinc) and Polynuclear Aromatic Hydrocarbons (PNAs) above applicable Risk-Based Screening Levels (RBSLs) and by metals (arsenic, copper, lead, and zinc) and TPHd above Commercial RBSLs. However, ACC believes the levels of arsenic and vanadium are naturally occurring.

Groundwater in the monitoring wells was not impacted above any applicable Risk Based Screening Levels. However, other grab groundwater samples showed Chloride, PNAs, naphthalene, TPHd, TPHmo, Total Oil and Grease, and PNAs above the applicable Residential Risk Based Levels

Note that subsequent to the ACC report, and post UST removal, portions of Area 1 and Area 2 were excavated, soil removed and hauled offsite.

2.0 SITE SETTING, GEOLOGY, AND HYDROGEOLOGY

The Site is located at 1708 Wood Street in Oakland, California in a heavily commercial and industrial area. The Site is currently occupied by Three Rivers Trucking and is utilized as a trucking terminal. The Site is bounded by the Nimitz 680 Freeway to the northwest, Raimondi Park zoned OS (AF) (Urban Open Space) to the northeast, and industrial businesses to the south.

The Site lies within the East Bay Plain Groundwater Basin (EBPGB) Oakland sub-area. The Site is located approximately 1 mile east of the current eastern extent of the San Francisco Bay, and in the recent geologic past, was part of the San Francisco Bay. At an elevation approximately 10 feet above mean sea level (MSL), the Site is generally flat, with concrete and asphalt surface paving. The closest surface-water bodies are the Oakland Outer Harbor, approximately 1 mile to the west, and the Oakland Inner Harbor, approximately 1.75 miles to the south. The regional topography slopes westward towards San Francisco Bay at roughly 20 feet per mile. The surrounding area is currently and was historically used for railroad uses, industrial uses, and residential housing. The Site is comprised of two combined assessors' parcels (Alameda County Parcel No.: 7-562-1 & 7-563-1, for a total of approximately 4 acres) that were once separated by Willow St. (it now terminates at 17th St. and the central south perimeter of the Site).

The Site's lithology is characterized by dark gray, very soft, moist clay, inter-bedded with silt and sand layers to a depth approximately 8 to 10 feet below ground surface (ft bgs). Underlying this is a 5- to 10-foot layer of blackish-brown to gray, soft, clay containing a distinct peat layer with high organics content, known as the Bay Mud. Underlying the Bay Mud is approximately 5 to 10 feet of brown, soft, wet, silty sand and clay which extends from approximately 15 to 25 ft bgs, followed by approximately 4 feet of brown, wet, silty clayey sand that extends from approximately 25 to 29 ft bgs.

The Site's hydrogeology is described as two distinct groundwater zones, identified as shallow and deep. The shallow zone is made up of clay with sand and silt lenses extending from the near surface to approximately 8 to 10 ft bgs. Monitoring wells in this unit pump dry under low-flow pumping as expected in low-permeability clay units with disconnected clay and silt lenses. Static groundwater levels are within



approximately 1-3 feet of ground surface. Apparent horizontal hydraulic gradients in this unit are to the east and northeast; however in this shallow low-permeability clayey unit the hydraulic gradient is predominately downward toward the underlying sandy unit, rather than horizontal.

The deeper zone is comprised mainly of silty sand and clayey sand with some medium and coarse sand to a depth of approximately 30 ft bgs. This zone exists under confined conditions as the static groundwater level is higher than the base of the confining soft clay layer. The hydraulic gradient is generally to the west but varies from north-northwest to west-southwest. The upper and lower groundwater zones are separated by a 5- to 10- foot thick layer of Bay Mud.

2.1 Preferential Pathway Study

A preferential pathway study was conducted in 2008. A municipal water line runs along the full length of Wood Street; an extension of the water main runs east and appears to terminate approximately 20 feet east of Wood Street along 18th Street, according to utility markings made by East Bay Municipal Utility District (EBMUD). Water service to the Site is located between the shop building and the main office building.

Storm drains in the area of the Site are tied into the sanitary sewer system and are marked as reclaimed sewer lines. There is a 10-inch diameter sewer line that is aligned approximately along the center line of 18th Street (approximately 18 feet from the Site property fence line). At the southeast end of the Site, the sewer line was measured at a depth of 4 feet below the road surface, and was measured at a depth of 5 feet below the road surface at the northwest side of the Site. At the intersection of Wood and 18th Street the sewer encounters a junction and continues down Wood Street to the southwest at a depth of 8 feet below the road surface. The Site's sanitary sewer ties in to the city system in Area 1 of the Site, along 18th Street.

At this time, it is unknown what fill material was used in the utility corridor areas around the Site. It appears unlikely that the utility trench fill would act as a significant conduit for vertical migration, since it lies at depths of about 4 to 5 feet bgs within the low-permeability clayey material, and the permeable sandy material characteristic of the deeper water zone is not encountered until approximately 13 to 20 feet bgs.

3.0 SITE USE HISTORY

The Site is located in an area that has been utilized for heavy industrial purposes for more than 50 years. YRC operated the Site as a trucking terminal/hub comprised of an office, loading dock, storage building, and perimeter parking. The Site is currently occupied and operated by Three Rivers Trucking (Figure 2). YRC maintained a mechanics shed (removed in 2011) used for preventative maintenance and minor repairs in Area 2. YRC used Area 1 for parking.

Historical tenants and buildings/facilities in Area 1 include the following:

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Site Management Plan February 17, 2015 Page 5

- Elaterite Roofing Company (office bldg., stock warehouse, 2 additional warehouses, 1-cooker [approximate vicinity of Area 1 abandoned-in-place USTs], 1-to be cooker, asbestos covered boiler, factory with engine shop, circa 1902)
- California Motor Express LTD (circa 1951), Parcel Delivery Depot (circa 1951-1967)
- Jackson Furniture Co's Warehouse (watchman sleeping quarters, varnishing shop, stove warehouse, wagon house, 2 vacant warehouses, corrugated iron shed, 20,000 gallon water tank (circa 1912)

Industrial companies that have historically occupied and or currently occupy neighboring properties to the Site include the following:

To the northeast to northwest

- Bay View Park [circa 1902 to present- current name Raimondi Park]
- F.P.H.A. Veterans Temporary Housing Project (circa 1951-1967)
- Southern Pacific Railroad, Oakland Central Station (Vacant)

To the southwest to southeast

- California Door Company (circa 1902)
- National Pharmacy (drug factory)
- Alber Bros. Milling Co. Ware House (circa 1912)
- Galvanizing Works (staging yard, steel fabricating, ware house, S.P. Hotel (circa 1951)
- Machine shop circa 1957,[Off. & Steel Products circa 1958]
- Steel Truck Body Parts Warehouse & Factory (circa 1967)

To the east on the adjacent Campbell St.

- BASF Corporation
- ACME Galvanizing
- Residential housing

4.0 HISTORICAL SUMMARY

4.1 Area 1 Historical Analytical Suite Discussion

At the time of UST abandonment in 1987, soil samples from three borings were analyzed for total petroleum, total benzene, toluene, ethyl-benzene, total xylenes (BTEX), and aromatic volatile organic compounds (VOCs). The 1987 analytical suite of constituents is deemed insufficient for, as reported, a UST of unknown contents and a waste oil UST. In a 2007 Site investigation, the analytical suite for soil and grab groundwater samples included the following: total petroleum hydrocarbons (TPH) as diesel (TPHd), as gasoline (TPHg), as motor oil (TPHmo) (EPA 8015M), VOCs (EPA 8260B), semi volatile VOCs (SVOCs) (EPA 8270C), and CAM17 Metals (EPA 6010B). In 2008, an additional soil sampling investigation included analysis of BTEX and methyl tert-butyl ether (MTBE) to the analytical suite. In 2011, soil and groundwater (grab and well) samples were analyzed for the following: TPHg, BTEX, lead scavengers (including ethylene dibromide (EDB) and 1,2-dichloroethane (1,2-DCA)), fuel oxygenates [(MTBE, tertiary-amyl methyl ether (TAME), diisopropyl ether (DIPE), ethyl tert-butyl ether (ETBE),



tert-butyl alcohol (TBA)], TPHd, TPH as oil & grease (TPHO&G), polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbon (PNAs), creosote, and California Code of Regulations (CCR) Title 22 metals.

4.2 Area 1 Impacted Soil Removal

The Area 1 USTs were abandoned-in-place in 1987; their associated piping, dispensers, and fill ports were reportedly removed from service at this time. Product/syphon piping and vent lines were found to still be attached to the USTs during removal in 2011. The previously abandoned-in-place USTs and associated piping were removed in October 2011. The USTs were noted to be in good condition, with no pitting or holes observed. The piping terminated at the northeast extent of the public sidewalk abutting 18th street (off-Site), where it was heavily rusted with holes apparent. The piping extended underneath the off-Site sidewalk to the north, and terminated approximately in the middle of the sidewalk. During removal activities TPH impacted soil was encountered below the still connected product piping. It appears that the rusted end of the piping beneath the sidewalk was the source of contamination for this TPH impacted soil. The piping may have been historically connected to a rusted and sheared off former dispenser, remote fill port, or a similar feature (a section of concrete slab was unearthed approximately 18 inches below current surface grade.

Post UST removal, the area around the former USTs was excavated to 16 feet bgs. Impacted soil beyond the area of the USTs was excavated vertically to the surface of the underlying Bay Mud clay layer, approximately 4 feet bgs, and then an additional 1 foot of Bay Mud was excavated for a total excavated depth of 5 feet bgs. The excavation extended horizontally along the piping to the edge of 18th street to the north, and then east to west until visually impacted soils were removed. Excavation to the north was halted to avoid endangering 18th Street, and excavation to the east and west of the product piping (source) was halted when low photo ionization detector (PID) headspace readings and an absence of visual impacts indicated a lack of contamination.

The vertical extent of impacted soil off-Site appears to be at approximately 4 to 5 feet bgs at the soil/Bay Mud interface and a few inches into the Bay Mud. Approximately 500 cubic yards of soil and sand/slurry (from within the abandoned–in-place USTs) were excavated to remove residual hydrocarbon impacts from Area 1. Excavated soil and concrete was stockpiled on-Site pending waste profiling. Approximately 710 tons of hydrocarbon impacted soil was excavated from Area 1 and Area 2. Upon acceptance of waste profiles by the accepting California licensed waste facility, the excavated soil and concrete was transported under waste manifest protocols for disposal at Potrero Hills Landfill located in Suisun, CA.

4.3 Area 1 Residual TPH

Grab groundwater sample BM-8 (2008) previously indicated the presence of TPHg and TPHd at concentrations of 54,000 micrograms per liter (μ g/L) and 61,000 μ g/L, respectively, adjacent to the abandoned-in-place USTs (Figure 3). **The location of BM-8 and the surrounding soil were excavated to a depth of five (5) feet during UST removal in 2011 during UST removal in 2011**. Confirmatory soil sidewall samples collected during the UST removal from the terminal piping point under the 18th St.



sidewalk indicated residual TPHg and TPHd at concentrations of 104,000 micrograms per kilogram (μ g/kg) and 5,930 mg/kg, respectively in sample SW4-3.6 (Figure 3). Groundwater was not encountered in the off-Site 18th St. sidewalk area of excavation. Off-Site TPH-impacted soil was excavated vertically until Bay Mud was encountered at approximately 4 to 5 ft bgs, and then horizontally northward to the edge of 18th St., impacted soil was excavated laterally until no visual impacts were observed and PID headspace readings indicated no impacts in soil. Prior to UST removal, ACC (2011) also collected grab groundwater samples from SB-1, SB-2 and SB-3. The highest residual TPH observed by ACC was found in SB-2 at 3,400 μ g/L (TPHd) and 2,600 μ g/L (TPHmo).

After UST removal, temporary wells were installed within the footprint of each former UST to the total excavation depth of 16 feet bgs. After a groundwater recharge period of 24 hours had elapsed, no groundwater was present in either temporary well, and therefore, a post-UST-removal grab groundwater sample was not able to be collected. The temporary wells were hence removed. Following UST removal, the area below the USTs was subsequently excavated, to approximately 2 feet below the bottom of each UST.

The TPH contamination encountered in 2011 during the UST removal coincided with the historical 'gas & oil' feature found in historical Sanborn Maps (1957 through 1970). The TPH plume straddled the Site property line and 18th St. in the location of the former 'gas & oil' feature (Figure 3). Hence, the primary source of the contamination is presumed to be this 'gas & oil' feature which is assumed to have been removed prior to UST abandonment in 1987. The resulting hydrocarbon impacted soil, deemed as the secondary source was excavated to the extent feasible in 2011. The potential of an off-Site plume appears to be unlikely based upon the low permeability of the clay, and based on PID screenings and visual observations during soil excavation.

4.4 Area 2 Historical Analytical Suite Discussion

During the initial removal of the 10,000 gallon gasoline UST and 6,000 gallon motor oil UST in 1987, soil samples were analyzed for TPH and BTEX. During the 1996 diesel UST removal, soil samples were analyzed for TPH and BTEX. During subsurface investigation(s) in 1997 and 2001, soil and groundwater samples were analyzed for the following: TPHd, TPHg, BTEX, MTBE and TPH-O&G These analytical suites are deemed insufficient to adequately characterize potential subsurface contamination related to a 6,000-gallon waste oil UST. In 2007, a more complete analytical suite for a LUFT soil and groundwater investigation included the following: TPHd, TPHg, TPH-O&G, VOC, SVOC, and CAM 17 metals. In 2008, the analytical suite was reduced to TPHd, TPHg, TPHmo, BTEX, and MTBE as no VOCs were detected (exception of a single cis-1,2-DCE detection of 0.31 µg/L, which was qualified as estimated).

Analysis of VOC and SVOCs were first reported in Burns & McDonnell's 2007 Site Investigation. No VOCs or SVOCs were detected in the analyzed soil and ground water samples, Sample analyses from the fourth quarter 2009 groundwater sampling event found no unqualified VOCs; only cis-1,2-DCE was detected in well MW-7 at a concentration of $0.31 \mu g/L$ that was below the limit of quantitation.



Soil and groundwater were not analyzed for VOCs or SVOCs again until 2011. Very low concentrations of VOCs and PNA were detected in soil samples, primarily on the Site perimeter, and are not associated with Area 1 or Area 2.

Subsequent investigations performed by ACC (2013) during the due diligence conducted by the buyer during the sale, and Burns & McDonnell in 2011 included the Site's six monitoring wells and a robust analytical suite as follows: TPHd, TPHg, TPHmo, TPH-O&G, BTEX, MTBE, ethylene glycol, HVOCs, and the five fuel oxygenates. Prior to the OWS removal, ACC found that soils in the vicinity of the Area 2 Central-Eastern UST Basin could be potentially impacted by metals (arsenic, lead and vanadium) and SB-11 (adjacent to the oil water separator which was subsequently removed), was found to be impacted by metals (arsenic, lead and vanadium), TPHg, TPHd, and TPHmo above Residential and Commercial (vanadium was not found above commercial levels) Risk Based Screening Levels. However, ACC believes the levels of arsenic and vanadium are naturally occurring. Groundwater in the monitoring wells was not impacted above any applicable Risk Based Screening Levels. During OWS removal in 2011, soil and groundwater samples were analyzed for TPHd, TPHg, TPHmo, BTEX, MTBE, LUFT 5 metals, lead scavengers (EDB, 1,2-DCA, TAME, DIPE, ETBE, TBA), TPH-O&G, PNAs, PCBs, creosote, and CCR Title 22 metals. Due to the limited volume of groundwater present in shallow borings, not all COCs in the 2011 analytical suite could be analyzed.

4.5 Area 2 Hydrogeology

Historically eight groundwater wells were located in Area 2. Six groundwater wells are currently present in Area 2, screened over the two distinct groundwater zones designated as 'shallow' and 'deep' (Figure 4).

Monitoring wells MW-1 and MW-2 (installed during UST removal in 1987), were reportedly screened from 0.5 ft bgs to 10 ft bgs with no annular seals, and were destroyed in 2008 (Figure 4). In September 2000, monitoring wells MW-3, MW-4, and MW-5 were installed to approximately 30 ft bgs (deep groundwater zone), and screened from 10-30 ft bgs and, therefore, may not have been able to intercept light non aqueous phase liquids (LNAPL) floating on top of the water table. In February 2009 monitoring wells MW-6, MW-7, and MW-8 were installed to approximately10 ft bgs (shallow groundwater zone) and screened from 5-10 ft bgs to monitor the shallow groundwater zone.

Shallow groundwater is typically encountered between 0.40 feet below top of casing (TOC) to 2.08 feet below TOC, as referred to mean sea level (ft msl), with groundwater elevations ranging between 7.75 ft msl, to 8.98 ft msl. Hydraulic gradients in the shallow zone are primarily to the northeast and east at an average gradient of 0.01 ft/ft; the gradient on November 11, 2009 was 0.030 ft/ft, as shown on Figure 4. Deep groundwater is typically encountered between 2.90 ft msl and 4.25 ft msl below TOC, with groundwater elevations ranging between 5.53 to 6.65 feet msl. Hydraulic gradients in the deep groundwater zone are typically northwest to west at hydraulic gradients ranging from 0.001 to 0.031 ft/ft (0.001 ft/ft in November 11, 2009).



The groundwater flow direction between the shallow and deep groundwater zones are opposing. This condition is caused by the extremely low permeability of the Bay Mud, a well-known aquitard, which separates the two groundwater zones and allows for flow to be in opposite directions in the shallow versus the deep groundwater zone. Shallow groundwater in the low-permeability clay would be more influenced by the topography of the surface and local variations caused by recharge and ponding of storm water. The deep groundwater zone is in more permeable sands and responds to more regional groundwater flow patterns.

Subsurface investigations at the Site indicate that the shallow groundwater zone has extremely low permeability. Subsurface conditions indicate any potential TPH vertical migration to the deeper groundwater zone would be impeded by the extremely low permeability of the Bay Mud aquitard that occurs between the shallow and the deep groundwater zones. In 2011, contaminated soil was removed from UST area and along the connected piping run as far as feasible, until 18th Street. This impedance to vertical migration of TPH also occurs beneath the backfill of the USTs which is underlain by Bay Mud.

Deep wells MW-3 through MW-5 were positioned to monitor contaminant impacts in groundwater associated with the three former USTs located in Area 2. The tops of the well screen intervals are at approximately the same depth as the bottom of the former USTs. As noted by the ACEH during UST removal, the USTs were in good shape upon removal. The current monitoring well network is positioned to screen potential groundwater impacts associated with the former USTs.

No COCs have been detected in any of the deep wells: down-gradient deep well MW-3, up-gradient well MW-4, and cross gradient well MW-5. Shallow well MW-7 is the only well to show consistent TPH detections. However, when detected, concentrations have been below the reporting limit, and the result(s) have been qualified by the analytical laboratory as estimates.

Eight consecutive quarters of groundwater monitoring (2008 through 2009) indicate no TPH detections in the deep water zone monitoring wells (MW-3, MW-4, MW-5), and very low detection in shallow groundwater zone wells MW-7 and MW-8. The final round of sampling by Burns & McDonnell was conducted in the Fourth Quarter 2009. No TPHd, TPHmo, TPHg, BTEX, MTBE or any VOCs were detected in any of the sampled wells (Table 1).

During the Owner's due diligence for purchase of the property, ACC sampled groundwater monitoring wells MW-3 through MW-6 in February 2011 (ACC, 2013). No detectable concentrations of target constituents (TPHg, TPHd, TPHmo, HVOCs, BTEX, or other VOCs and Total Oil and Grease) were reported in the sampled wells except for minor TPHmo at 130 μ g/L in MW-6 and DIPE at 0.83 μ g/L in MW-5.



4.6 Area 2 Investigation Summary Review

In 2011 the primary potential source of subsurface contamination in Area 2, the OWS, was removed. The TPH impacted materials surrounding the OWS were over-excavated and confirmation sidewall samples were collected from each side of the excavation. Lateral excavation continued until confirmatory laboratory results confirmed that the remaining soil had non-detectable concentrations, or concentrations below commercial environmental screening levels (ESLs); excepting cadmium and zinc. The excavation extended vertically until Bay Mud was encountered at approximately 4.6 ft bgs. The top 6 inches of the Bay Mud was excavated after oil-impacted groundwater which had infiltrated the excavation was removed.

The OWS cleanout lines extending from the OWS northwest approximately 40 feet, oily water and soil were excavated. Pea gravel from the previously removed USTs was encountered and shallow groundwater infiltrated the excavation. Grab samples collected from the infiltrating groundwater prior to backfill of the clean-out line indicated TPHd ranging from 758 μ g/L to 2,250 μ g/L and TPHmo ranging from non-detect to 1,970 μ g/L. Analytical results from nearby well MW-4 pre-OWS removal indicate extremely low TPHd detections at concentrations below the reporting limit. Approximately 110 cubic yards of impacted soil was excavated from the OWS and its associated clean-out line.

Based on the monitoring well results, there is no evidence of any remaining TPH impacts in the groundwater.

4.7 Residual Metals - Area 1 and Area 2 Soil and Groundwater

Results presented in the ACC Phase II ESA (ACC, 2013) for borings sampled for metals analysis indicated ESL exceedances in soil for arsenic (ten borings), copper (one boring), lead (two borings), and zinc (one boring). The arsenic concentrations ranged from 4.2 mg/kg to 11 mg/kg, within the background range for arsenic of 1.2 mg/kg to 42 mg/kg. Boring SB-1 exceeded the ESL for copper, lead, and zinc (copper [270 mg/kg] and lead [780 mg/kg] were detected near the ESLs of 230 mg/kg and 750 mg/kg, respectively).

Results presented in the *Removal Report* (Burns & McDonnell, 2012) for four deep soil samples (15.6-16 feet bgs, collected from the floor of the northwest corner UST area excavation) exhibited metals concentrations that were below ESLs, indicating the vertical extent of metals impact is limited. This is consistent with data from the *Additional Site Assessment Report, Roadway Express, Inc., 1708 Wood Street, Oakland, California* (Additional Site Assessment Report) (Burns & McDonnell, 2008b), which indicated that the clayey Bay Mud layer encountered at a depth of approximately 15 feet bgs limits the vertical migration of contaminants.

Results presented in the ACC Phase II ESA (ACC, 2013) for borings sampled for metals analysis indicated ESL exceedances in groundwater at four borings (SB-1, SB-10, SB-11, and SB-17). Boring SB-1 exceeded the ESL for arsenic. Boring SB-1 was located at the western perimeter of the Site, west of the northwest corner USTs and associated excavation. Nearby Borings SB-2, SB-4, and SB-6 did not show



similar ESL exceedances for groundwater. Based on the historical uses of the Site, nearby sites, and location of Boring SB-17 (upgradient perimeter of Site), metals impacts at SB-17 are not expected to be related to YRC activities at the Site.

Results presented in the *Removal Report* for five samples from the northwest corner UST excavation and OWS excavation sampled for metals analysis indicated ESL exceedances in groundwater for lead, nickel, and zinc in five samples and cadmium and chromium in one sample (WTank Grab). Two of the samples (WTank Grab and ETank Grab) collected from the UST excavation were noted to have been in contact with the USTs and shoring prior to UST removal (Burns & McDonnell, 2012), and may not be representative of the groundwater conditions.

The potential sources (USTs, and OWS and associated piping) of the metals impact were removed and soil samples collected from below the USTs, the OWS, and OWS cleanout line did not exceed ESLs.

5.0 SOIL AND GROUNDWATER MANAGEMENT

Under federal and state government regulation, if any particular chemical is found in soil over a regulatory threshold, that soil will likely be required to receive special handling practices and eventual disposal at a more highly-regulated facility than non-contaminated soil. This section of the report provides guidance on how to manage contaminated soil and groundwater, should it be encountered.

5.1 Applicability of Soil Management Plan

As noted above, soil and groundwater impacted with concentrations of COCs may be present at various locations on the Site both inside and outside the "areas of concern". This SMP presents protocol for the following construction activities that may encounter COCs:

- Surfacing, excavation, and grading;
- Subsurface utility installation, maintenance, or repair;
- Landscaping; and
- Subsurface work.

Contractors and their subcontractors shall follow the soil and groundwater management protocols presented in this SMP anywhere excavation activities are conducted at the Site.

In addition, if contractors or their subcontractors observe conditions indicative of contamination anywhere on the Site, they will follow the protocols presented in this document. Indications of soil contamination may be noted by observing soil that is discolored or that has an unusual odor. TPH groundwater contamination may be revealed by noticing a sheen or floating product on the water surface.

Not all contamination present on at the Site is identifiable by visual or odiferous means or through field screening with the use of a PID. The Area 2 has potential residual metals and Section 5.2 pertains only to



the Area 2 eastern parcel. Any excavation that occurs at the site, unless otherwise delineated by physical testing of appropriate scope and breadth, should be assumed to be contaminated. Therefore, site control is required through the use of this SMP to minimize potential contamination exposure of workers and to protect the public from site hazards during activities associated with site preparation (e.g. staging) and excavation. Additionally, the SMP establishes decontamination procedures for both personnel and equipment.

5.2 Health and Safety Plan

The SMP requires all contractors performing subsurface work to prepare a site specific Health and Safety Plan (HSP) that outlines the scope of work, the location of the work to be performed, and identifies the anticipated physical and chemical hazards that may be encountered. The HSP is to be prepared prior to the initiation of subsurface work. The HSP will identify personnel and level of PPE required for site workers, the command structure, safety meeting information (including topics, frequency, and sign-ins), establish perimeters of the work zones identified in the SMP, establish site security measures, and identify locations to receive excavation spoils and groundwater. The HSP will identify the appropriate level of HAZWOPER training required for personnel to perform their duties outlined in the scope of work.

The mechanism the SMP utilizes to reduce worker and public exposure to chemical and physical hazards is through the use of work zones to restrict access (minimize exposure) to potentially hazardous levels of contamination and through the use of personal protective equipment (PPE) appropriate to the potential hazard. The work zones outlined in the SMP are the Exclusion Zone, Contamination Reduction Zone, and the Support Zone. These zones are discussed below.

The Exclusion Zone - The Exclusion Zone is where exposure to contamination is or may be present. The primary activities performed in the Exclusion Zone include excavation, sampling, drum staging, and materials bulking/stockpiling. The outer perimeter of the Exclusion Zone should be clearly marked with lines, placards, hazard tape and/or fencing. Access control points to the Exclusion Zone should be established to regulate the flow of personnel and equipment into and out of the zone.

The personnel working in the Exclusion Zone may include the Field Team Leader, the work parties, and specialized personnel such as heavy equipment operators. All personnel within the Exclusion Zone should wear the level of protection required by the Site Health and Safety Plan (HSP). Within the zone, different levels of protection may be justified based on the degree of hazard present. The level of personal protection required should be specified in the HSP.

Contamination Reduction Zone (**CRZ**) – This zone is the transition area between the contaminated area and the clean area. The boundary between the Exclusion Zone and the CRZ is called the Contamination Control Line or Hot Line. Decontamination procedures for both personnel and equipment begin at the hot line and should be completed prior to exiting the CRZ. The outer perimeter of the CRZ should be



clearly marked with lines, placards, hazard tape and/or fencing. Access control points should be established to regulate the flow of personnel and equipment into and out of the CRZ.

Personnel entering the CRZ are required to wear the personal protective clothing and equipment prescribed for working in the CRZ. To reenter the Support Zone, workers should remove any protective clothing and equipment worn in the CRZ, and leave through the personnel exit Access Control Point. The personnel stationed in the CRZ are usually the Site Safety Officer, a Personnel Decontamination Station (PDS) Operator, and any emergency response personnel. Additional personnel may assist the PDS Operator by conducting decontamination procedures for sample containers and equipment.

Support Zone – The Support Zone is clean area of the site where no exposure to contamination at the site is anticipated. Personnel in the Support Zone may wear normal work clothes. A copy of the HSP and SMP should be kept in this area

Personnel in the Support Zone personnel include the command post supervisor and project team leader, and field team members who are preparing to enter or have exited the exclusion zone. Support Zone personnel are responsible for alerting the proper agency in the event of an emergency. All emergency telephone numbers, evacuation route maps, and vehicle keys should be kept in the Support Zone.

5.3 Risk Management

This section presents the risk management procedures to be followed during construction activities that come into contact with soil or groundwater at the Site, including worker training and impact mitigation measures

Prior to the start of any construction activity that involves below-ground work, a copy of this SMP will be provided to the contractors for their review, and each contractor shall provide this information to its subcontractors.

A Dust Control Plan should be prepared by an environmental consultant for any potential onsite grading activities or excavation activities. The following dust suppression measures should be followed during any soil handing activities:

- Exposed onsite soils to be moistened twice a day to prevent visible airborne dust.
- Moistening of all soils during truck loading for disposal or off haul purposes.
- Dust monitoring with direct reading instrumentation.
- Covering stockpiles with 10-mil polyethylene sheeting (or equivalent).
- Covering all disposal trucks and/or off haul trucks with a tarpaulin and rinsing of truck tires before leaving the site.
- On site soil disturbance and/or loading actives will be suspended if winds exceed 20 miles per hour.



Each contractor shall be responsible for the health and safety of their own workers and/or subcontractors, as required by Cal-OSHA, including but not limited to preparation of their own HSP and Injury and Illness Prevention Plan (IIPP). The purpose of these documents is to provide general guidance in relation to the possible onsite work hazards that may be encountered during construction activities at the Site. Contractors are also required to determine the necessary requirements based on existing information and data related to the site, for worker training and handling of potentially hazardous materials (including determining if HAZWOPER trained personal are necessary to preform work tasks), based on the expected worker contact with contaminated soil (via direct contact or soil dust), soil vapor, and groundwater. The HSP will contain provisions for:

- A description of proper entry to the site and all work activities to be conducted at the site.
- A list of project contacts including the Health and Safety Officer.
- A list of Hazardous Materials Information.
- Emergency Information, including the location of the nearest emergency hospital location.
- Identification of on Site Health and Safety Hazards and Hazard Analysis
- Exposure Prevention, Safety Requirements, Hazard Exposure Guidelines and Safe Work Practices.
- Safety Training Procedures and Guidelines.
- Levels of PPE Needed.
- Waste Handling Procedures.

The purpose of a HSP is to inform all field personal of proper safety procedures and potential health risks while on the site. Limiting and monitoring chemical exposure to construction workers and other onsite personnel as necessary for chemical and non-chemical hazards, emergency procedures, dust control, and standard safety protocols. Detail adequate protections concerning clothing and breathing apparatuses to be worn while working in contaminated areas. For those working in contaminated areas, meetings should be conducted as a daily reminder of the potential hazards of that day's activities. All project personnel should familiarize themselves with the HSP and adhere to its established procedures and recommendations. A copy of the HSP should be kept on site and made available to all personal. The HSP should be update if on site conditions change.

It is recommended that general site workers (such as equipment operators, general laborers, and supervisory personnel) engaged in soil excavation activities be appropriately trained and work under an experienced supervisor. It is recommended that occasional workers, onsite for specific, limited tasks (e.g., shoring installation, land surveying, or geophysical surveying) and who are unlikely to be exposed to physical hazards still work under the direct supervision of an appropriately trained and experienced supervisor.

If hazardous materials, such as gasoline or diesel fuel, are brought onto or stored onsite, It is recommended that Site managers and supervisors directly responsible for or who supervise employees engaged in hazardous material operations shall receive appropriate training at the time of job assignment on such topics as, but not limited to, the employer's health and safety program, spill containment program, and health hazard monitoring procedure and techniques. Employees shall not be permitted to



participate in or supervise field activities until they have been trained to a level required by their job function and responsibility.

5.4 Soil Management Protocol

If excavation activities encounter unidentified underground storage tanks (USTs), sumps, or other hazardous materials containers, those containers must be removed in accordance with the requirements of the proper regulatory agency, including but not limited, to the ACEH and the City of Oakland Fire Department. It is recommended that an environmental professional monitor and coordinate permitting, removal, sampling, and reporting activities. The removal and disposal processes will require soil sampling and laboratory analysis to assess left-in-place soil. In addition, it is possible that excavated soil contains contamination. The contractor will coordinate with the environmental professional to profile the contaminated soil so that appropriate proper disposal can be arranged. The closure of additional hazardous materials containers could require shoring within the excavation. All shoring must meet the requirements of Cal-OSHA.

An environmental professional should monitor activities during the excavation of potentially contaminated soil. The Owner will be notified by the contractor in the event obviously contaminated soil is encountered. The contractor will immediately implement any provisions of the HSP and the SMP that may be triggered by encountering these conditions. In coordination with The Owner, the environmental professional will determine the need and scope of any additional Site control measures, and sampling and analysis that may be warranted. The environmental professional will make recommendations for addressing these conditions so that construction activities can proceed in a timely manner.

If soil is encountered that is suspected of being contaminated (e.g., if soil discoloration or odors are noted), or any other environmental conditions are encountered, the potentially impacted soil will be field-screened by the environmental consultant. It is expected that the environmental consultant will only be used on an as-needed basis (whenever potentially contaminated soil is encountered), and will not be onsite for the duration of construction activities. The environmental consultant and ACEH will be notified within 24 hours by the Owner in the event that potentially impacted soil is encountered, and the environmental consultant will be onsite to perform field screening and possible sample collection as discussed below.

Field Screening: In general, the field screening protocol will consist of using a hand-held photoionization detector (PID), as well as observing the soil for discoloration and odor. Field screening of soil will be performed using the headspace analysis method by placing a small volume of soil into a sealable plastic bag. After waiting the appropriate amount of time, the PID probe tip will be carefully inserted into the bag. PID readings will be written in a bound project dedicated logbook along with notable field observations. The PID will quantify total VOCs in the headspace.



A PID field screening value of 10 parts per million vapor (ppmv) above background will be used as an action level to trigger potential follow-up soil sampling for laboratory analysis. Prior to conducting field screening three background readings will be generated using on-site soil from locations away from potential source areas. Those values will be averaged to form a background value for that day. Headspace field readings consistently above 10 ppmv plus background would trigger collection of soil samples for laboratory analysis. Laboratory analytical results will be documented and submitted to Owner, in a report format.

The field screening trigger level of 10 ppmv plus background will also be used to determine if 40-hour HAZWOPER trained construction workers and equipment operators are required in areas of impacted soil, until safe conditions are verified with PID and, potentially, laboratory data. If field instrument readings of 10 ppmv plus background are consistently recorded in an area, the contractor will be notified by the environmental consultant and the contractor, in consultation with the environmental consultant, will determine whether 40-hour trained HAZWOPER personnel will be used for working in that area. In such a case, only work being performed in that particular area will be suspended and the area will be cordoned off until 40-hour trained personnel are available. The contractor will have the obligation to ensure that no persons without 40-hour HAZWOPER training will then be allowed in the area of known contamination.

Soil moisture and other factors can influence field instrument readings resulting in false positive PID readings. Unusually high readings in the absence of other indications of soil impact, may require use of an alternative PID instrument. In the event PID readings indicate that soil sampling may be necessary, the contractor will be notified to temporarily stop work at the impacted location, and the environmental consultant will perform an adequate assessment in the area of potential soil impact.

Upon receipt of analytical results, the ACEH may direct Owner to investigate the extent of the impacted area. Such investigation may include the use of a backhoe, hand auger equipment, or drill rig, as circumstances may dictate for additional soil screening or the collection of soil, soil gas, and/or groundwater samples. Any subsequent assessment, characterization or remediation work, will be coordinated between the ACEH, Owner, the environmental consultant, and the contractor.

Management of Impacted Soil

Environmental professional personnel should be present during excavation of areas of suspected contamination to observe soil for indications of contamination, and collect soil samples for chemical analyses, using standard environmental sampling protocols. Contamination can be detected during excavation activities by odor, soil discoloration, or PID readings. The environmental professional should also assist the contractor by collecting soil samples to characterize the soil for proper offsite disposal. The number of soil samples to be collected and the analytical suite for those samples will depend on the requirements of the landfill accepting the excavated soil.



During construction activities, if soil is encountered that is suspected of being contaminated (e.g., if soil discoloration or odors are noted), or if buried structures (such as sumps, tanks, drain systems), debris or wells that have not yet been abandoned are encountered, earthwork in the suspect area will be immediately stopped and worker access to the suspect area will be restricted. The area will be cordoned off using delineators and caution tape, or similar materials by the contractor, and the environmental consultant and ACEH will be notified. The contaminated soil will be evaluated through field screening and/or analytical testing by the environmental consultant so that appropriate handling and disposal alternatives can be assessed. If onsite reuse of the contaminated soil is anticipated, soil samples shall be collected from the stockpile and analyzed for COCs.

If COCs are detected, whether above or below regulatory agency screening levels, further investigation of the area may be necessary as determined by Owner in coordination with the environmental consultant. If COCs are detected below applicable screening levels, reuse of the soil may be appropriate. If COCs are detected above the applicable ESLs, the results will be communicated to ACEH, and soils will be appropriately profiled for disposal under waste manifests to a facility designated to accept such waste.

If impacted soil is identified at the Site, earthwork activities in contaminated areas will be performed by licensed hazardous materials contractors and personnel trained in hazardous waste operations (40-hour HAZWOPER training), if warranted based on COC concentrations. The soil management procedures described in this document and the contractor's HSP will be followed. Mitigation activities will be developed by Owner and environmental consultant in coordination with the ACEH.

Stockpile Management

If contaminated soil is encountered, excavated soil will immediately be placed on plastic sheeting sufficient in strength and size so that the affected soil does not contact clean soil or the surrounding surface. Prior to leaving the Site, the contractor will cover the stockpiled soil with plastic sheeting, and anchor the sheeting sufficiently so that the stockpiled soil is not exposed to ambient air under adverse conditions. The soil shall be managed for erosion and sediment control by surrounding the base with straw wattles or other methods consistent with best management practices. Soil stockpiles shall be checked daily by the contractor to verify they are adequately covered and protected.

Soil that appears to be "clean" when excavated should also be placed on and covered by plastic as noted above. However, "clean" and contaminated soil should be segregated to the maximum extent possible

Soil Sampling Protocol

To collect soil samples the surface of the soil should be scraped to remove smeared soil in order to access soil for discrete sampling. Soil samples will be collected from an undisturbed volume of soil using threeinch or six-inch long two-inch diameter brass or stainless steel sample tubes. The tubes will be driven into



the soil until completely full. The tubes will be driven utilizing a spoon sample collection device into the soil with a manual sampler (slide hammer or equivalent) or directly with a wooden or rubber mallet. The samples will be immediately removed from the sampler, sealed with Teflon® tape and plastic end caps, labeled with unique identifiers, entered on a chain of custody record, and placed in a pre-chilled cooler on ice pending transportation to the State-certified environmental laboratory for the intended analyses. Chain-of custody protocol must be strictly followed

Confirmation Soil Sampling

Confirmation soil samples are to be collected at the completion of any excavation and sampling process. The confirmation soil samples are collected from the base of the excavation, and along the excavation sidewalls when the depth of the excavation exceeds two feet. Confirmation soil samples should be biased and collected from the worst case areas or where the highest concentrations would be expected based on product pooling, visible contamination, field screening, soil type, or other site-specific characteristics. Soil samples are collected, analyzed, and evaluated to verify the effectiveness of excavation and sampling activities

Soil Management during Construction

It may be necessary to transport surplus soil generated during construction from the Site. If no impact is identified during the monitoring procedures outlined above, surplus soil will be transported to an appropriate landfill facility, reused at the Site, or sent to another project that accepts soil. Soil sampling and analysis may be required prior to offsite disposal or reuse at another site. The contractor will coordinate with the environmental consultant regarding off-site soil disposal activities. The ACEH shall be contacted if potentially impacted soil is discovered. Surplus soils with any COC above the applicable ESL will not be reused onsite; such soils will be properly disposed offsite. Documentation will be provided to the ACEH.

Imported Soil

The environmental consultant, geotechnical engineer, and ACEH will be notified prior to importing fill soil to the Site during construction activities. An evaluation of imported fill material will be conducted to ensure such fill meets the site geotechnical and environmental requirements. To minimize the potential introduction of contaminated fill onto the Site, any source of imported fill will have adequate documentation to verify that the fill is appropriate for use at the Site. Documentation will include detailed information on previous land use of the fill source, any Phase I Environmental Site Assessments performed at the fill source, and the results of any analytical testing performed.

If documentation is inadequate, samples of the potential fill material should be collected and analyzed prior to delivery of such soil to the Site. The analyses selected will be based on the history of the fill source use as assessed by the Environmental Consultant. The sample frequency for potential fill material will be in accordance with that outlined in the technical document; "*Information Advisory on Clean Imported Fill Material*" (California Department of Toxic Substances Control, October 2001). The environmental consultant will provide guidance to the contractor regarding acceptability. Fill material



will not be accepted if contaminant levels exceed current residential ESLs (unrestricted reuse criteria) and/or regional background concentrations.

6.0 GROUNDWATER MANAGEMENT PROTOCOLS

In the event that the Owner or future Site owners desire to conduct excavation for construction or subsurface parking, there is a possibility that future excavation might have to be dewatered because groundwater was encountered at depths of 1 to 4.58 feet below original ground surface. This groundwater bearing zone is in fine grain soils and produces water slowly. During a review of various environmental assessments, it was noted that shallow groundwater was not observed in every boring advanced to 5 feet. Additionally, a more productive groundwater bearing zone is known to exist between about 2 and 4 feet below original ground surface.

6.1 Excavation Dewatering

If groundwater is encountered during construction activities the contractor should coordinate with the environmental consultant to contain, sample, test, and discharge such groundwater in accordance with the appropriate regulatory permit requirements. The environmental professional will confirm that the contractor stores the contaminated groundwater in appropriate containers so that overfilling, leakage, or rupture does not occur. The contractor may have to use secondary containment for the stored water, as needed. If spills occur, the impacted soil may be excavated and tested to evaluate reuse or disposal options. The number of samples and the analytical suite for groundwater samples maybe subject to the requirements of the discharge permit and local authority for acceptance into their sanitary sewer system or storm water system. The environmental professional will observe and document the contractor's activities as the water is pumped from the excavation to the containers and as it is transported or discharged from the Site.

The contractor is responsible for contacting the RWQCB to prepare a Storm Water Pollution Prevention Plan (SWPPP) and obtaining appropriate permits from the RWQCB (NPDES Permit) and the local water utility prior to discharge of water to the storm drain system or sanitary sewer system.

7.0 NOTIFICATION AND DOCUMENTATION

7.1 Key Contacts

Owner	PSAI Partners	Attn: Martin	Tel: 415.362.1700	155
	IV, LLC	Ward	Dir:	Montgomery
		Asset Manager	415.362.3743 mward@psai-	Street - Suite
			<u>cre.com</u>	1600
				San Francisco,
				California 94104



Environmental	ACC	Attn: Julia	ph: 510-638-8400 x118	7977 Capwell
Consultant	Environmental	Siudyla	Cell: 510-289-	Drive
	Consultants		6984 <u>Jsiudyla@accenv.com</u>	Oakland, CA
				94621
Environmental	Burns &	Attn: Chris	Mobile: 310-570-7069	400 Oyster Point
Consultant	McDonnell	D'Sa	Office: 626-817-7904	Blvd. Suite 533
	Engineering		cdsa@burnsmcd.com	South San
	Company, Inc.			Francisco, CA
				94080
Case	Alameda County	Keith Nowell	phone: 510 / 567 - 6764	1131 Harbor
Management	Environmental	PG, CHG	fax: 510 / 337 - 9335	Bay Parkway
	Health		keith.nowell@acgov.org	Alameda , CA
				94502-6540

7.2 Notifications

Notifications of the discovery of COCs during field screening, observations, or upon review of analytical results or other conditions of potential environmental concern are to be made immediately to The Owner above, the environmental consultant (attention Julia Siudyla or Chris D'Sa), and ACEH (attention Keith Nowell). The Owner will determine the need for other required notifications. If such discovery or conditions require notification to the contractor and/or subcontractors, such notification will be determined by the OWNER and the environmental consultant

7.3 Documentation

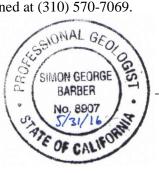
It will be necessary for the contractor to maintain a daily log of all construction activities where soil contamination is encountered or hazardous materials containers are encountered. The contractor will also maintain copies of any transportation manifests or bills-of-lading for soil and groundwater removed from the Site during the course of any construction activities. Copies of these documents will be available in the contractor's office, and will be provided to Owner, at their request.

The environmental consultant may prepare reports at the discretion of Owner or at the request of ACEH. The environmental consultant may provide documentation of conditions including observations, screening results, and laboratory results as needed to inform the contractor of conditions in work areas and as may be needed to comply with provisions of this SMP, including health and safety requirements, work practices, material handing requirements, or other recommendations



If you have any questions or comments regarding this *Soil Management Plan* for the YRC Enterprise Services, Inc. (former Roadway Express), facility located at 1708 Wood Street, Oakland, California, please contact either of the undersigned at (310) 570-7069.

Simon Barber, PG Staff Geologist (Lic 8907 exp 5/16)



Christopher D'Sa, Esq Senior Project Manager

cc:

Dilan Roe, ACEH <u>dilan.roe@acgov.org</u> Cherie McCaulou, SF Bay-RWQCB (Region 2) <u>cmccaulou@waterboards.ca.gov</u> Ruben Byerley, YRC <u>ruben.byerley@yrcfreight.com</u> Martin Ward, PSAI <u>mward@psai-cre.com</u> Julia Siudyla, ACC <u>jsiudyla@accenv.com</u>

Attachments:

- Table 1:Historical Monitoring Well Groundwater Summary
- Figure 1: Location Map
- Figure 2: Site Map
- Figure 3: Historical TPH Concentrations in Soil & Groundwater Area 1
- Figure 4: Historical TPH Concentrations in Soil & Groundwater Area 2



References

- Roadway Services, Inc. and Groundwater Technology, 1987, Underground Storage Tank Removal, June 9, 1987.
- One Environmental, 1996, *Underground Storage Tank Removal and Site Closure*, July 22, 1996.
- Burns & McDonnell Engineering Company, Inc., 2007, Site Investigation, February 5, 2008.
- Burns & McDonnell Engineering Company, Inc., 2008, Additional Site Assessment Report, September 5, 2008.
- Burns & McDonnell Engineering Company, Inc., 2011, Underground Storage Tank and Oil Water Separator Removal Report, March 2012.
- ACC Environmental Consultants, 2013, *Phase II ESA Limited Soil and Groundwater Investigation*, October 15, 2013.

Tables

Figures

TABLE 1 Historical Monitoring Well Groundwater Summary Groundwater Elevations and Total Petroleum Hydrocarbons in Groundwater Roadway Express 1708 Wood Street Oakland, California

Well ID	Aquifer Zone	Date	Depth to Water (ft below Top of	Groundwater Elevation	TPHd	TPHg	TPHmo	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Total Oil & Grease	MTBE (8021B)	MTBE (8260B)	VOCs
MW-1	Shallow	24-Jul-97	Casing)	(ft MSL)	(μg/L) 1,200	(µg/L) 50 U	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L) 1.4	`(µg/L)´	`(μg/L)΄	(8260B)
	estroyed Aug				1,200	30 0						1.4			
MW-2	Shallow	24-Jul-97			940	50 U						6.2			
MW-2	Shallow	17-Dec-07	1.56	8.33	140										
MW-2	Shallow	28-Mar-08	1.03	8.86	180 BI, SG	50 U	300 U,SG	0.5 U	0.5 U	0.5 U				0.5 U	
MW-2 MW-2	Shallow Shallow	02-Jun-08 03-Jun-08	1.44	8.45	 150 SG	 50 U	 300 U,SG	 0.5 U	 0.5 U	 0.5 U			 2 U		
	estroyed Aug				100 00	30 0	300 0,30	0.0 0	0.5 0	0.0 0			20		
MW-3	Deep	22-Mar-07	4.04	6.07	50 U	50 U						4.75 U		0.5 U	
MW-3	Deep	28-Mar-08	4.12	5.99	50 U	50 U	300 U	0.5 U	0.5 U	0.5 U				0.5 U	
MW-3	Deep	02-Jun-08	4.35	5.76											
MW-3 MW-3	Deep Deep	03-Jun-08 10-Sep-08	4.48	 5.63	50 U 50 U	50 U 50 U	300 U 300 U	0.5 U 0.5 U	0.5 U 0.5 U	0.5 U 0.5 U			2 U 2 U		
MW-3	Deep	29-Dec-08	4.40	5.69	50 U	50 U	300 U	0.5 U	0.5 U	0.5 U			2 U		
MW-3	Deep	06-Mar-09	3.68	6.43	95 U	50 U	190 U	1 U	1 U	1 U	2 U			1 U	
MW-3	Deep	13-May-09	3.81	6.30	94 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U			1 U	
MW-3	Deep	19-Sep-09	4.58	5.53											
MW-3	Deep	12-Nov-09	3.98	6.13	94 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U			1 U	ND
MW-3	Deep	14-Feb-11	NR	NR	51 U	50 U	100 U	0.05 U	0.05 U	0.05 U	1 U	5,200 U		0.5 U	ND
MW-4	Deep	22-Mar-07	3.25	6.27	50 U	50 U						4.75 U		0.5 U	
MW-4	Deep	28-Mar-08	3.32	6.2	50 U	50 U	300 U	0.5 U	0.5 U	0.5 U				0.5 U	
MW-4	Deep	02-Jun-08	3.56	5.96	50 U	50 U	300 U	0.5 U	0.5 U	0.5 U			2 U		
MW-4	Deep	10-Sep-08	3.91	5.61	50 U	50 U	300 U	0.5 U	0.5 U	0.5 U			2 U		
MW-4	Deep	29-Dec-08	3.71	5.81	50 U	50 U	300 U	0.5 U 1 U	0.5 U 1 U	0.5 U 1 U			2 U		
MW-4 MW-4	Deep Deep	06-Mar-09 13-May-09	2.90 3.06	6.62 6.46	95 U 94 U,SG	50 U 50 U	190 U 190 U,SG	1 U	10	10	2 U 2 U			1 U 1 U	
MW-4	Deep	18-Sep-09	3.76	5.76											
MW-4	Deep	12-Nov-09	3.31	6.21	94 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U			1 U	ND
MW-4	Deep	14-Feb-11	NR	NR	51 U	50 U	100 U	0.5 U	0.5 U	0.5 U	1 U	5,300 U		0.5 U	ND
MW-5	Deep	22-Mar-07	3.73	6.24	710 BI	50 U						4.85 U		0.5 U	
MW-5	Deep	28-Mar-08	3.82	6.15	50 U,SG	50 U	300 U,SG	0.5 U	0.5 U	0.5 U				0.5 U	
MW-5	Deep	02-Jun-08	4.05	5.92	50 U,SG	50 U	300 U,SG	0.5 U	0.5 U	0.5 U			2 U		
MW-5	Deep	10-Sep-08	3.45	6.52	50 U,SG	50 U	300 U,SG	0.5 U	0.5 U	0.5 U			2 U		
MW-5	Deep	29-Dec-08	4.19	5.78	50 U,SG	50 U	300 U,SG	0.5 U	0.5 U	0.5 U			2 U		
MW-5	Deep	06-Mar-09	3.32	6.65	95 U	50 U	190 U	1 U	10	1 U	2 U			1 U	
MW-5 MW-5	Deep Deep	13-May-09 18-Sep-09	3.54 4.25	6.43 5.72	94 U,SG 	50 U 	190 U,SG 	1 U 	1 U 	1 U 	2 U 			1 U 	
MW-5	Deep	12-Nov-09	3.79	6.18	94 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U			1 U	ND
MW-5	Deep	14-Feb-11	NR	NR	51 U	50 U	100 U	0.5 U	0.5 U	0.5 U	1 U	5,200 U		0.5 U	ND
MW-6	Shallow	06-Mar-09	0.60	9.53	95 U	50 U	190 U	1 U	1 U	1 U	2 U			1 U	
MW-6	Shallow	13-May-09	1.06	9.07	95 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U			1 U	
MW-6	Shallow	18-Sep-09	1.91	8.22	94 U, SG	50 U	190 U, SG	1 U	1 U	1 U	2 U			1 U	
MW-6	Shallow	12-Nov-09	1.74	8.39	94 U, SG	50 U	190 U,SG	1 U	1 U	1 U	2 U			1 U	ND
MW-6	Shallow	14-Feb-11	NR	NR	51 U	50 U	130	0.5 U	0.5 U	0.5 U	1 U	5,100 U		0.5 U	ND
MW-7	Shallow	06-Mar-09	0.42	9.51	95 U,SG	50 U	190 U	1 U	1 U	1 U	2 U			1 U	
MW-7	Shallow	13-May-09	0.95	8.98	94 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U			1 U	
MW-7	Shallow	18-Sep-09	1.75	8.18	84.5 SG, J	50 U	190 U,SG	1 U	1 U	1 U	2 U			1 U	
MW-7	Shallow	12-Nov-09	1.65	8.28	94 U,SG	50 U	190 U, SG	1 U	1U	1 U	2 U	 5 200 I I		10	ND
MW-7	Shallow	14-Feb-11	NR	NR	51 U	50 U	100 U	0.5 U	0.5 U	0.5 U	1 U	5,200 U		0.5 U	ND
MW-8	Shallow	06-Mar-09	0.46	9.37	96 U,SG	50 U	190 U	1 U	1 U	1 U	2 U			1 U	
MW-8	Shallow	13-May-09	1.64	8.19	77.1 SG, J	50 U	200 U,SG	1 U	1 U	1 U	2 U			1 U	
MW-8 MW-8	Shallow Shallow	18-Sep-09 12-Nov-09	2.08 1.93	7.75 7.90	94 U,SG 94 U,SG	50 U 50 U	190 U,SG 190 U,SG	1 U 1 U	1 U 1 U	1 U 1 U	2 U 2 U			1 U 1 U	ND
MW-8	Shallow	12-1100-09 14-Feb-11	NR	7.90 NR	94 0,3G 52 U	50 U	190 U,SG 100 U	0.5 U	0.5 U	0.5 U	2 U 1 U	 5,200 U		0.5 U	ND
	Chanow	11-00-11		TNIX.	52.0	50.0	100 0	0.0 0	0.0 0	0.0 0		5,200 0	-	0.00	

Notes:

- ft MSL Feet above mean sea level
- µg/L Micrograms per Liter
- --- No data for the cell, indicates "not measured" or "not analyzed for this constituent"
- NR Not reported

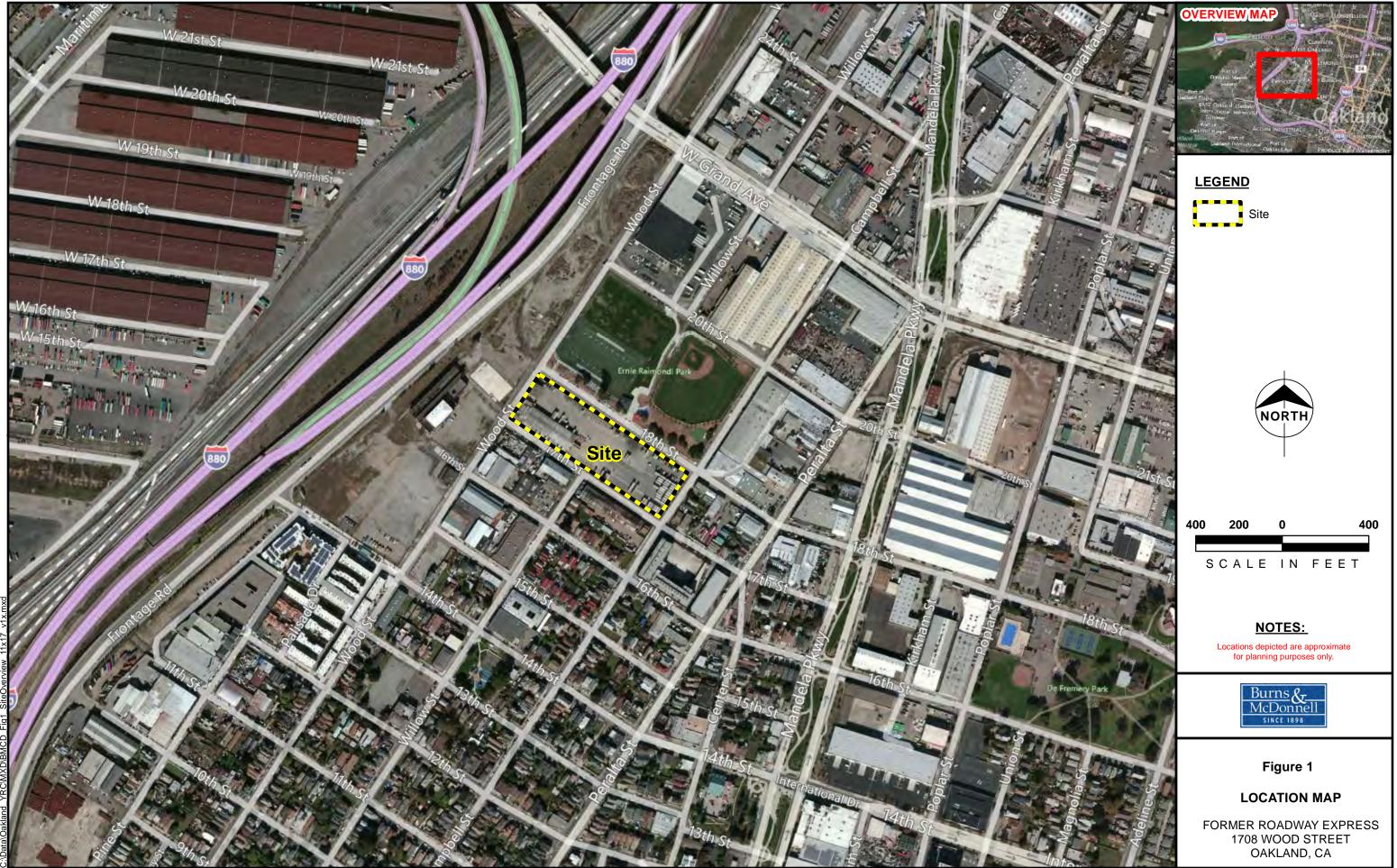
Laboratory Qualifiers:

- BI Sample does not resemble standard
- SG SGCU, Silica Gel Clean-up, EPA Method 3630C
- J EPA Flag Estimated value
- U Compound was not detected above the indicated laboratory reporting limits

2/14/2011 results were summarized from ACC Phase II ESA- Limited Soil and Groundwater Investigation, October 15, 2013

Chemical Abbreviations:

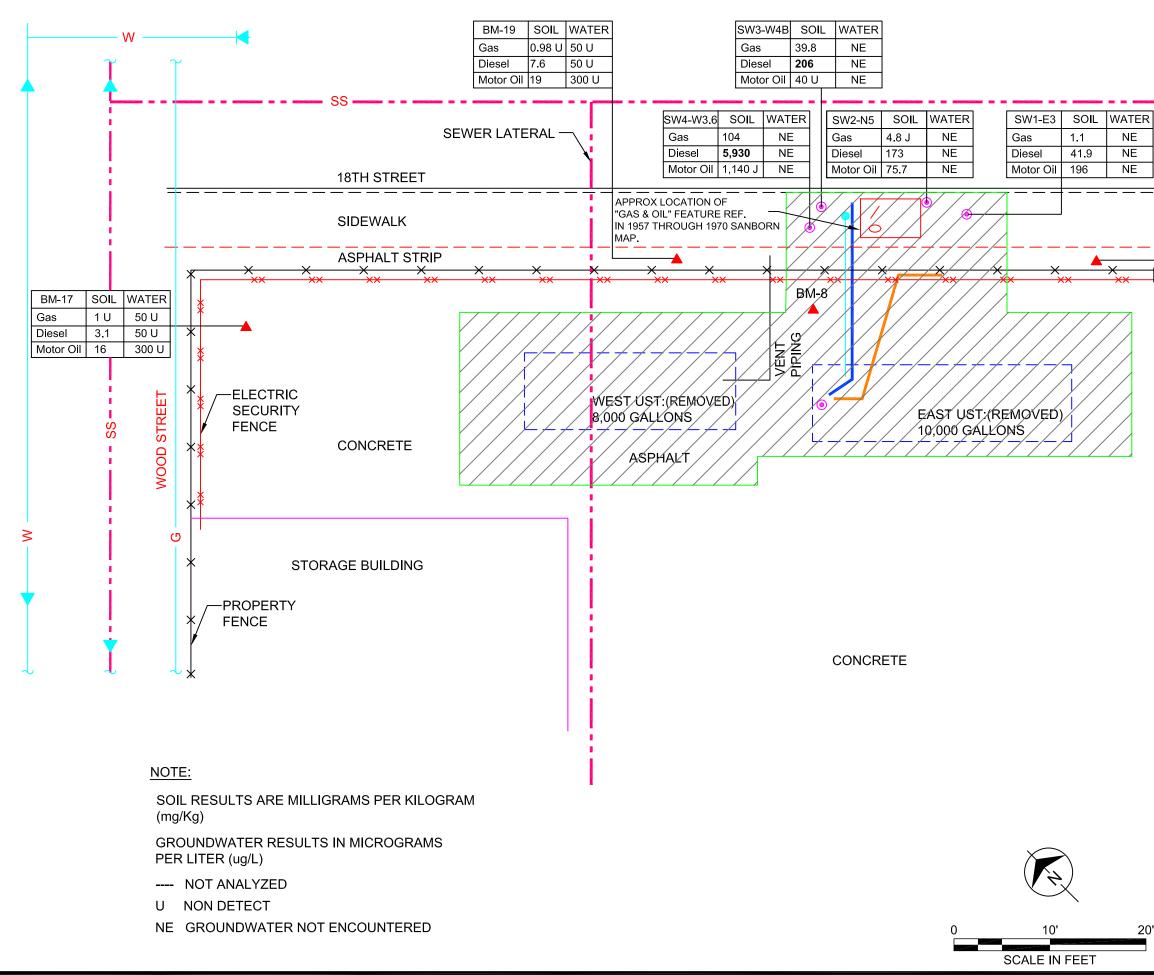
- TPHd Total petroleum hydrocarbons as diesel range by EPA Method 8015M
- TPHmo Total petroleum hydrocarbons as motor oil range by EPA Method 8015M
- TPHg Total petroleum hydrocarbons as gasoline range by EPA Method 8260B
- BTEX Benzene, ethyl-benzene, toluene, and total xylenes by EPA Method 8260B
- MTBE (8021B) Methyl tert-butyl ether by EPA 8021B
- MTBE (8260B) Methyl tert-butyl ether by EPA 8260B
 - TOG Total Oil and Grease by EPA Method 413.2 or EPA 1664
 - ND Not detected



LOCATION MAP, dwholder 2/20/2014



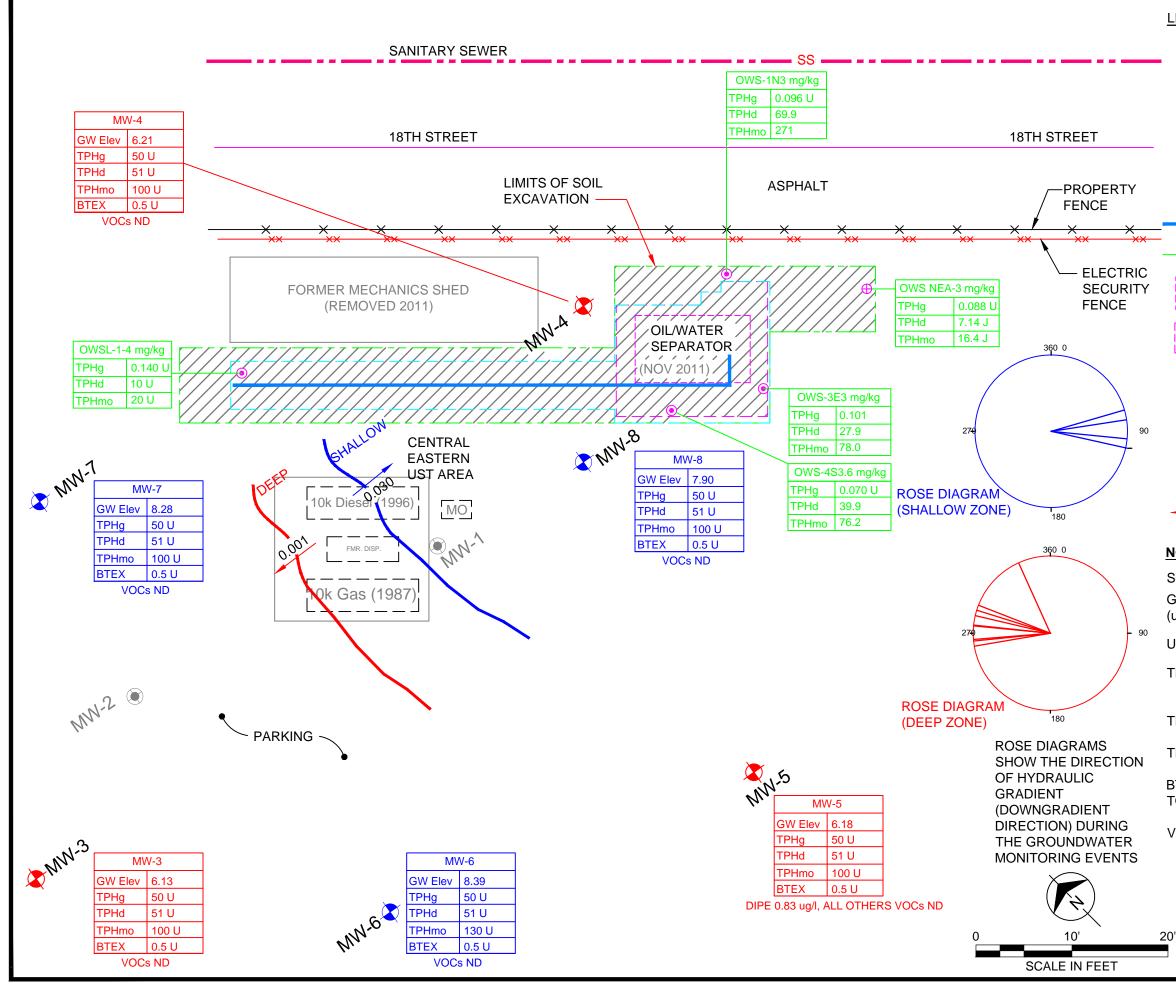
SITE MAP, dwholder 2/20/2014



	- SS	
NE NE NE NE	BM-18SOGas1 LDiesel3.7Motor Oil16	J 50 U 7 50 U
		- — — — — — — — — — — — — — — — — — — —
 U		
	LEGEND:	PIPING TO USTS. TERMINATED UNDER SIDEWALK (REMOVED)
		FILL PIPING (REMOVED)
		VENT PIPING (REMOVED)
		EXCAVATION LIMITS
	۲	CONFIRMATORY SOIL SAMPLE LOCATION (2011)
		SOIL BORING BURNS & MCDONNELL 2007 & 2008
		UST - REMOVED OCTOBER 31,2011
	SS	SANITARY SEWER LINE
	G	NATURAL GAS LINE
	W	WATER LINE
		WATER LINE TERMINATE ON 18TH ST.



Figure 3 HISTORICAL TPH CONCENTRATIONS IN SOIL AND GROUNDWATER AREA 1 1708 WOOD STREET



C:\USERS\CDSA\DOCUMENTS\ACTIVE PROJECTS\YRC OAKLAND\2014 CLOSURE\YRC OAKLAND FIG 4.DWG 11/4/2014 12:43 PM CDSA

LEGEND	
۲	SOIL SAMPLE LOCATION (2011)
\oplus	SOIL RESAMPLE LOCATION CONFIRMATION (2011)
\mathbf{X}	MONITORING WELLS SHALLOW (MW-6 TO MW-8)
	MONITORING WELLS DEEP (MW-3 TO MW-5)
\odot	MONITORING WELLS REMOVED (2008)
	CLEANOUT LINE
	- EXCAVATION LIMITS
OWS	OIL/WATER SEPARATOR REMOVED 2011
	ORIGINAL EXCAVATION
MO	6000-GAL MOTOR OIL UST REMOVED 1987
	UST & FUEL ISLAND REMOVED (1987 & 1996)
(8.39)	GROUNDWATER ELEVATION (MEAN SEA LEVEL) FT. MEASURED ON 11/12/09
0.001	APPROX. GROUNDWATER FLOW DIRECTION AND GRADIENT IN FEET/FOOT

NOTE:

SOIL RESULTS ARE MILLIGRAMS PER KILOGRAM (mg/Kg) GROUNDWATER RESULTS IN MICROGRAMS PER LITER (ug/L) (02/14/2011) COLLECTED AND TESTED BY ACC

U NON DETECT

- TPHg = TOTAL PETROLEUM HYDROCARBONS (TPH) AS GASOLINE.
- TPHd = TPH AS DIESEL

TPHmo = TPH AS MOTOR OIL

BTEX = BENZENE, TOLUENE, ETHYLBENZENE AND TOLUENES.

VOC = VOLATILE ORGANIC COMPOUNDS



Figure 4 HISTORICAL TPH CONCENTRATIONS IN SOIL & GROUND WATER AREA 2 1708 WOOD STREET