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#### AllWest Environmental, Inc.

Specialists in Physical Due Diligence and Remedial Services

530 Howard Street, Suite 300 San Francisco, CA 94105 Tel 415.391.2510 Fax 415.391.2008

#### SUBSURFACE INVESTIGATION REPORT

Former Mandela Trucking 1225 Mandela Parkway Oakland, California 94607

PREPARED FOR:

Mr. Clarence Glasper c/o Mr. Thomas Gillis 1153 Copper Verde Lane Modesto, California 95355

ALLWEST PROJECT 28209.23 December 30, 2008 PREPARED BY: NO.HG357

Conard

Leonard P. Niles, P.G., C.H.C. Senior Project Manager

**REVIEWED BY:** MI

Marc D. Cunningham, R.E.A. President



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#### SUBSURFACE INVESTIGATION REPORT

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#### I. EXECUTIVE SUMMARY

AllWest Environmental, Inc. (AllWest) conducted a subsurface investigation on November 21, 2008 at the property referenced above ("the subject site", Figure 1). The purpose of the investigation was to further assess the lateral extent of petroleum hydrocarbon constituents in groundwater at the subject site. The project was performed in response to a request by the Alameda County Environmental Health (ACEH) in their letter of October 3, 2008.

This executive summary is provided solely for the purpose of overview. Any party who relies on this report must read the full report. The executive summary may omit details, any one of which could be crucial to the proper understanding and risk assessment of the subject matter.

The investigation included the advancing and sampling of six Geoprobe<sup>™</sup> boreholes, SB-15 through SB-20 under AllWest's supervision to a terminal depth of 16 feet below ground surface (bgs). Borings were sited along the western, northern and southern sides of the subject site building to further delineate the spatial extent of the chemicals of concern (COCs) hydraulically downgradient and crossgradient of the former fuel dispensers and underground storage tanks (USTs) [Figure 2].

One "grab" groundwater sample was collected for analytical testing from each boring and analyzed for total petroleum hydrocarbons as gasoline, diesel, and motor oil (TPHg, TPHd and TPHmo); volatile organic compounds (VOCs) including benzene, toluene, ethyl benzene and xylenes (BTEX); fuel oxygenates including methyl tert-butyl ether (MTBE); fuel additives including 1,2-Dibromoethane (EDB) and 1,2-Dichloroethane

(1,2-DCA); and halogenated volatile organic compounds (HVOCs) including tetrachloroethene (PCE) and trichloroethene (TCE). Table 1 provides groundwater analytical data. Soil samples were collected for lithologic characterization only.

Petroleum hydrocarbons were detected in laboratory analysis of all six groundwater samples collected. The highest concentrations were detected in the groundwater sample collected from SB-19, located downgradient from the fuel dispensers and adjacent to the former USTs, with detected concentrations of TPHg, TPHd and TPHmo at 71  $\mu$ g/L, 17,000  $\mu$ g/L and 6,800  $\mu$ g/L, respectively.

Additionally, BTEX and other VOCs were detected at maximum concentrations of  $0.52 \ \mu g/L$  benzene,  $1.7 \ \mu g/L$  toluene,  $1.4 \ \mu g/L$  total xylenes,  $16 \ \mu g/L$  acetone, and  $7.0 \ \mu g/L$  methyl ethyl ketone (MEK) in the groundwater sample collected from SB-19. The only VOC detected in samples from the other borings was acetone at a concentration of  $12 \ \mu g/L$ , in the groundwater sample collected from SB-20.

According to the *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, California Regional Water Quality Control Board, San Francisco Bay Region (CRWQCB), June 1999*, shallow groundwater in the subject site vicinity is proposed for designation as Zone A, a potential drinking water source. The maximum detected TPHd, and TPHmo benzene concentrations are above their respective Environmental Screening Levels (ESLs) of 100 µg/L and 100 µg/L, for groundwater in areas of Commercial /Industrial Land Use only and where Groundwater is a Current or Potential Source of Drinking Water as listed in *Table A Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater, California Regional Water Quality Control Board, San Francisco Bay Region Interim Final November 2007, Updated March 2008 (CRWQCB, 2008).* 

Based on the work performed, we conclude that the latest subsurface investigation has further delineated the downgradient and crossgradient extent of the petroleum hydrocarbon plume in groundwater initially detected in the vicinity of boring SB-7 during the July 2008 AllWest subsurface investigation. The source of the detected hydrocarbons in site groundwater is likely from spills or leaks from a fuel dispenser or ancillary piping located at the southern end of the fuel island by boring SB-2. This finding amplifies data reported by Golden Gate Tank Removal in 2006. Based on previous investigations performed at the property, nearby locations and regional trends, a groundwater gradient to the northeast has been documented. The vertical and horizontal extent of the petroleum hydrocarbon plume in groundwater has not been fully defined, especially in the downgradient direction toward the site boundaries.

AllWest recommends that permanent groundwater monitoring wells be installed hydraulically downgradient and crossgradient of the south fuel dispensers, to further define the onsite and offsite extent of the dissolved petroleum hydrocarbon plume in groundwater, determine groundwater flow direction and gradient, and to monitor contaminant concentration changes over time. Additionally, monitoring wells should be installed in the vicinity of the south fuel dispenser source area, and hydraulically upgradient near the southeast corner of the subject property. Soil and groundwater samples should be collected and analyzed for various petroleum hydrocarbon constituents including TPHg, TPHd, TPHmo, BTEX and fuel oxygenates. A well installation report should be submitted to ACEH. If the work adequately defines the extent of the plume, a Conceptual Site Model should be developed and submitted with the report to assess impacts to human health and the environment providing a platform to evaluate remedial options.

#### II. INTRODUCTION

#### A. Site Description

The Mandela Trucking facility is located at 1225 Mandela Parkway in a mixed residential, commercial and industrial area of Oakland, California on the southwest corner of the intersection of Mandela Parkway and 13th Street. The subject property ("site") is bounded on the north by 13th Street, with a park across the street to the north; to the east by Mandela Parkway with an industrial facility across the street to the east; to the south by residential development; and to the west by a church and parking lot. The site location and vicinity are shown on Figure 1.

The site is located approximately 1.3 miles southeast of San Francisco Bay and the Oakland Outer Harbor at an elevation of approximately 20 feet above mean sea level (ft MSL). The site occupies a broad alluvial plain formed by streams flowing from the Oakland Hills on the east to the San Francisco Bay on the west. Topographic relief at the site is nearly level with a slight gradient to the west-northwest toward Oakland Outer Harbor and San Francisco Bay. The site is approximately 12,100 square feet of lot area with a 1,100 square foot office building. The building is centrally located with the remaining area formerly used for truck parking. The ground surface is paved with asphalt except for small areas of concrete on the east and west sides of the building. A 25 X 25 foot overhead canopy covers the existing concrete dispenser island on the east side of the building (*"Work Plan for Additional Site Characterization", Golden Gate Tank Removal, July 17, 2007(GGTR) [2007].* The site and existing structures are shown on Figure 2.

#### B. Site History

The subject property was developed in 1902 with three residential structures. Significant development occurred in the area after the 1906 San Francisco earthquake. In 1957 a gasoline service station was sited at the property; tenants reportedly included ARCO and Union 76. A tucking facility, Mackey Trucking operated at the site from 1963 to 1983. Glasper-Mandela Trucking operated at the site from 1983 to 2003 when VA Transportation (VA) occupied the facility as an office and parking lot. According to photographs taken by Golden Gate Tank Removal (GGTR) in 2007 the property was then used to park tractor-trailer trucks cabs. A vacant office building is located in the central portion of the property with a chained linked fence surrounding the entire site. The property is currently unoccupied.

In July 1996, three 4,000 gallon capacity underground storage tanks (USTs) were removed from the property. Two USTs stored diesel and one contained gasoline. Soil samples collected from either ends of the tanks were analyzed for total petroleum hydrocarbons calibrated as gasoline (TPHg), benzene, toluene, ethyl benzene and xylene (BTEX) and methyl tert butyl ether (MTBE). These chemicals were either not detected or detected at "insignificant" concentrations. Total petroleum hydrocarbons as diesel (TPHd) were detected at concentrations of up to 1,300 milligrams per kilogram (mg/Kg) equivalent to part per million (ppm). No groundwater samples were collected. The excavation was not backfilled at the time of tank removal.

In January 1997 the Alameda County Environmental Health (ACEH) requested various work items be performed, including additional soil sampling, soil excavation and disposal and the removal of a 425-gallon waste oil UST. In August 1997 the ACEH issued a "Directive and Order" requiring the work be performed.

In June 1998 GGTR collected soil samples from the excavation's sidewall, floor and soil stockpiles and analyzed the samples for TPHg, TPHd, BTEX and MTBE. Only trace levels of TPHg and xylene were detected. The waste oil UST was removed under the supervision of the Oakland Fire Department in June 1998. One composite soil sample of material excavated from a soil stockpile sample and one clearance sample collected from the bottom of the tank pit were collected and analyzed. Elevated levels of TPH (5,800 mg/kg) were detected in the composite stockpile sample with 70 mg/kg detected in the sample collected from the bottom of the pit. The excavated stockpile soil was removed from the site and properly disposed. The waste oil excavation was then backfilled with "clean" imported fill.

In April 1999 GGTR over excavated and removed diesel impacted soil from the UST excavation. Discrete soil samples were collected from sidewalls. No COCs were detected. One "grab" groundwater was collected from the excavation; 70 micrograms per liter ( $\mu$ g/L), equivalent to parts per billion (ppb), of TPHg were detected. Three fuel dispensers were removed at this time. Two soil samples were collected. Elevated levels of TPHd at 960 mg/kg and 12,000 mg/kg were detected.

In April 2000 GGTR collected a composite sample from a soil stockpile to ascertain if the material was suitable for reuse as backfill material. TPHg, TPHd, BTEX and MTBE were not detected. Lead was detected at a concentration of 140 mg/kg. The ACEH and the Oakland Fire Department subsequently approved the reuse of the stockpile material for backfilled and the UST excavation was backfilled with the on-site soil stockpile and "clean" imported fill.

In May 2006 GGTR removed approximately 85 feet of product lines. Soil samples were collected at approximate 20 foot intervals. GGTR did not find any evidence of a release and subsequently backfilled the excavations.

In June 2006 GGTR advanced four soil borings (SB-1 to SB-4) and three Hydro Punch<sup>™</sup> sample probes (HB-1 to HB-3) in areas of potential concern (Figure 2). Elevated levels of TPHd or total petroleum hydrocarbons as motor oil (TPHmo) were detected in groundwater samples collected from SB-1, located near the northern end of the former dispenser island. Elevated levels of an atypical TPHd and TPHmo were detected in soil and groundwater samples collected from SB-2 located near the southern end of the fuel dispenser island. Elevated levels of TPHmo were detected in soil and groundwater samples collected from SB-4 located by the former waste oil UST. No significant levels of chemicals of concern (COCs) were detected in soil or groundwater sample collected from SB-3. No significant levels of the COCs were detected in groundwater samples collected from the three Hydro Punch<sup>™</sup> borings (*GGTR*, 2007).

AllWest conducted a subsurface investigation on July 14, 2008 at the subject site. The purpose of the work was to further assess the lateral and vertical extent of petroleum hydrocarbon constituents in site soil and groundwater. The project was performed in response to a request by the ACEH in their letters of February 6, 2008 and March 7, 2008 for additional information regarding the release of petroleum hydrocarbons at the subject site.

The investigation included the advancement and sampling of nine Geoprobe<sup>™</sup> boreholes, SB-5, SB-6, and SB-8 through SB-14, to a depth of 10 feet below ground surface (bgs) with a tenth Geoprobe<sup>™</sup> boring, SB-7, advanced to 20 feet bgs (Figure 2). Soil samples were collected from each boring for chemical analysis. One "grab" groundwater sample was collected for analytical testing from SB-7. Selected soil and groundwater samples were analyzed for TPHg, TPHd and TPHmo; VOCs including BTEX; fuel oxygenates including MTBE; halogenated volatile organic compounds (HVOCs) including tetrachloroethene (PCE) and trichloroethene (TCE); fuel additives including 1,2-Dibromoethane (EDB) and 1,2-Dichloroethane (1,2-DCA); and the metal lead. Borings were sited to further delineate the spatial extent of COCs in the vicinity of the dispenser islands and former waste oil tank.

A review of the soil analytical data indicates only one soil sample collected from SB-7 at a depth of 10 to 10.5 feet bgs contained significant concentrations of organic constituents. TPH-g, TPHd and TPHmo were detected at concentrations of 220, 3,900 and 1,400 mg/Kg, respectively. Soil samples collected from above and below the highest concentration sample at 6-6.5 feet bgs, 14.5-15 feet bgs, and 15.5-16 feet bgs did not contain significant concentrations of TPH or other VOCs. No other COCs were detected except for trace levels of PCE in a soil sample collected from SB-11 located adjacent to the former waste oil tank. Two soil samples SB-9 at 3-3.5 feet bgs and SB-11 at 5.5-6 feet bgs contained concentrations of lead at 240 mg/kg and 550 mg/kg, respectively. These concentrations are below Environmental Screening Levels (ESLs) for lead of 750 mg/kg for shallow soils in areas of Commercial /Industrial Land Use only and where Groundwater is Current or Potential Source of Drinking Water as listed in Table A Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater, California Regional Water Quality Control Board, San Francisco Bay Region Interim Final November 2007, Updated March 2008 (RWQCB, 2008).

The groundwater sample collected from SB-7 had a visible petroleum sheen and noticeable odor. Analytical testing of the sample detected concentrations of 270, 380,000, and 130,000  $\mu$ g/L of TPHg, TPHd and TPHmo, respectively. The analytical laboratory noted the petroleum hydrocarbon constituents were highly aged. The groundwater sample collected from SB-7 was also analyzed for total lead, with none detected.

With the completion of the July 2008 soil sampling assessment, AllWest concluded that the extent of the COCs in the soil vadose zone at the property has been adequately defined, and that no additional site investigation regarding the spatial extent of petroleum hydrocarbons in the soil vadose zone was warranted. AllWest concluded that the source of the detected hydrocarbons in site groundwater was likely from spills or leaks from a fuel dispenser or ancillary piping located at the southern end of the fuel island by boring SB-2, and that a groundwater plume was detected in the vicinity of SB-7. The vertical and horizontal extent of the plume was not fully defined. This finding amplified data reported by GGTR in 2006. Based on previous investigations performed at the property, nearby locations and regional trends a groundwater gradient to the northeast was documented (*Subsurface Investigation Report, AllWest Environmental, Inc., September 12, 2008 (AllWest, 2008)*).

#### C. Scope of Work

The purpose of the investigation was to further assess the lateral and vertical extent of the impact by COCs on groundwater resources by the subject property's

current, historic or surrounding land use as a UST and trucking facility. The scope of work as outlined in AllWest's proposal of November 2008, consisted of the following tasks:

- Develop a Site Specific Health and Safety Plan for the planned subsurface investigation;
- Arrange underground utility clearing through Underground Service Alert (USA) and a private line locator;
- Retain a qualified drilling contractor to conduct perform borehole advancement;
- Advance six soil boreholes using a using a Geoprobe<sup>™</sup> equipped truck mounted drill rig at selected areas of the site. Collect representative soil and groundwater samples from the boreholes for chemical analysis;
- Submit groundwater samples to a California Department of Health Service certified laboratory;
- Analyze the selected soil samples and groundwater sample for TPHg, TPHd TPHmo, and VOCs;
- Interpret the data and present findings in a written report describing field activities, analytical data and AllWest's conclusions and recommendations.

#### **III. PROJECT ACTVITIES**

#### A. Underground Utility Clearing

To avoid damage to underground utility installations during the course of the subsurface investigation, AllWest contacted Underground Service Alert (USA), an organization for public utility information, on the pending subsurface investigation. USA then notified each of the public and private entities that maintained underground utilities within the vicinity of the site to locate and mark their installations for field identification.

A private underground utility locator, Subtronic Corporation, of Concord, California, was also retained by AllWest to conduct a magnetometer sweep of the investigation area to locate the marked and unmarked underground utilities, if any. All final sampling locations were cleared of known underground utilities.

#### B. Soil Borehole Advancement

Six Geoprobe<sup>TM</sup> borings, SB-15 through SB-20, were advanced at the subject site during the subsurface investigation on November 21, 2008. Borings were sited along the western, northern and southern sides of the subject site building to further delineate the spatial extent of the chemicals of concern (COCs) downgradient and crossgradient of the former fuel dispensers and underground storage tanks (USTs). Geoprobe<sup>TM</sup> locations are graphically presented in Figure 2.

The boreholes advancement was performed by Environmental Control Associates, Inc. (ECA), Aptos, California, a licensed C-57 California drilling contractor. The boreholes were advanced by drilling equipment utilizing the Geoprobe<sup>™</sup> process. The standard procedures for borehole advancement, as presented in Appendix B were followed. During the borehole advancement operation, an environmental professional from AllWest was present to collect representative groundwater samples, to conduct field screening and to maintain a continuous log of drilling activities.

#### C. Soil Sampling

Soil samples were collected only for lithologic characterization, not for laboratory analysis, during this investigation.

#### **D.** Groundwater Sampling

Groundwater was first observed in the borings at an approximate depth of 10 to 14 feet bgs. After the borings were advanced to a terminal depth of 16 feet bgs, groundwater samples were collected using new, clean, plastic tubing and a check valve. All groundwater samples were placed into appropriate sample bottles furnished by the analytical laboratory for the specified analysis.

Groundwater samples were each transferred to three, 40 milliliter (ml) Volatile Organic Analyses (VOA) vials (preserved with HCL) and one 1-liter bottles (preserved with HCL). All VOA sample bottles had a Teflon lined septum/cap and were filled such that no head space was present. All sample bottles were sealed, labeled and immediately placed on ice in a cooler and transported under chain-of-custody control to the analytical laboratory. After groundwater sampling was completed the boreholes were filled to the surface with Type II, Portland, neat, cement grout utilizing a tremie pipe.

#### E. Quality Assurance / Quality Control

To prevent the loss of constituents of interest, all soil and groundwater samples were preserved by storing in an ice chest cooled to  $4^{\circ}$  C with crushed ice immediately after their collection and during transportation to the laboratory.

All samples collected for this project were transported under chain-of-custody protocol. The document included the signature of the collector, date and time of collection, sample number, number and type of sample containers including preservatives, parameters requested for analysis, signatures of persons and inclusive dates involved in the chain of possession. Chain of Custody documents are included in Appendix C.

#### IV. ASSESSMENT FINDINGS

#### A. Subsurface Conditions

The entire surface of the property is overlain with pavement consisting of asphalt, concrete and an unoccupied building. A 3-inch thick layer of asphalt pavement was encountered in borings SB-15 through SB-20. Below the pavement, native soil was encountered consisting of grayish brown, silty to clayey sand of the Merritt Sand Formation. The Merritt Sand is generally a well sorted, medium to fine grained, former dune deposit. A thin layer of silty to sandy clay was encountered in boring SB-20 at approximately 7 to 11 feet bgs. Moisture content increased with depth. No staining or odors were noted. Photo-ionization detector (PID) readings of hydrocarbon vapor concentrations in soil sample headspace were low (less than 10 ppm). Boring logs are included in Appendix B.

Groundwater was first encountered during boring advancement at approximately 12 to 16 feet bgs. Depth to groundwater stabilized at an approximate depth of 10 to 14 feet bgs, which is consistent with the July 2008 investigation. Product sheen, turbidity and odor were not noted in field logs. Immiscible product sheen was noted in laboratory analytical reports for the sample collected from boring SB-19, which also contained the highest petroleum hydrocarbon concentrations detected during this investigation. Turbidity of greater than 1% solids was noted in laboratory analytical reports for all the samples collected.

#### B. Laboratory Analysis & Sampling Data

Six groundwater samples were analyzed by McCampbell Analytical Inc., Pittsburg, California. McCampbell is a California Department of Health Services (DHS) certified analytical laboratory for the analysis requested. All samples were analyzed on a five day turn-around basis for VOCs per EPA Method 8260B, TPH-g per EPA Method 8015Cm, and TPH-d and TPH-mo per EPA Method 8015B with silica gel clean-up. Analytical methods were chosen based on historic usage of the site and results of previous investigations. Copies of the laboratory data sheets are attached as Appendix C.

The silica gel cleanup procedure is used to remove biogenic interferences that can cause high biases or false positives in the TPH-extractables or Oil & Grease analyses. This cleanup procedure removes polar compound interferences, notably vegetable and animal products (oils, sugars, and fatty acids) from the extract without affecting the petroleum hydrocarbons, since most petroleum products are non-polar.

TPHd and TPHmo were detected in laboratory analysis of all six groundwater samples collected. The highest TPHg, TPHd and TPHmo concentrations were detected in the groundwater sample collected from SB-19, which also contained immiscible product sheen as noted in the laboratory analytical reports. Detected TPHd concentrations ranged from 51  $\mu$ g/L in SB-18 to 17,000  $\mu$ g/L in SB-19. Detected TPHmo concentrations ranged from 260  $\mu$ g/L in SB-15 to 6,800  $\mu$ g/L in SB-19. TPHg were detected in samples from boring SB-19 at 71  $\mu$ g/L, but not in samples from SB-15 through SB-18, and SB-20.

The analytical laboratory noted that TPHd constituents in the sample collected from boring SB-19 were aged, and the TPHg constituents weakly modified to unmodified. The analytical laboratory noted that TPHd constituents contained significant oil-range compounds in samples from SB-15 through SB-18, and SB-20; and were weakly modified to unmodified in SB-20.

BTEX and other VOCs were detected at maximum concentrations of  $0.52 \mu g/L$  benzene,  $1.7 \mu g/L$  toluene,  $1.4 \mu g/L$  total xylenes,  $16 \mu g/L$  acetone, and  $7.0 \mu g/L$  methyl ethyl ketone (MEK) in the groundwater sample collected from SB-19. Acetone was also detected in the sample from SB-20 at  $12 \mu g/L$ . VOCs were not detected in any of the other samples analyzed.

Laboratory groundwater data are summarized in Table 1; laboratory data reports are included in Appendix C.

#### C. Laboratory QA/QC

A review of the laboratory internal quality assurance/quality control (QA/QC) report indicates the method blank and sample spike data for all analyses were within the laboratory recovery limits. The samples were also analyzed within the acceptable EPA holding time. The data from lab name are considered to be of

good quality. A copy of the laboratory analytical report and chain-of-custody record are attached to this report as Appendix C.

#### V. DISCUSSION

The highest petroleum hydrocarbon concentrations detected during the current investigation were in groundwater samples collected from boring SB-19, which is located in the estimated hydraulic downgradient direction from the likely hydrocarbon source area near the fuel dispensers. The petroleum hydrocarbon concentrations detected in samples from boring SB-19 were lower than those detected in samples from boring SB-7 during the July 2008 investigation. Boring SB-7 is located upgradient from SB-19 and closer to the likely hydrocarbon source area near the fuel dispensers or ancillary piping located at the southern end of the fuel island.

The area of highest dissolved petroleum hydrocarbon concentrations extends in an elliptical plume along a northwest trending axis in the estimated hydraulic gradient direction, from the source area near SB-7 to beyond SB-19 toward the site boundary. The lateral extent of the dissolved hydrocarbon plume is partially defined by the lower petroleum hydrocarbon concentrations detected in crossgradient borings SB-15 through SB-18, and SB-20. The vertical and horizontal extent of the petroleum hydrocarbon plume in groundwater has not been fully defined, especially in the downgradient direction toward the site boundaries. Isoconcentration maps of the TPHd and TPHmo plumes in groundwater are included as Figures 4 and 5.

Immiscible product sheen was noted in laboratory analytical reports for the sample collected from boring SB-19. Product sheen is typically indicative of high dissolved petroleum hydrocarbon concentrations approaching the solubility limit, and may indicate presence of light phase non-aqueous liquid (LNAPL) hydrocarbons in the saturated soil. Turbidity of greater than 1% solids was noted in laboratory analytical reports for all the samples collected. High turbidity is typical of grab groundwater samples obtained from open boreholes. High suspended solids content may have a detrimental but unquantifiable effect on the accuracy of laboratory analytical results for dissolved constituents.

To assess groundwater conditions, analytical data were compared to Environmental Screening Levels (ESLs) for commercial land use compiled by the Regional Water Quality Control Board, San Francisco Bay Region (RWQCB November 2007, revised May 2008).

ESLs were developed by the RWQCB to address environmental protection goals. These goals include protection of human health, drinking water resources, aquatic and terrestrial biota and adverse nuisance conditions. Under most conditions, the presence of chemicals at concentrations below the corresponding ESLs can assumed to not pose a significant

threat to human health and the environment. The ESLs are conservative in nature. Concentrations of chemicals above ESLs does not necessary indicated that impacts to human health or the environment exists or that remedial measure are required only that further evaluation is required. ESLs are not intended to be used as a "clean-up" standard.

Since the site is paved and in a commercial/industrial area, there is no direct contact exposure pathway and residential exposure standards do not apply. Shallow groundwater at the site vicinity is proposed for designation as Zone A and potentially has beneficial usage as a drinking water source, according to the *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report (CRWQC, 1999)*.

The maximum detected TPHd, TPHmo, and benzene concentrations are above their respective Environmental Screening Levels (ESLs) of 100 µg/L, 100 µg/L, and 1 µg/L, for groundwater in areas of Commercial /Industrial Land Use only and where Groundwater is a Current or Potential Source of Drinking Water as listed in *Table A*, *Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater, California Regional Water Quality Control Board, San Francisco Bay Region Interim Final November 2007, Updated March 2008 (CRWQCB, 2008).* 

Analytical data were also compared to the Tier 1 and Tier 2 Risk Based Screening Levels (RBSLs) for commercial land use compiled by the City of Oakland Public Works Agency. The City of Oakland RBSLs are similar to the RWQCB ESLs, but address only human health risks. The City of Oakland has not established RBSLs for TPHg, TPHd or TPHmo. None of the other COCs detected exceeded their Tier 1 or Tier 2 (Merritt Sands) RBSLs for ingestion of groundwater, or inhalation of indoor or outdoor vapors, with commercial land use as listed in *Tables 5 and 6, Oakland Urban Land Redevelopment Program: Guidance Document, City of Oakland Public Works Agency, January 2000.* 

#### VI. CONCLUSIONS AND RECOMMENDATIONS

AllWest conducted a subsurface assessment at the site to further assess the spatial extent of groundwater contamination resulting from the property's historic land use as a UST and trucking facility. Constituents of concern were detected at low to moderate levels in groundwater downgradient and crossgradient from the former fuel dispensers and USTs.

Based on the work performed we conclude that the latest subsurface investigation has further delineated the downgradient and crossgradient extent of the petroleum hydrocarbon plume in groundwater initially detected in the vicinity of boring SB-7 during the July 2008 AllWest subsurface investigation. As further defined by the latest and previous investigations, the source of the detected hydrocarbons in site groundwater is likely from spills or leaks from a fuel dispenser or ancillary piping located at the southern end of the fuel island by boring SB-2. This finding amplifies data reported by Golden Gate Tank Removal in 2006. Based on previous investigations performed at the property, nearby locations and regional trends, a groundwater gradient to the northeast has been documented. The vertical and horizontal extent of the petroleum hydrocarbon plume in groundwater has not been fully defined, especially in the downgradient direction toward the site boundaries.

AllWest recommends that permanent groundwater monitoring wells be installed hydraulically downgradient and crossgradient of the south fuel dispensers, to further define the on and offsite extent of the dissolved petroleum hydrocarbon plume in groundwater, determine groundwater flow direction and gradient, and to monitor contaminant concentration changes over time. Additionally, monitoring wells should be installed in the vicinity of the south fuel dispenser source area, and hydraulically upgradient near the southeast corner of the subject property. Soil and groundwater samples should be collected and analyzed for various petroleum hydrocarbon constituents including TPHg, TPHd, TPHmo, BTEX and fuel oxygenates. A well installation report should be submitted to ACEH. If the work adequately defines the extent of the plume, a Conceptual Site Model should be developed and submitted with the report to assess impacts to human health and the environment providing a platform to evaluate remedial options.

#### VII. REPORT LIMITATIONS

The work described in this report is performed in accordance with the Environmental Consulting Agreement between Mr. Clarence Glasper c/o Mr. Thomas Gillis and AllWest Environmental, Inc, dated November 2008. AllWest has prepared this report for the exclusive use of Mr. Clarence Glasper for this particular project and in accordance with generally accepted practices at the time of the work. No other warranties, certifications or representations, either expressed or implied are made as to the professional advice offered. The services provided for Mr. Clarence Glasper c/o Mr. Thomas Gillis were limited to their specific requirements; the limited scope allows for AllWest to form no more than an opinion of the actual site conditions. No matter how much research and sampling may be performed the only way to know about the actual composition and condition of the subsurface of a site is through excavation.

The conclusions and recommendations contained in this report are made based on observed conditions existing at the site, laboratory test results of the submitted samples, and interpretation of a limited data set. It must be recognized that changes can occur in subsurface conditions due to site use or other reasons. Furthermore, the distribution of chemical concentrations in the subsurface can vary spatially and over time. The results of chemical analysis are valid as of the date and at the sampling location only. AllWest is not responsible for the accuracy of the test data from an independent laboratory nor for any analyte quantities falling below the recognized standard detection limits or for the method utilized by the independent laboratories.

#### **VIII. REFERENCES**

Soil-Screening Values developed by the California Office of Environmental Health Hazard Assessment (OEHHA) as stated in their January 2005 document Human-Exposure-Based Screening Number Developed to Aid Estimation Of Cleanup Costs for Contaminated Soil;

Environmental Screening Levels (ESLs) established by the San Francisco Regional Water Quality Control Board (Water Board) Tables A-1 and K-1 in their 2007 document Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater, Interim Final – November 2007 (Revised May 2008);

Preliminary Remediation Goals (PRGs) established by the United States Environmental Protection Agency, Region 9 (EPA) in their document Preliminary Remediation Goals (PRGs), March 2006; and

Risk Based Screening Levels (RBSLs) established by the City of Oakland Public Works Agency, in their document Oakland Urban Land Redevelopment Program: Guidance Document, January 2000.

California Regional Water Quality Control Board, San Francisco Bay Region, East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, June 1999.

AllWest Environmental, Inc., Subsurface Investigation Report, September 12, 2008.

Golden Gate Tank Removal, Work Plan for Additional Site Characterization, July 17, 2007.

## TABLES

# TABLE 1 Summary of Groundwater Analytical Data Former Mandela Trucking 1225 Mandela Parkway Oakland, California AllWest Project No. 28209.23

Sample Date			Total Petr	oleum Hyd	lrocarbons				Ethyl				
Name	Sampled	TPH-G	Qualifiers	TPH-D	Qualifiers	ТРН-МО	Benzene	Toluene	benzene	Xylenes	MTBE	VOC's	
SB-15	11/21/2008	ND (<50)	b1	55	e7, e2, b1	260	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<5.0)	ND	
SB-16	11/21/2008	ND (<50)	b1	210	e7, e2, b1	1,800	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<5.0)	ND	
SB-17	11/21/2008	ND (<50)	b1	680	e7, e2, b1	1,700	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<5.0)	ND	
SB-18	11/21/2008	ND (<50)	b1	51	e7, e2, b1	310	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<5.0)	ND	
SB-19	11/21/2008	71	d1, b6, b1	17,000	e3, b6, b1	6,800	0.52	1.7	ND (<0.5)	1.4	ND (<5.0)	16 (acetone), 7.0 (MEK)	
SB-20	11/21/2008	ND (<50)	b1	6,000	e1, e7, b1	3,100	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<5.0)	12 (acetone)	
~	ality Criteria CB ESLs)	100		100		100	1	40	30	20	5	1,500 (acetone), 4,200 (MEK)	
-	ality Criteria nd RBSLs)	NA		NA		NA	1	150	700	1,800	13	10,000 (acetone), 61,000 (MEK)	

**Notes:** All results are reported in micrograms per liter (µg/L) [equivalent to parts per billion (ppb)], except where noted.

TPH-G - Total petroleum hydrocarbons as gasoline (analytical method SW8015Cm)

TPH-D - Total petroleum hydrocarbons as diesel, C10-C23 (analytical method SW8015B with silica gel cleanup)

TPH-MO - Total petroleum hydrocarbons as motor oil, C18-C36 (analytical method SW8015B with silica gel cleanup)

MTBE - Methyl tert-butyl ether (analytical method SW8260B)

Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) (analytical method SW8260B)

VOCs - Volatile organic compounds (analytical method SW8260B)

MEK = 2-butanone, or methyl ethyl ketone

Lead (analytical method 6010C)

ND - Not detected at or above listed reporting limit

NE - Not established

Laboratory Qualifiers:

b1 = aqueous sample contains greater than ~1 vol. % sediment

- b6 = lighter than water immiscable sheen/product is present
- d1 = weakly modified or unmodified gasoline is significant
- e1 = unmodified or weakly modified diesel is present
- e2 = diesel range compounds are significant, no recognizable pattern
- e3 = aged diesel is significant
- e7 = oil range compounds are significant

Water Quality Criteria: Environmental Screening Levels (ESLs) from Tables A, C and F1a, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. San Francisco Bay Regional Water Quality Control Board, May 2008

Water Quality Criteria: Risk Based Screening Levels (RBSLs) from Tables 5 (Tier 1) and 6 (Tier 2 for Merritt Sands), Oakland Urban Land Redevelopment Program: Guidance Document, City of Oakland Public Works Agency, January 2000

## FIGURES









13 TH STREET



# Appendix A

#### Alameda County Public Works Agency - Water Resources Well Permit

PUBLIC	399 Elmhurst Street Hayward, CA 94544-1399 Telephone: (510)670-6633 Fax:(51					
Application Approved	d on: 12/16/2008 By jamesy	Permit Numbers: W2008-0950 Permits Valid from 12/26/2008 to 12/31/2008				
Application Id: Site Location:	1229104272099 31078 Mission Boulevard, Hayward, CA	City of Project	Site:Hayward			
Project Start Date: Requested Inspectior Scheduled Inspectior	Fairway Park Shopping Center - Fairway Cleaner 12/26/2008 n: 12/26/2008 n: 12/26/2008 at 2:00 PM (Contact your inspector, V	Completion D	Date:12/31/2008			
Applicant: Property Owner:	AllWest Environmental Inc - Leonard Niles 530 Howard Street, Suite 300, San Francisco, CA c/o Fowler Property Acquisitions FPA	4 94105	one: 415-391-2510 one: 415-925-3100			
Client: Contact:	Associates, LP 100 Bush Street, Suite 510, San Francisco, CA S ** same as Property Owner ** Kevin Reeve	Pho	one: 415-391-2510 Cell: 714-631-5595			
	Receipt Number: WR2008-0455	Total Due: Total Amount Paid	\$230.00 \$230.00			

	Total Due:	JZ3U.UU
Receipt Number: WR2008-0455	Total Amount Paid:	\$230.00
Payer Name : AllWest Environmental, Inc.	Paid By: CHECK	PAID IN FULL

#### Works Requesting Permits:

Borehole(s) for Geo Probes-Sampling 24 to 72 hours only - 10 Boreholes Driller: Environmental Control Associates (ECA) - Lic #: 695970 - Method: DP

Work Total: \$230.00

Specifications										
Permit	Issued Dt	Expire Dt	#	Hole Diam	Max Depth					
Number			Boreholes							
W2008-	12/16/2008	03/26/2009	10	2.50 in.	25.00 ft					
0950										

#### Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org 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.

#### Alameda County Public Works Agency - Water Resources Well Permit

5. Permitte, 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.

6. 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.

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

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



#### STANDARD GEOPROBE SAMPLING PROCEDURES

#### Soil Sampling

Soil core sampling is accomplished using a nominal 4-foot long, 3-inch diameter galvanized steel drive probe and extension rods. The drive probe is equipped with nominal 1-1/2 inch diameter clear plastic poly tubes that line the interior of the probe. The probe and insert tubes are together pneumatically driven using a percussion hammer in 4-foot intervals. After each drive interval the drive probe and rods are retrieved to the surfaced. The poly tube containing subsurface soil is then removed. The drive probe is then cleaned, equipped with a new poly tube and reinserted into the boring with extension rods as required. The apparatus is then driven following the above procedure until the desired depth is obtained. The poly tubes and soil are inspected after each drive interval with lithologic and relevant drilling observations recorded. Soil samples are screened for organic vapors using an organic vapor meter (OVM) or other appropriate device. OVM readings, soil staining and other relevant observations are recorded. Selected soil sample intervals can be cut from the 4-foot intervals for possible analytical or geotechnical testing or other purposes.

The soils contained in the sample liners are then classified according to the Uniform Soil Classification System and recorded on the soil boring logs.

Sample liners selected for laboratory analyses are sealed with Teflon sheets, plastic end caps, and silicon tape. The sealed sample liner is then labeled, sealed in a plastic bag, and placed in an ice chest cooled to 4°C with crushed ice for temporary field storage and transportation. The standard chain-of-custody protocol is maintained for all soil samples from the time of collection to arrival at the laboratory.

#### **Groundwater Sampling**

Groundwater sampling is performed after the completion of soil sampling and when the boring has reached its desired depth. The steel probe and rods are then removed from the boring and new, nominal 1-1/2 inch diameter PVC solid and perforated temporary casing is lowered into the borehole. Depth to water is then measured using an electronic groundwater probe. Groundwater samples are collected using a stainless steel bailer or a disposable Teflon bailer.

After the retrieval of the bailer, groundwater contained in the bailer is decanted into laboratory provided containers. The containers are then sealed with Teflon coated caps with no headspace, labeled, and placed in an ice chest for field storage and transportation to a state certified analytical laboratory. The standard chain-of-custody protocols are followed from sample collection to delivery to the laboratory. A new bailer is used for each groundwater sampling location to avoid cross contamination.

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# Appendix B

McCampbell Au "When Ouality		Web: www.mc	low Pass Road, Pittsburg, campbell.com E-mail: m one: 877-252-9262 Fax:	ain@mccampbell.com
All West Environmental, Inc	Client Project ID: #28209 Oakland	.23; Mandela II,	Date Sampled:	11/21/08
530 Howard Street, Ste. 300	Oakland		Date Received:	11/24/08
San Francisco, CA 94105	Client Contact: Kevin Re	eve	Date Reported:	12/03/08
	Client P.O.:		Date Completed:	12/03/08

#### WorkOrder: 0811760

December 03, 2008

Dear Kevin:

Enclosed within are:

- 1) The results of the 6 analyzed samples from your project: **#28209.23; Mandela II, Oakland,**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

McCAMPBELL ANALYTICAL, INC. 1534 WILLOW PASS ROAD PITTSBURG, CA 94565-1701 Website: www.mccampbell.com Telephone: (877) 252-9262 Fax: (925) 252-9269													RUSH 24 HR 48 HR 72 HR 51 Geogracker EDF PDF Excel Write On (DV																			
Report To: Kevin Reeve Bill To: Company: ALLWEST CNU- SDD HOWARD ST. #300 S.F. CA 94105 E-Mail: Kevin RAUWERS.com Tele: (415) 391-250 Fax: (415) 391-2008												┢	-	1/54			-	An	lys	is Re	que	_	1	-			Т	-	Other		ommer	
Project #: 28 Project Location:	DAKLA		300 F P	ax: (	il: Ke 415 t Nan	) ]	39	1-2	u	08				Gas (602 / 8021 + 8015)	N T-HOT- 1- TOWN	9 10 16 11 A (cross)	Fotal Petroleum Ort & Orcase (1004 - 3040 Educer)	(1001) (100	21 (HVOCs)	DA ADD DOD DOD (DI PONTAN)	ides)	Herbicides)	Cond Gull Scan		Hs / PNAs)	0.8 / 6010 / 6020)	0.8 / 6010 / 6020)	6020)			S: fo ar	ilter amples or Meta nalysis: es / No
Sampler Signatu	re: /2	SAMP			~		MA	TRI	x			HOD	-	V CE D		8 C	dracar		10/80	NOT	Pestic	die CI	60 (VC	70 (SV	0 (PA	0.7 / 20	7/200	/ 0109				
SAMPLE ID	LOCATION/ Field Point Name	Date	Time	# Containers	Type Containers	er			Other			FONH FONH	Other	MTBE/BTEX & T	The Gloss in the Martin Change and the	True Burelow Off	Total Petroleum Un & Urease (1004 / 2		EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	2000 1000 1000 V ID	EPA 507 / 8141 (NP Pesticides)	FPA 515 / 8151 (Acidic C1 Herbicidee)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)		CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUET 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)				
58-15		11/21/08		1	pmos	RX.				×	×		T		)	<																
SB-15		1		3	VA					×	×												×									
SB-16 SB-16					AMBU	X				~	×				7																	
SB-16				3	VOA	X				K	×	-							_		_		X	4								
50-17				1	AMBO					×	×			_	)		_								_							
SB-17				3	VUA		_	_	_	X	×		-	_		,	-	_	_		_	-	X	-		-						
50-18				)	pma			-	_	1	×	+ -	+	_	7	4	-	-	-	-	-				-	-		_				
SB-18				3	VIA	- 1		-	-	X	×	+ -	+	-	-	,	-	+	-	-	-	-	X	1		-	_	+			-	
SB-19		11		1	Ama			-	-	X	×		+	_	3	4	-	+	-	+	-	-	-	-	-	-	-	+	1		-	
SB -19				15	NOP			-	+	V ~	X	+	-	-	-	/	-	+		+	-	+	X	+	-	-	-	+	-		-	
58-20		IV-		12	Ange	经	-		+	X	×		+		)	4		-	-	+		+	V	-	-	-	-	-	+	++	+	'
5B-20		/		13	VWA		-			Ê								-			-		X									
Relivquished By: Relinquished By:			Time: ) 400 Time:		eived E	-	<	1	R				-		D CO D SP HLO ROP	OND ACE RIN RIA	ATE	D IN	N LA	in the second se							CO	MMI	ENTS	:		
1534 Willow Pass Rd Pittsburg CA 94565 1701

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

(925) 252	2-9262					Work	Order	0811'	760	(	Client	Code: A	WE				
			WriteOr	EDF		Excel	l	Fax	[	🗸 Email		Harc	Copy	Thire	dParty	□ J-	flag
Report to:							Bill to:						Req	uested	TAT:	5 c	days
	,	Email: cc: PO: ProjectNo	kevin@allwes	andela II, Oaklan	d		All 53 Sa	0 Howa	invironi ard Stre cisco, C	mental, et, Ste.: A 9410 1.com	300			e Recei e Print		11/24/ 11/24/	
									Req	uested	Tests	sts (See legend below)					
Lab ID	Client ID		Matrix	<b>Collection Date</b>	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0811760-001	SB-15		Water	11/21/2008		В	А										
0811760-002	SB-16		Water	11/21/2008		В	А										
0811760-003	SB-17		Water	11/21/2008		В	А										
0811760-004	SB-18		Water	11/21/2008		В	А										
0811760-005	SB-19		Water	11/21/2008		В	А										

11/21/2008

В

в

А

#### Test Legend:

0811760-006

1	8260B_W	2
6		7
11		12

2	G-MBTEX_W	
7		
12		

Water

3	
8	

4	
9	

5				
10				

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A contain testgroup.

SB-20

#### **Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.

Prepared by: Ana Venegas



"When Ouality Counts"

# Sample Receipt Checklist

Client Name:	All West Environ	mental,	Inc				Date a	and Time	Received:	11/24/08	9:35:14 PM
Project Name:	#28209.23; Mande	ela II, O	akland				Check	dist com	pleted and i	reviewed by:	Ana Venegas
WorkOrder N°:	0811760	Matrix	Water				Carrie	er: <u>Ro</u>	ob Pringle (N	IAI Courier)	
			<u>Chain</u>	of Cu	stody (C	OC) In	forma	ation			
Chain of custody	present?			Yes	✓	N					
Chain of custody	signed when relinqui	shed and	I received?	Yes	✓	No					
Chain of custody	agrees with sample l	abels?		Yes	✓	No					
Sample IDs noted	by Client on COC?			Yes	✓	No					
Date and Time of	collection noted by Cli	ient on CO	OC?	Yes	✓	No					
Sampler's name r	noted on COC?			Yes	✓	No					
			<u>S:</u>	ample	Receipt	Inform	nation	<u>1</u>			
Custody seals int	tact on shipping conta	iner/coole	er?	Yes		N				NA 🗹	
Shipping containe	er/cooler in good cond	lition?		Yes	✓	N					
Samples in prope	er containers/bottles?			Yes	✓	No					
Sample containe	rs intact?			Yes	✓	No					
Sufficient sample	volume for indicated	test?		Yes		No					
		<u>Sa</u>	mple Presei	vation	and Ho	old Tim	<u>e (HT)</u>	<u>) Inform</u>	nation		
All samples recei	ived within holding time	e?		Yes		No					
Container/Temp E	Blank temperature			Coole	r Temp:	5.4°C				NA 🗆	
Water - VOA vial	ls have zero headspa	ce / no bi	ubbles?	Yes	✓	No		No VO	A vials subm	nitted 🗆	
Sample labels ch	necked for correct pres	servation	?	Yes	✓	No					
TTLC Metal - pH	acceptable upon recei	ipt (pH<2)	)?	Yes		No				NA 🗹	
Samples Receive	ed on Ice?			Yes	✓	No					
			(Ice Type	e: WE	T ICE	)					
* NOTE: If the "N	No" box is checked, se	e comm	ents below.								

Client contacted:

Date contacted:

Contacted by:

Comments:

McCampbell A	Analytical, In lity Counts"	<u>ıc.</u>		Web: www.mccam	Pass Road, Pittsburg, Ca pbell.com E-mail: mai 877-252-9262 Fax: 92	n@mccampbell.com				
All West Environmental, Inc	Client F	Project ID	: #282	209.23; Mandela	Date Sampled:					
	II, Oakl	and		Date Received:	11/24/08					
530 Howard Street, Ste. 300	Client	Tontoot.	Varia	Deerve						
Son Emprison CA 04105		Client Contact: Kevin Reeve Date Extracted: 11/27/08								
San Francisco, CA 94105	Client F	2.0.:			Date Analyzed	11/27/08				
	Volatile Organ	nics by Pa	&T an	d GC/MS (Basic T	'arget List)*					
Extraction Method: SW5030B		Analytic	al Metho	d: SW8260B		Work Order: 0811	760			
Lab ID				081176	0-001B					
Client ID				SB						
Matrix				Wa	ter					
Compound	Concentration *	DF	Reporting Limit	Compou		Concentration *	DF	Reportin Limit		
Acetone	ND 1.0 10 tert-Amyl methyl ether (TAME)						1.0	0.5		
Benzene	ND	1.0	0.5	Bromobenzene		ND ND	1.0	0.5		
Bromochloromethane	ND	1.0	0.5	Bromodichloromet	hane	ND	1.0	0.5		
Bromoform	ND	1.0	0.5	Bromomethane		ND	1.0	0.5		
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TE	BA)	ND	1.0	2.0		
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene		ND	1.0	0.5		
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide		ND	1.0	0.5		
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene		ND	1.0	0.5		
Chloroethane	ND	1.0	0.5	Chloroform		ND	1.0	0.5		
Chloromethane	ND	1.0	0.5	2-Chlorotoluene		ND	1.0	0.5		
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromet	hane	ND	1.0	0.5		
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)		ND	1.0	0.5		
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzer		ND	1.0	0.5		
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzer		ND	1.0	0.5		
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane		ND	1.0	0.5		
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene	2	ND	1.0	0.5		
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroe	ethene	ND	1.0	0.5		
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropa	ne	ND	1.0	0.5		
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloroproper	ne	ND	1.0	0.5		
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloro	propene	ND	1.0	0.5		
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene		ND	1.0	0.5		
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113		ND	1.0	10		
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane		ND	1.0	0.5		
2-Hexanone	ND	1.0	0.5	Isopropylbenzene		ND	1.0	0.5		
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ethe		ND	1.0	0.5		
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentan	one (MIBK)	ND	1.0	0.5		
Naphthalene	ND	1.0	0.5	n-Propyl benzene		ND	1.0	0.5		
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloro		ND	1.0	0.5		
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene		ND	1.0	0.5		
Toluene	ND	1.0	0.5	1,2,3-Trichloroben		ND	1.0	0.5		
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroetha	ane	ND	1.0	0.5		
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene		ND	1.0	0.5		
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropro		ND	1.0	0.5		
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylber	izene	ND	1.0	0.5		
Vinvl Chloride	ND	1.0	0.5	Xvlenes		ND	1.0	0.5		
			gate Re	ecoveries (%)						
%SS1:	9			%SS2:		8	0			
%SS3:	8	3								

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



McCampbell A	Analytical, Ir	<u>nc.</u>		Web: www.mccamp	Pass Road, Pittsburg, Ca pbell.com E-mail: mai 877-252-9262 Fax: 92	n@mccampbell.com				
All West Environmental, Inc	Client F	Project ID	: #282	209.23; Mandela	Date Sampled:					
	II, Oakl	•			Date Received: 11/24/08					
530 Howard Street, Ste. 300		~								
	Client C	Client Contact: Kevin Reeve Date Extracted: 11/27/08								
San Francisco, CA 94105	Client P	2.0.:			Date Analyzed	11/27/08				
	Volatile Organ	nics by Pa	&T an	d GC/MS (Basic T	arget List)*					
Extraction Method: SW5030B		Analytic	al Metho	d: SW8260B		Work Order: 0811	760			
Lab ID				081176	0-002B					
Client ID				SB-	-16					
Matrix				Wa	ter					
Compound	Concentration *	DF	Reporting Limit	Compou	nd	Concentration *	DF	Reporting Limit		
Acetone	ND 1.0 10 tert-Amyl methyl ether (TAME)					ND	1.0	0.5		
Benzene	ND	1.0	0.5	Bromobenzene	,	ND	1.0	0.5		
Bromochloromethane	ND	1.0	0.5	Bromodichlorometh	nane	ND	1.0	0.5		
Bromoform	ND	1.0	0.5	Bromomethane		ND	1.0	0.5		
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TB	(A)	ND	1.0	2.0		
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene		ND	1.0	0.5		
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide		ND	1.0	0.5		
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene		ND	1.0	0.5		
Chloroethane	ND	1.0	0.5	Chloroform		ND	1.0	0.5		
Chloromethane	ND	1.0	0.5	2-Chlorotoluene		ND	1.0	0.5		
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromet		ND	1.0	0.5		
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)		ND	1.0	0.5		
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzen	e	ND	1.0	0.5		
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzen	e	ND	1.0	0.5		
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane		ND	1.0	0.5		
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene		ND	1.0	0.5		
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroe		ND	1.0	0.5		
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropar		ND	1.0	0.5		
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloroproper		ND	1.0	0.5		
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichlorop	propene	ND	1.0	0.5		
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene		ND	1.0	0.5		
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113		ND	1.0	10		
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane		ND	1.0	0.5		
2-Hexanone	ND	1.0	0.5	Isopropylbenzene	(2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.	ND	1.0	0.5		
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ethe		ND	1.0	0.5		
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentan	one (MIBK)	ND	1.0	0.5		
Naphthalene	ND	1.0	0.5	n-Propyl benzene	(1	ND	1.0	0.5		
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloro	betnane	ND	1.0	0.5		
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene		ND	1.0	0.5		
Toluene 1.2.4-Trichlorobenzene	ND	1.0	0.5	1,2,3-Trichlorobenz 1,1,1-Trichloroetha		ND	1.0	0.5		
1,1,2-Trichloroethane	ND ND	1.0 1.0	0.5	Trichloroethene	lile	ND ND	<u>1.0</u> 1.0	0.5		
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloroprop	nane	ND ND	1.0	0.5		
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylben		ND	1.0	0.5		
Vinvl Chloride	ND	1.0	0.5	Xvlenes		ND ND	1.0	0.5		
				ecoveries (%)			- • •			
%SS1:	92			%SS2:		80	)			
%SS3:	79			/0002.						
Comments: b1										

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



McCampbell A "When Oua	Analytical, Ir	<u>nc.</u>		Web: www.mccam	Pass Road, Pittsburg, CA pbell.com E-mail: mai 877-252-9262 Fax: 92	n@mccampbell.com			
All West Environmental, Inc	Client F	Project ID	): #282	209.23; Mandela	Date Sampled:				
	II, Oakl	and			Date Received: 11/24/08				
530 Howard Street, Ste. 300	Client	Contact:	11/27/08						
See Evensions CA 04105									
San Francisco, CA 94105	Client P	2.0.:			Date Analyzed	11/27/08			
	Volatile Organ	nics by P	&T an	d GC/MS (Basic T	arget List)*				
Extraction Method: SW5030B		Analyti	cal Metho	d: SW8260B		Work Order: 0811	760		
Lab ID				081176	0-003B				
Client ID				SB					
Matrix	ter								
Compound	Concentration *	DF	Reporting Limit	Compou	nd	Concentration *	DF	Reportin Limit	
Acetone	ND	1.0	10	tert-Amyl methyl e	ther (TAME)	ND	1.0	0.5	
Benzene	ND	1.0	0.5	Bromobenzene		ND	1.0	0.5	
Bromochloromethane	ND	1.0	0.5	Bromodichloromet	hane	ND	1.0	0.5	
Bromoform	ND	1.0	0.5	Bromomethane		ND	1.0	0.5	
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TB	SA)	ND	1.0	2.0	
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	•	ND	1.0	0.5	
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide		ND	1.0	0.5	
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene		ND	1.0	0.5	
Chloroethane	ND	1.0	0.5	Chloroform		ND	1.0	0.5	
Chloromethane	ND	1.0	0.5	2-Chlorotoluene		ND	1.0	0.5	
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromet	hane	ND	1.0	0.5	
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane		ND	1.0	0.5	
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzer		ND	1.0	0.5	
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzer		ND	1.0	0.5	
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane		ND	1.0	0.5	
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene		ND	1.0	0.5	
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroe		ND	1.0	0.5	
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropar		ND	1.0	0.5	
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloroproper		ND	1.0	0.5	
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichlorog		ND	1.0	0.5	
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene		ND	1.0	0.5	
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113		ND	1.0	10	
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane		ND	1.0	0.5	
2-Hexanone	ND	1.0	0.5	Isopropylbenzene		ND	1.0	0.5	
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ethe	er (MTBE)	ND	1.0	0.5	
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentan		ND	1.0	0.5	
Naphthalene	ND	1.0	0.5	n-Propyl benzene		ND	1.0	0.5	
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloro	oethane	ND	1.0	0.5	
1.1.2.2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene		ND	1.0	0.5	
Toluene	ND	1.0	0.5	1,2,3-Trichloroben	zene	ND	1.0	0.5	
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroetha		ND	1.0	0.5	
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene		ND	1.0	0.5	
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropro	pane	ND	1.0	0.5	
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylben		ND	1.0	0.5	
Vinvl Chloride	ND	1.0	0.5	Xvlenes		ND	1.0	0.5	
				ecoveries (%)					
%SS1:	93		III	%SS2:		75	2		
%SS3:				70552.		1 / (	J		
Comments: b1	. / (	0		1					

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in  $\mu$ g/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



McCampbell A "When Oua	Analytical, In lity Counts"	<u>nc.</u>		Web: www.mccam	Pass Road, Pittsburg, CA pbell.com E-mail: mai 877-252-9262 Fax: 92	n@mccampbell.com				
All West Environmental, Inc		Project ID	: #282	209.23; Mandela	Date Sampled:	ed: 11/21/08				
	II, Oakl	and			Data Pacaivad:	11/24/08				
530 Howard Street, Ste. 300	-				Date Received: 11/24/08					
	Client C	Contact:	11/27/08							
San Francisco, CA 94105	Client F	2.0.:			Date Analyzed	11/27/08				
	Volatile Organ	nics by P	&T an	d GC/MS (Basic T	arget List)*					
Extraction Method: SW5030B		Analytic	al Metho	od: SW8260B		Work Order: 0811	760			
Lab ID				081176	0-004B					
Client ID				SB						
Matrix				Wa	-					
Compound	Concentration *	DF	Reporting	Compou		Concentration *	DF	Reportin		
Acetone	ND	1.0	Limit 10	tert-Amyl methyl e		ND	1.0	Limit 0.5		
Benzene	ND	1.0	0.5	Bromobenzene		ND	1.0	0.5		
Bromochloromethane	ND	1.0	0.5	Bromodichloromet	hane	ND	1.0	0.5		
Bromoform	ND	1.0	0.5	Bromomethane		ND	1.0	0.5		
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TE	BA)	ND	1.0	2.0		
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene		ND	1.0	0.5		
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide		ND	1.0	0.5		
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene		ND	1.0	0.5		
Chloroethane	ND	1.0	0.5	Chloroform		ND	1.0	0.5		
Chloromethane	ND	1.0	0.5	2-Chlorotoluene		ND	1.0	0.5		
4-Chlorotoluene	ND	1.0	0.5	2-Chlorotoluene Dibromochloromethane		ND	1.0	0.5		
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)		ND	1.0	0.5		
Dibromomethane	ND	1.0	0.2	1,2-Dibromoethane (EDB) 1,2-Dichlorobenzene		ND	1.0	0.5		
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzer		ND	1.0	0.5		
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane		ND	1.0	0.5		
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene		ND	1.0	0.5		
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroe		ND	1.0	0.5		
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropa		ND	1.0	0.5		
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloroproper		ND	1.0	0.5		
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloro		ND	1.0	0.5		
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene	biopene	ND	1.0	0.5		
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113		ND	1.0	10		
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane		ND	1.0	0.5		
2-Hexanone	ND	1.0	0.5	Isopropylbenzene		ND	1.0	0.5		
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ethe	(MTDE)	ND	1.0	0.5		
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentan		ND	1.0	0.5		
					olle (MIDK)					
Naphthalene	ND	1.0 1.0	0.5	n-Propyl benzene 1,1,1,2-Tetrachloro	athana	ND ND	<u>1.0</u> 1.0	0.5		
Styrene	ND		0.5		Jethane			0.5		
1,1,2,2-Tetrachloroethane Toluene	ND ND	1.0	0.5	Tetrachloroethene 1,2,3-Trichloroben	zene	ND ND	<u>1.0</u> 1.0	0.5		
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroetha		ND	1.0	0.5		
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	4110	ND	1.0	0.5		
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropro	nane	ND	1.0	0.5		
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylber		ND	1.0	0.5		
Vinvl Chloride	ND	1.0	0.5	Xvlenes	120110	ND	1.0	0.5		
				ecoveries (%)						
%SS1:	9		M	%SS2:		7	0			
%SS1: %SS3:	7			% <b>33</b> 2:		1	フ			
%SS3: Comments: b1		0		1						

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



WcCampbell A "When Quality"		<u>ıc.</u>		Web: www.mccamp	Pass Road, Pittsburg, CA pbell.com E-mail: mai 877-252-9262 Fax: 92	n@mccampbell.com				
All West Environmental, Inc	Client P	Project ID	: #282	209.23; Mandela	Date Sampled:	npled: 11/21/08				
	II, Oakl	and			Date Received: 11/24/08					
530 Howard Street, Ste. 300	Client	<sup>ontact</sup>	Kevin	Reeve	Date Extracted:					
San Francisco, CA 94105		Client Contact: Kevin ReeveDate Extracted: 12/01/08Client P.O.:Date Analyzed 12/01/08								
San Francisco, CA 94105	Client P	20.:			Date Analyzed	12/01/08				
	Volatile Organ	nics by P	&T an	d GC/MS (Basic T	arget List)*					
Extraction Method: SW5030B		Analytic	al Metho	d: SW8260B		Work Order: 0811	760			
Lab ID				081176	0-005B					
Client ID				SB-	-19					
Matrix				Wa	ter					
Compound	Concentration * DF Reporting Limit Compound						DF	Reportin Limit		
Acetone	16	1.0	10	tert-Amyl methyl e	ther (TAME)	ND	1.0	0.5		
Benzene	0.52	1.0	0.5	Bromobenzene		ND	1.0	0.5		
Bromochloromethane	ND	1.0	0.5	Bromodichlorometh	nane	ND	1.0	0.5		
Bromoform	ND	1.0	0.5	Bromomethane		ND	1.0	0.5		
2-Butanone (MEK)	7.0	1.0	2.0	t-Butyl alcohol (TB	(A)	ND	1.0	2.0		
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene		ND	1.0	0.5		
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide		ND	1.0	0.5		
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene		ND	1.0	0.5		
Chloroethane	ND	1.0	0.5	Chloroform		ND	1.0	0.5		
Chloromethane	ND	1.0	0.5	2-Chlorotoluene		ND	1.0	0.5		
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromet	hane	ND	1.0	0.5		
1,2-Dibromo-3-chloropropane	ND	1.0	0.2		1,2-Dibromoethane (EDB)		1.0	0.5		
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzen	e	ND	1.0	0.5		
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzen		ND	1.0	0.5		
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane		ND	1.0	0.5		
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene		ND	1.0	0.5		
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroe		ND	1.0	0.5		
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropar		ND	1.0	0.5		
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloroproper		ND	1.0	0.5		
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichlorop	propene	ND	1.0	0.5		
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene		ND	1.0	0.5		
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113		ND	1.0	10		
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane		ND	1.0	0.5		
2-Hexanone	ND	1.0	0.5	Isopropylbenzene		ND	1.0	0.5		
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ethe		ND	1.0	0.5		
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentan	one (MIBK)	ND	1.0	0.5		
Naphthalene	ND	1.0	0.5	n-Propyl benzene		ND	1.0	0.5		
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloro	Jethane	ND ND	1.0	0.5		
1,1,2,2-Tetrachloroethane Toluene	ND 1.7	1.0 1.0	0.5	Tetrachloroethene	zene	ND ND	1.0	0.5		
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroetha		ND	1.0	0.5		
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene		ND	1.0	0.5		
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloroprop	pane	ND	1.0	0.5		
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylben		ND	1.0	0.5		
Vinvl Chloride	ND	1.0	0.5	Xvlenes		1.4	1.0	0.5		
		Surro	gate Re	ecoveries (%)						
%SS1:	92			%SS2:		8	1			
%SS3:	7			70002.		. 0	•			

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



McCampbell A	Analytical, Ir	<u>nc.</u>		Web: www.mccamp	Pass Road, Pittsburg, Ca pbell.com E-mail: mai 877-252-9262 Fax: 92	n@mccampbell.com		
All West Environmental, Inc	Client P	Project ID	: #282	209.23; Mandela	Date Sampled:			
	II, Oakl	•			Date Received:			
530 Howard Street, Ste. 300				<b>D</b>				
	Client C	Contact:	Kevin	Reeve	Date Extracted:	12/01/08		
San Francisco, CA 94105	Client P	2.0.:			Date Analyzed	12/01/08		
	Volatile Organ	nics by Po	&T an	d GC/MS (Basic T	arget List)*			
Extraction Method: SW5030B		Analytic	al Metho	d: SW8260B		Work Order: 0811	760	
Lab ID				081176	0-006B			
Client ID				SB-				
Matrix				Wa				
Compound	Concentration *	DF	Reporting Limit	Compou	nd	Concentration *	DF	Reporting Limit
Acetone	12	1.0	10	tert-Amyl methyl e	ther (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene		ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichlorometh	nane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane		ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TB	(A)	ND	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene		ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide	ND	1.0	0.5	
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5	
Chloroethane	ND	1.0	0.5	Chloroform	ND	1.0	0.5	
Chloromethane	ND	1.0	0.5	2-Chlorotoluene	ND	1.0	0.5	
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromet	ND	1.0	0.5	
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane	ND	1.0	0.5	
Dibromomethane	ND					ND	1.0	0.5
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzen	e	ND	1.0	0.5
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane		ND	1.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene		ND	1.0	0.5
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroe		ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropar		ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloroproper		ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichlorop	propene	ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene		ND	1.0	0.5
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113		ND	1.0	10
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane		ND	1.0	0.5
2-Hexanone	ND	1.0	0.5	Isopropylbenzene	(2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ethe		ND	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentane	one (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	.1	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloro	ND	1.0	0.5	
1,1,2,2-Tetrachloroethane Toluene	ND ND	1.0 1.0	0.5	Tetrachloroethene 1,2,3-Trichlorobenz	ND ND	<u>1.0</u> 1.0	0.5	
1.2.4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroetha	ND ND	1.0	0.5	
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5	
Trichlorofluoromethane	ND	1.0				1.0	0.5	
1,2,4-Trimethylbenzene		ND 1.0 0.5 1,2,5-Trientoropropate ND 1.0   ND 1.0 0.5 1,3,5-Trimethylbenzene ND 1.0						0.5
Vinvl Chloride	ND	1.0	0.5	Xvlenes		ND	1.0	0.5
				ecoveries (%)				
%SS1:	94			%SS2:		83	3	
%SS3:	7:			///////////////////////////////////////			~	
Comments: b1			-					

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



	Campbell Analyt "When Ouality Counts"			pbell.com E-mail: main@mccan 877-252-9262 Fax: 925-252-92		
All West Enviror	nmental, Inc		#28209.23; Mandela	/08		
520 Howard Street	at Sta 200	II, Oakland		Date Received: 11/24/08		
530 Howard Stree	Client Contact:		: Kevin Reeve Date Extracted: 11/2			1/08
San Francisco, CA 94105 Client P.O.:		Client P.O.:		Date Analyzed 11/25	/08-12/0	1/08
Extraction method SW5			tile Hydrocarbons as (		rder: 08	11760
Lab ID	Client ID	Matrix	TPH		DF	% SS
001A	SB-15	W	ND	,b1	1	105
002A	SB-16	W	ND	,b1	1	102
003A	SB-17	W	ND	,b1	1	102
004A	SB-18	W	ND	,b1	1	103
005A	SB-19	W	71,d1,	b6,b1	1	120
006A	SB-20	W	ND	,b1	1	102
-	ing Limit for DF =1;	W	5	0	μ	g/L
	ans not detected at or e the reporting limit	S	N	A		A

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment

b6) lighter than water immiscible sheen/product is present

d1) weakly modified or unmodified gasoline is significant

DHS ELAP Certification 1644



Angela Rydelius, Lab Manager

	ampbell Analy "When Ouality Count		Inc.	Web: www.mcca	w Pass Road, Pittsburg, CA 945 mpbell.com E-mail: main@me e: 877-252-9262 Fax: 925-25	ccampbell.com	n	
All West Environ	mental, Inc	Client	Project II	e: #28209.23; Mandela II, Date Sampled: 11/21/08				
<b>520 Hammed G</b> (	- Sta 200	Oakla	nd		Date Received: 11	/24/08		
530 Howard Street	t, Ste. 300	Client	t Contact:	Kevin Reeve	Date Extracted: 11	/24/08		
San Francisco, CA 94105 Client P.O.:				Date Analyzed: 11	/26/08-12/	03/08		
	Total Extra	ctable Pet	roleum H	ydrocarbons with Silica G	el Clean-Up*			
Extraction method: SW	3510C/3630C		Analytical	methods: SW8015B	We	ork Order: 0	811760	
Lab ID	Client ID		Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	
0811760-001A	SB-15		W	55,e7,e2,b1	260	1	96	
0811760-002A	SB-16		W	210,e7,e2,b1	1800	2	83	
0811760-003A	SB-17		W	680,e7,e2,b1	1700	1	119	
0811760-004A	SB-18		W	51,e7,e2,b1	310	1	95	
0811760-005A	SB-19		W	17,000,e3,b6,b1	6800	10	89	
0811760-006A	SB-20		W	6000,e1,e7,b1	3100	5	96	

Reporting Limit for DF =1;	W	50	250	μg/L
ND means not detected at or above the reporting limit	S	NA	NA	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

#) cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract; &) low or no surrogate due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment

b6) lighter than water immiscible sheen/product is present

e1) unmodified or weakly modified diesel is significant

e2) diesel range compounds are significant; no recognizable pattern

e3) aged diesel is significant

e7) oil range compounds are significant





"When Ouality Counts"

## QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water		QC Matrix: Water					Batch	ID: 39882		WorkOrder 0811760			
EPA Method SW8015Cm	Extra	ction SW	/5030B					5	Spiked Sar	nple ID	: 0811760-0	003A	
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acc	eptance	Criteria (%)	1	
Analyte	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
TPH(btex <sup>£</sup>	ND	60	94.7	92.1	2.73	84.7	94.2	10.6	70 - 130	20	70 - 130	20	
MTBE	ND	10	97	95.8	1.27	87.7	89	1.54	70 - 130	20	70 - 130	20	
Benzene	ND	10	93	93.5	0.495	91.6	103	11.3	70 - 130	20	70 - 130	20	
Toluene	ND	10	92.1	93.2	1.21	101	115	12.3	70 - 130	20	70 - 130	20	
Ethylbenzene	ND	10	96.2	96.8	0.681	100	113	11.9	70 - 130	20	70 - 130	20	
Xylenes	ND	30	106	106	0	109	123	12.6	70 - 130	20	70 - 130	20	
%SS:	102	10	94	94	0	107	105	1.86	70 - 130	20	70 - 130	20	
All target compounds in the Metho NONE	d Blank of this	extraction	batch we	re ND les	s than the	method R	L with th	e following	exceptions:				

		<u>BATCH 39882 S</u>	UMMARY	
d	Date Extracted	Date Analyzed	Lab ID	Date Sa

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0811760-001A	11/21/08	11/26/08	11/26/08 1:09 AM	0811760-002A	11/21/08	11/26/08	11/26/08 12:39 AM
0811760-003A	11/21/08	11/26/08	11/26/08 12:09 AM	0811760-004A	11/21/08	11/25/08	11/25/08 11:39 PM
0811760-005A	11/21/08	12/01/08	12/01/08 10:50 PM	0811760-006A	11/21/08	11/25/08	11/25/08 11:08 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.





"When Ouality Counts"

## QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water	QC Matrix: Water						BatchID: 39884 WorkOrder 0811760					60
EPA Method SW8260B	Extra	ction SW	5030B					s	spiked San	nple ID	: 0811760-0	)04B
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	)
, unary to	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	91.2	91.1	0.0900	123	122	0.153	70 - 130	30	70 - 130	30
Benzene	ND	10	97.3	98.2	0.901	119	121	1.38	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	87	89	2.24	105	106	0.575	70 - 130	30	70 - 130	30
Chlorobenzene	ND	10	103	103	0	117	117	0	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	106	109	2.19	118	119	0.223	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	104	105	0.759	120	122	1.90	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	10	71.4	71.6	0.260	93.3	94.7	1.41	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	93.4	95.2	1.90	111	113	1.79	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	101	101	0	115	117	1.32	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	88.6	91	2.61	114	114	0	70 - 130	30	70 - 130	30
Toluene	ND	10	107	110	3.34	121	121	0	70 - 130	30	70 - 130	30
Trichloroethene	ND	10	108	112	3.12	126	126	0	70 - 130	30	70 - 130	30
%SS1:	93	25	91	92	1.18	98	98	0	70 - 130	30	70 - 130	30
%SS2:	79	25	82	81	0.925	93	91	1.23	70 - 130	30	70 - 130	30
%SS3:	78	2.5	71	73	1.94	101	103	1.73	70 - 130	30	70 - 130	30

#### BATCH 39884 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0811760-004B	11/21/08	11/27/08	11/27/08 3:49 AM	0811760-005B	11/21/08	12/01/08	12/01/08 4:29 PM
0811760-006B	11/21/08	12/01/08	12/01/08 5:12 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.





"When Ouality Counts"

### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water	Water QC Matrix: Water					BatchID: 39897 Wor			WorkC	order 0811760		
EPA Method SW8015B	Extra	Extraction SW3510C/3630C						5	Spiked Sar	nple ID	: N/A	
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acc	eptance	Criteria (%)	
, mary to	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	84.6	86	1.63	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	108	109	0.927	N/A	N/A	70 - 130	20
All target compounds in the Methor NONE										IN/A	70 - 130	20

#### BATCH 39897 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0811760-001A	11/21/08	11/24/08	11/27/08 5:13 AM	0811760-002A	11/21/08	11/24/08	12/03/08 3:39 AM
0811760-003A	11/21/08	11/24/08	11/26/08 2:36 AM	0811760-004A	11/21/08	11/24/08	11/27/08 6:24 AM
0811760-005A	11/21/08	11/24/08	11/26/08 10:12 PM	0811760-006A	11/21/08	11/24/08	11/26/08 11:22 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

A QA/QC Officer

# Appendix C



# **APPLICATION FOR AUTHORIZATION TO USE**

# REPORT TITLE: SUBSURFACE INVESTIGATION REPORT FORMER MANDELA TRUCKING 1225 MANDELA PARKWAY OAKLAND, CALIFORNIA

To: AllWest Environmental, Inc. 530 Howard Street, Suite 300 San Francisco, CA 94105

Ladies and Gentlemen:

Applicant hereby applies for permission to rely upon *AllWest's* work product, as described above, for the purpose of: (state here the purpose for which you wish to rely upon the work product)

Applicant only can accept and rely upon *AllWest* work product under the strict understanding that Applicant is bound by all provisions in the Terms and Conditions attached to the report. Every report, recommendation, finding, or conclusion issued by *AllWest* shall be subject to the limitations stated in the Agreement and subject report(s). If this is agreeable, please sign below and return one copy of this letter to us along with the applicable fees. Upon receipt and if acceptable, our signed letter will be returned. *AllWest* may withhold permission at its sole discretion or require additional re-use fees or terms.

**FEES:** A \$1,000 coordination and reliance fee, payable in advance, will apply. If desired, for an additional \$75 report reproduction fee, we will reissue the report in the name of the Applicant; the report date, however, will remain the same. All checks will be returned if your request for reliance is not approved.

#### REQUESTED BY

APPROVED BY

Applicant Company

Print Name and Title

Signature and Date

Signature and Date

AllWest Environmental, Inc.

Print name and Title

28209.23 SUBSURFACE INVESTIGATION REPORT FORMER MANDELA TRUCKING 1225 MANDELA PARKWAY OAKLAND, CALIFORNIA

#### **GENERAL CONDITIONS TO THE WORK AUTHORIZATION**

#### AGREEMENT

It is hereby agreed that the Client retains AllWest to act for and represent it in all matters set forth in the Work Authorization attached hereto (the "Work"). Such contract of retainer shall be subject to and is conditioned upon the following terms, conditions, and stipulations, which terms, conditions and stipulations will also apply to any further agreements, purchase orders, or documentation regarding the Work unless modified by a writing signed by both Parties to this Agreement. Signature by client on work authorization constitutes agreement with General Conditions as stated here.

It is recognized and agreed that AllWest has assumed responsibility only for making the investigations, reports and recommendations to the Client included within the Scope of Work. The responsibility for making any disclosures or reports to any third party and for the taking of corrective, remedial, or mitigative action shall be solely that of the Client.

#### REIMBURSABLE COSTS/INTEREST AND ATTORNEYS FEES

1. Reimbursable Costs will be charged to the Client in addition to the fees for the basic services under this Agreement and all Additional Services under the Agreement. Reimbursable Costs include, but are not limited to, expenses for travel, including transportation, meals, lodging, long distance telephone and other related expenses, as well as the costs of reproduction of all drawings for the Client's use, costs for specifications and type-written reports, permit and approval fees, automobile travel reimbursement, costs and fees of subcontractors, and soil and other materials testing. No overtime is accrued for time spent in travel. All costs incurred which relate to the services or materials provided by a contractor or subcontractor to AllWest shall be invoiced by AllWest on the basis of cost plus twenty percent (20%). Automobile travel reimbursement shall be at the rate of fifty-four cents (\$.54) per mile. All other reimbursable costs shall be invoiced and billed by AllWest at the rate of 1.2 times the direct cost to AllWest. Any rates set forth in this Agreement are subject to reasonable increases by AllWest upon giving thirty days' written notice to Client. Reimbursable costs will be charged to the client *only as outlined* in the attached proposal if the work is a for Phase I Environmental Site Assessment. Client knowingly and willingly agrees to pay interest on the balance of on unpaid invoices. AllWest may waive such fees at its discretion.

#### WARRANTY AND LIMITATION OF LIABILITY

2. AllWest will perform the Work with the usual degree and standard of care and skill observed by members of AllWest's profession in the same geographic area on projects of the type engaged in by AllWest. The financial liability of AllWest, including its employees and independent contractors including attorney fees for negligent errors or omissions including negligent misrepresentation(s) resulting from inspection/assessment services shall not exceed \$25,000 and shall be limited to direct damages. All other damages such as loss of use, profits, anticipated profits, interest, and like losses are consequential damages for which neither AllWest nor its employees or independent contractors are liable. Client hereby releases AllWest from all liability and damage incurred by the Client or other person which are associated with the services provided by AllWest, or the employees, agents, contractors or subcontractors of AllWest, under this Agreement. Payment of any invoice by the Client to AllWest shall be taken to mean the Client is satisfied with AllWest's services to the date of payment and is not aware of any deficiencies in those services.

Further, Client hereby releases AllWest from any and all liability for risks or damages to the Project site. AllWest assumes no liability or duties regarding the Project site by reason of its performance of the Work at the Project. Client shall hold AllWest harmless from any liabilities or duties with respect to the work or the Project. Client shall further release, Indemnify and hold AllWest harmless from any and all claims, liabilities or damages resulting from AllWest's use of technological or design concepts, or any other concepts or uses which, though acceptable and standard at the time the decision to use them was made, are unacceptable or non-standard beginning at the time work commences or any time thereafter. If AllWest must incur additional expenses in the work by reason or the need to incorporate new or different technologies into the Work, whether necessitated by new laws, regulations or guidelines, or by the desire of Client, Client agrees to reimburse AllWest for such expenses, as well as provide compensation for AllWest's services at the rates set forth in the Work Authorization.

Client acknowledges that AllWest and its sub-contractors have played no part in the creation of any hazardous waste, pollution sources, nuisance, or chemical or industrial disposal problem, which may exist, and that AllWest has been retained for the sole purpose of assisting the Client in assessing any problem which may exist and in assisting the Client in formulating a remedial program, if such is within the Scope of Work which AllWest has assumed. Client recognizes that while necessary for investigations, commonly used exploration methods, may penetrate through contaminated materials and serve as a connecting passageway between the contaminated material and an uncontaminated aquifer or groundwater, possibly inducing cross contamination. While back-filling with grout, or other means, according to a state of practice design, is intended to provide a seal against such passageway, it is recognized that such a seal may be imperfect and that there is an inherent risk in drilling borings of performing other exploration methods in a hazardous waste site.

AllWest shall not be required to sign any documents, no matter by whom requested, that would result in AllWest having to certify, guarantee, warrant or opine on conditions whose existence AllWest cannot ascertain. The CLIENT also agrees not to make resolution of any dispute with AllWest or payment of any amount due to AllWest in any way contingent upon AllWest signing any such documents.

#### TERMINATION

3. This Agreement may be terminated by either party upon seven (7) days' written notice should the other party substantially fail to perform in accordance with its terms through no fault of the party initiating the termination. In the event of termination which is not the fault of AllWest, AllWest shall be paid no less than eighty percent (80%) of the contract price, provided, however, that if AllWest shall have completed more than eighty percent of the Work at the time of said termination, AllWest shall be compensated as provided in the Work Authorization for all services performed prior to the termination date which fall within the scope of work described in the Work Authorization and may as well, at its sole discretion and in accordance with said Schedule of Fees, charge Client its reasonable costs and labor in winding up its files and removing equipment and other materials from the Project.

AllWest may issue notice to other consultants, contractors, subcontractors and to governing agencies having jurisdiction over the Project and take such other actions as are reasonably necessary in order to give notice that AllWest is no longer associated with the Project and to protect AllWest from claims of liability from the work of others.

#### DOCUMENTS

4. Any documents prepared by AllWest, including but not limited to proposals, project specifications, drawings, calculations, plans and maps, and any ideas and designs incorporated therein, as well as any reproduction of the above are and shall remain the property of AllWest whether or not said documents are actually utilized in connection with the Project. The Client shall be permitted to retain a copy of any documents provided to the Client by AllWest, but said documents may not be used by the Client on other projects or for any other purpose, except the current one, except by agreement in writing with AllWest and with appropriate compensation to AllWest.

Client shall furnish, or cause to be furnished to AllWest, all documents and information known to Client that relate to the identity, location, quantity, nature, or characteristics of any asbestos, PCBs, or any other hazardous materials or waste at, on or under the site. In addition, Client will furnish or cause to be furnished such reports, data, studies, plans, specifications, documents and other information on surface or subsurface site conditions, e.g., underground tanks, pipelines and buried utilities, required by AllWest for proper performance of its services. IF CLIENT fails to provide AllWest with all hazardous material subject matter reports including geotechnical assessments in their possession during the period that AllWest is actively providing expertise (30 days post the final invoice), CLIENT shall release AllWest from any and all liability for risks and damages the CLIENT incurs resulting from their reliance on AllWest's professional opinion. AllWest shall be entitled to rely upon Client - provided documents and information in performing the services required in this Agreement; however, AllWest assumes no responsibility or liability for their accuracy or completeness. Client-provided documents will remain the property of the Client.

#### ACCESS TO PROJECT

5. Client grants to AllWest the right of access and entry to the Project at all times necessary for AllWest to perform the Work. If Client is not the owner of the Project, then Client represents that Client has full authority to grant access and right of entry to AllWest for the purpose of AllWest's performance of the Work. This right of access and entry extends fully to any agents, employees, contractors or subcontractors of AllWest upon reasonable proof of association with AllWest.

#### CONFIDENTIAL INFORMATION

Both Client and AllWest understand that in conjunction with AllWest's performance of the Work on the project, both 6. Client and AllWest's performance of the Work on the project, both Client and AllWest may receive or be exposed to Proprietary Information of the other. As used herein, the term "Proprietary Information" refers to any and all information of a confidential, proprietary or secret nature which may be either applicable to, or relate in any way to: (a) the personal, financial or other affairs of the business of each of the Parties, or (b) the research and development or investigations of each of the Parties. Proprietary Information includes, for example and without limitation, trade secrets, processes, formulas, data, know-how, improvements, inventions, techniques, software technical data, developments, research projects, plans for future development, marketing plans and strategies. Each of the Parties agrees that all Proprietary Information of the other party is and shall remain exclusively the property of that other party. The parties further acknowledge that the Proprietary Information of the other party is a special, valuable and unique asset of that party, and each of the Parties hereto agrees that at all times during the terms of this Agreement and thereafter to keep in confidence and trust all Proprietary Information of the other party, whether such Proprietary Information was obtained or developed by the other party before, during or after the term of this Agreement. Each of the Parties agrees not to sell, distribute, disclose or use in any other unauthorized manner the Proprietary Information of the other party. AllWest further agrees that it will not sell, distribute or disclose information or the results of any testing obtained by AllWest during the performance of the Work without the prior written approval of Client unless required to do so by federal, state or local statute, ordinance or regulation.

#### ADDITIONAL SERVICES

7. In addition to the services to be performed by AllWest as described in the Work Authorization, the following items shall for the purposes of this Agreement be termed "Additional Services": (a) work resulting from changes in scope or magnitude of the Work as described therein, (b) work resulting from changes necessary because of construction cost over-runs, (c) work resulting from implementation of alternative or different designs from that first contemplated by the Parties, (d) work resulting from corrections or revisions required because of errors or omissions in construction by the building contractors, (e) work due to extended design or construction time schedules, (f) layout surveys in review of in-place constructed elements, and (g) services as an expert witness in connection with any public hearing, arbitration or proceedings of a court of record with respect to the Work on the Project.

AllWest will be compensated by Client for any Additional Services as provided under the Work Authorization.

#### DISPOSAL OF CONTAMINATED MATERIAL

8. Client understands and agrees that AllWest is not, and has no responsibility as, a generator, operator, treater, storer, transporter or disposer of hazardous or toxic substances found or identified at the site, including investigation-derived waste. The Client shall undertake or arrange for handling, removal, treatment, storage, treatment of hazardous material shall be the sole responsibility of Client. AllWest's responsibilities shall be limited to recommendations regarding such matters and assistance with appropriate arrangements if authorized by Client.

#### INDEPENDENT CONTRACTOR

9. Both Client and AllWest agree that AllWest will act as an independent contractor in the performance of the Work under this Agreement. All persons or parties employed by AllWest in connection with the Work are the agents, employees or subcontractors of AllWest and not of Client. Accordingly, AllWest shall be responsible for payment of all taxes arising out of AllWest's activities in performing the Work under this Agreement.

#### NOTICES

10. (a) All notices, demands or requests provided for or permitted to be given pursuant to this Agreement must be in writing and shall be deemed to have been duly given on the date of service if served personally on the party to whom notice is to be given, or if mailed by first class certified mail, return receipt requested, and properly addressed as follows:

To Client:	
To AllWest:	AllWest Environmental, Inc.
	530 Howard Street, Suite 300
	San Francisco, California 94105

when either (i) the return receipt is signed by the addressee, (ii) the mailing is refused by the addressee, or (iii) the mailing is not delivered because the addresses moved and left no forwarding address; b) By giving the other party to this Agreement ten (10) days' written notice thereof, the parties hereto and their respective successors and assigns shall have the right from time to time and at any time during the term of this Agreement to change their respective addresses and each shall have the right to specify as its address any other address within the United States of America.

#### ENTIRE AGREEMENT

11. This Agreement contains the entire agreement between the Parties pertaining to the subject matter contained in it and supersedes all prior and contemporaneous agreements, representations and understandings of the Parties. The terms of this Agreement are contractual and not a mere recital. The undersigned have carefully read and understand the contents of this Agreement and sign their names to the same as their own free act. This Agreement was entered into following negotiations between the Parties.

#### MODIFICATION / WAIVER / PARTIAL INVALIDITY

12. The terms of this Agreement may be modified only by a writing signed by both Parties. No consent or waiver, express or implied, by either party to or of any breach or default by another in the performance by the other of its obligations hereunder shall be deemed or construed to be a consent or waiver to or of any other breach or default in the performance by such other party of the same or any other obligations of such party hereunder. Failure on the part of either party to complain of any act or failure to act of the other, or to declare the other party in default, shall not constitute a waiver by such party of its rights hereunder. If any provision of this Agreement or the application thereof to any person or

circumstances shall be invalid or unenforceable to any extent, the remainder of this Agreement and the application of such provisions to other persons or circumstances shall not be affected thereby and shall be enforced to the greatest extent permitted by law.

#### INUREMENT / TITLES / ATTORNEYS' FEES

13. Subject to any restrictions on transfers, assignments and encumbrances set forth herein, this Agreement shall inure to the benefit of and be binding upon the undersigned Parties and their respective heirs, executors, legal representatives, successors and assigns. Paragraph titles or captions contained in this Agreement are inserted only as a matter of convenience, and for reference only, and in no way limit, define or extend the provisions of any paragraph. If any legal action or any arbitration or other proceeding is brought for the enforcement of this Agreement, or because of an alleged dispute, breach, default or misrepresentation in connection with any of the provisions of this Agreement, the successful prevailing party shall be entitled to recover reasonable attorneys' fees and other costs incurred in that action or proceeding, in addition to any other relief to which it or they may be entitled. In addition, AllWest and Client shall be entitled to be reimbursed by the other for any attorneys' fees or other costs reasonably incurred in enforcing the terms of this Agreement in the event such fees are incurred without resorting to arbitration or litigation.

#### INTERPRETATION / ADDITIONAL DOCUMENTS

14. The words "Client" and "AllWest" as used herein shall include the plural as well as the singular. Words used in the neuter gender include the masculine and feminine. Words used in the masculine gender include the feminine and neuter. If there is more than one Client or Consultant, the obligations hereunder imposed on Client or AllWest or Consultant shall be joint and several. Although the printed provisions of this Agreement were drafted by the attorneys for AllWest, the terms of this Agreement were fully negotiated by the Parties and shall not be construed for or against the Client or AllWest but shall be interpreted in accordance with the general meaning of the language herein contained in an effort to reach the intended result. Each of the Parties hereto shall upon request execute and/or acknowledge and/or deliver to each other Party or to its representatives any and all further documents which may now or hereafter be necessary to enable any of the Parties to effectuate any of the provisions of this Agreement.

#### AUTHORITY

15. Each of the persons executing this Agreement on behalf of a corporation does hereby covenant and warrant that the corporation is duly authorized and existing under the laws of its respective state of incorporation, that the corporation has and is qualified to do business in its respective state of incorporation, that the corporation has the full right and authority to enter into this Agreement, that the Board of Directors if required pursuant to the bylaws or resolution of the corporation approved this Agreement, and that each person signing on behalf of the corporation is authorized to do so. If the Client is a joint venture or a general partnership, the signatories below warrant that said joint venture or general partnership is properly and duly organized and existing under the laws of the respective state of its formation and pursuant to the joint venture agreement or a partnership agreement as well as by virtue of the laws of the respective state of its formation, said signatory is a joint venture or a general partner of said joint venture or general partnership.

#### COUNTERPARTS / ABSENCE OF PARTNERSHIP OR JOINT VENTURE

16. This Agreement may be signed in counterparts by each of the Parties hereto and, taken together, the signed counterparts shall constitute a single document. It is expressly understood that the Client does not, in any way or for any purpose, become a partner of AllWest in the conduct of its business, or otherwise, or joint venturer or a member of a joint enterprise with AllWest. It is expressly understood that AllWest do not, in any way or for any purpose, become a partner of the Client in the conduct of Client's business, or otherwise, or joint venturer or a member of a joint venturer or a member

#### THIRD PARTY BENEFICIARIES / CONTROLLING LAW

17. There are no intended third party beneficiaries of this Agreement. The services, data & opinions expressed by AllWest are for the sole use of the client, are for a particular project and may not be relied upon by anyone other than the client. This Agreement shall be controlled by the laws of the State of California and any action by either party to enforce this Agreement shall be brought in San Francisco County, California.