AllWest Environmental, Inc.

Specialists in Physical Due
Diligence and Remedial Services

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MONITORING WELL INSTALLATION WORKPLAN

Former Mandela Trucking
1225 Mandela Parkway
Oakland, California 94607

Fuel Leak Case No. RO0000041
And
Global ID # T0600102246

PREPARED FOR:

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

ALLWEST PROJECT No. 29020.23
April 15, 2009

PREPARED BY:

Leonard P. Niles, PG/CHG
Senior Project Manager

CERTIFIED HYDROGEOLOGIST
LEONARD P. NILES
NO. HG357
EXP. 3/31/10
STATE OF CALIFORNIA

REVIEWED BY:

Marc D. Cunningham, REA
President

AllWest

TABLE OF CONTENTS

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I. INTRODUCTION

This workplan describes tasks to further evaluate the extent of petroleum hydrocarbons in soil and groundwater at the property referenced above ("the subject site", Figure 1). Installation of groundwater monitoring wells and the collection of soil and groundwater data will provide additional characterization of site hydrogeology, vertical and lateral extent of petroleum hydrocarbon contamination in soil and groundwater, and potential human health impacts from the release at the subject property. This work will be completed after approval and with oversight of the Alameda County Health Care Services Agency, Environmental Health Services Division (ACEH).

This workplan briefly summarizes the site setting and background including previous investigations conducted at the property.

II. PROJECT BACKGROUND

A. Site Location and 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 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 by 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 Geology and Hydrogeology

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.

Based on a previous subsurface investigation, the asphalt in the parking lot is underlain by native soil 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 to 20 feet below ground surface (bgs), the maximum depth explored. First encountered groundwater was at 12 to 16 feet bgs while static groundwater was measured to be at 10 to 14 feet bgs.

C. Previous Site Investigations

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 (µg/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™ 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™ 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™ 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™ 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 µg/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)).*

AllWest conducted a subsurface investigation on November 21, 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 groundwater.

The investigation included the advancing and sampling of six Geoprobe™ 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 µg/L, 17,000 µg/L and 6,800 µg/L, respectively.

Additionally, BTEX and other VOCs were detected at maximum concentrations of 0.52 µg/L benzene, 1.7 µg/L toluene, 1.4 µg/L total xylenes, 16 µg/L acetone, and 7.0 µg/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 µg/L, in the groundwater sample collected from SB-20.

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 assumed.

III. PURPOSE AND SCOPE OF WORK

The purpose of this investigation is to further evaluate the extent of TPH-g, d, mo, BTEX and petroleum oxygenates in the subsurface in the vicinity of the site by the installation of permanent groundwater monitoring wells. The scope of work as proposed, consists of the following tasks:

1) Prepare a written work plan for conducting a subsurface investigation and well installation at the site. Submit the work plan to the RWQCB for review and concurrence.

2) Obtain a drilling and well construction permit from the Alameda County Public Works Agency (ACPWA)

3) Engage the service of Underground Service Alert (USA) and a private underground utility locator to locate and clear underground utilities within the proposed investigation area so the potential of accidental damage to underground utilities will be reduced. Notify the ACEH, ACPWA and the tenants 72 hours prior to the start of field work.

4) Retain the service of a C-57 licensed drilling contractor for the advancement of three nominal 8-inch diameter soil borings to approximate depths of 20 feet bgs. Advance two downgradient borings and one inside the hydrocarbon plume using a truck-mounted hollow stem auger (HSA) rig. Proposed boring locations are shown in Figure 5. Collect soil samples during drilling at approximately four to five foot intervals for lithology identification and chemical analysis.

5) After reaching the proposed depth, complete the borings as two-inch diameter PVC groundwater monitoring wells (MW-1 through MW-3). Develop the new wells using surge block and bailer methods to remove fines and improve hydraulic conductivity with the surrounding formation.

6) Measure groundwater levels, purge a minimum of three casing volumes and collect groundwater samples from the three new wells MW-1 through MW-3.

7) Maintain samples under chain-of-custody and transport the samples to a Department of Health Services (DHS) certified analytical laboratory for chemical analyses. Analyze groundwater and soil samples for Fuel Fingerprint / Multi-Range-TPH as Gasoline, Diesel and Motor Oil (EPA 8015c) with silica gel cleanup, and BTEX/MTBE (EPA 8021/8260)

8) Survey the new well head elevations and locations by NAD 1983 and NAVD 1988 datum in accordance with State Water Resources Control Board (SWRCB) GeoTracker protocol.

9) Prepare a written report describing the field activities, summarizing the laboratory data, presenting investigation findings, and providing conclusions and recommendations. Upload the report to the ACEH and GeoTracker databases.

IV. INVESTIGATIVE ACTIVITIES

A. Health and Safety Plan

AllWest will prepare a site specific health and safety plan prior to mobilizing to the site. A tailgate safety meeting will be held prior to commencing work. All site personnel will be required to review the health and safety plan.

B. Drilling Permit Application

Prior to the start of subsurface activities a drilling permit will be obtained from ACWPA for the groundwater monitoring well installations.

C. Underground Utility Inspection

To avoid damage to underground utility installations during the course of the subsurface investigation, AllWest will contact Underground Service Alert (USA), an organization for public utility information, on the pending subsurface investigation. USA will then notify public and private entities that maintained underground utilities within the site vicinity to locate and mark their installations for field identification. The underground utility locator will also be employed by AllWest to conduct a magnetometer sweep investigation to locate marked and unmarked underground utilities in the vicinity of the proposed boring locations.

D. Hollow Stem Auger Boring Advancement

Three groundwater monitoring wells, (MW-1 through MW-3) will be installed at the property as shown on Figure 3. All wells will be installed at exterior locations in paved parking areas or driveways.

Groundwater monitoring well MW-1 will be located immediately southwest of the former fuel pump island within the petroleum hydrocarbon plume source area. MW-2 will be located along the west subject property boundary, approximately 85 feet west of former fuel pump island to assess groundwater conditions cross to downgradient of the hydrocarbon plume source area. MW-3 will be sited at the northwest subject property boundary near the intersection of the driveway and 13th Street, approximately 80 feet northwest of the former fuel pump island to monitor anticipated downgradient conditions.

Monitoring wells MW-1 through MW-3 will be drilled and installed using a truck mounted, hollow stem auger (HSA) drill rig operated by a C-57 licensed drilling contractor, equipped with nominal 3.75-inch inside diameter (ID) and 8-inch outside diameter (OD), hollow stem augers.

During the borehole advancement operations, an environmental professional from AllWest will be present to collect representative soil samples, to conduct field vapor screening and to maintain a continuous log of drilling activities. Soil vapor headspace and ambient concentrations will be monitored using a photo-ionization detector (PID). Boring logs will contain pertinent information on drilling and soil conditions. Soil will be logged in accordance with the Unified Soil Classification System (USCS). Copies of the boring logs will be included in the final report. Field activities will be conducted under the direction of a California licensed Professional Geologist. Standard hollow stem auger drilling procedures are included in Appendix A.

E. Hollow Stem Auger Soil Sampling

Soil samples will be collected at approximate four to five foot depth intervals with a two-inch diameter California Modified split-spoon sampler equipped with 2 x 6 inch brass or stainless steel liners. Soil samples collected from the source area boring MW-1 at approximately five foot depth intervals will be selected for chemical analysis based upon soil vapor headspace concentrations monitored using a PID. Soil samples will be collected for lithologic characterization only from the downgradient borings MW-2 and MW-3 at approximately five foot depth intervals. Sample tubes selected for chemical analysis will be capped with Teflon lined plastic caps. Sample containers will be labeled, placed in a refrigerated environment and transported under chain-of-custody control to the analytical laboratory. Standard hollow stem auger soil sampling procedures are included in Appendix A.

F. Groundwater Monitoring Well Installation

Once the borings have been advanced to their designated depth, anticipated to be approximately 20 feet bgs, well casings will be installed through the center of the hollow stem augers. After the well casings have been set, the augers will be removed in sections while the sand filter pack is placed. Well casing will be composed of 2-inch inside diameter (ID) schedule-40 PVC pipe. The casing screen section will consist of factory perforated 0.02-inch slots and will extend for an approximate 10 foot interval above the bottom of the boring, or as necessary to intersect the saturated zone. Non-perforated (blank) well casing pipe will be used to complete the well casing from the top of the screen section to the ground surface.

The filter pack around the well screen interval will consist of a pre-washed #3 Monterey sand placed in the annular space from the well bottom up to one foot above the screen section. The well will then be surged with a surge block to settle the sand pack, which will then be topped off to maintain the one foot level above the top of screen. An approximate two-foot hydrated bentonite pellet or chip seal will then be placed in the annular space above the filter pack to prevent surface

water infiltration. The remaining annular space in the borehole will then be backfilled with neat Portland cement grout up to approximately one-foot below the ground surface. The well casing will be protected by a flush-mounted traffic-rated vault box set in a concrete annular surface seal. A water-tight locking end-cap will be placed on top of the well casing to prevent surface water intrusion and unauthorized access. Standard monitoring well installation procedures are included in Appendix A.

G. Groundwater Monitoring Well Development and Sampling

The three groundwater monitoring wells will be developed to remove fine sediments from the well and borehole annulus and to enhance hydraulic conductivity with the surrounding formation. Development will be performed at least 48 hours after completion to allow the grout seals to adequately cure. The wells will developed by surging and bailing. Groundwater characteristics, such as water temperature, conductivity, pH, color, turbidity and clarity, will be monitored during well development. Depending on hydrogeologic conditions, approximately 10 to 20 well casing volumes are expected to be removed from each well during development. Well development procedures are included in Appendix A.

The three wells will be allowed to stabilize a minimum of 48-hour after development prior to sampling. Prior to groundwater sampling, the wells will be purged. Prior to well purging, an electric water depth sounder will be lowered into the well casing and measure the depth to the water to the nearest 0.01 feet below top of casing (TOC). A new, disposable Teflon bailer will be lowered into the well casing and partially submerged. Upon bailer retrieval, the surface water will be retained and examined for any floating product or product sheen. After all initial measurements are completed and recorded, a minimum of 3 well volumes of groundwater will purged with a new, disposable Teflon bailer. Groundwater characteristics, temperature, pH and conductivity will be monitored at each well volume interval. Purging will continue until groundwater parameters have stabilized to within 10%. Groundwater sampling procedures are included in Appendix A.

Groundwater sampling will be conducted after water levels have recovered to at least 80% of initial level, recorded prior to purging. Groundwater samples will be collected with a new, disposable Teflon bailer. Upon bailer retrieval, the water will be transferred to an appropriate sample bottle furnished by the analytical laboratory. It is anticipated that 40 milliliter (ml) volatile organic analysis (VOA) glass vials treated with hydrochloric acid (HCL) will be used for TPH-g, BTEX and MTBE analysis; a 1-liter amber glass bottle will be used for the collection of TPH-d and TPH-mo. All sample bottles for volatile organic analysis will have

Teflon lined septum/caps and be filled such that no headspace is present. The sample bottles will then labeled and placed on ice inside a cooler awaiting transport under chain-of-custody control to the analytical laboratory.

To help prevent cross contamination, all groundwater sampling equipment that comes in contact with the groundwater will be decontaminated prior to sampling. To minimize the possibility of cross contamination, a new disposable bailer will be used to collect each groundwater sample. Sample handling, storage, and transport procedures described in Appendix A will be employed. All investigative derived wastes, soil (drill cuttings) and water (decontamination, development and purge water) will be temporarily stored at the property in 55-gallon drums, awaiting test results to determine the proper disposal method.

H. Monitoring Well Head Survey and Groundwater Gradient

AllWest will contract with a licensed California surveyor to establish vertical and horizontal control of the three monitoring wellheads using NAD 1983 and NAVD 1988 datum in accordance with SWRCB GeoTracker protocol. A notch will be set in the top of each PVC casing during the installation process and subsequently used as the TOC elevation reference point to measure water depths. This notch, as well as the vault box top will be surveyed to an accuracy of 0.01 feet and referenced to mean sea level (MSL). This information along with depth to water measurements will be used to calculate groundwater flow direction and gradients.

V. QUALITY ASSURANCE / QUALITY CONTROL PROGRAM

A. Sample Preservation, Storage and Handling

To prevent the loss of constituents of interest, all soil and groundwater samples will be preserved by storing in an ice chest cooled to 4ºC with crushed ice immediately after their collection and during transportation to the laboratory. The standard chain-of-custody protocols will be followed through all stages of sample handling.

B. Chain-Of-Custody Program

All samples collected for this project will be transported under chain-of-custody protocol. The chain-of-custody program allows for the tracing of possession and handling of individual samples from the time of field collection through laboratory analysis. The document includes 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. Upon delivery to the laboratory the document will also include the name of person receiving the samples, and date and time samples were received.

VI. ANALYTICAL METHODS

All samples selected for analysis will be analyzed by a State of California certified independent analytical laboratory. McCampbell Analytical, Pittsburg, California will perform all groundwater analysis.

Soil and groundwater samples collected during this investigation will be analyzed for Fuel Fingerprint / Multi-Range-TPH as Gas, Diesel and Motor Oil (EPA 8015c) with silica gel cleanup, and BTEX/MTBE (EPA 8021/8260) on a standard 5-day turn-around time basis.

VII. REPORT PREPARATION

A written report will be prepared for this investigation after the completion all field work and receipt of analytical results. Included in the report will be soil boring logs, well construction diagrams, groundwater gradient maps, chain-of-custody documents and copies of the analytical laboratory reports. The report will be prepared/reviewed by a California Professional Geologist.

The report and associated documents (chemical reports, survey data, boring logs, etc.) will be uploaded to the ACEH and GeoTracker databases.

VIII. PROJECT STAFF AND SCHEDULE

Mr. Leonard P. Niles, a California Professional Geologist (PG-5774) and California Certified Hydrogeologist (CHG-357), will provide technical oversight for this project and act as the project manager and regulatory liaison. Additionally, AllWest's staff of engineers, geologists, and technicians will be employed to perform the various tasks of the project. Project field activities will commence within 30 days following approval of this work plan, with the report to be submitted within 60 days after completion of field activities. AllWest will inform the ACEH and ACPWA at least 72 hour prior to the start of field activities. AllWest will inform the ACEH of any significant developments during the course of the investigations.

IX. LIMITATIONS

AllWest has prepared this remedial investigation and corrective action plan for the exclusive use of Mr. Clarence Glasper c/o Mr. Thomas Gillis (Client) for this particular project and in accordance with generally accepted practices at the time of the work and with our written proposal. No other warranties, either expressed or implied is made as to the professional advice offered. This plan is not a specification for the proposed work and should not be used to bid out any of the proposed work found within. Reliance on this plan by any party other than the Client is at the user's sole risk.

X. REFERENCES

State of California Environmental Protection Agency (Cal EPA). 1995. *Drilling, Coring, Sampling and Logging at Hazardous Substance Release Sites.* Guidance Manual for Ground Water Investigations. July 1995.

Cal EPA. 1995. *Reporting Hydrogeologic Characterization Data from Hazardous Substance Release Sites.* Guidance Manual for Ground Water Investigations. July 1995.

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

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

Department of Toxics Substance Control (DTSC). 2008. *Appendix L – Preliminary Environmental Assessment Workplan Sample.* Preliminary Environmental Assessment Workplan. June 25, 2008.

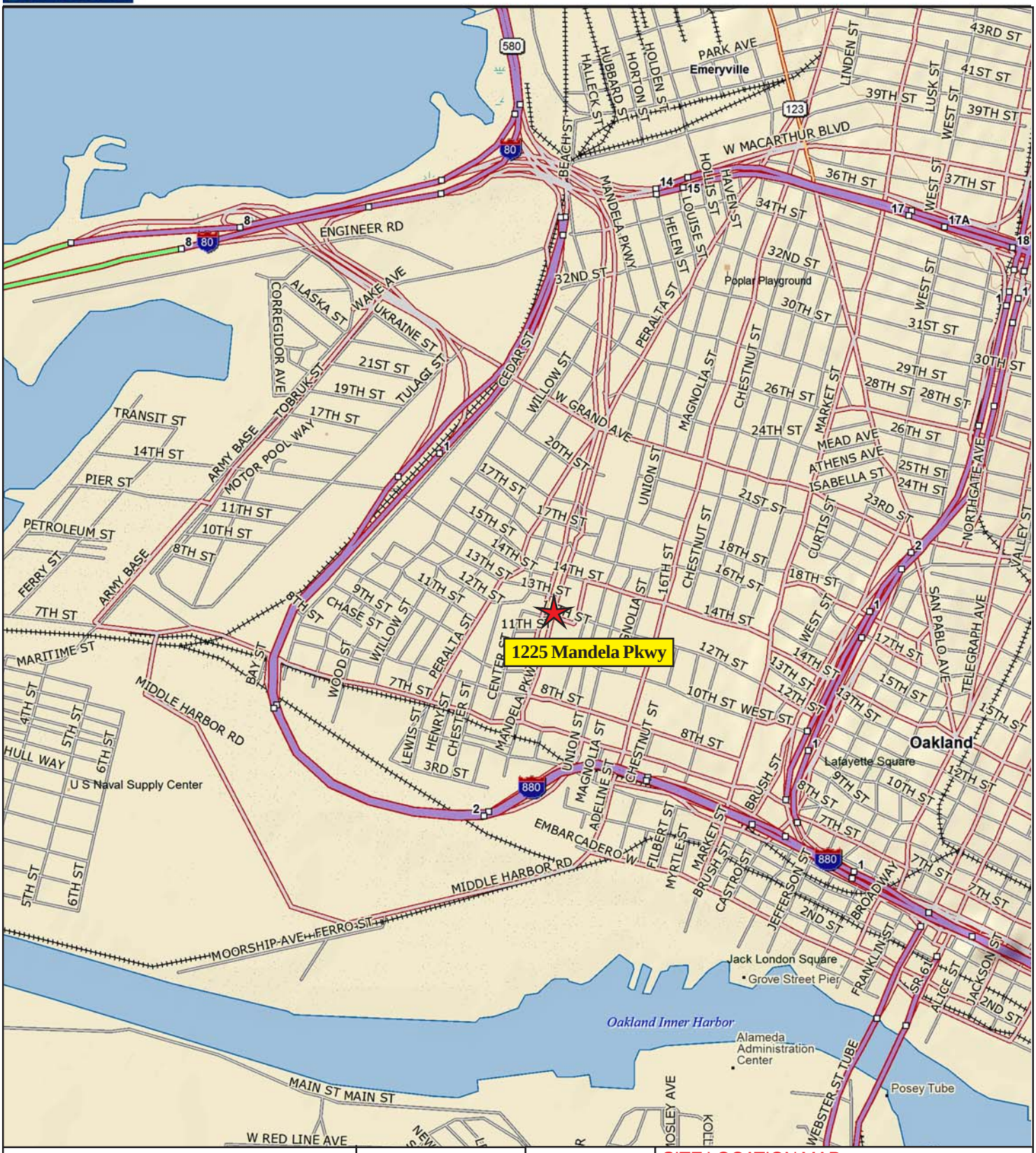
Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater, California Regional Water Quality Control Board, San Francisco Bay Region Interim Final November 2007, Updated March 2008 (RWQCB, 2008).

AllWest Environmental, Inc., Subsurface Investigation Report, January 13, 2009

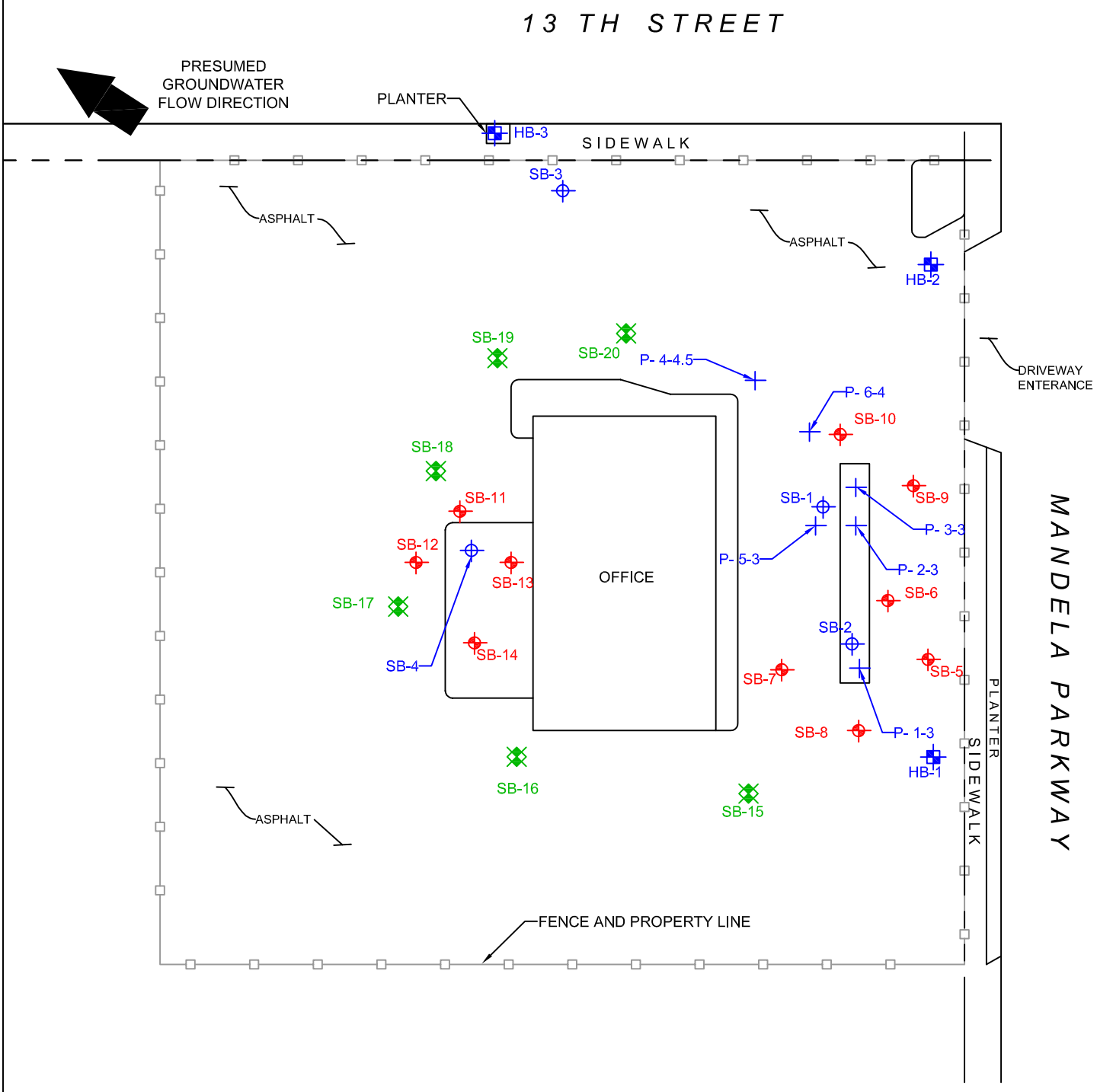
FIGURES

DELORME

Topo USA®



0 800 1600 2400 3200 4000 ft	MN (14.5° E)	AllWest	SITE LOCATION MAP
			FIGURE 1
			MANDELA TRUCKING WORK PLAN
			OAKLAND, CALIFORNIA
			SOURCE: DELORME TOPO 6.0
		PROJECT NO. 29020.23	PREPARED BY: CAROL RAMELB
			DATE: 03/24/09



NOTE:
All locations are approximate
Site information obtained from GGTR Workplan 07/17/07

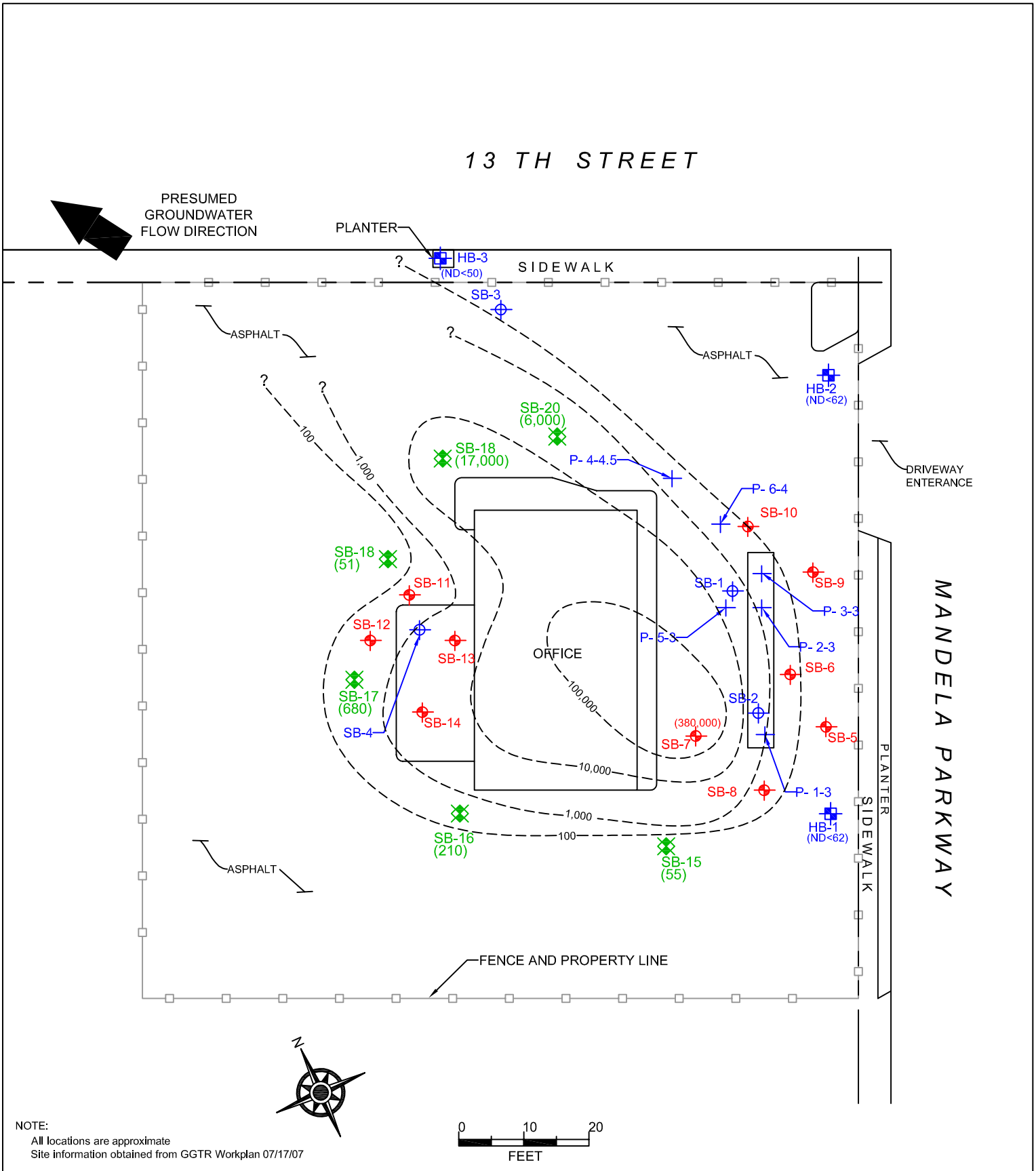
0 10 20
FEET

- GROUNDWATER SAMPLING BORING LOCATION (ALLWEST, 11/21/08)
- SOIL BORING LOCATIONS (ALLWEST 7/14/08)
- PREVIOUS SOIL BORING LOCATIONS (GGTR)
- PIPING SOIL SAMPLE LOCATION (GGTR)
- HYDRO PUNCH LOCATION (GGTR 6/7/06)

AllWest

PROJECT NO. 29020.23

SITE PLAN WITH BORING LOCATIONS
FIGURE 2
MANDELA TRUCKING WORK PLAN
OAKLAND, CA
Drawn by: PRAKASH KRISHAN
Date: 4/20/08



NOTE:
All locations are approximate
Site information obtained from GGTR Workplan 07/17/07

GROUNDWATER SAMPLING BORING LOCATION (ALLWEST, 11/21/08)
SOIL BORING LOCATIONS (ALLWEST 7/14/08)
PREVIOUS SOIL BORING LOCATIONS (GGTR)
PIPING SOIL SAMPLE LOCATION (GGTR)
HYDRO PUNCH LOCATION (GGTR 6/7/06)
17,000 TOTAL PETROLEUM HYDROCARBON AS DIESEL (TPH-D) CONCENTRATION IN MICROGRAMS PER LITER (ug/L)
1,000 (TPH-D) ISO CONCNTRATION CONTOUR IN ug/L, DASHED WHERE UNCERTAIN

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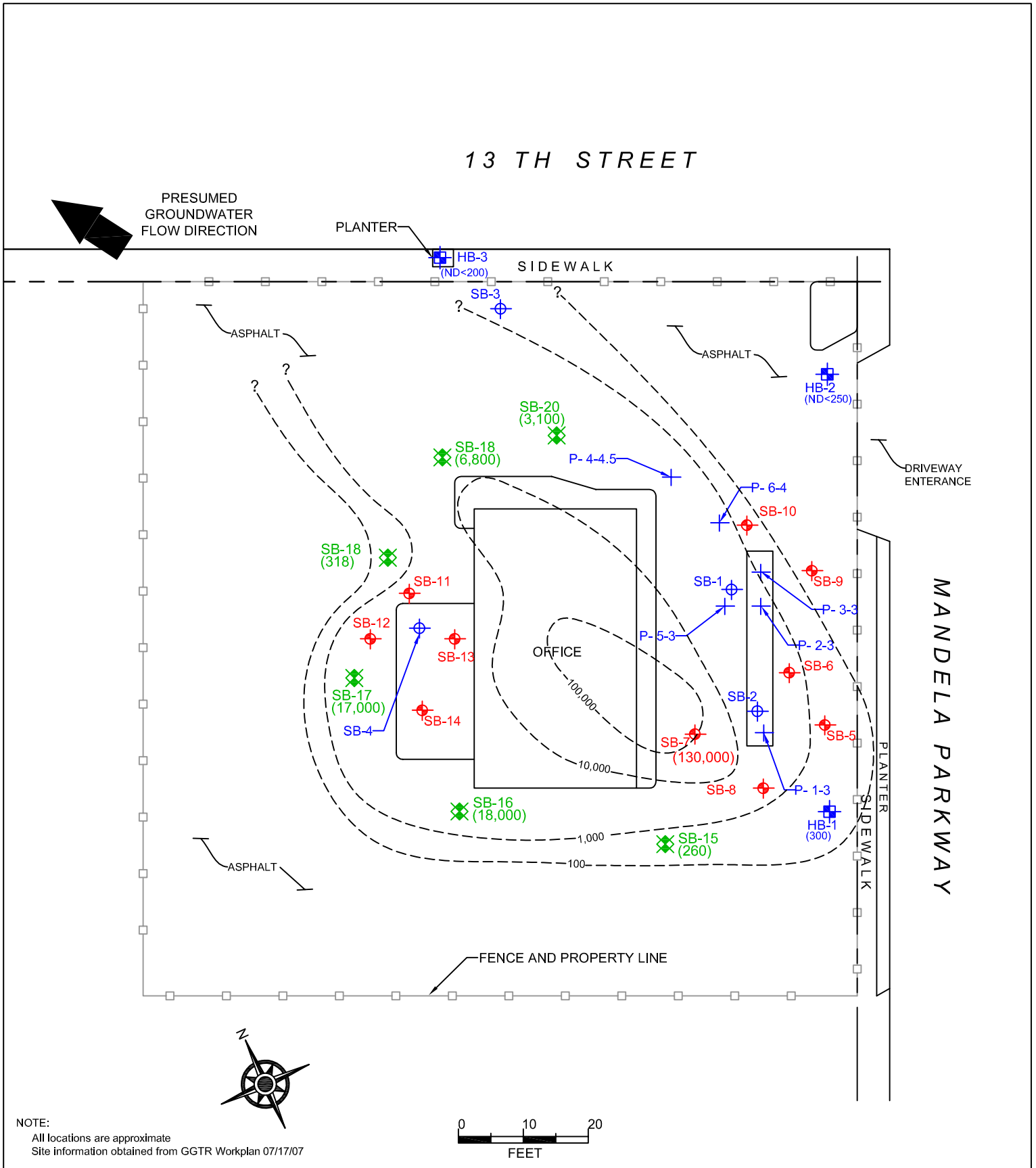
PROJECT NO. 29020.23

GROUNDWATER TPH-D ISOCONCENTRATION MAP
FIGURE 3
MANDELA TRUCKING
1225 MANDELA PKWY, OAKLAND, CA
Drawn by: PRAKASH KRISHAN
Date: 1/6/09



NOTE:
All locations are approximate
Site information obtained from GGTR Workplan 07/17/07

GROUNDWATER SAMPLING BORING LOCATION (ALLWEST, 11/21/08)
SOIL BORING LOCATIONS (ALLWEST 7/14/08)
PREVIOUS SOIL BORING LOCATIONS (GGTR)
PIPING SOIL SAMPLE LOCATION (GGTR)
HYDRO PUNCH LOCATION (GGTR 6/7/06)
17,000 TOTAL PETROLEUM HYDROCARBON AS MOTOR OIL (TPH-MO) CONCENTRATION IN MICROGRAMS PER LITER (ug/L)
1,000 (TPH-MO) ISO CONCNTRATION CONTOUR IN ug/L, DASHED WHERE UNCERTAIN

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PROJECT NO. 29020.23

GROUNDWATER TPH-MO ISOCONCENTRATION MAP

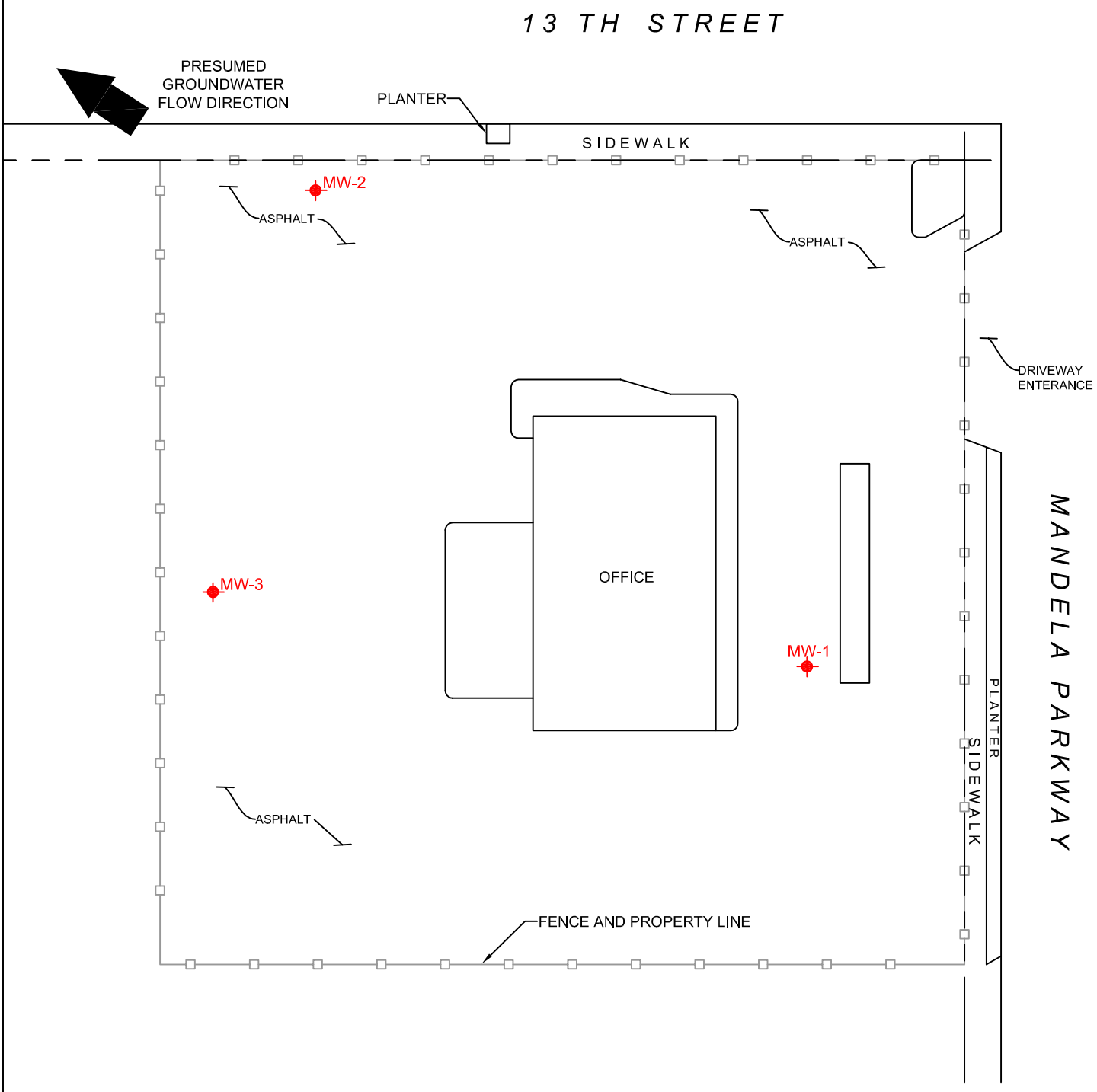
FIGURE 4

MANDELA TRUCKING

1225 MANDELA PKWY, OAKLAND, CA

Drawn by: PRAKASH KRISHAN

Date: 1/6/09



NOTE:
All locations are approximate
Site information obtained from GGTR Workplan 07/17/07

0 10 20
FEET

MW-1 PROPOSED MONITORING WELL LOCATION

AllWest

PROJECT NO. 29020.23

PROPOSED MONITORING WELL LOCATIONS
FIGURE 5
MANDELA TRUCKING WORK PLAN
OAKLAND, CA
Drawn by: PRAKASH KRISHAN
Date: 4/20/08

TABLES

TABLE 1
Summary of Soil Analytical Data
Former Mandela Trucking
1225 Mandela Parkway
Oakland, California
AllWest Project No. 29020.23

Date Sampled	Sample Name and Depth	Total Petroleum Hydrocarbons			Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	1,2 Dibromoethane (EDB)	1,2 Dichloroethane (1,2-DCA)	VOCs (Reporting Limit Varies)	Lead
		TPH-G	TPH-D	TPH-MO									
07/14/08	SB-5 6' - 6.5'	ND (<1.0)	ND (<1.0)	ND (<5.0)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.05)	ND (<0.004)	ND (<0.004)	NA	ND (<5.0)
07/14/08	SB-5 9.5' - 10'	ND (<1.0)	ND (<1.0)	ND (<5.0)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.05)	ND (<0.004)	ND (<0.004)	NA	ND (<5.0)
07/14/08	SB-6 5.5' - 6'	ND (<1.0)	ND (<1.0)	ND (<5.0)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.05)	ND (<0.004)	ND (<0.004)	NA	ND (<5.0)
07/14/08	SB-6 9.5' - 10'	ND (<1.0)	ND (<1.0)	ND (<5.0)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.05)	ND (<0.004)	ND (<0.004)	NA	ND (<5.0)
07/14/08	SB-7 6' - 6.5'	ND (<1.0)	ND (<1.0)	ND (<5.0)	ND (<0.005)	all	ND (<0.005)	ND (<0.005)	ND (<0.05)	ND (<0.004)	ND (<0.004)	NA	5.8
07/14/08	SB-7 10' - 10.5'	220	3,900	1,400	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<1.0)	ND (<0.004)	ND (<0.004)	NA	ND (<5.0)
07/14/08	SB-7 14.5' - 15'	ND (<1.0)	2	ND (<5.0)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.05)	ND (<0.004)	ND (<0.004)	NA	ND (<5.0)
07/14/08	SB-7 15.5' - 16'	1.9	11	5.3	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.05)	ND (<0.004)	ND (<0.004)	NA	ND (<5.0)
07/14/08	SB-7 19.5' - 20'	ND (<1.0)	ND (<1.0)	ND (<5.0)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.05)	ND (<0.004)	ND (<0.004)	NA	ND (<5.0)
07/14/08	SB-8 6' - 6.5'	ND (<1.0)	ND (<1.0)	ND (<5.0)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.05)	ND (<0.004)	ND (<0.004)	NA	7.4
07/14/08	SB-8 9.5' - 10'	ND (<1.0)	230	71	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.05)	ND (<0.004)	ND (<0.004)	NA	ND (<5.0)
07/14/08	SB-9 3' - 3.5'	ND (<1.0)	ND (<1.0)	ND (<5.0)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.05)	ND (<0.004)	ND (<0.004)	NA	240
07/14/08	SB-9 9.5' - 10'	ND (<1.0)	ND (<1.0)	ND (<5.0)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.05)	ND (<0.004)	ND (<0.004)	NA	5.2
07/14/08	SB-10 3' - 3.5'	ND (<1.0)	ND (<1.0)	ND (<5.0)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.05)	ND (<0.004)	ND (<0.004)	NA	ND (<5.0)
07/14/08	SB-10 9.5' - 10'	ND (<1.0)	ND (<1.0)	ND (<5.0)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.005)	ND (<0.05)	ND (<0.004)	ND (<0.004)	NA	ND (<5.0)
07/14/08	SB-11 5.5' - 6'	ND (<1.0)	ND (<1.0)	5.7	NA	NA	NA	NA	NA	NA	NA	0.022 PCE	550
07/14/08	SB-11 9.5' - 10'	ND (<1.0)	ND (<1.0)	ND (<5.0)	NA	NA	NA	NA	NA	NA	NA	all ND	ND (<5.0)
07/14/08	SB-12 5' - 5.5'	ND (<1.0)	ND (<1.0)	ND (<5.0)	NA	NA	NA	NA	NA	NA	NA	all ND	ND (<5.0)
07/14/08	SB-12 9.5' - 10'	ND (<1.0)	ND (<1.0)	ND (<5.0)	NA	NA	NA	NA	NA	NA	NA	all ND	ND (<5.0)

TABLE 1
Summary of Soil Analytical Data
Former Mandela Trucking
1225 Mandela Parkway
Oakland, California
AllWest Project No. 29020.23

Date Sampled	Sample Name and Depth	Total Petroleum Hydrocarbons			Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	1,2 Dibromoethane (EDB)	1,2 Dichloroethane (1,2-DCA)	VOCs (Reporting Limit Varies)	Lead
		TPH-G	TPH-D	TPH-MO									
07/14/08	SB-13 5' - 5.5'	ND (<1.0)	ND (<1.0)	ND (<5.0)	NA	NA	NA	NA	NA	NA	NA	all ND	ND (<5.0)
07/14/08	SB-13 9.5' - 10'	ND (<1.0)	ND (<1.0)	ND (<5.0)	NA	NA	NA	NA	NA	NA	NA	all ND	5.1
07/14/08	SB-14 5' - 5.5'	ND (<1.0)	ND (<1.0)	ND (<5.0)	NA	NA	NA	NA	NA	NA	NA	all ND	ND (<5.0)
07/14/08	SB-14 9.5' - 10'	ND (<1.0)	ND (<1.0)	ND (<5.0)	NA	NA	NA	NA	NA	NA	NA	all ND	ND (<5.0)

Notes: All results are reported in milligrams per kilogram (mg/kg) [equivalent to parts per million (ppm)], except where noted.

TPH-G Total petroleum hydrocarbons as gasoline (analytical method SW8015Cm)
TPH-D Total petroleum hydrocarbons as diesel (analytical method SW8015C)
TPH-MO Total petroleum hydrocarbons as motor oil (analytical method SW8015C)
MTBE Methyl tert-butyl ether (analytical method SW8260B)
EDB 1,2 Dibromoethane (analytical method SW8260B)
1,2-DCA 1,2 Dichloroethane (analytical method SW8260B)
VOCs Volatile organic compounds (analytical method SW8260B)
ND (<1) Not detected at or above listed reporting limit
NA Not analyzed
Benzenze, Toluene, Ethylbenzene, Xylenes (BTEX) (analytical method SW8260B)
Lead (analytical method 6010C)

TABLE 2
Summary of Groundwater Analytical Data
Former Mandela Trucking
1225 Mandela Parkway
Oakland, California
AllWest Project No. 29020.23

Sample Name	Date Sampled	Total Petroleum Hydrocarbons					Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	VOC's	LEAD
		TPH-G	Qualifiers	TPH-D	Qualifiers	TPH-MO							
W-SB-7	7/14/2008	**270**		**380,000**		**130,000**	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<5.0)	3.1 (Naphthalene) 2.4 (sec-Butyl benzene)	ND (<0.5)
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	NA
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	NA
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	NA
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	NA
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)	NA
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)	NA
Water Quality Criteria (RWQCB ESLs)		100		100		100	1	40	30	20	5	1,500 (acetone), 4,200 (MEK)	2.5
Water Quality Criteria (Oakland RBSLs)		NE		NE		NE	1	150	700	1,800	13	10,000 (acetone), 61,000 (MEK)	NE

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

NA - Not analyzed

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

Appendix A

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Soil Sampling with Hollow-Stem Auger

A soil boring is advanced with a truck-mounted drill rig using 8-inch outside diameter (O.D.), 3.75-inch inside diameter (I.D.), and 5-foot long hollow stem augers. The augers are advanced with a center plug at the lead auger section and drilling rods inside the hollow stem to create an open borehole with the augers as the boring casing. After the augers are advanced to the desired sampling depth, the center plug is removed and a soil sampler is attached to the drilling rod. The soil sampler contains three 2-inch diameter and 6-inch long brass tubes is driven 18 inches beyond the auger depth. The brass tube acts as the sample container to contain the soil core generated during the sampler drive. After the retrieval of the soil sampler, the brass tube containing the soil core is removed and sealed with Teflon tape and plastic end caps. The soil sample is then placed in an ice chest for field storage and transport to the laboratory. New sample tubes are use during each soil sampling drive to prevent cross-contamination.

Groundwater Monitoring Well Installation

A groundwater monitoring well will be installed in each of the boreholes after the designated boring termination depth is reached. The well will be installed through the center of the hollow stem augers. After the well casing has been set, the augers will be removed in sections while the sand filter pack is being placed. Well casing composed of 2-inch diameter schedule-40 PVC pipes will be employed. The screen section of the casing will have factory perforated 0.02-inch slots and extend 10 feet below and 5 feet above the groundwater table. The blank section (non-perforated well casing pipe) will complete the well casing up to the ground surface. The length of screen and blank section of well casing will be adjusted in the field in accordance with groundwater and soil conditions encountered.

The filter pack around the well screen will be pre-washed #3 Monterey sand placed from the bottom of the well up to one foot above the screen section. A 1-foot bentonite seal will then be placed above the filter pack to prevent surface water infiltration. The remaining length of the annular space in the borehole will be backfilled with neat cement grout up to 2 feet below the ground surface. The uppermost two feet of the well casing will be protected by a traffic-rated Christy box set in concrete. A water-tight locking end-cap will be placed on top of the well casing to prevent surface water intrusion and unauthorized access. A diagram of typical groundwater monitoring well construction is included in Appendix A.

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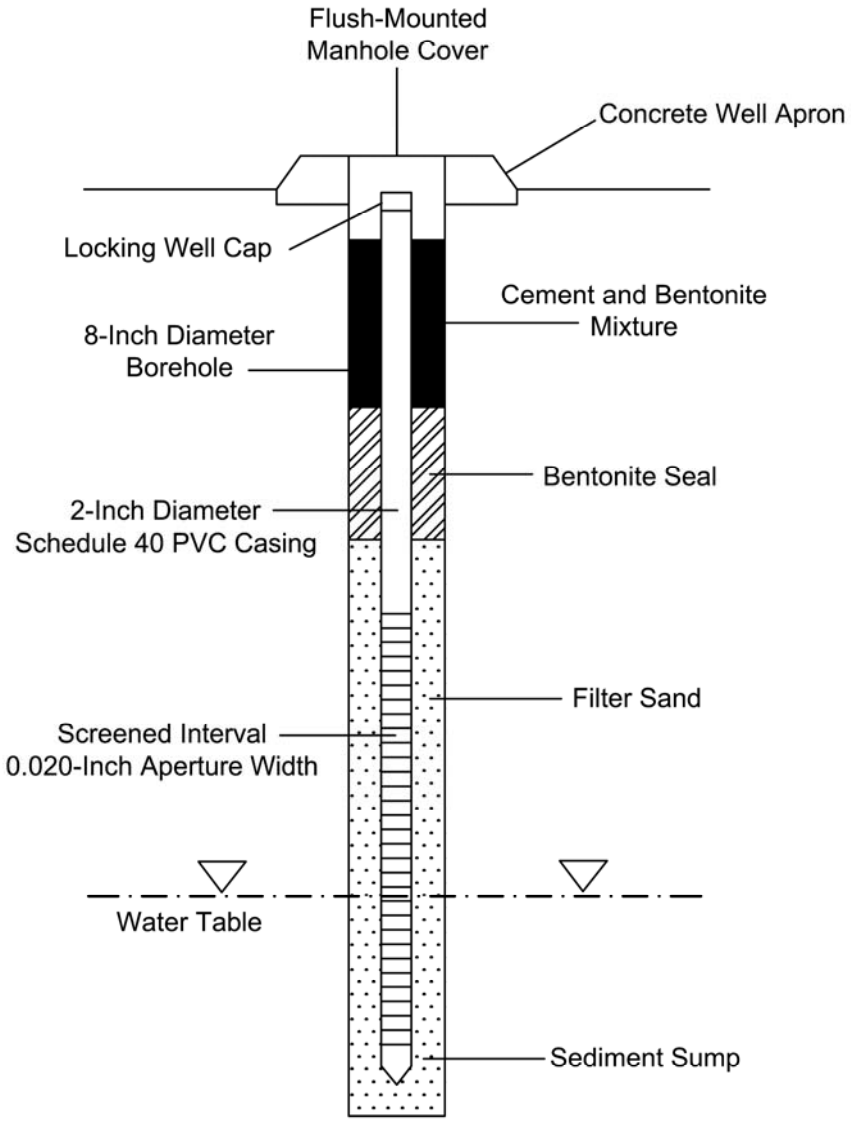
Groundwater Monitoring Well Diagram (Generalized)



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Groundwater Monitoring Well Development

Groundwater monitoring wells will be developed with the combination of surging and pumping actions. The wells will be alternately surged with a surging block for five minutes and pumped with a submersible pump for two minutes. The physical characteristics of the groundwater, such as water color and clarity, pH, temperature, and conductivity, will be monitored during well development. Well development will be considered complete when the groundwater is relatively sediment-free and groundwater characteristic indicators are stabilized (consecutive readings within 10% of each other).

Groundwater will be sampled from the developed wells no sooner than 48 hours after well development to allow stabilization of groundwater conditions. Prior to groundwater sampling, a proper purging process will be performed at each well. The purpose of well purging is to remove fine grained materials from the well casing and to allow fresh and more representative water to recharge the well. Prior to well purging, an electric water depth sounder will be lowered into the well casing to measure the depth to the water to the nearest 0.01 feet. A clear poly bailer will then be lowered into the well casing and partially submerged. Upon retrieval of the clear bailer, the surface of the water column retained in the bailer will be carefully examined for any floating product or product sheen.

After all initial measurements are completed and recorded, the well will be purged by an electrical submersible pump or a bailer. A minimum of 3 well volumes of groundwater will be purged and groundwater characteristics (temperature, pH, and conductivity) monitored at each well volume interval. Purging is considered complete when indicators are stabilized (consecutive readings within 10% of each other) and the purged water is relatively free of sediments.

Groundwater sampling will be conducted after the water level has recovered to at least 80% of the initial level, recorded prior to purging. The groundwater sample will be collected by a disposable bailer. Upon retrieval of the bailer, the retained water will be carefully transferred to appropriate sample bottle furnished by the analytical laboratory. All sample bottles will have a Teflon lined septum/cap and be filled such that no headspace is present. Then the sample bottles will be labeled and immediately placed on ice to preserve the chemical characteristics of its content.

To prevent cross contamination, all groundwater sampling equipment that comes in contact with the groundwater will be thoroughly decontaminated prior to sampling. A disposable bailer will be used to collect the groundwater samples. Sample handling, storage, and transport procedures described in the following sections will be employed. All well development and purging water will be temporarily stored on-site in 55-gallon drums awaiting test results to determine the proper disposal method.