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Alameda County
Environmental Health

REVISED CORRECTIVE ACTION PLAN

**PROJECT SITE:
Oakland Truck Stop
8255 San Leandro Street
Oakland, California 94621**

**PREPARED FOR:
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**SUBMITTED TO:
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Project No. 6014

May 7, 2008

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PROFESSIONAL CERTIFICATION

REVISED CORRECTIVE ACTION PLAN

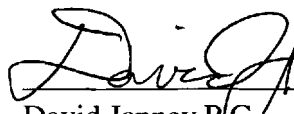
Oakland Truck Stop
8255 San Leandro Street
Oakland, California 94621

By: **Matriks Corporation.**
Project No. 6014
May 7, 2008

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Tom Henderson
President


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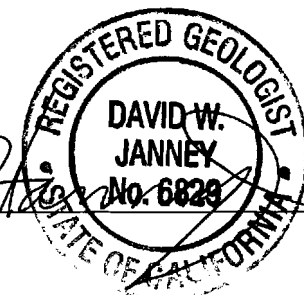


Table 2. Since the groundwater monitoring event of August 1999, monitoring well MW-1 has contained free-floating diesel.

PROPOSED SCOPE OF WORK

The proposed scope of work for the pilot study will include the following tasks:

- Prepare a Work Plan for submittal to the ACHCS;
- Prepare a *Site Specific Health and Safety Plan* that meets the requirements of 29CFR 1910.120;
- Obtain appropriate regulatory permits and approvals;
- Obtain utility clearance using Underground Service Alert and a private utility locator;
- Properly destroy monitoring wells MW-1, MW-3 and MW-6;
- Remove remaining USTs and associated piping;
- Extend the UST excavation to the southwest to remove high concentrations of petroleum hydrocarbon soils to 16 feet below grade (fbg);
- Excavate a trench under fueling island 2 to approximately 10 fbg for removal of free-phase fuel;
- Collect and analyze the soil and groundwater samples for TPH-g, TPH-d, BTEX, and the fuel additives MtBE, EtBE, DIPE, TAME, TBA, methanol, ethanol, EDB, and 1,2 DCA; one soil sample per 100 tons will also be analyzed for total lead for waste profile purposes;
- Backfill trenches and install vertical polyvinyl chloride (PVC) perforated pipe in end of trenches for use with future remediation systems and for monitoring;
- Excavate 24-inch deep trenches to install 6" PVC pipe to supply future remediation systems;
- Backfill the trenches and restore the surface to original grade;
- Survey the site for elevation and horizontal coordinates;
- Updated the GeoTracker database; and
- Incorporate the data and descriptions of our activities into the quarterly monitoring reports, and make recommendations for additional corrective actions

HEALTH AND SAFETY PLAN

A site-specific health and safety plan (HSP) will be prepared under the direct supervision of, and

INTRODUCTION

This Corrective Action Plan (CAP) has been prepared by Matriks for the Oakland Truck Stop in Alameda County, California (the "Site"). The CAP was prepared at the request of the Owner, Nissan Saidian and the Alameda County Health Care Services (ACHCS). The purpose of the CAP is to address petroleum in soil and shallow groundwater. Petroleum hydrocarbons in the soil and groundwater were caused by release of gasoline and diesel fuel from underground storage tanks (USTs) at the Site. The ACHCS is the lead agency and has determined that this is a high priority Site based on California's MtBE guidelines and the presence of free phase diesel in groundwater. This CAP has been prepared in accordance with the requirements of the California Code of Regulations Title 23, Division 3, Chapter 16, Article 11.

PHYSICAL SETTING

Site Location

The Oakland Truck Stop is located in an Industrial area at 8255 San Leandro Street southeast of Hegenberger Street. A Site location map is shown on **Figure 1**. The facility is a private, truck fuel, washing and maintenance facility. Land use surrounding the facility is predominantly industrial and commercial developments.

Site History

In March 1998, one 500-gallon waste oil UST and two 4,000-gallon gasoline USTs were removed. Petroleum hydrocarbons were detected in soil and groundwater samples collected (up to 3,600 mg/kg TPH-g and 26,000 mg/kg TPH-d) during the UST removal. The excavation was backfilled and covered following the UST removals.

In February 1999, thirteen soil borings were drilled in the vicinity of the former USTs to assess the extent of petroleum hydrocarbons in soil and groundwater. Four of these borings were converted to monitoring wells (MW-1, MW-2, MW-3 and MW-4). Monitoring well locations are shown on **Figure 3**. Total petroleum hydrocarbons as gasoline (TPH-g) was detected in excess of 100 mg/kg in soil samples collected from borings B-4, B-6, B-8 and MW-3. Total petroleum hydrocarbons as diesel (TPH-d) was detected in excess of 100 mg/kg in soil samples from borings MW-1 and borings B-1 and B-2. Groundwater samples collected from the wells contained TPH-g up to 68,000 µg/L, TPH-D up to 62,000 µg/L, benzene up to 24,000 µg/L, toluene up to 390 µg/L, ethyl-benzene up to 2,000 µg/L, total xylenes to 2,300 µg/L (BTEX) and MtBE to 28,000 µg/L. Monitoring wells MW-5 and MW-6 were installed at the site in December 1999. MtBE has been detected in MW-6 up to 12,000 µg/L. The site was further characterized with borings in May 2000. Three additional monitoring wells (MW-7, MW-8 and MW-9) were installed in May 2002. All associated data for wells is presented in **Table 1** and

certified by, a professional geologist. The HSP will address specific safety issues including but not limited to working with petroleum impacted soil and groundwater.

WELL DESTRUCTION

Monitoring wells MW-1, MW-3 and MW-6 are located within the planned excavation area near the USTs and dispenser islands. Prior to mobilizing to the site for UST removal operations, Matriks will properly destroy the afore-mentioned wells. Matriks will obtain a permit from the ACHCS to destroy the wells. The wells will be drilled out by a licensed well drilling contractor. The well materials will be placed on-site for disposal at a later date. The borehole will be filled with neat cement by tremie pipe from the bottom of the borehole to the ground surface. A Department of Water Resources (DWR) well completion report will be submitted by Matriks to the DWR and ACHCS.

EXCAVATION METHODS

Matriks will excavate soil in the vicinity of the USTs and dispensers where free-phase hydrocarbons are present on the water table. Excavation extents are based on the groundwater data collect since 2005 (**Figure 3**). The stockpiles will be placed on and covered with plastic sheeting to control dust and possible odors. Approximately 1100 cubic yards of contaminated soil is expected to be removed from the site (**Figure 4**).

Soil samples will be collected from the excavation bottom and sidewalls for laboratory analysis. One pit bottom soil sample will be collected every 200 square feet. One sidewall sample will be collected every 15 lineal feet. Soil samples will be analyzed for TPH-g and TPH-d using EPA Method 8015 (modified), BTEX and fuel oxygenates and lead scavengers by EPA method 8260b

SOIL SAMPLES

Soil will be removed from the excavation with an excavator. Soil samples will be collected from soil in the excavator bucket using brass tubes driven directly into soil i using a wooden hammer. The ends of the brass tubes will be completely covered with Teflon sheets and end caps such that an airtight seal is created.

Soil samples will be labeled indicating project name (or number), sample number, sample depth, date and collection time. The same information will be recorded on the chain of custody (COC) form and in the field notebook. Soil samples will be placed in a cooler with frozen gel packs or ice and will be delivered to the analytical laboratory under COC protocol within 24 hours of collection. Soil samples will be analyzed for TPH-g and TPH-d using EPA Method 8015 (modified), BTEX and fuel oxygenates and lead scavengers by EPA method 8260b. Sampling will be conducted under the supervision of a California Professional Geologist.

BACKFILL AND COMPACTION

Excavation Area 1 (**Figure 4**) will be backfilled with clean imported fill material and will be mechanically compacted into the excavations. Excavation Area 2 will be backfilled with clean imported crushed rock. Both areas will be compacted to 90 percent compaction.

FREE-PHASE PRODUCT REMOVAL

Free-phase petroleum hydrocarbons on groundwater will be skimmed from the groundwater surface using a vacuum truck. The product/sheen will then be allowed to recharge within the excavation and the process will be repeated as necessary during a period of up to 24 hours. The diesel fuel removed during this process will be transported to a recycling facility under manifest where it will be disposed of as hazardous waste.

SOIL DISPOSAL

Approximately 1,500 tons of soil will be stockpiled, characterized and hauled to an appropriate disposal facility. A four-point composite sample will be collected (one per 100 cubic yards of soil) from the soil stockpile. Soil samples will be analyzed for BTEX by EPA method 8260, TPH-g and TPH-d by EPA method 8015 modified, per landfill requirements.

REMEDICATION PREPARATION

A 24" deep trench will be excavated from the south corner of the building to Excavation Area 1 and 2 (**Figure 4**). A 6-inch PVC pipe will be placed in the trench with each pipe end placed in a Christy Box for use with a future remediation system.

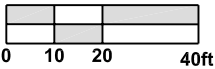
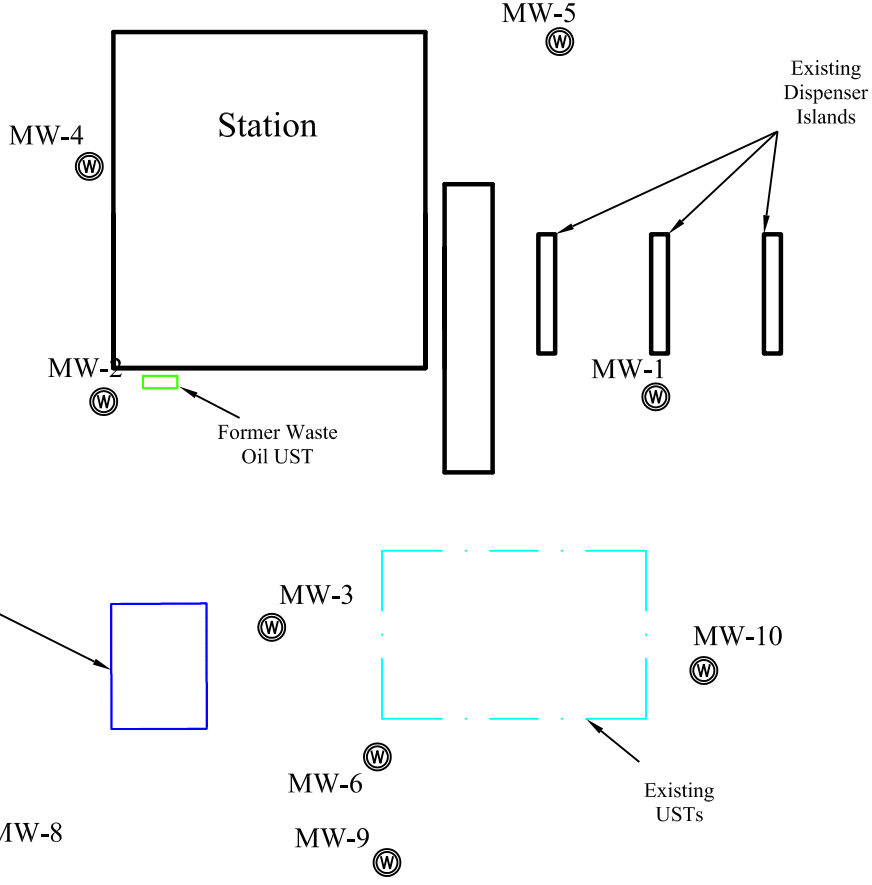
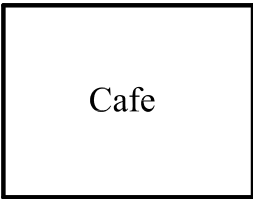
REPORT

The data collected from the remedial sampling event will be incorporated into the next Quarterly Monitoring Report (QMR) following the over excavation and trenching. The QMR will contain a description of the work performed; weigh tags and as-built schematics; laboratory reports for soil samples; and surveyor's data.

TABLES

LEGEND

Ⓜ Monitoring Well



San Leandro Street

Site Plan



**Oakland Truck Stop
8255 San Leandro Street
Oakland, California**

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Woodland, California 95695
(530) 406-1760 Fax# (530) 406-1760

Project #: 6019	Figure:
Date: 05/05/08	2
Scale: 1"=40'	

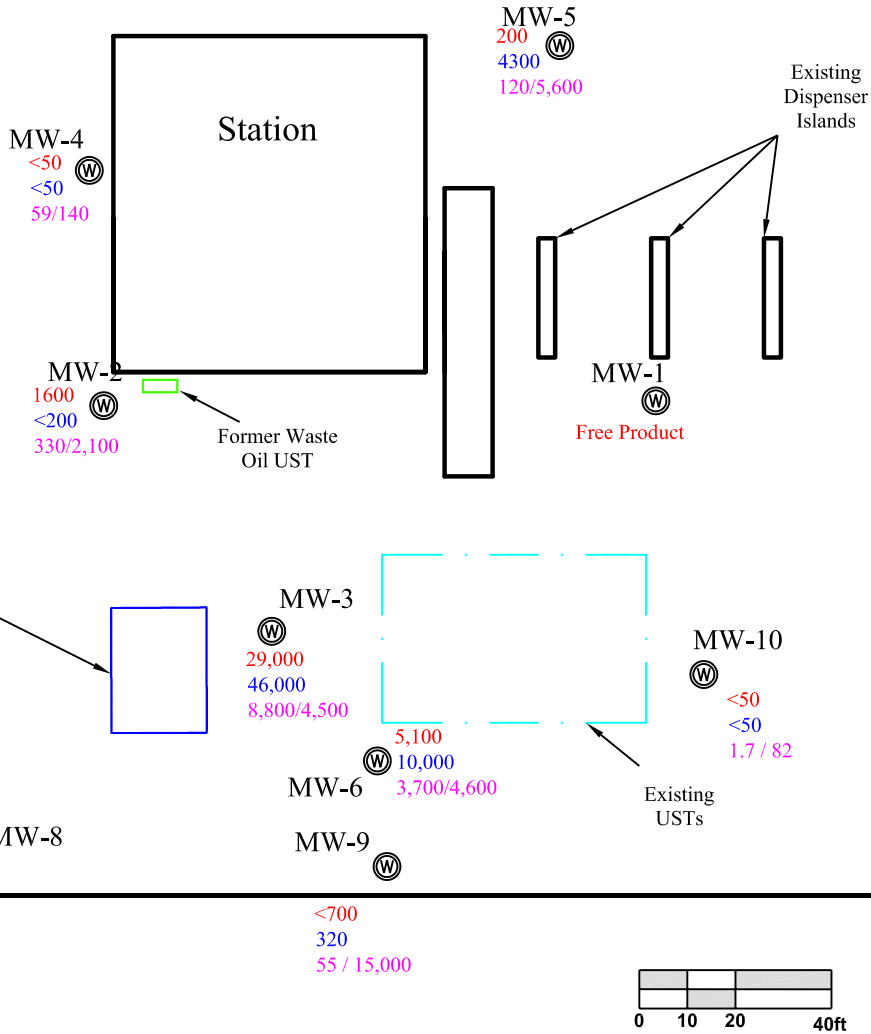
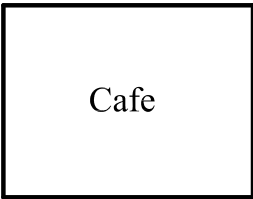
LEGEND

Ⓜ Monitoring Well

50 TPH-g Concentration (µg/L)

50 TPH-d Concentration (µg/L)

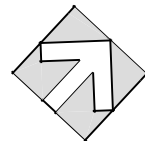
59/140 MtBE/TBA Concentration (µg/L)



San Leandro Street

**Maximum Chemical Concentrations
in Groundwater since 2005**

NORTH



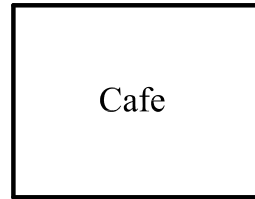
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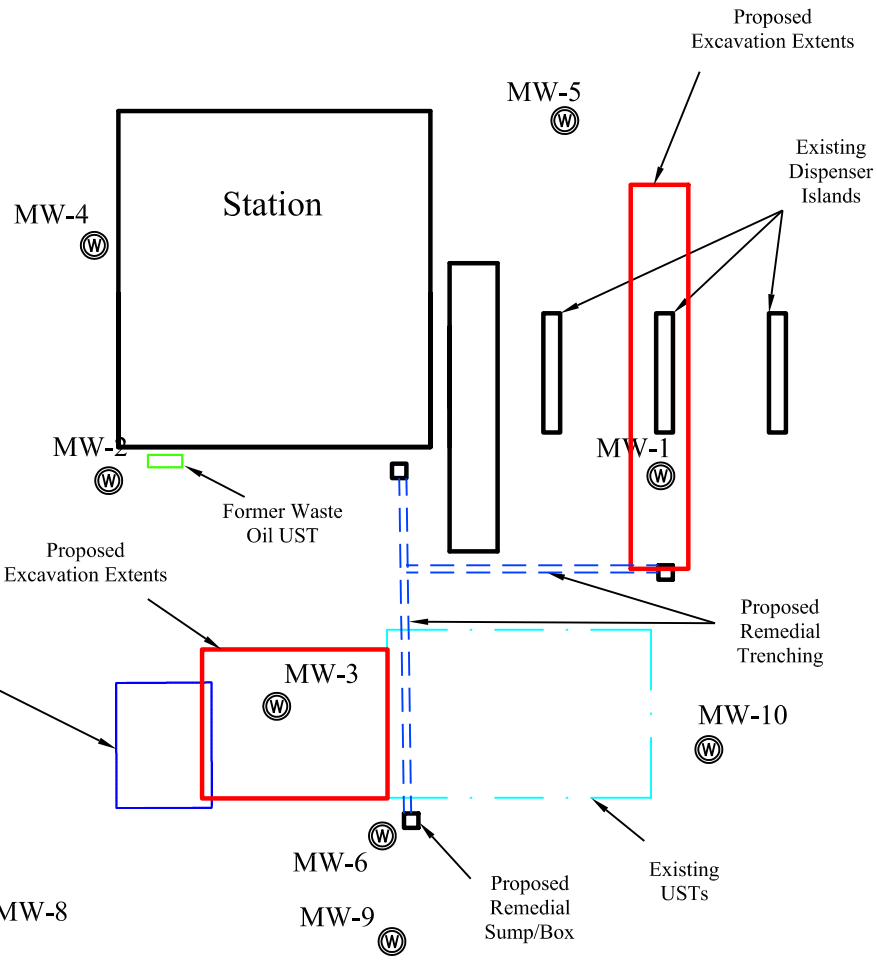
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LEGEND

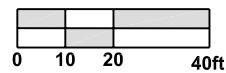
Ⓜ Monitoring Well



Cafe



San Leandro Street



Proposed Remedial Actions



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Project #: 6019	Figure:
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FIGURES
