

R. W. L. Investments, Inc.
4919 Tidewater Ave. Unit B.
Oakland, CA 94601
Ph# 510 434-0175

RECEIVED

2:44 pm, Jul 24, 2008

Alameda County
Environmental Health

July 24, 2008

Jerry Wickham
Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Ste.250
Alameda, CA 94502

Subject: Letter of Transmittal for
Semi-annual Groundwater Monitoring Report, Second Quarter 2008
4919 Tidewater Avenue, Oakland, California

Case No. RO0000107

Dear Mr. Wickham,

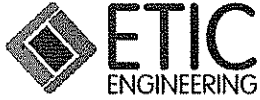
On behalf of R. W. L. Investments, Inc., ETIC Engineering, Inc. prepared the attached *Semi-annual Groundwater Monitoring Report, Second Quarter 2008* dated July 2008 for the above-referenced site.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

If you have any questions or comments, please contact me at (510) 434-0175 or Maura Dougherty (extension 41) or Alan Anselmo (extension 19) of ETIC Engineering, Inc. at (925) 602-4710.

Sincerely,
R. W. L. Investments, Inc.


Bob Lawlor
President



**Semi-annual Groundwater Monitoring
Report
Second Quarter 2008**

**Former DiSalvo Trucking
4919 Tidewater Avenue, Unit B
Oakland, California 94601**

Fuel Leak Case Number: RO0000107

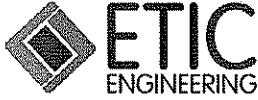
July 2008

Prepared For:

**R.W.L. Investments, Inc.
4919 Tidewater Avenue, Unit B
Oakland, California 94601**

Prepared By:

**ETIC Engineering, Inc.
2285 Morello Avenue
Pleasant Hill, California 94523**



Semi-annual Groundwater Monitoring Report Second Quarter 2008

Former DiSalvo Trucking
4919 Tidewater Avenue, Unit B
Oakland, California 94601

Fuel Leak Case Number: RO0000107

July 2008

Prepared For:

R.W.L. Investments, Inc.
4919 Tidewater Avenue, Unit B
Oakland, California 94601

Prepared By:

ETIC Engineering, Inc.
2285 Morello Avenue
Pleasant Hill, California 94523

Maura E. Dougherty

Maura E. Dougherty, P.E.
Project Manager

July 24, 2008

Date

Alan Anselmo

Alan Anselmo, P.E.
Program Manager

July 24, 2008

Date

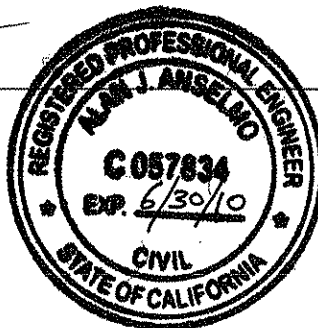


TABLE OF CONTENTS

LIST OF FIGURES	ii
LIST OF TABLES.....	ii
LIST OF APPENDIXES	ii
GENERAL INFORMATION.....	iii
1.0 INTRODUCTION	1
2.0 SITE BACKGROUND.....	1
2.1 DESCRIPTION OF SITE.....	1
2.2 LOCAL GEOLOGY AND HYDROGEOLOGY	1
2.3 TOPOGRAPHY AND SURFACE WATER	2
2.4 UST HISTORY	2
2.5 SUBSURFACE INVESTIGATIONS (1989 THROUGH 2006)	3
2.6 GROUNDWATER MONITORING (1994 THROUGH 2007).....	5
2.7 CURRENT SITE STATUS	5
3.0 GROUNDWATER MONITORING	5
3.1 GROUNDWATER MONITORING PROCEDURES	6
3.2 GROUNDWATER ELEVATIONS AND HYDRAULIC GRADIENT	6
3.3 ANALYTICAL DATA FOR TPH-d, TPH-g, AND BTEX.....	7
3.4 ANALYTICAL DATA FOR MTBE	7
4.0 SUMMARY AND CONCLUSIONS	7
5.0 PLANNED SITE ACTIVITIES	8
6.0 REFERENCES	8

LIST OF FIGURES

- Figure 1. Site Location and Topographic Map
- Figure 2. Site Map
- Figure 3. Site Map with Historical Sampling Locations
- Figure 4. Groundwater Elevation Contour Map – June 9, 2008
- Figure 5. Site Map Showing Groundwater Analytical Results – June 9, 2008

LIST OF TABLES

- Table 1. Monitoring Well Construction Details
- Table 2. Groundwater Elevation Data
- Table 3. Analytical Data for Monitoring Well Groundwater Samples - TPH-d, TPH-g, BTEX, and MTBE

LIST OF APPENDIXES

- Appendix A. Field Data Forms
- Appendix B. Laboratory Analytical Report and Chain-of-Custody Documentation

GENERAL INFORMATION

Site Location

Former DiSalvo Trucking
4919 Tidewater Avenue, Unit B
Oakland, California 94601

Alameda County
Township 2 South, Range 3 West, Section 17 of the Mount Diablo Baseline and Meridian

Responsible Party

Bob Lawlor
R.W.L. Investments, Inc.
4919 Tidewater Avenue, Unit B
Oakland, California 94601

Environmental Consultant

ETIC Engineering, Inc.
2285 Morello Avenue
Pleasant Hill, California 94523

Maura E. Dougherty
Project Manager
(925) 602-4710 ext. 41
mdougherty@eticeng.com

Regulatory Agency

Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Suite 250
Alameda, California 94502-6577

Jerry Wickham
Senior Hazardous Materials Specialist
(510) 567-6721

1.0 INTRODUCTION

On behalf of R.W.L. Investments, Inc., ETIC Engineering, Inc. (ETIC) has prepared this *Semi-annual Groundwater Monitoring Report, Second Quarter 2008* for the Heitz Trucking (formerly DiSalvo Trucking) facility located at 4919 Tidewater Avenue in Oakland, California (the Site). This report summarizes the groundwater monitoring activities performed on June 9, 2008.

2.0 SITE BACKGROUND

2.1 DESCRIPTION OF SITE

The Site is located east of the San Francisco Bay in southwest Oakland, approximately 500 feet southeast of the Tidewater Avenue and Lasser Street intersection, on the southwest side of Tidewater Avenue (Figure 1). The Site is located in Section 17 of Township 2 South, Range 3 West, of the Mount Diablo Baseline and Meridian. The Site is currently owned by R.W.L. Investments, Inc. and leased to Heitz Trucking.

The 3.61-acre property contains a concrete warehouse and loading dock terminal along the north side of the Site, an office trailer, and a truck repair shop and maintenance building along the southern side of the Site (Figure 2). An aboveground fuel storage tank is located north of the maintenance building and outside yard areas are located along the northwest side of the building and between the buildings.

The Site is listed as a fuel leak case and is overseen by the Alameda County Health Care Services Agency (ACHCSA).

2.2 LOCAL GEOLOGY AND HYDROGEOLOGY

Soil borings from previous onsite investigations indicate that the area beneath the Site was likely filled to create land and lift the surface approximately 5 feet above the high tide line (ART, 2007). The soil beneath the Site consists mostly of gravel and sand fill with concrete and asphalt debris (ART, 2007). The thickness of the fill material varies across the Site from about 1.5 feet near the southern corner, to 4 to 5 feet along the northern portion of the property, to more than 9 feet thick along Tidewater Avenue (ART, 2007). The fill is underlain by organic clay with thin interbeds of peat material.

Groundwater flow direction in the area of the Site is toward the San Francisco Bay. Historically, depths to groundwater measured in monitoring wells at the Site have ranged from

1.14 to 3.88 feet below ground surface (bgs). The hydraulic gradient has historically ranged from 0.0002 to 0.008 foot-per-foot. Groundwater flow direction has ranged from the generally west to the south-southwest.

2.3 TOPOGRAPHY AND SURFACE WATER

The land surface in the area of the Site generally slopes down to the west toward San Francisco Bay. The Site property is relatively flat with little topographic change. The elevation of the Site is approximately 5 feet above mean sea level (msl).

San Leandro Bay is located approximately 350 feet to the south of the site. Lake Merritt is a tidal lagoon located 5.7 miles northwest of the Site. The salt/freshwater lake covers an area of approximately 155 acres and the primary uses are recreation and aesthetics.

2.4 UST HISTORY

DiSalvo Trucking reportedly operated one 10,000-gallon diesel underground storage tank (UST), one 5,000-gallon diesel UST, and one 280-gallon used-oil UST at the Site until their removal in March 1989 (GET,1989a). The USTs were reportedly installed in 1968 with a remote dispenser system (GET, 1989b). The remote dispenser system consisted of four remote hydrants in two separate lines, one on the north side and one on the south side of the trucking terminal building. Two pressurized single-wall 2-inch diameter galvanized steel lines were connected to a red jacket pump located on the 10,000-gallon diesel UST. One 2-inch diameter product line crossed underneath the trucking terminal building and connected to the first remote hydrant on the north side of the building and the second 2-inch product line connected to the first remote hydrant on the south side of the building, adjacent to the USTs. A 1½-inch diameter galvanized steel line connected the first hydrant to the second remote hydrant in each line. The hydrant lines were located approximately 2 feet bgs (GET, 1989b).

In March 1989, the three USTs, fill lines, and the southern remote hydrant dispenser lines were removed. Two areas of corrosion were visible when the hydrant line was removed (GET, 1989b). During removal activities a 550-gallon UST was discovered and also removed. Visual inspection identified two holes in the 550-gallon UST. In addition, a 10-inch diameter pipeline crossing the excavation was discovered. The pipe was broken during excavation activities and “diesel-like fuel” drained into the UST excavation (GTE, 1994a). The pipe was cut, the middle section was removed, and the ends were capped at the limits of the excavation (GTE, 1994a).

Petroleum hydrocarbons were detected at concentrations up to 240 milligrams per kilogram (mg/kg) in soil samples collected from the UST excavation. Diesel-impacted groundwater was observed flowing into the open UST excavation from the northeastern corner.

Approximately 3,000 cubic yards of excavated soil were treated onsite by enhanced biodegradation (GTE, 1991). The excavated soil was placed into a landscape berm located between Tidewater Avenue and the site boundary and used as fill across the Site (GTE, 1994c).

The liquid-phase hydrocarbons (LPH) and contaminated groundwater were pumped from the excavation pit for disposal. In April 1989, a recovery well and recovery trench were installed from which an estimated 2,400 gallons of diesel fuel and 20,000 gallons of contaminated groundwater were recovered between April and August 1989 (GTE, 1991).

2.5 SUBSURFACE INVESTIGATIONS (1989 THROUGH 2006)

Subsurface investigations were performed at the Site from 1989 to 2006. Historical sampling locations are shown on Figure 3. These investigations confirmed the presence of diesel- and gasoline-impacted soil and groundwater beneath the Site and identified LPH at various locations including in monitoring wells MW-2 and MW-3. Total petroleum hydrocarbons in the diesel range (TPH-d), total petroleum hydrocarbons in the gasoline range (TPH-g), benzene, toluene, ethylbenzene, and xylenes (BTEX), and fuel oxygenate methyl tertiary butyl ether (MTBE) have been detected in groundwater samples collected at the Site.

In May 1989, Geo-Environmental Technology (GET) performed a shallow soil investigation at the Site in which 11 soil samples and one groundwater sample were collected from 22 shallow soil borings (BH-1 through BH-22). Samples were not collected from borings with obvious petroleum impacts (GET, 1989b). Soil sampling confirmed the presence of diesel-impacted soil in the area of the former UST excavation and along the former fuel dispenser hydrant line extending from the former USTs to the northeast. The maximum TPH-d concentration (46,000 mg/kg) was detected in a soil sample collected at 5 feet bgs from boring BH-11, located approximately 10 feet west of the former UST excavation (GET, 1989b). Oil and grease was detected in the same sample at a concentration of 27,000 mg/kg.

In an April 1994 soil and groundwater investigation, Gen-Tech Environmental (GTE) drilled 14 borings (EB-1 through EB-11 and MW-1 through MW-3), collected soil and groundwater samples, and installed three groundwater monitoring wells (MW-1 through MW-3) (GTE, 1994b). The maximum concentrations of TPH-d (29,000 mg/kg) and oil and grease (36,000 mg/kg) in soil were detected in samples from boring MW-2. The maximum concentrations of TPH-d detected during grab groundwater sampling were 64,000 micrograms per liter ($\mu\text{g/L}$) from boring EB-2 and 73,000 $\mu\text{g/L}$ from boring EW-4. Groundwater monitoring well sampling conducted on April 14, 1994 indicated LPH in monitoring well MW-2 and elevated concentrations of TPH-d and TPH-g (7,700 $\mu\text{g/L}$ and 250 $\mu\text{g/L}$, respectively) in well MW-3 (GTE, 1994b).

In July 1995, Environmental Restoration Services (Enrest) drilled two soil borings and installed monitoring well MW-4 (ART, 2007). MW-4 was installed on the northern side of the terminal building. TPH-g (450 µg/L) and low concentrations of BTEX were detected in the August 1995 groundwater sample from MW-4.

PIERS Environmental (PIERS) drilled 16 soil borings (SB-1 through SB-16) during a soil and groundwater investigation in December 2000. Eight soil samples between 6 and 7 feet bgs and 16 grab groundwater samples were collected and analyzed for TPH-d. The only TPH-d detection in soil was 14 mg/kg in a sample collected from SB-16 at 6.5 feet bgs. The maximum TPH-d concentration in groundwater was 670,000 µg/L (SB-10). PIERS identified two main areas of TPH-d impacted soil: 1) located in the area of the former UST excavation and 2) from the northeast end of the recovery trench to the area of MW-2. TPH-d concentrations in groundwater along the northwestern property boundary were 44,000 µg/L (SB-14) and 48,000 µg/L (SB-15) and PIERS concluded that the groundwater contamination plume extended offsite to the northwest.

In February and April 2006, ERAS Environmental (ERAS) conducted additional subsurface investigations to further delineate vertical and lateral extents of diesel impacts in soil and groundwater at the Site (ERAS, 2006b). In February 2006, ERAS collected soil and groundwater samples from soil borings B-1 through B-9 for TPH-d analysis and Murray Engineers, Inc. (Murray) collected soil samples from borings B-6 through B-9 for geotechnical analysis (named B-1 through B-4 for the Murray report). In April 2006, an 8-inch dewatering well (EW-1) and four observation wells (OB-3 through OB-6) were installed and soil and groundwater samples were collected from borings B-10 through B-15. No LPH was encountered during these investigations. The maximum detection of TPH-d in soil was 5,400 mg/kg collected from B-9 at 4.5 feet bgs, located adjacent to the southwestern corner of the former UST excavation. The maximum concentration of TPH-d in groundwater was 2,500,000 µg/L collected from B-12 located northwest of the former UST excavation.

Geotechnical results were reported by Murray in an April 2006 *Limited Geotechnical Evaluation Contaminated Soil Replacement Report*. The report summarized the subsurface geology and provided shoring design parameters for potential excavation activities at the Site.

Applied Remedial Technologies, Inc. (ART) conducted a groundwater aquifer test and construction dewatering analysis in April 2006. ART performed both a step drawdown pumping test and a constant-rate aquifer test at well EW-1. Pumping from EW-1 (screened across the fill material and approximately three feet into the clay unit underlying the fill material) resulted in drawdowns in all observation wells screened in fill material. No drawdown was observed in well OB-5, which was screened in the clay unit, located approximately seven feet from EW-1 (ART, 2007).

In February 2007, ART prepared a *Feasibility Study Report* to address the removal of petroleum hydrocarbons from the Site subsurface. Based on the feasibility evaluation of remedial alternatives, ART recommended groundwater extraction and treatment with limited source area remediation.

In their May 29, 2007 letter, ACHCSA requested the preparation of a remedial action plan. In accordance with this request, ETIC submitted the Remedial Action Plan (RAP) dated September 14, 2007. The RAP included a description of how the affected soil area would be precisely determined and how remedial alternatives other than excavation would be evaluated.

2.6 GROUNDWATER MONITORING (1994 THROUGH 2007)

Groundwater monitoring has been conducted at the Site intermittently since April 1994. Two monitoring wells, MW-2 and MW-3, historically have had LPH, which was removed by bailing. Groundwater flow direction has generally flowed to the west to south-southwest with a shallow gradient. The second semi-annual 2007 groundwater sampling event took place in November 2007.

2.7 CURRENT SITE STATUS

In their May 1, 2008 letter, ACHCSA approved the proposal to perform a geographical survey at the Site and requested a revised RAP. A geographical survey was conducted at the Site on June 3, 2008 by NORCAL Geophysical Consultants, Inc. ETIC prepared a revised RAP which reported the results of the geophysical survey and addressed ACHCSA comments and submitted the document to ACHCSA on July 15, 2008. ETIC will begin preparations for field activities outlined in the revised RAP upon approval from ACHCSA.

3.0 GROUNDWATER MONITORING

On behalf of R.W.L. Investments, Inc., ETIC performed the semi-annual groundwater monitoring event on June 9, 2008. Summary tables for monitoring well construction details, groundwater elevations, and analytical data are included in Tables 1 through 3. Site maps with well locations, groundwater elevations, and analytical data are included as Figures 1 through 5. Field data forms are included in Appendix A. Laboratory analytical reports and chain-of-custody documentation are included in Appendix B.

3.1 GROUNDWATER MONITORING PROCEDURES

Groundwater monitoring was performed at four monitoring wells (MW-1 through MW-4). Prior to sample collection, the depth to water, the depth to the bottom of the well, and product thickness (if present) were measured to the nearest 0.01 foot in each monitoring well, using an oil/water interface probe. Each sampled monitoring well was purged a minimum of three casing volumes of groundwater with a disposable bailer, with the exception of MW-1 which dewatered after one casing volume. Water quality parameters (temperature, pH, specific conductance, dissolved oxygen, and oxidation-reduction potential) were measured, utilizing calibrated field instruments. The purged water from each monitoring well was stored in a temporary and portable poly-tank and then deposited into properly labeled, 55-gallon drums. The waste drums were left onsite for subsequent profiling and offsite disposal. All reusable sampling equipment was thoroughly washed with a Liquinox solution and then rinsed with distilled water.

Groundwater samples were collected and stored in pre-cleaned, laboratory-supplied containers. The containers were sealed, labeled, stored on ice in a thermally-insulated cooler, and transported under chain-of-custody protocol to Kiff Analytical, LLC (Kiff), a state-certified analytical laboratory. A travel blank accompanied the groundwater samples to Kiff.

Kiff analyzed the groundwater samples for TPH-d by EPA Method 8015M. The groundwater samples and the travel blank were analyzed for TPH-g, BTEX, and MTBE by EPA Method 8260B.

3.2 GROUNDWATER ELEVATIONS AND HYDRAULIC GRADIENT

Free product was observed in monitoring well MW-3 with a thickness of 0.02 feet based on the measurements obtained utilizing an oil/water interface probe. A total of 250 milliliters of product were removed using a disposable bailer and an adsorbent sock was installed in the well.

A groundwater elevation contour map for the June 2008 monitoring event and a rose diagram with historical hydraulic gradients are presented on Figure 4. Current and historical groundwater elevations are presented in Table 2. The depth to groundwater ranged from approximately 1.78 to 3.41 feet bgs. The groundwater elevations ranged from 0.46 feet relative to msl in MW-4 to 0.90 feet relative to msl in MW-1. The direction of groundwater flow was generally to the east-southeast with a shallow hydraulic gradient of approximately 0.0009 foot-per-foot.

3.3 ANALYTICAL DATA FOR TPH-d, TPH-g, AND BTEX

Laboratory analytical data for groundwater samples collected in June 2008 are presented on Figure 5. Historical and current analytical data for groundwater samples is presented in Table 3.

TPH-d was detected in groundwater samples collected from two of the three monitoring wells, at concentrations of 22,000 $\mu\text{g/L}$ in MW-4 and 13,000 $\mu\text{g/L}$ in MW-2. TPH-d was not detected in the groundwater sample collected from MW-1. TPH-g was detected in groundwater samples collected from two monitoring wells, at concentrations of 230 $\mu\text{g/L}$ in MW-2 and 120 $\mu\text{g/L}$ in MW-4. TPH-g was not detected in the groundwater sample collected from MW-1.

BTEX was not detected in any of the groundwater samples collected on June 9, 2008.

3.4 ANALYTICAL DATA FOR MTBE

MTBE was detected in groundwater samples collected from two monitoring wells, at concentrations of 5.0 $\mu\text{g/L}$ in MW-1 and 1.5 $\mu\text{g/L}$ in MW-2. MTBE was not detected in the groundwater sample collected from MW-4.

4.0 SUMMARY AND CONCLUSIONS

A summary of current Site conditions is presented below:

- During the June 9, 2008 sampling event, monitoring wells MW-1, MW-2, and MW-4 were gauged and sampled. Monitoring well MW-3 was gauged only due to the detection of free product;
- During the June 2008 event, groundwater elevations ranged from 0.46 to 0.90 feet relative to msl. The direction of groundwater flow was to the east-southeast with a hydraulic gradient of approximately 0.0009 foot-per-foot;
- TPH-d was detected in the groundwater samples collected from MW-2 and MW-4. TPH-g was detected in the samples from MW-2 and MW-4. BTEX was not detected in any of the samples; and
- MTBE was detected in groundwater samples from two monitoring wells, MW-1 and MW-2.

5.0 PLANNED SITE ACTIVITIES

In accordance with the May 1, 2008 letter from the ACHCSA, ETIC submitted the *Revised Remedial Action Plan* dated July 15, 2008. ETIC will begin preparations for field activities outlined in the Revised RAP upon approval from the ACHCSA.

The second semi-annual groundwater monitoring event for 2008 is scheduled for November.

6.0 REFERENCES

Applied Remedial Technologies, Inc. (ART), 2007. Feasibility Study Report, Heitz Trucking, 4919 Tidewater Avenue, Unit B, Oakland, California. February 26.

ERAS, 2006b. Report of Environmental Investigations, 4919 Tidewater Avenue, Oakland, California. May 12.

ETIC Engineering, Inc. (ETIC), 2007. Remedial Action Plan, Heitz Trucking, 4919 Tidewater Avenue, Unit B, Oakland, California 94601. September 14.

Geo-Environmental Technology (GET), 1989a. Letter Re: Underground Tank Removal, 4919 Tidewater Ave., Oakland, California 94612. April 27.

GET, 1989b. Technical Report Preliminary Investigation, DiSalvo Trucking, 4919 Tidewater Avenue, Oakland, California. June 15.

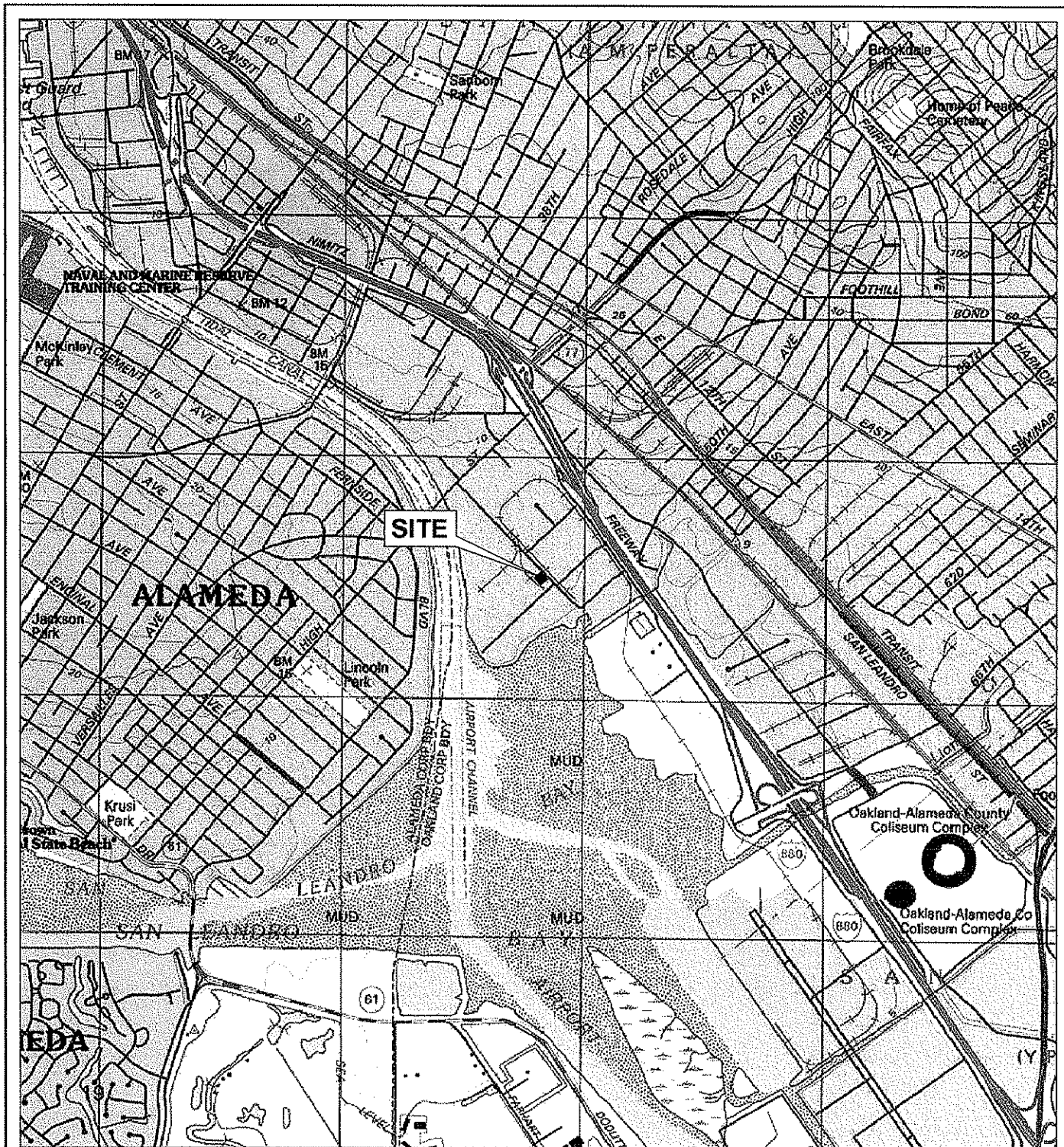
Gen-Tech Environmental (GTE), 1991. Contaminated Site Interim Report and Technical Work Plan for Migration Control, 4919 Tidewater Ave., Oakland, CA 94612. March 12.

GTE, 1994a. Summary Report of Previous Site Activity for DiSalvo Trucking, 4919 Tidewater Avenue, Oakland, California. March 24.

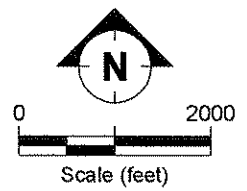
GTE, 1994b. Soil and Groundwater Investigation Site at 4919 Tidewater Avenue, Oakland, CA. May17.

GTE, 1994c. Letter Re: Supplemental Technical Report Letter on Bioremediation of Contaminated Soils and Trench Installation for the DiSalvo Trucking Facility at 4919 Tidewater Ave., Oakland, CA 94601. July 12.

Figures



SOURCE: USGS Topographic Map



Scale (feet)

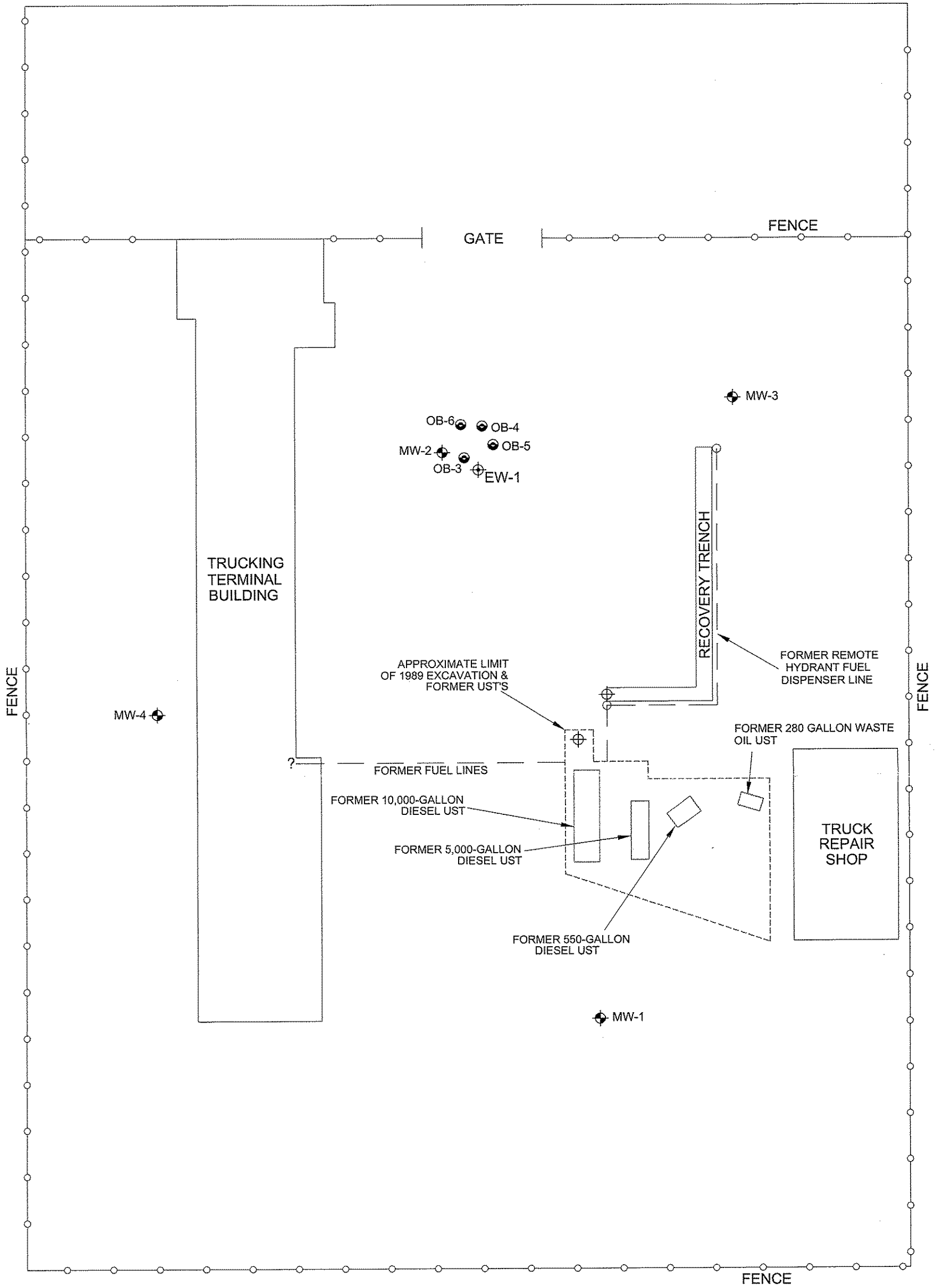
FIGURE:
1

SITE LOCATION AND TOPOGRAPHIC MAP
FORMER DISALVO TRUCKING
4919 TIDEWATER AVENUE
OAKLAND, CALIFORNIA



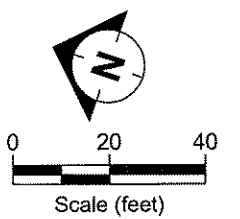
FILENAME: TOP00707.DWG 07/20/06

TIDEWATER AVENUE



LEGEND:

- ◆ Groundwater monitoring well
- ⊕ Recovery well
- ⊕ Extraction well
- Observation well



Source: Basemap from Applied Remedial Technologies, February, 2007

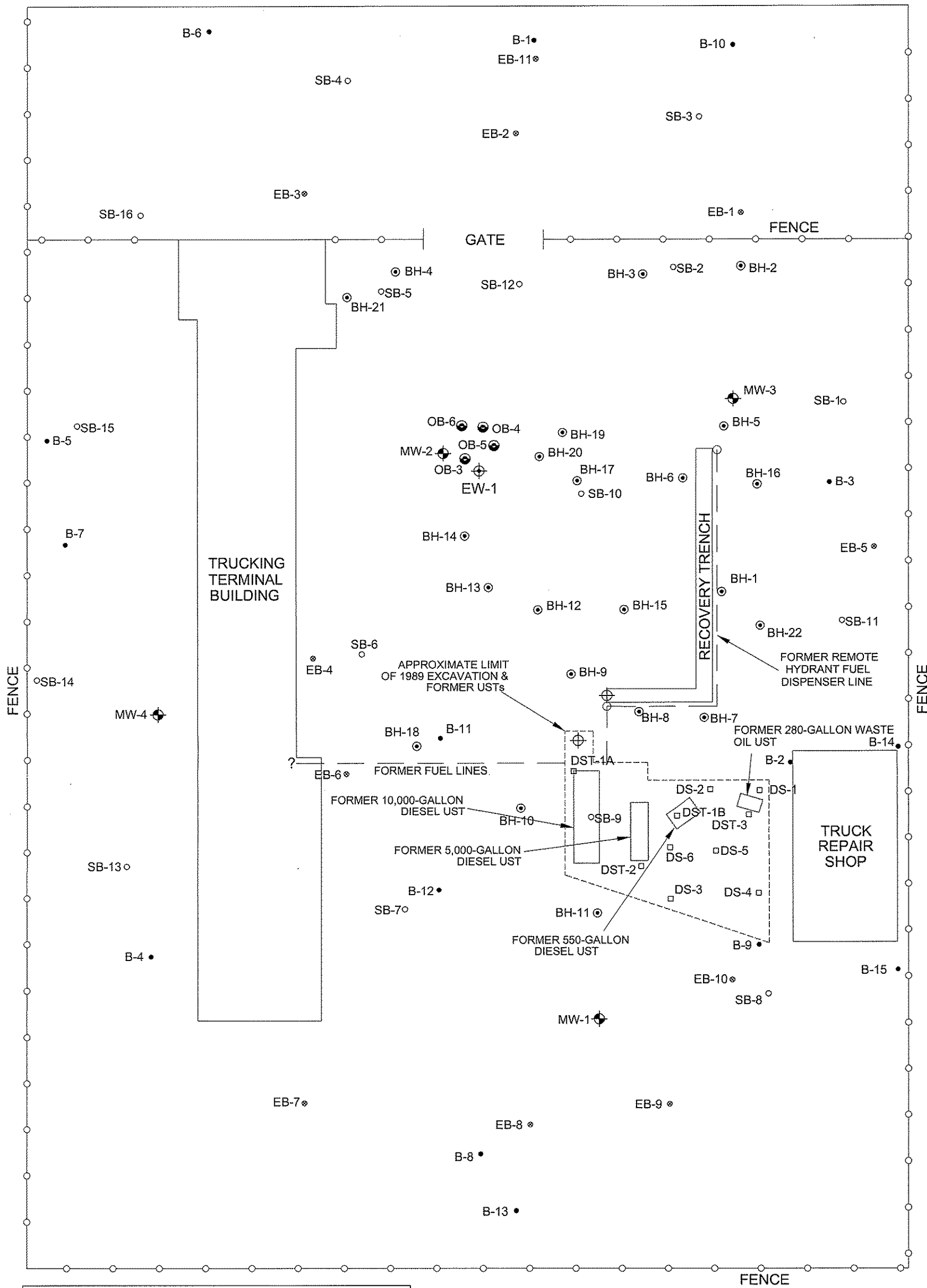


SITE MAP
FORMER DISALVO TRUCKING
4919 TIDEWATER AVENUE
OAKLAND, CALIFORNIA

FIGURE:

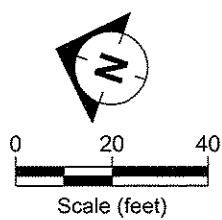
2

TIDEWATER AVENUE



LEGEND

- ◆ Groundwater monitoring well
- ⊕ Recovery well
- ⊕ Extraction well
- ⊙ Observation well
- Excavation sampling location (GET, 1989)
- ⊙ Soil sampling location (GET, 1989)
- ⊙ Soil and groundwater sampling location (GEN-TECH, 1994)
- Soil and groundwater sampling location (PIERS, 2000)
- Soil and groundwater sampling location (ERAS, 2006)



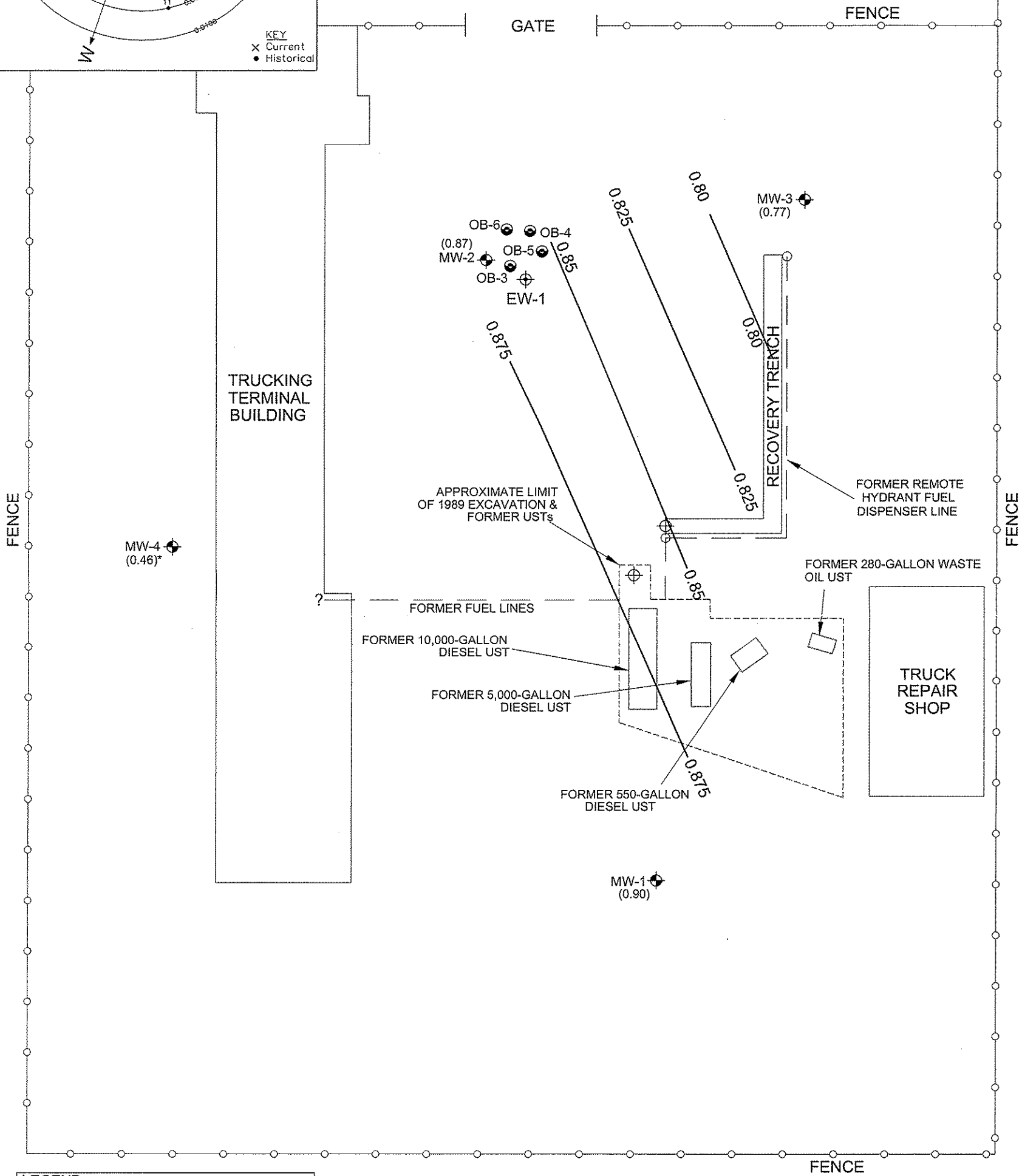
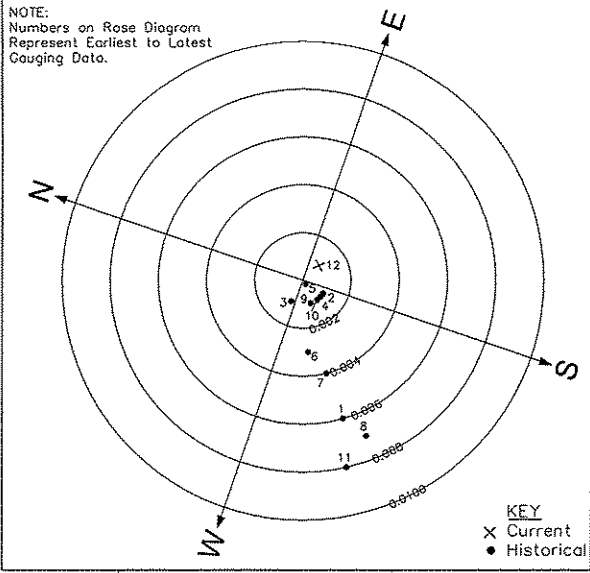
Source: Basemap from Applied Remedial Technologies, February 2007

SITE MAP WITH HISTORICAL SAMPLING LOCATIONS
FORMER DISALVO TRUCKING
4919 TIDEWATER AVENUE
OAKLAND, CALIFORNIA

FIGURE:

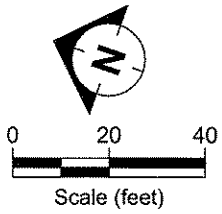
3

TIDEWATER AVENUE



LEGEND	
	Groundwater monitoring well
	Recovery well
	Extraction well
	Observation well
(0.90)	Groundwater elevation (feet)
	Groundwater elevation contour (feet)
*	Not used in contouring
Note: Elevations referenced to Mean Sea Level	

Groundwater Flow Direction
Gradient = 0.0009



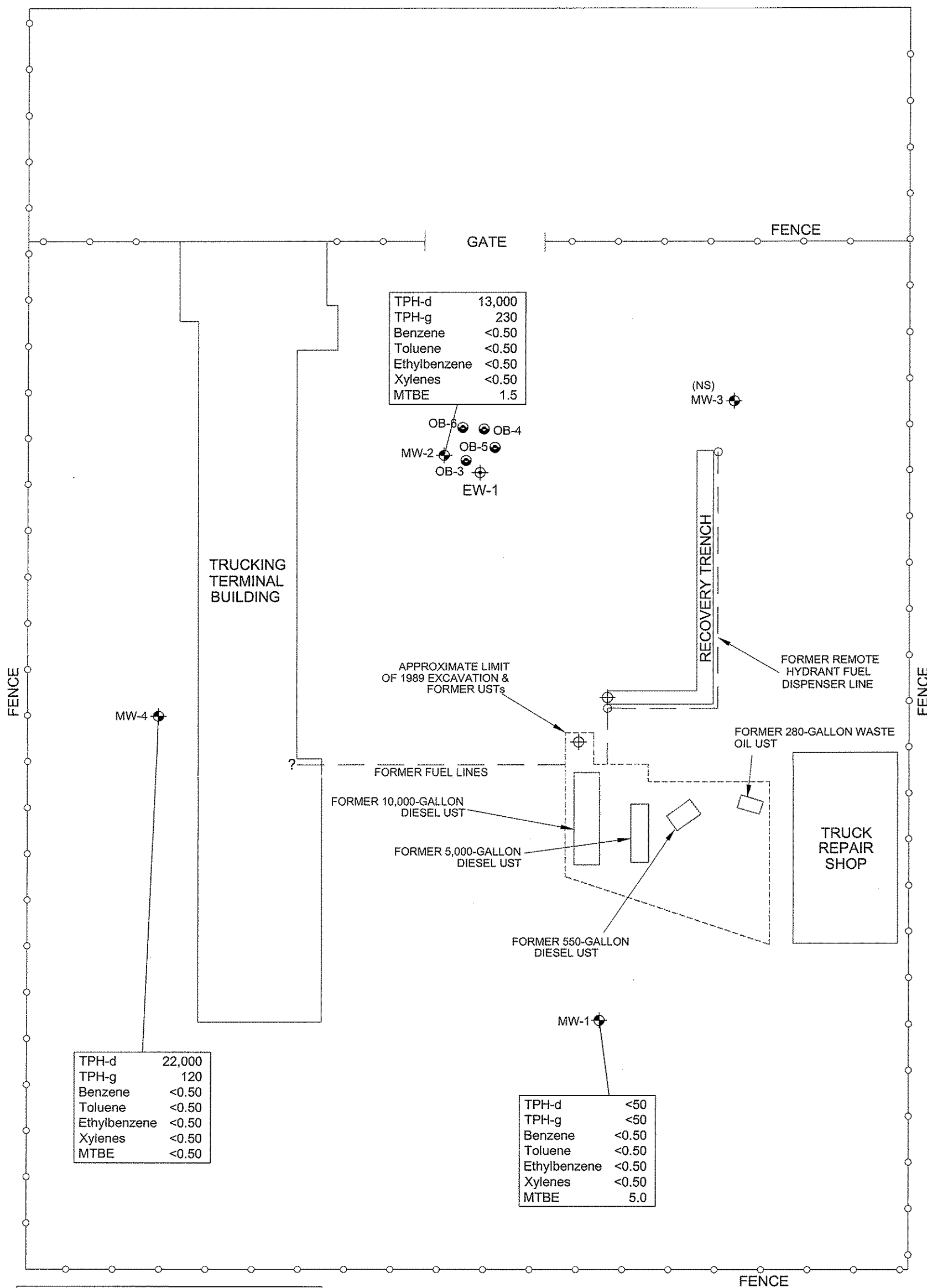
Source: Basemap from Applied Remedial Technologies, February 2007

GROUNDWATER ELEVATION CONTOUR MAP
JUNE 9, 2008
FORMER DISALVO TRUCKING
4919 TIDEWATER AVENUE, OAKLAND, CALIFORNIA

FILENAME: 202008.DWG 06/19/08



TIDEWATER AVENUE



TPH-d	13,000
TPH-g	230
Benzene	<0.50
Toluene	<0.50
Ethylbenzene	<0.50
Xylenes	<0.50
MTBE	1.5

TPH-d	22,000
TPH-g	120
Benzene	<0.50
Toluene	<0.50
Ethylbenzene	<0.50
Xylenes	<0.50
MTBE	<0.50

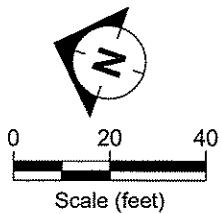
TPH-d	<50
TPH-g	<50
Benzene	<0.50
Toluene	<0.50
Ethylbenzene	<0.50
Xylenes	<0.50
MTBE	5.0

LEGEND

- ◆ Groundwater monitoring well
- ⊕ Recovery well
- ⊖ Extraction well
- Observation well

TPH-d Total petroleum hydrocarbons as diesel
 TPH-g Total petroleum hydrocarbons as gasoline
 MTBE Methyl tertiary butyl ether
 (NS) Not sampled due to free product

Note: Concentrations in micrograms per liter (µg/L).



Source: Basemap from Applied Remedial Technologies, February 2007

SITE MAP SHOWING GROUNDWATER ANALYTICAL RESULTS
 JUNE 9, 2008
 FORMER DISALVO TRUCKING
 4919 TIDEWATER AVENUE, OAKLAND, CALIFORNIA

FIGURE:

5

Tables

Table 1
Monitoring Well Construction Details
Former DiSalvo Trucking
4919 Tidewater Avenue
Oakland, California 94601

Monitoring Well	Date Installed	Top of Casing Elevation (feet msl)	Casing Material	Boring Depth (feet)	Well Depth (feet)	Boring Diameter (inches)	Casing Diameter (inches)	Slot Size (inches)	Screened Interval (feet)	Filter Pack Interval (feet)	Filter Pack Material
MW-1	4/8/1994	2.68	Sch. 40 PVC	8	8	NDA	2	0.020	3-8	2.5-8	#2/12 Sand
MW-2	4/1994	3.50	Sch. 40 PVC	8	8	NDA	2	0.02	3-8	2.5-8	#2/12 Sand
MW-3	4/8/1994	2.90	Sch. 40 PVC	8	8	NDA	2	0.020	3-8	2.5-8	#2/12 Sand
MW-4	7/19/1995	3.87	Sch. 40 PVC	8	8	NDA	2	0.020	3-8	2.5-8	#2/12 Sand
OB-3	4/7/2006	NDA	Sch. 40 PVC	8	8	8	2	0.020	2-7	1.5-7	#2/12 Sand
OB-4	4/7/2006	NDA	Sch. 40 PVC	NDA	10	8	2	0.020	2.5-10	2-10	#2/12 Sand
OB-5	4/7/2006	NDA	Sch. 40 PVC	NDA	15	NDA	2	0.020	10-15	8.5-15	#2/12 Sand
OB-6	4/7/2006	NDA	Sch. 40 PVC	NDA	7.5	8	2	0.020	2-6.5	1-6.5	#2/12 Sand
EW-1	4/14/2006	NDA	Sch. 40 PVC	11.5	11.5	36	12	0.032	NDA	NDA	#2/12 Sand-1/4" gravel mix

Notes:

Sch. 40 PVC = Schedule 40 polyvinyl chloride.

msl = Mean sea level.

NDA = No data available.

Table 2
Groundwater Elevation Data
Former DiSalvo Trucking
4919 Tidewater Avenue
Oakland, California 94601

Monitoring Well	Gauging Date	Top of Casing Elevation (feet msl)	Depth to Water (feet bgs)	Free Product Thickness (feet)	Groundwater Elevation (feet msl)
MW-1	4/14/1994	2.68	1.26	0.00	1.42
MW-1	11/17/1994	2.68	3.88	0.00	-1.20
MW-1	8/13/1995	2.68	3.09	0.00	-0.41
MW-1	8/23/1999	2.68	2.17	0.00	0.51
MW-1	5/26/1999	2.68	2.29	0.00	0.39
MW-1	4/26/2001	2.68	1.14	0.00	1.54
MW-1	9/5/2002	2.68	2.15	0.00	0.53
MW-1	8/18/2005	2.68	2.54	0.00	0.14
MW-1	8/19/2005	2.68	6.10	0.00	-3.42
MW-1	1/25/2006	2.68	2.02	0.00	0.66
MW-1	5/9/2006	2.68	0.30	0.00	2.38
MW-1	7/12/2006	2.68	1.81	0.00	0.87
MW-1	6/27/2007	2.68	1.82	0.00	0.86
MW-1	11/26/2007	2.68	3.80	0.00	-1.12
MW-1	6/9/2008	2.68	1.78	0.00	0.90
MW-2	4/14/1994	3.50	1.92	0.00	1.58
MW-2	11/18/1994	3.50	1.78	0.00	1.72
MW-2	8/13/1995	3.50	2.95	0.00	0.55
MW-2	8/23/1999	3.50	2.89	0.00	0.61
MW-2	5/26/1999	3.50	2.96	0.00	0.54
MW-2	4/26/2001	3.50	1.74	0.00	1.76
MW-2	9/5/2002	3.50	3.06	0.00	0.44
MW-2	8/18/2005	3.50	2.62	0.00	0.88
MW-2	8/19/2005	3.50	2.62	0.00	0.88
MW-2	1/25/2006	3.50	1.27	0.00	2.23

Table 2
Groundwater Elevation Data
Former DiSalvo Trucking
4919 Tidewater Avenue
Oakland, California 94601

Monitoring Well	Gauging Date	Top of Casing Elevation (feet msl)	Depth to Water (feet bgs)	Free Product Thickness (feet)	Groundwater Elevation (feet msl)
MW-2	7/12/2006	3.50	2.42	0.00	1.08
MW-2	6/27/2007	3.50	2.46	0.00	1.04
MW-2	11/26/2007	3.50	2.74	0.00	0.76
MW-2	6/9/2008	3.50	2.63	0.00	0.87
MW-3	4/14/1994	2.90	1.33	0.00	1.57
MW-3	11/18/1994	2.90	1.23	0.00	1.67
MW-3	8/13/1995	2.90	2.18	0.00	0.72
MW-3	8/23/1999	2.90	2.18	0.00	0.72
MW-3	5/26/1999	2.90	2.50	0.00	0.40
MW-3	4/26/2001	2.90	1.29	0.00	1.61
MW-3	9/5/2002	2.90	2.34	0.00	0.56
MW-3	8/18/2005	2.90	2.08	0.04	0.85
MW-3	8/19/2005	2.90	2.10	0.03	0.82
MW-3	1/25/2006	2.90	0.97	0.00	1.93
MW-3	7/12/2006	2.90	1.82	0.00	1.08
MW-3	6/27/2007	2.90	1.90	0.00	1.00
MW-3	11/26/2007	2.90	2.18	0.00	0.72
MW-3	6/9/2008	2.90	2.13	0.02	0.77
MW-4	8/13/1995	3.87	3.33	0.00	0.54
MW-4	5/26/1999	3.87	3.31	0.00	0.56
MW-4	4/26/2001	3.87	1.69	0.00	2.18
MW-4	9/5/2002	3.87	3.31	0.00	0.56
MW-4	8/18/2005	3.87	3.37	0.00	0.50
MW-4	8/19/2005	3.87	3.46	0.00	0.41
MW-4	1/25/2006	3.87	2.50	0.00	1.37
MW-4	7/12/2006	3.87	3.09	0.00	0.78

Table 2
Groundwater Elevation Data
Former DiSalvo Trucking
4919 Tidewater Avenue
Oakland, California 94601

Monitoring Well	Gauging Date	Top of Casing Elevation (feet msl)	Depth to Water (feet bgs)	Free Product Thickness (feet)	Groundwater Elevation (feet msl)
MW-4	6/27/2007	3.87	3.26	0.00	0.61
MW-4	11/26/2007	3.87	3.58	0.00	0.29
MW-4	6/9/2008	3.87	3.41	0.00	0.46

Notes:

msl = Mean sea level.

bgs = Below ground surface.

Table 3
Analytical Data for Monitoring Well Groundwater Samples
TPH-d, TPH-g, BTEX, and MTBE
Former DiSalvo Trucking
4919 Tidewater Avenue
Oakland, California 94601

Monitoring Well	Sampling Date	TPH-d (µg/L)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
MW-1	4/14/1994	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-1	11/17/1994	<50	<50	<0.5	<0.5	<0.5	<0.5	1,100
MW-1	8/13/1995	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-1	5/26/1999	<50	60	0.6	<0.5	0.8	1.9	<0.50
MW-1	8/23/1999	<50	NA	<0.5	<0.5	<0.5	<0.5	NA
MW-1	10/16/2000	150	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-1	4/26/2001	1,300	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-1	9/5/2002	<50	NA	<0.5	<0.5	<0.5	<1	9.8
MW-1	8/18/2005	410 ¹	<50	<1	<1	<1	<1	6.0
MW-1	1/25/2006	3,600 ²	<50	2.3	<0.5	<0.5	1.2	11.0
MW-1	7/12/2006	100	<50	<0.5	<0.5	<0.5	<1	6.2
MW-1	6/27/2007	<50	<50	<0.50	<0.50	<0.50	<0.50	4.4
MW-1	11/26/2007	<50	<50	<0.50	<0.50	<0.50	<0.50	5.0
MW-1	6/9/2008	<50	<50	<0.50	<0.50	<0.50	<0.50	5.0
MW-2	4/14/1994	Not sampled due to free product.						
MW-2	10/17/1994	28,000	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-2	8/13/1995	180	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-2	5/26/1999	120	<50	<0.5	<0.5	<0.5	<0.5	<50
MW-2	8/23/1999	61	NA	<0.5	<0.5	<0.5	<0.5	NA
MW-2	10/16/2000	3,400	570	<0.5	<0.5	<0.5	<0.5	NA
MW-2	4/26/2001	57,000	2,400	<0.5	<0.5	<0.5	<0.5	NA
MW-2	9/5/2002	27,100	NA	<0.5	<0.5	<0.5	<1	5.1
MW-2	8/18/2005	13,300	<50	<10	<10	<10	<10	<30
MW-2	1/25/2006	110,000 ²	1,200	<10	<10	<10	<20	<10
MW-2	7/12/2006	5,900	330	<0.5	<0.5	<0.5	<1	3.6
MW-2	6/27/2007	10,000	200	<0.50	<0.50	<0.50	<0.50	1.8
MW-2	11/26/2007	25,000	330	<0.50	<0.50	<0.50	<0.50	2.4
MW-2	6/9/2008	13,000	230	<0.50	<0.50	<0.50	<0.50	1.5

Table 3
Analytical Data for Monitoring Well Groundwater Samples
TPH-d, TPH-g, BTEX, and MTBE
Former DiSalvo Trucking
4919 Tidewater Avenue
Oakland, California 94601

Monitoring Well	Sampling Date	TPH-d (µg/L)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
MW-3	4/14/1994	7,700	250	<0.5	<0.5	<0.5	1.2	NA
MW-3	10/17/1994	160,000	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-3	8/13/1995	1,500	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-3	5/26/1999	1,100	160	1.6	1.1	16	54.00	<0.50
MW-3	8/23/1999	84	NA	<0.5	<0.5	<0.5	<0.5	NA
MW-3	10/16/2000	42,000	130	0.52	<0.5	<0.5	<0.5	NA
MW-3	4/26/2001	21,000	310	<0.5	<0.5	<0.5	<0.5	NA
MW-3	9/5/2002	1,990	NA	<0.5	<0.5	<0.5	<1	31.1
MW-3	8/18/2005	Not sampled due to free product.						
MW-3	1/25/2006	21,000 ²	440	<2.5	<2.5	<2.5	<5.0	29
MW-3	7/12/2006	16,000	280	<0.5	<0.5	<0.5	<1	47
MW-3	6/27/2007	2,600	140	<0.50	<0.50	<0.50	<0.50	25
MW-3	11/26/2007	690	160	<0.50	<0.50	<0.50	<0.50	27
MW-3	6/9/2008	Not sampled due to free product.						
MW-4	8/13/1995	<50	450	2.1	0.7	4.1	13	NA
MW-4	5/26/1999	100	600	0.7	<0.5	<0.5	5.8	<0.5
MW-4	8/23/1999	180	NA	<0.5	<0.5	<0.5	<0.5	NA
MW-4	10/16/2000	75,000	890	<0.5	<0.5	<0.5	11	NA
MW-4	4/26/2001	24,000	2,100	<0.5	<0.5	<0.5	<0.5	NA
MW-4	9/5/2002	17,000	NA	<0.5	<0.5	<0.5	<1	1.2
MW-4	8/18/2005	6,200	<50	<1	<1	<1	<1	<3
MW-4	1/25/2006	8,200	110	2.0	0.87	<0.5	2.3	4.5
MW-4	7/12/2006	5,200	250	<0.5	<0.5	<0.5	<1	0.93
MW-4	6/27/2007	320	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-4	11/26/2007	1,400	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-4	6/9/2008	22,000	120	<0.50	<0.50	<0.50	<0.50	<0.50

Table 3
Analytical Data for Monitoring Well Groundwater Samples
TPH-d, TPH-g, BTEX, and MTBE
Former DiSalvo Trucking
4919 Tidewater Avenue
Oakland, California 94601

Monitoring Well	Sampling Date	TPH-d (µg/L)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
Travel Blank	6/27/2007	NA	<50	<0.50	<0.50	<0.50	<0.50	<0.50
Travel Blank	11/26/2007	NA	<50	<0.50	<0.50	<0.50	<0.50	<0.50
Travel Blank	6/9/2008	NA	<50	<0.50	<0.50	<0.50	<0.50	<0.50
Title 22 CCR MCLs		NE	NE	1	150	300	1,750	13

Notes:

µg/L = Micrograms per liter.

TPH-d = Total petroleum hydrocarbons quantified as diesel.

TPH-g = Total petroleum hydrocarbons quantified as gasoline.

MTBE = Methyl tertiary butyl ether.

NA = Not analyzed.

Title 22 CCR MCLs = Title 22 California Code of Regulations Maximum Contaminant Levels (June 2004).

NE = Not established.

<50 = Analyte not detected above the laboratory method reporting limit indicated.

1. Chromatogram does not resemble the typical diesel pattern.
2. Q106 TPH-d sample collected on 2/2/2006.

Appendix A
Field Data Forms



GROUNDWATER PURGE AND SAMPLE

Project Name: Tidewater, 4919 Tidewater Ave, Oakland CA	Well No: MW-1	Date: 06-09-20
Project No: TMTIDE1, S108	Personnel: ALX	

GAUGING DATA

Water Level Measuring Method: INTERFACE PROBE Measuring Point Description:

WELL PURGE VOLUME CALCULATION	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier for Casing Diameter				Casing Volume (gal)	Total Purge Volume (gal)
		680	- 178	= 502	X 1	2	4	6	80
				0.04	0.16	0.64	1.44		

PURGING DATA

Purge Method: BAILER Purge Depth: Purge Rate: (gpm)

Time:	1049				
Volume Purged (gal)	1	2	3		
Temperature (C)	22.45				
pH	6.68				
Spec. Cond. (uS/cm)	16563				
DO (mg/L) (%)	/				
ORP (mV)	-117.9				
Odor (Y/N)	Y				
Casing Volumes	1	2	3		
Dewatered (Y/N)	N				

Comments/Observations: DEWATERED AT 1.5 GALLON DID NOT RECOVER 80%

SAMPLING DATA

Time Sampled: 1320 Approximate Depth to Water During Sampling: 5.24 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analytical Method
MW-1	7	VOA	HCl	40 mL	/	SEE COC

Total Purge Volume: 1.5 (gallons) Disposal:

Weather Conditions: OK

Problems Encountered During Purging and Sampling: Y DEWATERED

Comments:



GROUNDWATER PURGE AND SAMPLE

Project Name: Tidewater, 4919 Tidewater Ave, Oakland CA	Well No: MW-2	Date: 06-29-98
Project No: TMTIDE1, S108	Personnel: Axx	

GAUGING DATA						
Water Level Measuring Method: INTERFACE PROBE				Measuring Point Description:		
WELL PURGE VOLUME CALCULATION	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier for Casing Diameter		Casing Volume (gal)
	7.25	2.63	4.62	1	2	73
				0.04	0.16	2.21
				0.64	1.44	

PURGING DATA						
Purge Method: BAILER		Purge Depth:		Purge Rate:		(gpm)
Time:	1102	1109	1115			
Volume Purged (gal)	1	2	3			
Temperature (C)	22.67	22.18	22.17			
pH	6.54	6.46	6.41			
Spec. Cond. (uS/cm)	3326	3448	3461			
DO (mg/L)	4.60	2.77	2.53			
DO (%)	53.1	32.6	29.2			
ORP (mV)	-81.6	-83.2	81.8			
Odor (Y/N)	Y	Y	Y			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA	
Time Sampled: 1200	Approximate Depth to Water During Sampling: 3.02 (feet)
Comments:	

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analytical Method
MW-2	7	VOA	HCl	40 mL	/	SEE COC
					/	
					/	

Total Purge Volume: 73 (gallons)	Disposal:
Weather Conditions: OK	
Problems Encountered During Purging and Sampling: NONE	
Comments:	



GROUNDWATER PURGE AND SAMPLE

Project Name: Tidewater, 4919 Tidewater Ave, Oakland CA	Well No: MW-4	Date: 06-09-08
Project No: TMTIDE1, S108	Personnel: <i>AKK</i>	

GAUGING DATA

Water Level Measuring Method: INTERFACE PROBE Measuring Point Description:

WELL PURGE VOLUME CALCULATION	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier for Casing Diameter				Casing Volume (gal)	Total Purge Volume (gal)
		7.76	3.41	4.35	1	2	4	6	1.69
				0.04	0.16	0.64	1.44		

PURGING DATA

Purge Method: BAILER Purge Depth: Purge Rate: (gpm)

Time:	10:30	1:37	1:42			
Volume Purged (gal)	1	2	3			
Temperature (C)	19.70	19.52	19.69			
pH	6.89	6.85	6.87			
Spec. Cond. (uS/cm)	11635	11701	11721			
DO (mg/L) (%)	4.62 45.5	3.21 36.4	2.74 31.9			
ORP (mV)	-131.5	-130.0	-124.9			
Odor (Y/N)	Y	Y	Y			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: *1240* Approximate Depth to Water During Sampling: *4.65* (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analytical Method
MW-4	7	VOA	HCl	40 mL	/	SEE COC
					/	
					/	

Total Purge Volume: *3* (gallons) Disposal:

Weather Conditions: *OK*

Problems Encountered During Purging and Sampling: *N*

Comments:

Appendix B

Laboratory Analytical Report and Chain-of-Custody Documentation



Report Number : 63128

Date : 06/13/2008

Maura Dougherty
ETIC Engineering, Inc
2285 Morello Avenue
Pleasant Hill, CA 94523

Subject : 4 Water Samples
Project Name : Tidewater
Project Number : TMTIDE1, S108

Dear Ms. Dougherty,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Joel Kiff

Project Name : **Tidewater**

Project Number : **TMTIDE1, S108**

Sample : **MW-1**

Matrix : Water

Lab Number : 63128-01

Sample Date :06/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Toluene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Methyl-t-butyl ether (MTBE)	5.0	0.50	ug/L	EPA 8260B	06/12/2008
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	06/12/2008
1,2-Dichloroethane-d4 (Surr)	99.0		% Recovery	EPA 8260B	06/12/2008
Toluene - d8 (Surr)	98.2		% Recovery	EPA 8260B	06/12/2008
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	06/12/2008
Octacosane (Silica Gel Surr)	104		% Recovery	M EPA 8015	06/12/2008

Sample : **MW-2**

Matrix : Water

Lab Number : 63128-02

Sample Date :06/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Toluene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Methyl-t-butyl ether (MTBE)	1.5	0.50	ug/L	EPA 8260B	06/12/2008
TPH as Gasoline	230	50	ug/L	EPA 8260B	06/12/2008
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	06/12/2008
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	06/12/2008
TPH as Diesel (Silica Gel)	13000	50	ug/L	M EPA 8015	06/12/2008
Octacosane (Silica Gel Surr)	98.0		% Recovery	M EPA 8015	06/12/2008

Approved By:

Joel Kiff

Project Name : **Tidewater**

Project Number : **TMTIDE1, S108**

Sample : **MW-4**

Matrix : Water

Lab Number : 63128-03

Sample Date :06/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Toluene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
TPH as Gasoline	120	50	ug/L	EPA 8260B	06/12/2008
1,2-Dichloroethane-d4 (Surr)	99.2		% Recovery	EPA 8260B	06/12/2008
Toluene - d8 (Surr)	98.9		% Recovery	EPA 8260B	06/12/2008
TPH as Diesel (Silica Gel)	22000	50	ug/L	M EPA 8015	06/12/2008
Octacosane (Silica Gel Surr)	110		% Recovery	M EPA 8015	06/12/2008

Sample : **QCTB**

Matrix : Water

Lab Number : 63128-04

Sample Date :06/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Toluene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	06/12/2008
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	06/12/2008
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	06/12/2008

Approved By:

Joel Kiff

Report Number : 63128

Date : 06/13/2008

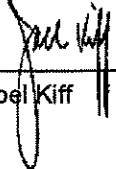
QC Report : Method Blank Data

Project Name : **Tidewater**

Project Number : **TMTIDE1, S108**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	06/12/2008
Octacosane (Silica Gel Surr)	104		%	M EPA 8015	06/12/2008
Benzene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Toluene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	06/12/2008
1,2-Dichloroethane-d4 (Surr)	101		%	EPA 8260B	06/12/2008
Toluene - d8 (Surr)	99.0		%	EPA 8260B	06/12/2008
Benzene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Toluene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	06/12/2008
1,2-Dichloroethane-d4 (Surr)	99.7		%	EPA 8260B	06/12/2008
Toluene - d8 (Surr)	99.4		%	EPA 8260B	06/12/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Toluene	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	06/12/2008
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	06/12/2008
1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	06/12/2008
Toluene - d8 (Surr)	101		%	EPA 8260B	06/12/2008

Approved By:  _____
 Joel Kiff

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : Tidewater

Project Number : TMTIDE1, S108

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH-D (Si Gel)	BLANK	<50	1000	1000	996	961	ug/L	M EPA 8015	6/12/08	99.6	96.1	3.61	70-130	25
Benzene	63114-03	14	40.1	40.1	55.6	54.9	ug/L	EPA 8260B	6/12/08	102	100	1.88	70-130	25
Methyl-t-butyl ether	63114-03	<0.50	40.1	40.1	30.5	30.7	ug/L	EPA 8260B	6/12/08	76.1	76.7	0.731	70-130	25
Toluene	63114-03	0.70	39.5	39.5	40.8	40.0	ug/L	EPA 8260B	6/12/08	101	99.4	1.98	70-130	25
Benzene	63114-01	<0.50	40.1	40.1	40.3	38.9	ug/L	EPA 8260B	6/12/08	100	96.9	3.62	70-130	25
Methyl-t-butyl ether	63114-01	3.3	40.1	40.1	40.5	39.6	ug/L	EPA 8260B	6/12/08	92.9	90.6	2.51	70-130	25
Toluene	63114-01	<0.50	39.5	39.5	41.2	40.1	ug/L	EPA 8260B	6/12/08	104	101	2.68	70-130	25
Benzene	63201-02	<0.50	40.1	40.1	40.1	39.4	ug/L	EPA 8260B	6/12/08	99.9	98.2	1.76	70-130	25
Methyl-t-butyl ether	63201-02	3.2	40.1	40.1	34.3	34.1	ug/L	EPA 8260B	6/12/08	77.6	77.0	0.675	70-130	25
Toluene	63201-02	<0.50	39.5	39.5	40.0	39.1	ug/L	EPA 8260B	6/12/08	101	98.9	2.34	70-130	25

KIFF ANALYTICAL, LLC

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

Approved By:  Joe Kiff

Report Number : 63128

Date : 06/13/2008

QC Report : Laboratory Control Sample (LCS)

Project Name : **Tidewater**

Project Number : **TMTIDE1, S108**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.1	ug/L	EPA 8260B	6/12/08	101	70-130
Methyl-t-butyl ether	40.2	ug/L	EPA 8260B	6/12/08	82.3	70-130
Toluene	40.1	ug/L	EPA 8260B	6/12/08	101	70-130
Benzene	40.2	ug/L	EPA 8260B	6/12/08	98.4	70-130
Methyl-t-butyl ether	40.3	ug/L	EPA 8260B	6/12/08	85.0	70-130
Toluene	40.2	ug/L	EPA 8260B	6/12/08	99.7	70-130
Benzene	40.0	ug/L	EPA 8260B	6/12/08	103	70-130
Methyl-t-butyl ether	40.0	ug/L	EPA 8260B	6/12/08	92.8	70-130
Toluene	39.4	ug/L	EPA 8260B	6/12/08	106	70-130

KIFF ANALYTICAL, LLC

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

Approved By:

Joel Kiff



