

RO 429

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Alameda County  
October 1, 2005  
Environmental Health


RE: The following report documents the "Third Quarter 2005 Groundwater Sampling Report/Update Status, Former Desert Petroleum Site DP793" dated October 13, 2005, documents groundwater monitor well samplings that occurred in September 2005 at DP 793, 4035 Park Blvd., Oakland, California 94602.

Dear Mr. Wickham:

I have reviewed the enclosed report that I contracted Western Geo-Engineers to prepare.

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

Sincerely,

  
William Thompson, Desert Petroleum, Inc.

10/20/05  
date

THIRD QUARTER 2005  
GROUNDWATER SAMPLING REPORT/UPDATE STATUS  
WITH  
WASTEWATER DISCHARGE REPORT (APPENDIX E)

AT

FORMER DESERT SITE DP 793  
4035 PARK BLVD.  
OAKLAND, CA.

FOR

DESERT PETROLEUM

**OCTOBER 13, 2005**

BY

-WEGE-  
WESTERN GEO-ENGINEERS  
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*Alameda County*  
*NOV 01 2005*  
*Environmental Health*

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**WESTERN  
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October 13, 2005

Dear Mr. Thompson:

The following report documents the third quarter 2005 sampling at DP793, 4035 Park Blvd., Oakland, California.

## **1.0 SITE LOCATION AND IDENTIFICATION NUMBERS**

Former Desert Petroleum #793 is a non-active service station (USTs and associated piping removed June 23, 1994), located on the northwest corner of the intersection of Park Boulevard and Hampel Street at 4035 Park Blvd., Oakland, California (Figure 1). The site is located in projected section 32; T1S; R3W; MDB&M at an approximate elevation of 210 feet above mean sea level (Figure 2).

East Bay Municipal Utility District - Sewer Discharge Permit #50435501  
Alameda County Local Oversight STID 1248  
San Francisco Bay Regional Board (Region 2) Case # 01-0170  
Facility/Leak Site ID# T0600100158

## **2.0 SITE INVESTIGATION/REMEDATION CHRONOLOGY**

- November 30, 1989 Alameda County Health Department (Mr. Ariu Levi) notified Desert Petroleum that gasoline was trickling into a sewer on Brighton Avenue through a crack in the bottom of the sewer access. Desert Petroleum's area manager sent to site to reconstruct and audit tank inventories and sales records. The audit indicated overages on all tanks.
- December 1, 1989 Desert Petroleum contacted the station tenant, Mr. Jason Gopad, and advised him to test the fuel tanks and associated piping.
- December 5, 1989 The retail fueling facility was closed.
- December 6, 1989 Mr. Gopad had the underground storage tanks tested. The test results were inconclusive.
- December 7, 1989 All fuel was removed from the underground storage tanks. The product lines were tested by Walton Engineering. The regular leaded and super unleaded lines passed. The regular unleaded line failed. A 1/2 inch hole in the 2 inch unleaded supply line was located beneath the eastern pump island. An ultrasound investigation was conducted to determine the location of the onsite sewer line. An onsite soil gas survey was conducted and indicated

- contamination associated with the pump islands and the sewer line on the western edge of the property.
- December 8, 1989 Desert Petroleum submitted Unauthorized Release Report, drilling permits for site assessment obtained from Alameda County Flood Control and Water Conservation District, Zone 7, Underground Service Alert was notified.
- December 11, 1989 Onsite drilling/sampling and well installation initiated. Sample borings RS-1, RS-2, RS-3, RS-5 and RS-4. Groundwater monitoring wells installed into borings RS-1, RS-5, and RS-6. Vapor extraction well installed into boring RS-2.
- December 12, 1989 Encroachment permit secured from the City of Oakland for assessment work in Brighton Avenue. Sample boring RS-4 drilled and sampled just east of the sewer access in Brighton Avenue to the 10 foot depth.
- December 13, 1989 The area northeast of the sewer access was excavated with a backhoe. Gasoline appeared to be seeping from the backfill around the sewer line. A water supply line was inadvertently broke (USA markings incorrectly marked the location of this line). A vacuum truck was used to pump out the water/product from the excavation. Approximately 7,200 gallons of water/gasoline was manifested and sent to H & H Shipyard for treatment and disposal. The water line was repaired, perforated 4 inch PVC pipe was placed vertically into the excavation and the excavation backfilled with pea gravel from approximately the 8 foot depth to subgrade, well RS-7. A portable vapor extraction unit connected to the sewer and RS-7 (operated during daylight hours).
- December 15, 1989 RSI S.A.V.E. vapor extraction system installed and connected to onsite wells RS-1, RS-2, RS-5 and RS-6. Operated continuously for one week, then during daylight hours thereafter due to noise disturbance of neighbors. Length of vapor extraction and amounts of hydrocarbons removed not documented.
- July 24, 1990 Soil boring/sampling investigations near the sewer lateral in residential backyard 1227 Hampel Avenue.
- August 21, 1990 Soil boring/sampling investigations near the sewer lateral in residential backyards 4006 Brighton Avenue and 4010/4012 Brighton Avenue.
- December 1990 Commenced quarterly groundwater monitoring.
- September 8, 1993 Levine - Fricke, conducted soil boring/sampling investigation at residences 4003 Park Blvd. and 4006 Brighton Avenue. Constructed monitor well at 4003 Park Blvd for property owner of 4003 Park Blvd (not a part of 4035 Park Blvd. site assessment/investigation).
- June 23, 1994 Removed all USTs and associated piping from 4035 Park Blvd.
- August 14, 1995 Over-excavated UST and dispenser areas at 4035 Park Blvd, 1700 cubic yards of non-hazardous soil transported to and disposed at Forward Landfill, Stockton, California. Installed excavation well R3 (6 inch slotted PVC to 15 feet below surface) south of building, backfill excavation to 5 1/2 feet below surface with 1/4 inch pea gravel. Excavating removed monitor well RS-1.
- August 16, 1995 Excavated and removed hydraulic hoists from station building.

August 31, 1995	Exploratory excavation at waste oil UST area, north of building and exploratory excavation west of building to 17 feet below surface. Installed excavation wells R1 in west excavation and R2 in north excavation.
September 5, 1995	Drill/sampled and installed replacement well for RS-1 (MW-1).
May 2, 1996	Soil Probe Survey and soil sample borings along sewer route from 4035 Park Blvd. through back yards, to Brighton Avenue. Temporary casing set in hand augered borings BH-1, BH-2, BH-3, BH-4 and BH-5. Conducted slug tests on BH-1, BH-2, BH-3 and BH-5. Not enough water entry into BH-4 to conduct test. The following hydraulic conductivities (k) were calculated; BH-1 = 0.15 ft/day, BH-2 = 2.9 ft/day, BH-3 = 0.11 ft/day, and BH-5 = 4.8 ft/day.
January 17, 1997	Soil Probe Survey Brighton Avenue
August 12, 1999	Installed receptor trench, Brighton Avenue. 148 cubic yards non hazardous gasoline contaminated soil transported and disposed of at Vacaville Landfill, Vacaville, California. Installed wells RS-8, RS-9 and RS-10.
October 7, 1999	Pumped 19,451 gallons of gasoline contaminated groundwater from receptor trench, stored in above ground 22,000 gallon Baker tank.
January 24, 2000	Obtained sewer discharge permit from East Bay Municipal Utility District, started discharge of water stored in Baker tank to city sewer.
May 4, 2000	Started weekly purging of receptor trench well T1 (4 hours once per week). Discharged purged water through water carbon and then to sewer.
February 15, 2001	Set submersible pump in RS-5 to pump continuously, continued once a week purging of receptor well T1 (46,121 gallons removed from receptor trench well).
July 19, 2001	Ceased pumping of RS-5 and weekly purging of T1; 62,511 gallons removed from T1 and 78,919 gallons removed from RS-5 (total 141,430 gallons of gasoline contaminated groundwater treated and disposed to sewer).
March 21, 2002	Resumed pumping at RS-5.
August 6, 2002	246,849 gallons of gasoline contaminated groundwater pumped, treated and disposed to sewer.
November 20, 2002	Commenced weekly hand bailing of free phase product from well RS-8.
December 12, 2002	Purged receptor trench of 1432 gallons gasoline tainted groundwater.
January 9, 2003	Purged receptor trench of 1349 gallons gasoline tainted groundwater.
January 30, 2003	Purged receptor trench of 1624 gallons gasoline tainted groundwater.
March 13, 2003	Purged receptor trench of 1413 gallons gasoline tainted groundwater.
April 3, 2003	Purged receptor trench of 1305 gallons gasoline tainted groundwater.
April 9, 2003	Demolished existing service station building.
April 15, 2003	Replaced RS05 groundwater recovery pump with WEGE pump, while RS05 pump is serviced.
May 1, 2003	Reinstalled RS05 groundwater recovery pump. Submitted Workplan to Investigate Contaminated Soils Above and Below the Water Table at the Former Area of the Station Building, 4035 Park Blvd., Oakland, CA.
May 6, 2003	Purged receptor trench of 1589 gallons gasoline tainted groundwater.
May 21, 2003	Purged receptor trench of 2544 gallons gasoline tainted groundwater.
June 25, 2003	Purged receptor trench of 1796 gallons gasoline tainted groundwater.

July 17, 2003	Purged receptor trench of 1560 gallons gasoline tainted groundwater.
July 31, 2003	Notice to initiate Workplan submitted May 1, 2003
August 6, 2003	Alameda County Health, Scott Seery, phoned Western Geo-Engineers, notifying them not to proceed with workplan.
August 13, 2003	Purged receptor trench of 1574 gallons gasoline tainted groundwater.
September 4, 2003	Purged receptor trench of 1477 gallons gasoline tainted groundwater.
October 3, 2003	Purged receptor trench of 1285 gallons gasoline tainted groundwater.
October 16, 2003	Removed water carbon unit #1, placed new water carbon in #2 position and moved #2 water carbon into #1 position.
November 20, 2003	Purged receptor trench of 1303 gallons gasoline tainted groundwater.
December 18, 2003	Purged receptor trench of 1303 gallons gasoline tainted groundwater.
January 22, 2004	Purged receptor trench of 1175 gallons gasoline tainted groundwater.
February 26, 2004	Purged receptor trench of 102 gallons gasoline tainted groundwater.
March 30, 2004	Purged receptor trench of 975 gallons gasoline tainted groundwater.
April 29, 2004	Purged receptor trench of 1406 gallons gasoline tainted groundwater.
May 13, 2004	Turned pumping system off, removed lid from #1 carbon and removed scaling from top of carbon, replaced lid and restarted pump.
May 27, 2004	Purged receptor trench of 1647 gallons gasoline tainted groundwater.
June 30, 2004	Purged receptor trench of 1759 gallons gasoline tainted groundwater.
July 29, 2004	No electrical power to treatment compound; has been disconnected.
September 24, 2004	New power panel at site, need 100 feet extension cord to connect pump controller to power for RS-5.
September 28, 2004	Restarted pumping at RS-5. Performed 1/4ly well samplings. Purged receptor trench of 1911 gallons.
September 30, 2004	Containment berm full of water, inspected carbon #1, leaking from bottom. Turned system off and removed carbon from system.
October 15, 2004	Took delivery of new water carbon, placed #2 carbon into #1 position, new carbon into #2 position, restarted pumping system.
December 8, 2004	Performed 1/4ly well samplings.
December 9-16, 2004	Direct push/cored 12 borings to obtain groundwater and soil samples.
March 8, 2005	Published Conceptual Model
March 23, 2005	Performed 1/4ly well samplings.
June 1, 2005	Performed 1/4ly well samplings.
September 21, 2005	Performed 1/4ly well samplings.

### 3.0 LOCAL GEOLOGY

#### 3.1 Geomorphology

The site is located on the western slope of the Berkeley Hills. The Berkeley Hills are a northwest-southeast trending range within the Coastal Range Province of California. Erosion of the Coastal Ranges has filled the valleys within and bordering the Coastal Range with sequences of gravels, silts, sands, and clays.

### 3.2 Stratigraphy

#### Station Property

The native soil from surface to 13 feet below ground surface (BGS) consists of dark brown silty clay. The dark brown clay is underlain by light brown stiff clay that includes subrounded to rounded metavolcanic gravel. This clay extends to approximately 23 feet BGS at the northwest corner of the site. A fine to medium sand, clayey sand, and silty sand underlies the gravel and clay.

#### Backyard Sewer Lateral Route

Assessments performed along the sewer lateral as it leaves the site and routes through the residential area towards Brighton Avenue show the subsurface to consist of fill from a couple of inches thick to two feet thick. Beneath the fill is a sequence of clay formations that vary from light brown to dark gray to approximately the 6 foot depth. Silty clay then extends to approximately the 14-foot depth. Beneath the silty clay is sand with occasional gravel. This sand is 11 feet thick at RS5 and is underlain by silty clay.

#### Brighton Avenue

Construction of the receptor trench along the eastern curb area of Brighton Avenue revealed two separate sequences of lithology. North of the storm drain catch basin the sequence consists of; clay to the four foot depth, silty clay to the seven foot depth, fine silty sand to the 9 foot depth, medium sand to the 10 foot depth, silty clay to the 11 ½ foot depth, gravel to the 12 foot depth underlain by clay to the 16 foot depth. South of the storm catch basin is a sequence of silty clays and clays to depth.

Sandier sequence of sediments north of the storm water catch basin at Brighton Avenue compared to the sediments south of the storm water catch basin, indicate a facies change or a fault remnant striking east/west near the storm drain catch basin. A topographic lineation along the 200 foot contour is located in this area, see Figure 2.

## 4.0 COLLECTION AND ANALYSIS OF GROUNDWATER SAMPLES

Groundwater samples were collected on September 21, 2005. Samples were analyzed for Total Petroleum Hydrocarbons as gasoline, Benzene, Toluene, Ethylbenzene, Xylenes and the fuel oxygenant Methyl tert-Butyl Alcohol (MtBE) using EPA method 8260B, see Table 1. Figure 3 shows the positions of the groundwater monitoring wells, the receptor trench and previous sample locations.



#### **4.1 Depth to Water Measurements**

On September 21, 2005 depth to water was measured at each well using a product/water interface probe. Measurements are referenced to the surveyed elevation at the top of casing at each well. Table 1 shows the elevation of groundwater with respect to mean sea level for all wells through September 21, 2005.

## **5.0 RESULTS OF QUARTERLY GROUNDWATER MONITORING**

### **5.1 Groundwater Gradient and Flow Direction**

Figure 4 shows the groundwater elevation gradients and flow direction that were derived from the depth to water measurements of the monitor wells on September 21, 2005, prior to purging the wells for sampling, see Table 1 and Appendix A. On February 15, 2001 a submersible pump was placed into onsite well RS-5 to try and capture contaminated groundwater beneath the site and adjoining properties. The pump rate was set at approximately 2 gpm. The pump was removed from RS-5 on July 19, 2001. After evaluation of the effects the pumping had on remediating the site the pump was placed back into RS-5 on March 21, 2002. Pumping from RS5 lowers the water levels in RS-6, RS-8, RS-10, R1 and R2, see Appendix B. Table 1 shows the groundwater elevations for the wells during the assessment of this site.

The current flow direction is to the northwest and west with a high mounding on site at the previously excavated/backfilled areas. The hydraulic gradient averages 0.09 feet/linear foot down gradient of RS6 to RS10. A similar hydraulic gradient averaged 0.089 feet/linear foot down gradient of RS10 to well RS9, see Figure 4. The present flow direction and hydraulic gradient are consistent with previous determinations by WEGE. Pumping at RS5 resumed on October 15, 2004. For reference, areas that have been documented to contain contaminated soils (TPHg > 10 mg/Kg) have been shaded yellow.

### **5.2 Results of Certified Analysis of Groundwater Samples**

The results of the certified analyses of groundwater samples collected on September 21, 2005 are shown in Table 1.

TPH-G concentrations in water samples from the eight monitor wells, the receptor trench well and two recovery wells ranged from 17000 ug/L at trench well T1, to below laboratory lower detection limits of 50 ug/L in wells MW1, RS2, RS6, RS10 and R3.

Benzene concentrations were found in seven wells; the pumping well RS5 contained 34 ug/L, trench well T1 contained 4500 ug/L, MW1 contained 1.3 ug/L, RS2 contained 1.4 ug/L, RS6 contained 1.5 ug/L, RS7 contained 360 ug/L, RS9 contained 1.2 ug/L, R1 contained 20 ug/L and R2 contained 120 ug/L. Wells RS10 and R3 were below laboratory lower detection limits (0.5 ug/L). Well RS8 could not be located (beneath landscaping) and well LF1 had a car parked over it, see Appendix C - Laboratory Report.

Analysis results for Oxygenant MtBE was below the laboratory lower detection limit in all wells sampled except trench well T1 which contained 28 ug/L, RS09 contained 1.8 ug/L and RS07 contained 3.6 ug/L. T1, RS7 and RS9 are located within Brighton Street, indicating that the MtBE source(s) may be the cars parked along Brighton Street. During the September 16, 1998 well sampling all Fuel Oxygenants; MTBE, Di-isopropyl Ether (DIPE), tertiary Butyl Alcohol (TBA), Ethyl-t-Butyl Ether (ETBE) and t-Amyl Methyl Ether (TAME) were confirmed with EPA Method 8260. These analytes were below laboratory lower detection limits. The presence of TBA at well RS9 detected during the November 2003 sampling most likely indicates the partial oxygenation of MtBE.

Figure 5 (September 21, 2005) shows the lateral distribution of the hydrocarbon plume with benzene distinction in groundwater.

#### TPHg - Figure 5

Total Petroleum Hydrocarbons, gasoline range has a laboratory lower detection limit (LLDL) of 50 ug/L, was detected in wells R1, R2, RS5, RS7, RS9 and T1 ranging from a low of 330 ug/L at RS9 to a high of 17,000 ug/L at trench well T1.

#### Benzene - Figure 5

Benzene has a LLDL of 0.5 ug/L. The recommended CPHG (California Public Health Goal) for Benzene is 1.5 ug/L. Benzene was detected in wells MW1, R1, R2, RS2, RS5, RS6, RS7, RS9 and T1 ranging from a low of 1.3 ug/L at MW1 to a high of 4,500 ug/L at trench well T1.

#### Toluene

Toluene has a LLDL of 0.5 ug/L. The recommended CPHG for toluene is 150 ug/L. Toluene was detected in wells RS5, RS7, R1, R2 and T1, ranging from a low of 1.3 ug/L at wells R1 and R2 to a high of 81 ug/L at trench well T1.

#### Ethylbenzene

Ethylbenzene has a LLDL of 0.5 ug/L. The recommended CPHG for Ethylbenzene is 300 ug/L. Ethylbenzene was detected in wells RS5, RS7, RS9, R1, R2 and T1, ranging from a low of 0.86 ug/L at well RS5 to a high of 620 ug/L at trench well T1.

#### Xylenes

Xylenes have a LLDL of 0.5 ug/L. The recommended CPHG for Xylenes is 1800 ug/L. Xylenes were detected in wells RS5, RS7, RS9, R1, R2 and T1, ranging from a low of 0.58 ug/L at well RS9 to a high of 200 ug/L at trench well T1.

## MtBE

MtBE has a LLDL of 0.5 ug/L. The recommended CPHG for MtBE is 13 ug/L. MtBE was detected in wells RS7, RS9 and T1, ranging from a low of 1.8 ug/L at well RS9 to a high of 28 ug/L at trench well T1, see Table 1 and Appendix C - Laboratory Report.

### 6.0 PURGING OF RECEPTOR TRENCH

Commencing on May 4, 2000, weekly pumping of the receptor trench has been performed for approximately 4 hours per week. During purging the depth to water within the trench is lowered an average of one foot. Immediately after purging ceases, the water level in the trench recovers to its original depth. Weekly purging of the receptor trench was suspended on July 19, 2001 at the request of Desert Petroleum. 62,511 gallons of contaminated groundwater had been removed from the trench, processed through two, in series, activated carbon water scrubs and discharged to the sanitary sewer. Due to the increase of gasoline range hydrocarbons in downgradient well RS9 sampled on November 5, 2002, the receptor trench was purged on December 12, 2002, removing 1,432 gallons during 5 hours of pumping. Periodic purging of the trench has occurred since that time. The last purging of the receptor (intercept) trench occurred on June 30, 2004, 93,057 gallons of groundwater have been pumped from the receptor trench and purged from the groundwater monitoring wells, see Table 2.

### 7.0 PUMPING ON-SITE WELL RS-5

On February 15, 2001 a submersible pump with a pump bypass was placed into RS-5. The pump rate was adjusted to 1.5 gpm and allowed to continuously pump from RS-5 for one week. 3223 gallons were pumped from RS-5 through the two, in series, water carbon units and discharged to the sewer. On February 22, 2001 the pump was inspected and showed a slimy growth covering the pump and discharge line that was below the water level. The pump was cleaned and placed back into RS-5 and continued to discharge from RS-5 through the water carbon units to sewer until July 19, 2001. On July 19, 2001 Desert Petroleum requested suspension of further pumping at the site. The pump was removed and the site secured. From February 15 through July 19, 2001, 78,919 gallons of gasoline contaminated groundwater was recovered from RS-5 and treated through carbon before being discharged to the sewer. Pumping from RS5 was resumed on March 21, 2002. As of September 21, 2005, 841,194 gallons of groundwater have been pumped from RS5 and treated through two, in series, water carbon units prior to being discharge to the sanitary sewer, see Table 2.

The pumping from RS-5 has lowered the groundwater at this well by at least 15 feet, when compared to non pumping water measurements, see Chart - Appendix B. This creates a cone of influence out to offsite wells RS-8 and RS-10, see Figure 4

## 8.0 FREE PHASE FLOATING PRODUCT REMOVAL

Yellow Free Phase Floating Product was discovered in well RS8, 0.04 feet in thickness on August 6, 2002. Since all product storage and dispensing systems have been removed from the site (June 1994), it is thought that the product found in RS8, is residual from the November 1989 release and groundwater pumping at RS-5 is retrieving this residual product. Weekly bailing of the floating product commenced on November 20, 2002 and as of December 12, 2002, (the last noted detection of free phase product in RS8) 0.014 gallons of degraded gasoline have been removed and are stored on site in a 55 gallon 17H drum.

## 9.0 SUMMARY

Until the November 2002 sampling weekly purging of the receptor trench (T1) facilitated the decrease in the TPHg concentrations in down gradient wells RS-7 and RS-9, see Table 1 with charts RS-7. The weekly purging of the receptor trench was limited to a maximum daily discharge of 5 gpm, thus removing approximately 1200 to 2000 gallons per week. Although this does lower the water level in the trench, after pumping has ceased the water level rebounds to its original depth allowing for the gradient migration of TPHg contaminated groundwater to continue.

Pumping from RS-5 has shown to create a cone of influence off-site downgradient out to RS-8 and RS-10. Pumping has increased the dissolved oxygen in RS-5 and hydrocarbon concentrations have declined in R1, R2, R3, RS7, RS8, RS9, RS-10 and the Receptor Trench (T1). 0.04 feet of floating product (yellow gasoline) discovered during the August 6, 2002 sampling round could indicate that the pumping at RS-5 is capturing residual free phase product in that area.

The lowest hydrocarbon concentrations were observed while the weekly pumping of the trench well and the continuous pumping of RS5 was occurring, May 31, 2001. The most recent sampling, September 21, 2005 shows continued decrease in hydrocarbons to levels lower than the May 31, 2001 sample results at wells RS5, RS6, RS7, RS9, RS10, R1 and R2.

Previous sampling, September 2, 1999, showed that aerobic bacteria (hydrocarbon degraders) exist in the groundwater associated with the hydrocarbon plume. A workplan to augment the groundwater with oxygen (air sparging) and nutrients (phosphate and ammonium sulfate) dated August 29, 2000 was presented with the August 29, 2000, Third Quarter 2000 report. This workplan along with the May 31, 2001 conditions were discussed during a meeting at Alameda County Health that involved Mr. Thompson, Desert Petroleum, Mr. Seery, Alameda County Health and Mr. Converse, Western Geo-Engineers, on November 13, 2001. The meeting concluded that nutrient augmentation was not necessary at this time, but enhanced dissolved oxygen was needed. Due to neighborhood concerns, i.e. residential homes and apartments, air sparging and/or using a mechanical delivery device would create too much noise and a more passive oxygen delivery system was warranted, i.e. hydrogen peroxide or Oxygen Release Compound (ORC). An amended workplan was presented in Appendix G of the 4<sup>th</sup> Quarter 2001 report, dated January 7, 2002 and suggested that ORC would be the most beneficial means of enhancing dissolved oxygen in the groundwater plume. Western Geo-Engineers then requested Regensis Inc. to perform a basic model using ORC to determine how to apply, and the amount needed. The Regensis model

indicated that a one-time application (would last approximately one year) of approximately 9,690 pounds of ORC would be needed, at a cost of \$77,520.00 for materials, which does not include installation costs. Upon receipt of the Regenisis model, WEGE projected how much hydrogen peroxide would be necessary to increase the dissolved oxygen in the plume from 2 mg/L to 8 mg/L. This simple model indicated that 18 gallons of 35% solution hydrogen peroxide would be necessary per application, at a cost of \$1,160.00 per monthly application or \$13,920.00 for one year.

Further communications from Mr. Scott Seery with Mr. Converse occurred during the week of February 25 - March 1, 2002. Mr. Seery suggested another meeting to discuss remediation options prior to approving the amended workplan presented with the January 7, 2002 report. In a phone conversation between Mr. Converse and Mr. Seery on August 12, 2002, Mr. Seery requested that the peroxide treatment not be performed until further review of the site by Alameda County Health. On January 15, 2003 the station property was resold by Mr. Toni Razzi to Mr. Kin Man Li (P.O. Box 348, Oakland, CA 94604). The new owner demolished the existing service station building. Western Geo-Engineers has performed additional soil and groundwater sampling of areas previously beneath the station building. A workplan outlining further assessment/risk, dated May 1, 2003 was submitted to Alameda County Health. This workplan was later revised after discussions with Mr. Scott Seery and was approved, June 8, 2004. Fieldwork associated with the workplan was completed on December 16, 2004. A conceptual model was developed that incorporated data obtained from the December 16, 2004 fieldwork. Modeling of the exposure pathways for the site (RBCA Tier 2 and Johnson and Ettinger Vapor Intrusion Models) indicate that subsurface soils and groundwater contamination needs to be reduced to prevent indoor air exposure of Benzene. Other than excavation practices no other exposure pathway exists to the site or surrounding residential area. There are no other sensitive receptors within 2000 feet of the soil/groundwater plume. The most recent soil and groundwater samples obtained from drilling activities (December 2004) at 4035 Park Blvd showed high concentrations of TPHg and BTEX exist in the soils and shallow groundwater (8 ft to 32 ft below ground surface) beneath the area that was previously occupied by the station building. Water sampling of the December 2004 borings showed slow drainage, indicating low hydraulic conductivity in the silty clay and the clayey conglomerate formations. Previous slug test on temporary piezometers installed downgradient of the site, in the backyard of the surrounding residences, showed groundwater velocities ranging between 4 and 385 feet per year. Pumping of RS5 produces approximately 700 gallons per day (>0.5 gpm). To further slow the migration of the contaminants of concern, organic carbon analysis showed total organic carbon in the water bearing formations to range between 340 and 5700 mg/Kg. Along with the organic carbon, natural attenuation is occurring as evident from analysis for the electron acceptors (dissolved oxygen, nitrate, sulfate and ferric iron) along with the presence of biological indicators (carbon dioxide, methane, aerobic hydrocarbon degrading bacteria, and reduced nutrients ortho phosphate and ammonia as nitrogen).

## 10.0 RECOMMENDATIONS

With a new property owner intending to build residential buildings on 4035 Park Blvd., the following recommendations are made by Western Geo-Engineers.

- Determine which wells located at 4035 Park Blvd., are necessary for the assessment and remediation objectives and destroy the unnecessary wells as per Alameda County Health guidelines.
- Remove the onsite source of hydrocarbon contamination found in the soils and shallow groundwater at 4035 Park Blvd (between 8 and 32 feet below the surface).
- Continue pumping RS5
- Install service laterals to the intercept trench well (T1) to perform continuous groundwater pumping from the trench.
- Define the downgradient extent of the hydrocarbon plume along the storm drain/sewer lateral.

## 11.0 TIME FRAME

November 2005      4<sup>th</sup> Quarter Monitor well sampling.  
 January 2006      4<sup>th</sup> Quarter Monitoring Report.

## 12.0 LIMITATIONS

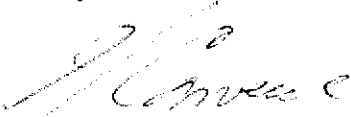
This report is based upon the following:

- A. The observations of field personnel.
- B. The results of laboratory analyses performed by a state certified laboratory.
- C. Referenced documents.
- D. Our understanding of the regulations of the State of California, Alameda County and the City of Oakland.
- E. Changes in groundwater conditions can occur due to variations in rainfall, temperature, local and regional water use, and local construction practices.
- F. In addition, variations in the soil and groundwater conditions could exist beyond the points explored in this investigation.

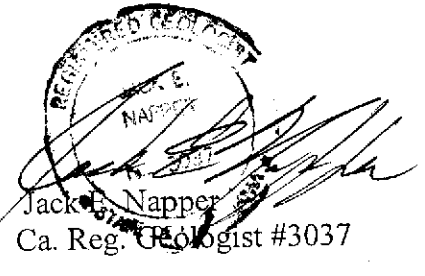
State Certified Laboratory analytical results are included in this report. This laboratory follows EPA and State of California approved procedures; however, WEGE is not responsible for errors in these laboratory results. Western Geo-Engineers is a corporation under California Registered Geologist #3037 and/or Contractors License #513857. The services performed by Western Geo-Engineers have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the State of California and the Oakland area. Our work and/or supervision of remediation and/or abatement operations, active or preliminary, at this site is in no way meant to imply that we are owners or

operators of this site. Known or suspected contamination of soil and/or groundwater must be reported to the appropriate agencies in a timely manner. No other warranty, expressed or implied, is made.

Sincerely,



George Converse  
Geologist



Jack E. Napper  
Ca. Reg. Geologist #3037

cc: Mr. Jerry Wickham, Alameda County Health (510) 567-6791  
Mr. Leroy Griffin, Oakland Fire Dept.  
Mr. Kin Man Li, property owner (510) 599-7000

TABLE 1  
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABORATORY RESULTS FROM WATER SAMPLES  
DESERT PETROLEUM, INC. SITE #793  
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

ID#	(All concentrations in parts per billion (ug/L, ppb)) (AMSL = Above mean sea level)									
	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L)	TOLUENE (UG/L)	ETHYL-BENZENE (UG/L)	XYLENES (UG/L)	MTBE (UG/L)
(CALIFORNIA PUBLIC HEALTH GOAL)										
RS-1	12/14/1989	228.15	24.25	203.9	19000	2600	2700	200	1200	
RS-1	12/90				15000	3500	330	170	760	
RS-1	2/91				6900	910	200	39	540	
RS-1	6/91				1600	56	180	12	26	
RS-1	9/91				4100	730	7.6	5.1	24	
RS-1	12/91				8300	950	160	71	190	
RS-1	11/9/1992	228.15	17.05	211.1	1700	730	9.6	16	14	
RS-1	4/7/1994	228.15	13	215.15	860	84	12	16	110	
RS-1	6/19/1994	228.15	13.37	214.78	1400	150	12	52	87	
RS-1	9/17/1994	228.15	16.33	211.82	310	30	1.8	2.8	3.9	
RS-1	3/12/1995	228.15	4.66	223.49	ND	ND	ND	ND	ND	
DESTROYED BY OVER-EXCAVATION OF UST-DISPENSER AREAS ( 8/14/95)										
REPLACED WITH MW-1 9/5/95.										
MW-1	10/4/1995	229.5	12.38	217.12	ND	ND	ND	ND	ND	
MW-1	12/21/95	229.5	13.40	216.1	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	03/27/96	229.5	5.53	223.97	< 50	< 0.5	< 0.5	< 0.5	< 2	< 50
MW-1	06/11/96	229.5	9.02	220.48	< 50	< 0.5	< 0.5	< 0.5	< 2	< 50
MW-1	09/04/96	229.5	11.84	217.66	< 50	< 0.5	< 0.5	< 0.5	< 2	< 5
MW-1	12/11/96	229.5	12.98	216.52	< 50	< 0.5	0.9	< 0.5	< 1	< 0.5
MW-1	2/21/97	229.5	9.50	220	< 50	< 0.5	0.9	< 0.5	< 1	< 0.5
MW-1	5/28/97	229.5	11.18	218.32	< 50	3	3	< 0.5	< 1	< 0.5
MW-1	9/2/1997	229.5	13.00	216.5	< 50	5	< 0.5	< 0.5	< 1	< 0.5
MW-1	11/24/1997	229.5	14.12	215.38	< 50	5	< 0.5	< 0.5	< 1	< 0.5
MW-1	2/25/1998	229.5	6.41	223.09	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-1	7/8/1998	229.5	7.28	222.22	< 50	< 0.5	< 0.5	< 0.5	< 1	< 1
MW-1	9/16/1998	229.5	10.96	218.54	< 50	< 0.5	< 0.5	< 0.5	< 1	< 1
MW-1	11/24/1998	229.5	12.24	217.26	52	2.3	5.2	< 0.5	5.4	11
MW-1	2/23/1999	229.5	7.14	222.36	< 50	< 0.5	5	< 0.5	< 1	< 0.5
MW-1	5/5/1999	229.5	7.00	222.5	< 50	2	<0.5	< 0.5	< 1	8
MW-1***	8/26/1999	229.5	11.41	218.09	<50	4.1	<0.5	< 0.5	< 1	<1
MW-1	11/10/1999	229.5	13.27	216.23	<50	<0.5	<0.5	< 0.5	< 1	<0.5
MW-1	2/9/2000	229.5	13.76	215.74	<50	<0.5	<0.5	0.5	< 1	0.5
MW-1	6/30/2000	229.5	10.63	218.87	<50	<0.5	<0.5	< 0.5	< 1	< 0.5
MW-1	8/8/2000	229.5	11.77	217.73	62	1	2	< 0.5	2	< 0.5
MW-1	11/16/2000	229.5	13.33	216.17	<50	<0.5	<0.5	< 0.5	< 1	< 0.5
MW-1	3/8/2001	229.5	12.30	217.2	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	5/31/2001	229.5	11.88	217.62	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	12/18/2001	229.5	13.74	215.76	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	2/19/2002	229.5	14.42	215.08	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	5/7/2002	229.5	10.78	218.72	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	8/6/2002	229.5	12.70	216.8	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	11/5/2002	229.5	15.00	214.5	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	12/12/2002	229.5	15.46	214.04						
MW-1	3/13/2003	229.5	14.51	214.99	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	5/6/2003	229.5	11.06	218.44	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	8/13/2003	229.5	13.13	216.37	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	11/20/2003	229.5	14.85	214.65	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	1/22/2004	229.5	13.65	215.85						
MW-1	3/30/2004	229.5	11.68	217.82	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	6/10/2004	229.5	13.08	216.42	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	9/28/2004	229.5	14.33	215.17	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	12/8/2004	229.5	14.67	214.83	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	3/23/2005	229.5	9.60	219.9	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	6/1/2005	229.5	8.64	220.86	<50	<0.5	<0.5	< 0.5	< 0.5	< 0.5
MW-1	9/21/2005	229.5	11.81	217.69	<50	1.3	<0.5	< 0.5	< 0.5	< 0.5



TABLE 1

GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABORATORY RESULTS FROM WATER SAMPLES  
 DESERT PETROLEUM, INC. SITE #793  
 4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

ID#	DATE SAMPLED	(All concentrations in parts per billion (ug/L, ppb)) (AMSL = Above mean sea level)								
		WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1.5)	TOLUENE (UG/L) (150)	ETHYL-BENZENE (UG/L) (300)	XYLENES (UG/L) (1800)	MTBE (UG/L) (13)
(CALIFORNIA PUBLIC HEALTH GOAL)										
RS-2	12/14/1989	227.39								
RS-2	6/19/1994	227.39	10.89	216.50						
RS-2	3/12/1995	227.39	5.26	222.13	ND	ND	ND	ND	ND	
RS-2	10/4/1995	227.39	15.05	212.34	ND	ND	ND	ND	ND	
RS-2	12/21/95	227.39	9.95	217.44	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	03/27/96	227.39	6.28	221.11	< 50	< 0.5	< 0.5	< 0.5	< 2	< 50
RS-2	06/11/96	227.39	8.00	219.39	< 50	1.2	2.8	< 0.5	< 2	< 50
RS-2	09/04/96	227.39	9.89	217.50	< 50	< 0.5	< 0.5	< 0.5	< 2	< 5
RS-2	12/11/96	227.39	8.38	219.01	< 50	< 0.5	< 0.5	< 0.5	< 1	6
RS-2	2/21/97	227.39	6.96	220.43	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
RS-2	5/28/97	227.39	10.02	217.37	< 50	3	3	< 0.5	< 1	< 0.5
RS-2	9/2/1997	227.39	11.46	215.93	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
RS-2	11/24/1997	227.39	10.43	216.96	< 50	< 0.5	1	< 0.5	3	< 0.5
RS-2	2/25/1998	227.39	3.57	223.82	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
RS-2	7/8/1998	227.39	8.83	218.56	< 50	< 0.5	< 0.5	< 0.5	< 1	< 1
RS-2	9/16/1998	227.39	10.60	216.79	< 50	< 0.5	< 0.5	< 0.5	< 1	< 1
RS-2	11/24/1998	227.39	13.27	214.12	140	2.8	19	2.6	3.3	15
RS-2	2/23/1999	227.39	4.06	223.33	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
RS-2	5/5/1999	227.39	7.70	219.69	< 50	0.7	< 0.5	< 0.5	< 1	6
RS-2***	8/26/1999	227.39	11.42	215.97	200	15	23	1.7	23	9
RS-2	11/10/1999	227.39	15.94	211.45	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
RS-2	2/9/2000	227.39	8.91	218.48	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
RS-2	6/30/2000	227.39	9.79	217.60	52	2	< 0.5	< 0.5	< 1	< 0.5
RS-2	8/8/2000	227.39	10.71	216.68	60	< 0.5	< 0.5	< 0.5	< 1	< 0.5
RS-2	11/16/2000	227.39	10.39	217.00	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
RS-2	3/8/2001	227.39	6.62	220.77	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	5/31/2001	227.39	10.09	217.30	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	12/18/2001	227.39	6.99	220.40	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	2/19/2002	227.39	8.08	219.31	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	5/7/2002	227.39	9.27	218.12	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	8/6/2002	227.39	11.38	216.01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	11/5/2002	227.39	17.09	210.30	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	12/12/2002	227.39	13.19	214.20						
RS-2	3/13/2003	227.39	8.93	218.46	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	5/6/2003	227.39	8.05	219.34	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	8/13/2003	227.39	11.16	216.23	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	11/20/2003	227.39	17.62	209.77	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	1/22/2004	227.39	7.40	219.99						
RS-2	3/30/2004	227.39	7.95	219.44	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	6/10/2004	227.39	10.56	216.83	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	9/28/2004	227.39	17.02	210.37	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	12/8/2004	227.39	9.80	217.59	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	3/23/2005	227.39	5.05	222.34	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	6/1/2005	227.39	8.60	218.79	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	9/21/2005	227.39	11.45	215.94	< 50	1.4	< 0.5	< 0.5	< 0.5	< 0.5

TABLE 1  
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABAORATAORY RESULTS FROM WATER SAMPLES  
DESERT PETROLEUM, INC. SITE #793  
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

ID#	(All concentrations in parts per billion (ug/L, ppb)) (AMSL = Above mean sea level)									
	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1.5)	TOLUENE (UG/L) (150)	ETHYL-BENZENE (UG/L) (300)	XYLENES (UG/L) (1800)	MTBE (UG/L) (13)
	(CALIFORNIA PUBLIC HEALTH GOAL)									
RS-5	12/14/1989	227.61	25.97	201.64	57000	3100	4300	670	3400	
RS-5	2/91	227.61	FLOATING PRODUCT							
RS-5	6/91	227.61	FLOATING PRODUCT							
RS-5	9/91	227.61	FLOATING PRODUCT							
RS-5	12/91	227.61	FLOATING PRODUCT							
RS-5	11/9/1992	227.61	20.73	206.88	50000	650	4800	1100	15000	
RS-5	4/7/1994	227.61	18.16	209.45	27000	5000	8700	550	2800	
RS-5	6/19/1994	227.61	18.11	209.5	20000	2100	5300	470	2500	
RS-5	9/17/1994	227.61	19.63	207.98	9300	230	340	110	700	
RS-5	3/12/1995	227.61	14.54	213.07	93000	6400	2000	19000	10000	
RS-5	10/4/1995	227.61	17.53	210.08	16000	420	2100	320	1800	
RS-5	12/21/95	227.61	17.47	210.14	48000	3500	9200	840	4800	56
RS-5	03/27/96	227.61	13.51	214.1	68000	4900	18000	1700	11000	< 3000
RS-5	06/11/96	227.61	14.25	213.36	66000	6300	20000	2100	12000	< 3000
RS-5	09/04/96	227.61	16.50	211.11	31000	2100	11000	1100	6800	400
RS-5	12/11/96	227.61	15.88	211.73	85000	7000	21000	1800	8900	570
RS-5	2/21/97	227.61	13.76	213.85	100000	5000	22000	1700	7300	<0.5
RS-5	5/28/97	227.61	15.77	211.84	52000	4500	19000	2100	10000	<0.5
RS-5	9/2/1997	227.61	17.47	210.14	38000	2200	9400	1300	5800	<0.5
RS-5	11/24/1997	227.61	18.67	208.94	45000	4000	16000	1900	9700	<0.5
RS-5	2/25/1998	227.61	10.53	217.08	160000	2700	31000	5300	28000	<0.5
RS-5	7/8/1998	227.61	13.75	213.86	45000	2800	12000	2000	8500	<1.0
RS-5	9/16/1998	227.61	15.80	211.81	49000	1400	7500	1700	8600	<5
RS-5	11/24/1998	227.61	16.64	210.97	89000	5300	15000	2800	13000	<10
RS-5	2/23/1999	227.61	12.36	215.25	19000	1900	11000	2500	4800	<25
RS-5	5/5/1999	227.61	12.78	214.83	78000	2000	10000	3000	15000	540
RS-5***	8/26/1999	227.61	16.06	211.55	35000	870	4000	1900	8300	<1
RS-5	11/10/1999	227.61	17.54	210.07	40000	1000	5600	1800	8100	<0.5
RS-5	2/9/2000	227.61	16.31	211.3	46000	1400	6900	2700	11000	<0.5
RS-5	6/30/2000	227.61	15.15	212.46	37000	810	5200	2200	9100	<2.5
RS-5	8/8/2000	227.61	16.10	211.51	14000	330	500	1400	6500	<0.5
RS-5	11/16/2000	227.61	17.38	210.23	23000	430	2300	1100	4800	<0.5
RS-5	3/8/2001	227.61	27.72	199.89	11000	360	260	140	1500	2.6
RS-5	5/31/2001	227.61	22.96	204.65	7500	26	11	38	470	<5
RS-5	12/18/2001	227.61	15.61	212	12000	610	1200	100	1500	<5
RS-5	2/19/2002	227.61	14.80	212.81	22000	460	1700	680	4000	<5
RS-5	5/7/2002	227.61	31.77	195.84	700	150	10	19	67	5.2
RS-5	8/6/2002	227.61	31.77	195.84	< 50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-5	11/5/2002	227.61	31.77	195.84	12000	150	360	21	890	<2
RS-5	12/12/2002	227.61	21.53	206.08						
RS-5	3/13/2003	227.61	36.70	190.91	240	5.5	1.9	2.3	9.6	1.4
RS-5	5/6/2003	227.61	14.52	213.09						
RS-5	8/13/2003	227.61	31.77	195.84	310	1.4	<0.5	1	2.9	<0.5
RS-5	11/20/2003	227.61	32.00	195.61	17000	150	720	240	1800	0.72
RS-5	1/22/2004	227.61	25.30	202.31						
RS-5	3/30/2004	227.61	21.90	205.71	4000	370	59	13	380	2.6
RS-5	6/10/2004	227.61	35.00	192.61	120	7	0.88	1.3	4.3	1.3
RS-5	9/28/2004	227.61	19.05	208.56	2600	110	89	75	56	<0.5
RS-5	12/8/2004	227.61	25.00	202.61	< 50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-5	3/23/2005	227.61	26.05	201.56	7400	890	280	180	940	5.1
RS-5	6/1/2005	227.61	25.40	202.21	3500	380	85	59	360	3
RS-5	9/21/2005	227.61	19.00	208.61	790	34	4.7	0.86	99	<0.5

TABLE 1  
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABAORATAORY RESULTS FROM WATER SAMPLES  
DESERT PETROLEUM, INC. SITE #793  
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

ID#	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	(All concentrations in parts per billion [ug/L, ppb]) (AMSL = Above mean sea level)						
				GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1.5)	TOLUENE (UG/L) (150)	ETHYL-BENZENE (UG/L) (300)	XYLENES (UG/L) (1800)	MTBE (UG/L) (13)
(CALIFORNIA PUBLIC HEALTH GOAL)										
RS-6	12/14/1989	227.22	22.52	204.7	11000	1400	1700	160	860	
RS-6	2/91	227.22	FLOATING PRODUCT							
RS-6	6/91	227.22			95000	4200	4200	650	3700	
RS-6	9/91	227.22	FLOATING PRODUCT							
RS-6	12/91	227.22			64000	3700	2300	730	4100	
RS-6	11/9/1992	227.22	19.43	207.79	19000	1600	710	500	1600	
RS-6	4/7/1994	227.22	14.42	212.8	16000	1200	1300	290	1100	
RS-6	6/19/1994	227.22	14.45	212.77	23000	1300	2200	590	2200	
RS-6	9/17/1994	227.22	19.52	207.7	24000	630	790	250	1100	
RS-6	3/12/1995	227.22	8.90	218.32	3200	450	13	82	230	
RS-6	10/4/1995	227.22	17.78	209.44	3700	170	250	38	290	
RS-6	12/21/95	227.22	14.98	212.24	3100	120	30	16	150	58
RS-6	03/27/96	227.22	10.00	217.22	6900	180	440	79	360	< 300
RS-6	06/11/96	227.22	12.00	215.22	7400	220	150	30	100	<1000
RS-6	09/04/96	227.22	15.00	212.22	1400	68	2.6	7.7	9.2	14
RS-6	12/11/96	227.22	12.36	214.86	1800	39	16	10	18	< 0.5
RS-6	2/21/97	227.22	10.00	217.22	2100	71	85	25	40	< 0.5
RS-6	5/28/97	227.22	13.56	213.66	1700	34	12	11	16	< 0.5
RS-6	9/2/1997	227.22	16.35	210.87	940	34	71	9	55	< 0.5
RS-6	11/24/1997	227.22	15.72	211.5	490	9	6	1	7	< 0.5
RS-6	2/25/1998	227.22	6.26	220.96	1400	22	47	5	52	< 0.5
RS-6**	7/8/1998	227.22	11.41	215.81	1500	83	9	84	2	<10
RS-6	7/30/1998	227.22			<50	<0.5	<0.5	<0.5	<1	<1
RS-6	9/16/1998	227.22	13.42	213.8	990	23	<0.5	<0.5	<1	<1
RS-6	11/24/1998	227.22	15.91	211.31	3400	5.3	<0.5	<0.5	14	<0.5
RS-6	2/23/1999	227.22	7.00	220.22	1000	3.4	3.2	1.6	7.3	<0.5
RS-6	5/5/1999	227.22	10.29	216.93	1100	50	10	80	15	2
RS-6***	8/26/1999	227.22	13.72	213.5	690	44	2.5	30	31	<5
RS-6	11/10/1999	227.22	13.90	213.32	1800	2	2	0.9	16	< 0.5
RS-6	2/9/2000	227.22	12.77	214.45	410	3	3	4	7	< 0.5
RS-6	6/30/2000	227.22	12.69	214.53	660	7	2	5	6	< 0.5
RS-6	8/8/2000	227.22	14.72	212.5	660	2	3	2	6	< 0.5
RS-6	11/16/2000	227.22	15.28	211.94	560	1	2	1	5	< 0.5
RS-6	3/8/2001	227.22	10.10	217.12	2200	<0.5	<0.5	<0.5	<0.5	<0.5
RS-6	5/31/2001	227.22	12.96	214.26	630	<0.5	<0.5	<0.5	<0.5	<5
RS-6	12/18/2001	227.22	10.88	216.34	56	0.53	<0.5	<0.5	0.56	<0.5
RS-6	2/19/2002	227.22	11.08	216.14	<50	<0.5	<0.5	0.6	<0.5	<0.5
RS-6	5/7/2002	227.22	12.31	214.91	240	<0.5	<0.5	<0.5	<0.5	<0.5
RS-6	8/6/2002	227.22	14.23	212.99	130	<0.5	<0.5	<0.5	<0.5	3
RS-6	11/5/2002	227.22	17.99	209.23	<50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-6	12/12/2002	227.22	17.57	209.65						
RS-6	3/13/2003	227.22	11.82	215.4	120	<0.5	<0.5	<0.5	<0.5	<0.5
RS-6	5/6/2003	227.22	10.10	217.12	<50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-6	8/13/2003	227.22	13.88	213.34	<50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-6	11/20/2003	227.22	18.62	208.6	<50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-6	1/22/2004	227.22	11.24	215.98						
RS-6	3/30/2004	227.22	10.72	216.5	<50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-6	6/10/2004	227.22	13.52	213.7	<50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-6	9/28/2004	227.22	17.95	209.27	<50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-6	12/8/2004	227.22	14.80	212.42	<50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-6	3/23/2005	227.22	7.62	219.6	<50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-6	6/1/2005	227.22	10.72	216.5	<50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-6	9/21/2005	227.22	13.22	214	<50	1.5	<0.5	<0.5	<0.5	<0.5

TABLE 1  
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABORATORY RESULTS FROM WATER SAMPLES  
DESERT PETROLEUM, INC. SITE #793  
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

ID#	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1.5)	TOLUENE (UG/L) (150)	ETHYL-BENZENE (UG/L) (300)	XYLENES (UG/L) (1800)	MTBE (UG/L) (13)	(All concentrations in parts per billion {ug/L, ppb}) (AMSL = Above mean sea level)										
											(CALIFORNIA PUBLIC HEALTH GOAL)										
RS-7	12/14/1989	195.99																			
RS-7	7/90	195.99				5600000	24000	210000	50000	740000											
RS-7	2/91	195.99																			
RS-7	6/91	195.99																			
RS-7	9/91	195.99																			
RS-7	12/91	195.99				270000	11000	22000	2000	13000											
RS-7	11/9/1992	195.99	4.62	191.37		81000	12000	16000	1900	13000											
RS-7	4/7/1994	195.99	4.03	191.96		74000	16000	16000	1400	8500											
RS-7	6/19/1994	195.99	4.07	191.92		83000	22000	19000	1500	9500											
RS-7	9/17/1994	195.99	4.05	191.94		270000	13000	15000	2100	1100											
RS-7	3/12/1995	195.99	3.72	192.27		35000	5100	560	6300	3600											
RS-7	10/4/1995	195.99	4.03	191.96		96000	14000	14000	1300	7000											
RS-7	12/21/95	195.99	3.95	192.04		70000	9300	12000	860	5600	210										
RS-7	03/27/96	195.99	3.80	192.19		64000	8900	14000	1100	8300	< 3000										
RS-7	06/11/96	195.99	3.79	192.2		65000	12000	17000	1600	9700	<5000										
RS-7	09/04/96	195.99	3.99	192		20000	4900	2100	670	4400	100										
RS-7	12/11/96	195.99	3.78	192.21		17000	4400	7500	570	4600	180										
RS-7	2/21/97	195.99	3.82	192.17		93000	31000	47000	3800	23000	<0.5										
RS-7	5/28/97	195.99	3.82	192.17		52000	12000	8200	2000	11000	<0.5										
RS-7	9/2/1997	195.99	3.96	192.03		28000	6100	2800	950	3800	<50										
RS-7	11/24/1997	195.99	3.76	192.23		18000	4300	5900	600	2900	<0.5										
RS-7	2/25/1998	195.99	3.70	192.29		13000	4300	7100	1100	5800	<0.5										
RS-7**	7/8/1998	195.99	3.76	192.23		45000	10000	3400	2000	8000	<10										
RS-7	7/30/1998	195.99				72000	12000	2100	2000	9100											
RS-7	9/16/1998	195.99	3.83	192.16		5000	6500	160	<2.5	500	<5										
RS-7	11/24/1998	195.99	3.77	192.22		19000	2100	1100	500	2100	<0.5										
RS-7	2/23/1999	195.99	3.70	192.29		83000	6500	9900	1200	7000	<10										
RS-7	5/5/1999	195.99	3.88	192.11		47000	7400	4800	1300	7400	540										
RS-7***	8/26/1999	195.99	4.16	191.83		15000	3400	91	950	970	<5										
RS-7	11/10/1999	195.99	4.12	191.87		10000	2900	170	630	1200	<0.5										
RS-7	2/9/2000	195.99	3.98	192.01		9400	1400	120	480	600	<0.5										
RS-7	6/30/2000	195.99	4.04	191.95		8200	3300	190	430	540	<0.5										
RS-7	8/8/2000	195.99	4.06	191.93		11000	2300	150	430	520	<0.5										
RS-7	11/16/2000	195.99	4.04	191.95		5400	1500	40	240	200	<0.5										
RS-7	3/8/2001	195.99	3.94	192.05		12000	3300	260	480	850	17										
RS-7	5/31/2001	195.99	4.01	191.98		10000	1900	120	320	620	<100										
RS-7	12/18/2001	195.99	4.81	191.18		2700	450	21	86	120	2.3										
RS-7	2/19/2002	195.99	3.91	192.08		20000	2600	360	570	1900	11										
RS-7	5/7/2002	195.99	3.97	192.02		9200	1400	120	360	780	6.6										
RS-7	8/6/2002	195.99	4.06	191.93		8300	1300	71	250	480	<10										
RS-7	11/5/2002	195.99	4.11	191.88		9300	1500	90	330	680	<10										
RS-7	12/12/2002	195.99	4.13	191.86																	
RS-7	3/13/2003	195.99	4.02	191.97		5500	990	51	180	330	6.1										
RS-7	5/6/2003	195.99	3.98	192.01		4800	740	36	160	310	4.7										
RS-7	8/13/2003	195.99	4.09	191.9		9400	1300	65	310	620	6.1										
RS-7	11/20/2003	195.99	4.10	191.89		4800	700	13	110	110	<5										
RS-7	1/22/2004	195.99	4.12	191.87																	
RS-7	3/30/2004	195.99	4.05	191.94		3800	540	33	140	210	3.4										
RS-7	6/10/2004	195.99	4.12	191.87		4000	740	22	82	130	2.8										
RS-7	9/28/2004	195.99	4.18	191.81		5000	640	20	110	130	2.8										
RS-7	12/8/2004	195.99	3.92	192.07		3700	290	18	130	190	0.56										
RS-7	3/23/2005	195.99	4.00	191.99		4600	220	17	100	170	2.4										
RS-7	6/1/2005	195.99	4.11	191.88		4700	660	41	140	290	3.7										
RS-7	9/21/2005	195.99	4.14	191.85		4600	360	18	67	130	3.6										

TABLE 1  
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABORATORY RESULTS FROM WATER SAMPLES  
DESERT PETROLEUM, INC. SITE #793  
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

ID#	DATE SAMPLED	(All concentrations in parts per billion [ug/L, ppb]) (AMSL = Above mean sea level)									
		WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1.5)	TOLUENE (UG/L) (150)	ETHYL-BENZENE (UG/L) (300)	XYLENES (UG/L) (1800)	MTBE (UG/L) (13)	
(CALIFORNIA PUBLIC HEALTH GOAL)											
RS-8	12/14/1989										
RS-8	09/04/96										
RS-8	12/11/96										
RS-8	2/21/97										
RS-8	5/28/97										
RS-8	9/2/1997										
RS-8	11/24/1997										
RS-8	2/25/1998										
RS-8	7/8/1998										
RS-8	9/16/1998										
RS-8	11/24/1998										
RS-8	2/23/1999										
RS-8	5/5/1999										
RS-8***	8/26/1999	214.67	7.25	207.42	160000	24000	35000	4200	24000	<5	
RS-8	11/10/1999	214.67	8.69	205.98	150000	21000	29000	3000	14000	<0.5	
RS-8	2/9/2000	214.67	7.23	207.44	14000	1900	3200	270	2300	<0.5	
RS-8	6/30/2000	214.67	3.99	210.68	6400	570	870	150	770	<0.5	
RS-8	8/8/2000	214.67	7.52	207.15	100000	24000	40000	2300	9900	<0.5	
RS-8	11/16/2000	214.67	6.14	208.53	110000	14000	21000	2100	9600	<20	
RS-8	3/8/2001	214.67	9.40	205.27	10000	740	840	220	990	<2	
RS-8	5/31/2001	214.67	6.83	207.84	730	11	29	4.2	31	<5	
RS-8	12/18/2001	214.67	7.14	207.53	4500	230	370	77	750	<0.5	
RS-8	2/19/2002	214.67	7.69	206.98	780	33	21	5.1	45	<0.5	
RS-8	5/7/2002	214.67	7.82	206.85	24000	1500	1800	830	2700	<10	
RS-8	8/6/2002	214.67	13.46	201.21		0.04	feet floating product				
RS-8	11/5/2002	214.67	13.96	200.71		0.40	feet floating product				
RS-8	12/12/2002	214.67	14.38	200.29		0.08	feet floating product				
RS-8	3/13/2003	214.67	10.99	203.68	90000	1100	14000	2500	12000	<50	
RS-8	5/6/2003	214.67	5.35	209.32	1600	6.7	46	21	170	<0.5	
RS-8	8/13/2003	214.67	11.96	202.71	100000	1200	10000	2500	13000	<50	
RS-8	11/21/2003	214.67	12.30	202.37	100000	1700	10000	1700	12000	<25	
RS-8	1/22/2004	214.67	9.63	205.04							
RS-8	3/30/2004	214.67	8.70	205.97	18000	69	110	130	1200	<5	
RS-8	5/10/2004	214.67	10.65	204.02	33000	210	350	360	2300	<5	
RS-8	9/28/2004	214.67	9.00	205.67	6000	59	20	100	170	<1	
RS-8	12/8/2004	214.67	4.50	210.17	1100	<0.5	<0.5	<0.5	0.66	<0.5	
RS-8	3/23/2005	214.67	3.65	211.02	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
RS-8	6/1/2005	214.67	9.70	204.97	4700	330	210	250	330	<0.5	
RS-8	9/21/2005	214.67			could not locate, under landscaping.						

TABLE 1  
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABAORATAORY RESULTS FROM WATER SAMPLES  
DESERT PETROLEUM, INC. SITE #793  
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

ID#	(All concentrations in parts per billion (ug/L, ppb)) (AMSL = Above mean sea level)									
	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1.5)	TOLUENE (UG/L) (150)	ETHYL-BENZENE (UG/L) (300)	XYLENES (UG/L) (1800)	MTBE (UG/L) (13)
(CALIFORNIA PUBLIC HEALTH GOAL)										
RS-9	12/14/1989									
RS-9***	09/04/96									
RS-9***	12/11/96									
RS-9***	2/21/97									
RS-9***	5/28/97									
RS-9***	9/2/1997									
RS-9***	11/24/1997									
RS-9***	2/25/1998									
RS-9***	7/8/1998									
RS-9***	9/16/1998									
RS-9***	11/24/1998									
RS-9***	2/23/1999									
RS-9***	5/5/1999									
RS-9***	8/26/1999	195.63	7.46	188.17	17000	3500	1200	360	1600	180
RS-9	11/10/1999	195.63	7.91	187.72	2800	520	62	46	130	<0.5
RS-9	2/9/2000	195.63	6.09	189.54	3400	650	74	64	130	<0.5
RS-9	6/30/2000	195.63	6.77	188.86	3000	600	79	74	120	<0.5
RS-9	8/8/2000	195.63	7.32	188.31	4900	500	430	160	530	<0.5
RS-9	11/16/2000	195.63	6.33	189.3	3000	350	220	90	220	<0.5
RS-9	3/8/2001	195.63	4.93	190.7	<50	3.4	<0.5	<0.5	<0.5	<0.5
RS-9	5/31/2001	195.63	4.01	191.62	510	96	6	6.2	9.1	5.5
RS-9	12/18/2001	195.63	4.81	190.82	210	11	1.8	3.9	7.6	<0.5
RS-9	2/19/2002	195.63	4.99	190.64	<50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-9	5/7/2002	195.63	6.08	189.55	130	7.9	<0.5	1.2	<0.5	0.67
RS-9	8/6/2002	195.63	6.93	188.7	380	29	1.2	2.3	2.9	3.1
RS-9	11/5/2002	195.63	7.53	188.1	1800	240	9	27	110	8.6
RS-9	12/12/2002	195.63	7.23	188.4						
RS-9	3/13/2003	195.63	5.73	189.9	410	30	3	6	9.5	3.3
RS-9	5/6/2003	195.63	4.83	190.8	910	72	15	9.2	26	5.5
RS-9	8/13/2003	195.63	8.24	187.39	810	20	<0.5	2.4	1.6	3.6
RS-9	11/20/2003	195.63	6.99	188.64	3600	920	5.3	6.1	20	30
RS-9	1/22/2004	195.63	5.43	190.2						
RS-9	3/30/2004	195.63	5.07	190.56	1900	360	9.3	19	48	21
RS-9	6/10/2004	195.63	6.18	189.45	950	180	3	8.4	14	8.7
RS-9	9/28/2004	195.63	6.94	188.69	4900	1800	5.9	5	16	31
RS-9	12/8/2004	195.63	4.42	191.21	74	<0.5	<0.5	<0.5	<0.5	<0.5
RS-9	3/23/2005	195.63	4.10	191.53	540	99	1.1	1.1	4.5	3.6
RS-9	6/1/2005	195.63	5.12	190.51	3300	170	14	77	87	12
RS-9	9/21/2005	195.63	6.60	189.03	330	1.2	<0.5	<0.5	0.58	1.8



TABLE 1  
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABORATORY RESULTS FROM WATER SAMPLES  
DESERT PETROLEUM, INC. SITE #793  
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

ID#	DATE SAMPLED	(All concentrations in parts per billion (ug/L, ppb)) (AMSL = Above mean sea level)								
		WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1.5)	TOLUENE (UG/L) (150)	ETHYL-BENZENE (UG/L) (300)	XYLENES (UG/L) (1800)	MTBE (UG/L) (13)
(CALIFORNIA PUBLIC HEALTH GOAL)										
R1	12/14/1989									
R1	09/04/96	227.69	15.00	212.69	1800	1100	3	29	< 10	< 30
R1	12/11/96	227.69	10.30	217.39	<50	<0.5	< 0.5	< 0.5	< 1	4
R1	2/21/97	227.69	11.88	215.81	2500	670	9	3	13	<0.5
R1	5/28/97	227.69	14.03	213.66	24000	4300	36	2000	370	<0.5
R1	9/2/1997	227.69	14.98	212.71	4400	320	6	340	72	20
R1	11/24/1997	227.69	14.06	213.63	100	39	1	18	10	<0.5
R1	2/25/1998	227.69	8.93	218.76	1200	400	8	13	150	<0.5
R1	7/8/1998	227.69	11.36	216.33	68	14	< 0.5	< 0.5	< 1	<1
R1	9/16/1998	227.69	13.30	214.39	16000	3400	92	< 0.5	410	<1
R1	11/24/1998	227.69	10.72	216.97	340	19	1.6	35	9.7	<0.5
R1	2/23/1999	227.69	9.34	218.35	60	16	0.6	5.6	1.2	<0.5
R1	5/5/1999	227.69	11.30	216.39	1300	290	3	150	1	15
R1	8/26/1999	227.69	13.97	213.72	6500	630	<0.5	1300	<1	<1
R1	11/10/1999	227.69	13.73	213.96	480	12	4	22	9	<0.5
R1	2/9/2000	227.69	13.10	214.59	<50	8	<0.5	1	<1	<0.5
R1	6/30/2000	227.69	13.42	214.27	2600	350	35	1900	220	<0.5
R1	8/8/2000	227.69	14.25	213.44	10000	910	76	2100	390	<0.5
R1	3/8/2001	227.69	13.72	213.97	<50	<0.5	<0.5	<0.5	<0.5	<0.5
R1	3/8/2001	227.69	13.72	213.97	<50	<0.5	<0.5	<0.5	<0.5	<0.5
R1	5/31/2001	227.69	15.77	211.92	3800	400	16	470	67	<5
R1	12/18/2001	227.69	9.90	217.79	<50	<0.5	<0.5	1.5	<0.5	<0.5
R1	2/19/2002	227.69	10.86	216.83	<50	<0.5	<0.5	<0.5	<0.5	<0.5
R1	5/7/2002	227.69	16.17	211.52	53	3.3	<0.5	1	<0.5	<0.5
R1	8/6/2002	227.69	16.83	210.86	<50	<0.5	<0.5	<0.5	<0.5	<0.5
R1	11/5/2002	227.69	16.92	210.77	dry, groundwater deeper than 210.77 foot elevation					
R1	12/12/2002	227.69	16.94	210.75						
R1	3/13/2003	227.69	15.69	212	<50	4.5	<0.5	<0.5	<0.5	<0.5
R1	5/6/2003	227.69	10.75	216.94	<50	<0.5	<0.5	<0.5	<0.5	<0.5
R1	8/13/2003	227.69	16.04	211.65	430	17	<0.5	1.4	1.1	<0.5
R1	11/20/2003	227.69	dry							
R1	1/22/2004	227.69	14.40	213.29						
R1	3/30/2004	227.69	14.05	213.64	<50	2.8	<0.5	<0.5	<0.5	<0.5
R1	6/10/2004	227.69	15.85	211.84	3200	85	2.6	38	8.3	<0.5
R1	9/28/2004	227.69	15.06	212.63	2000	35	2.2	12	4.4	<0.5
R1	12/8/2004	227.69	9.70	217.99	<50	<0.5	<0.5	<0.5	<0.5	<0.5
R1	3/23/2005	227.69	8.58	219.11	<50	<0.5	<0.5	<0.5	<0.5	<0.5
R1	6/1/2005	227.69	13.30	214.39	330	12	<0.5	1.6	1.4	<0.5
R1	9/21/2005	227.69	14.92	212.77	3400	20	1.3	13	4.4	<0.5



TABLE 1  
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABORATORY RESULTS FROM WATER SAMPLES  
DESERT PETROLEUM, INC. SITE #793  
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

ID#	(All concentrations in parts per billion (ug/L, ppb)) (AMSL = Above mean sea level)									
	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1.5)	TOLUENE (UG/L) (150)	ETHYL-BENZENE (UG/L) (300)	XYLENES (UG/L) (1800)	MTBE (UG/L) (13)
(CALIFORNIA PUBLIC HEALTH GOAL)										
R2	12/14/1989									
R2	09/04/96	230.68	13.44	217.24	14000	7600	<10	170	190	<100
R2	12/11/96	230.68	12.42	218.26	488	300	1	< 0.5	30	16
R2	2/21/97	230.68	10.50	220.18	5700	2100	5	2	10	3
R2	5/28/97	230.68	13.10	217.58	36000	14000	63	260	220	<0.5
R2	9/2/1997	230.68	14.16	216.52	30000	12000	330	1000	790	47
R2	11/24/1997	230.68	14.71	215.97	41000	15000	830	1500	4200	<0.5
R2	2/25/1998	230.68	7.39	223.29	800	400	<0.5	<0.5	15	<0.5
R2	7/8/1998	230.68	11.27	219.41	290	31	< 0.5	1	< 1	2
R2	9/16/1998	230.68	13.73	216.95	6600	11000	24	<0.5	35	<1
R2	11/24/1998	230.68	11.67	219.01	6100	<0.5	36	<0.5	21	<0.5
R2	2/23/1999	230.68	7.55	223.13	1100	310	3	2	26	<0.5
R2	5/5/1999	230.68	10.89	219.79	11000	5300	7	36	7	8
R2	8/26/1999	227.28	13.14	214.14	6700	940	33	190	240	<1
R2	11/10/1999	227.28	14.42	212.86	5100	2600	160	1800	8100	<0.5
R2	2/9/2000	227.28	12.45	214.83	4700	1400	110	130	340	<0.5
R2	6/30/2000	227.28	12.94	214.34	7100	3200	110	300	480	<0.5
R2	8/8/2000	227.28	13.58	213.7	30000	13000	250	1000	2700	<0.5
R2	11/16/2000	227.28	14.33	212.95	44000	17000	230	790	3600	<0.5
R2	3/8/2001	227.28	11.15	216.13	2300	640	8.6	61	170	<2
R2	5/31/2001	227.28	13.38	213.9	2200	580	12	72	100	<25
R2	12/18/2001	227.28	12.35	214.93	4900	2000	120	44	280	<5
R2	2/19/2002	227.28	11.32	215.96	2100	1200	<5	14	<5	<5
R2	5/7/2002	227.28	13.15	214.13	2500	660	7.5	170	26	<2.5
R2	8/6/2002	227.28	14.51	212.77	6300	1800	150	220	340	<5
R2	11/5/2002	227.28	15.46	211.82	11000	3000	140	57	620	<20
R2	12/12/2002	227.28	15.70	211.58						
R2	3/13/2003	227.28	12.96	214.32	580	200	1.2	5.4	3.8	<1
R2	5/6/2003	227.28	11.14	216.14	70	25	<0.5	<0.5	1.3	<0.5
R2	8/13/2003	227.28	14.01	213.27	1800	340	8	49	12	<2
R2	11/20/2003	227.28	15.35	211.93	8000	1400	46	57	490	<5
R2	1/22/2004	227.28	12.10	215.18						
R2	3/30/2004	227.28	11.48	215.8	<50	3	<0.5	<0.5	<0.5	<0.5
R2	6/10/2004	227.28	13.95	213.33	77	7.7	<0.5	<0.5	<0.5	<0.5
R2	9/28/2004	227.28	14.80	212.48	500	120	2	25	2.7	0.71
R2	12/8/2004	227.28	12.25	215.03	100	8.5	<0.5	<0.5	5	<0.5
R2	3/23/2005	227.28	7.82	219.46	57	8.4	<0.5	<0.5	<0.5	<0.5
R2	6/1/2005	227.28	12.14	215.14	85	5.2	<0.5	<0.5	<0.5	<0.5
R2	9/21/2005	227.28	13.97	213.31	900	120	1.3	2.5	4.8	<0.5

TABLE 1-  
 GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABORATORY RESULTS FROM WATER SAMPLES  
 DESERT PETROLEUM, INC. SITE #793  
 4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

ID#	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	(All concentrations in parts per billion (ug/L, ppb)) (AMSL = Above mean sea level)		TPH-G (UG/L)	BENZENE (UG/L) (1.5)	TOLUENE (UG/L) (150)	ETHYL-BENZENE (UG/L) (300)	XYLENES (UG/L) (1800)	MTBE (UG/L) (13)	
			DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)							
R3	12/14/1989										
R3	09/04/96	230.32	9.90	220.42	<50	<0.5	<0.5	<0.5	<2	<5	
R3	12/11/96	230.32	8.18	222.14	<50	<0.5	<0.5	<0.5	<1	5	
R3	2/21/97	230.32	6.76	223.56	340	35	59	8	54	<0.5	
R3	5/28/97	230.32	9.98	220.34	<50	<0.5	<0.5	<0.5	<1	<0.5	
R3	9/2/1997	230.32	10.86	219.46	<50	4	<0.5	<0.5	<1	<0.5	
R3	11/24/1997	230.32	11.20	219.12	not enough water to sample. No sample					<1	<0.5
R3	2/25/1998	230.32	3.42	226.9	<50	<0.5	<0.5	<0.5	4	24	
R3	7/8/1998	230.32	8.78	221.54	<50	<0.5	<0.5	<0.5	<1	<1	
R3	9/16/1998	230.32	10.38	219.94	not enough water to sample. No sample					<1	<0.5
R3	11/24/1998	230.32	11.12	219.2	<50	<0.5	<0.5	<0.5	<1	6	
R3	2/23/1999	230.32	3.95	226.37	80	9	<0.5	<0.5	<1	1	
R3	5/5/1999	230.32	7.58	222.74	<50	2	<0.5	<0.5	11	<0.5	
R3	8/26/1999	227.25	10.76	216.49	140	3	4	<0.5	<1	<0.5	
R3	11/10/1999	227.25	11.09	216.16	<50	2	<0.5	<0.5	1	<0.5	
R3	2/9/2000	227.25	8.76	218.49	<50	0.7	<0.5	<0.5	<1	<0.5	
R3	6/30/2000	227.25	9.67	217.58	72	<0.5	<0.5	<0.5	3	<0.5	
R3	8/8/2000	227.25	10.44	216.81	110	4	1	<0.5	<0.5	<0.5	
R3	11/16/2000	227.25	10.26	216.99	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
R3	3/8/2001	227.25	6.54	220.71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
R3	5/31/2001	227.25	10.01	217.24	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
R3	12/18/2001	227.25	6.79	220.46	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
R3	2/19/2002	227.25	7.86	219.39	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
R3	5/7/2002	227.25	9.20	218.05	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
R3	8/6/2002	227.25	10.62	216.63	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
R3	11/5/2002	227.25	11.07	216.18					<0.5	<0.5	
R3	12/12/2002	227.25	11.28	215.97	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
R3	3/13/2003	227.25	8.69	218.56	<50	<0.5	<0.5	<0.5			
R3	5/6/2003	227.25	8.02	219.23		DRY					
R3	8/13/2003	227.25		dry		DRY					
R3	11/20/2003	227.25		dry					<0.5	<0.5	
R3	1/22/2004	227.25	7.30	219.95	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
R3	3/30/2004	227.25	7.85	219.4	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
R3	6/10/2004	227.25	10.30	216.95		DRY			<0.5	<0.5	
R3	9/28/2004	227.25		dry	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
R3	12/8/2004	227.25	9.00	218.25	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
R3	3/23/2005	227.25	4.90	222.35	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
R3	6/1/2005	227.25	8.60	218.65	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
R3	9/21/2005	227.25	10.80	216.45	<50	<0.5	<0.5	<0.5	<0.5	<0.5	

TABLE 1  
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABAORATAORY RESULTS FROM WATER SAMPLES  
DESERT PETROLEUM, INC. SITE #793  
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

ID#	(All concentrations in parts per billion (ug/L, ppb) (AMSL = Above mean sea level))									
	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1.5)	TOLUENE (UG/L) (150)	ETHYL-BENZENE (UG/L) (300)	XYLENES (UG/L) (1800)	MTBE (UG/L) (13)
(CALIFORNIA PUBLIC HEALTH GOAL)										
T 1	12/14/1989									
T 1	09/04/96									
T 1	12/11/96									
T 1	2/21/97									
T 1	5/28/97									
T 1	9/2/1997									
T 1	11/24/1997									
T 1	2/25/1998									
T 1	7/8/1998									
T 1	9/16/1998									
T 1	11/24/1998									
T 1	2/23/1999									
T 1	5/5/1999									
T 1***	8/26/1999	195.11	2.44	192.67	40000	7200	5000	950	8100	53
T 1	11/10/1999	195.11	2.23	192.88	46000	5600	3600	910	6500	<0.5
T 1	2/9/2000	195.11	2.22	192.89	35000	2900	5700	720	6600	<0.5
T 1	6/30/2000	195.11	2.22	192.89	30000	3400	3200	950	4600	<5
T 1	8/8/2000	195.11	2.73	192.38	8900	1600	760	260	870	<5
T 1	11/16/2000	195.11	2.72	192.39	4000	1300	92	80	290	<0.5
T 1	3/8/2001	195.11	2.12	192.99	25000	4400	3400	770	3200	26
T 1	5/31/2001	195.11	2.30	192.81	8900	940	210	340	1500	<50
T 1	12/18/2001	195.11	2.20	192.91	48000	3700	5500	1200	5300	24
T 1	2/19/2002	195.11	1.96	193.15	64000	8600	6000	1700	6800	55
T 1	5/7/2002	195.11	2.22	192.89	41000	9200	910	2000	6200	62
T 1	8/6/2002	195.11	2.32	192.79	28000	5500	240	1300	2600	32
T 1	11/5/2002	195.11	2.52	192.59	11000	3000	65	660	610	18
T 1	12/12/2002	195.11	2.55	192.56						
T 1	3/13/2003	195.11	2.23	192.88	930	150	17	23	60	2.6
T 1	5/6/2003	195.11	2.37	192.74	6800	1000	230	310	820	10
T 1	8/13/2003	195.11	2.41	192.7	9600	1500	110	440	910	10
T 1	11/20/2003	195.11	2.50	192.61	10000	1800	120	520	510	11
T 1	1/22/2004	195.11								
T 1	3/30/2004	195.11			15000	1800	660	610	2000	8.6
T 1	6/10/2004	195.11	2.40	192.71	5500	570	2	240	130	2.7
T 1	9/28/2004	195.11	2.52	192.59	8700	2600	100	450	15	15
T 1	12/8/2004	195.11	1.96	193.15	2900	820	32	14	47	6.9
T 1	3/23/2005	195.11	car		2800	220	3	120	76	1.7
T 1	6/1/2005	195.11	2.25	192.86	46000	14000	650	1900	2900	54
T 1	9/21/2005	195.11	2.42	192.69	17000	4500	81	620	200	28
T 2	1/22/2004	195.3	2.54	192.76	see T1 for sample results					
T 2	3/30/2004	195.3	2.50	192.8	see T1 for sample results					
T 2	6/10/2004	195.3	2.60	192.7	see T1 for sample results					
T 2	9/28/2004	195.3	car		see T1 for sample results					
T 2	12/8/2004	195.3	2.04	193.26	see T1 for sample results					
T 2	3/23/2005	195.3	car		see T1 for sample results					
T 2	6/1/2005	195.3	car		see T1 for sample results					
T 2	9/21/2005	195.3	car		see T1 for sample results					
T 3	1/22/2004	202.38			see T1 for sample results					
T 3	6/10/2004	202.38	9.80	192.58	see T1 for sample results					
T 3	9/28/2004	202.38	9.90	192.48	see T1 for sample results					
T 3	12/8/2004	202.38	9.24	193.14	see T1 for sample results					
T 3	3/23/2005	202.38	car		see T1 for sample results					
T 3	6/1/2005	202.38	car		see T1 for sample results					
T 3	9/21/2005	202.38	car		see T1 for sample results					

TABLE 1  
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABORATORY RESULTS FROM WATER SAMPLES  
DESERT PETROLEUM, INC. SITE #793  
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

ID#	(All concentrations in parts per billion (ug/L, ppb)) (AMSL = Above mean sea level)									
	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1.5)	TOLUENE (UG/L) (150)	ETHYL-BENZENE (UG/L) (300)	XYLENES (UG/L) (1800)	MTBE (UG/L) (13)
(CALIFORNIA PUBLIC HEALTH GOAL)										
T4	1/22/2004	197.48	4.70	192.78	see T1 for sample results					
T4	3/30/2004	197.48	4.66	192.82	see T1 for sample results					
T4	6/10/2004	197.48	4.76	192.72	see T1 for sample results					
T4	9/28/2004	197.48	4.86	192.62	see T1 for sample results					
T4	12/8/2004	197.48	4.21	193.27	see T1 for sample results					
T4	3/23/2005	197.48	4.35	193.13	see T1 for sample results					
T4	6/1/2005	197.48	car		see T1 for sample results					
T4	9/21/2005	197.48	car		see T1 for sample results					
LF 1	1/22/2004	226.59	29.12	197.47						
LF 1	3/30/2004	226.59	26.45	200.14	<50	<0.5	<0.5	<0.5	<0.5	<0.5
LF 1	6/10/2004	226.59	27.57	199.02	<50	<0.5	<0.5	<0.5	<0.5	<0.5
LF 1	9/28/2004	226.59	28.72	197.87	<50	<0.5	<0.5	<0.5	<0.5	<0.5
LF 1	12/8/2004	226.59	car							
LF 1	3/23/2005	226.59	car							
LF 1	6/1/2005	226.59	car							
LF 1	9/21/2005	226.59	car							

ND BELOW LABORATORY DETECTION LIMITS  
TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
\* MTBE results confirmed by EPA Method 8260 (GC/MS)  
\*\* LAB REPORT HAD RS-6 AND RS-7 MISLABELED, RESAMPLE ON 7/30/98 CONFIRMED.  
\*\*\* WELL CASING ELEVATION SURVEY 8-27-99, WADE HAMMOND No.6163, BENCH MARK CITY OF OAKLAND #2814  
\*\*\*\* SAMPLES ANALYZED USING EPA METHOD 8260B

TABLE 2  
GROUNDWATER REMOVAL  
FORMER OP #793  
4035 PARK BLVD., OAKLAND, CALIFORNIA

DATE PURGED	METER READING IN GALLONS RSS	METER READING IN GALLONS TRENCH	DEPTH TO TOP OF WATER IN FEET T1	GALLONS PURGED T1 and/or 1/4ly monitoring in GALLONS	ACCUMULATED GALLONS REMOVED FROM TRENCH & WELLS	Accumulated gallons removed from RSS Gallons	TOTAL GALLONS REMOVED	INFLUENT CONCENTRATIONS EPA METHOD 8020 - 8260B					Sample Location	
								TPHg	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES		MTBE
								ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
1/22/2004	1672236.9	1673412.0		1175	84057	495508.9	579566.2							
2/26/2004	1696276.0	1696378.0		102	84159	518372.9	602532.2							
3/30/2004	1722614.0	1723589.0		975	85134	544608.9	629743.2	15000	1800	660	610	2000	8.6	T1
4/8/2004	1729975.5	1729975.5		0	85134	550995.4	636129.7	4000	370	59	13	380	2.6	RS5
4/14/2004	1734113.2	1734113.2		0	85134	555133.1	640267.4							
4/22/2004	1739978.0	1739978.0		0	85134	560997.9	646132.2							
4/29/2004	1744687.9	1746094.5		1407	86541	565707.8	652248.7							
5/13/2004	1754248.1	1754248.1		0	86541	573861.4	660402.3							
5/21/2004	1759593.7	1759593.7		0	86541	579207.0	665747.9							
5/27/2004	1762418.0	1764065.5		1648	88188	582031.3	670219.7							
6/3/2004	1769445.0	1769445.0		0	88188	587410.8	675599.2	5500	570	2	240	130	2.7	T1
6/10/2004	1774349.0	1774349.0		0	88188	592314.8	680503.2	120	7	0.88	1.3	4.3	1.3	RS5
6/17/2004	1778979.0	1778979.0		0	88188	596944.8	685133.2							
6/25/2004	1783576.7	1783576.7		0	88188	601542.5	689730.9							
6/30/2004	1786027.0	1787786.1		1759	89948	603992.8	693940.3							
7/8/2004	1787858.5	1787858.5		0	89948	604065.2	694012.7							
7/22/2004	1791170.5	1791170.5		0	89948	607377.2	697324.7							
7/29/2004	1791170.5	1791170.5		0	89948	607377.2	697324.7	no electrical power to site (no pumping).						
9/24/2004	1791170.0	1791170.0		0	89948	607376.7	697324.2	new electrical power to site (restart pump RS5).						
9/28/2004	1791275.2	1793186.5		1911	91859	607481.9	699340.7	2600	110	89	75	56	<0.5	RS5
9/30/2004	1794233.0	1794233.0		0	91859	608528.4	700387.2	8700	2600	100	450	240	15	T1
10/15/2004	1794243.8	1794243.8		0	91859	608539.2	700399.0							
10/28/2004	1800669.8	1800669.8		0	91859	614965.2	706824.0							
11/5/2004	1805236.0	1805236.0		0	91859	619531.4	711390.2							
11/19/2004	1813980.8	1813980.8		0	91859	628276.2	720135.0							
12/8/2004	1826103.7	1826253.7		150	92009	640399.1	732407.9	<50	<0.5	<0.5	<0.5	<0.5	<0.5	RS5
12/30/2004	1841818.0	1841818.0		0	92009	655963.4	747972.2							
1/14/2005	1854930.0	1855778.0		848	92857	669075.4	761932.2							
2/15/2005	1872001.8	1872001.8		0	92857	685299.2	778156.0							
3/23/2005	1903025.7	1903025.7		0	92857	716323.1	809179.9	7400	890	280	180	940	5.1	RS5
4/13/2005	1947663.2	1947663.2		0	92857	760960.6	853817.4							
5/12/2005	1941964.2	1941964.2		0	92857	755261.6	848118.4							
6/7/2005	1962946.5	1962946.5		0	92857	776243.9	869100.7	3500	380	85	59	360	3	RS5
7/19/2005	1997247.2	1997247.2		0	92857	810544.6	903401.4							
8/17/2005	2018578.5	2018578.5		0	92857	831875.9	924732.7							
9/21/2005	2027897.0	2027897.0		200	93057	841194.4	934251.2	790	34	4.7	0.89	99	<0.5	RS5

< BELOW LABORATORY LOWER DETECTION LIMITS  
mg/Kg milligrams per kilogram (parts per million)  
TPHg TOTAL PETROLEUM HYDROCARBONS GASOLINE RANGE  
MTBE METHYL TERTIARY BUTYL ETHER

\* SAMPLED ON AUGUST 26, 1999  
T1 Receptor Trench Well  
RS5 Monitor Well RS5 (pumping well)

ug/L micrograms per liter (parts per billion)  
mg/L milligrams per liter (parts per million)  
WESTERN GEO-ENGINEERS

00  
27

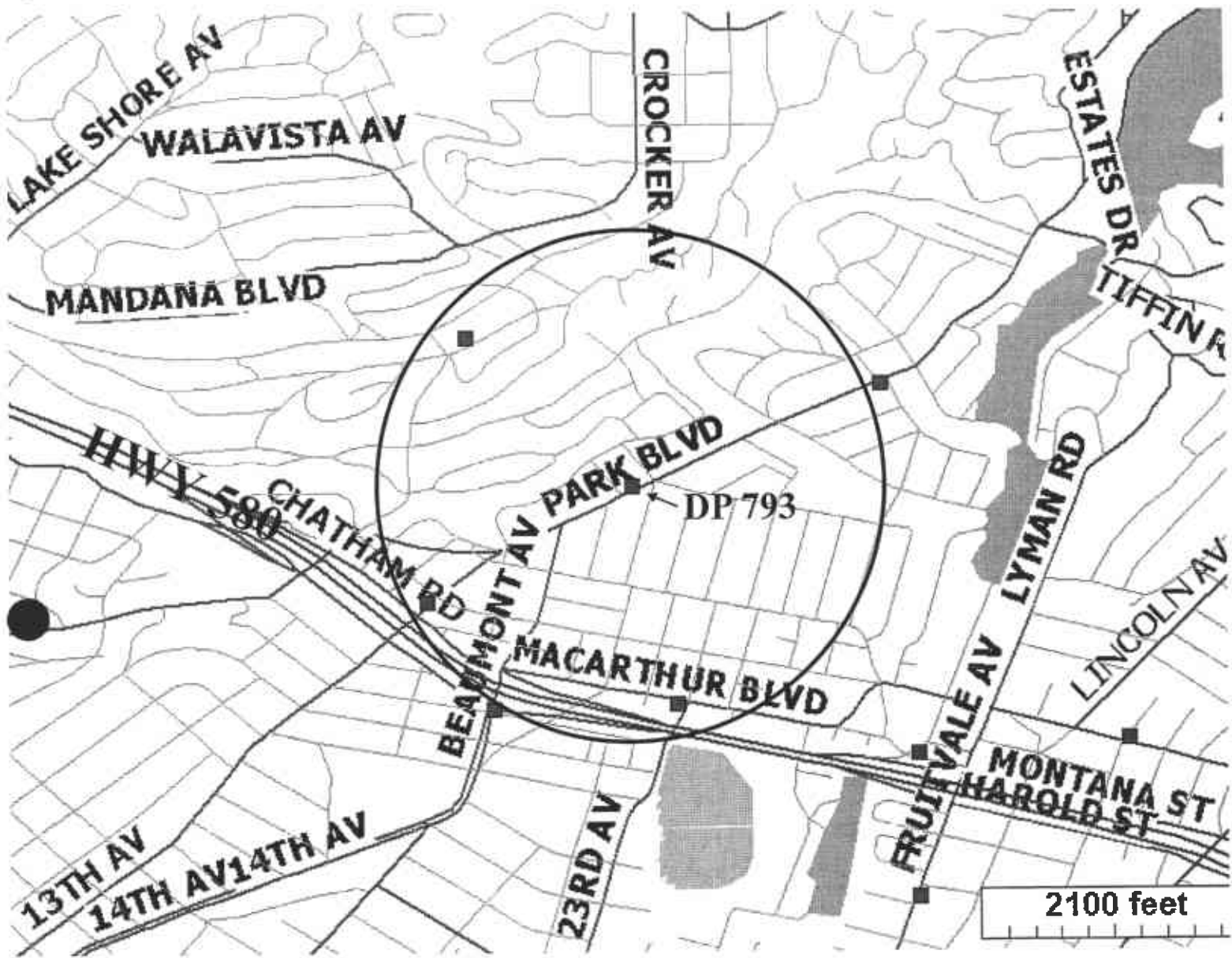


FIGURE 1  
 GEOTRACKER  
 AREA WELL & LUST MAP  
 DP 793  
 4035 PARK BLVD.  
 OAKLAND, CA

- LUST SITES
- WELLS

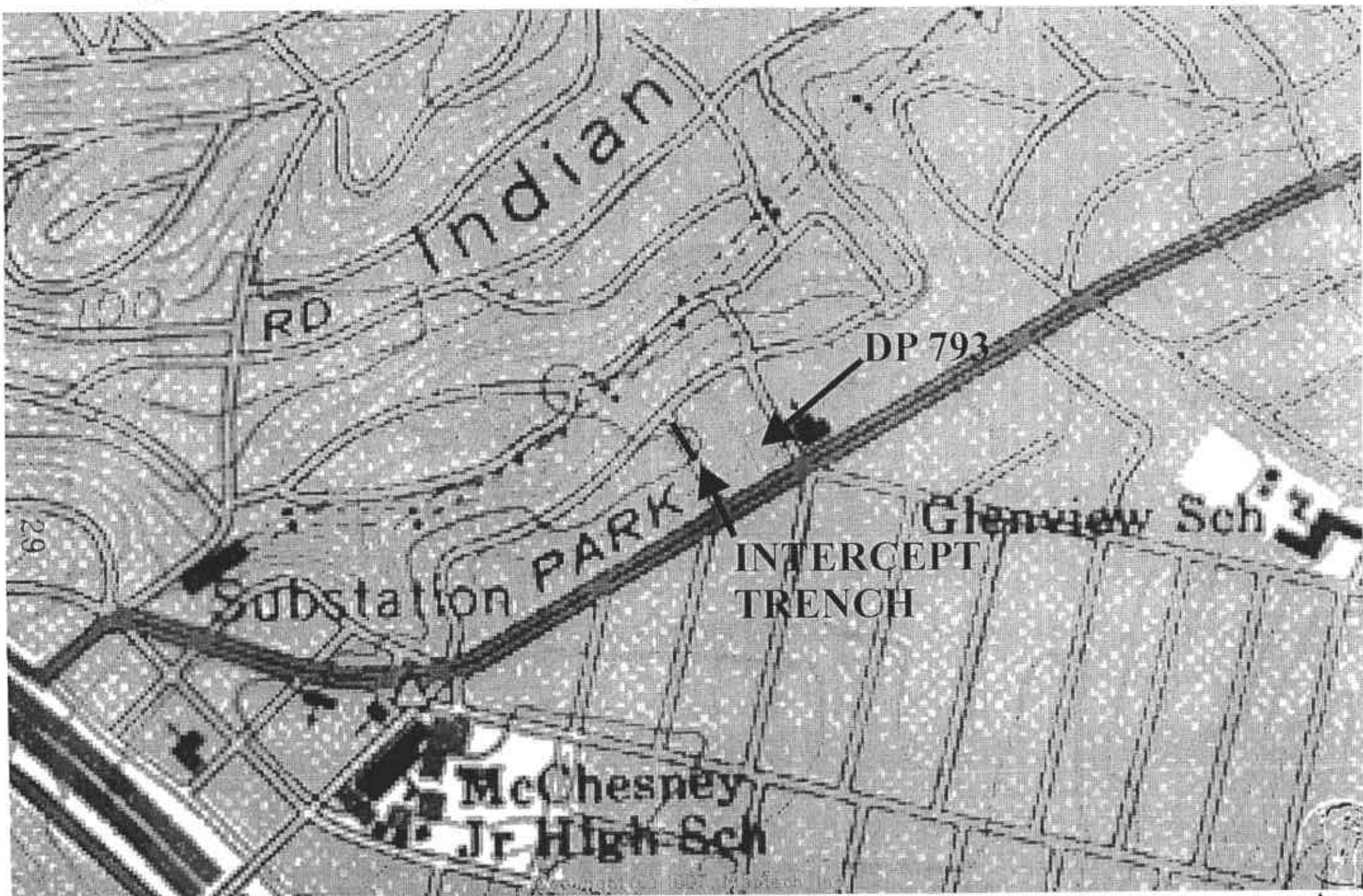
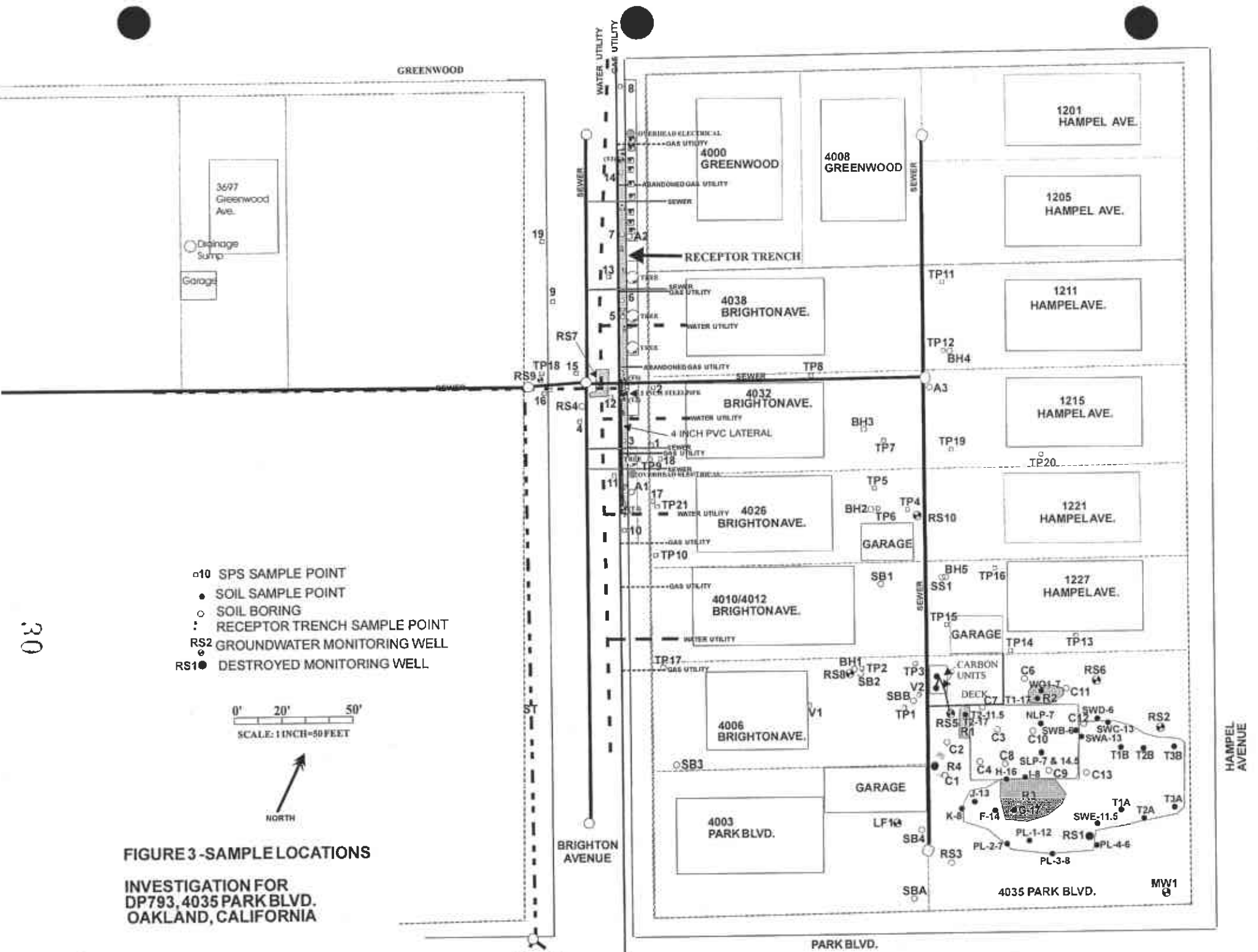


FIGURE 2  
PORTION OF OAKLAND EAST 7.5 MINUTE USGS TOPOGRAPHIC MAP





- SPS SAMPLE POINT
- SOIL SAMPLE POINT
- SOIL BORING
- - - RECEPTOR TRENCH SAMPLE POINT
- RS2 GROUNDWATER MONITORING WELL
- RS1 DESTROYED MONITORING WELL

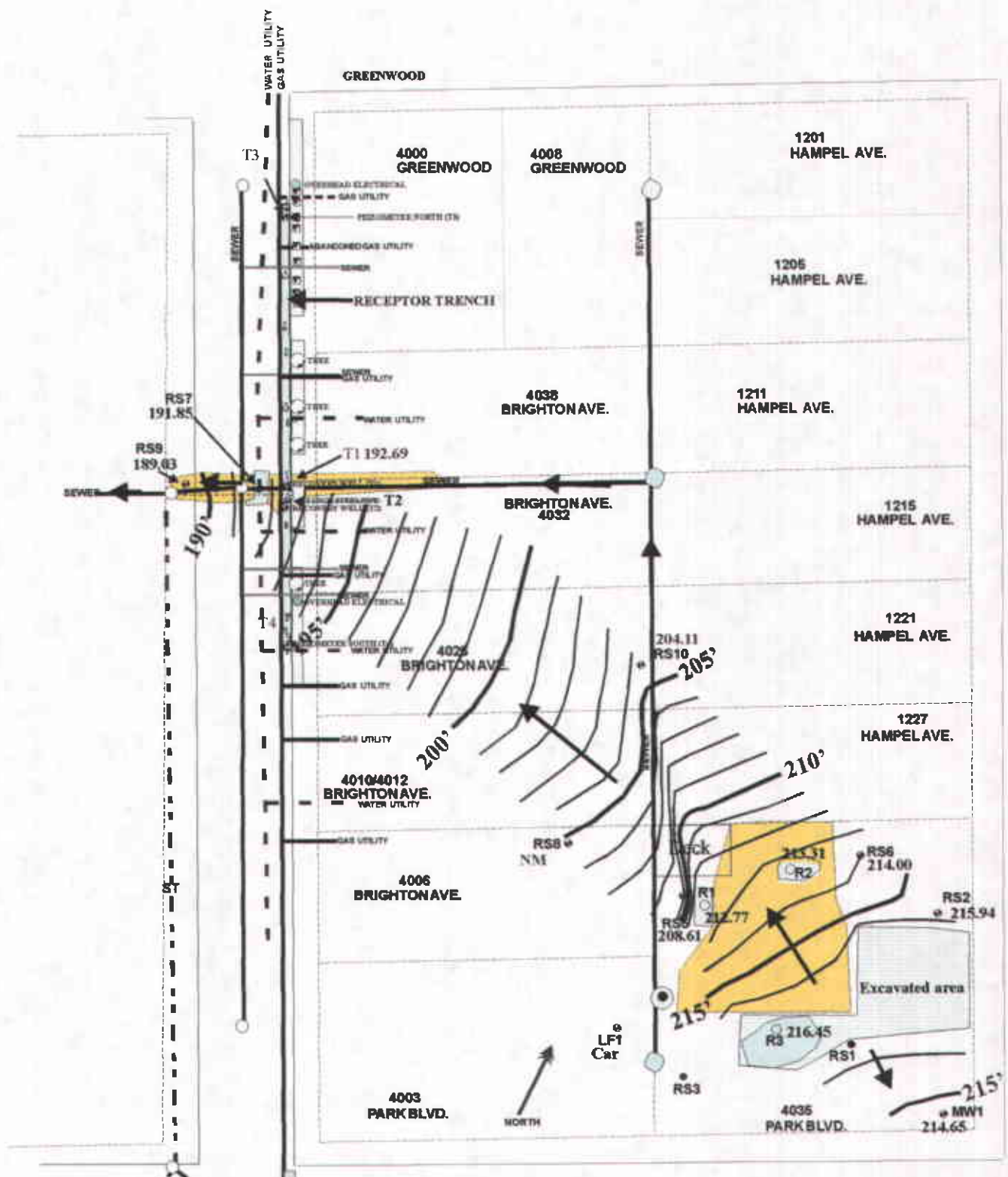
0' 20' 50'  
SCALE: 1 INCH=50 FEET



**FIGURE 3 - SAMPLE LOCATIONS**  
INVESTIGATION FOR  
DP793, 4035 PARK BLVD.  
OAKLAND, CALIFORNIA

30



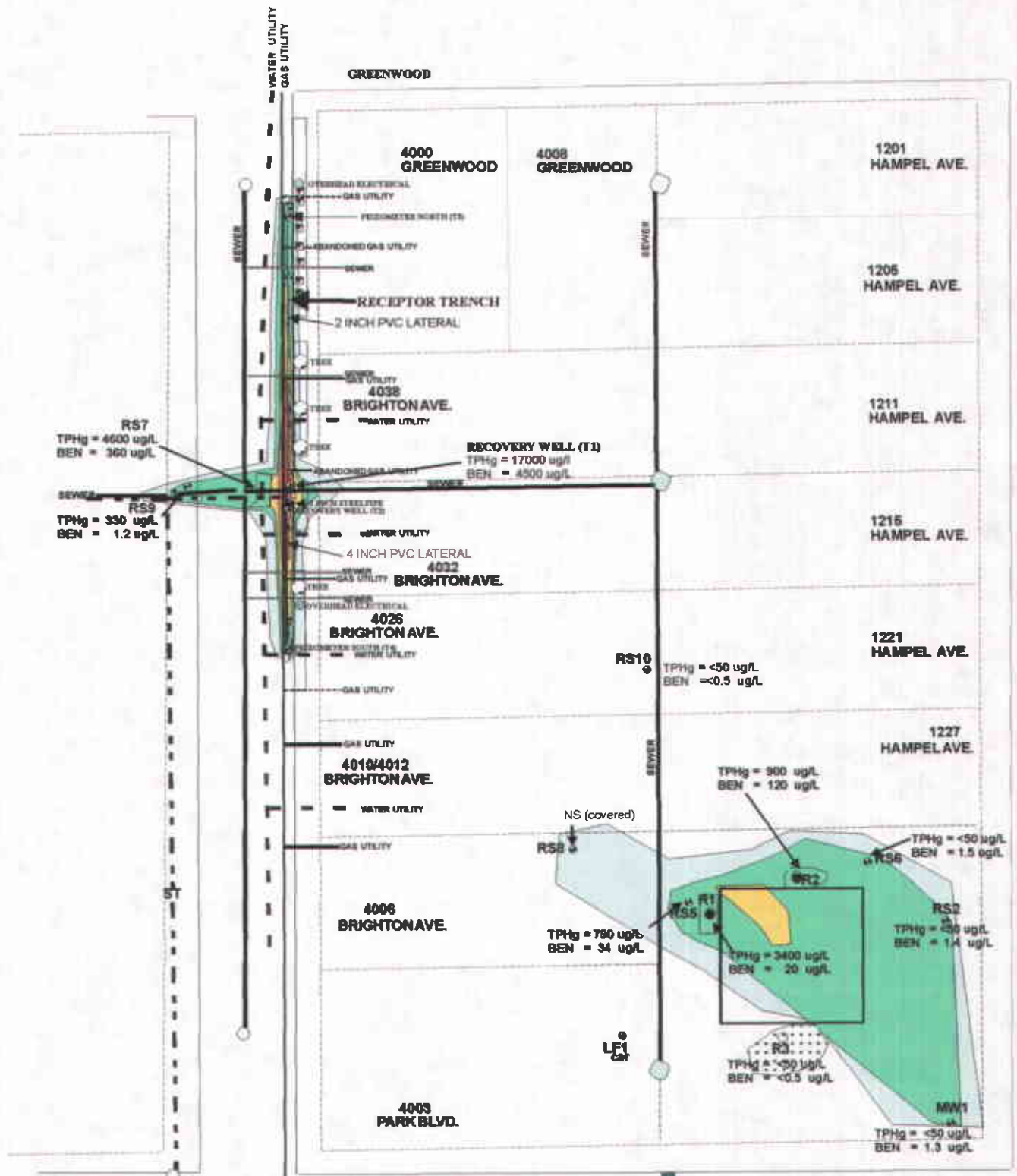


0' 20' 50'  
SCALE: 1 INCH=50 FEET

**FIGURE 4**  
 DP 793, 4035 PARK BLVD.  
 OAKLAND, CALIFORNIA  
 GROUNDWATER ELEVATION  
 9/21/05.

CONTOURS ARE FEET ABOVE SEA LEVEL.

Areas that in the past contained soil contamination, TPHg > 10 mg/Kg



**FIGURE 5**  
**GROUNDWATER**  
**PLUME**  
**9/21/05**

DP 793, 4035 PARK BLVD.  
 OAKLAND, CALIFORNIA

- RS3 SOIL BORING
- ⊥ TRENCH SAMPLE POINT
- RS2 ● GROUNDWATER MONITORING WELL
- Benzene > 1000 ug/L
- Benzene > 500 ug/L
- Benzene > 1 ug/L
- TPHg Groundwater Plume

**APPENDIX A**

**METHODS AND PROCEDURES, QA/QC  
WITH FIELD NOTES**

## APPENDIX A.

### METHODS AND PROCEDURES, QA/QC

This Appendix documents the specific methods, procedures, and materials used to collect and analyze ground water samples.

#### Gauging and Measuring Monitor Wells.

Prior to sampling a well, WEGE personnel obtain two measurements: the depth to ground water and the product thickness using a battery powered depth to water-product interface probe and or by using a specially designed bailer. The probe is lowered into the well casing until the instrument signals that the top of water has been reached. The distance from the top of water to the top of casing is read from the tape calibrated in 0.01 foot intervals for accuracy to 0.01 foot, that is attached to the probe. The measured distance is subtracted from the established elevation at the top of casing to determine the elevation of ground water with respect to mean sea level.

The probe is washed with TSP and rinsed in distilled water before each measurement. WEGE has designed and built bailers that will collect a sample of the contents of a well to show the exact thickness of any floating product.

#### Purging Standing Water from Monitor Wells

If no product is present, WEGE personnel purge the well. This is accomplished by removing ground water from the well until the water quality parameters (temperature, pH, and conductivity) stabilize, or until the well is emptied of water. Periodic measurements of ground water temperature, pH, and conductivity were taken with a Hydac Monitor or other meter and recorded along with the volume of ground water removed from the well. Purging is done by one or more methods singularly or in combination. Bailers, pneumatic or electric sample pumps, or vacuum pump tanks or trucks may be used. The usual amount of water removed is three well volumes. The water collected during purging is either safely stored onsite for later disposition, transported to an approved onsite or offsite sewer discharge system, or an approved onsite or offsite treatment system.

#### Collection of Water Sample for Analysis

The well is allowed to recover after purging and a ground water sample is collected. A fresh bailer is used to collect enough water for the requirements of the laboratory for the analyses needed or required. The water samples are decanted from the bailer into the appropriate number and size containers. These containers are furnished pre-cleaned to exact EPA protocols, with and without preservatives added, by the analytical laboratory or a chemical supply company. The bottles are filled, with no headspace, and then capped with plastic caps with teflon liners.

The vials or bottles containing the ground water samples are labeled with site name, station, date, time, sampler, and analyses to be performed, and documented on a chain of custody form. They were placed in ziplock bags and stored in a chest cooled to 4°C with ice. The preserved samples are chain of custody delivered to the chosen laboratory.

## Analytical Results

TPH is the abbreviations used for Total Petroleum Hydrocarbons used by the laboratories for water and soil analyses. The letter following TPH indicates a particular distinction or grouping for the results. The letters "g", "d", "k", or "o" indicates gasoline, diesel, kerosene, or oil, respectively, ie. TPH-d for diesel range TPH.

BTEX or MTBE are acronyms or abbreviations used for Benzene, Toluene, Ethylbenzene and all of the Xylenes (BTEX) and Methyl Tertiary Butyl Ether (MTBE), respectively.

MBTEX is the designation for the combination of the above five compounds.

The less than symbol, <, used with a "parts per value" indicates the lower detection limit for a given analytical result and the level, if present, of that particular analyte is below or less than that lower detection limit.

Other abbreviations commonly used are ppm, ppb, mg/Kg, ug/Kg, ml/l and ul/l are parts per million, parts per billion, milligrams per kilogram, micrograms per kilogram, milliliters per liter, microliters per liter, respectively.

## Chain of Custody Documentation

All water samples that are collected by WEGE and transported to a certified analytical laboratory are accompanied by chain-of-custody (COC) documentation. This documentation is used to record the movement and custody of a sample from collection in the field to final analysis and storage. Samples to be analyzed at the certified laboratory were logged on the COC sheet provided by the laboratory. The same information provided on the sample labels (site name, sample location, date, time, and analysis to be performed) is also noted on the COC form. Each person relinquishing custody of the sample set signs the COC form indicating the date and time of the transfer to the recipient. A copy of the COC follows the samples or their extracts throughout the laboratory to aid the analyst in identifying the samples and to assure analysis within holding times.

Copies of the COC documentation are included with the laboratory results in Appendix B of this report.



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wege@cal.net

GROUNDWATER ELEVATION DATA  
AND PRODUCT THICKNESS MEASUREMENTS

SITE DP 793, 4035 Park Blvd., Oakland, CA.

DATE September 21, 2005

START TIME \_\_\_\_\_

MEASURED BY George Converse

DTW METER USED Solinst Model 122

WELL ID	TIME	DEPTH OF WELL feet below top of casing (fbtc)	DEPTH TO WATER (fbtc)	DEPTH TO TOP OF FLUID (fbtc)	PRODUCT THICKNESS (feet)	WATER COLUMN IN FEET
MW01	11:40	18.32	11.81	11.81	—	6.51
RS02	12:10	18.40	11.45	11.45	—	6.95
RS05	<i>Sampling</i> 12:40	39.20	14.0	19.00	—	20.84
RS06	12:40	34.06	13.22	13.22	—	20.84
RS07	9:45	7.25	7.25	4.14	—	3.11
RS08	<i>Leak test</i>	14.50	<i>QC'd</i>	<i>not tested</i>	—	
RS09	9:15	15.50	6.60	6.60	—	8.90
RS10	10:10	9.80	4.35	4.35	—	5.45
RO1	14:10	16.8	14.92	14.92	—	1.88
RO2	13:35	16.92	13.97	13.97	—	2.95
RO3	13:05	11.74	10.80	10.80	—	0.94
LF1	<i>Cap</i>	38.70	<i>Cap</i>			
T01	11:00	10	2.42	2.42	—	7.58
T02	X	10	<i>Non</i>			
T03	X	10 <i>Cap</i>	<i>Cap</i>			
T04	X	10 <i>C</i>	<i>Cap</i>			

*GW elev*  
214.65  
215.44  
208.61  
214.00  
191.85  
189.03  
204.11  
212.77  
213.51  
216.45  
192.69

NOTES Global ID# T0600100158 Sampling Co. Log Code: WGEW

*QCEB @ 1445*



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WELL SAMPLE DATA SHEET

SITE DP 793, 4035 PARK BLVD., OAKLAND, CA.

DATE September 21, 2005

START TIME 11:40

WELL ID# MW1

SAMPLE BY CONVERSE

CASING ELEVATION, IN FEET 229.5

WATER COLUMN, IN FEET 6.51

CASING TOTAL DEPTH, IN FEET 18.32

G/L PURGE ONE CASING VOLUME 1.07905

CASING DIAMETER IN INCHES 2"

(CASING MULTIPLIERS: 2 INCH = 0.165 gal/ FT

DEPTH TO TOP OF FLUID 11.81

2" = 0.625 L/FT 4 INCH = 0.65 gal/ FT

4" = 2.46 L/FT 6 INCH = 1.47 gal/FT

DEPTH TO TOP OF WATER 11.81

FT<sup>3</sup> WATER 7.48 GALLONS (G)/28.3 LITERS(L)

TOP OF WATER ELEVATION

FREE PHASE PRODUCT THICKNESS

PUMP TYPE GRUNDFOS REDIFLOW 2

PUMP RATE

DTW METER USED SOLINST MODEL 122

pH, Cond, Temp meter used HANNA HI 99130

TIME	INTAKE DEPTH	RATE GPM/LPM	CUM. VOL GAL. LITERS	TEMP (°C)	pH (units)	Specific Electrical Conductance (uS/cm)	Total Dissolved Solids (ppm)	Dissolved Oxygen (mg/L)	Remarks (color, odor, etc.)
11:51		2.0	2.0	22.5	6.93	202	180		Clear No color
11:53			4.0	22.9	6.90	357	182		
11:55			8.0	23.1	7.02	340	169		
						Depleted			
									DTW
									15.70'

FINAL VOLUME PURGED 8.592

ANALYSIS INCLUDES: 8260B TPHg, BTEX, MtBE

TIME SAMPLED 11:58

SAMPLE CONTAINERS 3-HCl PRESERVED 40CC VOA'S

SAMPLE ID# MW1

LABORATORY USED KIFF Analytical

NOTES

6.51  
-165  
32.55  
3906  
651  
107415



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wcge@cal.net

WELL SAMPLE DATA SHEET

SITE DP 793, 4035 PARK BLVD., OAKLAND, CA.

DATE September 21, 2005 START TIME 14:10

WELL ID# R1 SAMPLE BY CONVERSE

CASING ELEVATION, IN FEET 227.69 WATER COLUMN, IN FEET 1.88

CASING TOTAL DEPTH, IN FEET 16.80 G/L PURGE ONE CASING VOLUME 2.78 *g/l*

CASING DIAMETER IN INCHES 6" (CASING MULTIPLIERS: 2 INCH = 0.165 gl/ FT

DEPTH TO TOP OF FLUID 14.92 4" = 2.46 L/FT 4 INCH = 0.65 gl/ FT

DEPTH TO TOP OF WATER 14.92 6" = 5.56 L/FT 6 INCH = 1.47 gl/FT

TOP OF WATER ELEVATION \_\_\_\_\_ FT<sup>3</sup> WATER 7.48 GALLONS (G)/28.3 LITERS(L)

PUMP TYPE GRUNDFOS REDIFLOW 2 FREE PHASE PRODUCT THICKNESS \_\_\_\_\_

DTW METER USED SOLINST MODEL 122 PUMP RATE \_\_\_\_\_

pH, Cond, Temp meter used HANNA HI 99130

TIME	INTAKE DEPTH	RATE GPM/CPM	CUM. VOL GAL. LITERS	TEMP (°C)	pH (units)	Specific Electrical Conductance (uS/cm)	Total Dissolved Solids (ppm)	Dissolved Oxygen (mg/L)	Remarks (color, odor, etc.)
<del>2:15</del> 2:38		1.0		19.7	7.0	728	365		Clear No odor
2:20			5.0	19.7	6.98	735	367		
2:25			10.0	19.7	6.97	725	361		
									DTW
									15.35

FINAL VOLUME PURGED 11.0 g/l

ANALYSIS INCLUDES: 8260B TPHg, BTEX, MIBE

TIME SAMPLED 1430

SAMPLE CONTAINERS 3-HCl PRESERVED 40CC VOA'S

SAMPLE ID# R1

LABORATORY USED KIFF Analytical

NOTES \_\_\_\_\_

3.5  
1.88  
1.47  
13.16  
752  
158  
27636





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WELL SAMPLE DATA SHEET

SITE DP 793, 4035 PARK BLVD., OAKLAND, CA.

DATE September 21, 2005 START TIME 1335

WELL ID# R2 SAMPLE BY CONVERSE

CASING ELEVATION, IN FEET 227.28 WATER COLUMN, IN FEET 2.95

CASING TOTAL DEPTH, IN FEET 16.92 G/L PURGE ONE CASING VOLUME 4.395

CASING DIAMETER IN INCHES 6" (CASING MULTIPLIERS: 2 INCH = 0.165 gl/ FT

DEPTH TO TOP OF FLUID 13.97 4" = 2.46 L/FT 4 INCH = 0.65 gl/ FT

DEPTH TO TOP OF WATER 13.97 6" = 5.56 L/FT 6 INCH = 1.47 gl/FT

TOP OF WATER ELEVATION \_\_\_\_\_ FT<sup>3</sup> WATER 7.48 GALLONS (G)/28.3 LITERS(L)

PUMP TYPE GRUNDFOS REDIFLOW 2 FREE PHASE PRODUCT THICKNESS \_\_\_\_\_

DTW METER USED SOLINST MODEL 122 PUMP RATE \_\_\_\_\_

pH, Cond, Temp meter used HANNA HI 99130

8 3  
2.95  
1.47  
20 65  
11 8 0  
295  
433 65

TIME	INTAKE DEPTH	RATE GPM/ <del>LPM</del>	CUM. VOL GAL. <del>LITERS</del>	TEMP (°C)	pH (units)	Specific Electrical Conductance (uS/cm)	Total Dissolved Solids (ppm)	Dissolved Oxygen (mg/L)	Remarks (color, odor, etc.)
1338		1.4		20.2	6.96	35	619		clear no color
1341			4.2	20.2	6.96	1230	614		
1344			8.4	20.2	6.94	1219	610		
1347			12.6	20.2	6.93	1217	607		
									DTW
									14.13

1.47  
1.75 | 1.00  
75  
250  
30

FINAL VOLUME PURGED 13.0

TIME SAMPLED 1348

SAMPLE ID# R2

NOTES \_\_\_\_\_

ANALYSIS INCLUDES: 8260B TPHg, BTEX, MtBE

SAMPLE CONTAINERS 3-HCl PRESERVED 40CC VOA'S

LABORATORY USED KIFF Analytical



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WELL SAMPLE DATA SHEET

SITE DP 793, 4035 PARK BLVD., OAKLAND, CA.

DATE September 21, 2005

START TIME 1305

WELL ID# R3

SAMPLE BY CONVERSE

CASING ELEVATION, IN FEET 227.25

WATER COLUMN, IN FEET 0.94

CASING TOTAL DEPTH, IN FEET 11.74

G/L PURGE ONE CASING VOLUME 1.498

CASING DIAMETER IN INCHES 6"

(CASING MULTIPLIERS: 2 INCH = 0.165 g/ FT

4" = 2.46 L/FT

4 INCH = 0.65 g/ FT

6" = 5.56 L/FT

6 INCH = 1.47 g/FT)

DEPTH TO TOP OF FLUID 10.80

FT<sup>3</sup> WATER 7.48 GALLONS (G)/28.3 LITERS(L)

DEPTH TO TOP OF WATER 10.80

FREE PHASE PRODUCT THICKNESS

TOP OF WATER ELEVATION

PUMP RATE Hand Bred

PUMP TYPE GRUNDEOS REDIFLOW 2

DTW METER USED SOLINST MODEL 122

pH, Cond, Temp meter used HANNA HI 99130

7  
0.94  
1.47  
6.58  
37.6  
94  
138.18

TIME	INTAKE DEPTH	RATE GPM/ LPM	CUM. VOL GAL. LITERS	TEMP (°C)	pH (units)	Specific Electrical Conductance (uS/cm)	Total Dissolved Solids (ppm)	Dissolved Oxygen (mg/L)	Remarks (color, odor, etc.)
1317			1.0	21.8	7.01	160	79		Clear
1322			3.0	21.7	7.01	156	75		

FINAL VOLUME PURGED 3.0

ANALYSIS INCLUDES: 8260B TPHg, BTEX, MtBE

TIME SAMPLED 13:23

SAMPLE CONTAINERS 3-HCl PRESERVED 40CC VOA'S

SAMPLE ID# R3

LABORATORY USED KIFF Analytical

NOTES



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WELL SAMPLE DATA SHEET

SITE DP 793, 4035 PARK BLVD., OAKLAND, CA.

DATE September 21, 2005

START TIME 12:10

WELL ID# RS02

SAMPLE BY CONVERSE

CASING ELEVATION, IN FEET 227.39

WATER COLUMN, IN FEET 6.95

CASING TOTAL DEPTH, IN FEET 18.40

G/L PURGE ONE CASING VOLUME 4.5

CASING DIAMETER IN INCHES 4"

(CASING MULTIPLIERS: 2 INCH = 0.165 g/ FT

DEPTH TO TOP OF FLUID 11.45

2" = 0.625 L/FT

4 INCH = 0.65 g/ FT

DEPTH TO TOP OF WATER 11.45

4" = 2.46 L/FT

6 INCH = 1.47 g/FT

TOP OF WATER ELEVATION

FT<sup>3</sup> WATER 7.48 GALLONS (G)/28.3 LITERS(L)

PUMP TYPE GRUNDFOS REDIFLOW 2

FREE PHASE PRODUCT THICKNESS

DTW METER USED SOLINST MODEL 122

PUMP RATE

pH, Cond, Temp meter used HANNA HI 99130

TIME	INTAKE DEPTH	RATE GPM/ LPM	CUM. VOL GAL. LITERS	TEMP (°C)	pH (units)	Specific Electrical Conductance (uS/cm)	Total Dissolved Solids (ppm)	Dissolved Oxygen (mg/L)	Remarks (color, odor, etc.)
12:15		2							
12:20			4.0	22.2	6.96	1175	587		Clear no odor
12:21			6.0	22.5	6.96	1179	589		
12:25			10.0	21.4	6.96	1178	588		

FINAL VOLUME PURGED 12.0

ANALYSIS INCLUDES: 8260B TPHg, BTEX, MtBE

TIME SAMPLED 12:26

SAMPLE CONTAINERS 3-HCI PRESERVED

SAMPLE ID# RS02

40CC VOA'S

LABORATORY USED KIFF Analytical

NOTES

5  
6.95  
.65  
34.75  
41.70  
45.175

DTW  
12.0



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WELL SAMPLE DATA SHEET

SITE DP 793, 4035 PARK BLVD., OAKLAND, CA.

DATE September 21, 2005

START TIME \_\_\_\_\_

WELL ID# RS05

SAMPLE BY CONVERSE

CASING ELEVATION, IN FEET 227.61

WATER COLUMN, IN FEET \_\_\_\_\_

CASING TOTAL DEPTH, IN FEET 39.20

G/L PURGE ONE CASING VOLUME \_\_\_\_\_

CASING DIAMETER IN INCHES 4"

(CASING MULTIPLIERS: 2 INCH = 0.165 gl/ FT

DEPTH TO TOP OF FLUID 19.0

2" = 0.625 L/FT                      4 INCH = 0.65 gl/ FT

DEPTH TO TOP OF WATER 19.0

4" = 2.46 L/FT                      6 INCH = 1.47 gl/FT)

TOP OF WATER ELEVATION \_\_\_\_\_

FT<sup>3</sup> WATER 7.48 GALLONS (G)/28.3 LITERS(L)

PUMP TYPE GRUNDFOS 4 INCH

FREE PHASE PRODUCT THICKNESS \_\_\_\_\_

DTW METER USED SOLINST MODEL 122

PUMP RATE \_\_\_\_\_

pH, Cond, Temp meter used HANNA HI 99130

TIME	INTAKE DEPTH	RATE GPM/LPM	CUM. VOL GAL. LITERS	TEMP (°C)	pH (units)	Specific Electrical Conductance (uS/cm)	Total Dissolved Solids (ppm)	Dissolved Oxygen (mg/L)	Remarks (color, odor, etc.)
				26.7	6.94	600	304		CONVERSE Kinky color
<i>Pumping</i>									

FINAL VOLUME PURGED \_\_\_\_\_

ANALYSIS INCLUDES: 8260B TPHg, BTEX,

TIME SAMPLED \_\_\_\_\_

MtBE

SAMPLE ID# RS05

SAMPLE CONTAINERS 3-HCI PRESERVED

NOTES \_\_\_\_\_

40CC VOA'S

LABORATORY USED KIFF Analytical

\_\_\_\_\_



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REGISTERED GEOLOGISTS

1386 EAST BEAMER STREET  
WOODLAND CA 95776-6003  
(530) 668-5300  
FAX (530) 662-0273  
wege@cal.net

WELL SAMPLE DATA SHEET

SITE DP 793, 4035 PARK BLVD., OAKLAND, CA.

DATE September 21, 2005 START TIME 1240

WELL ID# RS06 SAMPLE BY CONVERSE

CASING ELEVATION, IN FEET 227.22 WATER COLUMN, IN FEET 20.84

CASING TOTAL DEPTH, IN FEET 34.06 G/L PURGE ONE CASING VOLUME 13.520

CASING DIAMETER IN INCHES 4" (CASING MULTIPLIERS: 2 INCH = 0.165 gl/ FT

DEPTH TO TOP OF FLUID 13.22 2" = 0.625 L/FT 4 INCH = 0.65 gl/ FT

DEPTH TO TOP OF WATER 13.22 4" = 2.46 L/FT 6 INCH = 1.47 gl/FT

TOP OF WATER ELEVATION FT<sup>3</sup> WATER 7.48 GALLONS (G)/28.3 LITERS(L)

PUMP TYPE GRUNDFOS REDIFLOW 2 FREE PHASE PRODUCT THICKNESS -0-

DTW METER USED SOLINST MODEL 122 PUMP RATE

pH, Cond, Temp meter used HANNA HI 99130

TIME	INTAKE DEPTH	RATE GPM/ MIN	CUM. VOL GAL. LITERS	TEMP (°C)	pH (units)	Specific Electrical Conductance (uS/cm)	Total Dissolved Solids (ppm)	Dissolved Oxygen (mg/L)	Remarks (color, odor, etc.)
12:45	30.0	4.0		19.4	6.91	914	457		Clear No odor
12:47			8.0	19.8	6.89	921	459		
12:50			20.0	19.1	6.90	929			
12:52			28.0	20.0	7.05	957			
13:00			30.0	Depleted					
									DTW
									25.80'

FINAL VOLUME PURGED 30.0

ANALYSIS INCLUDES: 8260B TPHg, BTEX,

TIME SAMPLED 13:00

MtBE

SAMPLE ID# RS06

SAMPLE CONTAINERS 3-HCl PRESERVED

NOTES \_\_\_\_\_

40CC VOA'S

LABORATORY USED KIFF Analytical

20.84  
+ .65  
-----  
10420  
12504  
-----  
135460







**WESTERN  
GEO-ENGINEERS**  
CALIF. CONTRACTOR #513857  
REGISTERED GEOLOGISTS

1386 EAST BEAMER STREET  
WOODLAND CA 95776-6003  
(530) 668-5300.  
FAX (530) 662-0273  
wege@cal.net

WELL SAMPLE DATA SHEET

SITE DP 793, 4035 PARK BLVD., OAKLAND, CA.

DATE September 21, 2005

START TIME 9:15

WELL ID# RS09

SAMPLE BY CONVERSE

CASING ELEVATION, IN FEET 195.63

WATER COLUMN, IN FEET 8.90

CASING TOTAL DEPTH, IN FEET 15.50

G/L PURGE ONE CASING VOLUME 1.4905

CASING DIAMETER IN INCHES 2"

(CASING MULTIPLIERS: 2 INCH = 0.165 gl/ FT

DEPTH TO TOP OF FLUID 6.60

2" = 0.625 L/FT 4 INCH = 0.65 gl/ FT

4" = 2.46 L/FT 6 INCH = 1.47 gl/FT

DEPTH TO TOP OF WATER \_\_\_\_\_

FT<sup>3</sup> WATER 7.48 GALLONS (G)/28.3 LITERS(L)

TOP OF WATER ELEVATION \_\_\_\_\_

FREE PHASE PRODUCT THICKNESS — 0 —

PUMP TYPE GRUNDFOS REDIFLOW 2 Part

PUMP RATE Hand Pump

DTW METER USED SOLINST MODEL 122

pH, Cond, Temp meter used HANNA HI 99130

TIME	INTAKE DEPTH	RATE GPM/LPM	CUM. VOL GAL. LITERS	TEMP (°C)	pH (units)	Specific Electrical Conductance (uS/cm)	Total Dissolved Solids (ppm)	Dissolved Oxygen (mg/L)	Remarks (color, odor, etc.)
924			1.0	19.5	7.25	519	260		Weak cloudy-brown/yellow to color
928			2.0	19.7	7.21	429	214		
930			3.0	19.5	7.12	427	213		
932			4.0	19.5	7.18	426	213		

FINAL VOLUME PURGED 4.2504

ANALYSIS INCLUDES: 8260B TPHg, BTEX,

MtBE

TIME SAMPLED 9:33

SAMPLE CONTAINERS 3-HCl PRESERVED

40CC VOA'S

SAMPLE ID# RS09

LABORATORY USED KIFF Analytical

NOTES \_\_\_\_\_

5  
8.9  
165  
445  
534  
89  
14689





**WESTERN  
GEO-ENGINEERS**  
CALIF. CONTRACTOR #513857  
REGISTERED GEOLOGISTS

1386 EAST BEAMER STREET  
WOODLAND CA 95776-6003  
(530) 668-5300,  
FAX (530) 662-0273  
wege@cal.net

WELL SAMPLE DATA SHEET

SITE **DP 793, 4035 PARK BLVD., OAKLAND, CA.**

DATE September 21, 2005 START TIME 10:10  
 WELL ID# RS10 SAMPLE BY CONVERSE  
 CASING ELEVATION, IN FEET 208.46 WATER COLUMN, IN FEET 5.45  
 CASING TOTAL DEPTH, IN FEET \_\_\_\_\_ G/L PURGE ONE CASING VOLUME 0.9 gal  
 CASING DIAMETER IN INCHES 2" (CASING MULTIPLIERS: 2 INCH = 0.165 gl/ FT  
 DEPTH TO TOP OF FLUID 4.35 2" = 0.625 L/FT 4 INCH = 0.65 gl/ FT  
 4" = 2.46 L/FT 6 INCH = 1.47 gl/FT)  
 DEPTH TO TOP OF WATER 4.35 FT<sup>3</sup> WATER 7.48 GALLONS (G)/28.3 LITERS(L)  
 TOP OF WATER ELEVATION \_\_\_\_\_ FREE PHASE PRODUCT THICKNESS \_\_\_\_\_  
 PUMP TYPE DISPOSABLE BAILER PUMP RATE Hand Oper  
 DTW METER USED SOLINST MODEL 122 pH, Cond, Temp meter used HANNA HI 99130

5.45  
 .165  
 27.29  
 3270  
 545  
 899.25

TIME	INTAKE DEPTH	RATE GPM/LPM	CUM. VOL GAL. LITERS	TEMP (°C)	pH (units)	Specific Electrical Conductance (uS/cm)	Total Dissolved Solids (ppm)	Dissolved Oxygen (mg/L)	Remarks (color, odor, etc.)
1015			1.0	18.8	7.00	262	131		Clear Brown/grey
1018			2.0	17.9	7.10	229	114		No odor
1021			3.0	17.7	7.08	227	112		

FINAL VOLUME PURGED 7.25 gal

ANALYSIS INCLUDES: 8260B TPHg, BTEX, MtBE

TIME SAMPLED 10:22

SAMPLE CONTAINERS 3-HCl PRESERVED 40CC VOA'S

SAMPLE ID# RS10

LABORATORY USED KIFF Analytical

NOTES \_\_\_\_\_



**WESTERN  
GEO-ENGINEERS**  
CALIF. CONTRACTOR #513857  
REGISTERED GEOLOGISTS

1386 EAST BEAMER STREET  
WOODLAND CA 95776-6003  
(530) 668-5300.  
FAX (530) 662-0273  
wege@cal.net

WELL SAMPLE DATA SHEET

SITE DP 793, 4035 PARK BLVD., OAKLAND, CA.

DATE September 21, 2005

START TIME \_\_\_\_\_

WELL ID# LF-01

SAMPLE BY CONVERSE

CASING ELEVATION, IN FEET 226.59

WATER COLUMN, IN FEET \_\_\_\_\_

CASING TOTAL DEPTH, IN FEET 38.70

G/L PURGE ONE CASING VOLUME \_\_\_\_\_

CASING DIAMETER IN INCHES 2"

(CASING MULTIPLIERS: 2 INCH = 0.165 gl/ FT

DEPTH TO TOP OF FLUID \_\_\_\_\_

2" = 0.625 L/FT 4 INCH = 0.65 gl/ FT

DEPTH TO TOP OF WATER \_\_\_\_\_

4" = 2.46 L/FT 6 INCH = 1.47 gl/FT

TOP OF WATER ELEVATION \_\_\_\_\_

FT<sup>3</sup> WATER 7.48 GALLONS (G)/28.3 LITERS(L)

PUMP TYPE GRUNDFOS REDIFLOW 2

FREE PHASE PRODUCT THICKNESS \_\_\_\_\_

DTW METER USED SOLINST MODEL 122

PUMP RATE \_\_\_\_\_

pH, Cond, Temp meter used HANNA HI 99130

TIME	INTAKE DEPTH	RATE GPM/LPM	CUM. VOL GAL. LITERS	TEMP (°C)	pH (units)	Specific Electrical Conductance (uS/cm)	Total Dissolved Solids (ppm)	Dissolved Oxygen (mg/L)	Remarks (color, odor, etc.)

FINAL VOLUME PURGED \_\_\_\_\_

ANALYSIS INCLUDES: 8260B TPHg, BTEX, MtBE

TIME SAMPLED \_\_\_\_\_

SAMPLE CONTAINERS 3-HCl PRESERVED

SAMPLE ID# LF-01

40CC VOA'S

LABORATORY USED KIFF Analytical

NOTES Could not access. Gov parked over well



**WESTERN  
GEO-ENGINEERS**  
CALIF. CONTRACTOR #513857  
REGISTERED GEOLOGISTS

1386 EAST BEAMER STREET  
WOODLAND CA 95776-6003  
(530) 668-5300,  
FAX (530) 662-0273  
wege@cal.net

T-1

WELL SAMPLE DATA SHEET

SITE DP 793, 4035 PARK BLVD., OAKLAND, CA.

DATE September 21, 2005 START TIME 11:00

WELL ID# RECEPTOR TRENCH T1, T2, T3, T4 SAMPLE BY CONVERSE

CASING ELEVATION, IN FEET T2=195.30 WATER COLUMN, IN FEET 7.58

CASING TOTAL DEPTH, IN FEET 10 G/L PURGE ONE CASING VOLUME 4.9 gal.

CASING DIAMETER IN INCHES 4" (CASING MULTIPLIERS: 2 INCH = 0.165 gal/ FT

DEPTH TO TOP OF FLUID 2.42 2" = 0.625 L/FT 4 INCH = 0.65 gal/ FT

DEPTH TO TOP OF WATER 2.42 4" = 2.46 L/FT 6 INCH = 1.47 gal/FT

TOP OF WATER ELEVATION \_\_\_\_\_ FT<sup>3</sup> WATER 7.48 GALLONS (G)/28.3 LITERS(L)

PUMP TYPE GRUNDFOS REDIFLOW 2 PUMP RATE \_\_\_\_\_ FREE PHASE PRODUCT THICKNESS \_\_\_\_\_

DTW METER USED SOLINST MODEL 122 pH, Cond, Temp meter used HANNA HI 99130

TIME	INTAKE DEPTH	RATE GPM/EPMT	CUM. VOL GAL. LITERS	TEMP (°C)	pH (units)	Specific Electrical Conductance (uS/cm)	Total Dissolved Solids (ppm)	Dissolved Oxygen (mg/L)	Remarks (color, odor, etc.)
11:09		5		21.0	7.11	1031	514		clear mal odor
11:11			10	21.0	7.11	1025	514		
11:12			15	21.0	7.11	1027	513		

FINAL VOLUME PURGED 25 gals

TIME SAMPLED 11:15

SAMPLE ID# T1

NOTES \_\_\_\_\_

ANALYSIS INCLUDES: 8260B TPHg, BTEX, MtBE  
SAMPLE CONTAINERS 3-HCl PRESERVED  
40CC VOA'S  
LABORATORY USED KIFF Analytical

27.58  
65  
3790  
4548  
49270



2795 2nd Street, Suite 300  
 Davis, CA 95616  
 Lab: 530.297.4800  
 Fax: 530.297.4802

SRG # / Lab No. \_\_\_\_\_

Project Contact (Hardcopy or PDF To): Lead Contact  
 Company / Address: WEGE 1386 E Beane St, Woodland  
 Phone #: 530 668 5300 Fax #:  
 Project #: DR 793 P.O. #:  
 Project Name: DR 793 - Sewer  
 Project Address: Woodland  
 Global ID:  
 EDF Deliverable To (Email Address):  
 Sampler Signature: [Signature]

Chain-of-Custody Record and Analysis Request

Analysis Request

Sample Designation	Sampling		Container				Preservative				Matrix			
	Date	Time	40 ml VOA	Sleeve	Poly	Glass	Tedlar	HCl	HNO <sub>3</sub>	None	ICE	Water	Soil	Air
<u>Sewer</u>	<u>9-21-05</u>	<u>1425</u>	<u>3</u>					<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	
MTBE (EPA 8260B) @ 0.5 ppb	<input checked="" type="checkbox"/>
BTEX (EPA 8260B)	<input checked="" type="checkbox"/>
TPH Gas (EPA 8260B)	<input checked="" type="checkbox"/>
5 Oxygenates (EPA 8260B)	
7 Oxygenates (EPA 8260B)	
Lead Scav. (1,2 DCA & 1,2 EDB-EPA 8260B)	
Volatile Halocarbons (EPA 8260B)	
Volatile Organics Full List (EPA 8260B)	
Volatile Organics (EPA 524.2 Drinking Water)	
TPH as Diesel (EPA 8015M)	
TPH as Motor Oil (EPA 8015M)	
Total Lead (EPA 6010)	
W.E.T. Lead (STLC)	

TAT
<input type="checkbox"/> 12 hr
<input type="checkbox"/> 24 hr
<input type="checkbox"/> 48 hr
<input type="checkbox"/> 72 hr
<input type="checkbox"/> 1 wk
<u>1 wk</u>

For Lab Use Only

Relinquished by: <u>[Signature]</u>	Date: <u>9-21-05</u>	Time: <u>1705</u>	Received by: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____
Relinquished by: _____	Date: <u>092105</u>	Time: <u>1705</u>	Received by Laboratory: <u>B. [Signature]</u> KIFF Analytical

Remarks:

Bill to: WEGE

For Lab Use Only: Sample Receipt					
Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
<u>6.48</u>	<u>RJR</u>	<u>092105</u>	<u>1700</u>	<u>17.4</u>	<u>Yes</u> / No



2795 2nd Street, Suite 300  
 Davis, CA 95616  
 Lab: 530.297.4800  
 Fax: 530.297.4802

SRG # / Lab No. \_\_\_\_\_

Project Contact (Hardcopy or PDF To): Carla Connor California EDF Report?  Yes  No

Company / Address: WECE Sampling Company Log Code: \_\_\_\_\_  
1386 E. Pioneer St., Woodland

Phone #: 530 668 5300 Fax #: \_\_\_\_\_ Global ID: \_\_\_\_\_

Project #: DP 793 P.O. #: \_\_\_\_\_ EDF Deliverable To (Email Address): \_\_\_\_\_

Project Name: DP 793 7th / 4 Sampler Signature: [Signature]

Project Address: Woodland

Sample Designation	Sampling		Container				Preservative			Matrix			
	Date	Time	40 ml VOA	Sleeve	Poly	Glass	Tedlar	HCl	HNO <sub>3</sub>	None	Water	Soil	Air
MW01	9-21-05	1158	3					✓	✓	✓	✓		
RS02		1226	3					✓	✓	✓	✓		
RS05		1420	3					✓	✓	✓	✓		
RS06		1300	3					✓	✓	✓	✓		
RS07		957	3					✓	✓	✓	✓		
RS09		933	3					✓	✓	✓	✓		
RS10		1022	3					✓	✓	✓	✓		
R1		1430	3					✓	✓	✓	✓		
R2		1348	3					✓	✓	✓	✓		
R3		1333	3					✓	✓	✓	✓		

Chain-of-Custody Record and Analysis Request

Analysis Request														TAT		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12 hr
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24 hr
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	48 hr
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	72 hr
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1 wk

For Lab Use Only

Relinquished by: [Signature] Date: 9-21-05 Time: 1714 Received by: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: 092105 Time: 1714 Received by Laboratory: [Signature]

Remarks: \_\_\_\_\_  
 Bill to: WECE

For Lab Use Only: Sample Receipt					
Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No



2795 2nd Street, Suite 300  
 Davis, CA 95616  
 Lab: 530.297.4800  
 Fax: 530.297.4802

SRG # / Lab No. \_\_\_\_\_

Page 2 of 2

Project Contact (Hardcopy or PDF To): Geno Capone  
 Company / Address: 1386 F. Brown St. Woodland  
 Phone #: 530.668.5300 / Fax #:  
 Project #: DP793 / P.O. #:  
 Project Name: DP793 3rd floor  
 California EDF Report?  Yes  No  
 Sampling Company Log Code:  
 Global ID:  
 EDF Deliverable To (Email Address):  
 Sampler Signature: Geno Capone

Chain-of-Custody Record and Analysis Request

Project Address:	Sampling		Container				Preservative			Matrix			
	Date	Time	40 ml VOA	Sleeve	Poly	Glass	Tedlar	HCl	HNO <sub>3</sub>	None	Water	Soil	Air
<u>Woodland</u>													
Sample Designation													
<u>T1</u>	<u>9-21-05</u>	<u>1115</u>	<u>3</u>					<u>✓</u>		<u>✓</u>	<u>✓</u>		
<u>OC EB</u>	<u>9</u>	<u>1445</u>	<u>3</u>					<u>✓</u>		<u>✓</u>	<u>✓</u>		

Analysis Request														TAT	
MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb															<input type="checkbox"/> 12 hr
MTBE (EPA 8260B) @ 0.5 ppb															<input type="checkbox"/> 24 hr
BTEX (EPA 8260B)															<input type="checkbox"/> 48 hr
TPH Gas (EPA 8260B)															<input type="checkbox"/> 72 hr
5 Oxygenates (EPA 8260B)															<input type="checkbox"/> 1 wk
7 Oxygenates (EPA 8260B)															
Lead Scav. (1,2 DCA & 1,2 EDB-EPA 8260B)															
Volatile Halocarbons (EPA 8260B)															
Volatile Organics Full List (EPA 8260B)															
Volatile Organics (EPA 524.2 Drinking Water)															
TPH as Diesel (EPA 8015M)															
TPH as Motor Oil (EPA 8015M)															
Total Lead (EPA 6010)															
W.E.T. Lead (STLC)															

For Lab Use Only

Relinquished by:	Date	Time	Received by:
			<u>_____</u>
Relinquished by:	Date	Time	Received by:
			<u>_____</u>
Relinquished by:	Date	Time	Received by Laboratory:
	<u>092105</u>	<u>1710</u>	<u>B. NAA</u> Kiff Analytical

Remarks:

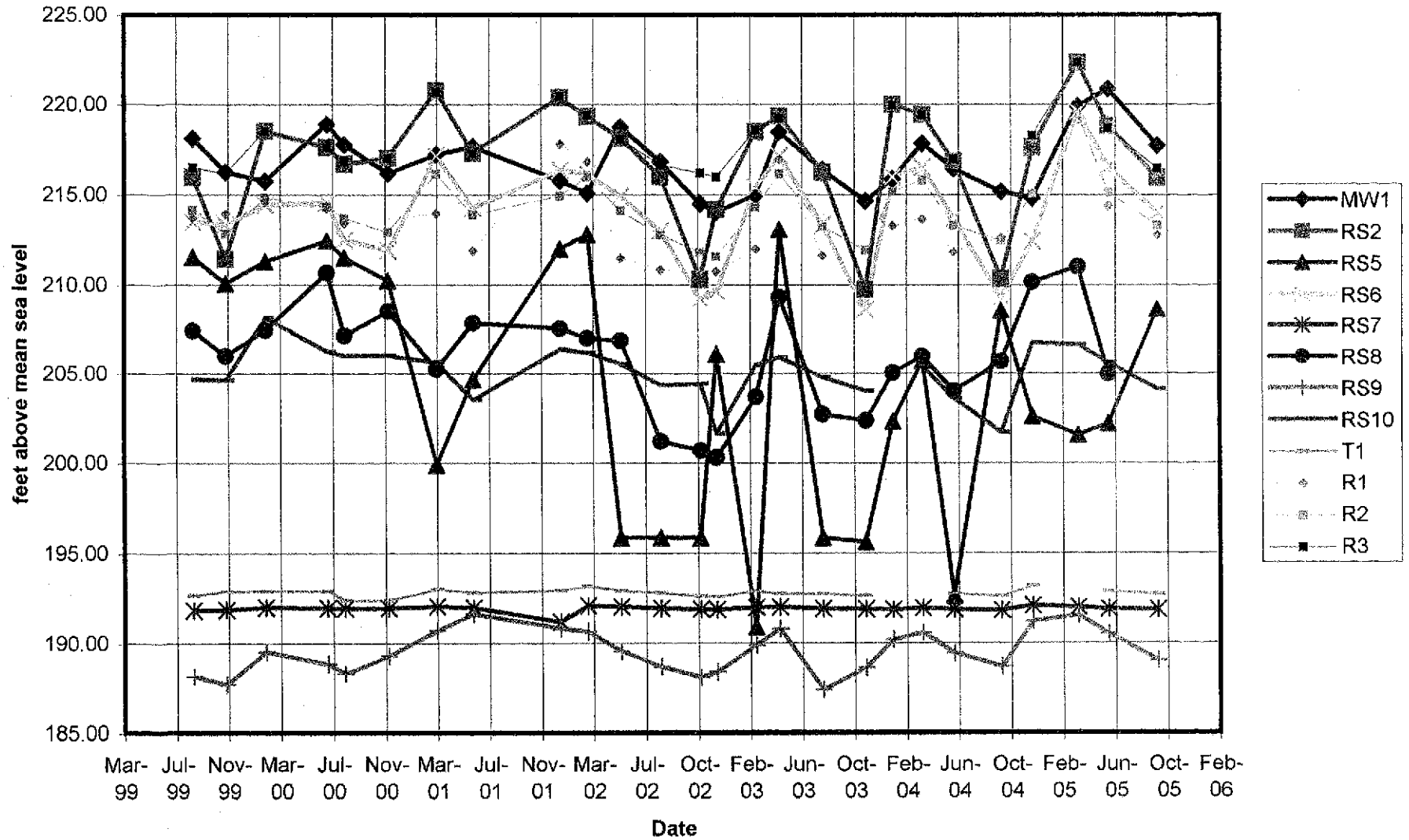
Bill to: Woodland

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

APPENDIX B.  
GROUNDWATER ELEVATION CHART

# Groundwater Elevation







Report Number : 46082

Date : 9/28/2005

George Converse  
Western Geo-Engineers  
1386 East Beamer Street  
Woodland, CA 95776

Subject : 12 Water Samples  
Project Name : DP793 3rd 1/4  
Project Number : DP793

Dear Mr. Converse,

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



Report Number : 46082

Date : 9/28/2005

Subject : 12 Water Samples  
Project Name : DP793 3rd 1/4  
Project Number : DP793

## Case Narrative

Matrix Spike/Matrix Spike Duplicate Results associated with sample RS05 for the analyte Toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.

Approved By: \_\_\_\_\_

Joe Kiff



Report Number : 46082

Date : 9/28/2005

Project Name : DP793 3rd 1/4

Project Number : DP793

Sample : MW01

Matrix : Water

Lab Number : 46082-01

Sample Date :9/21/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1.3	0.50	ug/L	EPA 8260B	9/23/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/23/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/23/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/23/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/23/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/23/2005
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	9/23/2005
4-Bromofluorobenzene (Surr)	96.3		% Recovery	EPA 8260B	9/23/2005

Sample : RS02

Matrix : Water

Lab Number : 46082-02

Sample Date :9/21/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1.4	0.50	ug/L	EPA 8260B	9/22/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/22/2005
Toluene - d8 (Surr)	95.1		% Recovery	EPA 8260B	9/22/2005
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	9/22/2005

Approved By:

Joel Kiff



Report Number : 46082

Date : 9/28/2005

Project Name : DP793 3rd 1/4

Project Number : DP793

Sample : RS05

Matrix : Water

Lab Number : 46082-03

Sample Date :9/21/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	34	0.50	ug/L	EPA 8260B	9/28/2005
Toluene	4.7	0.50	ug/L	EPA 8260B	9/28/2005
Ethylbenzene	0.86	0.50	ug/L	EPA 8260B	9/28/2005
Total Xylenes	99	0.50	ug/L	EPA 8260B	9/28/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/28/2005
TPH as Gasoline	790	50	ug/L	EPA 8260B	9/28/2005
Toluene - d8 (Surr)	98.1		% Recovery	EPA 8260B	9/28/2005
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	9/28/2005

Sample : RS06

Matrix : Water

Lab Number : 46082-04

Sample Date :9/21/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1.5	0.50	ug/L	EPA 8260B	9/22/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/22/2005
Toluene - d8 (Surr)	95.3		% Recovery	EPA 8260B	9/22/2005
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	9/22/2005

Approved By:

Joel Kiff



Report Number : 46082

Date : 9/28/2005

Project Name : DP793 3rd 1/4

Project Number : DP793

Sample : RS07

Matrix : Water

Lab Number : 46082-05

Sample Date :9/21/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	360	1.5	ug/L	EPA 8260B	9/27/2005
Toluene	18	1.5	ug/L	EPA 8260B	9/27/2005
Ethylbenzene	67	1.5	ug/L	EPA 8260B	9/27/2005
Total Xylenes	130	1.5	ug/L	EPA 8260B	9/27/2005
Methyl-t-butyl ether (MTBE)	3.6	1.5	ug/L	EPA 8260B	9/27/2005
TPH as Gasoline	4600	150	ug/L	EPA 8260B	9/27/2005
Toluene - d8 (Surr)	95.5		% Recovery	EPA 8260B	9/27/2005
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	9/27/2005

Sample : RS09

Matrix : Water

Lab Number : 46082-06

Sample Date :9/21/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1.2	0.50	ug/L	EPA 8260B	9/27/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Total Xylenes	0.58	0.50	ug/L	EPA 8260B	9/27/2005
Methyl-t-butyl ether (MTBE)	1.8	0.50	ug/L	EPA 8260B	9/27/2005
TPH as Gasoline	330	50	ug/L	EPA 8260B	9/27/2005
Toluene - d8 (Surr)	89.6		% Recovery	EPA 8260B	9/27/2005
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	9/27/2005

Approved By:

Joel Kiff



Report Number : 46082

Date : 9/28/2005

Project Name : DP793 3rd 1/4

Project Number : DP793

Sample : RS10

Matrix : Water

Lab Number : 46082-07

Sample Date :9/21/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/22/2005
Toluene - d8 (Surr)	89.9		% Recovery	EPA 8260B	9/22/2005
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	9/22/2005

Sample : R1

Matrix : Water

Lab Number : 46082-08

Sample Date :9/21/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	20	0.50	ug/L	EPA 8260B	9/22/2005
Toluene	1.3	0.50	ug/L	EPA 8260B	9/22/2005
Ethylbenzene	13	0.50	ug/L	EPA 8260B	9/22/2005
Total Xylenes	4.4	0.50	ug/L	EPA 8260B	9/22/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
TPH as Gasoline	3400	50	ug/L	EPA 8260B	9/22/2005
Toluene - d8 (Surr)	80.4		% Recovery	EPA 8260B	9/22/2005
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	9/22/2005

Approved By:

Joel Kiff



Report Number : 46082

Date : 9/28/2005

Project Name : DP793 3rd 1/4

Project Number : DP793

Sample : R2

Matrix : Water

Lab Number : 46082-09

Sample Date :9/21/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	120	0.50	ug/L	EPA 8260B	9/22/2005
Toluene	1.3	0.50	ug/L	EPA 8260B	9/22/2005
Ethylbenzene	2.5	0.50	ug/L	EPA 8260B	9/22/2005
Total Xylenes	4.8	0.50	ug/L	EPA 8260B	9/22/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
TPH as Gasoline	900	50	ug/L	EPA 8260B	9/22/2005
Toluene - d8 (Surr)	91.8		% Recovery	EPA 8260B	9/22/2005
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	9/22/2005

Sample : R3

Matrix : Water

Lab Number : 46082-10

Sample Date :9/21/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/22/2005
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	9/22/2005
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	9/22/2005

Approved By:

Joel Kiff



Report Number : 46082

Date : 9/28/2005

Project Name : DP793 3rd 1/4

Project Number : DP793

Sample : T1

Matrix : Water

Lab Number : 46082-11

Sample Date :9/21/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	4500	7.0	ug/L	EPA 8260B	9/27/2005
Toluene	81	7.0	ug/L	EPA 8260B	9/27/2005
Ethylbenzene	620	7.0	ug/L	EPA 8260B	9/27/2005
Total Xylenes	200	7.0	ug/L	EPA 8260B	9/27/2005
Methyl-t-butyl ether (MTBE)	28	7.0	ug/L	EPA 8260B	9/27/2005
TPH as Gasoline	17000	700	ug/L	EPA 8260B	9/27/2005
Toluene - d8 (Surr)	92.9		% Recovery	EPA 8260B	9/27/2005
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	9/27/2005

Sample : QCEB

Matrix : Water

Lab Number : 46082-12

Sample Date :9/21/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/22/2005
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	9/22/2005
4-Bromofluorobenzene (Surr)	95.2		% Recovery	EPA 8260B	9/22/2005

Approved By:

Joel Kiff



Report Number : 46082

Date : 9/28/2005

QC Report : Method Blank Data

Project Name : DP793 3rd 1/4

Project Number : DP793

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005	Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005	Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005	Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005	Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005	Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/22/2005	TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/27/2005
Toluene - d8 (Surr)	101		%	EPA 8260B	9/22/2005	Toluene - d8 (Surr)	89.4		%	EPA 8260B	9/27/2005
4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	9/22/2005	4-Bromofluorobenzene (Surr)	103		%	EPA 8260B	9/27/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/26/2005	Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/26/2005	Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/26/2005	Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/26/2005	Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/26/2005	Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/26/2005	TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/22/2005
Toluene - d8 (Surr)	101		%	EPA 8260B	9/26/2005	Toluene - d8 (Surr)	102		%	EPA 8260B	9/22/2005
4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	9/26/2005	4-Bromofluorobenzene (Surr)	96.2		%	EPA 8260B	9/22/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005	Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/23/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005	Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/23/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005	Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/23/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005	Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/23/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005	Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/23/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/22/2005	TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/23/2005
Toluene - d8 (Surr)	90.5		%	EPA 8260B	9/22/2005	Toluene - d8 (Surr)	100		%	EPA 8260B	9/23/2005
4-Bromofluorobenzene (Surr)	102		%	EPA 8260B	9/22/2005	4-Bromofluorobenzene (Surr)	95.4		%	EPA 8260B	9/23/2005

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

QC Report : Method Blank Data

Project Name : DP793 3rd 1/4

Project Number : DP793

Report Number : 46082

Date : 9/28/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/22/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/22/2005
Toluene - d8 (Surr)	99.5		%	EPA 8260B	9/22/2005
4-Bromofluorobenzene (Surr)	103		%	EPA 8260B	9/22/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/27/2005
Toluene - d8 (Surr)	98.3		%	EPA 8260B	9/27/2005
4-Bromofluorobenzene (Surr)	104		%	EPA 8260B	9/27/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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Approved By:  Joel Kiff

Report Number : 46082

Date : 9/28/2005

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : DP793 3rd 1/4

Project Number : DP793

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
Benzene	46080-02	<0.50	40.0	40.0	40.4	39.4	ug/L	EPA 8260B	9/22/05	101	98.6	2.55	70-130	25
Toluene	46080-02	<0.50	40.0	40.0	38.8	38.1	ug/L	EPA 8260B	9/22/05	96.9	95.2	1.77	70-130	25
Tert-Butanol	46080-02	<5.0	200	200	223	223	ug/L	EPA 8260B	9/22/05	111	111	0.0362	70-130	25
Methyl-t-Butyl Ether	46080-02	<0.50	40.0	40.0	36.2	35.8	ug/L	EPA 8260B	9/22/05	90.5	89.5	1.10	70-130	25
Benzene	46136-01	<0.50	40.0	40.0	39.8	39.1	ug/L	EPA 8260B	9/26/05	99.4	97.8	1.73	70-130	25
Toluene	46136-01	<0.50	40.0	40.0	39.2	38.5	ug/L	EPA 8260B	9/26/05	98.0	96.4	1.70	70-130	25
Tert-Butanol	46136-01	<5.0	200	200	218	221	ug/L	EPA 8260B	9/26/05	109	111	1.24	70-130	25
Methyl-t-Butyl Ether	46136-01	<0.50	40.0	40.0	36.8	36.9	ug/L	EPA 8260B	9/26/05	92.0	92.2	0.232	70-130	25
Benzene	46001-07	2.2	40.0	40.0	41.4	40.4	ug/L	EPA 8260B	9/22/05	98.0	95.5	2.65	70-130	25
Toluene	46001-07	2.2	40.0	40.0	36.5	35.4	ug/L	EPA 8260B	9/22/05	85.7	83.2	3.06	70-130	25
Tert-Butanol	46001-07	<5.0	200	200	176	177	ug/L	EPA 8260B	9/22/05	87.8	88.4	0.678	70-130	25
Methyl-t-Butyl Ether	46001-07	<0.50	40.0	40.0	43.0	42.7	ug/L	EPA 8260B	9/22/05	108	107	0.861	70-130	25
Benzene	46127-05	130	40.0	40.0	168	165	ug/L	EPA 8260B	9/27/05	95.4	87.6	8.46	70-130	25
Toluene	46127-05	16	40.0	40.0	51.5	51.0	ug/L	EPA 8260B	9/27/05	89.9	88.7	1.32	70-130	25
Tert-Butanol	46127-05	<5.0	200	200	186	192	ug/L	EPA 8260B	9/27/05	93.1	95.8	2.84	70-130	25
Methyl-t-Butyl Ether	46127-05	8.7	40.0	40.0	51.5	50.5	ug/L	EPA 8260B	9/27/05	107	105	2.36	70-130	25
Benzene	45989-02	<0.50	40.0	40.0	41.1	40.0	ug/L	EPA 8260B	9/22/05	103	100	2.63	70-130	25
Toluene	45989-02	<0.50	40.0	40.0	41.4	40.5	ug/L	EPA 8260B	9/22/05	104	101	2.13	70-130	25

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 46082


Date : 9/28/2005

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : DP793 3rd 1/4

Project Number : DP793

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
Tert-Butanol	45989-02	<5.0	200	200	206	208	ug/L	EPA 8260B	9/22/05	103	104	0.944	70-130	25
Methyl-t-Butyl Ether	45989-02	<0.50	40.0	40.0	38.2	38.1	ug/L	EPA 8260B	9/22/05	95.6	95.3	0.240	70-130	25
Benzene	46095-02	<0.50	40.0	40.0	41.3	39.9	ug/L	EPA 8260B	9/23/05	103	99.8	3.35	70-130	25
Toluene	46095-02	<0.50	40.0	40.0	40.8	39.3	ug/L	EPA 8260B	9/23/05	102	98.2	3.79	70-130	25
Tert-Butanol	46095-02	<5.0	200	200	203	203	ug/L	EPA 8260B	9/23/05	101	102	0.167	70-130	25
Methyl-t-Butyl Ether	46095-02	2.1	40.0	40.0	42.2	41.6	ug/L	EPA 8260B	9/23/05	100	99.0	1.36	70-130	25
Benzene	46045-01	<0.50	40.0	40.0	38.7	38.2	ug/L	EPA 8260B	9/22/05	96.6	95.5	1.17	70-130	25
Toluene	46045-01	<0.50	40.0	40.0	39.7	39.0	ug/L	EPA 8260B	9/22/05	99.2	97.5	1.66	70-130	25
Tert-Butanol	46045-01	5.7	200	200	203	200	ug/L	EPA 8260B	9/22/05	98.8	97.3	1.62	70-130	25
Methyl-t-Butyl Ether	46045-01	380	40.0	40.0	427	427	ug/L	EPA 8260B	9/22/05	111	112	0.650	70-130	25
Benzene	46105-09	<0.50	40.0	40.0	39.4	37.9	ug/L	EPA 8260B	9/27/05	98.6	94.8	3.89	70-130	25
Toluene	46105-09	<0.50	40.0	40.0	11.4	7.79	ug/L	EPA 8260B	9/27/05	28.6	19.5	37.8	70-130	25
Tert-Butanol	46105-09	<5.0	200	200	201	199	ug/L	EPA 8260B	9/27/05	100	99.4	1.09	70-130	25
Methyl-t-Butyl Ether	46105-09	<0.50	40.0	40.0	43.0	42.5	ug/L	EPA 8260B	9/27/05	107	106	1.10	70-130	25

Approved By:  Joel Kiff

Report Number : 46082

QC Report : Laboratory Control Sample (LCS)

Date : 9/28/2005

Project Name : DP793 3rd 1/4

Project Number : DP793

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	9/22/05	99.0	70-130
Toluene	40.0	ug/L	EPA 8260B	9/22/05	99.3	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/22/05	107	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/22/05	88.8	70-130
Benzene	40.0	ug/L	EPA 8260B	9/26/05	96.0	70-130
Toluene	40.0	ug/L	EPA 8260B	9/26/05	99.0	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/26/05	105	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/26/05	90.0	70-130
Benzene	40.0	ug/L	EPA 8260B	9/22/05	100	70-130
Toluene	40.0	ug/L	EPA 8260B	9/22/05	92.2	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/22/05	92.4	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/22/05	108	70-130
Benzene	40.0	ug/L	EPA 8260B	9/27/05	98.0	70-130
Toluene	40.0	ug/L	EPA 8260B	9/27/05	88.6	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/27/05	90.6	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/27/05	108	70-130
Benzene	40.0	ug/L	EPA 8260B	9/22/05	101	70-130

KIFF ANALYTICAL, LLC

Approved By:

Joe Kiff

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 46082

Date : 9/28/2005

QC Report : Laboratory Control Sample (LCS)

Project Name : DP793 3rd 1/4

Project Number : DP793

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Toluene	40.0	ug/L	EPA 8260B	9/22/05	106	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/22/05	98.4	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/22/05	96.6	70-130
Benzene	40.0	ug/L	EPA 8260B	9/23/05	100	70-130
Toluene	40.0	ug/L	EPA 8260B	9/23/05	104	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/23/05	95.9	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/23/05	96.1	70-130
Benzene	40.0	ug/L	EPA 8260B	9/22/05	97.4	70-130
Toluene	40.0	ug/L	EPA 8260B	9/22/05	102	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/22/05	102	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/22/05	94.2	70-130
Benzene	40.0	ug/L	EPA 8260B	9/27/05	94.8	70-130
Toluene	40.0	ug/L	EPA 8260B	9/27/05	95.0	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/27/05	94.2	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/27/05	103	70-130

KIFF ANALYTICAL, LLC

Approved By:

Joe Kiff

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800





2795 2nd Street, Suite 300  
 Davis, CA 95616  
 Lab: 530.297.4800  
 Fax: 530.297.4802

SRG # / Lab No. 46082

Project Contact (Hardcopy or PDF To): George Cervoni  
 Company / Address: WEP  
1386 E Palma St. Woodland  
 Phone #: 576 685300 Fax #: \_\_\_\_\_  
 Project #: DP793 P.O. #: \_\_\_\_\_  
 Project Name: DP793 3rd 1/4 Sampler Signature: [Signature]

Chain-of-Custody Record and Analysis Request

Project Address:	Sampling		Container				Preservative			Matrix			
	Date	Time	40 ml VOA	Sleeve	Poly	Glass	Tedlar	HCl	HNO <sub>3</sub>	None	Water	Soil	Air
<u>Woodland</u>													
Sample Designation													
<u>T1</u>	<u>9-21-05</u>	<u>1115</u>	<u>3</u>					<u>✓</u>	<u>✓</u>		<u>✓</u>		
<u>OC EB</u>	<u>S</u>	<u>1445</u>	<u>3</u>					<u>✓</u>	<u>✓</u>		<u>✓</u>		

Analysis Request												TAT		
MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B)	Lead Scav. (1.2 DCA & 1.2 EDB-EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)	W.E.T. Lead (STLC)	<input type="checkbox"/> 12 hr
													<input type="checkbox"/> 24 hr	
													<input type="checkbox"/> 48 hr	
													<input type="checkbox"/> 72 hr	
													<input checked="" type="checkbox"/> 1 wk	

For Lab Use Only

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: 092105 Time: 1710 Received by Laboratory: B: NAA Kiff Analytical

Remarks: \_\_\_\_\_  
 Bill to: WEP

For Lab Use Only: Sample Receipt					
Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No



**DESERT PETROLEUM CO., INC.**

---

Molly Ong,  
Source Control Division  
East Bay Municipal Utility District  
P.O. Box 24055, MS 702  
Oakland, CA 94623  
(510) 287-1618  
Fax (510) 287-0621

October 3, 2005

RE: Wastewater Discharge Quarterly Sampling for Permit #5043550 1, DP 793.

Dear Ms. Ong:

The enclosed table and certified laboratory report represents the sampling for wastewater Discharge Permit #5043550 1 for the period between June 7, and September 21, 2005. On September 21, 2005 a sample of the water discharged to sewer was obtained and analyzed for TPHg, BTEX and MtBE using EPA method 8260B. For this period (June 7 through September 21, 2005) 65,150.5 gallons of groundwater was treated and discharged to the sanitary sewer.

All discharge conditions have been met.

CERTIFICATION East Bay Municipal Utility District, Permit #5043550 1

*I certify under penalty of law that this document and all attachments were prepared under my direction of supervision in accordance with a system designed to assure that the qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

  
Signature Bill Thompson

10/07/05  
date

TABLE 1  
GROUNDWATER REMOVAL  
FORMER DP #793  
4035 PARK BLVD., OAKLAND, CALIFORNIA

DATE PURGED	METER READING IN GALLONS RS5	METER READING IN GALLONS TRENCH	DEPTH TO TOP OF WATER IN FEET T1	GALLONS PURGED T1 and/or 1/4ly monitoring	ACCUMULATED GALLONS REMOVED FROM TRENCH & WELLS in GALLONS	Accumulated gallons removed from RS5 Gallons	TOTAL GALLONS REMOVED	INFLUENT CONCENTRATIONS EPA METHOD 8020 - 8260B					Sample Location	
								TPHg	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES		MTBE
								ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
1/22/2004	1672236.9	1673412.0		1175	84057	495508.9	579566.2							
2/26/2004	1696276.0	1696378.0		102	84159	518372.9	602532.2							
3/30/2004	1722614.0	1723589.0		975	85134	544608.9	629743.2	15000	1800	660	610	2000	8.6	T1
4/8/2004	1729975.5	1729975.5		0	85134	550995.4	636129.7	4000	370	59	13	380	2.6	RS5
4/14/2004	1734113.2	1734113.2		0	85134	555133.1	640267.4							
4/22/2004	1739978.0	1739978.0		0	85134	560997.9	646132.2							
4/29/2004	1744687.9	1746094.5		1407	86541	565707.8	652248.7							
5/13/2004	1754248.1	1754248.1		0	86541	573861.4	660402.3							
5/21/2004	1759593.7	1759593.7		0	86541	579207.0	665747.9							
5/27/2004	1762418.0	1764065.5		1648	88188	582031.3	670219.7							
6/3/2004	1769445.0	1769445.0		0	88188	587410.8	675599.2	5500	570	2	240	130	2.7	T1
6/10/2004	1774349.0	1774349.0		0	88188	592314.8	680503.2	120	7	0.88	1.3	4.3	1.3	RS5
6/17/2004	1778979.0	1778979.0		0	88188	596944.8	685133.2							
6/25/2004	1783576.7	1783576.7		0	88188	601542.5	689730.9							
6/30/2004	1786027.0	1787786.1		1759	89948	603992.8	693940.3							
7/8/2004	1787858.5	1787858.5		0	89948	604065.2	694012.7							
7/22/2004	1791170.5	1791170.5		0	89948	607377.2	697324.7							
7/29/2004	1791170.5	1791170.5		0	89948	607377.2	697324.7	no electrical power to site (no pumping).						
9/24/2004	1791170.0	1791170.0		0	89948	607376.7	697324.2	new electrical power to site (restart pump RS5).						
9/28/2004	1791275.2	1793186.5		1911	91859	607481.9	699340.7	2600	110	89	75	58	<0.5	RS5
9/30/2004	1794233.0	1794233.0		0	91859	608528.4	700387.2	8700	2600	100	450	240	15	T1
10/15/2004	1794243.8	1794243.8		0	91859	608539.2	700398.0							
10/28/2004	1800669.8	1800669.8		0	91859	614965.2	706824.0							
11/5/2004	1805236.0	1805236.0		0	91859	619531.4	711390.2							
11/19/2004	1813980.8	1813980.8		0	91859	628276.2	720135.0							
12/8/2004	1826103.7	1826253.7		150	92009	640399.1	732407.9	<50	<0.5	<0.5	<0.5	<0.5	<0.5	RS5
12/30/2004	1841818.0	1841818.0		0	92009	655963.4	747972.2							
1/14/2005	1854930.0	1855778.0		848	92857	669075.4	761932.2							
2/15/2005	1872001.8	1872001.8		0	92857	685299.2	778156.0							
3/23/2005	1903025.7	1903025.7		0	92857	716323.1	809179.9	7400	890	280	180	940	5.1	RS5
4/13/2005	1947663.2	1947663.2		0	92857	760960.6	853817.4							
5/12/2005	1941964.2	1941964.2		0	92857	755261.6	848118.4							
6/7/2005	1962946.5	1962946.5		0	92857	776243.9	869100.7	3500	380	85	59	360	3	RS5
7/19/2005	1997247.2	1997247.2		0	92857	810544.6	903401.4							
8/17/2005	2018578.5	2018578.5		0	92857	831875.9	924732.7							
9/21/2005	2027897.0	2027897.0		200	93057	841194.4	934251.2	790	34	4.7	0.89	99	<0.5	RS5

ug/L micrograms per liter (parts per billion)  
mg/L milligrams per liter (parts per million)  
WESTERN GEO-ENGINEERS

< BELOW LABORATORY LOWER DETECTION LIMITS  
mg/Kg milligrams per kilogram (parts per million)  
TPHg TOTAL PETROLEUM HYDROCARBONS GASOLINE RANGE  
MTBE METHYL TERTIARY BUTYL ETHER

\* SAMPLED ON AUGUST 26, 1999  
T1 Receptor Trench Well  
RS5 Monitor Well RS5 (pumping well)

TABLE 2  
 WASTEWATER DISCHARGE PERMIT # 5043550 1  
 FORMER DP #793  
 4035 PARK BLVD., OAKLAND, CALIFORNIA

WASTEWATER SOURCE ID	DATE	METER	NEW	GALLONS	ACCUMULATIVE	AVERAGE	EPA METHOD 624		ETHYL-	XYLENES	7420
		READING IN GALLONS #35635668 314110	METER IN GALLONS #47083426	DISCHARGED BETWEEN VISITS	GALLONS DISCHARGED	DISCHARGE PER MINUTE IN GALLONS	BENZENE ug/L	TOLUENE ug/L	BENZENE ug/L	ug/L	LEAD ug/L
F1 (PSP No. 1)	1/22/2004		1673412	17723	579567	0.35					
F1 (PSP No. 1)	2/26/2004		1696378	22966	602533	0.46					
F1 (PSP No. 1)	3/30/2004		1723589	27211	629744	0.57	<0.5	<0.5	<0.5	<0.5	<0.5
F1 (PSP No. 1)	4/29/2004		1746094.5	22506	652249	0.52					
F1 (PSP No. 1)	5/27/2004		1764065.5	17971	670220	0.45	<0.5	<0.5	<0.5	<0.5	<0.5
F1 (PSP No. 1)	6/30/2004		1787786.1	23721	693941	0.48					
F1 (PSP No. 1)	7/29/2004		1791170.5	3384	697325	0.08					
F1 (PSP No. 1)	8/31/2004		1791170.5	0	697325	0.00					
F1 (PSP No. 1)	9/30/2004		1794233	3063	700368	0.07	<0.5	<0.5	<0.5	<0.5	<0.5
F1 (PSP No. 1)	10/28/2004		1800669.8	6437	706825	0.16					
F1 (PSP No. 1)	11/24/2004		1816663.2	15993	722818	0.41					
F1 (PSP No. 1)	12/30/2004		1841818	25155	747973	0.49	<0.5	<0.5	<0.5	<0.5	<0.5
F1 (PSP No. 1)	1/14/2005		1855778	13960	761933	0.65					
F1 (PSP No. 1)	2/15/2005		1872001.8	16224	778157	0.35					
F1 (PSP No. 1)	3/23/2005		1903025.7	31024	809180	0.60	<0.5	<0.5	<0.5	<0.5	<0.5
F1 (PSP No. 1)	4/13/2005		1915573.7	12548	821728	0.41					
F1 (PSP No. 1)	5/12/2005		1941964.2	26391	848119	0.63					
F1 (PSP No. 1)	6/7/2005		1962946.5	20982	869101	0.56	<0.5	<0.5	<0.5	<0.5	<0.5
F1 (PSP No. 1)	7/19/2005		1997247.2	34301	903402	0.57					
F1 (PSP No. 1)	8/17/2005		2018578.5	21331	924733	0.51					
F1 (PSP No. 1)	9/21/2005		2028097	9519	934252	0.19	<0.5	<0.5	<0.5	<0.5	<0.5

< BELOW LABORATORY LOWER DETECTION LIMITS

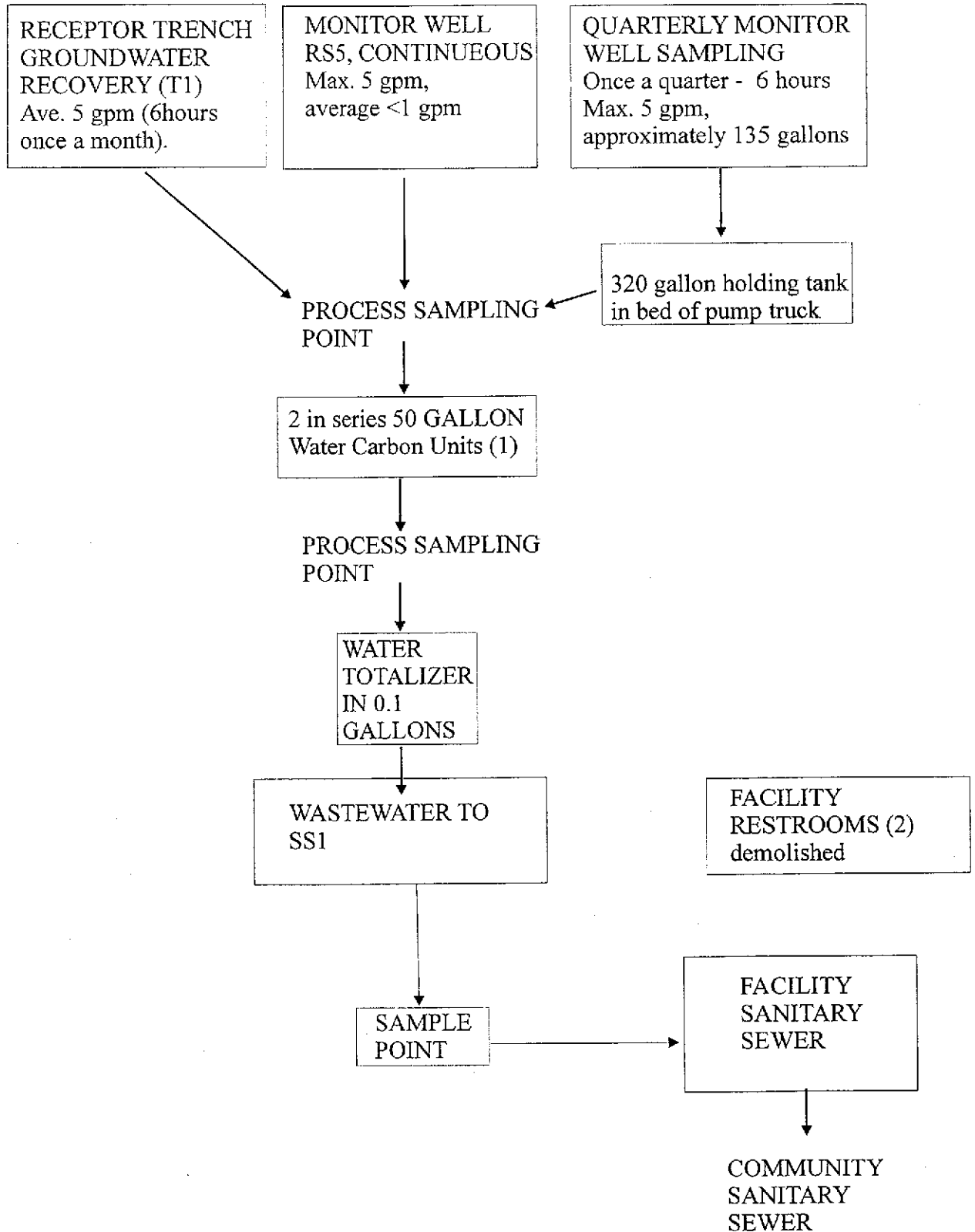
ug/L micrograms per liter (parts per billion)

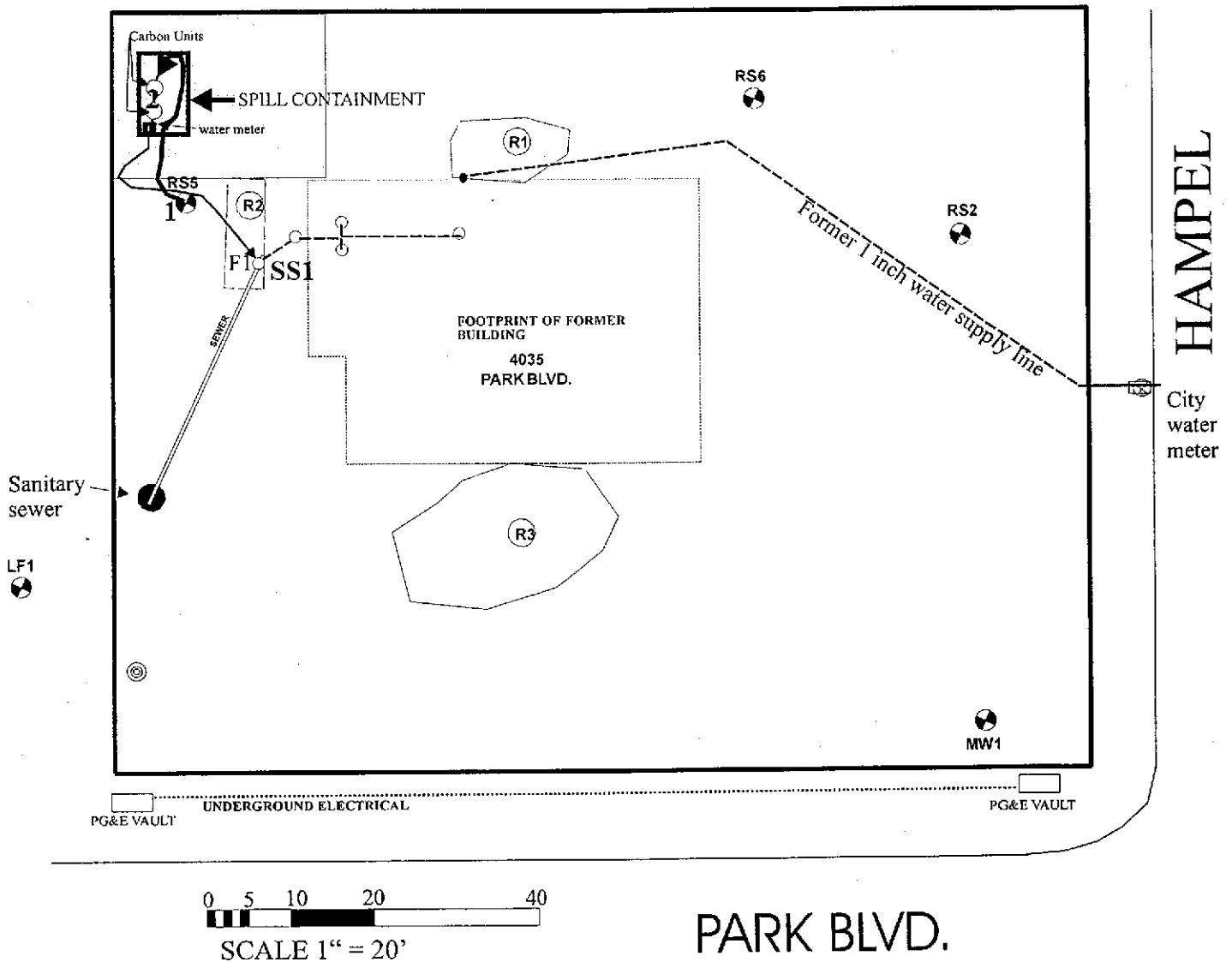
Note: water meter #47083426 did not function during initial test, substitute meter #35635668 used until cleaned and tested. Re-installed January 28, 2000.


Note: water meter difference from 7/19/2001 to 3/21/2002 is from use of meter at other sites to meter discharges when pumping was discontinued on 7/19/2001.

WATER DISCHARGED TO SEWER IS FROM PURGING OF T1, DISCHARGE FROM WELL RS5 AND PURGED WATER FROM 1/4LY SAMPLING.

Figure 1 (Revised July 7, 2004)  
 Activity: GROUNDWATER RECOVERY AND DISCHARGE SYSTEM  
 FORMER DESERT PETROLEUM SITE DP 793.





- 
 MW1 MONITOR WELL
- 1 Groundwater recovery well RS5
- 2 2 in series 55 gallon carbon filters.

**FIGURE 2**  
**SEWER DISCHARGE**  
**TREATMENT COMPOUND**  
**WASTEWATER DISCHARGE**  
**PERMIT # 5043550 1**



Report Number : 46081

Date : 9/28/2005

George Converse  
Western Geo-Engineers  
1386 East Beamer Street  
Woodland, CA 95776

Subject : 1 Water Sample  
Project Name : DP793-Sewer  
Project Number : DP793

Dear Mr. Converse,

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,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 46081

Date : 9/28/2005

Project Name : DP793-Sewer

Project Number : DP793

Sample : Sewer

Matrix : Water

Lab Number : 46081-01

Sample Date :9/21/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/27/2005
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	9/27/2005
4-Bromofluorobenzene (Surr)	97.5		% Recovery	EPA 8260B	9/27/2005

Approved By:

Joel Kiff

Report Number : 46081

Date : 9/28/2005

**QC Report : Method Blank Data**

Project Name : **DP793-Sewer**

Project Number : **DP793**

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/27/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/27/2005
Toluene - d8 (Surr)	100		%	EPA 8260B	9/27/2005
4-Bromofluorobenzene (Surr)	96.6		%	EPA 8260B	9/27/2005

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
------------------	-----------------------	-------------------------------	--------------	------------------------	----------------------

Approved By: Joel Kiff



Report Number : 46081

Date : 9/28/2005


QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : DP793-Sewer

Project Number : DP793

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
Benzene	46081-01	<0.50	40.0	40.0	40.6	39.4	ug/L	EPA 8260B	9/27/05	101	98.5	2.96	70-130	25
Toluene	46081-01	<0.50	40.0	40.0	40.6	39.1	ug/L	EPA 8260B	9/27/05	101	97.7	3.71	70-130	25
Tert-Butanol	46081-01	<5.0	200	200	211	210	ug/L	EPA 8260B	9/27/05	105	105	0.430	70-130	25
Methyl-t-Butyl Ether	46081-01	<0.50	40.0	40.0	39.0	38.9	ug/L	EPA 8260B	9/27/05	97.6	97.3	0.273	70-130	25

Approved By:

  
Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 46081

Date : 9/28/2005

QC Report : Laboratory Control Sample (LCS)

Project Name : DP793-Sewer


Project Number : DP793

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	9/27/05	101	70-130
Toluene	40.0	ug/L	EPA 8260B	9/27/05	104	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/27/05	98.9	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/27/05	97.8	70-130

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By:

  
\_\_\_\_\_  
Joe Kiff



2795 2nd Street, Suite 300  
 Davis, CA 95616  
 Lab: 530.297.4800  
 Fax: 530.297.4802

SRG # / Lab No. 46081

Project Contact (Hardcopy or PDF To): George Conner  
 Company / Address: WEGE  
1386 E Beema St, Woodland  
 Phone #: 530 668 5300 Fax #: \_\_\_\_\_  
 Project #: DP 793 P.O. #: \_\_\_\_\_  
 Project Name: DP 793 - Sewer  
 Project Address: Oakland

California EDF Report?  Yes  No  
 Sampling Company Log Code: \_\_\_\_\_  
 Global ID: \_\_\_\_\_  
 EDF Deliverable To (Email Address): \_\_\_\_\_  
 Sampler Signature: [Signature]

Chain-of-Custody Record and Analysis Request

Sample Designation	Sampling		Container				Preservative			Matrix			Analysis Request	TAT	
	Date	Time	40 ml VOA	Sleeve	Poly	Glass	Tedlar	HCl	HNO <sub>3</sub>	None	Ice	Water			Soil
<u>Sewer</u>	<u>9-24-05</u>	<u>1425</u>	<u>3</u>					<u>✓</u>			<u>✓</u>				<u>12 hr</u>
															<input type="checkbox"/> 24 hr
															<input type="checkbox"/> 48 hr
															<input type="checkbox"/> 72 hr
															<input type="checkbox"/> 1 wk

MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	<input type="checkbox"/>
MTBE (EPA 8260B) @ 0.5 ppb	<input checked="" type="checkbox"/>
BTEX (EPA 8260B)	<input checked="" type="checkbox"/>
TPH Gas (EPA 8260B)	<input checked="" type="checkbox"/>
5 Oxygenates (EPA 8260B)	<input type="checkbox"/>
7 Oxygenates (EPA 8260B)	<input type="checkbox"/>
Lead Scav. (1,2 DCA & 1,2 EDB-EPA 8260B)	<input type="checkbox"/>
Volatile Halocarbons (EPA 8260B)	<input type="checkbox"/>
Volatile Organics Full List (EPA 8260B)	<input type="checkbox"/>
Volatile Organics (EPA 524.2 Drinking Water)	<input type="checkbox"/>
TPH as Diesel (EPA 8015M)	<input type="checkbox"/>
TPH as Motor Oil (EPA 8015M)	<input type="checkbox"/>
Total Lead (EPA 6010)	<input type="checkbox"/>
W.E.T. Lead (STLC)	<input type="checkbox"/>

For Lab Use Only

Relinquished by: [Signature] Date: 9-24-05 Time: 1705  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: 092105 Time: 1705 Received by Laboratory: B. MA Kiff Analytical

Remarks: \_\_\_\_\_  
 Bill to: WEGE

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
<u>6.42</u>	<u>848</u>	<u>092105</u>	<u>1700</u>	<u>1R-4</u>	<input checked="" type="checkbox"/> Yes / <input type="checkbox"/> No