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September 30, 1998

Mr. John Rutherford
Environmental Compliance
Desert Petroleum, Inc.
P.O. Box 1601
Oxnard, CA 93032
(805) 654-8084 ext. 202
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RE: Update of investigation of the lateral extent of contamination downgradient of RS-7 as requested in the June 2, 1998 letter from Alameda County Health Care Services (ACHCS) and progress of remediation for former Desert Petroleum Station DP 793, 4035 Park Blvd. Oakland, CA 94602.

Dear Mr. Rutherford:

The following is an updated chronology of events that have occurred regarding the investigation and remediation of DP-793.

1 CHRONOLOGY

1.1 *Discovery of Unauthorized Release*

The service station at 4035 Park Boulevard was originally built in 1931. Tidewater Oil Company operated the site as a "full service" type service station in 1966. After the Loma Prieta earthquake in 1989 the station was closed after discovery of a leak in piping which was associated with a piping replacement job.

November 30, 1989

Desert Petroleum was notified, by Alameda County Health, that gasoline was trickling into the sewer on Brighton Avenue through a crack in the bottom of the sewer manway. The regular unleaded supply piping failed the subsequent tank and piping integrity tests.

December 7, 1989

All fuel was removed from the underground storage tanks (UST's). A ½ inch hole was discovered in the regular unleaded supply line beneath the eastern pump island.

DP 793 RS7 WORKPLAN 6/98

December 8, 1989.

Unauthorized Release Report filed.

1.2 Site Investigations and Remedial Actions

December 11 -13, 1989

Soil borings RS-1, RS-2, RS-3, RS-4, RS-5 and RS-6 were drilled and sampled. RS-1, RS-2, RS-5 and RS-6 were converted into groundwater monitoring wells. At this time an exploratory excavation near the discovery of gasoline in the sewer manway exposed three different underground lines. The storm drain was encountered at around the 2.5 to 3.0-foot depth, the sewer drain line at approximately the 5-foot depth and a water supply line at about the 6-foot depth. Gasoline appeared to be seeping from the fill around the sewer line. Remediation Service, Int'l (RSI) described the native formation exposed in this excavation as a tight clay. The excavation was converted into monitor well RS7 by installing an 8-foot section of 4 inch perforated PVC pipe and then backfilling the excavation with pea gravel. RSI using a portable internal combustion engine vapor extraction system pulled and destroyed gasoline vapors from RS-7 during daylight hours and from RS-1, RS-2, RS-5 and RS-6 continuously for a time.

August 21, 1990

September 19, 1990

September 8, 1993

RESNA Industries' Water Works Corporation and Levine-Fricke collected soil and groundwater samples from six soil borings situated near the north-south portion of the sewer lateral in the site vicinity to investigate the probability of neighboring sites being impacted.

June 22 - 23, 1994

Three gasoline UST's and one waste oil UST were removed. After documentation sampling the excavated soil was placed back into the pit, for temporary storage.

August 8 - 14, 1995

Source removal of contaminated soil occurred beneath, south and north of the pump island area to the seventeen-foot depth occurred between. Prior to backfilling 6-inch diameter 0.020 inch slotted PVC casing was installed vertically from about the 14 to 4 foot depth with blank PVC to surface. Pea gravel was used to backfill the excavation to about the 5 ½ foot depth with the remainder of the excavation compaction backfilled to preexisting surface with A/B. This well is noted as R3.

August 31, 1995

Two other excavations were dug to the seventeen-foot depth and backfilled; slotted casing was installed in a similar manner as for R3 above. One excavation was dug west of the station building (R1) and the other was an over-excavation of the waste oil UST area, north of the building (R2).

May 1996 A Soil Probe Survey (SPS) was conducted along the sewer lateral north of the site to define the extent and degree of soil and groundwater hydrocarbon contamination. Free phase product sheen was discovered in the front yard of 4032 Brighton Avenue.

August 14, 1996 Weekly purging of water from RS-7 for interim free product removal commenced on and was terminated on September 9, 1996. A total of 303 gallons of water and sheen of product were recovered.

September 20, 1996 Air monitoring of the crawl spaces and sewer manways was conducted at the request of Alameda County Health and the Oakland Fire Department. All air samples obtained were below detection limits for TPHg, Benzene, Toluene, Ethylbenzene, and Xylenes. Air samples were obtained from crawl spaces at the following addresses: 1211, 1215, 1221, and 1227 Hampel Street and 4006 and 4026 Brighton Avenue and 4003 and 4032 Park Boulevard.

January 17, 1997 SPS was performed along Brighton Avenue to define the extent of the free product sheen and to help in the development of a corrective action workplan.

April 3, 1997 Corrective Action Workplan

June 1994 Groundwater sampling and monitoring for this site commenced and is currently ongoing on a quarterly basis.

December 5, 1997 A workplan to perform Risk Base Corrective Action (RBCA Tier 2) was approved by Alameda County Health.

December 9, 1997 Workplan revised for pre-approval by the Cal/EPA SWRCB UST Cleanup Fund.

April 22, 1998. UST Cleanup Fund pre-approval was received.

June 3, 1998 Request letter to landowners for permission to install groundwater monitoring wells in their backyards, near the sewer lateral. Start permitting process with City of Oakland for installation of receptor trench and down gradient well.

June 11, 1998 Workplan submitted for the installation of a well down gradient of DP-7 as requested by Mr. Thomas Peacock, Manager of ACHCS. Our previous workplan is approved to perform a RBCA Tier Two assessment and install five additional hand augered groundwater monitoring wells, project management, and to acquire permit and permission to install a receptor trench in Brighton Avenue, for 4035 Park Blvd., Oakland, California. Western Geo-Engineers has already gained Pre-Approval of Corrective Action Costs, which include the

five additional hand augered groundwater monitoring wells, project management, and to acquire permit and permission to install a receptor trench in Brighton Avenue.

September 30, 1998

Desert Petroleum sent check to City of Oakland for encroachment permit and is securing bond for well installations in City of Oakland right of way.

The following is work in progress.

1.2.1 ADDITIONAL MONITORING WELLS

The additional five monitoring wells are a necessity in achieving:

1. A complete Tier 2 assessment.
2. Investigate the lateral extent of contamination downgradient of RS-7.
3. Delineate the area that is to be used for free product removal via a receptor trench along the eastern curb/gutter area of Brighton Avenue, see Figure 3.

Previous investigations have delineated the Gasoline Range Hydrocarbon Plume as it migrated off site along the sewer lateral beneath private property, its north and south spread beneath the eastern curb along Brighton Avenue and the lateral extent along the sewer lateral west of RS-7.

1.2.2 RECEPTOR TRENCH IN BRIGHTON AVENUE

To collect the free product and any injection fluids that may be used along the sewer lateral, a receptor trench has been approved. This receptor trench will be installed in the western gutter area along Brighton Avenue and will intercept the sewer lateral backfill and the silty sand zone north of the sewer lateral. The trench will be approximately 30 feet in length, 6 feet deep and 3 feet wide, with a collection basin/vault near the sewer lateral dug to the 7 foot depth, see Figure 11 page 34 of the April 3, 1997 report. The original plan for the receptor trench was to collect the fluids and then pump them back to the treatment compound located at 4035 Park Blvd. The high costs for right-of-way permits, and approved installation made pumping too expensive, requiring weekly removal of fluids by a vacuum transport tanker truck.

1.2.3 WEEKLY REMOVAL OF FLUIDS COLLECTED IN RECEPTOR TRENCH

As mentioned above the removal of fluids from the receptor trench will be accomplished once a week by a vacuum service tanker truck and hauled to their site for recycling and disposal. At this time the City of Oakland sewer district does not except fluids other than *normal* fluids found in sewer systems.

1.2.4 MONITORING/EVALUATION OF PROGRESS MADE WITH WEEKLY REMOVALS

To evaluate the progress of the weekly pumping of the receptor trench along with the introduction of bio-nutrients along the sewer lateral, monthly monitoring is proposed. Monitoring will concentrate on the Brighton Avenue receptor trench, the newly installed wells along the sewer lateral and those adjacent to the receptor trench, and possibly the recovery and injection wells located at 4035 Park Blvd. The following information will be collected during the monthly monitoring. Depth to water/fluid all wells, Dissolved Oxygen, at the injection well and the newly installed wells along the sewer lateral and Brighton Avenue. After nutrient addition to R3 has commenced the receptor trench and wells along Brighton Avenue will be monitored and checked for the presence of those fluids.

1.2.5 SEWER LATERAL FILL WASHING

As proposed in the April 3, 1997 report, Tri-Sodium Phosphate (TSP) was to be injected into the infiltrations wells placed at 4035 Park Blvd (R1, R2 and R3). Communications with Food Machinery Corp. (FMC), the manufacture of TSP, suggested that Ortho-Sodium Phosphate (OSP) and or Mono-Sodium Phosphate also be added to the solution to maintain the "injection" fluid pH between 6.5 and 7.5.

At the completion of the natural attenuation study, the decision will be made, as to what nutrients will be needed to augment the natural attenuation/degradation of the hydrocarbons along the sewer lateral. Currently Western Geo-Engineers is using a Sodium Hexametaphosphate and Sodium Sulfate blend to perform similar results at another site in Oakland (3609 East 14th Street).

If you should have any questions regarding this workplan and the items necessary to complete the workplan with RBCA Tier II assessment please give me a call at (530) 668-5300.

Sincerely yours,



George L. Converse
Project Geologist

Cc: Mr. Tony Razzi
Mr. Tom Peacock, Alameda County Health Care Services
Mr. Leroy Griffin, Oakland Fire Dept.

- WATER UTILITY
- NATURAL GAS UTILITY
- SEWER UTILITY
- STORMWATER UTILITY

- ACTIVE GROUNDWATER MONITOR WELL
- DESTROYED WELL/BORING
- PROPOSED GROUNDWATER/REMEDIAL ACTION MONITOR WELLS
- ▬ RECOVERY TRENCHS WITH PROJECTED FLOW DIRECTION

Tom: 10/29/98
 Revised Fig 3, as requested.

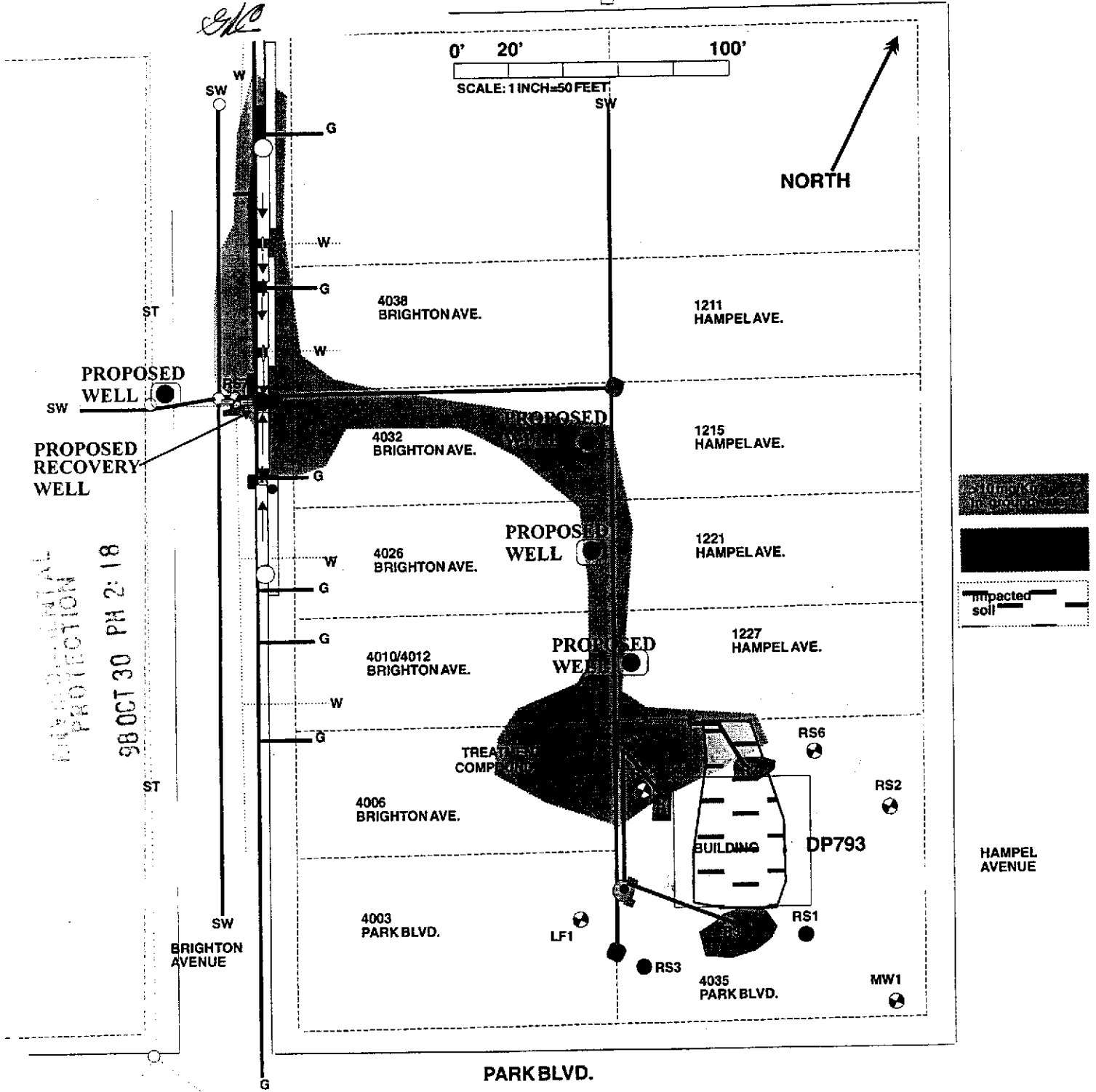


FIGURE 4-GROUNDWATER/SOIL PLUMES WITH PROPOSED WELLS UNDERGROUND UTILITIES (revised 10/29/98) DP 793, 4035 PARK BLVD. OAKLAND, CALIFORNIA