

RSI
REMEDATION SERVICE, INT'L.

P.O. BOX 1601, OXNARD, CALIFORNIA 93032
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April 5, 1990

Alameda County Health Agency
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Attn: Ariu Levi
Hazardous Materials Specialist

Re: Quarterly Report on Desert Petroleum
4035 Park Blvd., Oakland, CA

This update report is to provide you with the information which is available to further update clean-up status at this site. To summarize this progress:

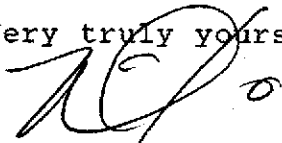
1. Vapor equipment has been running on this site since the first wells were installed in December, 1989.
2. The permanent vapor extraction unit has removed over 1001.7 gallons of gasoline from the soil, in those wells located on site. Two wells located near the island leak and adjacent to the sewer line have shown substantial reductions of soil vapors, and no free product exists on site.
3. The portable RSI vapor unit on Brighton Street has removed an average of 100 gallons per month (299.7 total) since its start up. This unit has been effective in preventing any free product from entering the sewer system, and it is currently operated seven days per week during daylight hours. For safety and security reasons, this unit is manned by an operator who transports the equipment to the street site and sets it up daily.
4. Emergency operating permits for the water treatment system (which is part of each RSI vapor unit) were applied for in December 1989, and on-site testing of the unit was supervised by Ray Kahler of the Regional Water Quality Control Board. See attached water testing results and letter confirming testing.
5. Since that time emergency permits were denied, due to the RWQB opinion that water on site may not constitute actual ground water, and could instead be leakage from the sewage system. Permits for a standard NPDS discharge permit through sewers has been filed through the Sanitary District.

6. Water treatment through both units will start as soon as these permits are issued, as well as treatment of water currently stored on site in the tank from the tank testing.
7. In February 1990, a request was filed with SRWQCB for enhanced bio-augmentation on site utilizing inoculated biocultures. Solmar Corp. of Orange, California, has had extensive use and success using this program. A copy of the Solmar program is enclosed. When approved it will begin as quickly as possible. The process is to flush nutrients and gasoline consuming bacteria at the site of the pipeline leak. As the nutrients follow the migration pathways toward the sewer on Brighton Street, all traces of gasoline will be consumed. This program will provide the safest, and least invasive alternative to that small section of soil contaminated around the sewage line, since 600-900 feet of line buried at the rear of 8-10 properties would be impractical to treat in any other manner.
9. Monitoring of the bioculture program will be by SRWQCB and manufacturer's guidelines; the soil venting program and water treatment program will also continue to operate during this time.
10. Water samples and vapor sampling will continue, and progress will be reported to agencies on a quarterly basis.
11. Tank testing has been completed on all tanks and lines at the site. No leak was found in any spot other than the line leak reported in the Unauthorized Release Report. That point of release was under the east pump island in a product line.

COPY OF REQUEST
7
TO BE SENT

I have on many occasions tried to contact you, or your staff to meet on site and discuss progress on this site. After review of this progress report we can schedule this meeting. I look forward to our meeting. If you have any questions, do not hesitate to call me at 805-644-5892.

Very truly yours,



Rick Jirsa
Project Manager

cc: M. Thomson, Alameda County District Attorney's Office

Vapor Extracted Results

The RSI S.A.V.E. System pulls vapors from the ground, mixes these vapors with fresh air, and injects them onto a four cylinder Ford engine. The engine then burns the vapors as fuel, much as a car does. Emissions from the engine are controlled and regulated by permit from the East Bay Air Quality Management District.

To monitor removal rates, tedlar bag samples are taken from the well vapor flow. These bags are then measured for:

Benzene	-	B
Xylene	-	X
Toluene	-	T
Ethyl Benzene	-	EB
Total Petroleum Hydrocarbons	-	TPH

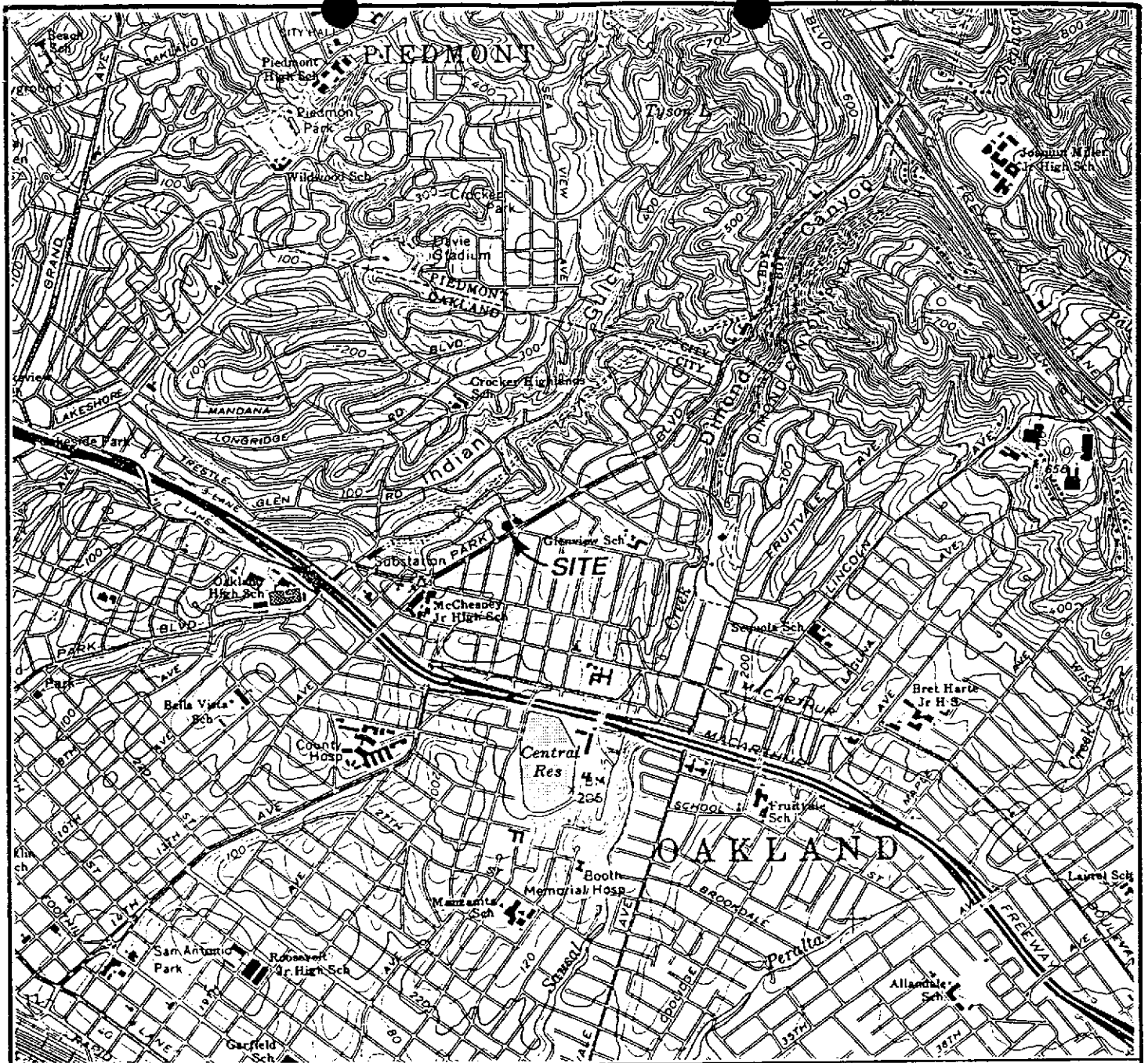
See attached data sheets.

Once the amount of fuel available is known, the hours of operation and the flow rates are used to calculate Total Contaminant Removed (see data sheets). Rates of removal are shown, and while total amounts removed per month may be fairly stable, many adjustments to the equipment and recovery were made daily. Due to noise problems, the unit is run during daylight hours only.

The main unit on site started and ran for several weeks from well vapors only. As product was removed, propane fuel has had to be

added back to the unit and it is now running with approximately 40% propane. Through 2/22/90 the unit ran 594 hours and consumed 1001.7 gallons from the ground around the spill site and adjacent sewer line.

RSI - Mobil 793 has operated 400 hours and removed 299.7 gallons from the one well adjacent to the sewer on Brighton Street. The December total of 80.7 gallons was from a partial month and supplemented with free product removal by pump truck during the first days of operation. By late December the S.A.V.E. unit was able to remove enough vapors to prevent free product from entering the sewer system. Since this time, the total recovery rate of the unit has slowed. The unit is now running with 50-70% propane fuel, and may soon have few if any vapors to utilize. Vapor extraction will continue, however, to force pull any "pockets" of free gasoline migrating down the sewer trench line. Sampling data and results will be reported with the next report.



A portion of the U.S.G.S. "Oakland East, California" 7 1/2' quadrangle

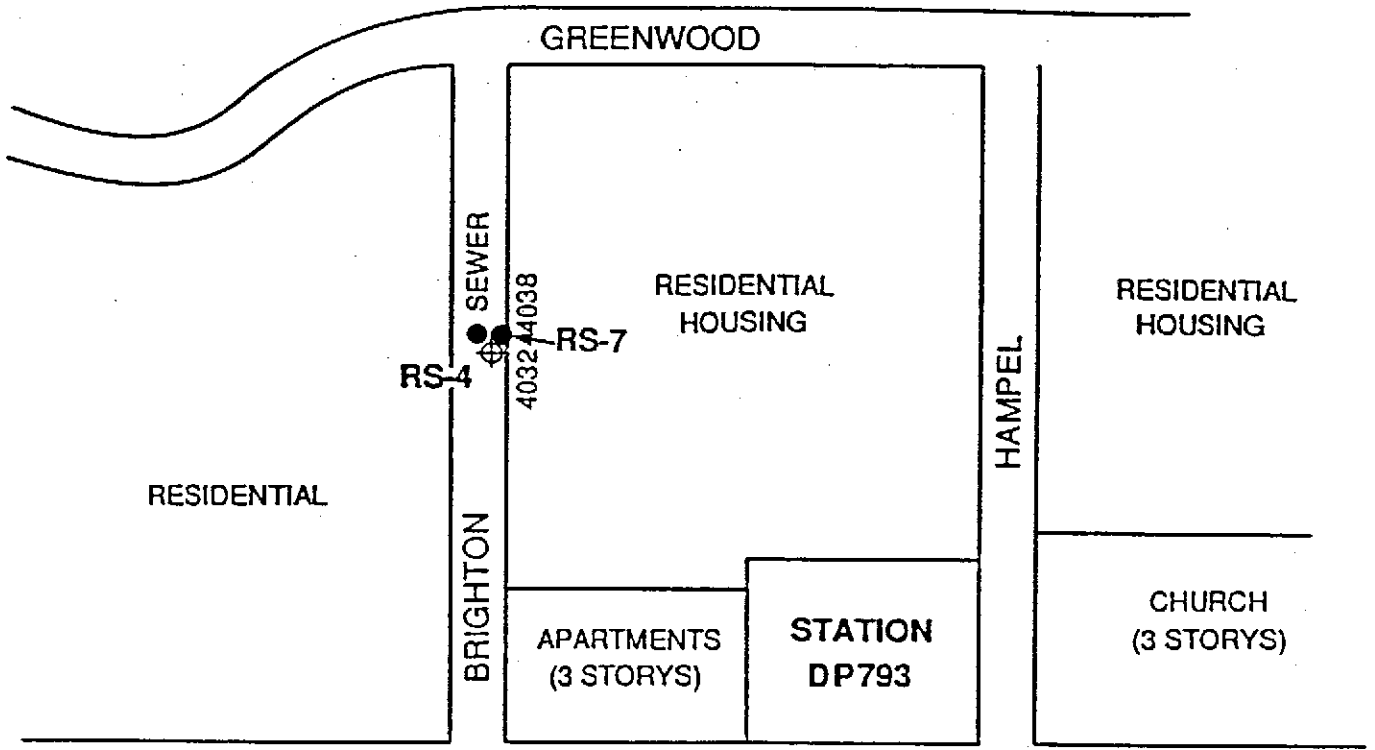
LOCATION MAP
DESERT PETROLEUM STATION NO. 793
OAKLAND, CALIFORNIA
 Prepared for
DESERT PETROLEUM
VENTURA, CALIFORNIA



FIGURE 1

RESIDENTIAL

GREENWOOD



RESIDENTIAL

RESIDENTIAL HOUSING

RESIDENTIAL HOUSING

APARTMENTS (3 STORIES)

STATION DP793

CHURCH (3 STORIES)

PARK BLVD.

ISLAND

DOCTOR'S OFFICE

RESIDENTIAL HOUSING

14TH STREET

HOUSING

HOUSING

BRIGHTON

HAMPEL

VICINITY MAP

DESERT PETROLEUM STATION NO. 793
OAKLAND, CALIFORNIA

Prepared for
DESERT PETROLEUM
VENTURA, CALIFORNIA

EXPLANATION

- RS-4 ⊕ RSI Boring (12/12/89)
- RS-7 ● Extraction Well (12-13-89)

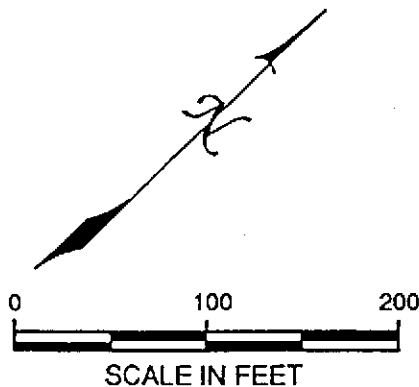
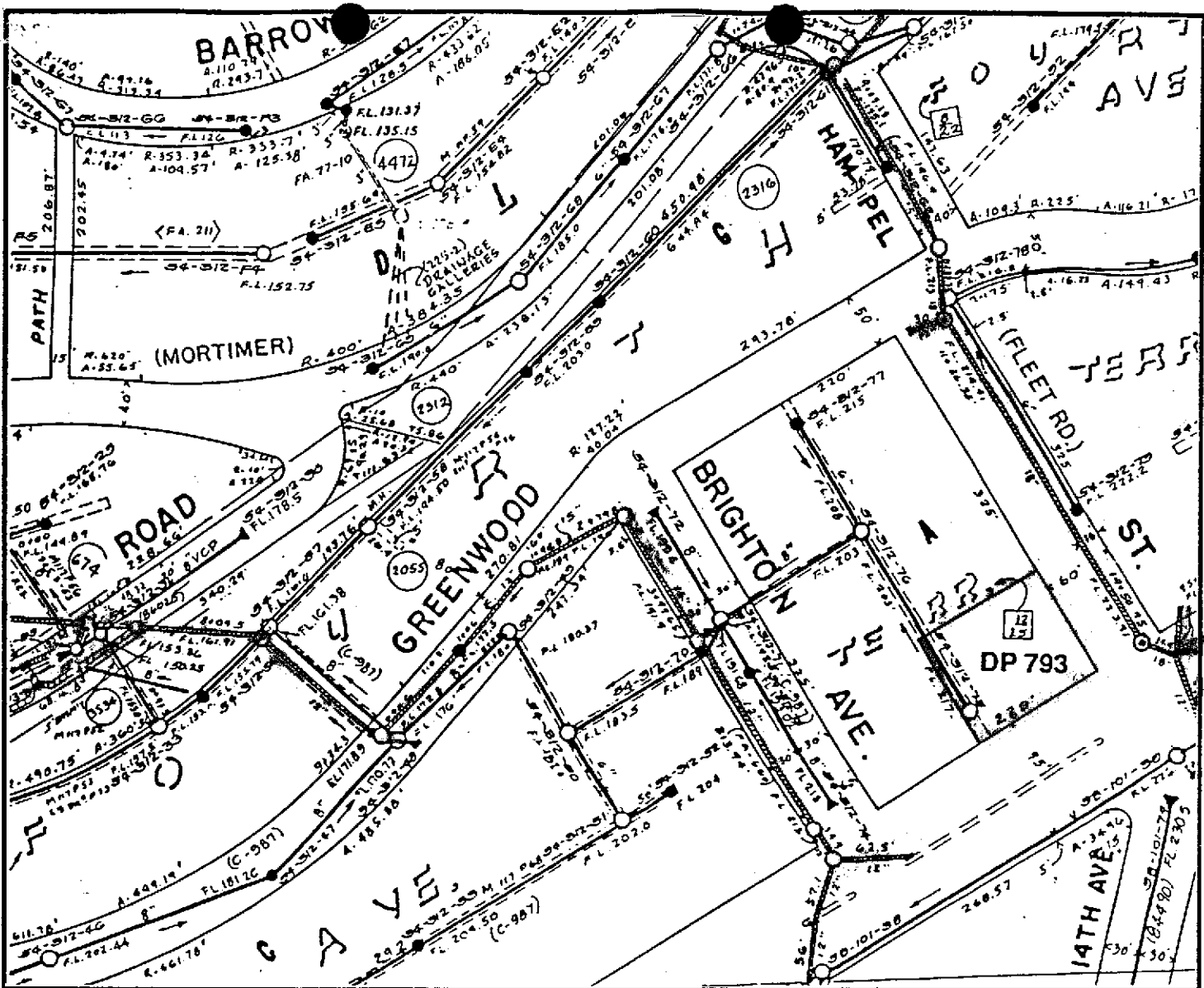
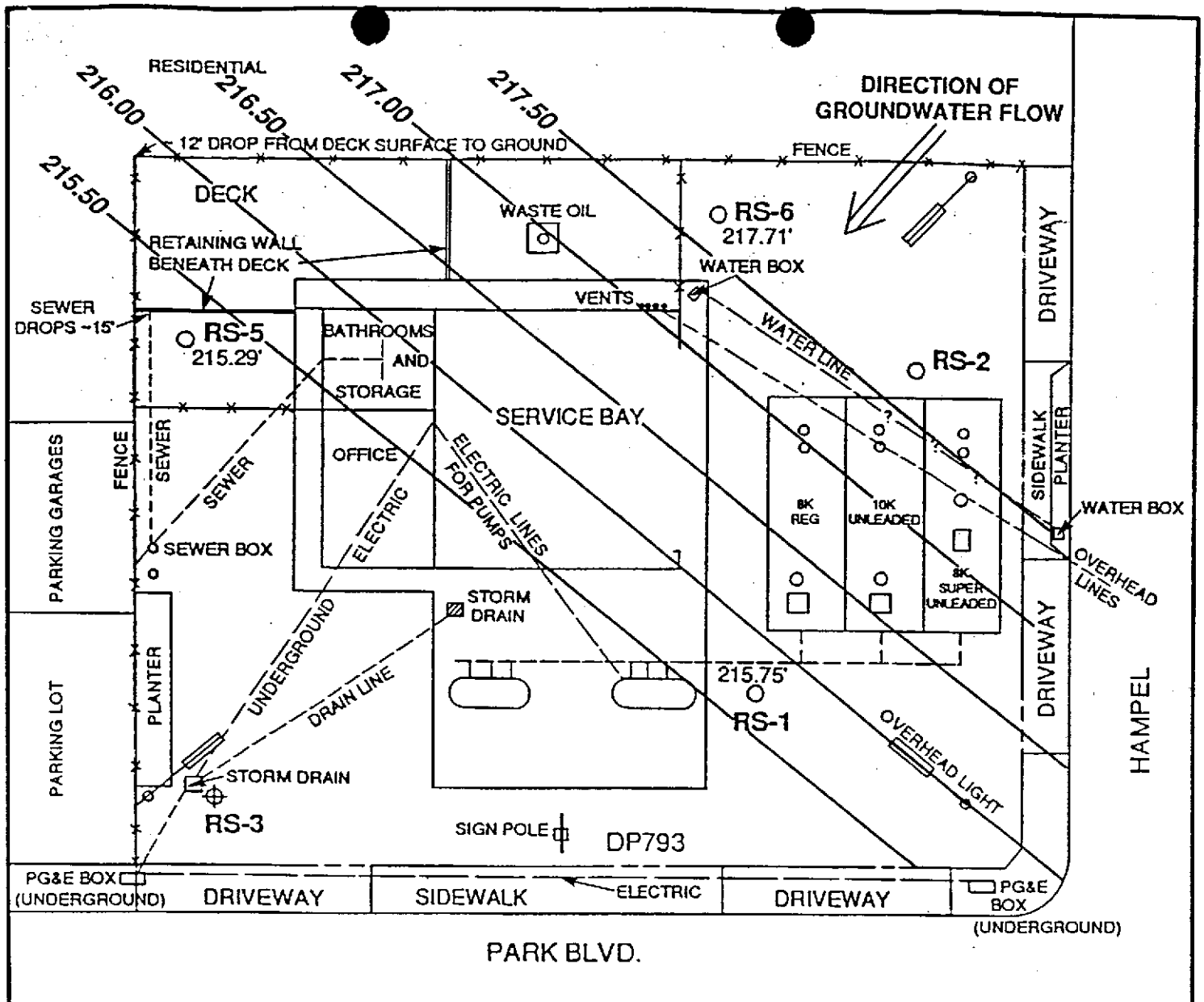


FIGURE 2

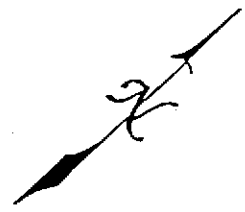


SEWER LINE MAP
DESERT PETROLEUM STATION NO. 793
OAKLAND, CALIFORNIA
 Prepared for
DESERT PETROLEUM
VENTURA, CALIFORNIA





WATER TABLE ELEVATION MAP
DECEMBER 14, 1989
DESERT PETROLEUM STATION NO. 793
OAKLAND, CALIFORNIA
 Prepared for
DESERT PETROLEUM
VENTURA, CALIFORNIA
ELEVATIONS ARE IN FEET ABOVE MSL



EXPLANATION

- RS-4 ⊕ RSI Boring (12/89)
- RS-6 ○ RSI Monitoring Well (12/89)

