SAMPLING AND ANALYSIS

Four soil sidewall samples were collected at points requested by Ms. Shin, see Figure 2, Sampling Plan. The following soil samples were collected:

SAMPLE	
ID	<u>DEPTH</u>
OE-E	(7 1/2' below ground surface
OE-N	8 below ground surface
OE-S	7 1/2' below ground surface
OE-W	8' below ground surface

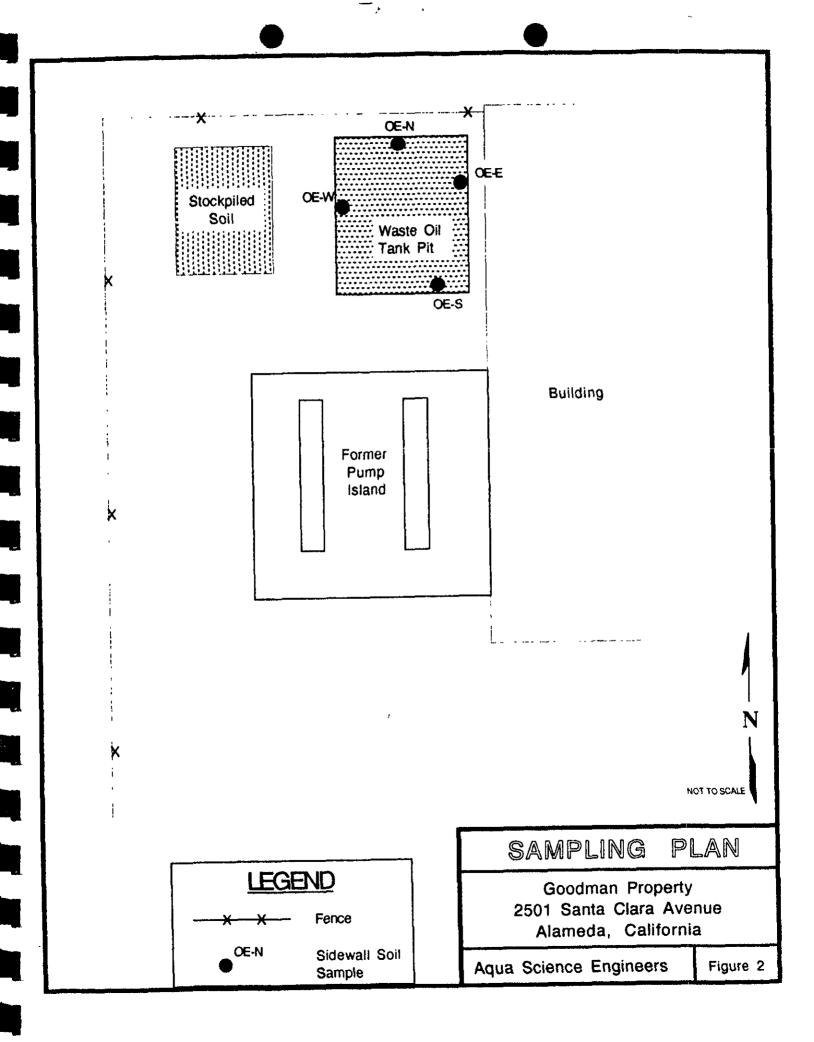
These soil samples were collected from the backhoe bucket in 2" x 6" sterile, brass tubes, covered on both ends with aluminum foil, capped, and taped. The samples were labeled and stored in an ice chest for cold storage prior to delivery to Priority Laboratory in Milpitas, California, a State of California Certified Laboratory. The samples were submitted for analysis of Total Petroleum Hydrocarbons as Gasoline (EPA 5030/8015), Total Petroleum Hydrocarbons as Diesel (EPA 3550/8015), BTEX (EPA 8020), and Oil & Grease (EPA 5520 D&F). Copies of the analytical report are attached in Appendix A; results are tabulated below in Table One.

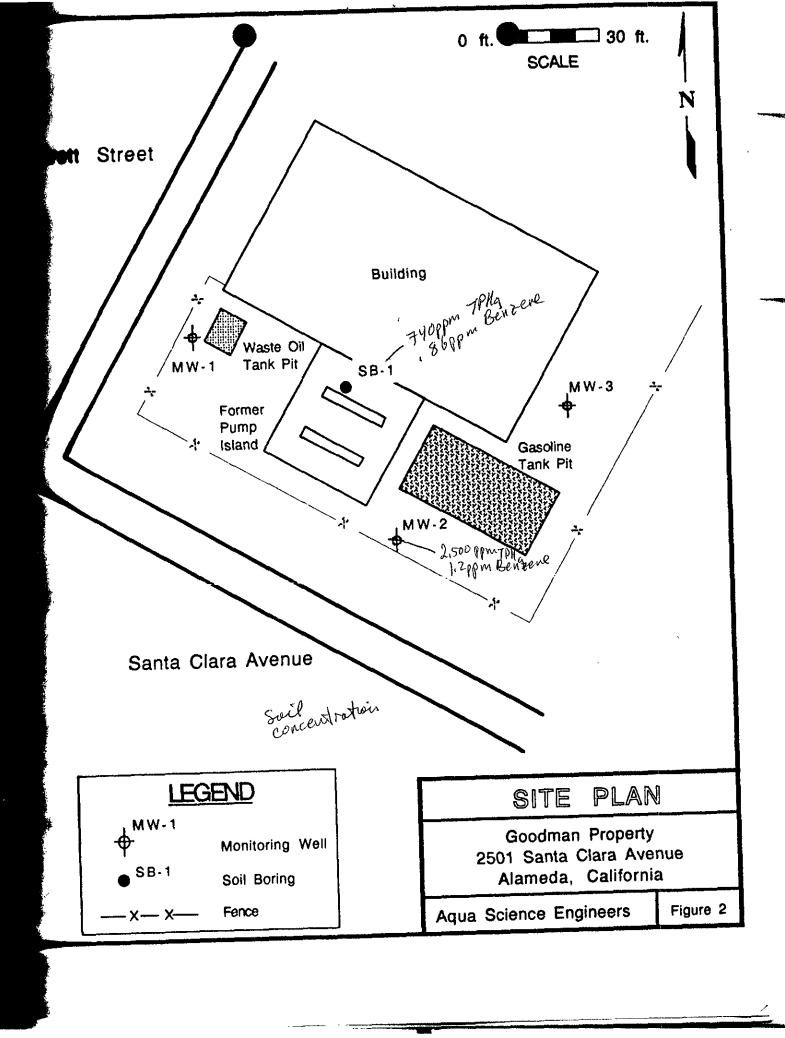
TABLE ONE
Overexcavation Soil Sample Results

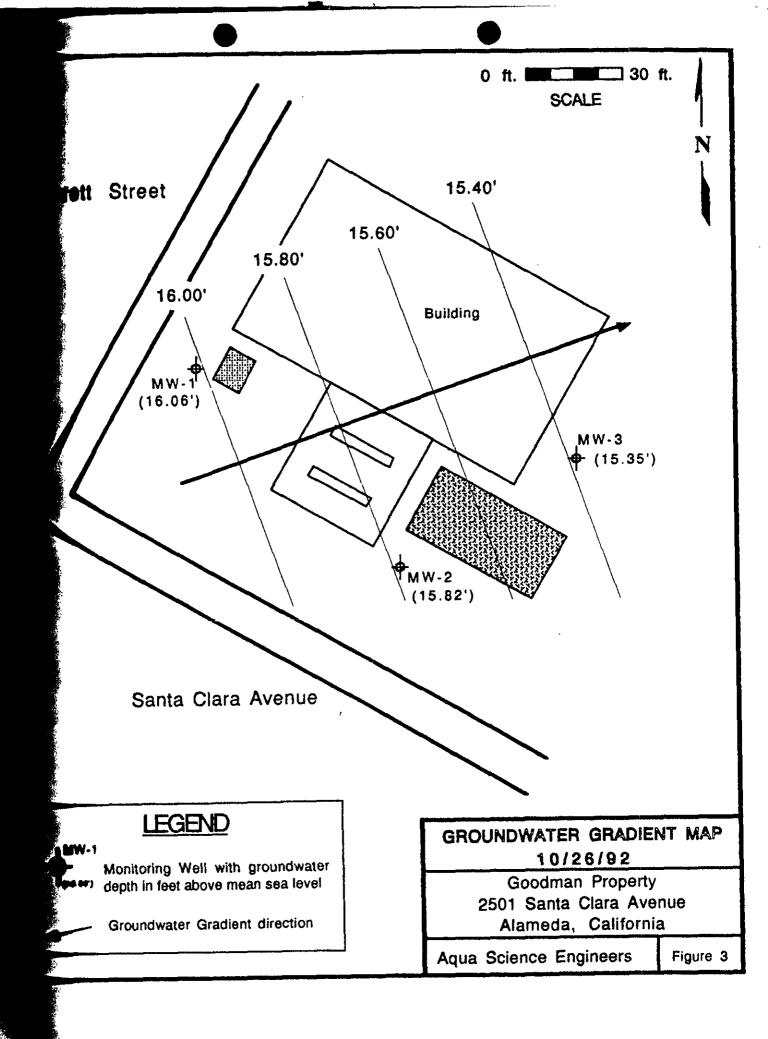
Sample ID.	TPH Gasoline (ppm)	TPH Diesel (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)	Oil and Grease (ppm)
OE-E OE-N	N.D. N.D.	N.D. N.D.	N.D., N.D.	N.D. N.D.	N.D. N.D.	N.D. N.D.	N.D. N.D. N.D.
OE-S OE-W	N.D. N.D.	N.D. N.D.	N.D. N.D.	N.D. N.D.	N;D, N.D.	N.D. N.D.	N.D.
Test Method	5030/ 8015	3550/ 8015	8020	8020	8020	8020	5520 D&F

ND - Non Detectable at analytical method limits

ppm - parts per million ppb - parts per billion







s depicted on the attached drawing (Figure 1), the excavation boundaries cluded areas surrounding the former gasoline UST's and beneath the spenser islands.

t approximately 6 feet below ground surface (bgs), groundwater was accountered in the excavation. This groundwater limited the vertical attent of overexcavation activities. The east side of the excavation was mitted due to the proximity of the building. The west side of the accavation was limited due to the proximity of Santa Clara Avenue.

excavated soil was stockpiled on site away from the excavation boundaries allow for a safe working area. At the point where it appeared that the oil-contamination plume had been removed as effectively as possible, verexcavation activities ceased. Calculations of the excavation ettermined that approximately 535 cubic yards of material were removed.

During the overexcavation activities, monitoring well MW-2 was destroyed.

A replacement well will be installed in the very near future.

TASK III - SOIL SAMPLE COLLECTION AND ANALYSIS

On January 22, 1993, ASE personnel began collecting sidewall soil samples the new excavation boundaries. All sampling activities were witnessed Ms. Juliet Shin of the Alameda County Health Care Services Agency (ACHCSA). Several of the sidewall soil samples were collected on January because access to that location would not be available any longer due to the size of the excavation pit. As depicted on Figure 1, 9 sidewall soil amples were collected from various locations surrounding the excavation pit. Bottom of excavation pit samples were impossible due to the roundwater within the pit. Samples were collected as follows:

TABLE ONE SAMPLE LOCATIONS - EXCAVATION PIT

Sample Identification SWS-1 SWS-2 SWN-1 SWN-2 SWE-1 SWE-2 SWE-3 SWW-1 SWW-2	Location South Sidewall, east end South Sidewall, west end North Sidewall, east end North Sidewall, west end East Sidewall, south end East Sidewall, middle East Sidewall, north end West Sidewall, south end West Sidewall, north end	Depth (bgs) 6.0' 5.5' 6.0' 5.5' 5.5' 5.5' 6.0' 5.5' 6.5'
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Gasoline Overexcavation - January, 1993

- 2 -

The samples were collected from the the excavator bucket in stainless steel sample tubes. The samples were covered on each end with double-thickness aluminum foil, capped, and sealed with tape. Each sample was discretely labeled, then immediately stored in an ice chest containing wet ice. The proper chain of custody documents were prepared prior to shipment to Priority Environmental Labs in Milpitas, California. Priority Environmental Labs is a CAL-EPA certified environmental laboratory (DHS No. 1708).

The samples were subject to the following analytical tests: Total Petroleum Hydrocarbons (TPH) as Gasoline (EPA method 5030/8015), and the fractions BTEX (EPA method 8020). Results of the analytical tests are tabulated below as Table Two; copies of the analytical report are contained in Appendix A.

TABLE TWO
Summary of Chemical Analysis of SOIL SIDEWALL Samples
TPH as Gasoline, and BTEX

Sample 1.D.	TPH Gas (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)
Aura 1					
S WS-1	N.D.	N.D.	N.D.	N.D.	N.D.
S WS-2	N.D.	N.D.	N.D.	N.D.	N.D.
SWN-1	N.D.	N.D.	N.D.	N.D.	N.D.
SWN-2	N.D.	N.D.	N.D.	N.D.	N.D.
SWE-1	N.D.	N.D.	N.D.	N.D.	N.D.
SWE-2	N.D.	N.D.	N.D.	N.D.	N.D.
SWE-3	3000	440	630	950	3700
SWW-1	N.D.	N.D.	N.D.	N.D.	N.D.
SWW-2	N.D.	N.D.	N.D.	N.D.	N.D.
EPA MEIHOD	3510/ 8015	602 8015	602	602	602

ND Non Detectable at analytical method limits

ppm parts per million ppb parts per billion

As detailed, only one sample (taken from the sidewall nearest the north end of the building) detected petroleum-hydrocarbon contamination. All of the other samples resulted in N.D. levels of contamination. Due to the proximity of the building in relation to the pocket of soil contamination that appeared to be identified, further overexcavation/remediation was not recommended.

Everett Street Sidewalk SWN-2 SWN-1 Building SWW-2 SWE-3 THIS ENTIRE EXCAVATION PIT WAS FULL OF WATER AT A DEPTH OF 6-FEET BELOW GROUND SURFACE. SWW-1 SW\$-2 PLES WERE COLLECTED AT THE CAPILLARY FRINGE, MATELY 5 1/2 TO 6 FEET BELOW GROUND SURFACE. PROM SIDEWALL MATERIAL RETRIEVED BY THE LEGEND NOT TO SCALE **Boundaries of Overexcavation** SIDEWALL SOIL SAMPLE PLAN (COLLECTED **(excavated 1/21/93** AFTER OVEREXCAVATION ON 1-22-93) and 1/22/93) Goodman Property **Sidewall** Soil Sample 2501 Santa Clara Avenue collected after overexcavation activities Alameda, California Fence Aqua Science Engineers Figure 1