Wright Environmental Service Inc. **Lic # 651501**

proposal 2

October 5, 1992

Ms. Lynn M. Nightingale
102 Flying Cloud Isle
Foster City, CA 94404

RE: 4629 Martin Luther King, Jr. Way, Oakland, CA

Dear Ms. Nightingale,

Wright Environmental Services, Inc is pleased to submit this proposal for soil borings and well construction at the referenced site. I have prepared our proposal and quoted unit rates in the format we discussed in September.

For your planning purposes permitting and scheduling will take approximately 2 weeks from the time I receive your authorization to proceed.

Please call me if you have any questions after reviewing the proposal and unit price schedule, Attachments A and B respectively.

Sincerely,
Wright Environmental Services, Inc.

John F. Lynch

John F. Lynch

attachments

•1961 Hill View War, Tracy CA 95376 •PH 209-833-0758 Fax 209-832-5152

ATTACHMENT A

Background

The site was formerly used for warehousing and a steel fabricating business. The site had five underground storage tanks; One-1000 gallon and One-250 gallon gasoline, One-10,000 and Two-2000 gallon heating oil. The tanks have been removed and soil samples were collected beneath each tank. Chemical analytical data indicate that areas of contamination exist in the vicinity of the heating oil tanks, showing concentrations which range from 710 to 4,000 parts per million (ppm) Total Petroleum Hydrocarbons as Diesel (TPHD) and Oil and Grease (OG). Some additional excavation was performed to depths of about 14 feet in this contaminated area. Since contamination was observed to exceed 100 ppm, a groundwater well is required by State guidance documents.

Technical Approach

Three exploratory borings and one monitoring well will be drilled and installed at selected locations in and around the former underground storage tank location, with the monitoring well within 10 feet (or as close a safely practicable of the tanks on the surmised downgradient side. Exploratory soil borings will collect soil samples to ascertain depth of penetration of contaminants. Soil and groundwater samples will be analyzed for Total Petroleum Hydrocarbons as Diesel (TPHD) and Benzene, Toluene, Ethylbenzene and Xylenes (BTEX), and Oil and Grease (OG). These compounds should cover the contaminants of interest to the Alameda County Department of Health, Division of Hazardous Materials (ACDH).

The area of the investigation is very congested with overhead utilities, strects, traffic, buildings and assumed subsurface utilities. The monitoring well is proposed to be located as close as safely possible to the downgradient side of the excavation. Given the difficulty of well installation, it is proposed that one well be installed to ascertain whether groundwater is impacted. Following collection of data from this initial monitoring well, a judgment of the need, if any, for additional monitoring wells can be made later.

Portable drilling equipment with masts low enough to be safely used beneath the aerial utilities (similar to a "Minuteman") will be man-handled into the open excavation for soil borings placed through the original tank excavation.

Scope of Work

Exploratory Soil Borings, Well Installation and Chemical Analysis

Three exploratory borings will be drilled with portable or truck mounted hollow-stem augers, which have been cleaned prior to use. Exploratory soil borings in the open excavation will be advanced up to 35 feet in depth. Exploratory soil borings not used for well installation will be backfilled from bottom to top with neat cement. A geologist will log the boreholes by collecting samples at 5-foot intervals, lithologic contacts of interest and areas of obvious contamination will be logged using the Unified Soil Classification System. Each soil sample will be field screened for presence of contamination using a portable Photo Ionization Meter (PID). Samples retained for chemical analysis will be collected in clean liners, sealed, and packed in a ice chest with the proper chain-of-custody documentation. Drill cuttings will be placed on and covered by visqueen plastic next to soil stockpiled within the building; costs to properly dispose or the treatment of drilling cuttings are not included in this scope of work.

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The boring used for the monitoring well will be advanced to the uppermost water bearing stratum, and advanced ten feet into the aquifer or terminated in the aquitard underlying that stratum. The well for the purpose of this estimate is expected to be no deeper than 45 feet and will be installed under approved permits of the ACDH. The monitoring well will be constructed using 2-inch diameter Sch. 40 PVC well casing, screening the entire thickness of the aquifer, and a portion above the capillary fringe to allow observation for floating product. Final well design will depend upon subsurface conditions encountered. The annulus between the casing and the borehole will be backfilled with 2/12 sand to about two feet above the screens. A bentonite clay spacer about two feet thick will be placed above the sand pack, and cement grout will be pumped from above the bentonite to the surface. An access vault box with locking device will cap the well. The well will be developed prior to sampling, and sampled by Blaine Tech Services. Well development and sampling water will be stored on-site in sealed drums; it is the Client's responsibility for proper disposal.

Up to eight soil samples, and one water sample, will be chemically analyzed. All samples will be chemically analyzed for TPHD, OG and BTEX, at a State-certified laboratory, using EPA Methods 8015, 8020 and 5330 (the water sample will also be analyzed for volatile organic compounds using EPA Method 624). The samples will be analyzed on a normal (ten working days) turnaround time.

Report, Schedule and Budget

The report will include a site plan, exploratory boring logs, well construction detail, chemical data, well sampling report, copies of well permit and report narrative with conclusions and recommendations prepared for submittal to ACDH.

Wright Environmental Services, Inc is prepared to begin obtaining required boring, monitoring well construction and street encroachment permits within one week of your authorization. A written report of the site investigation activities and well installation will be prepared within two to three weeks of the receipt of the chemical data.

The total estimated price for the activities described in this proposal is $14,137.00 dollars. A detailed summary of the prices are included as Attachment B to this proposal. Included in the summary of prices, are unit prices for additional work that may be requested by you, or that may be required by regulatory agents during the course of this investigation.

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ATTACHMENT B

Task Description	Units	Unit Price	Est. Price
Pre Field Activities			
Permits			
Boring and well permits	1/ea	$500.00	$500.00
Street encroachment permit	1/ea	cost + 20%	TBD
Safety and work plan	Lump sum		$540.00
Professional Services			
Staff Environmental Specialist	6/hr	$45.00	$270.00
Drafting	2/hr	$45.00	$90.00
Geologist Review	1/hr	$90.00	$90.00
Field Work Equipment			
Drill rig, operator & helper	16/hrs	$160.00	$2560.00
Mobe & Demobe of drill rig	4/hrs	$160.00	$640.00
Materials			
2" well up to 45' deep	1/ea	$550.00	$550.00
Sample Liners	15/ea	$9.00	$135.00
Grout upto 105 IF	Lump sum	$612.00	$612.00
55gl Drum	1/ea	$40.00	$40.00
Professional Services			
Geologist, CEG	20/hrs	$90.00	$1800.00
Sample Tech. & Equip.	8/hrs	$80.00	$640.00
Sample Analysis			
TPHD, BTEX, OG	8/ea	$385.00	$3080.00
TPHD, BTEX, OG, VOC	1/ea	$700.00	$700.00
Final Report			
Geologist, CEG	16/hrs	$90.00	$450.00
	SUB-TOTAL		$13,687
Project Administration			
Project Manager	5/hrs	$90.00	$450.00
	TOTAL		$14,137