BASELINE

ENVIRONMENTAL CONSULTING

4 September 2002
Y0323-01

Mr. Tom McCoy
BBI Construction
1155 3rd Street, No. 230
Oakland, CA 94607

Subject: Proposal to Perform Soil and Groundwater Investigation at 751-785 Brush Street, Oakland, California

Dear Mr. McCoy:

We understand that Major Chabot Partners is interested in acquiring the property located at 751-785 Brush Street, at the intersection of 7th Street, in Oakland (Figure 1). Based on our discussions about possible environmental liabilities that may be associated with ownership of the site, you instructed us to provide a proposal to evaluate whether former chemical releases from the site have impacted the shallow soil and groundwater quality. In addition, you requested that our proposal should include possible tasks that may be required by a regulatory agency to obtain closure for the site, if possible.

The site has been used as a plating facility since about 1957 and was most recently operated as Francis Plating, which appeared to have ceased operations around 1998. An inspection by the Oakland Fire Department around that time found improper containment of numerous chemicals and waste. The Oakland Fire Department requested assistance from the U.S. EPA Office of Emergency Response to assess the situation and to perform emergency removal actions. Ecology and Environment, Inc., acting under a U.S. EPA On-Scene Coordinator, performed removal actions at the site in 1998.

Francis Plating performed nickel and cadmium electroplating, aluminum anodizing, and chromic acid passivation for stainless steel parts. Chemicals known to have been used at Francis Plating include acids, ketones, cyanide, and metals. In addition, the site appeared to have also been used to store wastes brought to the site from other facilities in the 1990s.

Versar, Inc., performed Phase I and II site assessments at the site in 1993. Documentation of the assessments is incomplete. Based on the limited documentation available, it appeared that up to 19 borings were drilled across the site. Some or all of the samples were analyzed for metals, semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), and cyanide. It did not appear that groundwater sampling was conducted during

the investigation. The documentation available from the Phase II investigation indicated that soils underlying the site contained elevated concentrations of cadmium, chromium, lead, and nickel (and possibly other metals), and that PCBs, SVOCs (polycyclic aromatic hydrocarbons in particular), VOCs, and cyanide were detected in one or more samples.

Below we present a detailed work plan for a soil and groundwater investigation. Assuming the results indicate that the site is a possible candidate for site closure without remediation, we anticipate that regulatory agencies may require three additional quarters of groundwater monitoring, and a final closure report, including a risk management plan, which demonstrates that the site would not pose unacceptable risks to human health and the environment. Also, the three wells would need to be properly abandoned. Per your request, we have prepared a scope-of-work and cost estimate for these latter tasks; these should be considered preliminary and subject to change based on the results from the site investigation and regulatory agency input.

Soil and Groundwater Investigation

The proposed investigation consists of permanent groundwater monitoring wells off-site and soil borings on-site. Since Major Chabot Partners does not currently own the site, and permission from the owner cannot be obtained, we propose to install three groundwater monitoring wells, at the approximate locations shown on Figure 2, in the public rights-of-way adjacent to the site, where future access is assured. We propose to install seven soil borings on-site to primarily assess soil quality; grab groundwater samples are also proposed at select locations to supplement the off-site groundwater quality data.

Off-Site Wells Groundwater Monitoring Wells

Our intent is to place one well upgradient to the site, and two wells in downgradient directions. We reviewed the files at the Alameda County Health Care Agency for an adjacent block bounded by Brush, 7th, Castro, and 6th streets. At least three wells monitoring the shallow groundwater have been installed in this City block and groundwater flow directions have varied between just south of east to nearly due south (Figure 2). Assuming that the groundwater flow direction underneath the former Francis Plating site is similar to that observed on the adjacent block, we propose to place three wells in the sidewalk or road as shown on Figure 2. Well MW-FP1 would be the upgradient well, and wells MW-FP2 and MW-FP3 would be the downgradient wells.

Groundwater is expected to be between 15 and 20 feet below the ground surface. Therefore, we anticipate that the new wells would be 25 to 30 feet deep, and the length of the screen interval would be 10 to 15 feet. The wells would be constructed with 2-inch PVC casings and 0.01-inch screen. The annular space would be filled with a sand filter pack around the screen, and sealed with bentonite chips and grout to the ground surface. The top of the wells would be protected in a Christy box, and the wells would be surveyed to determine their relative positions and elevations.

We would obtain a well installation permit from Zone 7 and a street excavation and encroachment permits from the City of Oakland. A site health and safety plan would also be prepared. The wells would be installed with a hollow-stem auger. Soil samples would not be collected or analyzed from the groundwater well boreholes unless field monitoring of the borehole or cuttings suggests the soil is contaminated. Field monitoring will consist of a PID device and visual inspection of soil cuttings. would not collect soil COCs.

The wells would be developed after installation by pumping and surging to remove sediments and provide clear groundwater samples. The wells would then be sampled using a peristaltic pump. All groundwater samples would be analyzed for Title 22 metals (filtered), total petroleum hydrocarbons (TPH) as gasoline and as diesel, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and cyanide.

Proposed Soil Borings

The available information from past Ecology and Environment, Inc. and Versar, Inc. investigations was limited and incomplete. However, the information was useful for identifying former uses at the site, areas of concern as indicated by previous sampling locations, and remedial activities completed at the site to date. Based on this information, we propose to drill seven soil borings within the property. The approximate location of these borings is shown on Figure 2; actual locations may be different based on access and safety considerations. Major Chabot Partners has agreed to indemnify BASELINE against any liability associated with sampling at the property.

Potential contamination of the subsurface would most likely have resulted from surface releases. Past investigations suggest that soil contamination is generally restricted to the near surface. However, in anticipation of possible future development, we propose to characterize the soil quality down to a depth of about seven or eight feet below the ground surface (bgs), which may be disturbed during possible future utility or foundation construction.

Soil borings would be advanced using direct-push technology. After cutting through the surface concrete, soil samples would be collected from each boring beginning at about two feet below the ground level (bgs), and at five-foot intervals thereafter until groundwater is encountered. The samples collected from about two and seven feet bgs from each boring would be analyzed initially, and deeper samples would be placed on hold pending the analytical results from the two initial samples. The deeper samples, however, would be screened in the field and submitted for analysis if evidence of contamination is detected. If the results from the two- and seven-foot bgs samples indicate that contamination is not present, the deeper samples would not be analyzed. If the results of the two- and seven-foot samples indicate that significant contamination is present, the laboratory would be instructed to analyze the deeper samples from the boring for selected metals and/or other constituents, as appropriate.

The San Antonio Formation is believed to directly underlie the site. If fill material were found overlying the San Antonio Formation, then both a fill sample and a San Antonio Formation sample near the interface would be sampled and analyzed.

All two-foot soil samples collected for analysis would be submitted to a state-certified analytical laboratory and analyzed for Title 22 metals, TPH, VOCs, PAHs, PCBs, pH, and cyanide. Soluble metals would also be analyzed if the total metal concentrations were greater than tens times the corresponding Soluble Threshold Limit Concentration. The seven seven-foot samples would be composited into two samples for the same analyses. One composite sample would be made up of the seven-foot samples collected from B-FP1, B-FP2, B-FP3, and B-FP4 located in the "front yard", and the second composite sample would consist samples collected from B-FP5, B-FP6, and B-FP7 from the "rear yard".

Grab groundwater samples would be collected from certain borings to supplement the groundwater quality data from the monitoring wells. To assess whether groundwater contamination may be migrating onto the site from the adjacent Shell gas station, grab groundwater samples would be collected from boring B-FP3 and analyzed for TPH as gasoline and as diesel (Figure 2). One of the proposed groundwater monitoring wells, MW-FP3, is located half a block downgradient of the site boundary. If contamination were found in this well, it may be difficult to identify the source of the contamination since both the Shell station and the auto parts store may have contributed (Figure 2). To provide initial information regarding groundwater quality directly beneath the site, grab groundwater samples would be collected from borings B-FP4 and B-FP5. These grab groundwater samples would be analyzed for Title 22 metals, TPH, VOCs, PAHs, PCBs, and cyanide. Soil borings would be grouted to the surface upon completion.

Decontamination of drilling equipment would be performed by steam cleaning using hot, high pressure water. Sampling equipment would be decontaminated by washing in an Alconox solution, and rinsing in two sequential buckets of potable water. All soil cuttings, decontamination water, and groundwater from developing and sampling the wells would be stored in 55-gallon drums.

Field work would be scheduled upon receiving your approval for the scope of work. We anticipate that field work would be completed within four to six weeks, depending on driller availability. The investigation would be documented in a draft report about eight weeks after completion of the field work. The report would include a description of the hydrogeology at the site, an assessment of the extent of soil and/or groundwater contamination in the subsurface, and a preliminary risk screening based on Oakland Risk-Based Corrective Action values. This report would be finalized after receiving comments.

Quarterly Groundwater Monitoring

Regulatory agencies may require three additional quarters of groundwater monitoring to adequately characterize groundwater quality. We propose to perform three quarters of monitoring at the three off-site wells. We assume that samples would be analyzed for Title 22 metals, TPH as gasoline and as diesel, VOCs, PAHs, and cyanide. A report would be prepared following each monitoring event.

Closure Report

Assuming soil and groundwater data collected from the site indicate that the soil would not require remediation, a report would need to prepared to document all findings and demonstrate that the site does not pose unacceptable risks to people or the environment. The closure report would include a risk screening using Oakland Risk-Based Correction Action guidance and/or the Risk-Based Screening Levels compiled by the Regional Water Quality Control Board, San Francisco Bay Region. In addition, a risk management plan may be required to ensure that activities on the site would be conducted in a manner that continues to be protective of human health and the environment.

Well Abandonment

Assuming that groundwater monitoring beyond one year is not required, and the site is granted closure, the three groundwater monitoring wells would need to be properly abandoned. Permits would need to be obtained and a driller would need to drill out the well and filter pack, and backfill the entire borehole with grout.

Agency Oversight

We anticipate that Alameda County Health Care Agency would provide oversight for investigation and closure of this site. We understand that the agency is in the process of developing a fee structure for this function. A fee on the order of $10,000 would not be unexpected.

A cost estimate for the scope of work described above is presented in Table 1. Please contact us if you have any questions about this proposal.

Sincerely,

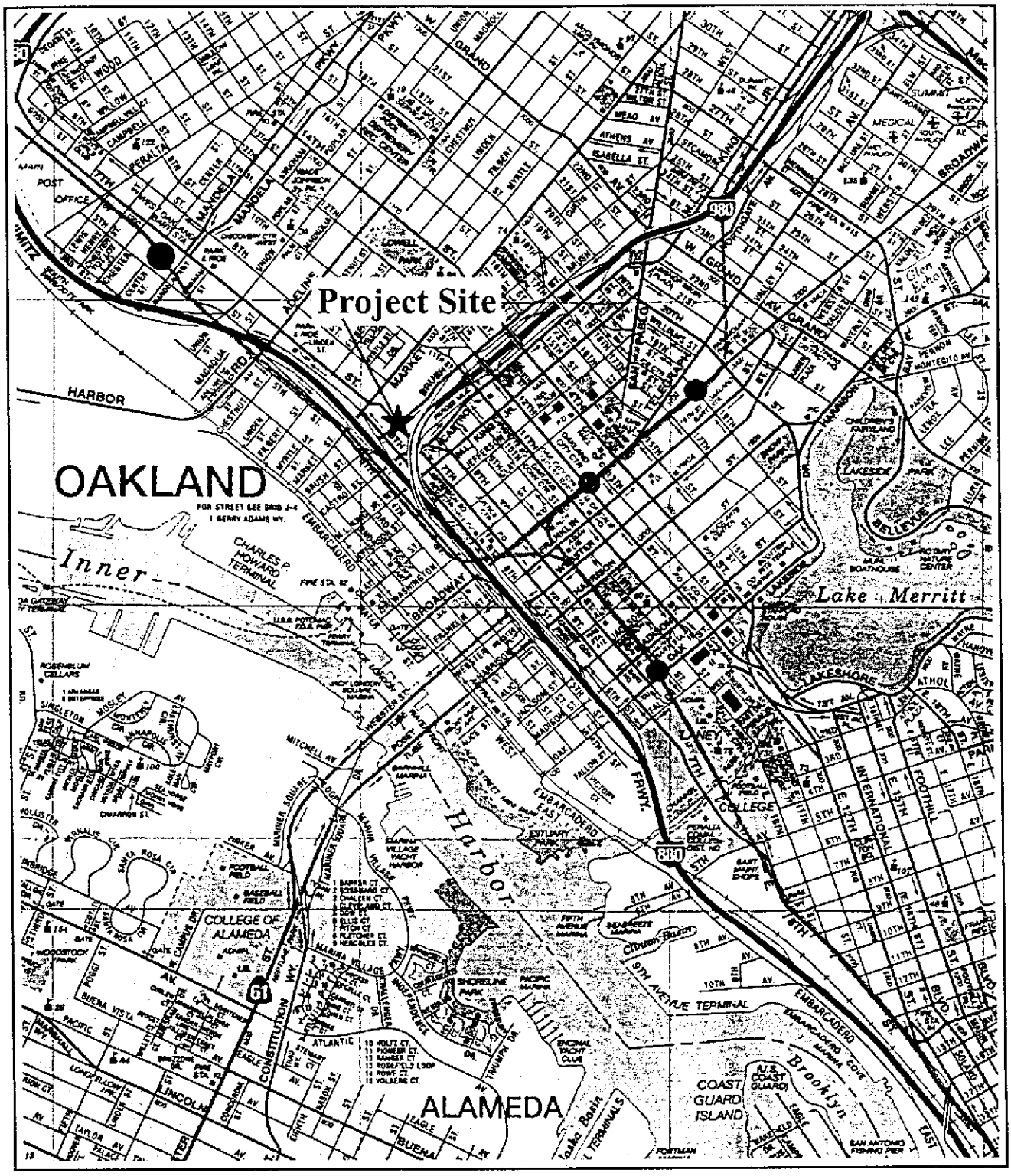
Lydia Huang
Senior Engineer
P.E. No. 43995

Yane Nordhav
Principal

LH:cr
Attachment

REGIONAL LOCATION

Figure 1



751-785 Brush Street
Oakland, California

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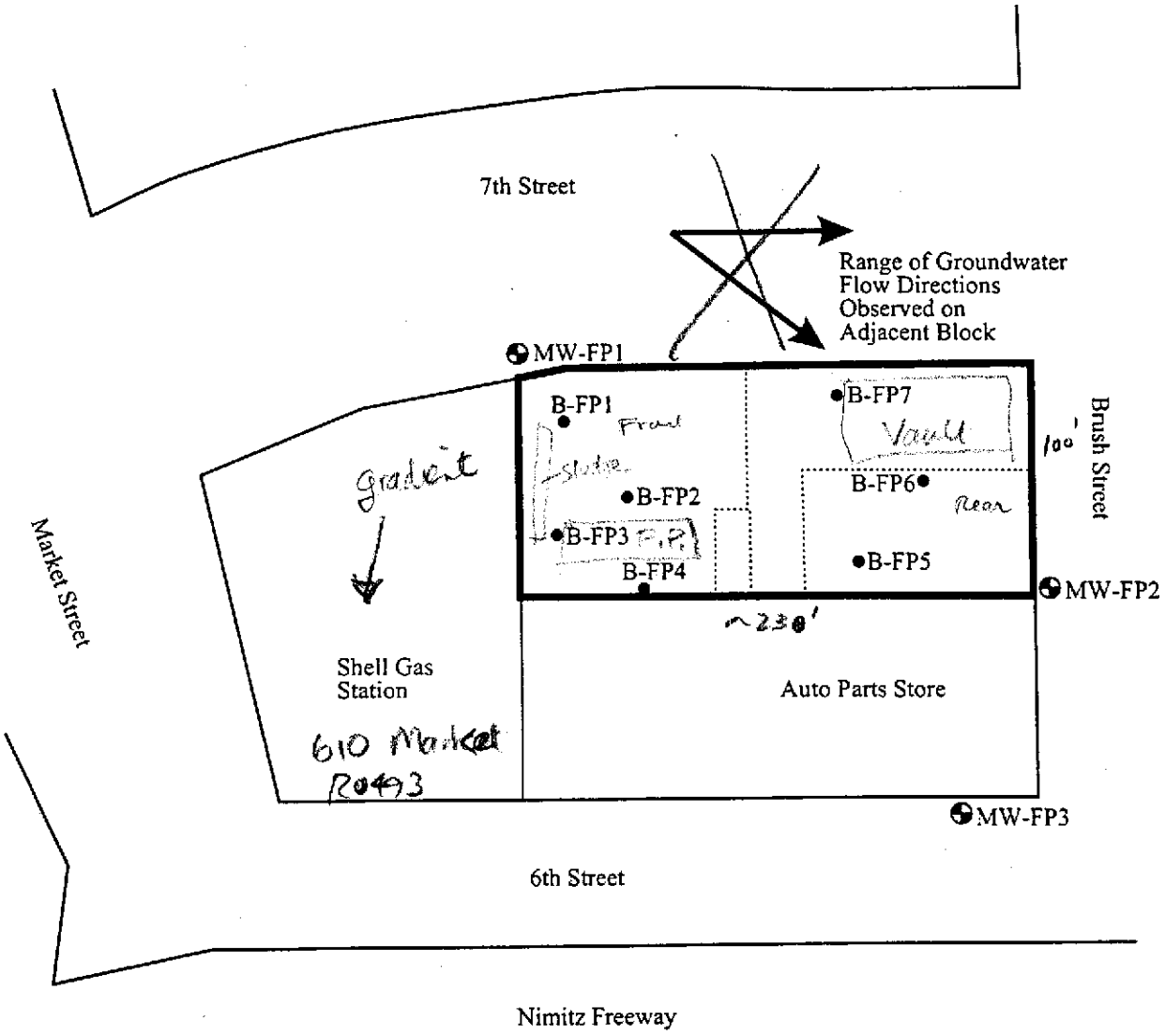
PROPOSED WELL AND BORING LOCATIONS

Figure 2



Legend

BB-1	•	Proposed Boring Location
MW-FP1	⊕	Proposed Well Location
.....		Building
———		Site Boundary

Approximate

0 85 Feet

751-785 Brush Street
Oakland, California

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TABLE 1: **Cost Estimate for Major Chabot Partners Investigation**
751-785 Brush Street, Oakland

Task	Hours	Rate	Cost	Total Cost
1: Data Review, Agency File Review, and Workplan Preparation				
			Subtotal	$5,000
2: Soil and Groundwater Investigation				
Principal	8	$ 150	1,200	
Senior Engineer	32	$ 125	4,000	
Field Geologist	72	$ 100	7,200	
Associate Geologist	64	$ 95	6,080	
Word Processing	16	$ 60	960	
Graphics	16	$ 65	1,040	
Permit			1,000	
Surveyor			500	
Laboratory Analysis			15,000	
Driller			14,000	
Equipment and Field Charges			1,000	
Drum Disposal			1,000	
			Subtotal	$52,980
3: 3 Quarters of Groundwater Monitoring				
Principal	3	$ 150	450	
Senior Engineer	24	$ 125	3,000	
Field Geologist	24	$ 100	2,400	
Associate Geologist	75	$ 95	7,125	
Graphics	8	$ 65	520	
Word Processing	12	$ 55	660	
Laboratory Analysis			7,400	
Equipment and Field Charges			600	
			Subtotal	$22,155 [1]
4: Closure Report and Risk Management Plan				
Principal	4	$ 150	600	
Senior Engineer	40	$ 125	5,000	
Associate Geologist	32	$ 95	3,040	
Graphics	8	$ 65	520	
Word Processing	8	$ 55	440	
			Subtotal	$9,600 [1]