



1181 Quarry Lane
Building 300
Pleasanton, CA 94566
(510) 462-4000
(510) 462-6283 FAX

March 17, 1993

BSK Project P92124.3

San Francisco - Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, California

Subject: Environmental Activities
Dee M. McLemore Trust Property
750 - 107th Avenue
Oakland, California

Gentlemen:

On behalf of the Dee M. McLemore Trust, BSK & Associates (BSK) is pleased to present this letter which briefly outlines the site history since the early 1970's, summarizes environmental characterization activities completed to date and presents proposed activities.

SITE HISTORY

The property of concern was purchased by Mr. Dee M. McLemore in the early 1970's and has been operated as a ~~hard chrome plating shop~~ by the current tenant (Hard Chrome Engineering, Inc.) since that purchase. Machine shop activities are undertaken in the south portion of the building while plating operations and offices are contained in the north portion of the building. Within the plating area is a 30 by 30 foot concrete sump which is used to catch "drag" or "drip" fluids from the chrome plating operation. The northern half of the pit is approximately seven feet deep while the southern half is approximately one and one-half foot deep. The approximate location of the concrete-lined sump is shown on Figure L-1. Additional information regarding the site history and operations over the past 20 years is presented in BSK's Preliminary Environmental Investigation Report dated September 29, 1992.

SUMMARY OF WORK COMPLETED TO DATE

During August of 1991, the McLemore Trust requested Simons-EEI to perform an environmental assessment on the property of concern. Their exploration program consisted of drilling and sampling five test borings (SB-1 through SB-5) as shown on Figure L-1. In addition to the collection of soil samples, Simons-EEI collected groundwater samples using a hydropunch from four of the five borings. Laboratory analyses were conducted on one soil sample and the four groundwater samples for priority pollutant metals, cyanide and pH. The Simons-EEI report concluded that elevated chromium levels were present in soil and groundwater samples collected from the subsurface area adjacent to the containment sump at the site.

MW-2

From May 21st through September 29th of 1992, BSK performed services at the subject site to verify conditions reported by the Simons-EEI investigation and to further characterize the site. The BSK investigation included the installation of three shallow groundwater monitoring wells, collection of soil samples, collection of groundwater samples from the three monitoring wells and the on-site water well, chemical analyses on selected soil and all groundwater samples for volatile halocarbons, priority metals and general chemistry. Data collected during the BSK investigation revealed that the depth to first groundwater at the site was approximately eighteen and one-half feet below existing grade. Approximate direction of groundwater flow is North 58 degrees West at a gradient of 0.2 per cent. The locations of the three shallow monitoring wells and the existing water well are shown on Figure L-1. The preliminary environmental characterization investigation revealed that the groundwater sample from monitoring well MW-2 contained hexavalent chromium detected at 680 mg/l, arsenic detected at six times the Maximum Contaminant Level (MCL), and selenium was detected at seventeen times the MCL. Also, tetrachloroethene was detected in the groundwater samples collected from the three monitoring wells at or exceeding the MCL for drinking water. Analyses performed on the soil sample collected from MW-1 at a depth of ten feet detected beryllium at approximately twice the Total Threshold Concentration Limit (TTLC). For additional details on the investigation and specific data, refer to the BSK Preliminary Environmental Investigation Report dated September 29, 1992.

During the past month, BSK has inventoried the drums which contain soil spoils and development water and has applied for a provisional EPA Generator Number on behalf of the McLemore Trust in order to accomplish transportation and disposal of the on-site drums.

PROPOSED ACTIVITIES

Drum Disposal/Engineering Controls/General

Within the next two weeks BSK, will profile the soil and water contained in the drums for disposal at the Chemical Waste Management Kettleman Hills facility.

The McLemore Trust will request that Hard Chrome Engineering (current tenant) plan, design and implement engineering controls which are necessary to eliminate current and future sources of heavy metals which could come in contact with site soils and/or infiltrate into the groundwater beneath the building.

It is proposed to overdrill the former Simons-EEI test boring SB-5 to approximately 25 feet and then grout the boring with portland cement with up to four per cent bentonite using tremie methods. This procedure is recommended because the backfill and concrete surface plug have exhibited settlement problems over the past year and one-half.

A detailed environmental site assessment is proposed to investigate previous land uses prior to the McLemore purchase, evaluate off-site activities of adjoining property owners within one-quarter mile of the subject property, and to collect data from existing wells within a one-half mile radius of the subject site.

Soil and Groundwater Characterization

A Work Plan, which details soil and groundwater characterization activities, would be prepared for agency review and approval. Scope of services subsequently described in this section are proposed for the next level of site characterization.

Additional subsurface profiling consisting of three cone penetration test (CPT) soundings and three hand-auger borings is proposed. The purpose of the CPTs is to detail stratigraphic delineation of the site soils and the purpose of the hand-auger borings is to characterize the impact of plating operations to soils within close proximity of the concrete-lined sump (pit). The three cone penetrometer soundings would be used to continuously profile the subsurface deposits to approximately 60 feet. The proposed locations for the CPTs would be as shown on Figure L-1. The three hand-auger borings proposed would be advanced within ten feet of the concrete-lined sump as shown on Figure L-1. Associated activities would include the collection of pore-pressure measurements from the CPTs to potentially identify water-bearing zones and the collection of soil samples from the hand-auger borings between eight and twelve feet. Soil samples collected from the three hand-auger borings would be analyzed for priority pollutant metals, hexavalent chromium and cyanide. These exploration soundings and borings would be grout-backfilled with a neat cement.

An additional shallow groundwater monitoring well MW-4 installed near the northwest exterior wall of the building is proposed. The purpose of this well would be to further assess the lateral extent of the hexavalent chromium impact to soil and/or first groundwater. Refer to Figure L-1 for the approximate location of monitoring well MW-4. Associated activities for this installation include obtaining soil samples at five, ten and fifteen feet, well development, purging and sampling of the well, chemical analysis of at least two soil samples for EPA 8010 compounds, priority pollutant metals, hexavalent chromium, cyanide, pH, redox potential and total organic carbon (TOC). The water sample would be analyzed for the same scan and in addition, electric conductivity, total dissolved solids (TDS) and general minerals. The well construction details for monitoring well MW-4 would be the same as those described to install monitoring wells MW-1 through MW-3. These details are presented in the BSK report dated September 29, 1992.

A two-stage groundwater monitoring well is proposed to assess the impact of the hexavalent chromium in lower aquifer(s) and to evaluate if the upper and lower aquifers are connected. The location of this two-stage well would be dependent on the soil and groundwater analytical results obtained from the proposed monitoring well MW-4. If hexavalent chromium is detected in monitoring well MW-4, the two-stage well would be located within ten feet of that monitoring point, otherwise the two-stage well would be located within ten feet of monitoring well MW-2. The two-stage well would have a conductor casing installed and grouted-in at approximately 25 feet. The second stage would consist of a bore and installation of well casing and a screened section to a lower aquifer. The depth of the two-stage well would be dependent on site conditions encountered during installation and from the subsurface profile data gathered from the CPT program. Associated activities would include development of this two-stage well.

A second round of groundwater sampling and measurement of depth to groundwater in the four shallow wells, the two-stage well and the existing water well is proposed. The water samples would be analyzed for EPA 601 compounds, priority pollutant metals, hexavalent chromium, cyanide, pH, electric conductivity, redox potential, TDS and general minerals.

Aquifer testing is proposed to approximate hydraulic conductivity and transmissivity for design of a potential pump and treat system. The aquifer testing would consist of performing slug tests on the four shallow monitoring wells and at least a step draw-down test on the two stage well. Groundwater collected from the aquifer testing program would be contained in Baker tank(s) pending the results of chemical analyses.

A report would be prepared summarizing these activities and data collected to identify data deficiencies, remedial alternatives, present preliminary cost estimates for each alternative and select the most appropriate alternative.

PROPOSED SCHEDULE OF ACTIVITIES

The proposed schedule to complete the activities previously described and for agency review is presented in Figure L-2.

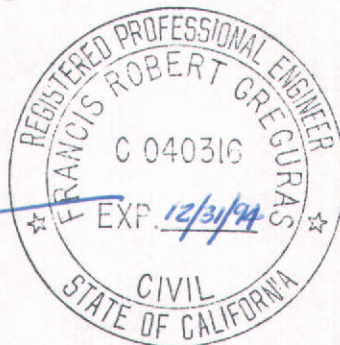


Should you have questions regarding this submittal or the BSK Preliminary Characterization Report dated September 29, 1992 please contact the undersigned.

Respectfully submitted,

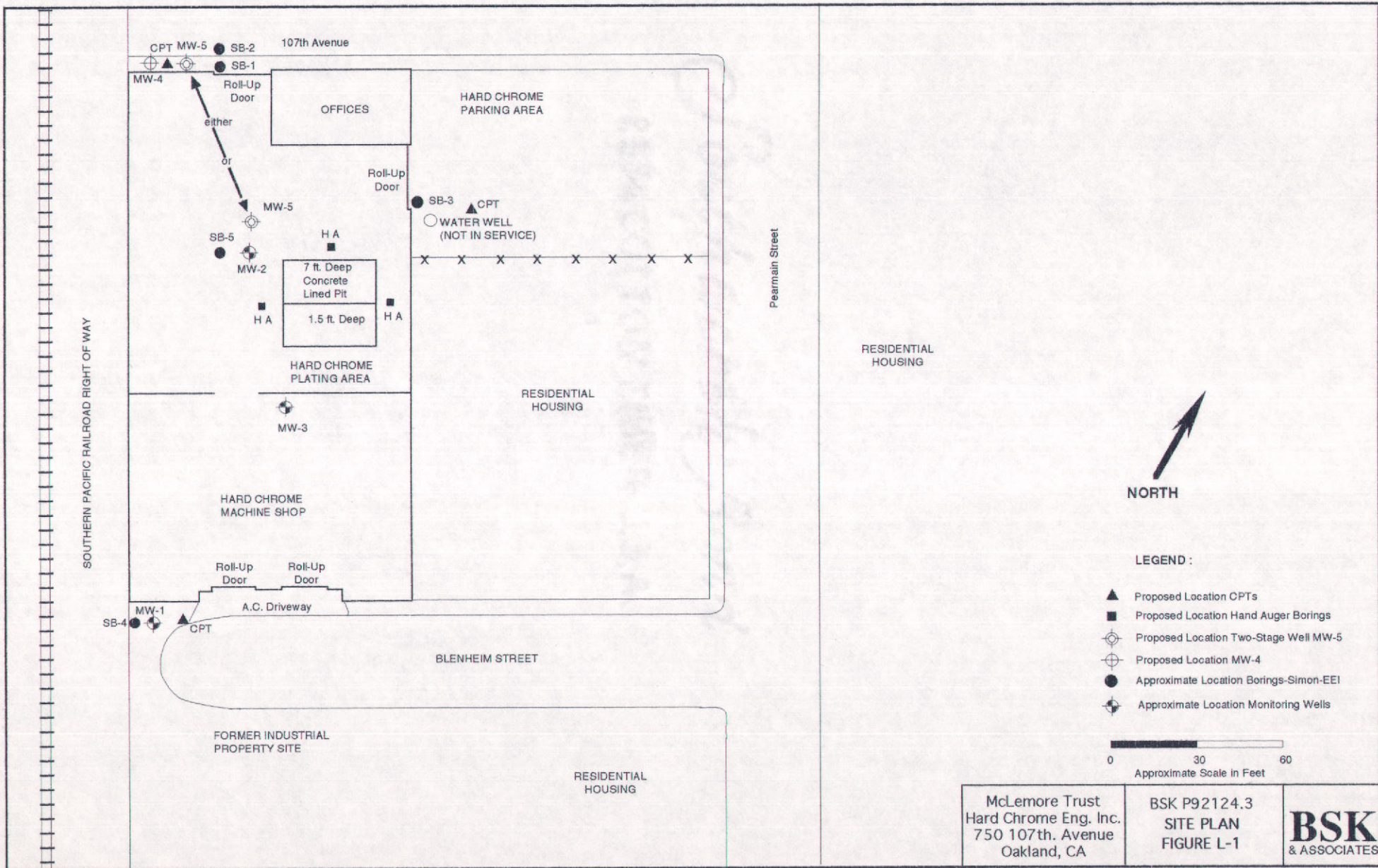
BSK & Associates

Francis R. Greguras, R.C.E.
Project Manager

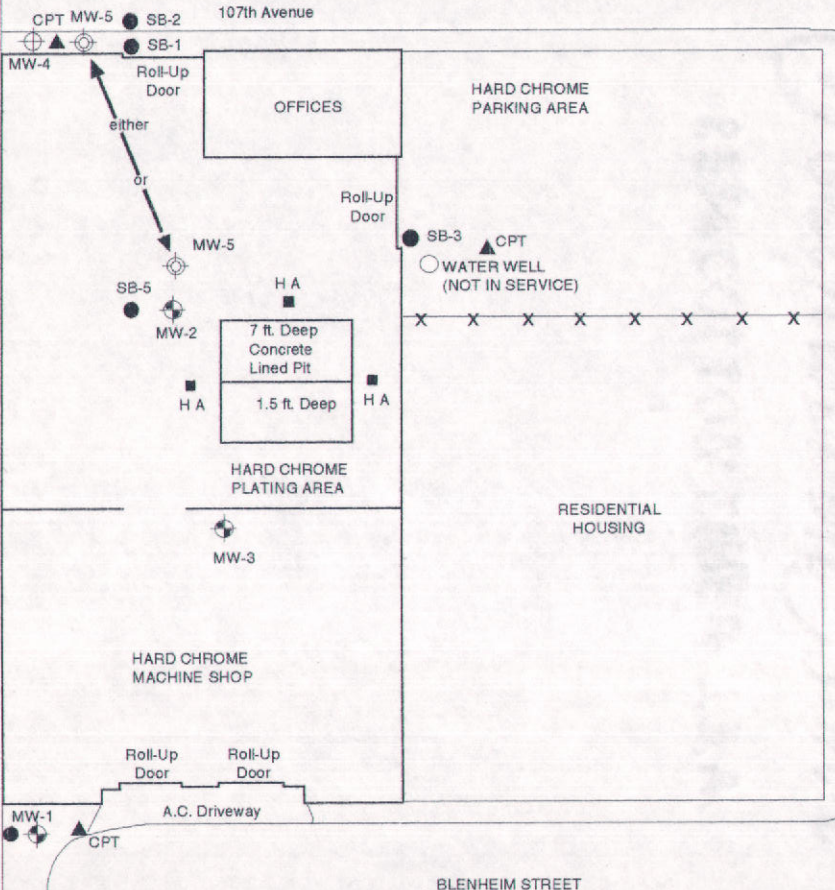


Enclosures: Figure L-1
Figure L-2

cc: Alameda County Environmental Health Department
Cheryl Plato McLemore, Trustee
Todd Russell, Trustee
Debra S. Summers



SOUTHERN PACIFIC RAILROAD RIGHT OF WAY



Pearmain Street



NORTH

FIGURE L-2 PROPOSED SCHEDULE

