SGI environmental THE SOURCE GROUP, INC.

November 20, 2015

Mr. Jerry Wickham, P.G.
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: Revised Plume Delineation and Data Collection for Evaluation of Remedial Alternatives Work Plan
Former Francis Plating - Frog Pond Site
Western Parcel APN 1-223-6
789 7th Street, Oakland, CA 94607

Dear Mr. Wickham:

Enclosed please find the *Revised Plume Delineation and Data Collection for Evaluation of Remedial Alternatives Work Plan* for the Former Francis Plating Frog Pond Site.

Perjury Statement:
I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

If you have any questions or comments regarding the Report, please feel free to call me on my direct line at (530) 272-4200.

Sincerely,
The Source Group, Inc.

Greg McIver
Project Manager

Cc: Tom McCoy, The Brush Street Group, LLC

Enclosure

3478 Buskirk Avenue, Suite 100
Pleasant Hill, CA 94523
Telephone: (925) 944-2856
Facsimile: (925) 944-2859

November 20, 2015

Mr. Jerry Wickham, PG, CEG, CHG
Senior Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Revised Plume Delineation and Data Collection for Evaluation of Remedial Alternatives Work Plan
Former Francis Plating - Frog Pond Site
Western Parcel APN 1-223-6
789 7th Street, Oakland, CA 94607

Dear Mr. Wickham:

On behalf of The Seventh Street Group, LLC (SSG), The Source Group, Inc. (SGI) has prepared this *Revised Plume Delineation and Data Collection for Evaluation of Remedial Alternatives* (Work Plan) for the Former Francis Plating - Frog Pond Site located at at 789 7th Street, Oakland, California (the Site, Figures 1 and 2). The Site is currently under the regulatory oversight of the Alameda County Environmental Health Services (ACEH) (Alameda County SLIC Case No. RO0002586).

This Work Plan has been prepared in response to the ACEH June 18, 2015 letter entitled *Case File Review* (Attachment A). The objective of this work plan is to delineate the downgradient extent of the contaminant plume originating from the former Frog Pond area at the Site and collect additional data to screen potential remedial alternatives.

BACKGROUND

In an ACEH directive dated June 4, 2015, The Former Francis Plating Facility was divided into two separate parcels: the western parcel (Parcel 1, APN 1-223-6) that includes the Frog Pond and the eastern parcel (Parcel 2, APN 1-223-7), which includes the site building. The Site is bounded by 7th Street to the north, the eastern parcel and Brush Street to the east, a Shell service station to the west, and a commercial building and lot to the south (Figure 2).

A review of Sanborn Fire Insurance maps by BASELINE Environmental Consulting (BASELINE) identified the Site use in the late 1940s and early 1950s as an auto and truck sales and service shop (BASELINE, 2005). The entire Site was operated as a plating facility from approximately 1957 to 1998. A building occupied the western portion (APN 1-223-6) of the Site from the late 1940s until it was destroyed by fire in 1992. The building currently on the adjacent parcel (Parcel

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2) was constructed in 1970. Plating operations were conducted in both the former and current buildings on the two parcels.

In 1998, the property was found abandoned with chemicals and equipment remaining on Site. As part of an emergency response action, the U.S. Environmental Protection Agency (USEPA) removed the abandoned chemicals and equipment, and excavated shallow soil in areas without asphalt or concrete surfaces. In 2003, the current owner, The Brush Street Group, acquired the property.

The western parcel is vacant and paved, and is used for parking. An approximately 2,227-square-foot building occupies the northeast corner of the eastern parcel. The property is covered by concrete or asphalt, with the exception of an exposed strip of soil along the western property line.

HYDROGEOLOGIC SETTING

Past investigations indicate that the lithology is consistent across the Site. Soil from the surface to 3 to 5 feet below ground surface (bgs) consists of silty sand/sand fill with some brick and concrete debris. Very fine- to fine-grained sands (Merritt Sands) of the San Antonio Formation underlie the fill and extend to approximately 60 feet bgs (BASELINE, 2010). The Merritt Sands are underlain by plastic clay (Old Bay Mud).

Regional groundwater flow direction in the San Antonio Formation is southwesterly toward the Oakland Inner Harbor, located approximately 2,300 feet south of the Site. Based on groundwater monitoring conducted by BASELINE in 2003, 2005, and 2010, the depth to the shallow unconfined groundwater at the Site ranges from approximately 12 to 16 feet bgs. Groundwater monitoring performed by BASELINE in 2010, and groundwater monitoring reports from the adjacent Shell Service Station, indicate that the local shallow unconfined groundwater flows in a south/southwesterly direction (BASELINE, 2010; CRA, 2009). During the third quarter 2015 monitoring event, groundwater was calculated to flow in a southwesterly direction (SGI, 2015b). The Old Bay Mud is the confining layer for the deeper water-bearing formation.

SUMMARY OF REMEDIAL ACTIONS AND CURRENT ENVIRONMENTAL CONDITIONS

The USEPA response action, conducted from 1998 through 2000, involved characterization of stored liquids, sludge, and sediments contained in tanks, pits, and ponds, all located above the concrete pavement. All of these materials were subsequently removed from the Site, and soil samples were collected and analyzed for selected metals and total cyanide (BASELINE, 2005).

Surface soils were removed as part of the emergency response action to ensure that remaining surface soils did not contain cadmium, chromium, nickel, and lead concentrations above USEPA Industrial Preliminary Remedial Goals. During the removal actions, shallow soil was excavated and removed from areas that were not capped with asphalt or concrete. These are the same areas (along the western boundary) not currently capped by asphalt or concrete.

Numerous investigations between 2000 and 2010 have identified metals, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and petroleum hydrocarbons in soil, groundwater, and/or soil vapor samples. Compounds detected in Site soil, groundwater, soil vapor and indoor air include:

- Lead, nickel, zinc, cadmium, total chromium, hexavalent chromium (Cr-VI), copper, antimony, PAHs, and cyanide have been detected in one or more soil samples at concentrations exceeding environmental screening levels (ESLs) established by the California Regional Water Quality Control Board – San Francisco Bay Region (CRWQCB) for land uses where groundwater is a drinking water resource;
- Dissolved total chromium, Cr-VI, cobalt, copper, lead, mercury, nickel, silver, thallium, vanadium, total petroleum hydrocarbons as diesel (TPHd), cis-1,2-dichloroethene (cis-1,2-DCE) and trichloroethene (TCE) have been detected in one or more groundwater samples at concentrations exceeding residential or commercial ESLs; and
- TCE has been detected in one or more shallow soil gas samples at concentrations exceeding ESLs.

Results of a 2006 investigation suggested that a subsurface containment vault on the southwestern portion of the Site referred to as the "Frog Pond," was a significant source of the subsurface contamination at the Site. As a result, the Frog Pond was removed in two phases, beginning in May 2007, and completed in December 2007. Soil was excavated to approximately 19 feet bgs directly adjacent to the containment vault. The Frog Pond removal activities are described in a BASELINE report dated February 2008 (BASELINE, 2008).

In April, 2010, BASELINE completed a soil and groundwater investigation which concluded groundwater impacts were confined to the Merritt Sand and chemical of primary concern for groundwater was Cr-VI detected in shallow and deep wells extending 120 feet down gradient of the Site. Select dissolved metals detected in groundwater exceeded ESLs. No VOCs were reported in groundwater exceeded ESLs. Complete results are presented in BASELINE's *Phase IV Soil and Groundwater Investigation,* dated May 2010, (BASELINE, 2010).

Two groundwater monitoring and sampling events were completed during the first and third quarters of 2015. TCE and Cr-VI were detected at maximum concentrations of 91 µg/L and 37,000 µg/L from MW-FP4A during the third and first quarter of 2015, monitoring and sampling events, respectively. Cr-VI dissolved in groundwater extends a minimum of 135 feet southwest of the Site at concentrations orders of magnitude greater than cleanup levels. Groundwater gradient was measured to the southwest at a rate of approximately 0.0035 feet per foot (ft/ft) and 0.004 ft/ft during the first and third quarter 2015, respectively. Complete results are presented in SGIs *Groundwater Delineation Report,* dated February 23, 2015 (SGI, 2015a) and *Third Quarter 2015 Groundwater Monitoring and Sampling Report,* dated September 16, 2015 (SGI, 2015b).

Previous Site activities have determined Cr-VI in groundwater has migrated downgradient of the Former Frog Pond at a minimum distance of 135 feet southwest (Figure 4); however, the complete lateral extent has not been defined. The excavation completed near the southwestern portion of the Former Frog Pond was considered an exploratory excavation and did not remove a significant mass (Figure 3). A summary of soil results illustrated on Figure 3 indicates hexavalent chromium remains undefined directly south-southwest of the Former Frog Pond.

To fulfill the aforementioned data gaps the following Work Plan proposes the completion of investigative borings and monitoring well installation that are intended to delineate groundwater downgradient of the Site and define the extent of residual impact to soil. The soil and groundwater samples collected during investigation efforts will be utilized to evaluate remedial alternatives.

SCOPE OF WORK

SGI has developed the following scope of work to meet the objectives of the ACEH as summarized below:

Source Reduction Evaluation

- Completion of two soil borings to a depth of approximately 12 feet below ground surface (bgs) in the vicinity of the Former Frog Pond to define impacts of hexavalent chromium to soil in the source area for evaluation of source reduction options. The proposed soil boring locations are shown in Figure 3.

Downgradient Groundwater Plume Delineation

- Advance three soil borings south-southwest of the Site and downgradient of the contaminant plume at depths of approximately 20 and 50 feet bgs for the collection of grab groundwater samples. The proposed soil boring locations are shown on Figure 4.

Additional Data Collection

- The collection of additional samples intend for screening of potential remedial alternatives.

PRE-FIELD ACTIVITIES

Prior to work at the Site, the following activities will be completed:

- Approval of this Work Plan will be obtained from the ACEH;
- A Site-specific health and safety plan (HASP) will be prepared in accordance with OSHA regulations 29 CFR 1910.120;
- The proposed drilling locations will be demarcated at on- and off-Site locations;
- Access agreements with neighboring property owners for off-Site locations will be procured;
- Soil boring and well installation permits will be obtained from the Alameda County Public Works Agency (ACPWA);
- Underground Services Alert will be notified at least 48 hours prior to drilling to clear underground utilities in the proposed drilling location;
- SGI will retain a private utility locator to clear the proposed drilling locations of underground utilities and other possible subsurface obstructions; and,
- The ACEH, ACPWA, and other necessary parties will be notified of proposed field activities at least three days prior to initiating field work.

DRILLING AND SOIL AND GRAB GROUNDWATER SAMPLING

SGI will supervise the completion of three on-Site soil borings (SB-FP1 through SB-FP3) and two off-Site soil borings (SB-FP4 and SB-FP5) at the locations shown on Figure 3 and 4 and detailed in Table 1. Prior to advancement of soil borings and drilling, the locations will be cleared by hand-augering and post-holing to five feet bgs and completed as follows.

Soil Borings – On-Site

Proposed on-Site soil borings within the vicinity the former Frog Pond will be advanced using direct push technology (DPT) to a depth of approximately 12 feet bgs or until first encountered groundwater. Soil will be retrieved continuously via four-foot acetate liners for logging purposes. A total of four soil samples from 4, 8, and 12 feet bgs will be submitted for laboratory analysis. Samples retained for laboratory analysis in acetate liners will be capped, sealed, and placed on ice for transport to a California certified analytical laboratory for analysis of Volatile Organic Compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260B, Dissolved Metals by USEPA Method 6010B/7470A, and Hexavalent Chromium by USEPA Method 7196A.

Soil Borings – Off-Site

Proposed off-Site soil borings located approximately 240 feet south-southwest of the Site will be advanced using DPT to a depth of approximately 30 feet bgs. Soil will be retrieved continuously via four-foot acetate liners for logging purposes. Two individual borings will be completed at each location to collect grab groundwater samples. Groundwater samples will be collected using hydropunch technologies. Upon reaching targeted depth drilling rod will be retracted exposing a slotted rod that will allow for the infiltration of groundwater. Grab groundwater samples will be retrieved via disposable bailer, slowly decanted into laboratory supplied containers, capped, sealed, and placed on ice for transport to a California certified analytical laboratory for analysis of VOCs by USEPA Method 8260B and Hexavalent Chromium by USEPA Method 7196A.

Soil borings will be abandoned in accordance with ACEH specifications and the ground surface will be repaired to match surrounding conditions.

Soil sampling for all soil borings will be conducted for lithologic description and for chemical analysis. Soil samples will be visually classified in accordance with the Unified Soil Classification System (USCS) and screened for volatile organic vapors using a calibrated hand-held photoionization detector (PID). Soil descriptions, PID readings, and other pertinent observations will be provided on soil boring\well construction logs. An experienced SGI field scientist, working under the direct supervision of a California Professional Geologist will provide oversight during field investigation activities.

All sampling equipment will be cleaned in an aqueous solution of a non-phosphate cleanser, rinsed with tap water, and rinsed a second time with deionized water to prevent cross-contamination between sample intervals. Soil cuttings generated during drilling will be placed in Department of Transportation (DOT) approved 55-gallon steel drums, and auger

decontamination water will be placed in drums on-site pending receipt of the analytical results. All waste will be properly disposed in accordance with the applicable Federal, State, and local regulations.

ADDITIONAL DATA COLLECTION FOR SCREENING OF REMEDIAL ALTERNATIVES

During the first quarter monitoring event, well MW-FP4A was sampled for biochemical parameters; alkalinity, sulfate, iron (ferrous and ferric), salinity, manganese, total organic carbon (TOC), and dissolved organic carbon (DOC). A review of biochemical parameters analyses and field parameters data indicated that the current aquifer conditions are aerobic and not conducive to natural degradation. Potential remedial alternatives for CVOCs and CrVI in groundwater include enhanced in situ biodegradation and in situ chemical oxidation. To evaluate the potential effectiveness of these remedial alternatives, physical property samples will be collected from two soil borings for the follow parameters;

- Permeability/hydraulic conductivity;
- Total porosity;
- Air-filled porosity;
- Dry bulk density;
- Volumetric moisture content; and
- Fraction organic carbon.

GEOTRACKER

Investigation data including survey data, laboratory analytical results, field data, boring/well log, and final reports will be uploaded per Geotracker requirements.

PROJECT REPORTING AND SCHEDULE

Results of the complete investigation (including methodologies used for drilling, data collection, soil sampling, and waste disposition) will be included in a Site Investigation Report. The Report will include figures, tables, field data form, results from Site investigation activities, and the Report will be reviewed in its entirety and signed by a California Professional Geologist. SGI plans to commence work immediately following the approval of the Work Plan by ACEH. SGI estimates well installation activities can begin approximately six weeks after the approval of the Work Plan and will take approximately four days to complete, and a Report will be submitted to the ACEH for review within six weeks of receipt of all analytical data.

SGI appreciates the opportunity to provide this Work Plan. If you have any questions or require additional information, please do not hesitate to call Mr. Adam Brown at (530) 272-4200.

Sincerely,
The Source Group, Inc.

Adam Brown
Project Manager

PROFESSIONAL GEOLOGIST
JING HEISLER
No. 666
CERTIFIED
HYDROGEOLOGIST
Exp. 2/28/17
STATE OF CALIFORNIA

Jing Heisler, P.G.
Senior Geologist

Greg McIver
Principal Scientist

ATTACHED:

Figure 1: Site Location Map
Figure 2: Site Plan
Figure 3: Historical Hexavalent Chromium in Soil and Proposed On-Site Soil Boring Locations
Figure 4: Hexavalent Chromium in Groundwater and Proposed Off-Site Soil Boring Locations

Table 1: Proposed Sampling Plan

Attachment A: Regulatory Correspondence

REFERENCES:

BASELINE Environmental Consulting (BASELINE). 2005. *Site History and Data Summary Report*, 785 7th Street, Oakland, California. January 10.

BASELINE. 2008. *Documentation of Frog Pond Removal Activities*, 751-785 Seventh Street, Oakland, California. February 29.

BASELINE. 2010. *Phase IV Soil and Groundwater Investigation*, 751-785 Seventh Street, Oakland, California. May 28.

Conestoga-Rovers & Associates (CRA). 2009. *Groundwater Monitoring Report – Third Quarter 2009*, Shell-Branded Service Station, 601 Market Street, Oakland, California. October 28.

The Source Group, Inc.. 2015. *Groundwater Delineation Report,* Former Francis Plating Site, 751 7th Street, Oakland, California. February 23.

The Source Group, Inc.. 2015. *Third Quarter 2015 Groundwater Monitoring and Sampling Report,* Western Parcel – APN 1-223-6, 751 7th Street, Oakland, California. September 26.

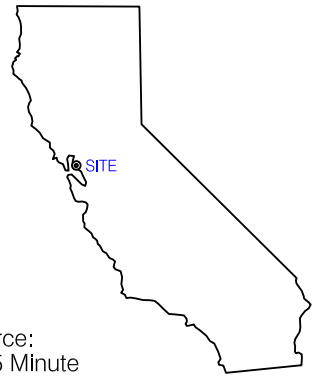
FIGURES

C:\Drawing Files\The Source Group\Former Francis Plating Site 01-FP-006\Qtrly GWM And Sampling Report\2015-Q3\Fig 1, Site Location Map - 09/16/2015

LEGEND

Site Location

REFERENCE LOCATION



Map Source:
USGS 7.5 Minute
Topographic Quadrangle Map,
Oakland West, CA - 1993, Photorevised 1997

SITE LOCATION MAP

FORMER FRANCIS PLATING
789 SEVENTH STREET
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	DRAWN BY:	APP. BY:
01-FP-004	09/16/2015	CM	AB

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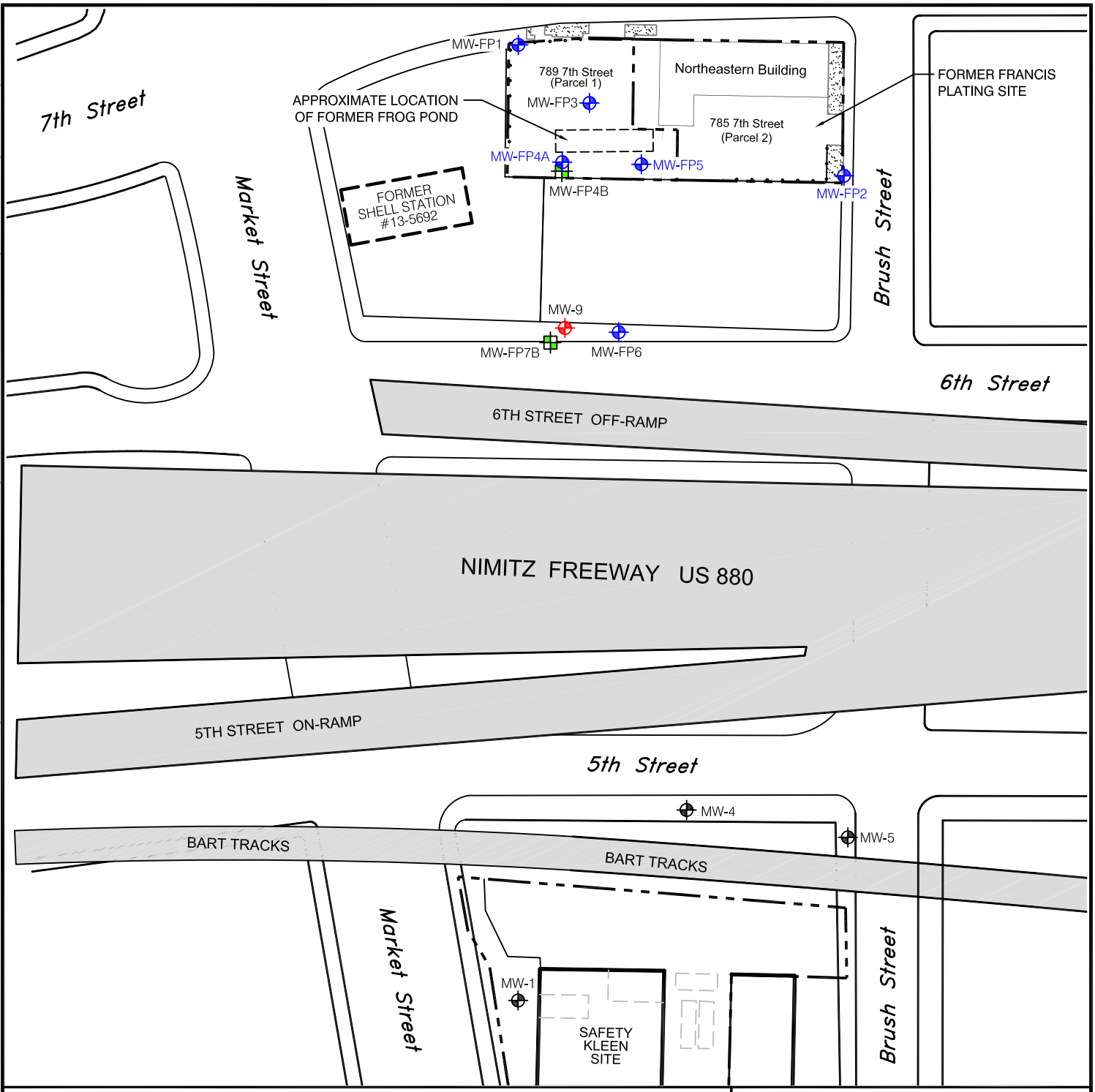
APPROXIMATE SCALE IN MILES

SGI environmental
THE SOURCE GROUP, INC.
944 McCOURTNEY ROAD, SUITE H
GRASS VALLEY, CALIFORNIA 95949

N

FIGURE
1

C:\Drawing Files\The Source Group\Former Francis Plating Site 01-FP-006\Site Dilineation Work Plan\Fig 2, Site And Downgradient Vicinity - 09/28/2015



LEGEND

- MW-FP6 — Shallow Groundwater Monitoring Well
- MW-FP7B — Deep Groundwater Monitoring Well
- MW-9 — Shell Shallow Groundwater Monitoring Well
- MW-5 — Safety Kleen Site Shallow Monitoring Well
- Fence
- Site Boundary

NOTE:

Base Map Sources:
- Google Earth, Image Date 05/31/2007

SITE AND DOWNGRADIENT VICINITY

FORMER FRANCIS PLATING
789 SEVENTH STREET
OAKLAND, CALIFORNIA

PROJECT NO.:	DATE:	DRAWN BY:	APP. BY:
01-FP-004	09/28/2015	CM	GM

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APPROXIMATE SCALE IN FEET

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944 McCOURTNEY ROAD SUITE H
GRASS VALLEY, CALIFORNIA 95949

N

FIGURE
2

C:\Drawing Files\The Source Group\Former Francis Plating Site 01-FP-006\Site Dilineation Work Plan\Fig 3_Hist Hexavalent Chromium In Soil And Proposed SB Locations - 11/18/2015

7th Street

Brush Street

B-FP01 - 2/5/03	
Depth	mg/kg
2.5'	<0.05
5.5'	**0.59**

MW-FP3 - 3/30/10	
Depth	mg/kg
5.5'	<0.40

B-FP17 - 11/28/05	
Depth	mg/kg
0.5'	<0.05
3.5'	<0.05

B-FP16 - 11/28/05	
Depth	mg/kg
0.5'	**0.06**
3.5'	**0.09**

B-FP29 - 6/1/07	
Depth	mg/kg
7.0'	**0.31**

B-FP07 - 2/5/03	
Depth	mg/kg
2.5'	<0.05
5.0'	**0.09**

B-FP08 - 11/22/05	
Depth	mg/kg
2.5'	<0.05
4.5'	<0.05

B-FP09 - 11/22/05	
Depth	mg/kg
2.0'	<0.05
4.5'	**0.09**

B-FP06 - 2/5/03	
Depth	mg/kg
2.0'	<0.05
5.0'	<0.05

B-FP10 - 11/28/05	
Depth	mg/kg
0.5'	<0.05
3.5'	<0.05

B-FP11 - 11/28/05	
Depth	mg/kg
0.5'	<0.05
3.5'	<0.05

B-FP02 - 2/5/03	
Depth	mg/kg
2.5'	<0.05
5.5'	<0.05

B-FP13 - 11/28/05	
Depth	mg/kg
0.5'	<0.05
3.5'	<0.05

B-FP28 - 6/1/07	
Depth	mg/kg
4.5'	**3.8**

B-FP27 - 6/1/07	
Depth	mg/kg
4.5'	**0.77**
9.5'	**3.7**

B-FP31 - 6/1/07	
Depth	mg/kg
11.5'	<0.05
18.5'	<0.05

B-FP03 - 2/4/03	
Depth	mg/kg
1.5'	<0.05
5.0'	<0.05

B-FP14 - 11/29/05	
Depth	mg/kg
0.5'	**19**
3.5'	**22**

B-FP24 - 5/31/07	
Depth	mg/kg
4.5'	**33**
9.5'	**67**

B-FP05 - 2/4/03	
Depth	mg/kg
2.0'	**0.09**
5.0'	**1.9**

B-FP12 - 11/29/05	
Depth	mg/kg
0.5'	**0.18**
3.5'	**0.06**

MW-FP4A - 3/3/10	
Depth	mg/kg
5.0'	**92**
10.0'	**310**
15.0'	**19**
20.0'	**460**

B-FP23 - 3/30/06	
Depth	mg/kg
6.0'	**30**

B-FP04 - 2/4/03	
Depth	mg/kg
2.0'	<0.05
5.0'	<0.05

B-FP25 - 6/1/07	
Depth	mg/kg
4.5'	**10**
9.5'	**6.5**

MW-FP5 - 3/3/10	
Depth	mg/kg
5.0'	**1.0**
10.0'	**5.3**
15.0'	**11**
20.0'	**21**

B-FP30 - 6/1/07	
Depth	mg/kg
7.0'	<0.05

B-FP26 - 6/1/07	
Depth	mg/kg
4.5'	<0.05
9.5'	<0.05

B-FP15 - 11/29/05	
Depth	mg/kg
0.5'	<0.05
3.0'	<0.05

MW-FP1
B-FP01
789 7th Street
(Parcel 1)
B-FP17
MW-FP3
B-FP02
B-FP13
NORTHERN
VAULT A
B-FP16
WEST
VAULT
B-FP28
B-FP27
APPROXIMATE LOCATION OF
FORMER FROG POND
B-FP26
B-FP25
B-FP24
B-FP29
B-FP30
B-FP31
B-FP03
B-FP14
B-FP23
B-FP15
MW-FP4A
SB-FP1
MW-FP4B
SB-FP2
B-FP04
MW-FP5
SB-FP3
FORMER
SHELL STATION
#13-5692
FORMER
SUMP
B-FP07
B-FP08
B-FP09
Northeastern Building
B-FP06
B-FP10
B-FP11
785 7th Street
(Parcel 2)
FORMER FRANCIS
PLATING SITE
B-FP12
B-FP05
MW-FP2

N

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944 McCOURTNEY ROAD, SUITE H
GRASS VALLEY, CALIFORNIA 95949

0 20 40
APPROXIMATE SCALE IN FEET

LEGEND

- SB-FP5 — Proposed Soil Borings
- B-FP01 — Soil Boring Location
- MW-FP6 — Shallow Groundwater Monitoring Well
- MW-FP4B — Deep Groundwater Monitoring Well
- Fence
- Site Boundary

Approximate Area of Excavation 12/2007

Sample Location

Depth of Sample Below Ground Surface (bgs) in Feet

MW-FP4A - 3/3/10	
Depth	mg/kg
5.0'	**92**
10.0'	**310**
15.0'	**19**
20.0'	**460**

Hexavalent ChromiumConcentration in milligrams per kilogram (mg/kg) Detections are Shown in Bold

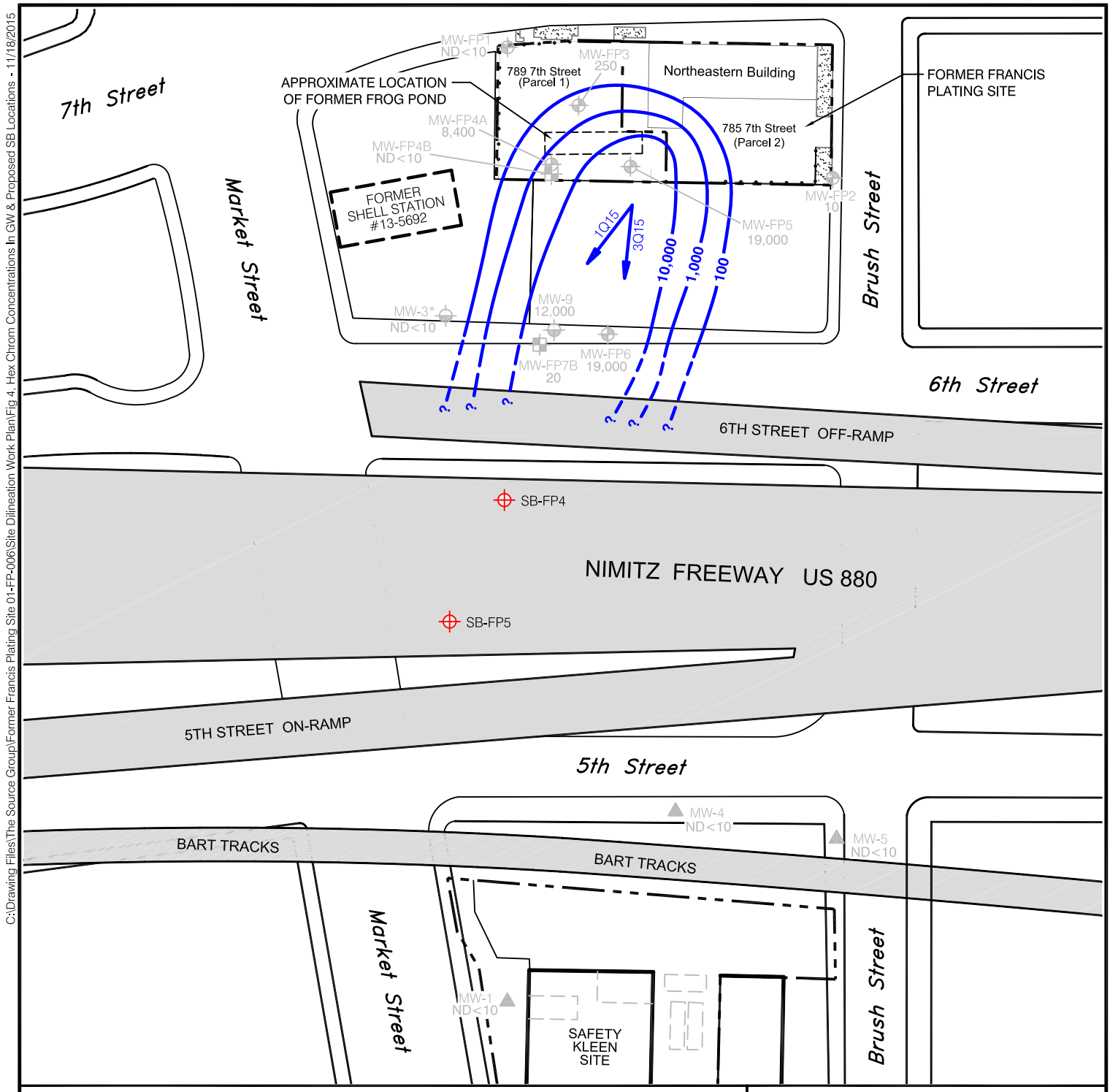
CrVI Concentration Above Commercial/Industrial Shallow Soil Environmental Screening Level - Groundwater is Potential Drinking Water Resource (8 mg/kg)

CrVI Concentration Above Commercial/Industrial Deep Soil Environmental Screening Level - Groundwater is Potential Drinking Water Resource (110 mg/kg)

HISTORICAL HEXAVALENT CHROMIUM IN SOIL AND PROPOSED ON-SITE SOIL BORING LOCATIONS

FORMER FRANCIS PLATING
789 SEVENTH STREET
OAKLAND, CALIFORNIA

PROJECT NO.:	DATE:	DRAWN BY:	APP. BY:	FIGURE
01-FP-004	11/18/2015	CM	GM	3



LEGEND

- Proposed Soil Boring
- MW-FP6 — Shallow Groundwater Monitoring Well
- MW-FP7B — Deep Groundwater Monitoring Well
- MW-9 — Shell Shallow Groundwater Monitoring Well
- MW-5 — Safety Kleen Site Shallow Monitoring Well
- Fence
- Site Boundary
- 10,000 — Isoconcentration of CrVI in Groundwater - Dashed Where Undefined (µg/L)
- Groundwater Flow Direction

NOTE:

ND<0.5 - Not Detected Above Laboratory Reporting Limit
10 - Hexavalent Chromium Concentration in Micrograms per Liter (µg/L)
* - Shell Monitoring Well Destroyed September 16, 2013

HEXAVALENT CHROMIUM CONCENTRATIONS IN GROUNDWATER AND PROPOSED OFF-SITE SOIL BORING LOCATIONS

FORMER FRANCIS PLATING
789 SEVENTH STREET
OAKLAND, CALIFORNIA

PROJECT NO.:	DATE:	DRAWN BY:	APP. BY:
01-FP-004	11/18/2015	CM	GM

0 100 200
APPROXIMATE SCALE IN FEET

SGI environmental THE SOURCE GROUP, INC.
944 McCOURTNEY ROAD SUITE H
GRASS VALLEY, CALIFORNIA 95949

FIGURE 4

C:\Drawing Files\The Source Group\Former Francis Plating Site 01-FP-006\Site Dilineation Work Plan\Fig 4, Hex Chrom Concentrations In GW & Proposed SB Locations - 11/18/2015

TABLES

Table 1
Proposed Sampling Plan
Former Francis Plating
Oakland, California

Boring ID	Location	Proposed Sample Matrix	Proposed Boring Depth (feet bgs)	Proposed Sample Depth (feet bgs)	Proposed Analyses	Purpose
On-Site - Frog Pond Area						
SB-FP1	Former Frog Pond Area	Soil	12	3, 6, 9, and 12	VOCs by 8260B, Dissolved Metals by 6010B/7470A, and Hexavalent Chromium by 7196A	Delineate source area soil impact.
SB-FP2	Former Frog Pond Area	Soil	12	3, 6, 9, and 12	VOCs by 8260B, Dissolved Metals by 6010B/7470A, and Hexavalent Chromium by 7196A	Delineate source area soil impact.
SB-FP3	Former Frog Pond Area	Soil	12	4, 8, and 12	VOCs by 8260B, Dissolved Metals by 6010B/7470A, and Hexavalent Chromium by 7196A	Delineate source area soil impact.
Off-Site - Southwest (downgradient)						
SB-FP4	Downgradient - under Interstate 880	Groundwater	30	30	VOCs by 8260B, Dissolved Metals by 6010B/7470A, and Hexavalent Chromium by 7196A	Delineate extent of plume dowwngradient of the Site
SB-FP5	Downgradient - under Interstate 880	Groundwater	30	30	VOCs by 8260B, Dissolved Metals by 6010B/7470A, and Hexavalent Chromium by 7196A	Delineate extent of plume dowwngradient of the Site

Notes:
VOCs - volatile organic compounds
bgs - below ground surface
N/A = Not Applicable

ATTACHMENT A

REGULATORY CORRESPONDENCE

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

June 18, 2015

Mr. Tom McCoy 94612 (*Sent via E-mail to: tmccoy@bbiconstruction.com*)
Brush Street Group, LLC
1155 3rd Street, Suite 230
Oakland, CA 94607

Subject: Case File Review for SLIC Case RO0002586 and GeoTracker Global ID SL0600130797, Francis Plating Frog Pond, 751-785 7th Street, Oakland, CA 94607

Dear Mr. McCoy:

Alameda County Environmental Health (ACEH) staff has reviewed the Spills, Leaks, Investigation, and Cleanup (SLIC) case file for the above referenced site including the recently submitted document entitled, "*Groundwater Delineation Report, 751 Seventh Street, Oakland, California,*" dated February 23, 2015 (Report). In correspondence dated June 4, 2015, ACEH separated the site into two cases to allow the two cases to proceed independently. This directive letter for case RO0002586 applies to the western parcel that includes the Frog Pond. The February 23, 2015 Report, which was prepared on your behalf by The Source Group, Inc., (SGI) presents results from a groundwater monitoring event that included sampling of three off-site wells. Hexavalent chromium was not detected in the three off-site wells; however, the off-site wells appeared to be in a crossgradient position rather than downgradient from the Frog Pond based on the hydraulic gradient at the time of sampling. Further work will be required to delineate the downgradient extent of the plume.

The Report recommends locating missing well MW-FP6 and performing semi-annual groundwater sampling in July 2015. We concur with locating missing well MW-FP5 and performing semi-annual groundwater monitoring in July 2015 and request that you present the results in a Semi-annual Groundwater Monitoring Report to be submitted by September 16, 2015. The Report also recommends evaluating source reduction options. We request that you submit a Work Plan to complete delineation of the contaminant plume originating from the Frog Pond area. The Work Plan must also propose the collection of any data that may be required to screen and evaluate potential remedial alternatives for the Frog Pond area.

The Report provides a narrative discussion of the results of an updated well survey. However, the supporting information from the updated well survey was not provided because the information is not publicly available. We request that you submit the supporting information from the well survey including maps and tables in an electronic file labeled confidential. ACEH will place in a confidential folder within the case file that will not be visible or available to the public.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Jerry Wickham), and to the State Water Resources Control Board's GeoTracker website according to the following schedule and file-naming convention:

- **August 18, 2015** – Work Plan for Plume Delineation and Date Collection for Evaluation of Remedial Alternatives
  File to be named: WP_R_yyyy-mm-dd RO2586

- **August 18, 2015** – Well Survey
  File to be named: COND_WELL_R_yyyy-mm-dd_CONFIDENTIAL RO2586

- **September 16, 2015** – Semi-annual Groundwater Monitoring Report
  File to be named: GWM_R_yyyy-mm-dd RO2586

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org. Online case files are available for review at the following website: http://www.acgov.org/aceh/index.htm.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachments: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Margot Lederer Prado, City of Oakland Economic Development Division, Brownfields Management, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA 94612 (*Sent via E-mail to: MPrado@oaklandnet.com*)

Matthew Sutton, The Source Group, Inc., 3478 Buskirk Avenue, Suite100, Pleasant Hill, CA 94523 (*Sent via E-mail to: msutton@thesourcegroup.net*)

Markus Niebanck, Amicus, 580 Second Street, Suite 260, Oakland, CA 94607 (*Sent via E-mail to: markus@amicusenv.com*)

Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)
GeoTracker, eFile

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**REVISION DATE:** May 15, 2014
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

Subject: FW: Former Francis Plating Site
Date: Tuesday, September 8, 2015 at 1:56:42 PM Pacific Daylight Time
From: Greg McIver
To: Adam Brown

From: "Wickham, Jerry, Env. Health" <jerry.wickham@acgov.org>
Date: Thursday, July 30, 2015 2:27 PM
To: Matt Sutton <msutton@thesourcegroup.net>
Cc: I Inouye <iinouye@thesourcegroup.net>, Tom McCoy <tmccoy@bbiconstruction.com>, Greg McIver <gmciver@thesourcegroup.net>
Subject: RE: Former Francis Plating Site

Matt,

The proposed schedule extensions are acceptable. These revised submittal dates have been entered on GeoTracker.

Regards,
Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
510-567-6791
jerry.wickham@acgov.org

From: Matt Sutton [mailto:msutton@thesourcegroup.net]
Sent: Thursday, July 30, 2015 2:07 PM
To: Wickham, Jerry, Env. Health <jerry.wickham@acgov.org>
Cc: I Inouye <iinouye@thesourcegroup.net>; Tom McCoy <tmccoy@bbiconstruction.com>; Greg McIver <gmciver@thesourcegroup.net>
Subject: Former Francis Plating Site

Jerry,

This e-mail is a follow-up to my voicemail this afternoon to request a couple extensions on required documents for the two projects at the above referenced Site. We have received authorization to perform the work, and are moving forward, but like I mentioned, we are a bit behind on completing things. As such, I would like to request the following:

- A one week extension on the Revised SMP for the 785 7th Street Site, so it will be submitted by August 14.
- We have scheduled sampling and can meet the Reporting deadline of September 16, but we would like to review the data prior to submitting the requested Work Plan, therefore:
- Would like to request a two month extension for the Plume Delineation Work Plan and Data Collection for Evaluation of Remedial Alternatives, to be submitted by October 16.

I am out next week, but can get voicemails and e-mails remotely, so if you can respond via voicemail or e-mail to all, it would be greatly appreciated.

Thanks
Matt

Matthew C. Sutton, P.E.
Principal Engineer
The Source Group, Inc.
Environmental Engineering, Hydrogeologic & Management Services
3478 Buskirk Avenue, Suite 100
Pleasant Hill, CA 94523
Direct: 925.951.6386
Mobile: 925.207.2237
Fax: 925.944.2859
www.thesourcegroup.net