



## North State Environmental

90 South Spruce Avenue, Suite V, South San Francisco, CA 94080 / Ph (650) 266-4563 / Fax (650) 266-4560

ENVIRONMENTAL  
PROTECTION

00 APR 27 AM 8:57

April 25, 2000

Mr. Barney M. Chan  
Alameda County Health Care Services Agency  
Environmental Health Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

RE: Work Plan for Site Characterization Activities at West Coast Vending & Food Service Inc.,  
2124 Livingston Street, Oakland, California  
(Alameda County StID# 5943; NSE Project 00-0012C)

Dear Mr. Chan:

This is a work plan to evaluate the extent of hydrocarbon-affected soil and groundwater in the vicinity of the former 2,000-gallon underground gasoline storage tank (UST) at the West Coast Vending & Food Service (WCV) facility located at 2124 Livingston Street in Oakland, California. The site location is shown in Figure 1. Figure 2 is site plan of the subject property. This work plan was requested by the Alameda County Health Care Services Agency (ACHCSA) in letters dated between July 1998 and November 1999. A Copy of the more recent ACHCSA letter is in Appendix.

### **BACKGROUND**

This work plan includes background information of UST removal activities performed at both the subject property (2124 Livingston Street) and 2040 Livingston Street, located approximately 40 feet north of the WCV facility (Figure 2). In our opinion, the background information provided for each property is pertinent in the preparation of this work plan requested by the ACHCSA. Also, such information will help clarify the present uncertainty and assumed location of the unknown sample/boring locations spoken of in recent ACHCSA correspondence. Information on 2040 Livingston Street was provided by All Environmental, Inc. (AEI) of Lafayette, California and the City of Oakland Records Department.

**2040 Livingston Street, Oakland, California**  
(Former Baker Art Foundry)

On March 28, 1994, AEI removed one 1,000-gallon gasoline UST from the property located at 2040 Livingston Street in Oakland, California. The corner property lies approximately 30 feet northwest of the WCV facility and was formerly owned by McNely Construction of San Leandro, California and formerly operated by Baker Art Foundry. The location of the property and subject UST is shown in Figure 2. AEI directed Waste Oil Recovery Systems (WORS) to pump approximately 100 gallons of residual waste liquid in the tank into a vacuum truck, removed the asphalt and concrete above the UST, excavated and stockpiled the soil surrounding the tank, and added dry ice to inert the tank's interior atmosphere. AEI, then removed the UST under the direct supervision of Mr. Barney Chan of the ACHCSA. According to the ACHCSA tank removal inspection form, water was observed in the excavation at approximately 5 fbg. Two soil samples were reportedly collected beneath the east and west ends (Sample IDs EBE 8' & EBW 8', respectively) of the former UST at approximately 8 feet below grade (fbg). Two additional soil samples were collected from the stockpiled soil. The excavation water was not sampled as per the ACHCSA. Figure 2 shows the location of the excavation soil samples. All samples were labeled, placed in a cooler, and submitted under chain of custody (COC) command to Priority Environmental Labs (PEL) in Milpitas, California for analysis of total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and the Total Threshold Limit Concentration of lead (TTLC Pb). The TPH-G and BTEX concentrations measured in the UST excavation samples and the stockpile composite sample were below the laboratory reporting limit (1.0 mg/kg for TPH-G and 0.005 mg/kg for BTEX). The samples contained up to 17 mg/kg TTLC Pb (EBW 8'). Tank Removal soil sample analytical results for this property are summarized in Table 1. A copy of the analytical report and COC record is in Appendix B.

Following sample collection, AEI backfilled the excavation with the stockpile soil (0.5 to 8 fbg) and imported base rock (0 to 0.5 fbg). The UST was transported to the Erickson Inc. disposal facility in Richmond, California. WORS transported the waste liquid to the Alviso Independent Oil Facility in Alviso, California. Additional details are in AEI's April 1994 *UST Removal Final Report*.

From observation, the appended COC associated with the aforementioned analytical report (Report A) shows that two additional soil samples were collected during the tank removal activities. A separate PEL analytical report (Report B), also dated March 28, 1994, and having the same PEL number (# 9403100), is in our possession as well as in the possession of the WCV and the ACHCSA. Report B, however, is not on record with the City of Oakland. Contradictory to Report A, Report B provides analytical results of TTLC Pb, TPH-G, and BTEX for two additional soil samples (Sample IDs HBW 9' and HBN 9', respectively). The samples reportedly contained up to 190 mg/kg TPH-G, 2.1 mg/kg benzene, 3.7 mg/kg toluene, 2.9 mg/kg ethylbenzene, and 8.1 mg/kg total xylenes. According to the ACHCSA tank removal inspection report, only two samples were collected from the former UST excavation. Neither sample location nor any other information regarding these samples was disclosed in AEI's April 1994 *UST Removal Final Report*. Analytical Report B (as marked) is included in the Appendix for your review and comparison.

<sup>NO</sup>  
(At this time, we can only speculate that the additionally reported samples were either never collected and mis-reported by PEL or that the samples were collected as shown on the COC and AEI did not disclose the pertinent information in their April 1994 Report.)

## 2124 Livingston Street, Oakland, California

Based on a recent site reconnaissance and information provided by a WCV representative, subcontracted representatives of Baker Art Foundry reportedly drilled more than two soil borings (direct-push technology) around the perimeter of the UST located adjacent to the northwest side of the site building located at 2124 Livingston Street. Boring(s) were also drilled between this UST and the former UST located on the property at 2040 Livingston Street. During the site reconnaissance, two of the soil boring locations were observed adjacent to the northwest and southwest sides of the limit of the UST excavation (the borings were backfilled with Portland cement to grade surface). These soil boring locations are shown in Figure 2. The boring locations situated between the two USTs were not observed. The borings were apparently drilled between 1994 and 1998, and under the directive of a lending institution. At this time, North State Environmental (NSE) is unaware of any information that exists regarding the boring depths, sample locations, and/or other boring locations in the vicinity of both USTs. No records of such activities exist with the City of Oakland.

On April 16, 1998, SEMCO Environmental Contractors (SEMCO; Modesto, California) removed one 2,000-gallon gasoline UST from the subject property (Figure 2) under the direct supervision of Mr. Robert Weston of the ACHCSA and Mr. Steve Crawford of the Oakland Fire Department. Soil samples collected beneath the northeast and southwest ends of the UST (Sample IDs T1-9 & T2-10) at approximately 9 and 10 feet below grade (fbg), respectively, contained up to 3,100 mg/kg TPH-G, 0.03 mg/kg benzene, 0.012 mg/kg MTBE, and 13 mg/kg TTLC lead. One soil sample collected beneath the former fuel dispenser (Sample P1; Figure 2) contained 120 mg/kg TTLC lead, a soluble threshold limit concentration (STLC; Cal. Title 22 Waste Extraction Test) of 6 mg/l, and a synthetic precipitation leaching procedure (SPLP; EPA Method 1312) concentration of < 0.1 mg/l. The SPLP method evaluates the mobility of the analytes in a non-landfill environment. The TPH-G, BTEX, and MTBE concentrations measured in this sample were below the laboratory reporting limit (0.5 mg/kg for TPH-g and  $\leq 0.010$  mg/kg for BTEX and MTBE). The composite stockpile soil sample contained 4 mg/kg TPH-G, 0.04 mg/kg total xylenes, and 7 mg/kg TTLC lead. (For simplification, samples T1-9, T2-10, and P1 will be denoted as A, B, and C, respectively, throughout the remainder of this report). Soil beneath the UST consisted predominantly of olive gray (5Y 3/2) silty clay. Groundwater was not observed in the excavation. The UST was transported to the Erickson, Inc. disposal facility in Richmond, California under Uniform Hazardous Waste Manifest #96835708. Following sample collection, SEMCO backfilled the excavation with the stockpile soil (5 to 10 fbg) and imported pea gravel and silty, gravelly sand (0 to 5 fbg). Tank Removal soil sample analytical results are included in Table 1. Additional details are provided in the July 9, 1998 *Tank Removal Report* prepared by SEMCO.

Based on the review of the analytical results of the soil samples collected during the UST removal activities, the ACHCSA, in letters dated between July 1998 and November 1999, requested WCV to either prepare a work plan for groundwater investigation or provide rationale for a "low risk" soil or groundwater case at the subject property. On March 1, 2000, WCV contracted North State Environmental (NSE) to prepare a work plan to evaluate the extent of hydrocarbon-affected soil and potential impact to groundwater in the vicinity of the former UST. NSE, in a letter dated March 20, 2000, requested the ACHCSA to extend the deadline for submittal of the work plan. The work plan extension request was approved by the ACHCSA in their letter dated March 23, 2000. The work plan is presented in the following section.

## WORK PLAN

NSE proposes to drill up to six (6) soil borings (B1 through B6) up to approximately 20 fbg to evaluate the extent of hydrocarbon-affected soil and potential impact to groundwater in the vicinity of the former UST. Figure 2 shows the locations of the proposed soil borings. General field procedures are presented in the Appendix.

The proposed depth and location of the soil borings are based on 1) soil sample analytical results from the subject UST removal activities, 2) an assumed depth to groundwater between 10 and 15 fbg (based on topographical surface elevation of the subject property (@ 10 feet above mean sea level), 3) the relatively high water solubility (mobility) and low soil sorption of the chemical constituents present in the vadose zone soil (i.e., lighter aromatic hydrocarbons of BTEX and MTBE), and 4) the presence of silty clay observed beneath the former UST. Boring B1 will be drilled at or near the approximate location of the tank removal soil sample A to both confirm the presence of gasoline hydrocarbons in soil at approximately 9 fbg (highest reported TPH-G concentration) and evaluate the vertical extent of hydrocarbon-affected soil and potential impact to groundwater at this location. Borings B2 and B3 will be placed between the former UST cavities at the subject and neighboring properties to evaluate the lateral and vertical extent of hydrocarbons in the vicinity of the former subject UST and determine whether hydrocarbons may exist in soil and/or groundwater that are associated with the former UST located at 2040 Livingston Street.

Prior to initiating drilling activities, soil borings B2 through B6 will initially be hand augered up to approximately 3.5 fbg to clear for any unmarked, underground utilities and to collect random auger cuttings for description of the shallow surface soils. Boring B1 does not require hand augering due to the imported backfill material reportedly present at this location up to approximately 5 fbg. Each boring will then be percussion-drilled (direct push technology) using 2-inch-diameter, cased drilling rods (dual-tubed sampling system). NSE recommends a dual-tubed sampling system, especially below the water table, because it will inhibit the infiltration of hydrocarbon-affected groundwater into the borehole, thereby decreasing the likelihood this water could contact and cross contaminate soil samples collected from the saturated zone.

Soil samples will be collected by hydraulically driving an acetate-butyrate plastic tube-lined, split-spoon sampler (2-feet in length) at approximately 6, (B2 -B6) 8, 10, 12, 16, and 18 (B1 - B6) fbg. All samples will be screened with an organic vapor meter, described using the Unified Soil Classification System, placed in a cooler chilled to approximately 4°C, and submitted to NSE laboratory for analysis. Up to three soil samples from each boring will be analyzed for TPH-G, BTEX, and MTBE. The soil sample in each boring containing the greatest TPH-G concentration will be analyzed for TTLC lead. Also, the soil sample collected in B1 (below approximately 9 fbg) containing the greatest TPH-G concentration will also be analyzed for fuel oxygenates (EPA Method 8260B). All MTBE concentrations exceeding the laboratory limit will be confirmed using EPA Method 8260B.

Based on the depth to groundwater encountered in B1, the organic soil vapor concentrations measured in the soil samples collected in this boring, and observed changes in soil sample lithology, each subsequent soil boring (B2 through B6) will be drilled approximately 5 to 7 feet below the water table and associated soil samples will be collected at pertinent depths and at the capillary fringe.

Following soil sample collection in each boring, temporary 0.75-inch-diameter, factory sealed, slotted (0.010 inch) casing will be installed within the outer steel tubes to the approximate maximum depth of each boring. The outer tubes will then be extracted from the boring, exposing the temporary slotted casing to the surrounding soil formation and/or groundwater. As soon as an adequate volume of water enters each boring, depth to groundwater and the presence of free product will be measured using a water level indicator smeared with product indicator paste, and grab groundwater samples will be collected within the slotted casing using either a stainless steel bailer or peristaltic pump. The samples will be labeled, placed in a cooler maintained at approximately 4°C, and submitted to NSE for analysis of dissolved-phase TPH-G, BTEX, MTBE, and TFLC lead. In addition, the groundwater sample collected in B1 and/or the sample collected in the verified down gradient boring will also be analyzed for fuel oxygenates. One groundwater sample will be analyzed for total dissolved solids (EPA Method 160.1). MTBE concentrations exceeding the laboratory reporting limit will be confirmed by EPA Method 8260B.

prefer purging of 3-5 well volume

Following groundwater sample collection, the temporary well casing will be extracted from borings B1 through B3 and the borings will subsequently be backfilled with a neat mixture of Portland Type I-II cement and 3% bentonite powder (to minimize grout shrinkage) and surface concrete (0 to 0.5 fbg). A steel cover will be placed over borings B4 through B6 and sealed with hydrated bentonite to inhibit surface water infiltration. Barricades and caution tape will surround each boring location. NSE will return to the site 48 to 72 hours following completion of groundwater sampling activities to survey the elevation of the top of each temporary well casing (B4 through B6) and the associated grade surface (B1 through B6) to a local bench mark or arbitrary datum. The casing will then be extracted and the remaining borings will be backfilled with a neat mixture of Portland cement/bentonite powder and approximately 0.5 foot of surface concrete.

After completion of field activities, NSE will calculate the groundwater gradient and flow direction at the site and verify which of the borings is located down-gradient of the former UST cavity. NSE will immediately request the laboratory to analyze the groundwater sample collected from this boring for fuel oxygenates.

## PERMITTING, DECONTAMINATION, WASTE DISPOSAL, AND REPORTING

Prior to initiating any drilling activities, NSE will submit a completed drilling permit application to the Water Resources Section of the Alameda County Public Works Agency (ACPWA), surface mark all drilling locations in white marking paint, and subsequently notify Underground Service Alert to clear for underground utilities (required by law). NSE will also prepare a Community Health and Safety Plan for the proposed drilling activities. If required, NSE will also submit a street work permit application and associated fee to the City of Oakland Public Works for drilling activities conducted in the public right-of-way (i.e., all work performed northwest of the northwest subject property line).

The drilling, sampling, and groundwater monitoring equipment will be cleaned with either a pressure washer or a phosphate free Liquinox® solution followed by a potable water rinse before it is placed in each boring. Soil cuttings are typically not produced from the percussion drilling activities. However, due to the proposed scope of work, a small quantity of soil will be generated from the hand augering activities. The soil cuttings and the equipment wash and rinse water

generated from drilling decon activities will be temporarily stored (separately) in 55-gallon DOT-approved storage drums. The drums will be labeled and stored onsite in an accessible area for future disposal. Based on the observed extent of contamination and volume of soil cuttings, NSE will collect up to four samples from the drummed soil and submit the samples under chain of custody to NSE Laboratory to characterize the waste for disposal. Following receipt of the soil sample analysis (and subsequent review and approval by the ACHCSA), the soil waste will be either disposed of onsite or manifested and transported to an appropriate disposal facility. The drummed liquid waste will be manifested and transported to an permitted waste water disposal/recycling facility. The work will be completed within 45 days of the date NSE is contracted to perform the work.

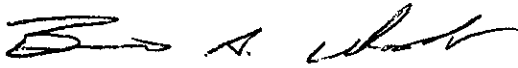
A report summarizing the site characterization activities will be submitted to the ACHCSA 45 to 60 days after the work is completed. All field activities and reporting will be conducted in accordance with current ACHCSA Corrective Action Guidelines.

## LIMITATIONS AND CERTIFICATION

The proposed activities presented in this work plan will be conducted in accordance with current practice and the standard of care exercised by professional geologists, scientists, and engineers performing similar tasks in this area. If the proposed work requested by the SMCHSA does not adequately assess the extent of hydrocarbon-affected soil and groundwater in the vicinity of the former USTs, additional site characterization activities will be recommended to assist in accomplishing this task.

Should you have further questions or require additional information, please contact us at your earliest convenience.

Sincerely,  
*North State Environmental*



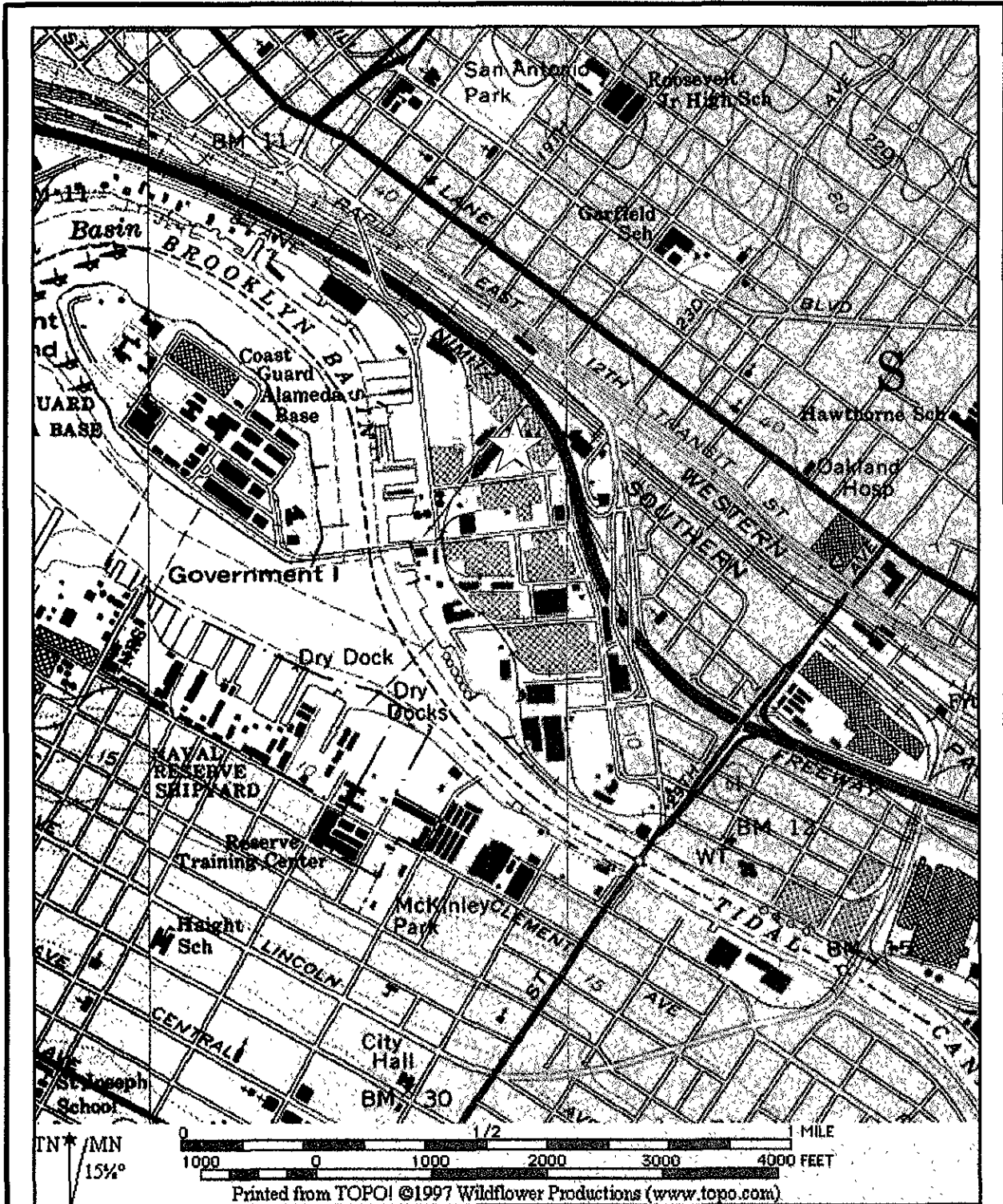
Brent A. Wheeler  
Project Manager



Nabil Wahbeh, P.E.



cc: Mr. Bruce Bauer, West Coast Vending & Food Service Inc.



North State Environmental  
 90 So. Spruce Ave., Ste V  
 So. San Francisco, CA 94080

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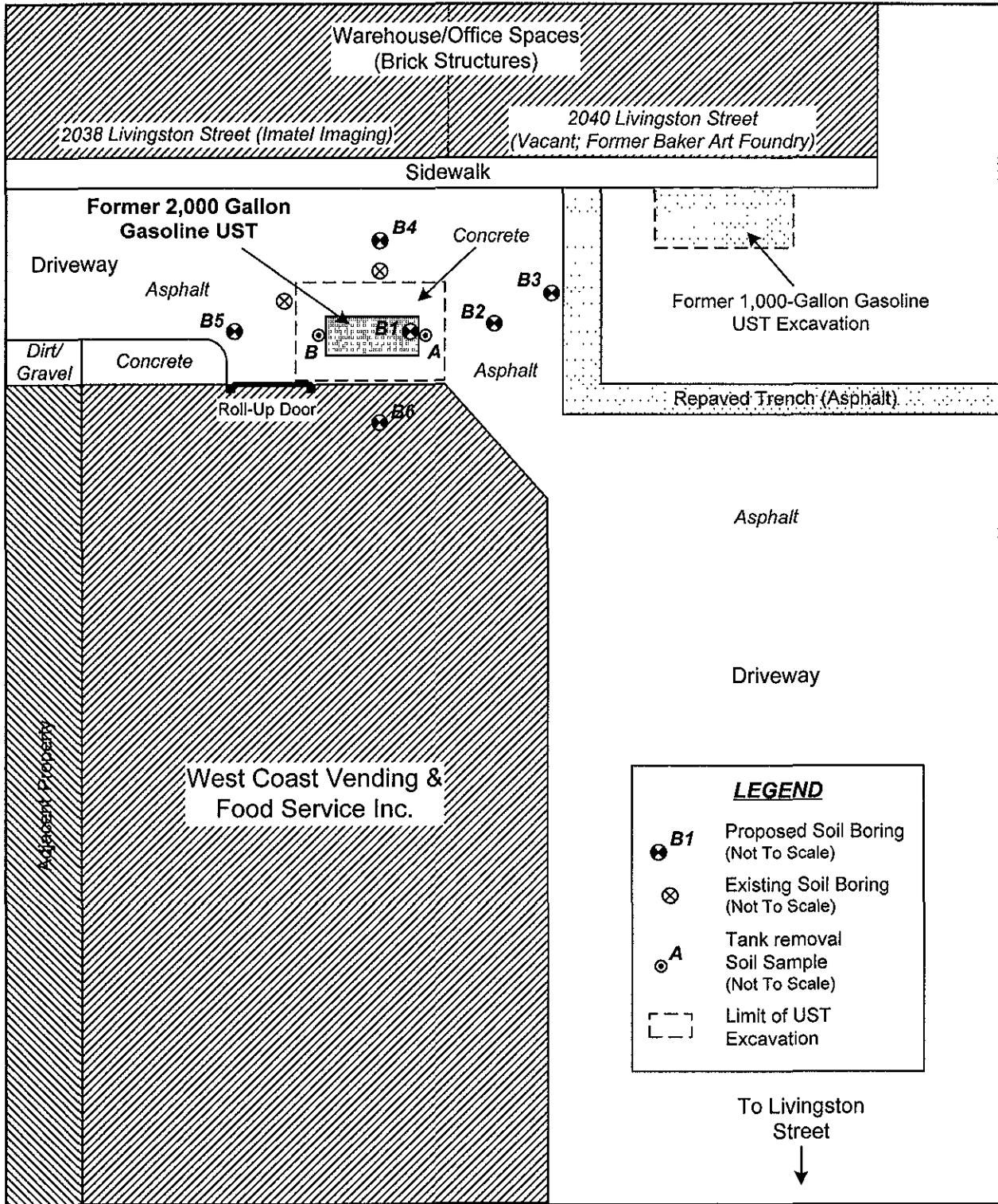


**SITE LOCATION**

**SITE VICINITY MAP**  
 West Coast Vending &  
 Food Service Inc.  
 2124 Livingston Street  
 Oakland, California

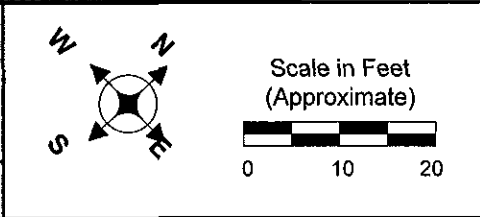
**FIGURE 1**





North State Environmental  
 90 So. Spruce Avenue, Ste. V  
 So. San Francisco, CA 94083

Fn.00-0012C.wp.F2 Dwg:baw/04.00



**SITE PLAN**  
 West Coast Vending &  
 Food Service, Inc.  
 2124 Livingston Street  
 Oakland, California  
**FIGURE 2**

**Table 1**  
**Laboratory Results of Soil Sample Analyses**  
**(UST Removal and Soil Boring Activities)**  
*West Coast Vending & Food Service Inc.*  
*2124 Livingston Street, Oakland, California*

Sample Location/ID	Depth (fbg)	Sample Date	TPH-G (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	TTLc Pb (mg/kg)
EBE 8'	8	3/28/94	ND	ND	ND	ND	ND	--	10
EBW 8'	8	3/28/94	ND	ND	ND	ND	ND	--	17
HBN 9'	9	3/28/94	110	2.1	2.5	1.8	5.3	--	8.5
HBW 9'	9	3/28/94	190	1.1	3.7	2.9	8.1	--	7.4
STKP 1-2	NA	3/28/94	ND	ND	ND	ND	ND	--	8.9
A	9	4/16/98	3100	ND<0.5	2	24	190	ND<0.5	4
B	10	4/16/98	31	0.30	0.07	0.57	0.12	0.012*	13
C	NA	4/16/98	ND	ND	ND	ND	ND	ND	120**
Stockpile	NA	4/16/98	4	ND	ND	ND	0.04	ND	7
Laboratory Reporting Limit			≤1.0	0.005	0.005	0.005	≤0.010	0.005	≤2

**LEGEND:**

TPH-G = total petroleum hydrocarbons (TPH) as gasoline (EPA Method 8015M)  
B, T, E, X = benzene, toluene, ethylbenzene, and total xylenes (EPA Method 8020)  
MTBE = methyl tertiary-butyl ether  
TTLc Pb = Total Threshold Limit Concentration of Lead or Total Lead (EPA Method 7420)  
fbg = feet below grade; mg/kg = milligrams per kilogram  
EBE, EBW, HBN, HBW, and STKP 1-2 = excavation, unknown, and stockpile composite soil samples (locations) collected in March 1994 (refer to text)  
A, B, C, and Stockpile = UST removal and stockpile composite soil samples (locations) collected in April 1998 (refer to text)  
ND = concentration less than the laboratory reporting limit; NA = not applicable  
\* = concentration confirmed by EPA Method 8260B  
\*\* = TTLc Pb concentration as shown is California Title 22 Hazardous Waste; the Soluble Limit Threshold Limit Concentration (STLC) and Synthetic Precipitation Leaching Procedure (SPLP) concentration for this sample was 6 mg/l and <0.1 mg/l (ND), respectively

**APPENDIX A**

**ACHCSA CORRESPONDENCE AND  
GENERAL FIELD PROCEDURES**

ALAMEDA COUNTY  
HEALTH CARE SERVICES



AGENCY  
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577  
(510) 567-6700  
(510) 337-9432

November 23, 1999  
StID # 5943

Mr. Bruce Bauer  
West Coast Vending, Inc.  
2142 Livingston St.  
Oakland CA 94606

**FINAL NOTICE OF VIOLATION**

**Re: Request for Work Plan for Subsurface Investigation at 2124 Livingston St.,  
Oakland CA 94606**

Dear Mr. Bauer:

My last letter, dated July 16, 1999, requested that you submit the previously requested work plan for additional subsurface investigation to follow-up the April 1998 removal of the former 2,000 gallon gasoline tank. This work plan was to be submitted by August 17, 1999 and the work requested to be implemented within 30 days of our office's approval. To date, our office has not received the requested report.

You were also notified on two additional occasions, in my August 13, 1998 and October 22, 1998 letters, of this same request.

**Please submit your work plan to our office within 30 days, or no later than December 23, 1999. In addition, this work should be performed no later than January 24, 2000.**

The failure to submit the requested report and perform the required investigation will cause this case to be referred to the District Attorney Office for enforcement.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan  
Hazardous Materials Specialist

C: B. Chan, files  
Mr. Leonard Ratto, 848 Ledd Rd., Modesto, CA 95356  
Ms. J. Duerig, Alameda County District Attorney Office  
FNOV2124

## **GENERAL FIELD PROCEDURES**

### **SOIL SAMPLING**

Borings are either percussion drilled (typically 2.5-inch-diameter borings) or drilled with solid- or hollow-stem augers (typically 6- to 8-inch-diameter borings). In percussion drilling soil samples are collected by hydraulically hammering a 2-foot-long, 1-inch-inner-diameter split-spoon sampler lined with an plastic tube. The plastic tube is removed from the sampler, cut, and the open ends covered with Teflon tape and plastic caps. If solid-stem auger is used, soil samples are either collected by hand driving a metal tube-lined slide hammer into the bottom of the borehole after the auger is withdrawn (borings <6 feet) or by driving a metal tube into the soil cuttings adhering to the auger flight. The tubes are then capped with teflon tape and plastic caps. If hollow-stem augers are used, soil samples are typically collected by driving a metal tube-lined split-spoon sampler with a 140-pound hammer falling 30 inches. Again, the samples are capped with teflon tape and plastic caps.

Soil samples are collected at a minimum frequency of once every 5 feet, but may also be collected at changes in lithology and within the capillary fringe. The date, project number, and sample identification number are written on each sample and a chain of custody form and the sample is placed in a cooler chilled to approximately 4° C. Soil adjacent to the sample is screened by an organic vapor analyzer and described using the Unified Soil Classification System. Drilling rods, augers, and samplers are cleaned in a hot water pressure washer or cleaned with a phosphate free TSP or Alconox cleaning solution and rinsed with potable water prior to drilling each boring or collecting each sample.

### **FLUID-LEVEL MONITORING AND GROUNDWATER SAMPLING**

Fluid-levels in monitoring wells are measured using an electronic probe or fiberglass tape coated with pastes that indicate the presence of water or free product. In the presence of free product, fluid levels would be additionally measured using a oil/water interface probe. Depth to fluid is measured from the top of the well casing which is typically surveyed to a local Bench Mark.

Monitoring wells are sampled in accordance with the guidelines established by the local oversight agency. If well purging is required before the well water can be sampled, then the temperature, pH, and specific conductance of the well water is measured before the well is purged and after every ½ casing or borehole volume of groundwater is purged from the well. Well purging is terminated when successive physical parameter measurements vary by less than 10%, the well does not recharge to 80% of its pre-purged volume within two hours, or when three well casing or borehole volumes of fluid have been removed. The purged water is either pumped directly into a vacuum truck or into labeled drums which are temporarily stored onsite.

Groundwater samples are collected immediately after purging is terminated. The samples are

generally collected by lowering a bottom-fill, check-valve-equipped, stainless steel or disposable Teflon bailer into the well to just below the water level. However, a peristaltic pump may be used to collect groundwater samples from wells <2 inches in diameter. The samples are carefully transferred to 40-milliliter to 1-liter glass containers, filled to zero-headspace, and fitted with Teflon-lined caps. The project and sample number, date of collection, and sampler's initials are written on each sample and the chain of custody record. The samples are placed in a cooler and chilled to approximately 4° C until they are delivered to a state-certified laboratory for analysis.

## **WASTE GENERATION AND DISPOSAL**

Soil cuttings generated during drilling activities are either temporarily stored onsite in 55-gallon drums or stockpiled onsite. If the cuttings are drummed, then a label is affixed to each drum indicating contents, accumulation date, consultant, consultant phone number, and site address. If the cuttings are stockpiled, then they are placed on and covered by visqueen secured with sandbags. The drummed or stockpiled soil is either disposed of onsite (if permitted by the local oversight agency) or transported to an appropriate disposal facility based on the laboratory results of soil sample analysis. A copy of each waste manifest is submitted to the local oversight agency.

Well purge water and equipment wash and rinse water is pumped into a vacuum truck or temporarily stored onsite in labeled 55-gallon drums. The label indicates drum contents, accumulation date, consultant, consultant phone number, and site address. The fluid in the drums is either discharged onsite (if permitted by the local oversight agency), discharged to the sewer (if permitted by the local wastewater agency), or transported to an appropriate disposal facility based on the laboratory results of groundwater sample analysis. A copy of each waste manifest is submitted to the local oversight agency.

**APPENDIX B**

**LABORATORY ANALYTICAL REPORTS AND  
CHAIN OF CUSTODY RECORD**



# PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

# A

March 31, 1994

PEL # 9403100

ALL ENVIRONMENTAL, INC.

Attn: Steve DeHope

Re: Five soil samples for Gasoline/BTEX and total Lead analyses.

Project name: McNely

Project number: 1068

Date sampled: Mar 28, 1994

Date submitted: Mar 30, 1994

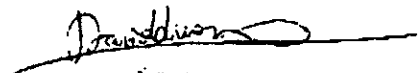
Date extracted: Mar 30-31, 1994

Date analyzed: Mar 30-31, 1994

## RESULTS:

SAMPLE I.D.	Lead (mg/Kg)	Gasoline (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylenes (ug/Kg)
EBE 8'	10	N.D.	N.D.	N.D.	N.D.	N.D.
EBW 8'	17	N.D.	N.D.	N.D.	N.D.	N.D.
STKP 1-2*	8.9	N.D.	N.D.	N.D.	N.D.	N.D.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	---	98.7%	79.9%	88.4%	91.7%	84.5%
Duplicate Spiked Recovery	---	93.6%	105.5%	88.3%	86.7%	76.2%
Detection limit	1.0	1.0	5.0	5.0	5.0	5.0
Method of Analysis	7420	5030/ 8015	8020	8020	8020	8020

\* composited soil sample .

  
David Duong  
Laboratory Director





# PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

March 31, 1994

PEL # 9403100

ALL ENVIRONMENTAL, INC.

Attn: Steve DeHope

Re: Five soil samples for Gasoline/BTEX and total Lead analyses.

Project name: McNely

Project number: 1068

Date sampled: Mar 28, 1994

Date submitted: Mar 30, 1994

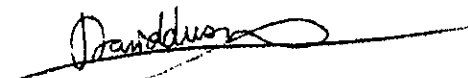
Date extracted: Mar 30-31, 1994

Date analyzed: Mar 30-31, 1994

## RESULTS:

SAMPLE I.D.	Lead (mg/Kg)	Gasoline (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylenes (ug/Kg)
EBE 8'	10	N.D.	N.D.	N.D.	N.D.	N.D.
EBW 8'	17	N.D.	N.D.	N.D.	N.D.	N.D.
STKP 1-2*	8.9	N.D.	N.D.	N.D.	N.D.	N.D.
HBN 9'	8.5	110	2100	2500	1800	5300
HBW 9'	7.4	190	1100	3700	2900	8100
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	---	98.7%	79.9%	88.4%	91.7%	84.5%
Duplicate Spiked Recovery	---	93.6%	105.5%	88.3%	86.7%	76.2%
Detection limit	1.0	1.0	5.0	5.0	5.0	5.0
Method of Analysis	7420	5030/ 8015	8020	8020	8020	8020

\* composited soil sample .

  
David Duong  
Laboratory Director

**Priority Environmental Labs**

1764 Houret Court  
Milpitas, CA 95035  
(408) 946-9636

1764 Houret Ct. Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

PEL # 9403100

INV # 24620

**Chain of Custody**

DATE: 3/28/94 PAGE: 1 OF: 1

PROJECT MANAGER: STEVE PENSIORN  
COMPANY: ALL ENVIRONMENTAL, INC.  
ADDRESS: 2641 CROW CANYON RD., # 5  
SAN RAMON, CA 94583  
PHONE: (510) 838-3224  
FAX: (510) 838-2687

SIGNATURE: *L.P. Pensiorn*

**ANALYSIS REPORT**

**SAMPLE ID DATE TIME MATRIX LOCATION**

SAMPLE ID	DATE	TIME	MATRIX	LOCATION
EBE 8'	3/28/94		S	
EBW 9'	3/28/94		S	
HBW 9'	3/28/94		S	
HBN 9'	3/28/94		S	
STKP 1-2	3/28/94		S	

TPH - Gasoline (EPA 5030.8015)	TPH - Coal Tar (EPA 5030.8015) w/ BTEX (EPA 602.8020)	TPH - Diesel (EPA 3510/3550.8015)	PURGEABLE AROMATICS BITX (EPA 602.8020)	TOTAL OIL & GREASE (EPA 5520 I&T)	PESTICIDES/PCB (EPA 608.8080)	TOTAL RECOVERABLE HYDROCARBONS EPA 418.1	TOTAL LEAD (CAA)	NUMBER OF CONTAINERS
X	X	X	X	X	X	X	X	1
X	X	X	X	X	X	X	X	1
X	X	X	X	X	X	X	X	1
X	X	X	X	X	X	X	X	1
X	X	X	X	X	X	X	X	1

**PROJECT INFORMATION**

PROJECT NAME: MUNELY  
PROJECT NUMBER: 1068

INSTRUCTIONS & COMMENTS: Composite STKP 1-2

TOTAL # OF CONTAINERS: 6  
RECD. GOOD COND /COLD

**RELINQUISHED BY:**

*L.P. Pensiorn*  
SIGNATURE: \_\_\_\_\_ Date: 3/29  
STEVE PENSIORN  
NAME: AEI  
COMPANY: \_\_\_\_\_

**RECEIVED BY:**

*[Signature]*  
SIGNATURE: \_\_\_\_\_ Date: 3/30/94  
NAME: \_\_\_\_\_ Time: 8:20  
COMPANY: PEL

**RELINQUISHED BY:**

SIGNATURE: \_\_\_\_\_ Date: \_\_\_\_\_  
NAME: \_\_\_\_\_ Time: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

**RECEIVED BY:**

SIGNATURE: \_\_\_\_\_ Date: \_\_\_\_\_  
NAME: \_\_\_\_\_ Time: \_\_\_\_\_  
COMPANY: \_\_\_\_\_