



HORIZON ENVIRONMENTAL, INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

ENVIRONMENTAL
PROTECTION

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March 11, 1996

Ms. Eva Chu
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Subject: Transmittal of Work Plan
Winner Ford, 1650 Park Street, Alameda, California.

Ms. Chu:

At the request of Ms. Michelle Nokes of Winner Ford, Horizon Environmental Inc. (Horizon) is transmitting to you this Work Plan dated March 8, 1996 for the above-referenced site. This Work Plan is for your review and comment prior to performing the proposed work.

Please call us at 916-939-2170 should you have any questions regarding this site.

Sincerely,
Horizon Environmental Inc.

Gary D. Barker
Senior Project Manager

enclosure: Work Plan for Subsurface Investigation

cc: Ms. Michelle Nokes, Winner Ford



HORIZON ENVIRONMENTAL INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

WORK PLAN FOR A SUBSURFACE INVESTIGATION

at

Winner Ford
1650 Park Street
Alameda, California

for

Michelle Nokes
Winner Ford
1650 Park Street
Alameda, California 94501

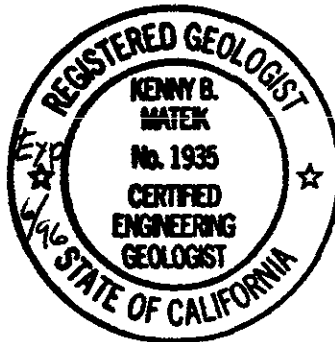
by

Horizon Environmental Inc.

Work Plan No. 3002.11

Gary D. Barker

Senior Project Manager
REA-00868



Kenny B. Mateik
Registered Geologist
C.E.G. 1935

March 8, 1996

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- B: HORIZON ENVIRONMENTAL INC. FIELD METHODS AND PROCEDURES



HORIZON ENVIRONMENTAL INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

WORK PLAN FOR A SUBSURFACE INVESTIGATION

at

**Winner Ford
1650 Park Street
Alameda, California**

For Winner Ford

INTRODUCTION

At the request of Winner Ford, Horizon Environmental Inc. (Horizon) has prepared this work plan to conduct a subsurface investigation at the Winner Ford facility located in Alameda, California. This work plan was prepared as a response to the Alameda County Health Care Services Agency (ACHCSA) letter dated October 23, 1995. A copy of the letter is included in Attachment A. The purpose of this investigation is to evaluate for the presence and further delineate petroleum hydrocarbons in soil and groundwater at the site. Results obtained during this investigation will be used to evaluate whether future subsurface investigations will be needed at the subject site.

The scope of work to be performed includes: Obtaining necessary encroachment permits from the City of Alameda, well permits from Zone 7 Water Agency; preparing a site safety plan and scheduling drilling, drilling borings MW-1 and MW-2 and installing groundwater monitoring wells in those borings, developing and sampling the wells, hand augering and soil

sampling beneath the former dispenser island, and preparing a report which presents field procedures, results, and conclusions regarding this work performed at the site.

The scope of work described in this work plan is intended to comply with the State of California Water Resources Control Board's *Leaking Underground Fuel Tanks (LUFT) Manual*, the Regional Water Quality Control Board (RWQCB) *Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sites*, and the ACHCSA guidelines. Horizon Environmental Inc. Field Methods and Procedures are included in Attachment B of this work plan.

SITE DESCRIPTION AND BACKGROUND

Winner Ford is currently used as an automobile dealership and showroom located on the southeastern corner of the intersection of Park Street and Buena Vista Avenue in Alameda, California, as shown on the Site Vicinity Map (Figure 1). The site is approximately 0.4 miles south of the Oakland Inner Harbor and approximately 1 mile north of San Leandro Bay. The site is located within a primarily commercial and residential area of Alameda. Site facilities include a building which encloses offices, an automobile showroom, and an automobile storage warehouse. The remaining portion of the property is used to store automobiles. The site is primarily asphalt paved with some areas of concrete. The former gasoline UST was located beneath the sidewalk between the main building and Buena Vista Avenue, and the former waste-oil UST was located beneath the sidewalk between the main building and Park Street. Locations of these facilities and other pertinent site features are shown on the Site Plan (Figure 2). The waste-oil UST had not been used since the commencement of Winner

Fords Lease in 1986. The gasoline UST was last used by Winner Ford in 1993 and was precision tested in January 1994, at which time it was certified tight.

In August 1995, Blymyer Engineers, Inc. (Blymyer) was present on the site to observe the removal of a 500-gallon single walled steel unleaded gasoline storage tank and a 100-gallon single walled steel waste-oil tank, and soil sampling related to removal the UST's, gasoline dispenser, and the associated product lines (Blymyer, November 22, 1995). Piping connecting a former sump drain to the waste-oil tank was removed during the waste-oil tank removal. Approximate locations of the former UST's are shown on Figure 2. The gasoline product lines were rinsed, grouted, and left in place. The pipeway to the concrete dispenser island was filled with concrete and the dispenser island was left in place. The soil samples collected and analyzed from the gasoline UST, gasoline dispenser, and product line removal indicated that soil containing gasoline hydrocarbons at a concentration of 7,100 parts per million (ppm) remained after excavation of the gasoline UST basin to a depth of approximately 8 feet below ground surface (bgs), and gasoline hydrocarbon concentrations of 46,000 ppm remained beneath the dispenser island at a depth of approximately 3 inches bgs. The soil samples collected and analyzed from the former waste-oil UST indicated that the soil containing total recoverable petroleum hydrocarbons (TRPH) at a concentration of 3,100 ppm remained after the excavation of the waste-oil UST basin to a depth of approximately 6.5 feet bgs. No total petroleum hydrocarbons as diesel (TPHd), volatile organic compounds (VOC's), or California Assessment Manual (CAM) 17 Metals exceeding 10 time their respective STLC or TCLP values were detected above the laboratory detection limits in any of the soil samples analyzed. The semi-volatile organic compounds (SVOC's) benzo (a) anthracene, chrysene, and pyrene, were detected in the soil sample collected at a depth of approximately 6.5 feet bgs from the waste-oil basin and contained reported concentrations of 330 parts per billion (ppb), 400 ppb, and 520 ppb, respectively. No other SVOC's were

detected at the laboratory detection limits (see Table 1). Blymyer reported that the soil type observed in the UST's basins to be clayey sand. Blymyer also reported that initial groundwater was encountered in the gasoline UST basin at a depth of approximately 9 feet beneath the site. The topographically inferred groundwater flow direction beneath the site and data obtained from adjacent sites is interpreted to be toward the north-northeast.

SCOPE OF WORK

then MWS proposed should be more N-NE of former tank pit!

To evaluate for the presence and further delineate petroleum hydrocarbons in soil and groundwater at the site, Horizon proposes to perform the following work scope:

Task 1 Obtain an encroachment permit from the City of Alameda and well permits from Zone 7 Water Agency, prepare a site safety plan, notify Underground Service Alert, and schedule contractors.

Task 2 Drill borings MW-1 and MW-2 in the street adjacent to the former gasoline and waste-oil tanks, respectively, at the proposed locations shown on Figure 2, and hand auger a boring to groundwater beneath the former dispenser island. The borings MW-1 and MW-2 will be drilled to an approximate depth of 20 feet bgs and the hand augered boring will be advanced to approximately 10 feet bgs. The soil samples collected from the hand-augered boring will be collected by driving a hand percussion sampler, equipped with a brass sample sleeve, into the native-undisturbed soil at the selected sampling depth. After removal of the soil sample from the hand sampler the soil will be handled as described for the other samples. Subsequent to the drilling of borings MW-1 and MW-2, a 2-inch inside

Site plan shows hand auger is next to dispenser island. It should be through former island to delineate vertical extent of soil contam.

diameter (ID) groundwater monitoring well will be constructed in each of the borings and slotted within the first water-bearing zone beneath the site. The hand augered boring will be backfilled with a cement/sand slurry to ground surface. A diagram of construction details for a typical monitoring well for this site is included this Work Plan (Figure 3).

During advancement of the borings, soil samples will be collected and subjectively analyzed using an OVM at 5-foot depth intervals, at obvious changes in soil type, and at areas of obvious petroleum hydrocarbon impact. Selected soil samples collected from each boring will be submitted for laboratory analysis at a State-certified laboratory. The selected soil samples collected from boring MW-1 and the hand augered boring will be analyzed by the laboratory for the presence of benzene, toluene, ethylbenzene, total xylenes (BTEX), and total petroleum hydrocarbons as gasoline (TPHg) using modified Environmental Protection Agency (EPA) Methods 5030/8015/8020. The selected soil samples collected from boring MW-2 will be analyzed for total oil and grease (TOG) using EPA method 5520 D&F. We are assuming the soil sample from each location will be the sample collected directly above the soil water interface or approximately 8 feet below surface grade. Chain of Custody protocol will be followed for all soil samples submitted for analysis.

and MBE if not analyzed before - yes

Drill cuttings from the borings and all waste water generated will be stored onsite. At the completion of drilling the soil stockpile will be sampled for characterization for subsequent disposal. The stockpile will be placed on

and covered with plastic pending disposal. After receipt of the stockpile analytical results the soil will be removed for proper disposal or recycling.

Task 3

Measure well locations and elevations to mean sea level datum. Additionally, groundwater elevation data will be collected from a groundwater monitoring well located on the adjacent property (1630 Park Street) to be used for groundwater gradient interpretation for this site. The wells MW-1 and MW-2 will be developed and sampled in accordance with Horizon's Field Protocol included in Appendix B. The water samples collected from the wells during sampling will be submitted for laboratory analyses for TPHg and BTEX using modified EPA Methods 5030/8015/602, and for TOG using EPA Methods 5520 C&F. Chain of Custody protocol will be followed for all water samples submitted for analysis.

Task 4

Prepare and submit a report detailing field methods, results, and conclusions of the investigation.

DISTRIBUTION

A copy of this work plan should be forwarded to:

Ms. Eva Chu
Alameda County Health Care Services Agency
Department of Environmental Health
Hazardous Materials Program
1131 Harbor Bay Parkway
Alameda, California 94502

Mr. Kevin Graves
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

REFERENCES

Blymyer Engineers, Inc., November 22, 1995, Underground Storage Tank Closure, 1650
Park Street, Alameda, California. BEI Job No. 95048

TABLE 1
SUMMARY OF ANALYTICAL RESULTS¹
Winner Ford
Alameda, California

Sample No.	Depth Feet	TPHg PPM	B PPM	T PPM	E PPM	X PPM	TRPH PPM	TPHd PPM
Soil								
GT-S1-8	8	ND	ND	ND	ND	ND	NA	NA
GT-S2-8	8	130	ND	1.7	1.6	5.5	NA	NA
GT-S3-8	8	150	ND	1.8	1.6	5.6	NA	NA
GT-S4-8	8	7,100	36	410	150	500	NA	NA
GT-F-8	8	ND	ND	ND	ND	ND	NA	NA
GT-D-1	0.25	46,000	1,300	4,400	1,100	3,400	NA	NA
WOT-F-6.5	6.5	ND	ND	ND	ND	ND	3,100	ND
GT-SP-1	Stockpile	3,700	7.0	47	47	160	NA	NA
WOT-SP-1	Stockpile	ND	ND	ND	ND	ND	360	NA

Sample No.	Depth Feet	Benzo(a)Anthracene PPB	Chrysene PPB	Pyrene PPB
Soil				
WOT-F-6.5	6.5	330	400	520

Notes:TPHg = total petroleum hydrocarbons as gasoline

TRPH = total recoverable petroleum hydrocarbons

TPHd = total petroleum hydrocarbons as diesel

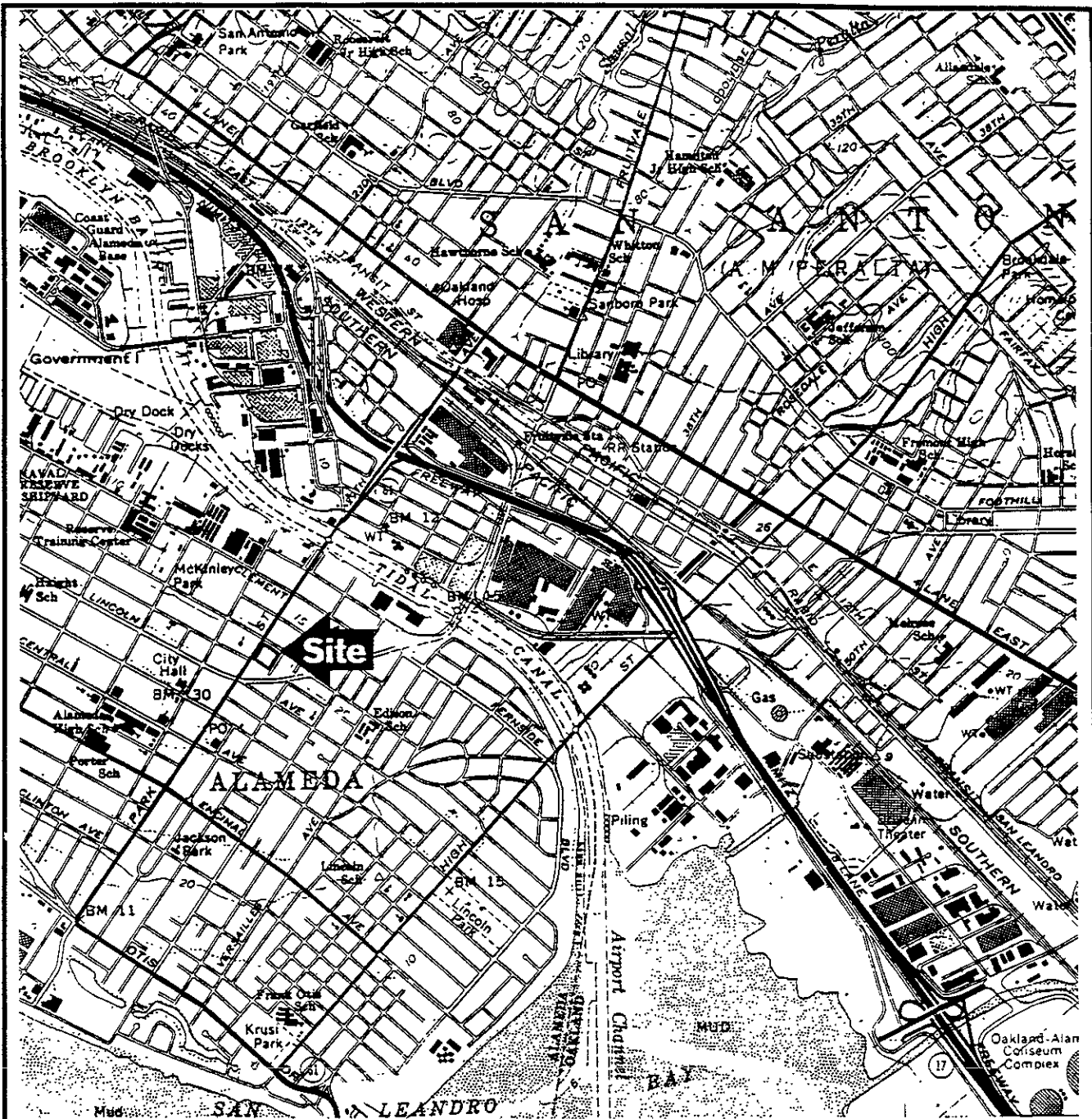
B = benzene, T= toluene, E= ethylbenzene, X= xylenes

PPM = parts per million, PPB = parts per billion

NA = not analyzed

ND = not detectable at the laboratory detection limit

¹ = All other laboratory analysis performed were either ND or did not exceed 10 times their respective STLC or TCLP (metals only).



QUADRANGLE LOCATION

Source USGS 7-1/2 Minute Topographic Map
 Oakland East, California
 Photorevised 1980



0 2,000 4,000



Approximate Scale in Feet



HORIZON ENVIRONMENTAL INC.

Project Number 300211
 Prepared By G Barker
 Reviewed By

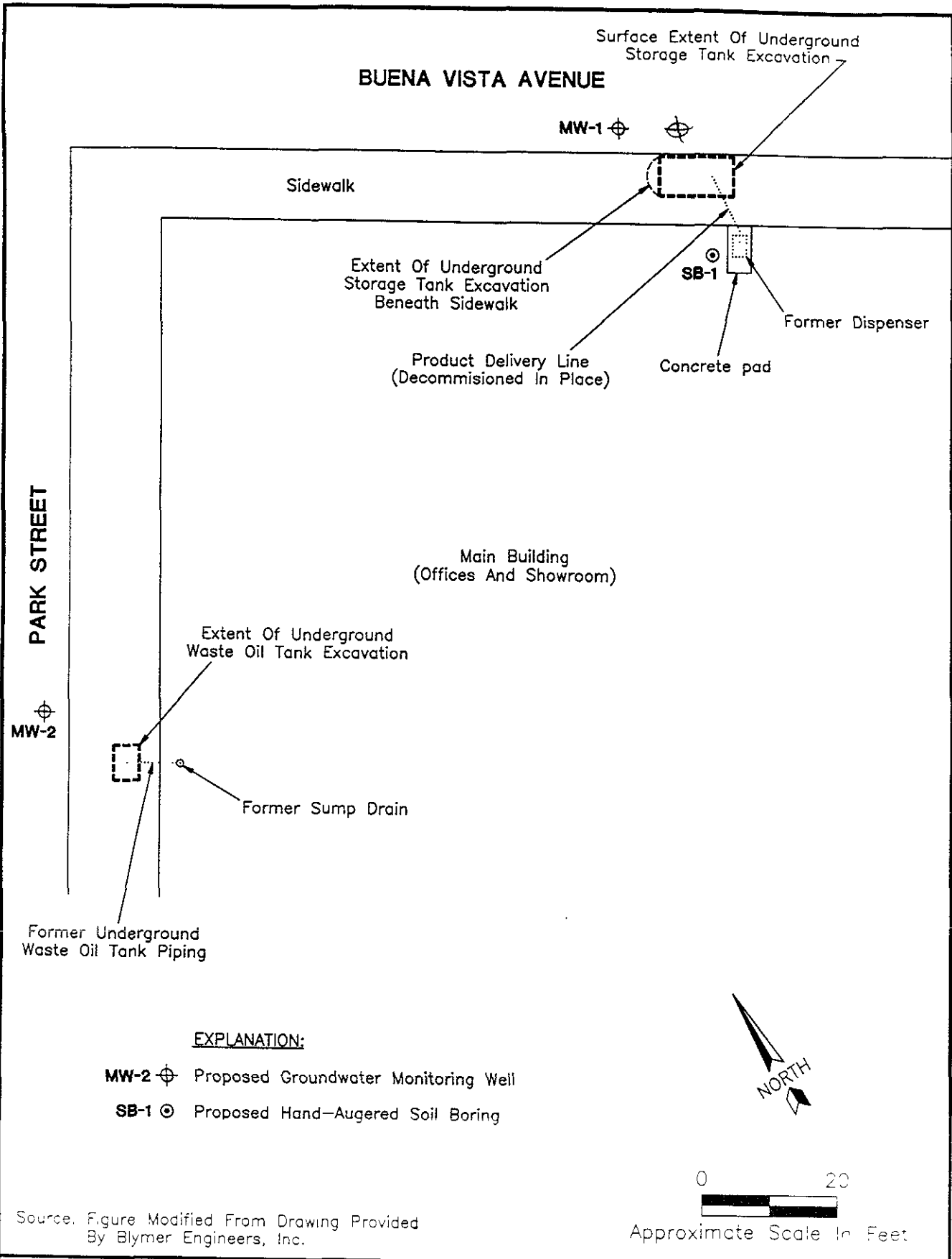
Drawn By D Aston
 Date 2/96
 Revised Date

SITE VICINITY MAP

WINNER FORD
 1650 PARK STREET
 ALAMEDA, CALIFORNIA

FIGURE

1




EXPLANATION:

- MW-2 ⊕ Proposed Groundwater Monitoring Well
- SB-1 ⊙ Proposed Hand-Augered Soil Boring

Source: Figure Modified From Drawing Provided By Blymer Engineers, Inc.

0 20
 Approximate Scale In Feet

 HORIZON ENVIRONMENTAL INC.		SITE PLAN WINNER FORD 1650 PARK STREET ALAMEDA, CALIFORNIA	FIGURE 2
Project Number: 3002.11 Prepared By: G. Barker Reviewed By:	Drawn By: D. Alston Date: 2/96 Revised Date:		

ATTACHMENT A

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700

StID 622

October 23, 1995

Ms. Julie Beck Ball
Beck Family Properties
2720 Broderick St
San Francisco, CA 94123

Ms. Michele Nokes
Winner Ford
1650 Park St
Alameda, CA 94501

RE: PSA for 1650 Park Street, Alameda 94501

Dear Ms. Ball and Ms. Nokes:

A 550 gallon gasoline and a 255 gallon waste oil underground storage tank (UST) were removed on August 10, 1995 from the above referenced site. Soil samples collected from native soil beneath the gasoline UST at 8' depth detected up to 7,100 parts per million total petroleum hydrocarbons as gasoline (ppm TPH-G) and 36 ppm benzene. Soil beneath the gasoline dispenser detected 46,000 ppm TPH-G and 1,300 ppm benzene. Soil from beneath the waste oil tank at 6.5' depth detected 3,100 ppm total oil and grease.

Clearly, an unauthorized release of fuel products have occurred from the use of the former USTs. At this time, additional investigations are required to delineate the extent and severity of soil and possibly groundwater contamination at the site. Such an investigation shall be in the form of a Preliminary Site Assessment, or PSA. The information gathered by the PSA will be used to determine an appropriate course of action to remediate the site, if deemed necessary. The PSA must be conducted in accordance with the RWQCB Staff Recommendations for the Initial Evaluation and Investigation of Underground Tanks, and Article 11 of Title 23, California Code of Regulations. The major elements of such an investigation are summarized in the attached Appendix A.

The PSA proposal is due within 45 days of the date of this letter. Once the proposal is approved, field work should commence within 60 days. A report must be submitted within 45 days after the completion of this phase of work at the site. Subsequent reports are to be submitted quarterly until this site qualifies for RWQCB "sign off." All reports and proposals must be submitted under seal of a California Registered Geologist, Certified Engineering Geologist, or Registered Civil Engineer

Ball and Nokes
re: 1650 Park Street, Alameda
October 23, 1995

Page 2

Please be advised that this is a formal request for technical reports pursuant to Title 23, CCR, Section 2722(c). Any extensions of the stated deadlines, or modifications of the required tasks, must be confirmed in writing by this agency.

Should you have any questions about the content of this letter, please contact me at (510) 567-6762.

Sincerely,



eva chu
Hazardous Materials Specialist

cc: files

Appendix A

Workplan for Initial Subsurface Investigation

In recent years, the number of initial site investigations related to unauthorized releases of fuel products has increased dramatically. To assure that the workplans associated with these investigations can be reviewed and approved in a timely manner, it is essential that these documents have uniform organization and content.

The purpose of this appendix is to present an outline to be followed by professional engineering or geologic consultants in preparing workplans to be submitted for review and approval by Local Implementing Agencies and the Regional Board.

A statement of qualifications and the registration number of the California registered engineer and/or California registered geologist responsible for the project must be included with the submitted workplan and subsequent reports.

This appendix should be used in conjunction with the "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites", August 1990.

PROPOSAL AND REPORT FORMAT

I. Introduction

A. Statement of Scope of Work

B. Site location

C. Background

D. Site History

1. Brief description of the type of business and associated activities that take place at the site, including the number and capacity of operating tanks.

2. Description of previous businesses at the site.

3. Complete description of tank activities, tank contents, and tank removal.

a. number of underground tanks, uses, etc...

(include the volume and construction material of each tank)

b. Date of tank removal and condition of tank upon removal.

c. Description of all waste removal, including copies of all manifests.

d. Filing status and copy of unauthorized release form, if not previously submitted.

e. previous tank testing results and date. Include discussion of inventory reconciliation methods and results for previous three years.

f. Estimate of the total quantity of product lost.

4. Other spill, leak, and accident history at the site, including any previously removed tanks.

5. Describe any previous subsurface work at the site or adjacent sites.

II. Site Description

A. Vicinity description and hydrogeologic setting.

B. Vicinity map (including wells located on-site or on adjoining lots, as well as any nearby surface water bodies (streams, ponds, etc...)).

C. Site map to include:

1. Adjacent streets.

2. Site building locations

3. Tank locations.

4. Island locations and piping to pumps from tanks.

5. Any known subsurface conduits, underground utilities, etc...

D. Existing soil contamination and excavation results.

1. Provide details of sampling procedures and methods used.

2. Indicate depth to groundwater, if encountered.

3. Describe soil types and soil strata encountered in excavation(s).

4. Provide in tabular form the analytic results of all previous soil and water sampling. The location of these samples should be included on the site map. The date sampled, the identity of the sampler, and signed laboratory data sheets need to be included. The laboratory data sheets must include the laboratory's assessment of the condition of samples upon receipt, including: a) temperature, b) container type, c) air bubbles present/absent in VOA bottles, d) proper preservation, and e) any other relevant information which might affect the analytic results of the sample(s).

5. Identify underground utilities.

6. Describe any unusual problems encountered during excavation or tank removal.

7. Describe in detail the methods used for storing, characterizing, and disposing of all contaminated soil and groundwater.

8. Reference all required permits, including those issued by the Air Quality Management District and local underground tank permitting agency and public encroachment permits when drilling offsite..

III. Plan for determining the extent of soil contamination on site.

A. Describe the method/technique(s) proposed for determining the extent of contamination within the excavation.

B. Describe sampling methods and procedures to be used.

1. If soil gas survey is planned, then:

a. Identify number of boreholes, location (on site map), sampling depth, etc...

b. Identify subcontractors, if any

c. Identify methods or techniques used for analysis

d. Provide quality assurance plan for field testing

Please note that soil gas surveys are not considered to

be a substitute for discrete soil samples from the excavation, borings, and/or wells, but is considered to be a screening tool only.

2. If soil borings are to be used to determine the extent of soil contamination, then:

- a. Identify number and location (on site map) of proposed borings
- b. Indicate anticipated depth of borings
- c. Describe soil classification system, soil sampling method and rationale for it's use
- d. Describe boring drilling method, including decontamination procedures.
- e. Describe boring abandonment method

C. Describe the method(s) and criteria used to screen soil for petroleum hydrocarbon contamination, including a complete description of procedures to be used for storing and disposal of any excavated soil. If on-site soil aeration is to be used to remediate soil, then a complete description of the treatment method is required:

1. Volume and rate of aeration/turning
2. Method of containment and cover
3. Wet weather contingency plans

Other on-site soil treatment methods (bioremediation, etc....) require approval by the Regional Board. Off-site storage or treatment requires permits issued by the Regional Board.

D. Describe security measures planned for excavated hole and contaminated soil (i.e., six foot fence surrounding excavation, spoil piles, ripped up piping, etc...).

IV. Plan for determining groundwater contamination

Construction and placement of wells should adhere to the requirements specified in "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites", August, 1990.

A. Placement of monitoring wells including rationale for their locations should be discussed. Their positions should be detailed on a scaled site map.

B. Drilling method for construction of monitoring wells, including decontamination procedures.

1. Expected depth and diameter of monitoring wells
2. Expected drilling date
3. Sampling method and sampling interval (split spoon, every 5', at changes of lithology, at the soil/water interface, etc...)
4. Well design and construction specifications, including casing type, diameter, screen length and interval, and filter pack and screen slot specifications including rationale for their selection (sieve analysis, etc..).
5. Depth interval and type of seal
6. Construction diagram for wells
7. Well development method and criteria used for assessing adequacy of development (the time period between construction, development, and sampling should be noted)
8. Plans for characterizing and disposing of cutting spoils and development water (contact your Regional Board or Local Implementing Agency for guidance if on-site disposal is proposed)
9. Surveying plan for wells (requirements include surveying to established benchmark to 0.01 foot).

C. groundwater sampling plans (this should include plans for sampling of on-site domestic wells).

1. Water level measurement method
2. Method(s) for measuring free-product, observation of sheen and odor (must be done prior to well purging; the use of an interface probe when checking for the presence of free-product is highly recommended)
3. Well purging procedures
4. Well purge water characterization and disposal plans
5. Water sample collection protocol (include the pH, conductivity, and temperature of groundwater prior to sampling)

ATTACHMENT B

Horizon Environmental, Inc.
FIELD METHODS AND PROCEDURES

The following section describes field procedures that will be utilized by Horizon Environmental Inc. (Horizon) personnel in performance of the tasks involved with this project.

1.0 HEALTH AND SAFETY PLAN

Field work performed by Horizon and subcontractors at the site will be conducted according to guidelines established in a Site Health and Safety Plan (SHSP). The SHSP is a document that describes the hazards that may be encountered in the field and specifies protective equipment, work procedures, and emergency information. A copy of the SHSP will be at the site and available for reference by appropriate parties during work at the site.

2.0 LOCATING UNDERGROUND UTILITIES

Prior to commencement of work on site, the location of underground utilities will be researched with the assistance of Underground Service Alert (USA). USA will contact the owners of the various utilities in the vicinity of the site to have the utility owners mark the locations of their underground utilities. Work associated with the boring and monitoring well installation will be preceded by manual hand augering to a minimum depth of 5 feet below grade to avoid contact with underground utilities.

3.0 SOIL BORING AND SOIL SAMPLING PROTOCOL

Soil borings and soil sampling will be performed under the supervision of a Horizon geologist. The soil borings will be advanced using a truck-mounted hollow-stem auger drilling rig.

To reduce the chances of cross-contamination between boreholes, downhole drilling equipment and sampling equipment will be steam-cleaned between each boring. To reduce cross-contamination between samples, the split-barrel sampler will be washed in a soap solution and double-rinsed between each sampling event.

Soil sampling will be conducted in accordance with ASTM 1586-84. Using this procedure, a split-barrel sampler (California-type sampler) lined with brass or stainless-steel sample tubes is driven into the soil at approximately 5-foot intervals by a 140-pound weight falling 30 inches. The number of blow counts required to advance the sample 18 inches will be recorded at each sample interval.

Upon recovery, a portion of the soil sample will be placed in a plastic bag and sealed for later screening with an hNu type organic vapor meter (OVM). Another portion of the soil sample will be used for classification and description. One of the samples will be sealed in the sample tube and stored at approximately 4°C for transport to the laboratory. After the soil sample is placed in the

plastic bag, it will be allowed to warm, inducing volatilization of petroleum hydrocarbon vapors. The headspace vapors will be screened with the OVM. The highest observed reading will be recorded.

4.0 GROUNDWATER DEPTH EVALUATION

Depth to groundwater will be measured to the nearest 0.01 foot using an electronic hand held water level indicator. The top of the probe will be examined to evaluate whether a product sheen is present.

5.0 MONITORING WELL DEVELOPMENT/PURGING AND SAMPLING

Following installation, the wells will be surged with a surge block to remove fines from the sand pack.

After surging, ten casing volumes of groundwater will be purged from each well using a bailer or centrifugal pump to remove sediment and enhance representative sample quality. Groundwater sampling events conducted after the initial well development and sampling event will be preceded by purging three to four well volumes as described above.

After the water levels within the wells stabilize to a minimum of 80%, a sample will be collected with a dedicated, clean, disposable plastic bailer. Samples will be contained in air-tight vials and then packed on ice and sent to the laboratory for analysis. Groundwater samples will be transported to the laboratory and analyzed within the EPA-specified holding time for requested analysis.

Each sample container submitted for analysis will have a label affixed to identify the job number, sample date, time of sample collection, and a sample number unique to that sample. Samples will be analyzed by a California-certified laboratory.

A chain-of-custody form will be used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples will be shipped, the person in custody of them relinquished the samples by signing the chain-of-custody form and noting the time. The sample control officer at the laboratory will verify sample integrity and confirm that it was collected in the proper container, preserved correctly, and that there is an adequate volume for analysis.

6.0 SURVEYING

The top of each new well riser will be measured to allow correlation of the groundwater levels at the site. The measured point on each well riser will be marked to help insure future groundwater level measurements are taken from the same location. Elevations will be surveyed relative to the arbitrary benchmark to the nearest 0.01-foot.