



Geo/Resource Consultants, Inc.
GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS

CORPORATE HEADQUARTERS:
851 HARRISON STREET
SAN FRANCISCO, CA 94107
TELEPHONE (415) 777-3177
FACSIMILE (415) 777-5623

REGIONAL OFFICES:
SAN FRANCISCO
SEATTLE
TUCSON/PHOENIX
WASHINGTON, D.C.

November 15, 1989
1516-00-0

Mr. Mike Golden
OFFICE OF THE STATE ARCHITECT
400 P Street, 5th Floor
Sacramento, CA 95801

Attention: Mr. Golden

**RE: WORK PLAN FOR PROPOSED PRELIMINARY SITE ASSESSMENT
DEPARTMENT OF TRANSPORTATION, HAYWARD MAINTENANCE STATION
2115 CENTER STREET, CASTRO VALLEY, CALIFORNIA**

Dear Mr. Golden:

We respectfully submit this Work Plan to conduct a Preliminary Site Assessment at the Department of Transportation, Hayward Maintenance Station for your review and comments.

GRC will procure the services of a drilling contractor upon the acceptance of the enclosed Work Plan. A well permit application and fee will be forwarded to your office after a drilling date is determined. Please feel free to contact the undersigned with any questions you might have regarding this project.

Sincerely,
GEO/RESOURCE CONSULTANTS, INC.

Eva E. Vanek
Project Hydrogeologist

Alvin K. Joe, Jr., C.E.G. #1066
President and C.E.O.

Gregory T. Carbullido, R.E.A.
Principal, Environmental Programs Division

cc: Mr. Rafat A. Shahid, Alameda County, HMD:
GRC Chron

SEP:tmc

226W: 1516-1

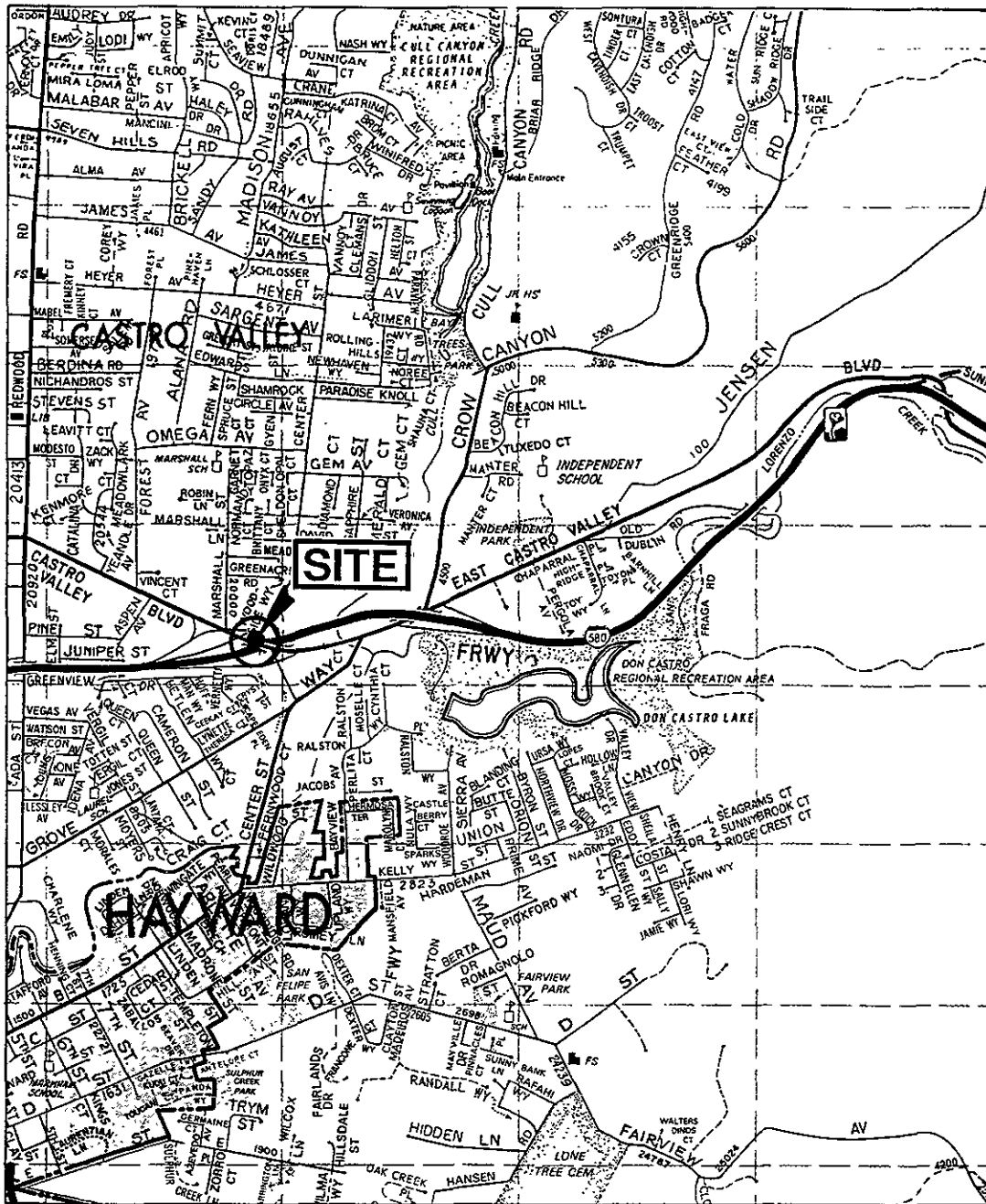
1.0 INTRODUCTION

Geo/Resource Consultants, Inc. (GRC) has been retained by the Office of the State Architect (OSA) to prepare a Work Plan for a Preliminary Site Assessment (PSA) at the Department of Transportation, Hayward Maintenance Station (HMS, See Figure 1). This Work Plan is based upon correspondence, available hydrogeologic literature and laboratory data supplied by the Office of State Architect (OSA).

2.0 SITE BACKGROUND

According to the data provided by the OSA, one 260-gallon diesel underground storage tank (UST) and one leaded gasoline UST were removed from the HMS on January 18, 1989. The tanks were located in the central portion of the aforementioned facility, north of the intersection of Center Street and Castro Valley Boulevard (See Figure 2). During the tank removal representatives of Placer Tractor Service, under the auspices of the Alameda County Department of Environmental Health (DEH), Division of Hazardous Materials, completed observations and collected soil samples from the UST pit vicinity for subsequent laboratory testing. The laboratory testing was performed by Alpha Analytical Laboratories Inc, of Ukiah, California (See Appendix A).

The laboratory test results from the soils collected indicated the presence of 2,100 micrograms per gram (ppm) total petroleum hydrocarbons as diesel (TPH - D) in a soil sample collected from the diesel tank excavation. Only 1.7 ppm gasoline was detected in one of the two soil samples collected from the gasoline tank excavation. Benzene, toluene, xylene and ethylbenzene (BTXE) were not present above laboratory detection limits (0.3 ppm) in



Reference: Thomas Brothers Map, 1979.



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SITE LOCATION MAP
HAYWARD MAINTENANCE STATION
CASTRO VALLEY, CALIFORNIA

FIGURE

1

Job No. 1516-000 Appr. [Signature] Date 11/14/89

any of the three soil samples submitted for EPA Method 8020 analyses. A letter addressed to Mr. Jack Giolitti of the Department of Transportation from Mr. Rafat Shahid of the DEH on February 28, 1989, indicated that the TPH level of 2,100 ppm had exceeded the action level of 100 ppm for a "confirmed release" (See Appendix B).

Furthermore, Mr. Shahid stated that a PSA "must be conducted at this site to determine the extent of soil and/or ground water contamination". GRC has been retained by OSA to perform the PSA for the Department of Transportation.

According to conversations with Mr. Kelvin Hickenbottom of the Alameda County Flood Control and Water Conservation District, and examination of the 7.5 Minute Hayward topographic map (U.S. Geological Survey, photo revised 1980), the underground tank site is located on Quaternary older alluvium deposits with ground water depths ranging from 21 to 24 feet below the ground surface. The regional ground water flow direction in the immediate vicinity of the site is toward the northwest.

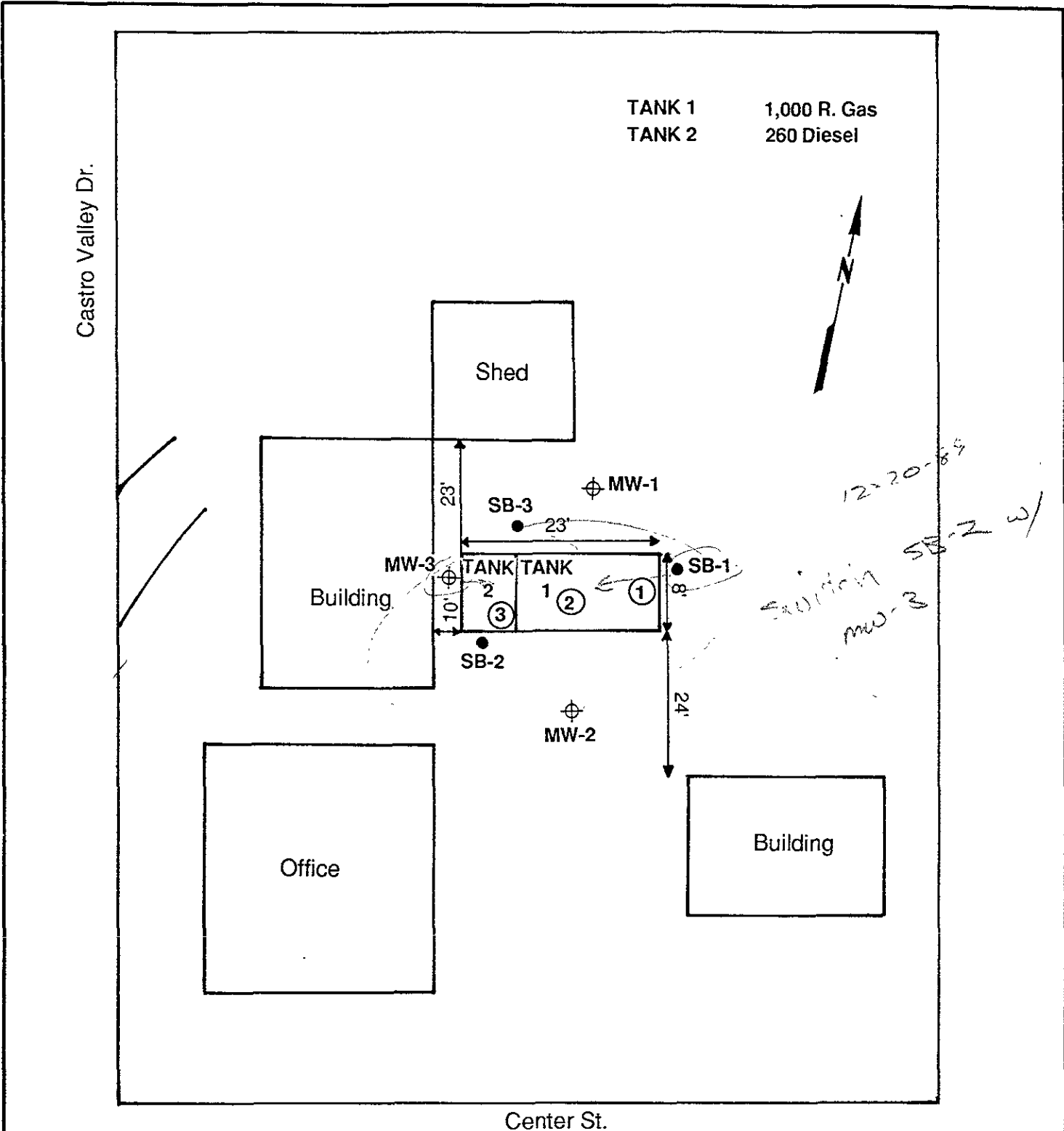
The Work Plan for the PSA of the HMS site is described below and will be implemented upon approval by the OSA and the DEH.

3.0 FIELD INVESTIGATION

3.1 Soil Borings

GRC proposes that six soil borings be drilled and sampled near the gasoline and diesel tank excavations. Based on conversations with Mr. Edgar Howell and Mr. Scott Seery of the DEH in August, 1989, the underground tank excavations are currently unfilled. (The locations of the six borings are shown on an idealized site sketch shown in Figure 2.)

For the purposes of this Work Plan, it is assumed, based on regional ground water information, that ground water occurs at approximate 25 feet below ground surface. Based on these conditions, GRC proposes that three of the six soil borings be



LEGEND:

- ① Previous Soil Sample
- SB-2 Proposed Boring Location
- ⊕ MW-3 Proposed Monitoring Well Location

Reference: Adapted from a sketch provided by the Office of State Architect, 1989
Not to scale

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SITE PLAN
 HAYWARD MAINTENANCE STATION
 CASTRO VALLEY, CALIFORNIA

FIGURE
 2

converted to ground water monitoring wells to be completed to 35 feet below ground surface (MW-1, MW-2 and MW-3). The remaining borings will be drilled to the top of the water table assumed to be approximately 25 feet below ground surface (SB-1, SB-2 and SB-3).

Soil samples will be collected in all six borings at every 5-foot interval and/or where significant lithologic changes occur. Soil samples will be collected in brass tubes, capped with aluminum foil, plastic caps and stored in an ice chest. The samples will be labeled and logged on a Chain-of-Custody Record. Soil cuttings and soil samples will be monitored with an on-site photoionization (HnU) meter to screen for the presence of volatile organics.

The soil borings will be continuously logged based upon drill cuttings and sample recovery. Soil boring logs will be reviewed and approved by a California Registered Geologist. Soil cuttings will be stored on site in 55-gallon DOT 17H drums until the method of disposal and transport is determined by the OSA. Borings will be filled with cement grout, provided that they will not be used for the construction of monitoring wells, on the date the borings are completed.

3.2 Ground Water Monitoring Well Installation

Three ground water monitoring wells will be installed in 8-inch diameter borings. Approximately 15-feet of screen will be installed at the bottom of each boring. The lower 10 feet of screen will be installed in the saturated zone. The upper 5 feet of screen will extend above the zone of saturation to enable sampling of floating product, if present.

The wells will be constructed with 2-inch diameter, Schedule 40 Polyvinyl Chloride (PVC) screen and blank casing. The screen slot width will be 0.020-inch. A screw cap (sediment trap) and slip cap will be installed at the base and top of the well, respectively.

Gravel pack will be tremied down the annular space of the borehole as the auger sections are removed. The gravel pack will consist of No. 3 size sand and will fill the annular space around the well to a depth of a few feet above the top of the screened interval. A 1-foot thick layer of bentonite pellets will be placed above the gravel pack. The remainder of the annular space will be filled with a cement/bentonite grout mixture.

The wells will be constructed such that the top of the well casing will be at approximately 6-inches below ground surface so that a below-ground well head vault and locking cap can be installed.

3.3 Well Development

Each ground water monitoring well will be developed in order to clean the well and stabilize the gravel pack around the screened interval to provide a hydraulic connection between the well and the aquifer materials. Well development will be performed by alternately surging and bailing. Well development shall continue until the well water is relatively free of turbid particulate matter. Development water will be stored on-site in 55-gallon DOT 17H drums until the disposal and transport method is determined by the OSA.

3.4 Ground Water Sampling

Following development, each ground water monitoring well will be allowed to equilibrate for a minimum of 12 hours prior to sampling. Initially, the wells will be checked for floating product by sampling with a clear, acrylic bailer. If floating product is present, product thickness will be recorded.

Prior to sampling for dissolved product, each well will be purged of approximately four well casing volumes to insure the collection of a representative ground water sample. The wells will be purged with a Teflon bailer. During purging, field parameters, including pH, conductivity, temperature and visual

appearance will be monitored. Purge water will be stored on-site until the method of disposal and transport is determined.

Ground water samples will be collected in a clean Teflon bailer and poured directly into 40 milliliter vials specifically designed to prevent loss of volatile constituents. No headspace will be present in the sample vials. Each sample will be labeled and logged on a Chain-of-Custody Record and stored in an ice chest.

3.5 Ground Surface and Water Level Elevations

The elevation of each ground water monitoring well will be surveyed to the nearest 0.01 inch by a professional surveyor with respect to mean sea level. Depth to water will be measured in each well to an accuracy of 0.01 inch. From these data, ground water elevations will be calculated.

3.6 Decontamination Procedures

Prior to drilling each borehole, the auger bit and sections will be steam cleaned to insure that cross-contamination between borings does not occur. Additionally, the sample barrel and all sampling equipment will be cleaned with Liquinox and rinsed with distilled water between each sampling interval. The bailer used for purging and ground water sampling will also be decontaminated with Liquinox and distilled water between each well.

4.0 CHEMICAL ANALYSES

4.1 Soil Analysis

Soil samples collected from each 5-foot interval in all four borings will be submitted for chemical analyses to Anametrix Inc., in San Jose, California. The samples will be delivered following the field investigative phase to the laboratory. Based upon the site investigation described above, it is anticipated that 24 soil samples will be submitted for chemical analyses. These analyses include:

Total petroleum hydrocarbons for diesel (TPH - D), in accordance with RWQCB, Leaking Underground Fuel Tank (LUFT) Manual Method.

Total petroleum hydrocarbons for gasoline (TPH - G), in accordance with RWQCB, Leaking Underground Fuel Tank (LUFT) Manual Method.

Benzene, toluene, xylene and ethylbenzene (BTXE), in accordance with EPA Method 8020.

In general, the analytical suite selected for each sample will be based on the proximity of the soil boring to the underground tank excavations. All of the samples to be collected from boring SB-1 will be submitted for TPH - G, TPH - D and BTXE. All of the samples to be collected from borings SB-2 and SB-3 will be submitted for TPH - D. Additionally, several samples collected from borings SB-2 and SB-3 will be selected for TPH - G and BTXE to "spot check" the presence of these constituents in the area of the diesel tank.

4.2 Ground Water Analysis

A total of three ground water samples will be collected from monitoring wells. The ground water samples will be analyzed for:

Total petroleum hydrocarbons for diesel (TPH - D), using RWQCB, Leaking Underground Fuel Tank (LUFT) Manual Method.

Total petroleum hydrocarbons for gasoline (TPH - G), using RWQCB, Leaking Underground Fuel Tank (LUFT) Manual Method.

Benzene, toluene, xylene and ethylbenzene (BTXE), in accordance with EPA Method 602.

4.3 QA/QC Analysis

Additionally, one duplicate water sample and one blank water sample will be submitted for laboratory analysis for Quality Assurance/Quality Control purposes. These samples will be tested for TPH - D and TPH - G in accordance with LUFT manual method as well as for BTXE in accordance with EPA Method 602.

5.0 DATA INTERPRETATION AND REPORT PREPARATION

Following the site investigation, GRC will interpret the data and prepare a report which describes field methodology, findings, interpretations and recommendations. The report will include a discussion of the site hydrogeology and assessment of contamination. Depth and elevations of ground water will be provided as well as local ground water direction and gradient. A hydrogeologic cross-section across the site will be constructed from data obtained during drilling.

Potential hydrocarbon contamination will be assessed according to guidelines set forth by the RWQCB and conversations with pertinent RWQCB personnel (LUFT Field Manual, May, 1988 and TRI Guidelines, June, 1988). Contour maps will be prepared that depict contaminant concentration contours and the vertical extent of contamination observed will be delineated on the hydrogeologic cross-section, if appropriate.

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Following the data interpretation, GRC will determine whether any remedial actions or further site investigations should be conducted at the HMS site. These recommendations will be in accordance with RWQCB references cited above.

6.0 SITE SAFETY PLAN

I. INVESTIGATION DESCRIPTION

Site: Department of Trans., Hayward Maintenance Station

Location: 21195 Center St., Castro Valley, California

Preparer: Eva Vanek

Proposed Date of Investigation: _____

Purpose/Objective: Determination of the presence of petroleum products in the subsurface soil and water.

Indicate which of the following information source(s) were consulted: State and/or Local Agency, State and/or Federal OSHA, NIOSH, EPA files, Site Operator and Local Fire Department.

TRI - Regional Guidelines - "Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks.

Overall Hazard Summary: Low: X High: _____
Medium: _____ Unknown: _____

II. SITE CHARACTERISTICS

- A. Facility Description: Auto and Truck maintenance station

- B. Hazardous Waste Description: Gasoline and Diesel

- C. Disposal/Storage Methods: Underground Storage Tanks

- D. Status: Active: X Inactive: _____ Unknown: _____
- E. History: (Include accidents or injuries on-site, complaints from public, previous agency reports): Two UST - removal January 18, 1989; 1 260 gal. diesel and 1 leaded gasoline tank. Lab results: 2,100 ppm TPH D (diesel tank), 1.7 ppm TPH G (gasoline tank) >0.3ppm BTXE for both tanks.
- F. Is personal protective equipment required by Facility/Site Management? List equipment and specific areas where required: Level D; Hardhat, Nitrile gloves

- G. Are employees working at the facility/site monitored for exposure to airborne contaminants? If so, describe the situation: No

H. Do employees working at the facility/site participate in an occupational medical monitoring program? If so, are special biological tests performed or Biologic Limit Values (BLVs) used? No

I. Is there an on-site emergency alarm system? If so, describe alarm: Not known.

III. HEALTH AND SAFETY CONSIDERATIONS

Hazard Assessment (Toxic effects, TLV, reactivity, stability, flammability, and operational hazards with sampling, decontamination, etc.):

Hazard Assessment

<u>Chemical</u>	<u>TWA</u>	<u>Reactivity</u>	<u>Flammability</u>
<u>Benzene</u>	<u>1 ppm</u>	<u>Oxidizers</u>	<u>Flash Pt.=12 F</u>
<u>Toluene</u>	<u>200 ppm</u>	<u>Strong Oxidizers</u>	<u>Flash Pt.=40 F</u>
<u>Xylene</u>	<u>100 ppm</u>	<u>Strong Oxidizers</u>	<u>Flash Pt.=</u> <u>63 - 77 F</u>
<u>Ethyl Benzene</u>	<u>100 ppm</u>	<u>Strong Oxidizers</u>	<u>Flash Pt.=64 F</u>

<u>Areas of Concern</u>	<u>Hazard Potential</u>	<u>Precautions</u>
<u>Explosion:</u>	<u>None</u>	<u>Underground Tank</u> <u>Removed</u>
<u>0 Deficiency:</u> <u>2 (e.g., Confined Spaces)</u>	<u>None</u>	
<u>Radiation:</u>	<u>None</u>	
<u>Toxic Gases:</u> <u>a. General: (HNU meter)</u> <u>b. Specific: (e.g. Sorbent or</u> <u>Detector Tube)</u>	<u>Low</u>	<u>HnU meter</u>
<u>Skin/Eye Contact:</u>	<u>Low</u>	<u>Nitrile Gloves</u>
<u>Heat Stress:</u>	<u>None</u>	
<u>Falling Objects:</u> <u>(e.g. stacked barrels, etc.)</u>	<u>None</u>	
<u>Falls:</u> <u>(e.g. pits, ponds, elevated</u> <u>work places, etc.)</u>	<u>None</u>	
<u>Confined Spaces:</u> <u>(e.g. manholes, vaults,</u> <u>closed rooms, trenches, etc.)</u>	<u>None</u>	

IV. WORK PLAN INSTRUCTIONS

Hazardous Waste Sampling and Field Investigations

A. Level of Protection: A _____ B _____ C _____ D X

Modifications: _____

Surveillance Equipment and Materials: HnU meter to detect hydrocarbons

B. Entry Procedures: N/A

C. Full Field Investigation and Decontamination Procedures:
Perimeter Establishment:

Zones of Contamination Identified: In proximity of preexisting underground tank

Public Perimeter Identified: No

Map/Sketch Attached: See Figure 3

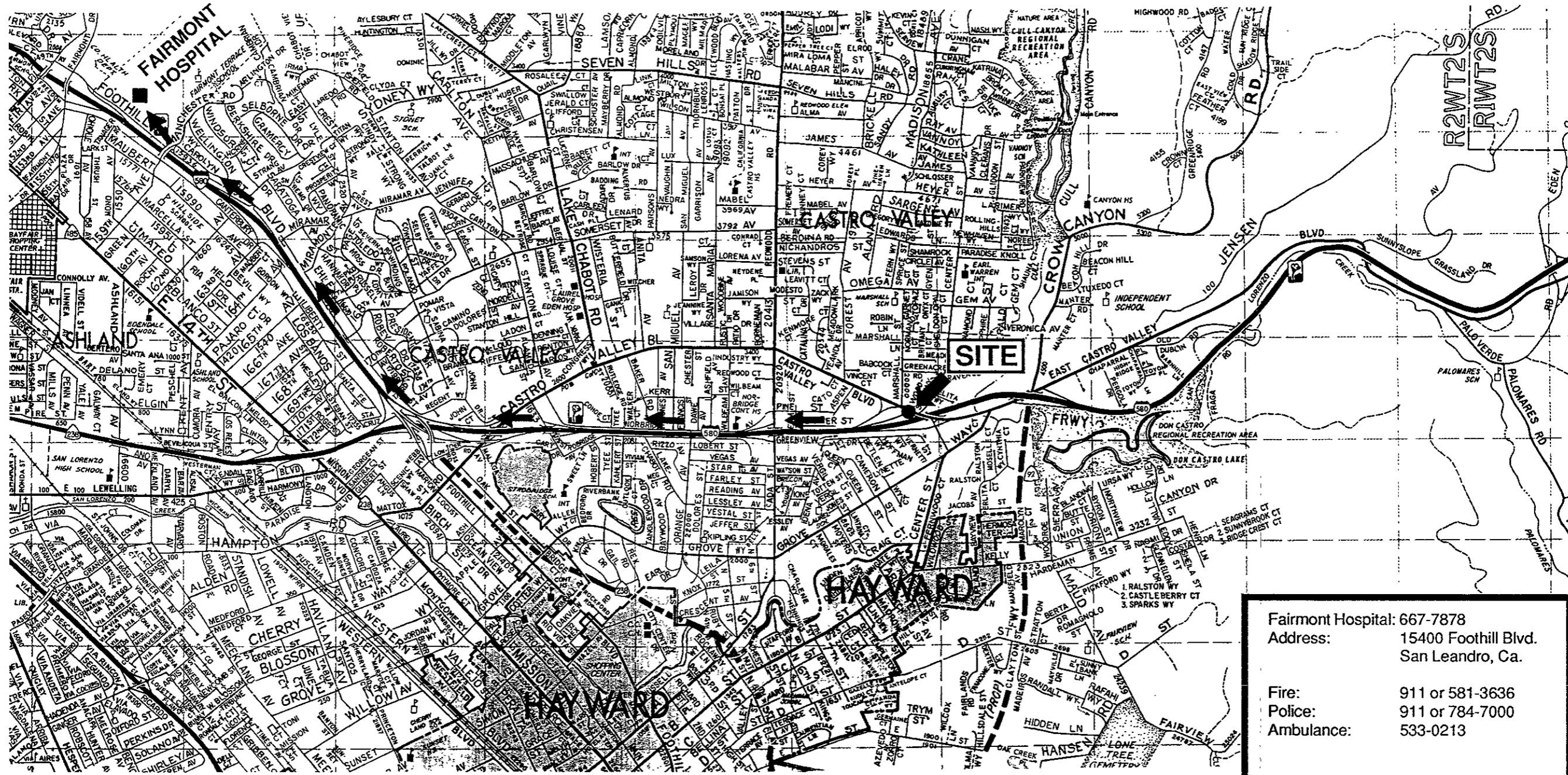
Notes: _____

Team Makeup: EPA _____ FIT _____ STATE _____ OTHER Consultant

	Health/ Safety	Recent Medical
Station Designation (Name/responsibility):	<u>Trained?</u>	<u>Exam?</u>

1. <u>Eva Vanek, Field Supervisor</u>	<u>Yes</u>	<u>11/88</u>
2. <u>Gregory T. Carbullido, Project Supv.</u>	<u>Yes</u>	<u>3/89</u>
3. _____	_____	_____

Work Schedule/Limitations: N/A

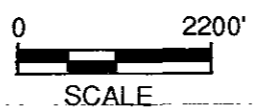



Fairmont Hospital: 667-7878
 Address: 15400 Foothill Blvd.
 San Leandro, Ca.

Fire: 911 or 581-3636
 Police: 911 or 784-7000
 Ambulance: 533-0213

Estimated Distance to Hospital: 4 miles
 Estimated Time of Arrival: 10 minutes

Reference: Thomas Bros. Maps, 1989



 <p>Geo/Resource Consultants, Inc. GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS 851 HARRISON STREET, SAN FRANCISCO, CALIFORNIA 94107</p>	<p>HOSPITAL ROUTE Hayward Maintenance Station Castro Valley, California</p>		<p>FIGURE 3</p>
	<p>Job No. 1516-000 Appr. <i>[Signature]</i> Date 11/14/89</p>		

Hot Line Location (initial): N/A

Command Post Location (initial): N/A

Equipment and Materials/Special Facilities: N/A

Decontamination procedures (contaminated protective-
clothing, instruments, equipment, etc.): Clean sampling
equipment with liquinox and rinse with distilled water.

Disposal Procedures (contaminated equipment, supplied,
disposal items, washwater, etc.): Segregate and dispose
of gloves, wash water, cleaning towels

V. EMERGENCY PRECAUTIONS

Acute Exposure Symptoms

<u>Agent</u>	<u>Symptom</u>	<u>First Aid</u>
<u>Benzene</u>	<u>Irritates Eyes, Nose, Nausea</u>	<u>Irrigate eyes, wash skin</u>
<u>Toluene</u>	<u>Fainting, Dizziness</u>	<u>Irrigate eyes wash skin</u>
<u>Xylene</u>	<u>Dizziness</u>	<u>Irrigate eyes, wash skin</u>
<u>Ethyl Benzene</u>	<u>Irritates Eyes</u>	<u>Irrigate eyes wash skin</u>

- A. Nearest Hospital Emergency Room. Note: for remote locations, give directions to hospital and attach map.

Name: Fairmont Hospital

Address: 15400 Foothill Blvd, San Leandro

Telephone: 667-7878

- B. Transportation (Telephone Numbers)

Fire: 911 or 581-3636

Police: 911 or 784-7000

Ambulance: 538-0213 Ambulance Service, Inc.

APPROVALS:

DATE

Safety Plan Prepared By: _____

Supervisor: _____

Health and Safety Officer: _____

APPENDIX A

Alpha

Alpha Analytical Laboratories Inc. • 860 Waugn Lane, # 1, Ukiah, California 95482
(707) 468-0401

CHEMICAL EXAMINATION REPORT

Placer Tractor Service
7290 Wells Ave.
Loomis, CA 95650
Attn: Lori Thomas

Date Sampled: 01/18/89
Time Sampled: 14:10
Sampled By: Lori Thomas
Date in Lab: 01/20/89
Sample Type: Soil

Page
1
GAS

95-0120-005 consisted of 4 Samples and 15 Tests

Sample 1 21195 Center Street - Castro Valley
Tank # 1 12'5" - East

	Method	Results	Units	MCL
TTH - Gasoline	LUFT	1.7	ug/g	1
Benzene	EPA 8020	ND	ug/g	.3
Toluene	EPA 8020	ND	ug/g	.3
xylenes	EPA 8020	ND	ug/g	.3
Ethylbenzene	EPA 8020	ND	ug/g	.3

See also Detection Limit

detected

Sample	Result	Method	Units	MCL	Notes
1	1.7	LUFT	ug/g	1	
2	ND	EPA 8020	ug/g	.3	
3	ND	EPA 8020	ug/g	.3	
4	ND	EPA 8020	ug/g	.3	
5	ND	EPA 8020	ug/g	.3	
6	ND	EPA 8020	ug/g	.3	
7	ND	EPA 8020	ug/g	.3	
8	ND	EPA 8020	ug/g	.3	
9	ND	EPA 8020	ug/g	.3	
10	ND	EPA 8020	ug/g	.3	
11	ND	EPA 8020	ug/g	.3	
12	ND	EPA 8020	ug/g	.3	
13	ND	EPA 8020	ug/g	.3	
14	ND	EPA 8020	ug/g	.3	
15	ND	EPA 8020	ug/g	.3	

ERNEST L. GOVE
Laboratory Director

Bruno Lora
Date Printed: 01/26/89

7-89 1111 9285 ALPHA ANALYTICAL LABS



Alpha

Alpha Analytical Laboratories Inc. • 860 Waugh Lane, H I., Ukiah, California 95482
(707) 468-0401

CHEMICAL EXAMINATION REPORT

Placer Tractor Service
7200 Wells Ave.
Loomis, CA 95650
Attn: Lori Thomas

Date Sampled: 01/18/89
Time Sampled: 14:19
Sampled By: Lori Thomas
Date in Lab: 01/20/89
Sample Type: Soil

Page
2

20 0120-003 consisted of 4 samples and 15 tests

Sample 2 21195 Center Street - Castro Valley
Tank # 1 12'5" - West

	Method	Results	Units	MSL
TEH - Gasoline				
Benzene	LUFT	ND	ug/g	1
Toluene	EPA 8020	ND	ug/g	.3
Xylenes	EPA 8020	ND	ug/g	.3
Ethylbenzene	EPA 8020	ND	ug/g	.3
	EPA 8020	ND	ug/g	.3

Alpha

Alpha Analytical Laboratories Inc. • 860 Waugh Lane, H-1 Ukiah, California 95482
(707) 468 0401

CHEMICAL EXAMINATION REPORT

Tractor Service
100 Wells Ave.
 Ukiah, CA 95650
Attn: Lori Thomas

Date Sampled: 01/18/89
Time Sampled: 14:25
Sampled By: Lori Thomas
Date in Lab: 01/20/89
Sample Type: Soil

Page 3
Diesel

Analysis consisted of 4 Samples and 15 Tests

Sample 3 21195 Center Street - Castro Valley
Tank # 2 6'11" - East

PH - Diesel
Benzene
Toluene
Xylenes
Ethylbenzene

Method	Results	Units	NO:
LUFT	2100	ug/g	10
EPA 8020	ND	ug/g	.3
EPA 8020	ND	ug/g	.3
EPA 8020	ND	ug/g	.3
EPA 8020	ND	ug/g	.3

Detection Limit AD - None Detected

Bruce L. Gove
Laboratory Director

Bruce L. Gove
Date Printed: 01/24/89

CHAIN OF CUSTODY RECORD

PROJ NO. PROJECT NAME 41-Trans-Hogwood P.O.# 1-18-89
Maintenance Station
2145 Center St
San Jose Valley, CA 94546

ANALYSES REQ'D
 TPH
 BTEX+E

SAMPLERS: (Signature)
John Thomas

SAMPLER ID	DATE	TIME	COMP.	GRAB	SAMPLE LOCATION	MEDIA	ANALYSES REQ'D	DETECTION LIMIT	TURN-AROUND TIME	SUSPECTED CONTAMINANT
1	1-18-89	2:00		X	TANK 1 12'5" East	Soil	X X	GAS	5 day	Yes
2	1-18-89	2:19		X	TANK 1 12'5" West	Soil	X X	GAS	5 day	Yes
3	1-18-89	2:25		X	Tank 2 6'11" East	Soil	X X	Diesel		

Clameda County Health
 Division of Hazardous Materials
 80 Swiss Alley, Room 200
 Oakland, CA 94612
 (415) 271-4300
 Attn: Lawrence Solo

Relinquished by: (Signature) <u>John Thomas</u>	Date / Time 1-19-89 1:34 PM	Received by: (Signature) <u>Derek Nelson</u>	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature) <u>Derek Nelson</u>	Date / Time 1-19-89	Received for Laboratory by: (Signature) <u>[Signature]</u>	Date / Time	Remarks	

101
 09 10 60

APPENDIX B

ALAMEDA COUNTY
HEALTH CARE SERVICESAGENCY
DAVID J. KEARS, DirectorDepartment of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

Telephone Number: (415) 271-4320

February 28, 1989

Mr. Jack Giolitti
Department of Transportation
1112 - 29th Avenue
Oakland, CA 94601

RECEIVED

MAR 4 6 1989

Dept. of Transportation
Special Assignment CrewsSUBJECT: RESULTS OF SOIL SAMPLE ANALYSES FOLLOWING TANK CLOSURES
AT 21195 CENTER STREET, CASTRO VALLEY, CA 94546

Dear Mr. Giolitti:

Our office is in receipt of the report of analytical results submitted by Alpha Analytical Laboratories, Inc. following soil sampling performed at the referenced facility during the removal of two (2) underground storage tanks (UST) on January 18, 1989. These laboratory results indicate that soil is contaminated at this site, denoted by concentrations of total petroleum hydrocarbon as diesel (TPH-D) up to 2100 parts per million (ppm).

According to the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) "Guidelines for Addressing Fuel Leaks," any soil containing greater than 100 ppm is considered a "confirmed release." Any soil containing greater than 1000 ppm must be excavated. Such soil may be aerated on-site to remove the contamination and then put back into the tank pit. The Bay Area Air Quality Management District (BAAQMD) must be contacted at (415) 771-6000 for specific permit requirements of such soil aeration. The soil may alternatively be removed and disposed of properly at an approved Class I disposal site.

Attached for your records is a copy of an "Underground Storage Tank Unauthorized Release Report Form" prepared by this department. Additional copies have been distributed to the required reporting agencies.

Due to the presence of TPH contamination above 100 ppm and consequent "confirmed release" status, a preliminary site assessment must be conducted at this site to determine the extent of soil and/or ground water contamination. The information gathered by this investigation will be used to determine whether additional actions are necessary at this site. The (preliminary site assessment) should be conducted in accordance with the RWQCB Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks. The elements of such an

Tank Closure
21195 Center St.
Castro Valley
February 28, 1989
Page 2 of 2

investigation are summarized in the attached Appendix A.

In order to proceed with a preliminary site investigation, you should obtain professional services from a reputable engineering/geotechnical consulting firm. The responsibility of your consultant is to submit for review a proposal outlining planned activities pertinent to meeting criteria outlined in Appendix A, as they apply to the site. Once the preliminary assessment has been completed, a technical report summarizing site related activities and conclusions must be submitted to this office and the RWQCB. All reports and proposals must be submitted under seal of a California-Certified Engineering Geologist, California-Registered Geologist, or California-Registered Civil Engineer.

This office will oversee the preliminary site assessment for the referenced site. This oversight will include the review and comment on work proposals, and technical guidance on appropriate investigative approaches. However, the issuance of monitoring well installation permits will be through Zone 7. The RWQCB will take over as lead agency if it is determined following the preliminary assessment that there has been an impact on groundwater.

Please submit a Preliminary Site Assessment proposal within 30 days of the receipt of this letter. A copy of this proposal should also be sent to the RWQCB (Attn: Lisa McCann) for their review. Also, please submit a completed copy of the manifest used for transport of the USTs off-site following closure.

If you have any questions, please call Scott Seery, Hazardous Materials Specialist, at 415/271-4320.

Sincerely,


Rafat A. Shahid, Chief
Hazardous Materials Division

RAS:SOS:mam

cc: Cody Begley, OSA
Howard Hatayama, Department of Health Services
Lisa McCann, RWQCB
Bob Bohman, Castro Valley Fire Department
Gil Jensen, Alameda County District Attorney, Consumer and
Environmental Protection Division
Scott Seery, Alameda County Hazardous Materials Division
Files



Geo/Resource Consultants, Inc.
GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS

CORPORATE HEADQUARTERS
851 HARRISON STREET
SAN FRANCISCO, CA 94107
TELEPHONE (415) 777-3177
FACSIMILE (415) 777-5623

REGIONAL OFFICES:
SAN FRANCISCO
SEATTLE
TUCSON/PHOENIX
WASHINGTON, D.C.

90 JAN -8 AM 10:46

~~January 5, 1990~~

1516-00-0

Mr. Scott Seery
ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, California 94621

RE: ADDENDUM TO PSA WORKPLAN FOR
DEPARTMENT OF TRANSPORTATION HAYWARD MAINTENANCE STATION
2115 CENTER STREET, CASTRO VALLEY, CALIFORNIA

Dear Mr. Seery,

This letter has been prepared in response to your review of the Preliminary Site Assessment Workplan prepared by Geo/Resource Consultants, Inc. (GRC) for the Hayward Maintenance Station in Castro Valley, California (Alameda County, Department of Public Health letter dated December 28, 1989). Our responses to your review have been prepared as an Addendum to the Workplan and are listed below:

- 1) As discussed during our telephone conversation of December 20, the location of one monitoring well (MW-3) will be altered such that it is installed through the backfill at Tank no. 2. Additionally, SB-1 will be re-located within the backfill at Tank no. 1 and MW-1 will be re-located eastward, in the presumed downgradient direction (See enclosed amended Figure 2);
- 2) A schematic well construction diagram is included within this Addendum (See Enclosure);
- 3) ~~Monitoring wells will be constructed under appropriate Zone 7 permits;~~
- 4) Groundwater sampling will not proceed prior to a 72-hour period following development;

234W: 1516-1

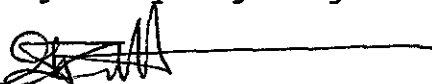
January 5, 1990
1516-00-0
Page 2 of 2

5) Soil analyses will be conducted on samples collected six borings rather than four, as stated in the Workplan. will be submitted for gasoline (TVH), diesel (TEH) and benzene, toluene, xylene and ethylbenzene (BTXE) analyses depending on their locations relative to the removed underground tanks.

Please feel free to contact us with any questions you might have regarding this Addendum.

Sincerely,
GEO/RESOURCE CONSULTANTS, INC.

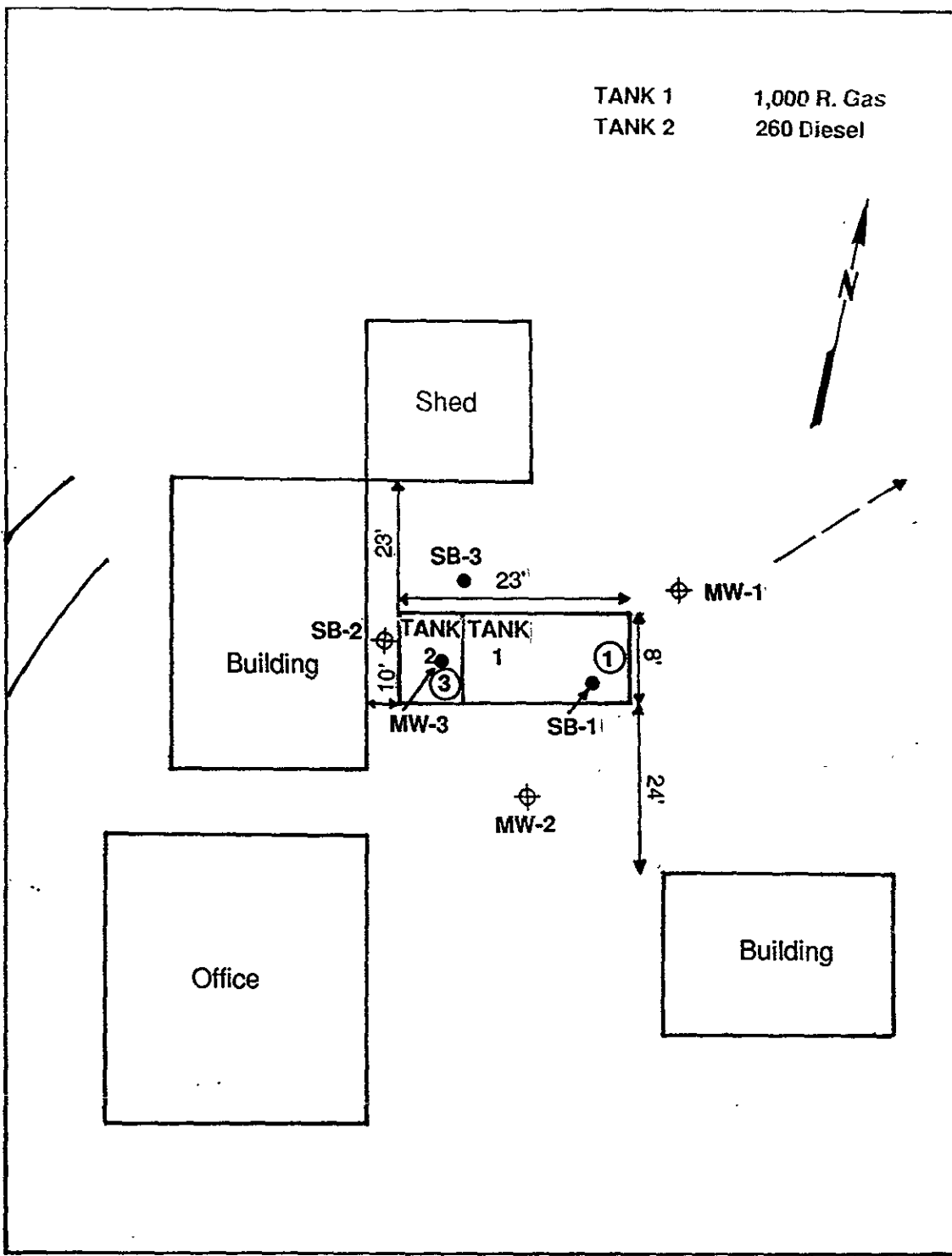

Eva Vanek
Project Hydrogeologist


Gregory T. Carbullido, R.E.A.
Principal, Environmental Programs Division

cc: Rafat A. Shahid, Assistant Agency Director, Alameda County
Department of Environmental Health
Mike Golden, Office of the State Architect
Lester Feldman, RWQCB
GRC Files

Castro Valley Dr.

TANK 1 1,000 R. Gas
TANK 2 260 Diesel



Center St.

LEGEND:

① Previous Soil Sample

SB-2 ● Proposed Boring Location

MW-3 ⊕ Proposed Monitoring Well Location

Reference: Adapted from a sketch provided by
the Office of State Architect, 1989
Not to scale



Geo/Resource Consultants, Inc.
GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS
851 HARRISON STREET, SAN FRANCISCO, CALIFORNIA 94107

SITE PLAN
HAYWARD MAINTENANCE STATION
CASTRO VALLEY, CALIFORNIA

FIGURE

2

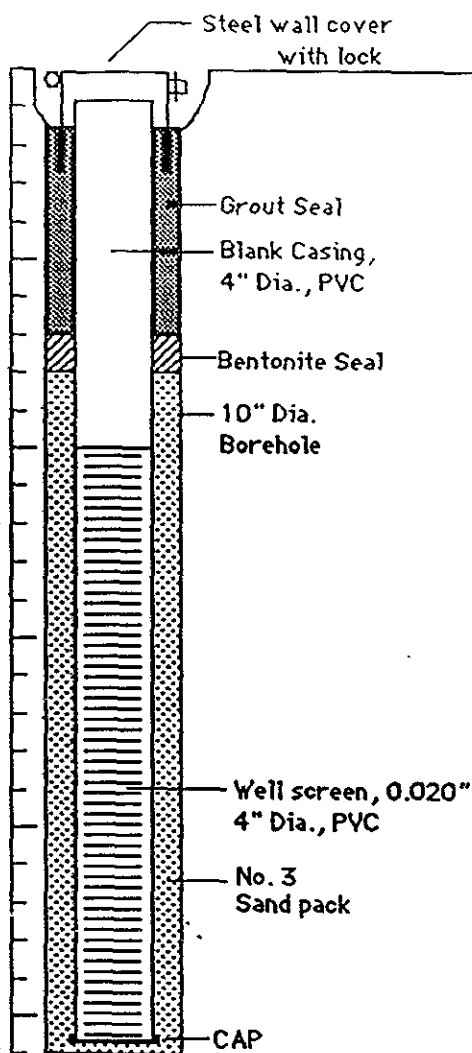
Job No. 1516-000 Appr. Date 11/14/89

LOG OF BORING MW-1B

Equipment rotary wash

Elevation 12.20 SF Datum Date 11/17/88

Well Installation Diagram



blows/ft.

16

Depth (ft.)

Sample pnts.

0
5
10
15
20

25
30
35
40

Asphalt - 2-3"
sand with gravel and brick fragments

BROWN SAND (SP)
loose; fine-grained
@ 5' - no sample recovery

@ 10' - slight black discoloration

▽
@ 16-17' drilling is rough
coarse-grained, angular sand
(metamorphic rock fragments)

Bottom of hole @ 26 ft.
GROUTED

Fill

Native

EXAMPLE



Geo/Resource Consultants, Inc.
Consulting Engineers, Geologists, Geophysicists

LOG OF BORING MW-1B

FIGURE

C3

Job No. **EXAMPLE** Appr: _____ Date _____