HAGEMAN-AGUIAR, INC.
Underground Contamination Investigations, Groundwater Consultants, Environmental Engineering

April 14, 1995

Jennifer Eberle
Alameda County Health Agency
Department of Environmental Health
80 Swan Way
Room 200

RE: Matheson Trucking
2500 Poplar Street, Oakland, CA

Dear Ms. Eberle:

Please find enclosed a copy of the "Proposed Workplan for Subsurface Investigation", by Hageman-Aguiar, Inc., dated April 12, 1995, for the above-referenced site.

If you have any questions, please contact me at (510)284-1661.

Sincerely,

Gary Aguiar
Principal Engineer

3732 Mt. Diablo Blvd. Suite 372 Lafayette, California 94549 (510) 284-1661 FAX (510) 284-1664

HAGEMAN-AGUIAR, INC.
Underground Contamination Investigations, Groundwater Consultants, Environmental Engineering

PROPOSED WORKPLAN
FOR
SUBSURFACE INVESTIGATION

MATHESON TRUCKING
2500 Poplar Street
Oakland, CA

April 12, 1995

3732 Mt. Diablo Blvd. Suite 372 Lafayette, California 94549 (510) 284-1661 FAX (510) 284-1664

TABLE OF CONTENTS

I. INTRODUCTION

The site location is the Matheson Trucking facility located at 2500 Poplar Street in Oakland, California. The location of the site is shown in Figure 1.

On August 2, 1994, three underground storage tanks were removed from the site by CNC Services of Antioch, California. The tanks consisted of one 1,000-gallon single-wall steel tank and two 4,000-gallon single-wall steel tanks. According to information presented in the Underground Tank Closure Plan, filed with the Alameda County Division of Hazardous Materials in July 1994, none of the three underground storage tanks had ever been used by Matheson since they became occupants of the property in 1972. It is assumed that the tanks had contained either Gasoline or Diesel fuel.

Larry James of the Oakland Fire Prevention Bureau and Jennifer Eberle of the Alameda County Environmental Health Department were present at the site during the tank removal project. At the time of the underground tank removals, CNC Services performed the required soil sampling activities. A copy of the "UST Closure Report" is included in Attachment A.

A map of the site showing the layout of the facility, along with the locations of the previous underground tank excavations are shown in Figure 2. At the time of removal, Diesel was found to be present in the native soil beneath the 4,000-gallon tank nearest to Poplar Street at a concentration of 44 mg/Kg (ppm). In addition, Gasoline was found to be present in the native soil at this same location at a concentration of 1,360 mg/Kg (ppm).

(max)

sample # 4 at 8'
~~1350 ppm TPH d in sample # 12 for SP~~

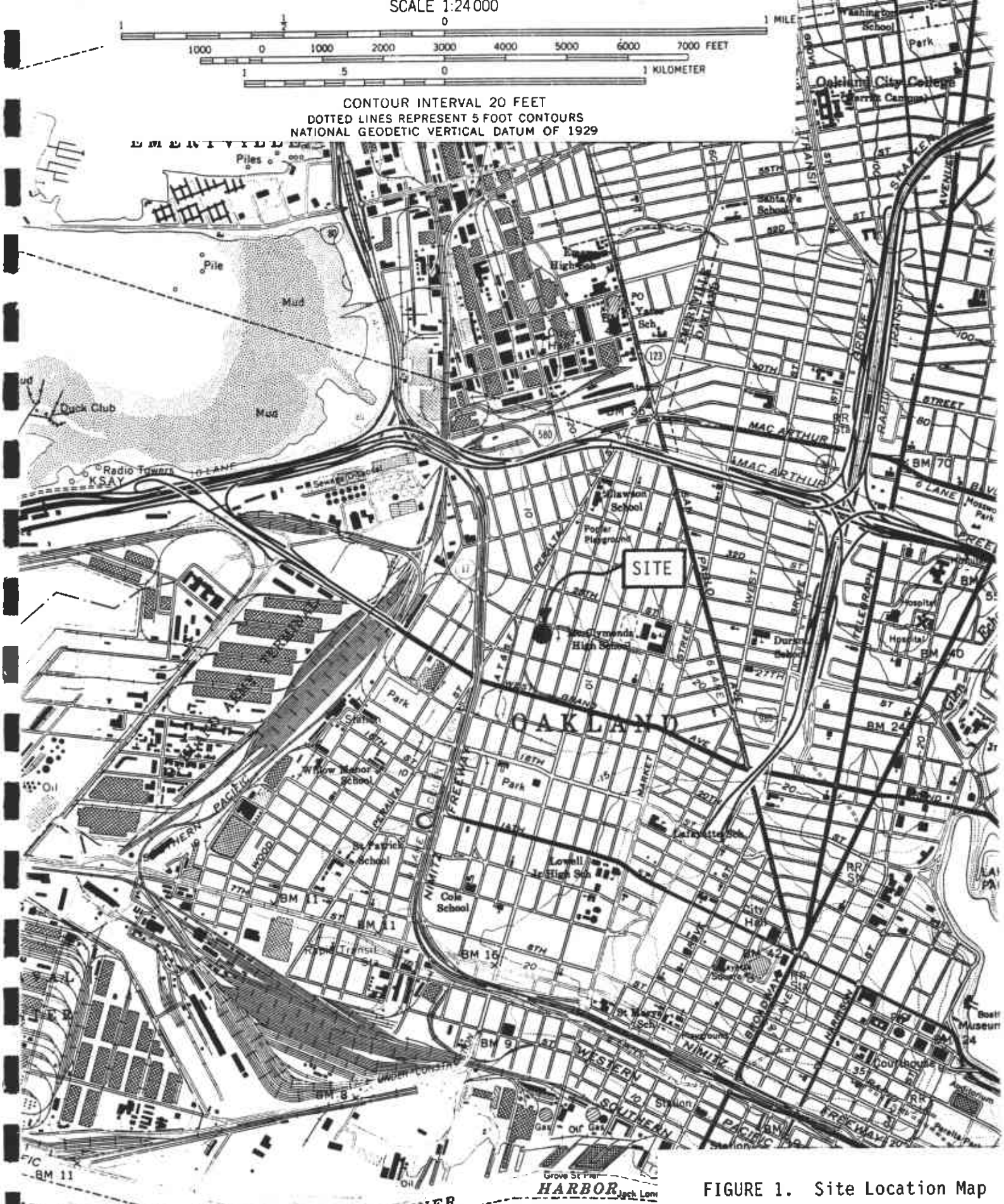


FIGURE 1. Site Location Map

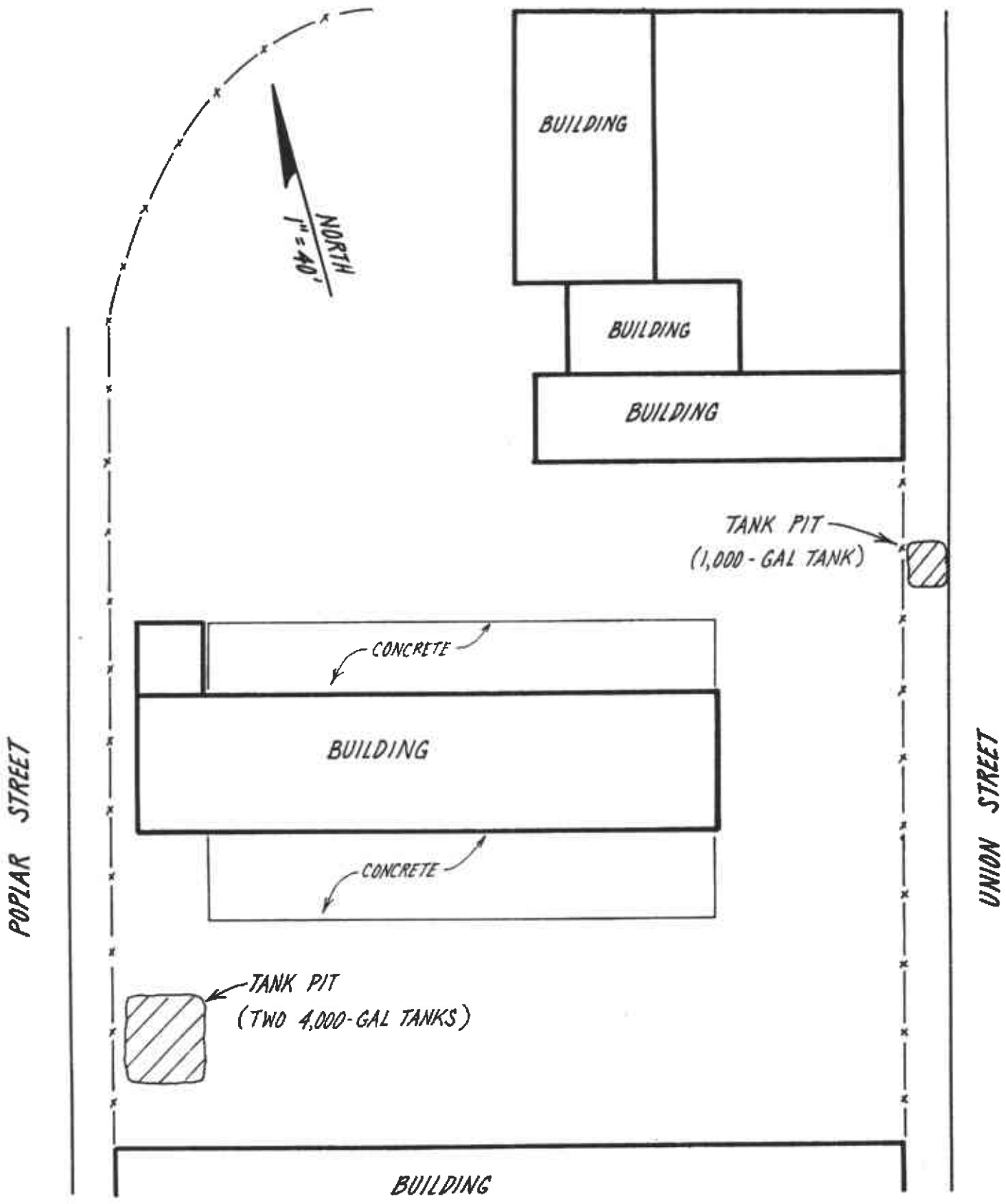


FIGURE 2.
Site Map.

Diesel was also found to be present in the native soil beneath the 1,000-gallon tank, located along Union Street, at a concentration of 22 mg/Kg (ppm), as well as Gasoline at a concentration of 550 mg/Kg (ppm).

max

(max)

But Union St. SP had 1,350 TPH-d
770 TPH-g.

II. SITE DESCRIPTION

Hydrogeologic Setting

A portion of a USGS topographic map showing surface features and local surface water drainage in the vicinity of the site can be seen in Figure 1. As shown on this map, this portion of West Oakland has a surface elevation of approximately 10 feet MSL. The site is approximately 1.25 miles east of the Oakland Outer Harbor, 1.75 miles north of the Oakland Inner Harbor, and approximately 6.0 miles west of the Berkeley Hills.

On this portion of the low-lying Bay Plain in close proximity to San Francisco Bay, the soils beneath the site can be expected to consist primarily of fine grain soils (silts and clays). The near surface soils are described as younger alluvium, mainly stream and channel deposits interbedded with beach and dune sand, and marine terrace deposits (Geologic Map of California, San Francisco Sheet, State of California Division of Mines and Geology, 1980). The majority of shallow groundwater movement occurs in the thin sand and gravel layers and/or "stringers". Bedrock is likely to occur at a depth of greater than 50 feet beneath the site.

Based upon the surface topography, as well as the various hydrologic features shown on the vicinity map, the general regional shallow groundwater can be expected to flow from the Berkeley Hills (area of groundwater recharge) and move westerly toward San Francisco Bay (area of discharge).

Although the placement of the proposed monitoring wells are based upon an assumption of groundwater flow direction to the

west, water level data from the three wells will determine the exact flow direction of the shallow groundwater beneath the site.

During the underground storage tank removal, shallow groundwater was encountered beneath the site at a depth of approximately 8 feet below ground surface.

Site Description

A map of the site is shown in Figure 2. This map shows the layout of the facility, along with the location of the previous tank excavations. At the present time, the majority of the site is unpaved, with the ground surface consisting of native soil and imported gravel. The former tank excavation locations remain open. Access onto the property is restricted by permanent perimeter fencing. Temporary chain link fences currently surround each tank pit.

III. EXTENT OF SOIL CONTAMINATION ON SITE

The analysis of soil samples collected during the underground storage tank removals indicated the presence of Diesel and Gasoline in the native soils at concentrations of up to 44 mg/kg (ppm) and 1,360 mg/Kg (ppm), respectively.

The plan for determining groundwater contamination, as discussed in Section IV of this workplan, provides for the analysis of all soil samples for 1) total petroleum hydrocarbons as Gasoline, 2) total extractable petroleum hydrocarbons as Diesel, and 3) Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX). An attempt will be made to determine the concentrations of any detectable hydrocarbons that may still be remaining in the native soil by sampling during the soil boring procedures. An attempt will also be made to correlate any new soil sampling data with those from the previous soil sample analyses.

IV. PLAN FOR DETERMINING GROUNDWATER CONTAMINATION

Placement of Monitoring Wells

The proposed locations of four shallow groundwater monitoring wells are shown in Figure 3. The proposed monitoring well locations have been selected based upon 1) known locations of soil contamination on-site, and 2) the expected shallow groundwater flow direction.

Permitting

Prior to the commencement of the monitoring well installations, a drilling permit will be obtained from Zone-7, Alameda County Flood Control and Water Conservation District.

Monitoring Well Installations

Each well will be installed with a truck-mounted drill rig using 8-inch hollow-stem augers. During the drilling, soil samples for chemical analyses will be collected at 5-foot intervals until the shallow water table is encountered at an expected depth of approximately 6 feet below the ground surface. Each soil sample will be collected by driving directly into the native soil below the augers with a 2-inch split-barrel sampler fitted with clean brass liners. All samples will be immediately placed on ice, then transported under chain-of-custody to the laboratory by the end of the work day.

Cap - Change sample

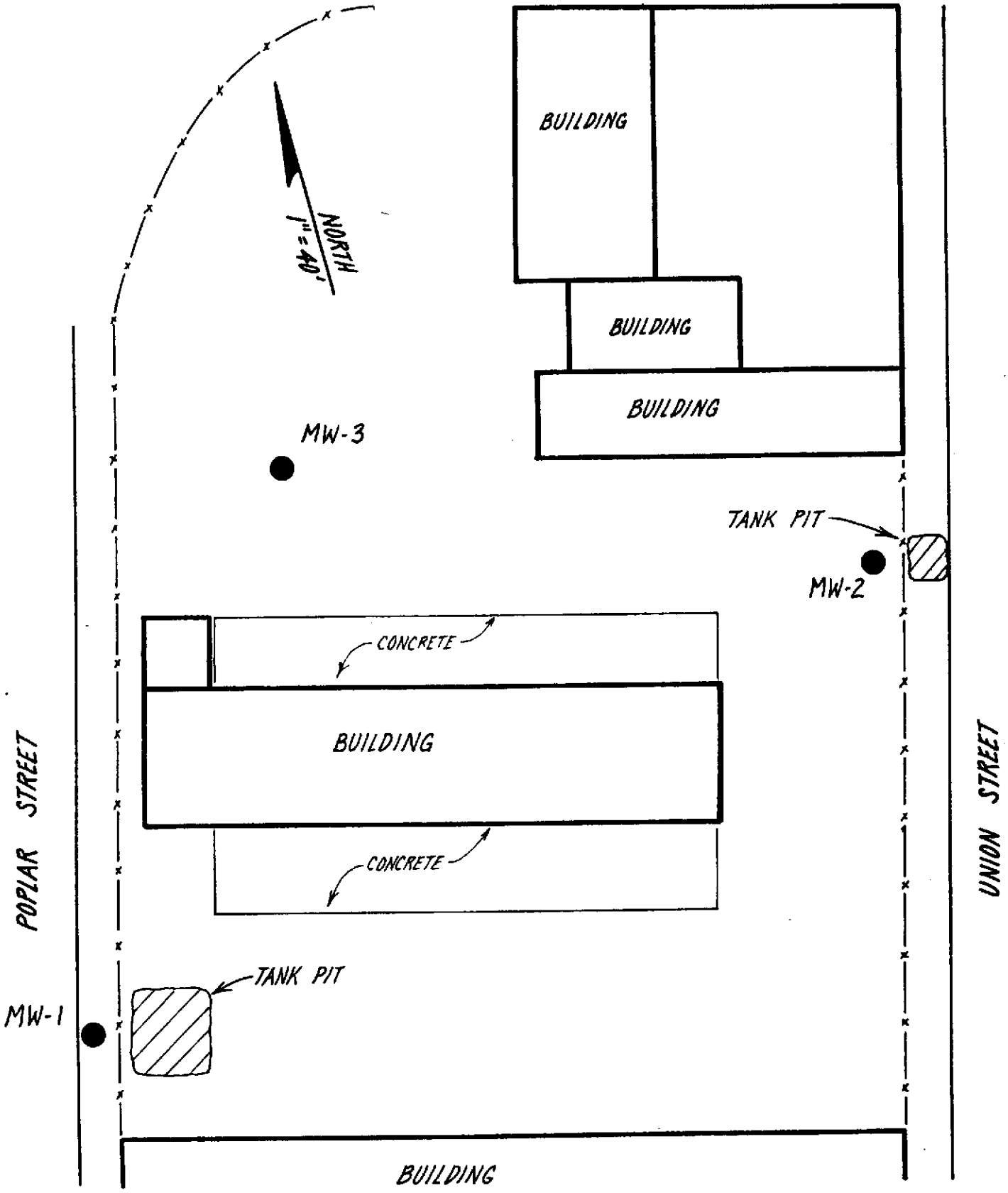


FIGURE 3.
Proposed Monitoring Well Locations.

The well borings will extend to approximately 10 feet below the shallow water table. Each well will be cased to approximately three to five feet above the shallow water table with 2-inch PVC slotted screen pipe (0.01" slots). The annular space of each well will be packed to one foot above the slotted section with #2/12 Monterey Sand.

At least one foot of wetted bentonite pellets will be placed upon the sand pack, followed by a neat cement/bentonite seal up to the ground surface. Each well will be fitted with a locking steel traffic lid. The borings will be logged in the field by Gary Aguiar, Registered Civil Engineer #34262. A typical Well Construction Diagram is shown in Figure 4.

Groundwater Sampling Plan

The development of the newly installed monitoring wells will not occur for at least 72 hours after construction. It is proposed that each well will be developed by removing water with a mechanical air-lift pump until the water is relatively clear, or until the apparent turbidity of the water being removed has stabilized. Typically, in addition to pumping, further development is achieved using a mechanical surge block and bailer.

Groundwater sampling shall not occur less than 24 hours after well development. Prior to groundwater sampling, all three monitoring wells will be purged by bailing 4 to 10 casing volumes of water. Field conductivity, temperature, and pH meters will be present on-site during the monitoring well sampling. As the purging process proceeds, these three parameters will be monitored. Purging must continue until readings appear to have reasonably stabilized. After the water level has attained 80% or more of the original static

MONITORING WELL

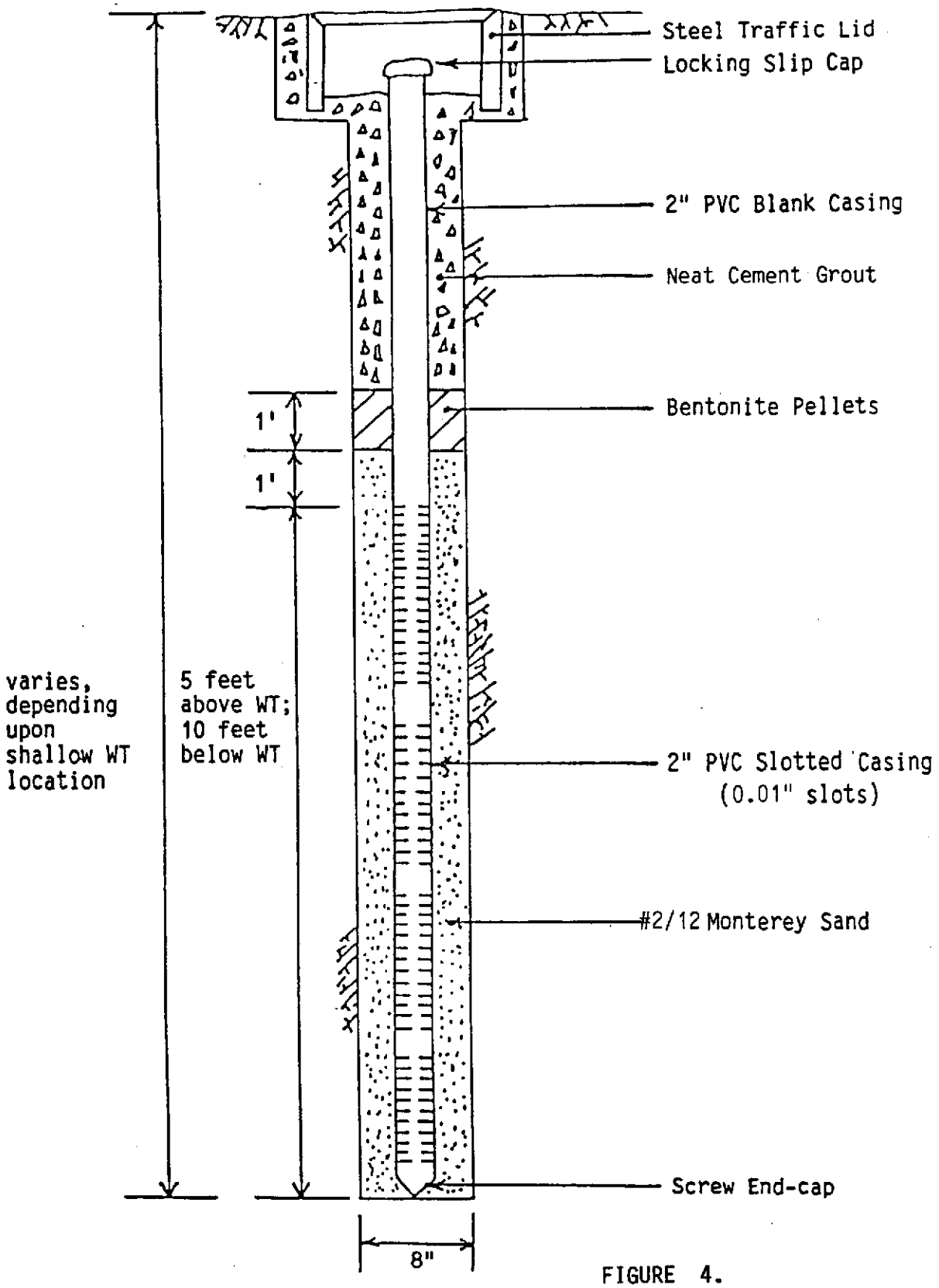


FIGURE 4.
Typical Well Construction.

water level in a particular monitoring well, a groundwater sample will be collected using a clean teflon bailer. The water sample will be placed inside appropriate 1-Liter amber bottles and 40 mL VOA vials free of any headspace. The samples will immediately be placed on crushed ice, then transported under chain-of-custody to the laboratory at the end of the work day.

At the time each monitoring well is sampled, the following information will be recorded in the field: 1) depth-to-water prior to purging, using an electrical well sounding tape, 2) identification of any floating product, sheen, or odor prior to purging, using a clear teflon bailer, 3) sample pH, 4) sample temperature, and 5) specific conductance of the sample.

Laboratory Analysis

All analyses will be conducted by a California State DOHS certified laboratory in accordance with EPA recommended procedures.

Soil samples will be analyzed for:

1) total petroleum hydrocarbons as Gasoline (EPA method 8015)

2) total extractable petroleum hydrocarbons as Diesel (EPA method 8015)

3) Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX) (EPA method 8020)

Groundwater samples will be analyzed for:

1) total petroleum hydrocarbons as Gasoline (EPA method 8015)

2) total extractable petroleum hydrocarbons as Diesel (EPA method 8015)

3) Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX) (EPA method 602)

Decontamination

All drilling equipment, including augers and drill stem, will be steam-cleaned prior to its use during drilling and sampling operations. All steam-cleaning will be conducted by Gregg Drilling at their permitted steam-cleaning facility located in Pacheco, California. All split barrel samplers, brass tubes, and other sampling equipment will be decontaminated by washing in a water & TSP solution, followed by a double water rinse.

Waste Generation

All drill cuttings will be stockpiled and stored on-site until the results of laboratory analyses are obtained. Depending upon these results, the cuttings may be 1) suitable for use on-site as clean fill material (non-hazardous waste), 2) transported to an appropriate Class III landfill as a special non-hazardous waste, or 3) transported as a hazardous waste under proper manifest to an appropriate TSD facility.

In the case of contaminated soil, it may be possible to remove residual volatile concentrations by aeration under permit from the Bay Area Air Quality Management District (BAAQMD), and thereby facilitate disposal as a non-hazardous waste.

All water removed from the wells during development and purging will be drummed and stored on-site until the results of laboratory analyses are obtained. Depending upon these results, it may be possible to sewer the water as a non-hazardous liquid waste in accordance with local sewering agency permit requirements, or else it must be transported as a hazardous liquid waste under proper manifest to an appropriate TSD facility for treatment and disposal.

The disposal of soil and wastewater is the responsibility of the property owner (waste generator), and is beyond the scope of the proposed work as described in this workplan.

Top-of-Casing Survey

In order to determine groundwater flow direction, the top-of-casing elevation at each monitoring well will be surveyed to within 0.01 feet Mean Sea Level (MSL) of an established City of Oakland or Alameda County bench mark.

V. REPORT

A report will be written that will provide a description of all field work, present the geologic log, and present all laboratory results. The report will include, but not be limited to, the following:

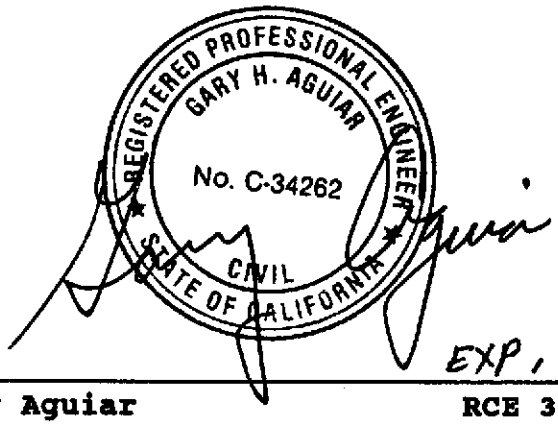
1) a map showing well locations and elevations.
2) soil and formation conditions.
3) geologic logs.
4) depths to groundwater.
5) shallow groundwater contour map.
6) report of presence of free product.
7) results of laboratory analyses.
8) contaminant plume definitions.
9) contaminant source identification.

VI. SITE SAFETY PLAN

A site-specific set of health and safety operating procedures for field investigations of underground spills of motor oil and petroleum distillate fuel is provided in Attachment B. In order to maintain a safe working environment for field personnel, a copy of these operating procedures will be kept on-site during the field operations, and will be followed in accordance with the magnitude of petroleum contamination encountered.

PROPOSED WORKPLAN FOR SUBSURFACE INVESTIGATION
MATHESON TRUCKING
2500 Poplar Street, Oakland, CA.

April 12, 1995



EXP, 9-30-95

Gary Aguiar **RCE 34262**

ATTACHMENT A

Background Data

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

Hazardous Materials Inspection Form

p1 of 2

II,III

Site ID # ____ Site Name Matheson Today Date 8/2/94

Site Address 2500 Poplar St.

City Oakland Zip 94607 Phone ____

____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:
____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
____ II. Business Plans, Acute Hazardous Materials
✓ III. Underground Tanks removal

II.A BUSINESS PLANS (Title 19)

__	1. Immediate Reporting	2703
__	2. Bus. Plan Stds.	25503(b)
__	3. RR Cons > 30 days	25503.7
__	4. Inventory Information	25504(a)
__	5. Inventory Complete	2730
__	6. Emergency Response	25504(b)
__	7. Training	25504(c)
__	8. Deficiency	25505(a)
__	9. Modification	25505(b)

II.B ACUTELY HAZ. MAT'LS

__	10. Registration Form Filed	25533(a)
__	11. Form Complete	25533(b)
__	12. RMPP Contents	25534(c)
__	13. Implement Sch. Req'd? (Y/N)	____
__	14. OffSite Conseq. Assess.	25524(c)
__	15. Probable Risk Assessment	25534(d)
__	16. Persons Responsible	25534(g)
__	17. Certification	25534(f)
__	18. Exemption Request? (Y/N)	25536(b)
__	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

__	1. Permit Application	25284 (H&S)
__	2. Pipeline Leak Detection	25292 (H&S)
__	3. Records Maintenance	2712
__	4. Release Report	2651
__	5. Closure Plans	2670

Monitoring for Existing Tanks

__ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tstng
8) Annual Tank Testing
Daily Inventory
9) Other ____

__	7. Precis Tank Test Date: ____	2643
__	8. Inventory Rec.	2644
__	9. Soil Testing.	2646
__	10. Ground Water.	2647

New Tanks

__	11. Monitor Plan	2632
__	12. Access. Secure	2634
__	13. Plans Submit Date: ____	2711
__	14. As Built Date: ____	2635

Rev 8/88

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

1:00 arrived onsite. Larry James of OFD.

Comments:

1:20 Removal of 1K gasoline (?) UST: sgl wall steel, no obvious holes; minor rust. Soil in pit has HC odor. Canary said UST had some water in it (rainwater from rain), but no product. Tank invert was 8'. 2:00 Dug to 10' bgs + took 2 samples. GW at 10½' bgs. See attached map.

2:40 Removal of 4K UST. There is one or 2 sizable holes (tank B). Tar wrap is almost gone. Liquid was leaking from the holes. GW in pit. Sgl wall steel UST.

2:55 Removal of 4K UST (tank A); tar wrap almost gone; otherwise both USTs were in good shape. Liquid began leaking from 2 holes after Canary hit it w/a sledge hammer. 11STs sent to H+H under manifest #93620543. 4K USTs' invert is at ~9½' bgs. GW is at ~9' bgs. Tar wrap has peeled off + is lying in the pit, + seems to be leaching into the GW.

II, III

Contact: Christopher Canary

Title: ____

Signature: Christopher Canary

Inspector: Jennifer Eberle

Signature: Jennifer Eberle

white -env.health
yellow -facility
pink -files

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Oakland, CA 94621
(415) 271-4320

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p.2 of 2

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II.A BUSINESS PLANS (Title 19)

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Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
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Annual tank tstng
8) Annual Tank Testing
Daily Inventory
9) Other ____

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New Tanks

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___	14. As Built Date: ____	2635

4:48

Rev 6/88

Comments:

3:30 Took samples from ends (walls) of 4K USTs. See attached map. Canary said the 4K USTs were weighted down w/a soft cement slurry, since they sat in gw. The 5 sides of the 4K USTs were also slurried, quite to the shape of the tanks (an "o" shape). This slurry was porous, & thus retained some contamination. We broke thru this layer prior to taking samples #5 & 6 (S end of USTs). All 6 soil samples (plus soil stockpile samples) will be analyzed for TPH-g, TPH-d & BTEX. Gw will be purged, then we'll sample the recharge. The tar wrap debris in the big pit should be removed prior to gw sampling.

Left site

II, III

Contact: ____

Title: ____ Inspector: Jennifer Eberle

Signature: [signature] Signature: [signature]

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

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  - One time soils
  - Annual tank test
- 4) Monthly Gndwater
  - One time soils
- 5) Daily Inventory
  - Annual tank testing
  - Cont pipe leak det
  - Vadose/gndwater mon.
- 6) Daily Inventory
  - Annual tank testing
  - Cont pipe leak det
- 7) Weekly Tank Gauge
  - Annual tank tstng
- 8) Annual Tank Testing
  - Daily Inventory
- 9) Other ____

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Rev 6/88

8:30 8:00 arrived onsite

Comments:

Mark Matheson & Chris Canary onsite. UNION ST. pit: took a water sample; to be analyzed for TPH-d, TPH-g & BTEX. (#1) Water has slight sheen, & is at ~8' bgs. Excavated NE end of pit 9:30 took NE wall sample at ~7' bgs; slight to no odor, clay green (soil #1). Definite HC odor from this. Waited for contractor to jumpstart backhoe

10:30 Began excavating POPLAR ST. pit, at former sample #4 (NE wall Tank A).

11:00 Took (soil #2) sample on NORTH corner of pit (see photo). Soil is green, slight to no odor, clay, at ~7' bgs. Gw is at ~8' bgs in this pit, & has brown oily sheen, after we ~~attempted~~ agitated it.

11:07 left site

Analyze #2 for TPH-g, -d & BTEX.

II, III

Contact: Christopher Canary

Title: ____

Signature: [signature]

Inspector: Jennifer Eberle

Signature: [signature]

UST CLOSURE REPORT

FOR

R. B. MATHESON TRUCKING, INC.
2500 POPLAR STREET
OAKLAND, CA

On August 2, 1994, at approximately 1:00 p.m. we commenced with removal of three Underground Storage Tanks, (UST), at 2500 Poplar Street, Oakland, CA. On site were Larry James of the Oakland Fire Department, Jennifer Eberle, Hazardous Materials Specialist, of the Alameda County Environmental Health Department and Christopher Canary, Licensed Contractor for R. B. Matheson Trucking, Inc.

The first tank, a 1,000 gallon capacity, single wall steel UST, was located below the sidewalk on Union Street, (see attached site map). Removal revealed no obvious penetrations in the UST and minor rust. The site was excavated to 10 feet below ground surface and two soil samples were taken. The first, Lab ID #76072-1, was taken at the North end of the excavation; lab results found it to have 22 ppm for diesel and 550 ppm for gasoline. The second, Lab ID #76071-2, was taken from the South end of the excavation; lab results did not detect any diesel or gasoline at the method detection limit, (MDL), cutoffs. Both soil samples were taken as instructed by Jennifer Eberle.

At approximately, 2:30 p.m., began removal of two 4,000 gallon capacity, single wall steel USTs. These were located side by side near the Poplar Street side of the property, (see attached site map). Removal of the East tank, designated as Tank B, revealed 1 or 2 one-half inch diameter holes in it. The West tank, designated as Tank A, was then removed.

Earlier the same day, both tanks had all pumpable liquids, approximately 700 gallons, removed by H & H Environmental Services under manifest #93620539 and disposed of at Gibson/Pilot in Redwood City, CA. Tank B now had liquid leaking from the holes and ground water was in the pit. Tar wrap was missing from both tanks and was found lying in the pit. It appeared to be leaching into the ground water in the pit. All USTs were inerted with dry ice and hauled away by H & H Environmental Services under manifest #93620543.

Soil samples were taken at the Poplar Street excavation at approximately 3:30 p.m. Sample number 3, Lab ID #76071-3, was

taken from the North end of the East tank, Tank B, at 8 feet deep. The lab result detected no diesel or gasoline ppm at the MDL. Sample number 4, Lab ID #76071-4, was taken at the North end of the West tank, Tank A, at 8 feet deep. The lab result revealed 44 ppm for diesel and 1,360 ppm for gasoline.

The USTs were weighted down with a soft cement slurry because they sat in ground water. This slurry was porous and retained some contamination. This slurry layer was broken through prior to taking soil samples number 5 and 6 in the South end of the excavation. Sample number 5, Lab ID #70071-5, was taken at 8 feet deep from the West tank, Tank A, and had a non-detectable result at the MDL for diesel and 1.3 ppm for gasoline. Sample number 6, Lab ID #76071-6, was taken at 8 feet deep in the South end of the East tank, Tank B, and had non-detectable results at the MDL for both diesel and gasoline.

From the time of excavation, all spoils were placed on plastic at the site and kept covered with plastic. Six samples were taken from this stockpile at 10 foot intervals and approximately 1 foot deep into the soil. These results are listed below:

Lab ID #	Diesel PPM	Gasoline PPM
76071-7	40.0	240.0
76071-8	7.2	5.2
76071-9	65.0	160.0
76071-10	16.0	150.0
76071-11	8.3	6.0
76071-12	1,350.0	770.0

As instructed by Jennifer Eberle, the ground water and tar wrap was removed from the East/West tank excavation, Tank A and B. The ground water was removed by H & H Environmental Services under manifest #93620611, and disposed of at Gibson/Pilot in Redwood City, CA, on August 12, 1994. The tar wrap was placed on plastic and remains on site. The pit was allowed to recharge and a water sample was then taken from this. The result of this sample, Lab ID #76106-1, was .14 ppb for diesel and 60 ppb for gasoline. This sample was also tested for BETX; results are non-detectable for Benzene and Ethyl-benzene, .60 for Toluene and 2.0 for Xylenes.

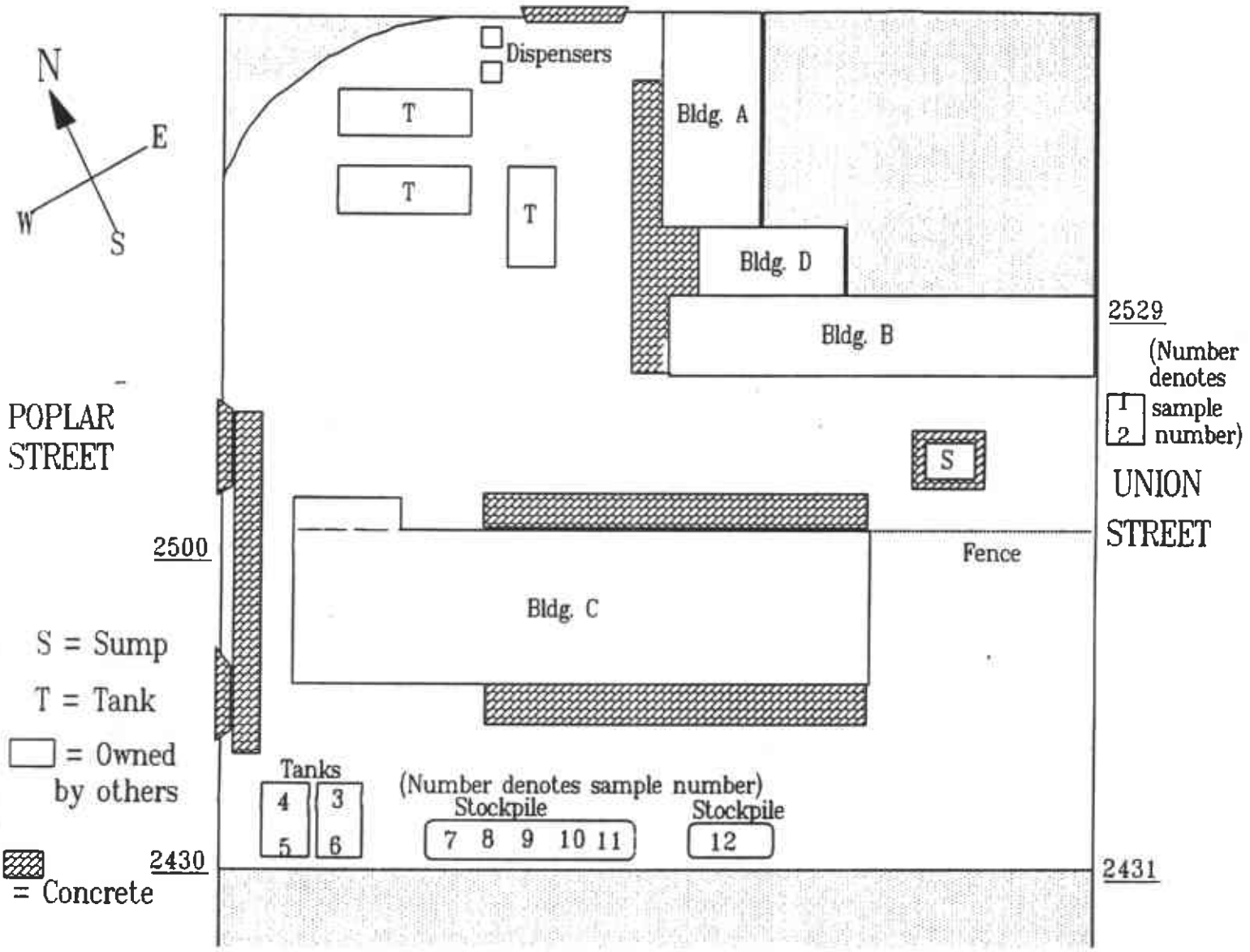
All samples, soil and water, were taken by Christopher Canary at the instruction of Jennifer Eberle. Lab results were reported by

Precision Analytical Laboratory, Inc., Richmond, CA. All Certificates of Analysis and associated paperwork accompanies this report. In addition, all hazardous waste shipping manifests are included for reference.

If you have any questions regarding this report, please do not hesitate to contact my office at (916) 686-4600 or by faxing to (916) 685-8875.

Sincerely,

Mark B. Matheson, Vice-President
R. B. Matheson Trucking, Inc.


N
E
W
S
Dispensers
T
T
T
Bldg. A
Bldg. D
Bldg. B
2529
(Number denotes sample number)
1
2
POPLAR STREET
S
UNION STREET
2500
Fence
Bldg. C
S = Sump
T = Tank
= Owned by others
Tanks
4
3
5
6
(Number denotes sample number)
Stockpile
7 8 9 10 11
Stockpile
12
2430
2431
= Concrete

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances C
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD982027373 | Manifest Document No. 20539 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
MATHESON POSTAL
2500 Poplar Street, Oakland, CA. 94607

4. Generator's Phone (510) 893-5404

A. State Manifest Document Number 93620539

B. State Generator's ID

5. Transporter 1 Company Name | 6. US EPA ID Number
H&H SHIP SERVICE COMPANY | CAD004771168

C. State Transporter's ID 2803

D. Transporter's Phone (415) 543-4835

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
GIBSON / PLEOT
475 Seaport Boulevard
Redwood City, CA. 94063

10. US EPA ID Number
CAD043260702

G. State Facility ID CAD043260702

H. Facility's Phone (415) 368-5511

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. RQ, HAZARDOUS WASTE LIQUID, N.O.S (BENZENE) 9, NA 3082, III (D018)	001	TT	00700	G
b.				
c.				
d.				

I. Waste No. D018

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
JOB #14744 RELEASE #16996
24 Hr. Emergency Contact: H&H#(415)543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name CHRISTOPHER N. CANARY | Signature | Month 08 Day 02 Year 94

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name ESTEBAN M. PENALVER | Signature | Month 08 Day 02 Year 94

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month | Day | Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name | Signature | Month | Day | Year

DO NOT WRITE BELOW THIS LINE.

Blue: GENERATOR SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 400, Sacramento, CA 95812-0400

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD982020737 | Manifest Document No. 00001 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
MATHESON POSTAL
2500 Poplar Street, Oakland, CA. 94607

4. Generator's Phone (510) 893-5404

A. State Manifest Document Number: 93620543

B. State Generator's ID:

5. Transporter 1 Company Name: H & H SHIP SERVICE COMPANY
6. US EPA ID Number: CAD004771168

C. State Transporter's ID: 428038

D. Transporter's Phone: (415) 543-4835

7. Transporter 2 Company Name:
8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
H & H SHIP SERVICE COMPANY
220 TERRY A. FRANCOIS STREET
SAN FRANCISCO, CA. 94107

10. US EPA ID Number: CAD004771168

G. State Facility's ID: CAD004771168

H. Facility's Phone: (415) 543-4835

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RESIDUE DIESEL TANKS NON-RCRA HAZARDOUS WASTE SOLID	002	TP	02500	P	State 512 EPA/Other
b. RESIDUE HEATING OIL TANK NON-RCRA HAZARDOUS WASTE SOLID	001	TP	01000	P	State 512 EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
EMPTY 2 500 and 500 gallon tanks last containing diesel and heating oil. Tanks inerted with dry ice for safe transport.
PROFILE #A4423

K. Handling Codes for Wastes Listed Above
a. 01 b. 01
c. d.

15. Special Handling Instructions and Additional Information
JOB #14745
24 Hr. Emergency Contact: H & H #(415) 543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: MARK MATHESON | Signature: Mark B | Month 08 Day 02 Year 94

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: ROBERT V. PETRUCCI | Signature: Robert V. Petrucci | Month 08 Day 02 Year 94

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: LOURDES B LOPEZ | Signature: Lourdes B Lopez | Month 08 Day 02 Year 94

DO NOT WRITE BELOW THIS LINE.

GENERATOR

TRANSPORTER

8022A (9/93)

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS.
(Generators who submit hazardous waste for transport out-of-state

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of Page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
CAD982020737	20611		

GENERATOR

3. Generator's Name and Mailing Address
MATHESON POSTAL
2500 Poplar Street, Oakland, CA. 94607

4. Generator's Phone (510) 893-5404

A. State Manifest Document Number: 93620611

B. State Generator's ID:

5. Transporter 1 Company Name: H&H SHIP SERVICE COMPANY

6. US EPA ID Number: CAD004771168

C. State Transporter's ID: 428050

D. Transporter's Phone: (415) 543-4835

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
GIBSON / PILOT
475 Seaport Boulevard
Redwood City, CA. 94063

10. US EPA ID Number: CAD041326070 2

G. State Facility's ID: CAD041326070 2

H. Facility's Phone: (415) 368-5511

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ. HAZARDOUS WASTE LIQUID, N.O.S (BENZENE) 9, NA 3082, III (D018)	001	TT	01200	G	State 223 EPA/Other D018
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above: FUEL, OIL AND WATER

K. Handling Codes for Wastes Listed Above: a. b. c. d.

15. Special Handling Instructions and Additional Information
JOB #14795 RELEASE #17104
24 Hr. Emergency Contact: H&H#(415)543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name	Signature	Month	Day	Year
JOHN BECK	John Beck	08	12	94

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
ESTEBAN M. PENALVER		08	12	94

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

CA 8022A (9/93)
8700—22

Yellow: GENERATOR RETAINS

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Attn: Paula Wiens
Matheson Trucking
P.O. Box 970
Elk Grove, CA 95759

Date Received: 08/02/94
Date Extracted: 08/10/94
Date Analyzed: 08/10/94
Date Reported: 08/12/94
Job #: 76071

Project: Matheson Trucking
2500 Poplar Street, Oakland
Matrix: Soil

Aromatic Volatile Hydrocarbon Analysis
EPA Method 8020
mg/Kg

Lab I.D.	Client I.D.	Benzene	MDL	Toluene	MDL
76071-1	UNION ST. #1	ND<0.06	0.06	0.60	0.06
76071-2	UNION ST. #2	ND<0.005	0.005	0.024	0.005
76071-3	EAST TANK #3	ND<0.005	0.005	0.042	0.005
76071-4	WEST TANK #4	ND<0.15	0.15	0.94	0.15
76071-5	EAST TANK #5	ND<0.005	0.005	0.007	0.005
76071-6	EAST TANK #6	ND<0.005	0.005	0.007	0.005

Lab I.D.	Client I.D.	Ethyl-benzene	MDL	Xylenes	MDL
76071-1	UNION ST. #1	0.53	0.06	0.53	0.06
76071-2	UNION ST. #2	ND<0.005	0.005	ND<0.005	0.005
76071-3	EAST TANK #3	ND<0.005	0.005	ND<0.005	0.005
76071-4	WEST TANK #4	ND<0.15	0.15	0.220	0.15
76071-5	EAST TANK #5	ND<0.005	0.005	ND<0.005	0.005
76071-6	EAST TANK #6	ND<0.005	0.005	ND<0.005	0.005

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/dwc

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

STATE LICENSE NO. 1150

Attn: Paula Wiens
Matheson Trucking
P.O. Box 970
Elk Grove, CA 95759

Date Received: 08/02/94
Date Extracted: 08/10/94
Date Analyzed: 08/10/94
Date Reported: 08/12/94
Job #: 76071

Project: Matheson Trucking
2500 Poplar Street, Oakland
Matrix: Soil

Aromatic Volatile Hydrocarbon Analysis
EPA Method 8020
mg/Kg

Lab I.D.	Client I.D.	Benzene	MDL	Toluene	MDL
76071-7	STOCK PILE #7	ND<0.005	0.005	ND<0.005	0.005
76071-8	STOCK PILE #8	ND<0.005	0.005	0.027	0.005
76071-9	STOCK PILE #9	ND<0.005	0.005	0.028	0.005
76071-10	STOCK PILE #10	ND<0.06	0.06	0.24	0.06
76071-11	STOCK PILE #11	ND<0.005	0.005	0.020	0.005
76071-12	STOCK PILE #12	ND<0.06	0.06	0.40	0.06

Lab I.D.	Client I.D.	Ethyl-benzene	MDL	Xylenes	MDL
76071-7	STOCK PILE #7	ND<0.005	0.005	0.090	0.005
76071-8	STOCK PILE #8	ND<0.005	0.005	0.006	0.005
76071-9	STOCK PILE #9	ND<0.005	0.005	0.040	0.005
76071-10	STOCK PILE #10	ND<0.06	0.06	ND<0.06	0.06
76071-11	STOCK PILE #11	ND<0.005	0.005	0.007	0.005
76071-12	STOCK PILE #12	ND<0.06	0.06	0.25	0.06

QA/QC: Matrix Spike Recovery for Benzene: 88%
Matrix Spike Recovery for Toluene: 88%
Matrix Spike Recovery for Chlorobenzene: 99%

Matrix Spike Duplicate Recovery for Benzene: 90%
Matrix Spike Duplicate Recovery for Toluene: 92%
Matrix Spike Duplicate Recovery for Chlorobenzene: 107%

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Attn: Paula Wiens
Matheson Trucking
P.O. Box 970
Elk Grove, CA 95759

Date Received: 08/02/94
Date Extracted: 08/10/94
Date Analyzed: 08/10/94
Date Reported: 08/12/94
Job #: 76071

Project: Matheson Trucking
2500 Poplar Street, Oakland
Matrix: Soil

Total Petroleum Hydrocarbon Analysis
DHS Extraction Method (LUFT)
mg/Kg

Lab I.D.	Client I.D.	Diesel		MDL
76071-1	UNION ST. #1	22		1.0
76071-2	UNION ST. #2	ND<1.0		1.0
76071-3	EAST TANK #3	ND<1.0		1.0
76071-4	WEST TANK #4	44	*	1.0
76071-5	EAST TANK #5	ND<1.0		1.0
76071-6	EAST TANK #6	ND<1.0		1.0
76071-7	STOCK PILE #7	40	*	1.0
76071-8	STOCK PILE #8	7.2		1.0
76071-9	STOCK PILE #9	65		1.0
76071-10	STOCK PILE #10	16	*	1.0
76071-11	STOCK PILE #11	8.3	*	1.0
76071-12	STOCK PILE #12	1,350	*	40

*** TPH Diesel Range**

QA/QC: Matrix Spike Recovery for Diesel: 112%
Matrix Spike Duplicate Recovery for Diesel: 112%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/dwc

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Attn: Paula Wiens
Matheson Trucking
P.O. Box 970
Elk Grove, CA 95759

Date Received: 08/02/94
Date Extracted: 08/10/94
Date Analyzed: 08/10/94
Date Reported: 08/12/94
Job #: 76071

Project: Matheson Trucking
2500 Poplar Street, Oakland
Matrix: Soil

Total Petroleum Hydrocarbon Analysis
EPA Method 5030
mg/Kg

Lab I.D.	Client I.D.	Gasoline Range	MDL
76071-1	UNION ST. #1	550	10
76071-2	UNION ST. #2	ND<1.0	1.0
76071-3	EAST TANK #3	ND<1.0	1.0
76071-4	WEST TANK #4	1,360	25
76071-5	EAST TANK #5	1.3	1.0
76071-6	EAST TANK #6	ND<1.0	1.0
76071-7	STOCK PILE #7	240	1.0
76071-8	STOCK PILE #8	5.2	1.0
76071-9	STOCK PILE #9	160	1.0
76071-10	STOCK PILE #10	150	10
76071-11	STOCK PILE #11	6.8	1.0
76071-12	STOCK PILE #12	770	10

QA/QC: Matrix Spike Recovery for Gasoline: 113%
Matrix Spike Duplicate Recovery for Gasoline: 101%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/dwc

FONO: 916 685 2330

FAX: 916 685 8875

Send report to: ~~Karen Jernigan~~ Paula Wiens

CHAIN OF CUSTODY RECORD

PROJECT NAME AND ADDRESS:
Matheson Trucking
2500 Poplar St
Oakland

SAMPLER: (Signature)
[redacted]

CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	STATION LOCATION	TPH-gas & BTEX	TPH-Diesel	REMARKS
	8/2/94	2:10 PM	✓		Union St. #1	X	X	
	"	2:20 PM	✓		Union St #2	X	X	
	"		✓		East tank #3 North	X	X	
	"	3:15 PM	✓		West tank #4 North End	X	X	
	"	4:30 PM	✓		East tank #5 South End	X	X	
	"	4:40 PM	✓		East tank #6 South End	X	X	
	"	5:00 PM	✓		Stock pile #7	X	X	
	"		✓		Stock pile #8	X	X	
	"	5:05 PM	✓		Stock pile #9	X	X	
	"	5:10 PM	✓		Stock pile #10	X	X	
	"		✓		Stock pile #11	X	X	
	"	5:15 PM	✓		Stock pile #12	X	X	

ANALYSIS REQUESTED

Matheson Trucking
PO Box 970
Elk Grove, CA.
95759

Company name & mail address per Paula 8/10/94 PP

RELINQUISHED BY: (Signature)	DATE 8/2/94 TIME 17:30 PM	RECEIVED BY: (Signature)	DATE 8/4/94 TIME 17:20 PM
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED FOR LABORATORY BY: (Signature)	DATE TIME

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Attn: Patricia Piethe
R.B. Matheston Holdings
P.O. Box 970
Elk Grove, CA 95759

Date Received: 08/16/94
Date Analyzed: 08/22/94
Date Reported: 08/24/94
Job #: 76106

Project: 2500 Poplar Street, Oakland
Matrix: Water

Total Petroleum Hydrocarbon Analysis
EPA Method 5030
µg/L

Lab I.D.	Client I.D.	Gasoline	MDL
76106-1	#13	60	50

QA/QC: Method Spike Recovery for Gasoline: 98%
Method Spike Duplicate Recovery for Gasoline: 93%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/dwc

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Attn: Patricia Piethe
R.B. Matheson Holdings
P.O. Box 970
Elk Grove, CA 95759

Date Received: 08/16/94
Date Analyzed: 08/22/94
Date Reported: 08/24/94
Job #: 76106

Project: 2500 Poplar Street, Oakland
Matrix: Water

Aromatic Volatile Hydrocarbon Analysis
EPA Method 602
µg/L

Lab I.D.	Client I.D.	Benzene	MDL	Toluene	MDL
76106-1	#13	ND<0.3	0.3	0.60	0.3

Lab I.D.	Client I.D.	Ethyl-benzene	MDL	Xylenes	MDL
76106-1	#13	ND<0.3	0.3	2.0	0.3

QA/QC: Matrix Spike Recovery for Benzene: 113%
Matrix Spike Reocvery for Toluene: 110%
Matrix Spike Recovery for Chlorobenzene: 124%

Matrix Spike Recovery for Benzene: 113%
Matrix Spike Reocvery for Toluene: 108%
Matrix Spike Recovery for Chlorobenzene: 128%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/dwc

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Attn: Patricia Piethe
R.B. Matheson Holdings
P.O. Box 970
Elk Grove, CA 95759

Date Received: 08/16/94
Date Extracted: 08/17/94
Date Analyzed: 08/17/94
Date Reported: 08/24/94
Job #: 76106

Project: 2500 Poplar Street, Oakland
Matrix: Water

Total Petroleum Hydrocarbon Analysis
DHS Extraction Method (LUFT)
mg/L

Lab I.D.	Client I.D.	Diesel Range	MDL
76106-1	#13	0.14	0.050

QA/QC: Matrix Spike Recovery for Diesel: 116%
Matrix Spike Duplicate Recovery for Diesel: 113%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/dwc

CHAIN OF CUSTODY

PRECISION ANALYTICAL LABORATORY, INC., 2500 LAKESIDE DRIVE, RICHMOND, CA
PHONE (510)222-3002 FAX (510)22

SAMPLERS (Signature):

PO#:

PROJECT #: Matheson Truck (COMPANY)

(ADDRESS) 2500 Polar Oakland

(CITY,ST,ZIP)

INVOICE TO: (COMPANY) Matheson Trucking Attn: Grace

(ADDRESS)

(CITY,ST,ZIP)

ANALYSIS REQUESTED

CROSS REFERENCE #	DATE	TIME	MATRIX S	MATRIX W	STATION LOCATION	TPH-GAS (5030)	TPH-DIESEL (LUFT)	BTEX (602/8020)	TTLC (CAM-17) METALS	STLC METALS	TCLP METALS	OIL & GREASE (5520 B/D/E)	TOTAL HYDROCARBON (5520 F)	HCI	VOLATILES (8240)	SEMI-VOLATILES (8270)	PCB/PESTICIDES (8080)	HALOGENATED (601/8010)
#13	8-15-94	6:45		X		X	X	X										
#15	8-15-94	6:45		X		X	X		PNC									
#17	8/15/94	6.45		X		X	X											

RELINQUISHED BY: (Signature) — DATE/TIME 8-16-94 4:50

RELINQUISHED BY: (Signature) — DATE/TIME

RELINQUISHED BY: (Signature) — DATE/TIME

RECEIVED BY: (Signature) Kulwinder Sidhu — DATE/TIME 8-16-94 4:50p

RECEIVED BY: (Signature) — DATE/TIME

RECEIVED BY: (Signature) — DATE/TIME

TURN AROUND TIME: * 24 HRS____ * 48 HRS____ * 72 HRS____ 5 DAYS ✓ * (SURCHARGE APPLIES)

SPECIAL NOTATIONS:

CITY OF OAKLAND

PERMIT TO EXCAVATE IN STREETS OR OTHER WORK AS SPECIFIED

CITY OF OAKLAND

LOCATION OF WORK: _____ (Street or Address) BETWEEN _____ (Street/Ave.) AND _____ (Specify)

PERMISSION TO EXCAVATE IN THE PUBLIC RIGHT-OF-WAY IS HEREBY GRANTED TO:

APPLICANT _____

ADDRESS _____ PHONE #: _____

TYPE OF WORK: GAS____ ELECTRIC____ WATER____ TELEPHONE____ CABLE TV____ SEWER____ OTHER _____ (Specify)

NATURE OF WORK: _____

INSPECTION C
COMPANIES & A
TION HOURS WI
CONFORMANCE
FEE SCHEDULE

NO REFUND W/O RECPT

07-28-94 #1

EXCV	195.00
APPL	40.00
SUBTL	235.00
CHECK	235.00

OFFICI
UTILITY C

Supervisor _____ ITEM 2

Completion Date _____ 2CL 8486 13:[illegible] PM

CITY INSP _____

Initials _____

Hours _____

Date _____

Concrete _____

Asphalt _____

Sidewalk _____

Size of Cut: Sq. Ft. _____ Inches _____

Paved by _____ Type _____

Bill No. _____

Charges Backfill _____

Paving _____

Paving Insp. _____

Traffic Striping Replaced _____ Date

APPROVED

Engineering Services _____ Date _____

Planning _____ Date _____

Field Services _____ Date _____

Construction _____ Date _____

Traffic Engineering _____ Date _____

Electrical Engineering _____ Date _____

DIRECTOR OF PUBLIC WORKS

APPROVED BY: _____

DATE: 7-[illegible]-94

EXTENSION GRANTED BY: _____

DATE: _____

OWNER/BUILDER

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to it's issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than $500):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 70044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale. (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption in this subdivision on more than two structures more than once during any three-year period. (Sec. 7044, Business and Professions Code).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law).

☐ I am exempt under Sec. _____, B&PC for this reason _____

Signature _____ Date _____

WORKER'S COMPENSATION

I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Workers' Compensation Insurance, or a certified copy thereof (Sec. 3800, Lab C.).

Policy # _____ Company Name _____

☐ Certified copy is hereby furnished.

☐ Certified copy is filed with the city building inspection dept.

Signature _____ Date _____

(This section need not be completed if the permit is for one hundred dollars ($100) or less.)

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.

Signature _____ Date _____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith imply with such provisions or this permit shall be deemed revoked.

PERMIT VOID 90 DAYS FROM DATE OF ISSUE UNLESS EXTENSION GRANTED BY DIRECTOR OF PUBLIC WORKS.

Approximate Starting Date DATE 7-29-94

Approximate Completion Date DATE _____

HOLIDAY RESTRICTION (1 NOV — 1 JAN) YES____ NO____

LIMITED OPERATION AREA (7AM – 9AM / 4PM – 6PM) YES____ NO____

DATE STREET LAST RESURFACED DATE _____

SPECIAL PAVING DETAIL REQUIRED YES____ NO____

24-HOUR EMERGENCY PHONE NUMBER _____

PERMIT NOT VALID WITHOUT 24 HOUR NUMBER.

Telephone 238-3651 Forty-eight (48) HOURS BEFORE ACTUAL CONSTRUCTION.

ATTENTION

State law requires that contractor/owner call Underground Service Alert two working days before excavating to have below-ground utilities located. This permit is not valid unless applicant has secured an inquiry identification number issued by Underground Service Alert.

Call Toll Free: 800-642-2444 USA ID Number _____

This permit issued pursuant to all provisions of Chapter 6, Article 2 of the Oakland Municipal Code.

This permit is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance.

CONTRACTOR

I hereby affirm that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

LICENSE # AND CLASS _____ CITY BUSINESS TAX # _____

X _____ Date _____

Signature of Contractor Owner or Agent

☐ Agent for ☐ Contractor ☐ Owner

DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621
PHONE NO. 510/271-4320

94 JUL 1

ACCEPTED
Underground Storage Tank Closure Permit Application
Alameda County Division of Hazardous Materials
80 Swan Way Ste 200
Oakland

*THERE IS A FINANCIAL PENALTY FOR NOT OBTAINING THESE INSPECTIONS
Contact Specialist: JEberle 7-27-94

Jennifer Eberle

See changes on p. 4+5

UNDERGROUND TANK CLOSURE PLAN

* * * Complete according to attached instructions * * *

1. Business Name R B MATHESON HOLDINGS
   Business Owner R B MATHESON
2. Site Address 2500 POPLAR STREET
   City OAKLAND Zip 94607 Phone 510-893-5404
3. Mailing Address P O BOX 970
   City ELK GROVE Zip 95759 Phone 916-685-2330
4. Land Owner R B MATHESON
   Address P O BOX 970 City, State ELK GROVE CA Zip 95759
5. Generator name under which tank will be manifested
   OAKLAND YARD

   EPA I.D. No. under which tank will be manifested CAD982020737

+B forms

rev 3/92

7-14-94. Written license

6. Contractor Chris Canary DBA CNC SERVICES ✓ Sole ownership exp 7-31-95

Address P O BOX 2964

City ANTIOCH CA 94531-2964 Phone 510-754-9729

License Type* A Haz Sub ✓ ID# 572547

*Effective January 1, 1992, Business and Professional Code Section 7058.7 requires prime contractors to also hold Hazardous Waste Certification issued by the State Contractors License Board. Indicate that the certificate has been received, in addition, to holding the appropriate contractors license type.

7. Consultant CHRIS CANARY

Address P O BOX 2964

City ANTIOCH CA Phone 510-754-9729

8. Contact Person for Investigation

Name MARK MATHESON Title OWNER

Phone 916-685-2330

9. Number of tanks being closed under this plan 3

Length of piping being removed under this plan unknown

Total number of tanks at facility 6 other USTs

10. State Registered Hazardous Waste Transporters/Facilities (see instructions).

** Underground tanks are hazardous waste and must be handled ** as hazardous waste

a) Product/Residual Sludge/Rinsate Transporter

Name H & H ENVIRONMENTAL EPA I.D. No. CAD00477168

Hauler License No. 44817 License Exp. Date 1/31/95

Address PO BOX 77363

City SAN FRANCISCO State CA Zip 94107

b) Product/Residual Sludge/Rinsate Disposal Site

Name GIBSON EPA I.D. No. CAD043260702

Address 475 SEAPORT BLVD

City REDWOOD CITY State CA Zip 94063

c) Tank and Piping Transporter

Name H & H ENVIRONMENTAL EPA I.D. No. CAD004771168

Hauler License No. 44817 License Exp. Date 1/31/95

Address PO BOX 77363

City SAN FRANCISCO State CA Zip 94107

d) Tank and Piping Disposal Site

Name H & H SHIP EPA I.D. No. 0334

Address 220 PERRY A FRANCOIS

City SAN FRANCISCO State CA Zip 94107

11. Experienced Sample Collector

Name CHRIS CANARY

Company CNC SERVICES

Address P O BOX 2964

City ANTIOCH State CA Zip 94531 Phone 510-754-9729

12. Laboratory

Name PRECISION ANALYTICAL LABS, INC

Address 4150 LAKESIDE DRIVE

City RICHMOND State CA Zip

State Certification No. 211

13. Have tanks or pipes leaked in the past? Yes [ ] No [X]

If yes, describe.

14. Describe methods to be used for rendering tank inert

VACCUM, RINSE, VACCUM, DRY ICE

15 lb dry ice per 1000 gal UST
1.5 / 100

Before tanks are pumped out and inerted, all associated piping must be flushed out into the tanks. All accessible associated piping must then be removed. Inaccessible piping must be plugged.

The Bay Area Air Quality Management District (771-6000), along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of explosion proof combustible gas meters to verify tank inertness. It is the contractor's responsibility to bring a working combustible gas meter on site to verify tank inertness.

15. Tank History and Sampling Information

Tank		Material to be sampled (tank contents, soil, ground-water, etc.)	Location and Depth of Samples
Capacity	Use History (see instructions)		
2500 GAL	Diesel; INSTALLATION DATE UNKNOWN: NEVER USED by whom? Matheson	SOIL & GROUND WATER	ALL SAMPLES TO BE TAKEN FROM NATIVE SOIL 1"-2" BENEATH EACH END OF TANKS & BENEATH EVERY 20' OF PIPING
2500 GAL	DIESEL: INSTALLATION DATE UNKNOWN: NEVER USED?		
500 GAL	PROBABLEY FUEL OIL UNKNOWN → take a sample of tank contents		
ALL TANKS ENTERPRISES	WERE PURCHASED INSTALLED IN THE PROPERTY FROM HAUGH IN OCT 1976 NO RECORD OF INSTALLATION		

One soil sample must be collected for every 20 feet of piping that is removed. A ground water sample must be collected should any ground water be present in the excavation.

Matheson there since 1972 - they didn't use them.

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated) 50 YARDS	Sampling Plan 1 per 20 yd^3 if soil is to be reused onsite EVERY 25 YARDS OF EXCAVATED SOIL

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

16. Chemical methods and associated detection limits to be used for analyzing samples

The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
TPH D		GCFID3550	1PPM
BTX & E		8020 or 8240	.005 PPM

17. Submit Site Health and Safety Plan (See Instructions)

18. Submit Worker's Compensation Certificate copy

Name of Insurer R C FISHER & CO.

19. Submit Plot Plan (See Instructions)

20. Enclose Deposit (See Instructions)

21. Report any leaks or contamination to this office within 5 days of discovery. The report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report form. (see Instructions)

22. Submit a closure report to this office within 60 days of the tank removal. This report must contain all the information listed in item #2 of the instructions.

I declare that to the best of my knowledge and belief the statements and information provided above are correct and true.

I understand that information in addition to that provided above may be needed in order to obtain an approval from the Department of Environmental Health and that no work is to begin on this project until this plan is approved.

I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.

I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections.

Signature of Contractor

Name (please type) CHRISTOPHER N. CANARY

Signature Christopher N. Canary

Date 7-26-94

Signature of Site Owner or Operator

Name (please type) Karen Jernigan | Property Manager

Signature Karen Jernigan

Date 7-27-94

CITY OF OAKLAND
REPORT OF FIRE INSPECTION

ENGINE CO. F.P.B

ADDRESS 2500 Poplar St Oak

NAME

GENERAL INSPECTION ☐ PERMIT ☐ OTHER ☐ HAZARD NOTED ☐ HAZARD ABATED ☐

NOTICE LEFT LETTER ☐ ☐ 1st NOTICE 2nd NOTICE FINAL

DATE	VIOLATION	O.F.C.	CONTACTED
	GAS		
8-2-74 (1)	1,000 gal LEL 4%		OXY 10%
Diesel (2)	4,000 gal LEL 2%		OXY 10%
	LEL 2%		OXY 8%
	Under Ground Tank Removal		
	OK To Remove		

A REINSPECTION WILL BE MADE WITHIN _____ DAYS.

FIRE PREVENTION BUREAU PHONE 273-3651

338-5 (Rev. 5-77)

INSPECTOR Larry Jones

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Attn: Paula Wiens
Matheson Trucking
P.O. Box 970
Elk Grove, CA 95759

Date Received: 09/30/94
Date Extracted: 10/03/94
Date Analyzed: 10/04/94
Date Reported: 10/10/94
Job #: 76251

Project: Matheson Trucking
2500 Poplar Street, Oakland, CA 94607
Matrix: Water

Total Petroleum Hydrocarbon Analysis
DHS Extraction Method (LUFT)
mg/L

Lab I.D.	Client I.D.	Diesel Range	MDL
76251-1	UNION ST	0.14	0.050

*** Diesel Range hydrocarbon does not match with Diesel standard.**

QA/QC: Method Spike Recovery for Diesel: 110%
Method Spike Duplicate Recovery for Diesel: 104%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/dwc

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Attn: Paula Wiens
Matheson Trucking
P.O. Box 970
Elk Grove, CA 95759

Date Received: 09/30/94
Date Extracted: 10/04/94
Date Analyzed: 10/04/94
Date Reported: 10/10/94
Job #: 76251

Project: Matheson Trucking
2500 Poplar Street, Oakland, CA 94607
Matrix: Soil

Total Petroleum Hydrocarbon Analysis
DHS Extraction Method (LUFT)
mg/Kg

Lab I.D.	Client I.D.	Diesel Range	MDL
76251-2	UNION ST NORTH END	6.4	1.0
76251-3	POPLAR ST NORTH END	10	1.0

QA/QC: Method Spike Recovery for Diesel: 96%
Method Spike Duplicate Recovery for Diesel: 96%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/dwc

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Attn: Paula Wiens
Matheson Trucking
P.O. Box 970
Elk Grove, CA 95759

Date Received: 09/30/94
Date Analyzed: 10/06/94
Date Reported: 10/10/94
Job #: 76251

Project: Matheson Trucking
2500 Poplar Street, Oakland, CA 94607
Matrix: Water

Total Petroleum Hydrocarbon Analysis
EPA Method 5030
µg/L

Lab I.D.	Client I.D.	Gasoline	MDL
76251-1	UNION ST	ND<50	500

QA/QC: Matrix Spike Recovery for Gasoline: 107%
Matrix Spike Duplicate Recovery for Gasoline: 99%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/dwc

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Attn: Paula Wiens
Matheson Trucking
P.O. Box 970
Elk Grove, CA 95759

Date Received: 09/30/94
Date Analyzed: 10/06/94
Date Reported: 10/10/94
Job #: 76251

Project: Matheson Trucking
2500 Poplar Street, Oakland, CA 94607
Matrix: Water

Aromatic Volatile Hydrocarbon Analysis
EPA Method 602
µg/L

Lab I.D.	Client I.D.	Benzene	MDL	Toluene	MDL
76251-1	UNION ST	ND<0.3	0.3	ND<0.3	0.3

Lab I.D.	Client I.D.	Ethyl-benzene	MDL	Xylenes	MDL
76251-1	UNION ST	ND<0.3	0.3	ND<0.3	0.3

QA/QC: Matrix Spike Recovery for Benzene: 115%
Matrix Spike Recovery for Toluene: 119%
Matrix Spike Recovery for Chlorobenzene: 120%

Matrix Spike Duplicate Recovery for Benzene: 106%
Matrix Spike Duplicate Recovery for Toluene: 105%
Matrix Spike Duplicate Recovery for Chlorobenzene: 114%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/dwc

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Attn: Paula Wiens
Matheson Trucking
P.O. Box 970
Elk Grove, CA 95759

Date Received: 09/30/94
Date Extracted: 10/06/94
Date Analyzed: 10/06/94
Date Reported: 10/10/94
Job #: 76251

Project: Matheson Trucking
2500 Poplar Street, Oakland, CA 94607
Matrix: Soil

Total Petroleum Hydrocarbon Analysis
EPA Method 5030
mg/Kg

Lab I.D.	Client I.D.	Gasoline Range	MDL
76251-2	UNION ST NORTH END	310	1.0
76251-3	POPLAR ST NORTH END	210	1.0

QA/QC: Matrix Spike Recovery for Gasoline: 99%
Matrix Spike Duplicate Recovery for Gasoline: 102%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/dwc

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Attn: Paula Wiens
Matheson Trucking
P.O. Box 970
Elk Grove, CA 95759

Date Received: 09/30/94
Date Extracted: 10/06/94
Date Analyzed: 10/06/94
Date Reported: 10/10/94
Job #: 76251

Project: Matheson Trucking
2500 Poplar Street, Oakland, CA 94607
Matrix: Soil

Aromatic Volatile Hydrocarbon Analysis
EPA Method 8020
mg/Kg

Lab I.D.	Client I.D.	Benzene	MDL	Toluene	MDL
76251-2	UNION ST NORTH END	ND<0.005	0.005	0.160	0.005
76251-3	POPLAR ST NORTH END	ND<0.005	0.005	0.060	0.005

Lab I.D.	Client I.D.	Ethyl-benzene	MDL	Xylenes	MDL
76251-2	UNION ST NORTH END	ND<0.005	0.005	0.080	0.005
76251-3	POPLAR ST NORTH END	ND<0.005	0.005	0.050	0.005

QA/QC: Matrix Spike Recovery for Benzene: 98%
Matrix Spike Recovery for Toluene: 99%
Matrix Spike Recovery for Chlorobenzene: 111%

Matrix Spike Duplicate Recovery for Benzene: 105%
Matrix Spike Duplicate Recovery for Toluene: 107%
Matrix Spike Duplicate Recovery for Chlorobenzene: 118%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/dwc

[redacted] [redacted]RECISI[redacted]ANALYT[redacted] LABO[redacted]RY, I[redacted], 4136 [redacted]KESIDE [redacted]E, R[redacted]D, C[redacted]806

CHAIN OF CUSTODY

PHONE (510)222-3002 FAX (510)222-1251

SAMPLERS (Signature): [signature]

PO#:

PROJECT #: Matheson Trucking
(COMPANY)
(ADDRESS) 2500 Poplar St.
(CITY,ST,ZIP) Oakland 94607

INVOICE TO: Attn: Paula Wiens
(COMPANY) Matheson Trucking
(ADDRESS) P.O. Box 970 Elk Grove
(CITY,ST,ZIP) CA. 95759

CROSS REFERENCE #	DATE	TIME	MATRIX S	MATRIX W	STATION LOCATION	TPH-GAS (5030)	TPH-DIESEL (LUFT)	BTEX (602/8020)	TTLC (CAM-17) METALS	STLC METALS	TCLP METALS	OIL & GREASE (5520 B/D/E)	TOTAL HYDROCARBON (5520 F)	RCI	VOLATILES (8240)	SEMI-VOLATILES (8270)	PCB/PESTICIDES (8080)	HALOGENATED (601/8010)	REMARKS
1 water	9-30-94	8:00 AM		✓	Union St	✓	✓	✓										✓	Pres [illegible] with HCL
1 soil	9-30-94	9:30 AM	✓		Union St North End	✓	✓	✓											
2 "	9-30-94	11:00 AM	✓		Poplar St North End	✓	✓	✓											

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	1:26 PM 9-30-94	[signature]	1:26 PM 9-30-94

TURN AROUND TIME: * 24 HRS____ * 48 HRS____ * 72 HRS____ 5 DAYS ✓ * (SURCHARGE APPLIES)

SPECIAL NOTATIONS: ____________

ATTACHMENT B

HEALTH AND SAFETY PLAN

SITE HAZARD INFORMATION

FC 1006 (05-11-90)

PLEASE PROVIDE THE FOLLOWING INFORMATION FOR THE SITE

Owners Name: R. B. Matheson Trucking, Inc.

Site Address: 2500 Poplar Street

Oakland, CA

Directions to Site: HWY 980 to West Grand Avenue, West on West Grand Avenue to Poplar Street

North on Poplar to 26th Street

Consultant On Site: HAGEMAN-AGUIAR, Inc. Phone Number: (510) 284-1661

Site Safety Officer: Gary Aguiar, P.E. Phone Number: ( ) same

Type of Facility: Truck Storage & Maintenance Facility Mobile # (415) 710-2844

Site Activities: [X] Drilling [ ] Construction [ ] Tank Excavation [ ] Soil Excavation [ ] Work in Traffic Area

[ ] Groundwater Extraction [ ] Vapor Extraction [ ] In Situ Remediation [ ] Above Ground Remediation

[X] Other: Shallow Groundwater Well Installations

Hazardous Substance

Name (CAS#)	Expected Concentration [X] Soil [X] Water [ ] Air	Health Affects
Gasoline	Soil-500 mg/Kg Water 100mg/L	Eye irritation/dizziness
Diesel	Soil-1,500 mg/Kg Water 150 mg/l	

Physical Hazards

[X] Noise
[ ] Traffic
[ ] Underground Hazards
[ ] Overhead Hazards
[ ] Excavations/Trenches
[ ] Other

Potential Explosion and Fire Hazards (Flammable Range = 1% to 10% Gas Vapor): NONE - Dissolved gasoline constituents

Level Of Protection Equipment

[ ] A [ ] B [X] C [X] D [ ] See Personal Protective Equipment

Personal Protective Equipment

R = Required A = As Needed

R Hard Hat
R Safety Boots
A Orange Vest
R Hearing Protection
A Tyvek Coveralls
___ 5 Minute Escape Respirator

R Safety Eyewear (Type)
A Respirator (Type) 1/2 Face Negative Air-MSHA/OSHA Approved
Filter (Type) Carbon/HEPA
R Gloves (Type)
___ Other

SITE HAZARD INFORMATION

FC 1006 (05-11-90)

Monitoring Equipment on Site

☐	Organic Vapor Analyzer	☐	PID with lamp of _____ eV
☒	Oxygen Meter	☐	Draeger Tube _____
☒	Combustible Gas Meter	☐	Passive Dosimeter
☐	H_2S Meter	☐	Air Sampling Pump
☐	W.B.G.T.	☐	Filter Media _____

Site Control Measures FID meter on-site - public access restricted by temporary barriers and Yellow CAUTION tape. Site continuously supervised

Decontamination Procedures Sampling equipment washed w/TSP on-site, rinseate stored in DOT 17H 55-gal Drums. Gloves, tyvek suits to be disposed of in facility solid waste disposal bin. Personnel to wash with soap and water prior to leaving site.

Hospital/Clinic Summit Medical Center Phone (510) 655-4000

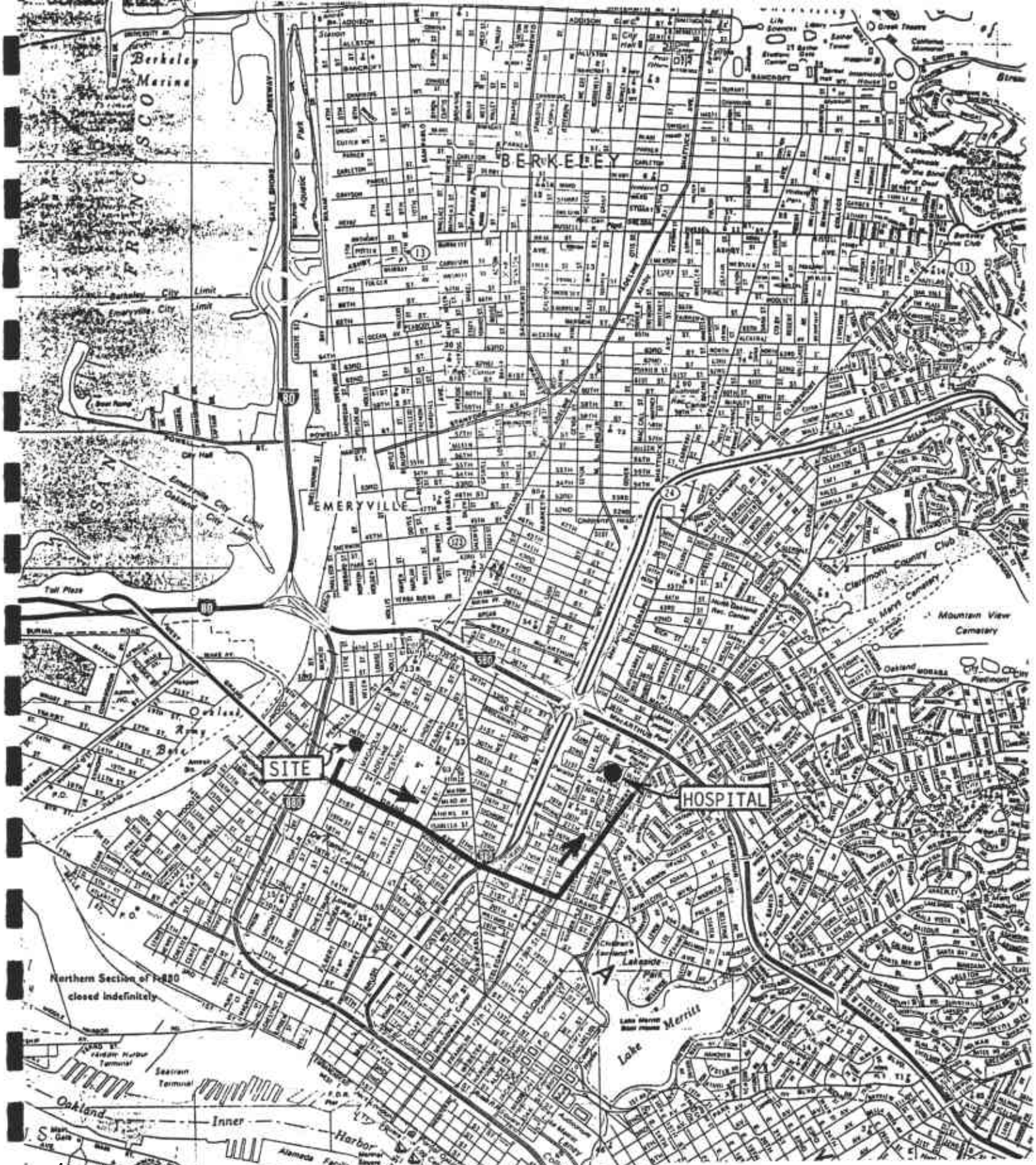
Hospital Address 350 Hawthorne Avenue, Oakland, Oakland, CA

Paramedic 911 Fire Dept. 911 Police Dept. 911

Emergency/Contingency Plans & Procedures Use EMERGENCY shut-off switch. Clear area and meet at a pre-designated staging location. Dial 911

Site Hazard Information Provided By: Jerry Aarons (Print) Phone Number: (510) 284-1661

Jerry Aarons (Signature) Date: 3/24/95



Directions to:

Summit Medical Center
350 Hawthorne Avenue
(510)655-4000

HAGEMAN-AGUIAR, INC.
Underground Contamination Investigations, Groundwater Consultants, Environmental Engineering

HEALTH AND SAFETY PROCEDURES FOR FIELD INVESTIGATION OF UNDERGROUND SPILLS OF MOTOR OIL AND PETROLEUM DISTILLATE FUEL

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1. PURPOSE

This operating procedure established minimum procedures for protecting personnel against the hazardous properties of motor oil and petroleum distillate fuels during the performance of field investigations of known and suspected underground releases of such materials. The procedure was developed to enable health and safety personnel and project managers to quickly prepare and issue site safety plans for investigations of such releases.

2. APPLICABILITY

This procedure is applicable to field investigations of underground releases of the substances listed below and involving one or more of the activities listed below:

2.1 Substances

Motor oil (used and unused)
Leaded and unleaded gasoline
No. 1 Fuel oil (kerosene, JP-1)
No. 1-D Fuel oil (light diesel)
No. 2 Fuel oil (home heating oil)
No. 2-D Fuel oil (medium diesel)
No. 4 Fuel oil (residual fuel oil)
No. 5 Fuel oil (residual fuel oil)
No. 6 Fuel oil (Bunker C fuel oil)
JP-3, 4 & 5 (jet fuels)
Gasahol

2.2 Activities

-- Collection of samples of subsurface soil with aid of truck-mounted drill rig, hand-held power auger or hand auger.

-- Construction, completion and testing of groundwater monitoring wells.

-- Collection of groundwater samples from new and

existing wells.

-- Observing removal of underground fuel pipes and storage tanks.

This procedure must not be used for confined space entry (including trench entry).

No safety plans needed for non-intrusive geophysical surveys, reconnaissance surveys and collection of surface soil, surface water and biota.

3. RESPONSIBILITY AND AUTHORITY

Personnel responsible for project safety are the Business Unit Health and Safety Officer (**HSO**), the Project Manager (**PM**) and the Site Safety Officer (**SSO**).

The **HSO** is responsible for reviewing and approving site safety plans and any addenda and for advising both PM and SSO on health and safety matters. The **HSO** has the authority to audit compliance with the provisions of site safety plans, suspend work or modify work practices for safety reasons, and to dismiss from the site any individual whose conduct on site endangers the health and safety of others.

The **PM** is responsible for having site safety plans prepared and distributed them to all field personnel and to an authorized representative of each firm contracted to assist with on-site work. The **PM** is also responsible for ensuring that the provisions of safety plans and their addenda are carried out.

The **SSO** is responsible for assisting the **PM** with on site implementation of site safety plans. Responsibilities include:

1. Maintaining safety equipment supplies.

2. Performing or supervising air quality measurements.

3. Directing decontamination operations and emergency response operations.

4. Setting up work zone markers and signs if such zones are specified in the site safety plan.

5. Reporting all accidents, incidents and infractions of safety rules and requirements.

6. Directing other personnel to wear protective equipment when use conditions (described in **Section 5.0**) are met.

The **SSO** may suspend work anytime he/she determines that the provisions of the site safety plan are inadequate to ensure worker safety and inform the **PM** and **HSO** of individuals whose on-site behavior jeopardizes their health and safety of the health and safety of others.

4. HAZARD EVALUATION

Motor oil and petroleum distillate fuels are mixtures of aliphatic and aromatic hydrocarbons. The predominant classes of compounds in motor oil, gasoline, kerosene and jet fuels are the paraffins (e.g., benzene, toluene). Gasoline contains about 80 percent paraffins, 6 percent naphthenes, and 14 percent aromatic. Kerosene and jet fuels contain 42-48 percent paraffins, 36-38 percent naphthenes, and 68-78 percent non-volatile aromatic. These heavier fuels contain almost no volatile aromatic compounds. Chemicals are usually added to automotive and aviation fuels to improve their burning properties. Examples are tetraethyl-lead and ethylene dibromide. Most additives are proprietary materials.

4.1 Flammability

Crude oil and petroleum distillate fuels possess two intrinsic hazardous properties, namely, flammability and toxicity. The flammable property of the oil and fuels presents a far grater hazard to field personnel than toxicity because it is difficult to protect against and can result in catastrophic consequences. Being flammable, the vapors of volatile components of crude oil and the fuels can be explosive when confined.

The lower flammable or explosive limits (LFL or LEL) of the fuels (listed in Section 2.1) range from 0.6 percent for JP-5 to 1.4 percent for gasoline. LFL and LEL are synonyms. Flash points range from -36°F for gasoline to greater than 150°F for No. 6 fuel oil. JP-5 has a flash point of 140°F.

Although it has a lower LEL than gasoline, it can be considered less hazardous because its vapors must be heated to a higher temperature to ignite.

Crude oil and petroleum distillate fuels will not burn in the liquid form; only the vapors will burn and only if the vapor concentration is between the upper and lower flammable limits, sufficient oxygen is present, and an ignition source is present. If these conditions occur in a confined area an explosion may result.

The probability of fire and explosion can be minimized by eliminating any one of the three factors needed to produce combustion. Two of the factors -- ignition source and vapor concentration -- can be controlled in many cases. Ignition can be controlled by prohibiting open fires and smoking on site, installing spark arrestors on drill rig engines, and turning the engines off when LELs are approached. Vapor concentrations can be reduced by using fans. In fuel tanks, vapor concentrations in the head space can be reduced by introducing dry ice (solid carbon dioxide) into the tank; the carbon dioxide gas will displace the combustible vapors.

4.2 Toxicity

Crude oil and petroleum distillate fuels exhibit relatively low acute inhalation and dermal toxicity. Concentrations of 160 to 270 ppm gasoline vapor have been reported to cause eye, node and throat irritation after several hours of exposure. Levels of 500 to 900 ppm can cause irritation and dizziness in one hour, and 2000 ppm produces mild anesthesia in 30 minutes. Headaches have been reported with exposure to 25 ppm or more of gasoline vapors measured with a photoionization meter. Must fuels, particularly gasoline,

kerosene and jet fuels are capable of causing skin irritation after several hours of contact with the skin.

Petroleum fuels exhibit moderate oral toxicity. The lethal dose of gasoline in children has been reported to be as low as 10-15 grams (2-3 teaspoons). In adults, ingestion of 20-50 grams of gasoline may produce severe symptoms of poisoning. If liquid fuel aspirated (passes into the lungs), gasoline and other petroleum distillate fuels may cause secondary pneumonia.

Some of the additives to gasoline, such as ethylene dichloride, ethylene dibromide, tetraethyl and tetramethyl lead, are highly toxic; however, they are present in such low concentrations that their contribution to the overall toxicity of gasoline and other fuels is negligible in most instances.

OSHA has not developed permissible workplace exposure limits for crude oil and petroleum distillate fuels. It recommends using permissible exposure limits for individual components, such as benzene. The American Conference of Government Industrial Hygienists (ACGIH) has established a permissible exposure limit of 300 ppm for gasoline. The limit took into consideration the average concentration of benzene in gasoline (one percent) as well as its common additives. Exposure limits established by other countries range from 250 to 500 ppm. Chemical data sheets, prepared for the U.S. Coast Guard's Chemical Hazard Information System (CHRIS), list 200 ppm as the permissible exposure limit for kerosene and jet fuels. This limit was not developed by NIOSH/OSHA or ACGIH.

5. HEALTH AND SAFETY DIRECTIVES

5.1 Site-Specific Safety Briefing

Before field work begins, all field personnel, including subcontractor employees, must be briefed on their work assignments and safety procedures contained in this document.

5.2 Personal Protective Equipment

The following equipment should be available on-site to each member of the field team:

- NIOSH-approved full or half-face respirator with organic vapor cartridges (color coded black)
- Saranex or polyethylene-coated Tyvek coveralls
- Splash-proof safety goggles
- Nitrile or neoprene gloves
- Neoprene or butyl boots, calf-length with steel toe and shank
- Hardhats

5.2.1 Equipment Usage

Chemical-resistant safety boots must be worn during the performance of work where surface soil is obviously contaminated with oil or fuel, when product quantities of oil or fuel are likely to be encountered, and within 10 feet of operating heavy equipment.

Respirators must be worn whenever total airborne hydrocarbon levels in the breathing zone of field personnel reach or exceed a 15-minute average of 25 ppm. If total airborne hydrocarbons in the breathing zone exceeds 100 ppm, work must be suspended, personnel directed to move a safe distance from the source, and the HSO or designee consulted.

Chemical resistant gloves must be worn whenever soil or water known or suspected of containing petroleum hydrocarbons is collected or otherwise handled.

Chemical resistant coveralls must be worn whenever product quantities of fuel are actually encountered and when oil for fuel-saturated soil is handled.

Safety goggles must be worn when working within 10 feet of any operating heavy equipment (e.g., drill rig, backhoe). Splash-proof goggles or face shields must be worn whenever product quantities of oil or fuel are encountered.

Hardhats must be worn when working within 10 feet of an operating drill rig, backhoe or other heavy equipment.

Operators of some facilities, such as refineries, often require all personnel working within facility boundaries to wear certain specified safety equipment. Such requirements shall be strictly observed.

5.3 Vapor Monitoring

5.3.1 Required Equipment

--- Organic vapor meter the flame or photoionization detector

--- Combustible gas meter

5.3.2 Monitoring Requirements and Guidelines

Vapor monitoring shall be performed as often as necessary and whenever necessary to protect field personnel from hazardous vapors. Monitoring must be performed by individuals trained in the use and care of the monitoring equipment.

During drilling operations, vapor emissions from boreholes must be measured whenever the auger is removed from the boring and whenever flights are added or removed from hollow-stem augers. This requirement does not apply to borings less than five feet deep and borings of any depth made to install monitoring wells in uncontaminated solid. Measurements should be made initially with an organic vapor meter, followed with a combustible gas meter if vapor levels exceed the highest concentration measurable with the organic vapor meter.

Initially measurements shall be made about 12 inches from the bore hole, both upwind and downwind positions. If the total hydrocarbon concentrations exceed the respirator use action level, measurements must be made in the breathing zone of the individual(s) working closest to the borehole. Decisions regarding respiratory protection should be made using vapor concentrations in the breathing zone.

Organic vapor meter capable of being operated continuously without attention may be operated in that fashion if desired. However, the instrument must be equipped with an alarm set to sound when vapor concentrations reach 25 ppm and must be protected against physical damage and spoilage.

If total organic vapor concentrations within 12 inches of the borehole exceed the capacity of the organic vapor meter, a combustible gas meter (CGM) must be used to determine if explosive conditions exist. Operations must be suspended, the drill rig motor shot down, and corrective action taken if combustible gas concentrations reach 40 percent of LEL within a 12-inch radius of the borehole of 10 percent of LEL at a distance greater than 24 inches from the borehole. This procedure must also be followed whenever the organic vapor meter goes off-scale at its highest range and no CGM is available. If corrective action cannot be taken, field personnel and all other individuals in the vicinity of the borehole must be directed to move to a safe area and the local fire department and facility management must be alerted.

Organic vapor meter with flame ionization detectors (FID) are much more sensitive to paraffins, with the major component of gasoline, kerosene, and jet fuels, then are meters with 10.0 or 10.2 eV photoionization detectors. As the data in Table 1 show, an FID instrument, such as the Century Systems OVA (Foxboro Analytical), will detect 70-90 percent of actual paraffin concentrations, whereas PID instruments, such as the HNU Model PI-101, AID Model 580, and Photovac TIP with 10.0 to 10.2 eV lamp will detect only 17-25 percent of actual paraffin concentrations when calibrated with benzene and only 24-35 percent when calibrated with isobutylene. Both types of meters are equally sensitive to most aromatic, including benzene, toluene, xylene and ethylbenzene. For these

compounds, meter readings equal or exceed 100 percent of actual concentrations. PIDs with 11.7 eV lamps are extremely sensitive to paraffins and aromatic. When calibrated to isobutylene, an 11.7 eV PID will register about twice actual paraffin concentrations and 100 percent or more of actual concentrations of benzene, toluene, and xylene.

An FID meter, recently calibrated with methane and in good working condition, can be expected to provide readings close enough to actual petroleum hydrocarbon concentrations to make corrections unnecessary. Value obtained with a PID must be corrected when measured for paraffins. For 10.0 and 10.2 eV PIDs, the meter reading should be multiplied by 5 if the instrument is calibrated with benzene. If the instrument is calibrated with isobutylene, the meter readings should be multiplied by 3. If the instrument is equipped with an 11.7 eV probe and is calibrated with isobutylene, the meter reading should be divided by 2.

5.4 Area Control

Access to hazardous and potential hazardous areas of spill sites must be controlled to reduce the probability of occurrence of physical injury and chemical exposure of field personnel, visitors and the public. A hazardous or potentially hazardous area includes any area where:

1. Field personnel are required to wear respirators.

2. Borings are being drilled with powered augers.

3. Excavating operations with heavy equipment are being performed.

The boundaries of hazardous and potentially hazardous areas must be identified by cordons, barricades, or emergency traffic cones or posts, depending on conditions. If such areas are left unattended, signs warning of the danger and forbidding entry must be placed around the perimeter if the areas are accessible to the public. Trenches and other large holes must be guarded with wooded or metal barricades spaced no further than 20 feet apart and connected with yellow or yellow and black nylon tape not less than 3/4-inches wide. The barricades must be placed no less than two feet from the edge of the excavation or hole.

Entry to hazardous areas shall be limited to individuals who must work in those areas. Unofficial visitors must not be permitted to enter hazardous areas while work in those areas are in progress. Official visitors should be discouraged from entering hazardous areas, but may be allowed to enter only if the agree to abide by the provisions of this document, follow orders issued by the site safety officer and are informed of the potential dangers that could be encountered in the areas.

5.5 Decontamination

Field decontamination of personnel and equipment is not required except when contamination is obvious (visually or by odor). Recommended decontamination procedures follow:

5.5.1 Personnel

Gasoline, kerosene, jet fuel, heating oil, gasahol and diesel oil should be removed from skin using a mild detergent and water. Hot water is more efficient than cold. Liquid dishwashing detergent is more effective than hand soap. Motor oil and the heavier fuel oils (No. 4-6) can be removed with dishwashing detergent and hot water also; however, if weathered to an asphaltic condition, mechanic's waterless hand cleaner is recommended for initial cleaning followed by detergent and water.

5.5.2 Equipment

Gloves, respirators, hardhats, boots and goggles should be cleaned as described under personnel. If boots do not become clean after washing with detergent and water, wash them with a strong solution of trisodium phosphate and hot water.

Sampling equipment, augers, vehicle undercarriages and tires should be steam cleaned. The steam cleaner is a convenient source of hot water for personnel and protective equipment cleaning.

5.6 Smoking

Smoking and open flames are strictly prohibited at sites under investigation.

TABLE 1

RELATIVE SENSITIVITIES OF FID AND PID INSTRUMENTS TO SELECTED COMPONENTS OF OILS AND PETROLEUM DISTILLATE FUELS

	Sensitivity in Percent of Standard		
	FID	PID	
Component		10.2 eV[a]	11.7 eV[b]
Paraffins			
Pentane	65	--	141
Hexane	70	22 (31)	189
Heptane	75	17 (24)	221
Octane	80	25 (35)	---
Nonane	90	--	---
Decane	75	--	---
Napthenes			
Cyclopentane	--	--	---
Methylcyclopentane	80	--	---
Cyclohexane	85	34 (40)	---
Methylcyclohexane	100	--	---
Aromatic			
Benzene	150	100 (143)	122
Toluene	110	100 (143)	100
Ethylbenzene	100	---	---
p-Xylene	116	114 (60)	---
Cumene	100	---	---
n-Propylbenzene	---	---	---
Napthaeine	---	---	---

a Values are relative to benzene standard. Values in parentheses are relative to isobutylene standard and were calculated.

b Values are relative to isobutylene standard.