

BLMYER & SONS ENGINEERS, INC.
 1829 Clement Street
 ALAMEDA, CALIFORNIA 94501

LETTER OF TRANSMITTAL

(415) 521-3773

TO COUNTY HEALTH SERVICES
HAZARDOUS MATERIALS
80 Swan Way, Room 200
Oakland, CA 94621

DATE	7/15/88	JOB NO	88216
ATTENTION	Dennis Byrne		
RE			

GENTLEMEN:

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:

- Shop drawings Prints Plans Samples Specifications
 Copy of letter Change order _____

COPIES	DATE	NO.	DESCRIPTION
1	7/9/86		BAY AREA AIR QUALITY MANAGEMENT DISTRICT MEMORANDUM RE RULE TO CONTROL ORGANIC EMISSIONS FROM THE AERATION OF CONTAMINATED SOIL
1	7/14/88		COPY OF BLYMYER ENGINEERS, INC. REPORT, INITIAL SUBSURFACE INVESTIGATION AND TANK REMOVAL SOILS REPORT FOR HENRY HORN AND SONS, BURLINGAME, CALIFORNIA

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REMARKS _____

COPY TO _____

SIGNED: Sue Black/sg

If enclosures are not as noted, kindly notify us at once.

INITIAL SUBSURFACE INVESTIGATION
AND TANK REMOVAL SOILS REPORT

FOR

HENRY HORN AND SONS
BURLINGAME, CALIFORNIA

BY

BLYMYER ENGINEERS, INC.
1829 CLEMENT AVENUE
ALAMEDA, CALIFORNIA 94501

JULY 14, 1988

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INTRODUCTION

Blymyer Engineers was retained by Henry Horn & Sons to provide environmental services required for the sale of real estate property located at 1301-65th Street, Emeryville, California. These services included the installation of one groundwater monitoring well near the tank location and the removal of one 2,000 gallon underground storage tank. This report conveys the results of the performance of these tasks per Regional Water Quality Control Board notification and reporting requirements.

SITE HISTORY

The building and 2,000 gallon underground storage tank on site were installed in 1952. The tank and associated piping, which was used for gasoline storage until January, 1972, passed Precision tank testing two years ago (Exhibit A). The tank was filled with water for the tank test.

The property has been leased for the last seven years by Oakland Diesel Distributing Corporation. Oakland Diesel uses the site as a center for the sale and repair of engine parts.

SITE LOCATION & GEOLOGY

The site is located to the east, northeast of the San Pablo Ridge in an industrialized section of Emeryville, CA. The topography is relatively flat with low rolling hills to the east. The San Francisco Bay is approximately 1/2 mile to the west (Exhibit B). The site is underlain by stiff bay mud. Groundwater was expected to be between 5 feet and 10 feet and is typically non-potable in this area.

MONITORING WELL INSTALLATION

One 2" diameter .020 slotted PVC monitoring well was installed Wednesday, June 8, 1988, by All Terrain Exploration, Roseville, CA. An 8-1/4" tire mounted, hollow-stem, auger rig was used to drill the bore. A geologist from Ensco, Inc. was on site to log the bore. (Exhibit C).

~~_____~~ ^{OR} ~~_____~~ tank
~~_____~~ The well was installed approximately 25 feet southwest of the tank. This location is inferred to be hydraulically downgradient of the tank. (Exhibit B).

The bore was drilled to a depth of 26 feet; however, when removing the augers to set the well screen, some soil collapsed into the hole. As a result, the final well depth is 23 feet deep with 20 feet of screen. Due to the well screen configuration, only 3 feet of casing was installed instead of the intended 5 feet. #3 Lonestar Sand was used as filter pack which was brought up to a depth of one foot above screen height. Six inches of

bentonite pellets were then placed and finally 1-1/2 feet of concrete was added as a sanitary seal to grade. A locking well monument and a traffic-rated well cover were installed.

The well was developed by bailing on June 9, 1988 by All Terrain Exploration. All bailed well water was collected in two 55 gallon drums. During the bailing sequence groundwater quickly recharged. On June 16, 1988 the depth of groundwater was observed to be at 4 feet 9 inches.

SOIL SAMPLING

Samples were collected at five foot intervals to a depth of first water, 14 feet, using a California split-spoon sample. Slight hydrocarbon odors were detected at the time of drilling. Samples were logged and properly prepared for transportation to Trace Analysis Laboratory, Hayward, California, a State-certified laboratory. (Exhibit D).

The samples were analyzed for TPH-g and BTXE. The results of these analyses are presented in Exhibit D and are summarized in Table I.

TABLE I
SOIL BORING SAMPLE ANALYTICAL RESULTS (ppb)

	TPH-g	BENZENE	TOLUENE	XYLENE	EYTHL-BENZENE
MW-1 5'	35,000	580	460	4,900	670
MW-1 10'	630	20	<10	<20	<10
MW-1 15'	<500	<10	<10	<20	<10

These results indicate that the majority of the petroleum constituents are located above 10 feet bgs and are, therefore, not present in the water-saturated soils.

WATER SAMPLING

One water sample was collected from the monitoring well and analyzed for TPH-g, BTXE and EPA Method #624/8240 constituents. The results of these analyses are presented in Exhibit D. The results of the TPH-g and BTXE analyses are summarized in Table II.

TABLE II
MONITORING WELL ANALYTICAL RESULTS (ppb)

	TPH-g	BENZENE	TOLUENE	XYLENE	ETHYL-BENZENE
MW-1	1,400	<3	<10	15	<4

UNDERGROUND STORAGE TANK REMOVAL

The underground storage tank was removed on June 9, 1988, by the subcontractor, Eagan & Company. Prior to tank removal, H & H Ship Service removed a 60% water and 35% gas mixture from the tank. A 3 inch gas main and an unidentified line layed over the longitudinal axis of the tank.

The tank backfill consisted of foundry sand which has become cemented since the tank was installed. Excavation of cemented backfill was difficult and required a considerable amount of time.

Groundwater began infiltrating the excavation to a depth of approximately 12 feet bgs. A sheen was visible on the water-table. The majority of contaminated soil was removed from the excavation and stock-piled on Visqueen. Clean soil was separated from contaminated soil based upon apparent odors.

An inspection of the tank indicated that two 1-inch diameter holes had developed due to corrosion at the bottom of the tank and along the fill riser.

Tank Soil Samples

Soil samples were collected by Trace Analysis from beneath the tank (approximately one foot into native soil) at both ends of the tank. (This corresponds to a depth of approximately 11 feet). A soil sample was also collected from a depth of 12 feet along the south wall of the excavation. The soil was brought to the surface for sampling by the backhoe. The results of the soil samples were as follows:

TABLE III

TANK SOIL SAMPLE RESULTS (ppb)

	TPH-g	BENZENE	TOLUENE	XYLENE	ETHYL- BENZENE
#1 - Fill	180	53	<10	<5	<4
#2 - Vent	<40	<3	<10	<5	<4
#3 - 12'	<40	<3	<10	<5	<4

Mr. Jim Ingersole, City of Emeryville Fire Department, was on site during the removal of the tank from the excavation and soil sampling. Because a telephone and electric utility pole bordered the north side of the excavation, the excavation was immediately backfilled with crushed rock to support the pole. The contaminated soil pile was covered with Visqueen.

In compliance with California State Regulations, an Unauthorized Release Form has been filed with the Alameda County Department of Health Services, and the RWQCB, BAAQMD and DOHS have all been notified of the leak. Mr. Dennis Bryne is the official contact for this site at the Alameda County Department of Health Services.

Well Survey

A reconnaissance survey of wells located within a 1/2 mile radius of the site was conducted via telephone conversations with the Alameda County Flood Control District. The results of this survey indicate that no water supply wells are located within 1/2 mile of the site.

Soil Pile Samples

Three soil pile samples were obtained from the contaminated soil pile on June 16, 1988 to confirm the tank soil sample analytical results. Samples were collected from the most obvious points of contamination. Table III indicates the analytical results as performed by Trace Analysis Laboratories.

TABLE IV

SOIL PILE ANALYTICAL RESULTS (ppb)

	THP-g	BENZENE	TOLUENE	XYLENE	ETHYL- BENZENE
NE, Pile	340	28	<10	<20	<20
S, Pile	54,000	310	49	470	82
NW, Pile	220,000	2,400	<1,000	22,000	<2,000

Conclusions

Based upon the above-mentioned observations and analytical results, Blymyer Engineers concludes the following:

- o The site is located in an industrial area.
- o Groundwater is non-potable and is assumed to be brackish in quality.
- o The tank has not been used for 16 years. In addition, the tank passed testing two years ago. Therefore, it appears that contamination has only recently entered the subsurface.
- o Although two underground utility lines ran along tank top, these lines appeared to have been back-filled with native soil rather than with typical sandy back-fill. This native soil has a very low permeability. Therefore, lateral migration away from the tank site is unlikely. The real extent of contamination is assumed to be localized to the tank excavation.
- o Although groundwater has been impacted from the leaking tank, the down gradient monitoring well shows only minimal contamination of 1.4 ppm of total petroleum hydrocarbons as gasoline and .015 ppm of Xylene.
- o There are no water supply wells located within 1/2 mile of the site.

RECOMMENDATIONS

Blymyer Engineers recommends that the groundwater quality at the site be monitored by sampling MW-1 on a quarterly basis. The collected water sample should be analyzed for TPH-g and BTXE. Quarterly reports must be submitted to the RWQCB.

Gasoline contamination soil is in the process of being moved and spread on site for aeration in a 15' x 80' x 1' pile. The BAAQMD will be notified 24 hours in advance of aeration.

Blymyer Engineers, Inc. does not believe any other action be taken at this time and that the groundwater contamination found in the monitoring well is below action levels based upon the assumed water quality in this area of Emeryville.

EXHIBIT "A"

PRECISION TANK TEST RESULTS

Data Chart for Tank System Tightness Test

petro title
TANK TESTER

63011

PLEASE PRINT

1. OWNER Property
 Tank(s)

Name: WINGLER & KELLY Address: 1301 65TH ST EMERYVILLE, CA Representative: _____ Telephone: _____

2. OPERATOR
Name: _____ Address: _____ Representative: _____ Telephone: _____

3. REASON FOR TEST (Explain Fully)
OWNER REQUESTED

4. WHO REQUESTED TEST AND WHEN
Name: MIKE MATSON Title: _____ Company or Affiliation: WINGLER & KELLY Date: _____ Address: _____ Telephone: _____

5. WHO IS PAYING FOR THIS TEST?
Company, Agency or Individual: WINGLER & KELLY Person Authorizing: MIKE MATSON Title: _____ Telephone: _____ Billing Address: _____ City: _____ State: _____ Zip: _____ Attention of: _____ Order No.: _____ Other Instructions: _____

6. TANK(S) INVOLVED	Identify by Direction	Capacity	Brand/Supplier	Grade	Approx. Age	Steel/Fiberglass
	<u>SINGLE</u>	<u>2000</u>				

7. INSTALLATION DATA	Location	Cover	Fills	Vents	Siphones	Pumps
	<u>NORTH OF BUILDING</u> <small>North inside driveway, Rear of station, etc.</small>	<u>CONCRETE</u> <small>Concrete, Blast Top, Earth, etc.</small>	<u>4"</u> <small>Size, Titell make, Drop tubes, Remote Fills</small>	<u>3"</u> <small>Size, Manifolded</small>	<u>N/A</u> <small>Which tanks?</small>	<u>Suction</u> <small>Suction, Remote, Make if known</small>

8. UNDERGROUND WATER
Depth to the Water table _____ Is the water over the tank? Yes No

9. FILL-UP ARRANGEMENTS
Tanks to be filled _____ hr. _____ Date Arranged by _____ Name _____ Telephone _____
Extra product to "top off" and run TSTT. How and who to provide? Consider NO Lead.
Terminal or other contact for notice or inquiry _____ Company _____ Name _____ Telephone _____

10. CONTRACTOR, MECHANICS, any other contractor involved

11. OTHER INFORMATION OR REMARKS

Additional information on any items above. Officials or others to be advised when testing is in progress or completed. Visitors or observers present during test etc.

12. TEST RESULTS
Tests were made on the above tank systems in accordance with test procedures prescribed for **petro title** as detailed on attached test charts with results as follows: 1984

Tank Identification	Tight	Leakage Indicated	Date Tested
<u>SINGLE</u>	<u>YES</u>	<u>7.0086 P.H.</u>	<u>11-11-85</u>

13. CERTIFICATION
4-24-84 Date
708 Serial No. of Thermal Sensor

This is to certify that these tank systems were tested on the date(s) shown. Those indicated as "Tight" meet the criteria established in the National Fire Protection Association Pamphlet 329.

[Signature] Technicians
TRIANGLE OF S... Address
Testing Contractor or Company: _____ By: _____ Signature

EXHIBIT

Bello Tills

18. TASK TO TEST
SWELL

19. CAPACITY
 1000
 1050

20. TEST CONDITIONS
 Test at 100%
 Test at 75%
 Test at 50%
 Test at 25%
 Test at 10%
 Test at 5%

22. FILL-UP FOR TEST
 22.1. FILL-UP TO TEST
 22.2. FILL-UP TO TEST
 22.3. FILL-UP TO TEST

23. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TASK
 Test in tank
 High water table in test assembly
 Mixture being tested with LULU

24. TANK MEASUREMENTS FOR TEST ASSEMBLY
 24.1. TANK MEASUREMENTS FOR TEST ASSEMBLY
 24.2. TANK MEASUREMENTS FOR TEST ASSEMBLY
 24.3. TANK MEASUREMENTS FOR TEST ASSEMBLY

25. TEMPERATURE/VOLUME FACTOR TO TEST THIS TASK
 25.1. TEMPERATURE/VOLUME FACTOR TO TEST THIS TASK
 25.2. TEMPERATURE/VOLUME FACTOR TO TEST THIS TASK
 25.3. TEMPERATURE/VOLUME FACTOR TO TEST THIS TASK

NO TOPICAL SPECIFIC TEST PROCEDURES
 170 Series 100-100
 170 Series 100-100
 170 Series 100-100

27. TIME	28. RECORD LENGTH OF SETTING UP AND RUNNING TEST (SEE TEST LOGS OF TIME IF NEEDED.)	29. TEST POINT	30. OPERATOR'S PRELIMINARY OBSERVATIONS		31. WATER MEASUREMENTS IN TANK TO TEST			32. OPERATOR'S OBSERVATIONS OF TEST			33. TEST RESULTS	34. TEST RESULTS
			Operator's Name	Test Point	Water Volume (L)	Water Volume (L)	Water Volume (L)	Water Volume (L)	Water Volume (L)	Water Volume (L)		
	ASS HRPIVE. CAP SIDE (FOUND TALK TOP) OFF ONE START SWELLING. (ATT TESTING EQUI.)											
1030	START DRAIN RUN											
1030	MANUAL FUEL LEVEL ABOVE 110'											
1035	TAK 1ST SECTOR FUEL						16	.0001				
1045	START H. LEVEL TEST	1	47	950	750	700	248	+7	+0.005	7.205		
1050		2	48	750	660	700	355	+7	+0.005	7.095		
1055		3	49	660	550	710	260	+5	+0.004	7.114		
1100		4	49	550	450	710	263	+3	+0.002	7.102		
1105		5	49	450	370	700	265	+2	+0.001	7.081		
1110		6	49	370	290	700	269	+4	+0.003	7.083		
1131	DROP TO LOW LEVEL											
1145	START LOW LEVEL TEST	7	12		N/A		271	N/A				
1100		8	12	350	360	7010	275	+4	+0.003	7.007	7.007	
1115		9	12	360	360	7.000	278	+3	+0.001	7.001	7.004	
1130		10	12	360	360	7.000	281	+3	+0.001	7.001	7.005	
1145		11	12	360	350	7.010	285	+4	+0.003	7.013	7.008	

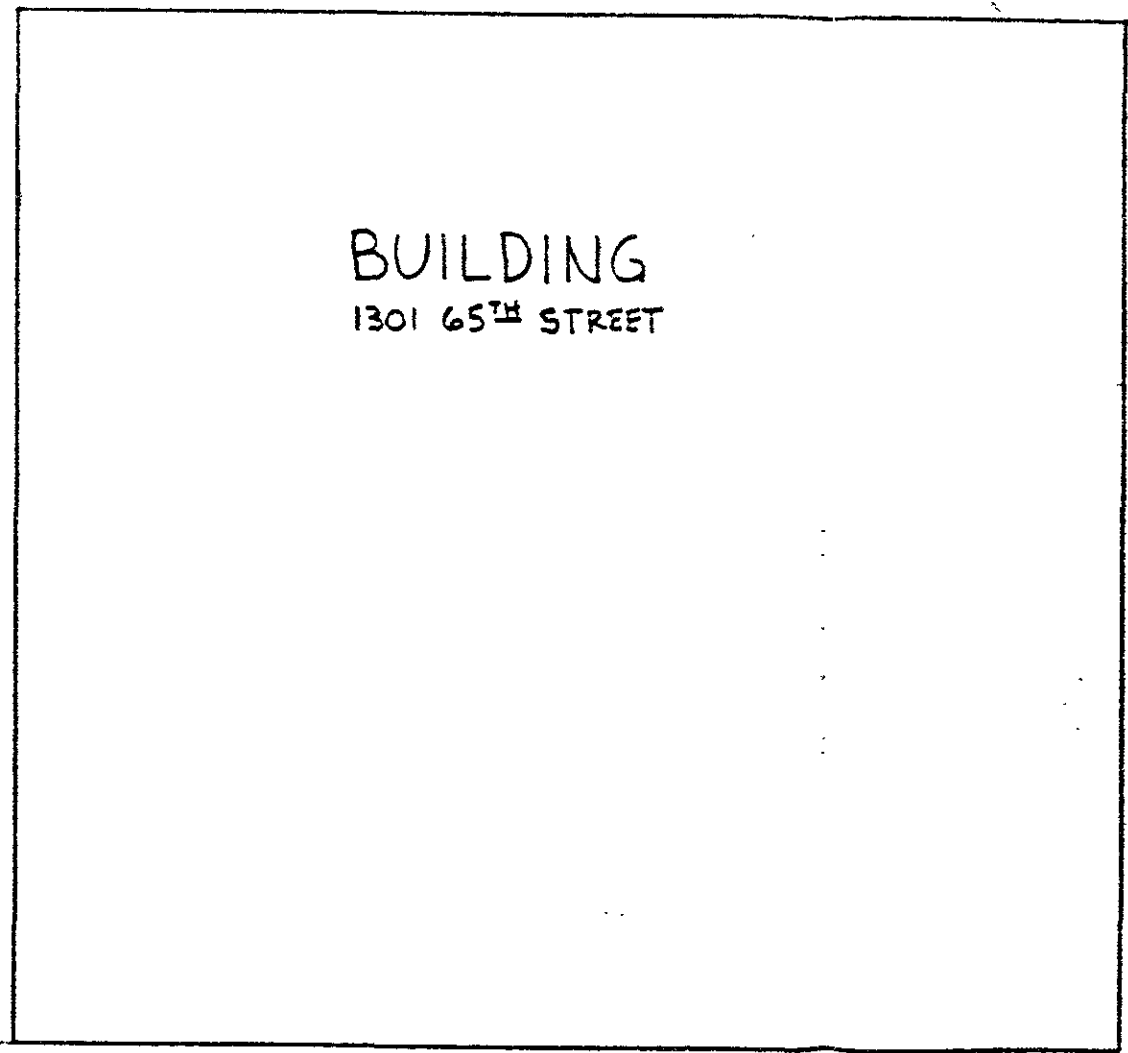
EXHIBIT "B"
SITE LOCATION MAP PLOT PLAN

65TH STREET

HOLLIS STREET

UTILITY POLE
(TYP. 2 LOCATIONS) TANK
EXCAVATION

MW-1
⊗



BUILDING
1301 65TH STREET

N ↑

R

BLYMYER & SONS ENGINEERS, INC. 1829 CLEMENT STREET • ALAMEDA, CA 94501	
SCALE 1" = 30'-0"	FOR HENRY HORN & SONS
DRAWN BEI	TITLE
DATE 6-16-88	
CHECKED	
APPROVED	
JOB NO 8897.1	DRAWING NO
	REV

EXHIBIT "C"

LOG OF BORE

Blymyer Engineers, Inc.

Client: Henry Horn and Sons
 Site: 1301 65th, Emeryville

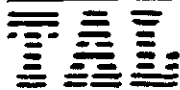
Exploratory Bore Log
 Date: 6/3/98
 Job #: 8897 1
 Rig: 8 1/4" Hollow Stem Auger
 Diameter: 2"
 Boring No: MW-1

Driller: All Terrain Exploration Drilling
 Logged by: Steve Costello/Ensco Environmental Services

Description and Classification					Depth	Sample	Notes
Description and Remarks	Color	Blow Counts	Consist.	Soil Type			
Pavement 4" Asphalt Fill Sandy clayey gravel	Drk Brn						No odors
Clay with minor silt and trace fine sand	Drk Brn			CH			Slight odor Damp
Sandy Clay With fine to coarse sand - Becomes mottled with light brown at 5', few rootholes - Becomes very silty	Grayish Green	7/15/28	Hard	CH	5	1-1	Slight odor Damp
		5/8/10	Very Stiff		10	1-2	Very slight odor Damp
	Lighter	8/13/20	Hard		15	1-3	Wet No odors
	Light Brown	10/15/19			20		No odors No liners
		9/11/14	Very Stiff	CL	25		Wet No odors No liners
Bottom of Borehole							
					30		

EXHIBIT "D"

ANALYTICAL RESULTS & CHAIN-OF-CUSTODY



DATE: 6/13/88

LOG NO.: 6061

DATE SAMPLED: 6/8/88

DATE RECEIVED: 6/8/88

CUSTOMER: Blymyer Engineers, Inc.

REQUESTER: Sue Black

PROJECT: No. 8897, Blymyer Engineers

Sample Type: Soil

Method and Constituent	Units	MW1-1		MW1-2		MW1-3	
		Concen- tration	Detection Limit	Concen- tration	Detection Limit	Concen- tration	Detection Limit
DHS Method:							
Total Petroleum Hydro- carbons as Gasoline	ug/kg	35,000	5,000	630	500	< 500	500
Modified EPA Method 8020:							
Benzene	ug/kg	580	200	20	10	< 10	10
Toluene	ug/kg	460	200	< 10	10	< 10	10
Xylenes	ug/kg	4,900	300	< 20	20	< 20	20
Ethyl Benzene	ug/kg	670	200	< 10	10	< 10	10

Hugh R. McLean
 Hugh R. McLean
 Supervisory Chemist

HRM:vls

DATE: 6/20/88
 LOG NO.: 6073
 DATE SAMPLED: 6/9/88
 DATE RECEIVED: 6/9/88
 PAGE: Two

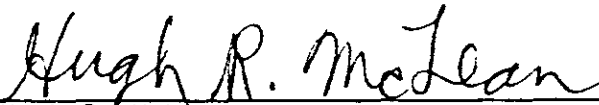
Sample Type: Water

<u>Method and Constituent</u>	<u>Units</u>	<u>MW1</u>	
		<u>Concen- tration</u>	<u>Detection Limit</u>
DHS Method:			
Total Petroleum Hydro- carbons as Gasoline	ug/l	1,400	40
Modified EPA Method 8020:			
Benzene	ug/l	< 3	3
Toluene	ug/l	< 10	10
Xylenes	ug/l	15	5
Ethyl Benzene	ug/l	< 4	4
EPA Method 8240:			
Chloromethane	ug/l	< 3	3
Bromomethane	ug/l	< 3	3
Vinyl chloride	ug/l	< 3	3
Chloroethane	ug/l	< 3	3
Methylene chloride	ug/l	< 9	9
Trichlorofluoromethane	ug/l	< 3	3
1,1-Dichloroethene	ug/l	< 3	3
1,1-Dichloroethane	ug/l	< 3	3
trans-1,2-Dichloroethene	ug/l	100	3 ✓
Chloroform	ug/l	< 3	3
1,2-Dichloroethane	ug/l	< 3	3
1,1,1-Trichloroethane	ug/l	< 3	3
Carbon tetrachloride	ug/l	< 3	3
Bromodichloromethane	ug/l	< 3	3
1,2-Dichloropropane	ug/l	< 3	3
trans-1,3-Dichloropropene	ug/l	< 3	3
Trichloroethene	ug/l	52	3 ✓
Benzene	ug/l	< 3	3

DATE: 6/20/88
LOG NO.: 6073
DATE SAMPLED: 6/9/88
DATE RECEIVED: 6/9/88
PAGE: Three

Sample Type: Water

<u>Method and Constituent</u>	<u>Units</u>	<u>MW1</u>	
		<u>Concen- tration</u>	<u>Detection Limit</u>
EPA Method 8240 (Continued):			
Dibromochloromethane	ug/l	< 3	3
1,1,2-Trichloroethane	ug/l	< 3	3
cis-1,3-Dichloropropene	ug/l	< 3	3
2-Chloroethylvinyl ether	ug/l	< 3	3
Bromoform	ug/l	< 3	3
1,1,2,2-Tetrachloroethane	ug/l	5.2	3 ✓
Tetrachloroethene	ug/l	< 3	3
Toluene	ug/l	< 9	9
Chlorobenzene	ug/l	< 3	3
Ethyl benzene	ug/l	< 3	3
1,3-Dichlorobenzene	ug/l	< 3	3
1,2-Dichlorobenzene	ug/l	< 3	3
1,4-Dichlorobenzene	ug/l	< 3	3
Other Constituents Identified:			
Butane	ug/l	33	20 ✓
Cyclopentane	ug/l	20	20 ✓
2-Methyl-Butane	ug/l	63	20 ✓
Cyclohexane	ug/l	29	20 ✓
2-Ethyl-3-Methyl-1- Butene	ug/l	37	20 ✓


Hugh R. McLean
Supervisory Chemist

HRM:mln

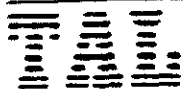
CHAIN OF CUSTODY RECORD

PROJ NO. 8897		PROJECT NAME Hourly Hard Co Soaps			NO OF CON TAINERS	# 8290 BY 10 REAKS TPH + BTXE	BILL TO BLYMYER ENGINEERS
SAMPLERS: (Signature) Water WATER SAMPLE							

STA. NO.	DATE	TIME	NO	GRAB	STATION LOCATION	CON TAINERS		REMARKS
ML-1	6/10	11:15		X	Monitoring well	2	X X	48 hr TURNAROUND
ML-1	6/10	11:28		X	↓	2	X X	RETURN ICE CHEST TO BLYMYER

Relinquished by: (Signature) <i>[Signature]</i>	Date / Time 6/9/88 12:00	Received by: (Signature) <i>[Signature]</i>	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)	Date / Time	Received for Laboratory by: (Signature)	Date / Time 6/9/88	Remarks	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files



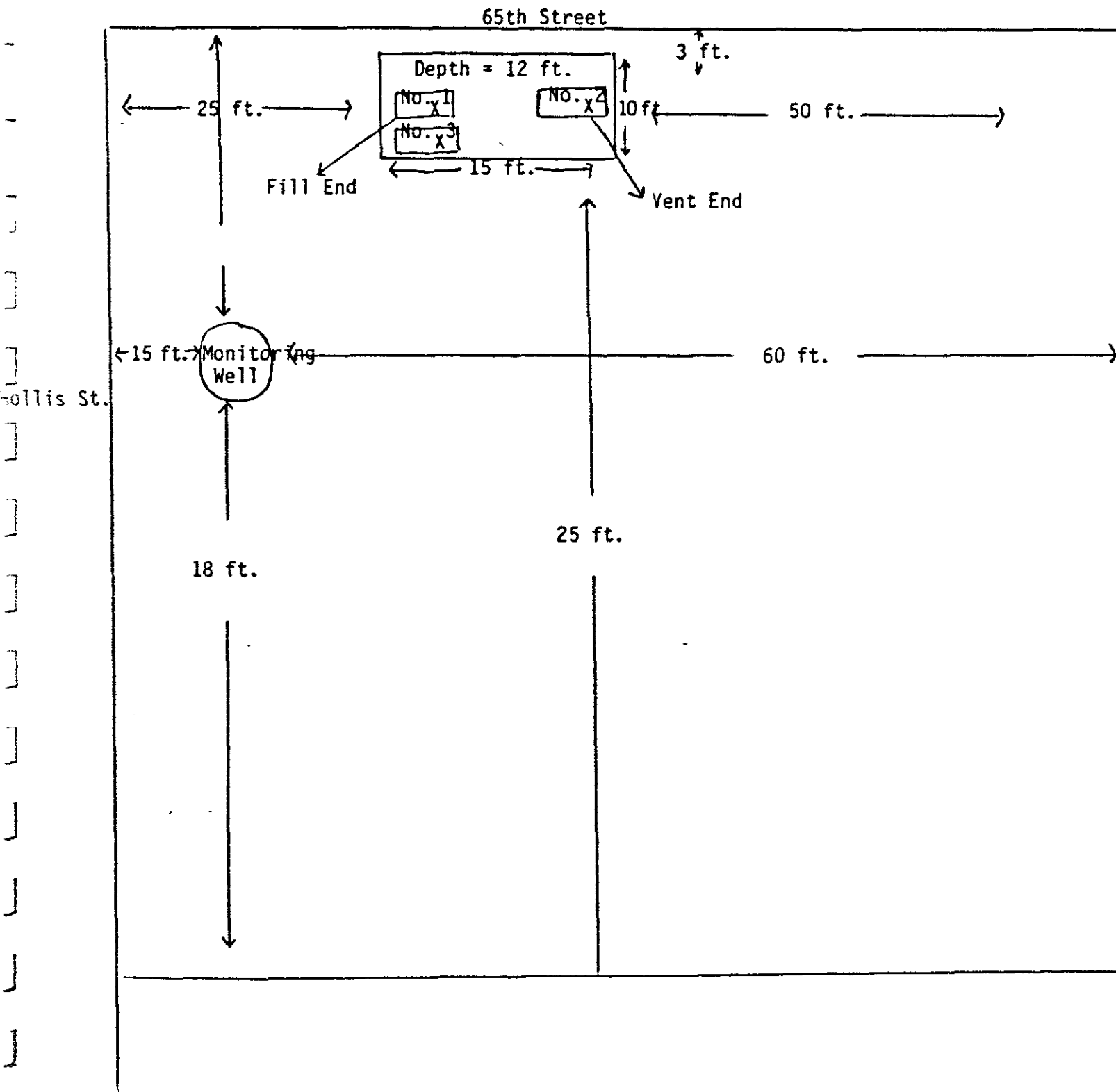
DATE: 6/20/88
 LOG NO.: 6073
 DATE SAMPLED: 6/9/88
 DATE RECEIVED: 6/9/88

CUSTOMER: Blymyer Engineers, Inc.
 REQUESTER: Sue Black
 PROJECT: No. 8897, Henry Horn and Sons

Sample Type: Soil

Method and Constituent	Units	No. 1, Fill End		No. 2, Vent End		No. 3, 12 ft.	
		Concen- tration	Detection Limit	Concen- tration	Detection Limit	Concen- tration	Detection Limit
DHS Method:							
Total Petroleum Hydro- carbons as Gasoline	ug/kg	180	100	< 500	500	< 500	500
Modified EPA Method 8020:							
Benzene	ug/kg	52	10	< 10	10	< 10	10
Toluene	ug/kg	< 10	10	< 10	10	< 10	10
Xylenes	ug/kg	< 20	20	< 20	20	< 20	20
Ethyl Benzene	ug/kg	< 10	10	< 10	10	< 10	10

Henry Horn and Sons
1301 65th Street
Emeryville, CA





DATE: 7/5/88
LOG NO.: 6107
DATE SAMPLED: 6/16/88
DATE RECEIVED: 6/17/88

CUSTOMER: Blymyer Engineers, Inc.
REQUESTER: Sue Black
PROJECT: No. 8897.1, Henry Horn and Son

Sample Type: Soil

Method and Constituent	Units	No. 1, N.E. Pile		No. 2, South Pile		No. 3, N.W. Pile	
		Concentration	Detection Limit	Concentration	Detection Limit	Concentration	Detection Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	340	300	54,000	500	220,000	10,000
Modified EPA Method 8020:							
Benzene	ug/kg	28	10	310	10	2,400	1,000
Toluene	ug/kg	< 10	10	49	10	< 1,000	1,000
Xylenes	ug/kg	< 20	20	470	20	22,000	2,000
Ethyl Benzene	ug/kg	< 20	20	82	20	< 2,000	2,000

Hugh R. McLean
Hugh R. McLean
Supervisory Chemist

HRM:mln

