BSK & ASSOCIATES

GEOTECHNICAL CONSULTANTS, INC.

BSK JOB NO. P92270.3

FIRST QUARTERLY GROUNDWATER MONITORING REPORT - AUGUST 1993 AMERICAN BRASS & IRON FOUNDRY 7825 SAN LEANDRO STREET OAKLAND, CALIFORNIA

BSK & Associates

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September 16, 1993

BSK Job No. P92270.3

American Brass and Iron Foundry
7825 San Leandro Street
Oakland, CA 94621

Attention: Mr. David Robinson
Environmental Engineer

Subject: First Quarterly
Groundwater Monitoring Report - August 1993
American Brass and Iron Foundry
7825 San Leandro Street
Oakland, California

As requested and authorized, BSK & Associates has performed the first quarterly monitoring of four shallow groundwater monitoring wells, MW-1 through MW-4, at American Brass and Iron Foundry (AB & I), located at 7825 San Leandro Street, Oakland, California. This report presents the project background, groundwater data obtained during this August 1993 sampling event, conclusions based on this quarter's data, and recommendations for further action, as appropriate. The site location is shown on the Site Location Map, Figure 1.

BSK appreciates this opportunity to continue to be of service to American Brass & Iron. If there are questions or comments regarding this report, please contact the undersigned.

Respectfully submitted,
BSK & Associates

Tim W. Berger, C.E.G. 1828
Project Geologist

Alex Y. Eskandari, C.E. 38101
Project Manager

AYE\TWB:ndp
(ENV\P92270Q1.ABI)

Distribution: American Brass & Iron (Original plus 2 copies)

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GROUNDWATER MONITORING REPORT
AMERICAN BRASS & IRON FOUNDRY
7825 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

Introduction

This quarterly monitoring event has been prepared to meet Alameda County Department of Environmental Health (ACDEH) concerns regarding the status of groundwater at the Site following the removal of four UST during 1991 and 1992, as initially presented in their letter of October 2, 1992, to David Robinson of American Brass & Iron Foundry (AB & I).

Background

American Brass & Iron Foundry has been operating at its present location for more than eighty years. AB & I's current activities include the manufacture of cast iron pipe and fittings. The facility accepts scrap iron and steel, which it stockpiles on-site, and utilizes in its processes.

AB & I maintained three USTs to store petroleum products and one UST to store solvent. AB & I removed the four USTs between August 1991 and June 1992. Removal and disposal of two of the USTs (the 8,000-gallon capacity gasoline tank and the 550-gallon capacity leaded gasoline tank) were described in two consultant's (Levine-Fricke) reports. Documentation of the removal and disposal of the two remaining USTs (the 8,000-gallon capacity 1,1,1-TCA UST and the 10,000-gallon capacity diesel UST) was reported by AB & I.

In general, analytical results for the soil and groundwater samples collected adjacent to the tanks during the tank removal projects showed detectable concentrations of Total Petroleum Hydrocarbons as gasoline (TPHg), Total Petroleum Hydrocarbons as diesel (TPHd), 1,1-DCA, Chloroethane, and 1,1,1-TCA. Affected soil at each former tank location was excavated until confirmation samples indicated the chemicals of concern were at relatively low concentrations, or to where an obstruction made further excavation impossible or hazardous.

BSK & Associates installed four shallow groundwater monitoring wells at the Site in February 1993, one well per former tank location. Soil and groundwater samples revealed soil contamination in the vicinities of the former 500-gallon gasoline tank and the TCA solvent tank, and contaminated groundwater at these two locations as well as the former diesel tank location. The well installation and sampling findings are presented in BSK Report, P92270.3, dated April 30, 1993.

FIRST QUARTERLY MONITORING ACTIVITIES

General

Quarterly monitoring of groundwater monitoring wells MW-1, MW-2, MW-3 and MW-4 was performed by BSK personnel on August 20, 1993, in acccordance with the Groundwater Well Monitoring portion of our Proposal, PR93204.3 of July 29, 1993. Field procedures and observations are provided in the following text and figures.

Field Work

Water samples from site wells were obtained after purging each well of three to five casing volumes, and allowing eighty percent recovery. Observation of water level, and for immiscible product was performed using an electric sounder and point-source bailer prior to purging. The water level was recorded to the nearest 1/100th of a foot. During purging, the water parameters: pH, temperature and conductivity were monitored and recorded at regular intervals on Well Field Logs to assess the influx of fresh formation water. The Well Field Logs are presented in Figures 3 through 6. Water samples for analytical testing were obtained in the order of most to least volatility. Samples were obtained via electric submersible pump, and transferred to the appropriate sample containers, with preservative as needed. Metals samples were field-filtered using a high-capacity in-line 0.45 micron filter prior to preservation. The samples were labeled, and refrigerated to 4°C on-site using water-ice or blue ice, and submitted to AB & I for release to an analytical laboratory of their choice.

Sampling, purging and decontamination waste water was contained on-site in 55-gallon DOT drums provided by AB & I. Each container was labeled according to the wastewater source, date of accumulation and owner.

Analytical Testing

Analytical testing of soil and water samples obtained from the site were performed by NET laboratories of Santa Rosa, California, under contract with AB & I.

The analyses performed for each contaminant type are those specified by the Tri-Regional Water Board Staff Recommendations of August 10, 1992. The analyses are:

Well MW-1
TPHdiesel by GCFID-3510
BTEX by Method 602

Well MW-2
Chlorinated Solvent by EPA Method 601
Oil and Grease by Methods 5520 C&F
TPHgasoline by GCFID-5030
BTEX by EPA Method 602

Well MW-3
TPHgasoline by GCFID-5030
BTEX by Method 602

Well MW-4
TPHgasoline by GCFID-5030
BTEX by Method 602
Total Lead

Samples were submitted to the analytical laboratory utilizing Chain-Of-Custody documentation and procedure.

The results of the chemical analyses of groundwater for this quarter, and previous test results, are summarized in the following tables; water analyses results are reported in Parts Per Billion-PPB (ug/l):

TABLE 1A - WATER RESULTS

BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES (BTEX)

	CONSTITUENTS			
Sample Location (Action Level)	**Benzene $(1)_1$**	**Toluene $(100)_2$**	**Ethylbenzene $(680)_1$**	**Xylenes $(1750)_1$**
SAMPLE DATE:	08/20/93	1st Qtr R		
MW-1	2.2	3.7	4.5	17
MW-2	2.9	4.2	6.3	25
MW-3	7.2	9.3	8.6	31
MW-4	5.6	4.9	7.5	22
SAMPLE DATE:	03/10/93	Initial Sampling		
MW-1	0.6	ND	ND	ND
MW-2	ND	0.8	ND	ND
MW-3	ND	ND	ND	ND
MW-4	1.0	2.0	7.6	19

ND - None Detected
1 - California Department Of Health Services Drinking Water Standard, Revised 10/23/91
2 - California DOHS Action Level, 7/1/92

TABLE 1B - WATER RESULTS

TOTAL PETROLEUM HYDROCARBONS (TPH) AS GASOLINE AND DIESEL,TOTAL AND HYDROCARBON OIL AND GREASE, TOTAL LEAD, AND VOLATILE HALOCARBONS

CONSTITUENTS						
Sample Location (Action Level)	**TPH Gasoline (NA)**	**TPH Diesel (NA)**	**Total Oil & Grease (NA)**	**Hydrocarbon Oil & Grease (NA)**	**Total Lead (50)**	**Volatile Halocarbons (Determined by Compound)**
SAMPLE DATE: 08/20/93 (?) 1st QMR						
MW-1	--	$2100_{(1)}$	--	--	--	--
MW-2	$720_{(2)}$	--	ND	ND	--	4.7 - Chloroethane(NA)
MW-3	190	--	--	--	--	--
MW-4	350	--	--	--	ND	--
SAMPLE DATE: 03/10/93 installed wells						
MW-1	--	830	--	--	--	--
MW-2	920	--	1.0	ND	--	0.6 - Bromoform$(100)_2$ 5 - Chloroethane(NA) 1.7 - 1,1-Dichloroethane$(0.5)_1$ 6.7 - 1,1,1-Trichloroethane$(200)_1$
MW-3	ND	--	--	--	--	--
MW-4	1800	--	--	--	58.O	--

ND - None Detected
NA - Not Applicable
-- - Not Tested
1 - California Department of Health Services Drinking Water Standards, Revised 10/23/91.
2 - EPA Drinking Water Standard, Revised 7/1/92
(1) - "Not Diesel-Like", as reported by analytical laboratory
(2) - "Not Gasoline-Like", as reported by analytical laboratory

FIRST QUARTERLY MONITORING OBSERVATIONS

Regional Hydrogeology

The American Brass & Iron facility is located on the San Leandro alluvial cone of the East Bay Plain. The upper 400 feet of the San Leandro Cone comprises discontinuous beds of sand and gravel which extend westward under San Francisco Bay, and are capped by confining clay layers. Groundwater in this area is used mainly for industrial and irrigation purposes, but is suitable in quality for most uses. Shallow aquifers of limited extent are located throughout the Bay Plain, are often perched and unconfined, and typically yield less than 35 gallons per minute from silty sands. These aquifers are often tapped by wells less than 50 feet in depth and used for local irrigation. These minor aquifers are most susceptible to groundwater pollution (Maslonowski, 1984).

Site Hydrogeology

Groundwater was initially encountered from 8 to 12 feet in depth at the site. Water levels in well borings stabilized at a depth below present grade of 5 to 7 feet. Some water from saturated fill material may have contributed to the stabilized levels. Clayey deposits encountered in borings were typically damp to moist, with wet fractures and pores, if present. Sand horizons were wet to saturated.

Contamination of groundwater was observed in Wells MW-1, MW-2 and MW-4 during purging and sampling. Free product was not observed, though surface sheen was observed in Well MW-2. A notable odor was associated with well MW-4.

Two three-point problems were used to assess the groundwater flow direction at the site. The solution utilizing wells MW-2, MW-3 and MW-4 indicates flow to the northeast at a relatively steep gradient of 1.5 percent. The solution utilizing wells MW-1, MW-2 and MW-3 indicates water flow to the north-northwest, at a gradient of 0.8 percent.

Groundwater flow direction and gradient determination made in March 1993 indicated flow to the northwest at a gradient of 0.4 percent. Groundwater levels at the site since March have fallen 0.24 feet in the northwest corner of the Site to 2.16 feet at the east property line. The reason for the marked change in flow direction since March, and the differing flow paths within the Site at present is unknown, but may result from fluctuating water due to seasonal variance in inflow, local pumping and tide effects.

Figure 7, Groundwater Flow Direction and Gradient, illustrates groundwater flow direction and gradient determined from data obtained from the Site on August 20, 1993.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on chemical analyses of water samples, field observation and measurement during the first quarterly water sampling of groundwater monitoring wells, MW-1 through MW-4, degradation of water quality is apparent at well locations MW-1, MW-2, MW-3 and MW-4.

Diesel fuel weight hydrocarbons (TPHd) were detected in water at Well MW-1, as well as concentrations of Benzene, Toluene, Xylene and Ethylbenzene (BTEX). The latter three compounds were not detected in the initial sampling performed in March 1993. The TPHd concentration exceeded informal regulatory "flag" levels; the Benzene concentration exceeded the State drinking water standard. The analytical laboratory reports that the TPHd chromatogram is atypical of Diesel fuel, and may represent other similar weight compounds (see Figure A-2, Chemical Test Data Sheets).

Gasoline weight hydrocarbons (TPHg), BTEX, and a Volatile Halocarbon (Chloroethane) were detected in water from Well MW-2. The TPHg concentration exceeded informal regulatory "flag" levels; the Benzene concentration exceeded the State drinking water standard. TPHg and Volatile Halocarbon concentrations are less than in March 1993, BTEX concentrations have increased. The analytical laboratory reports that the TPHg chromatogram is atypical of Gasoline, and may represent other similar weight compounds (see Figure A-3, Chemical Test Data Sheets). The reported BTEX compounds were verified as BTEX, however.

BTEX and TPHg were detected in Well MW-3. The TPHd concentration exceeded informal regulatory "flag" levels; the Benzene concentration exceeded the State drinking water standard. No concentrations of the contaminants tested for were detected in this well in March 1993.

TPHg and BTEX were detected at Well location MW-4. The TPHg concentration exceeded informal regulatory "flag" levels; the Benzene concentration exceeded the State drinking water standard. BTEX concentrations were similar to those detected in March 1993, the TPHg concentration was significantly less than March 1993. No lead was detected this sampling event, as opposed to a trace concentration detected in March 1993.

Recommendations

The assessment of lateral extent of shallow groundwater contamination should be considered in the vicinity of Wells MW-2 and MW-4. ACDEH has indicated that quarterly monitoring of Well MW-1 would be sufficient at this time (ACDEH letter to AB & I of June 18, 1993).

Quarterly monitoring of the four wells installed should continue to be performed to assess contaminant concentration fluctuation with respect to groundwater level, gradient and flow direction. With respect to the reported atypical responses to TPH tests in Wells MW-1 and MW-2, the chromatograms may be reviewed by an experienced analytical chemist for information aiding in identification of the unkown compounds.

Additional characterization at the site should include the acquisition of data pertaining to the physical and chemical characteristics of the subsurface environment, for use in remedial planning and hydrologic control of contaminants.

LIMITATIONS

This groundwater monitoring well report has been prepared for the exclusive use of American Brass & Iron Foundry Company. Unauthorized use of or reliance on the information contained in this report by others, unless given express written consent by BSK & Associates, is strictly prohibited.

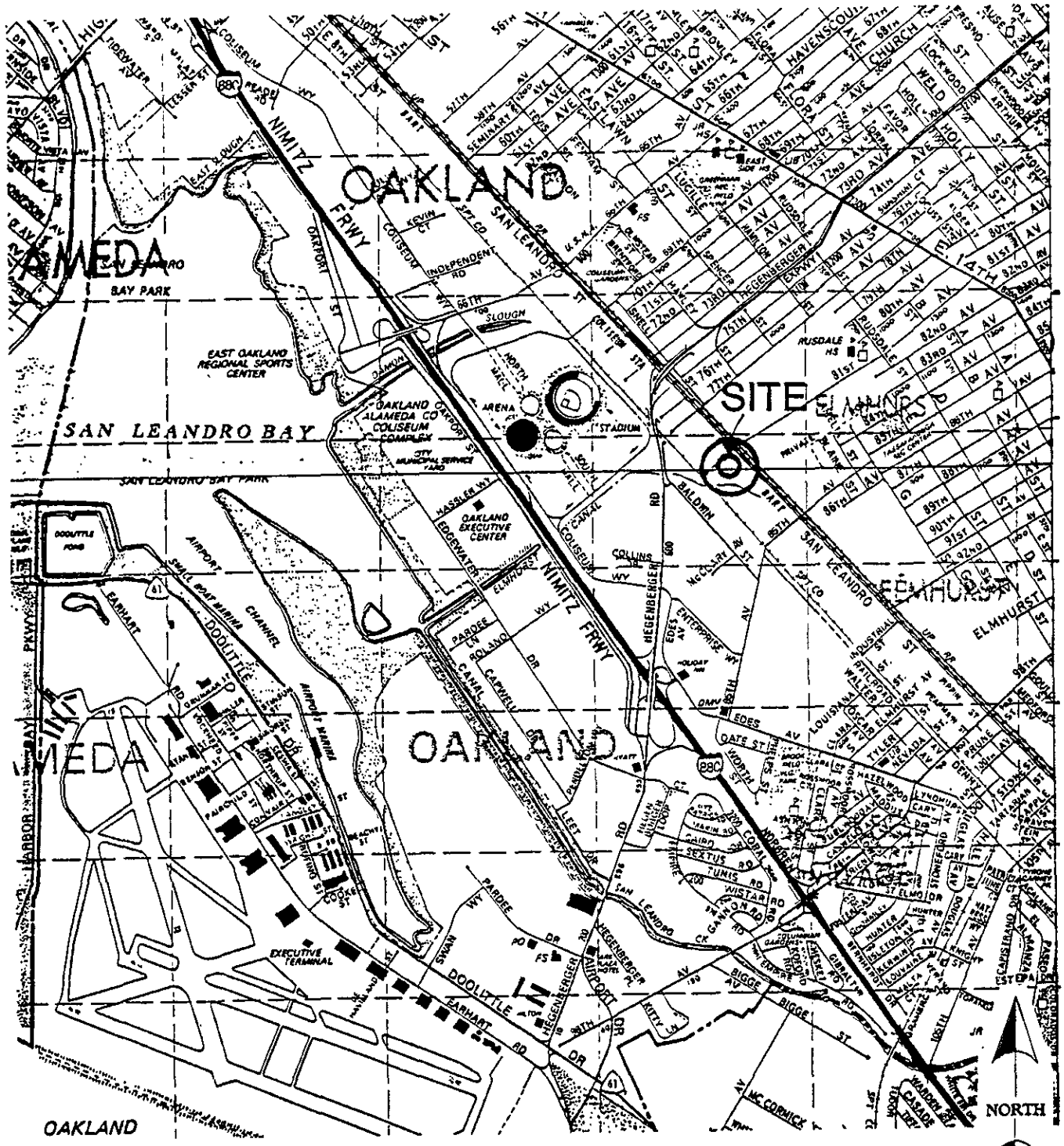
The findings and conclusions presented in this report are based on field observations, and on data obtained from the sources listed in this report. This report has been prepared in accordance with generally accepted methodologies and standards of practice for the area. No other warranty, either expressed or implied, is made as to the findings or conclusions included in this report.

The findings of this report are valid as of the present. The passage of time, natural processes or human intervention on the property or adjacent properties, and changes in the regulations can cause changed conditions which can invalidate the findings and conclusions in this report.

This report is neither certification nor guarantee that the property is free of, or contains hazardous substance contamination, other than that mentioned in the report.

DISTRIBUTION

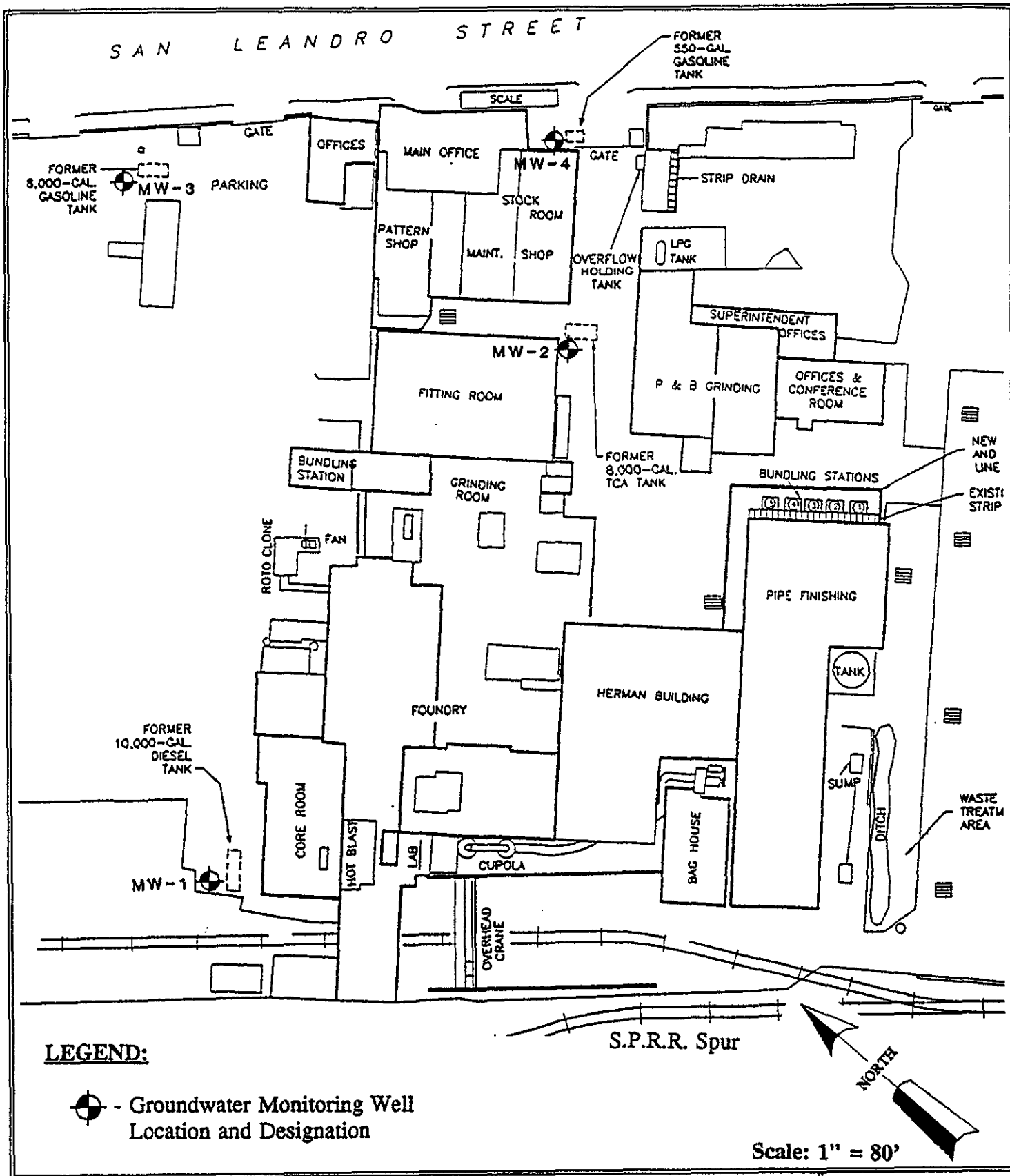
A copy of this report should be forwarded by the client to the Alameda County Department of Environmental Health for their review. An extra copy of this report has presented to American Brass and Iron Foundry for this purpose.



Source: Thomas Guide, 1992, Alameda and Contra Costa Counties

Scale: 1' = 2200'

FIRST QUARTERLY GROUNDWATER MONITORING AMERICAN BRASS & IRON FOUNDRY 7825 SAN LEANDRO STREET OAKLAND, CALIFORNIA	VICINITY MAP Job No. P92270.3 September 1993 FIGURE: 1	BSK & ASSOCIATES



LEGEND:

⊕ - Groundwater Monitoring Well Location and Designation

Scale: 1" = 80'

FIRST QUARTERLY GROUNDWATER MONITORING AMERICAN BRASS & IRON FOUNDRY 7825 SAN LEANDRO STREET OAKLAND, CALIFORNIA	**SITE PLAN** Job No. P92270.3 September 1993 FIGURE: 2	**BSK** & ASSOCIATES

BSK Job No.: P92270.3
Date: September 1993
Figure No.: 3

WELL FIELD LOG

Well Observation: x Date: 08/20/93
Sample Collection: x Date: 08/20/93

Project Name: American Brass & Iron
Location: Oakland, CA
Personnel: TWB
Weather: Overcast, ± 65° F.

WELL INFORMATION:

Well Number	MW-1	Date Purged	08/20/93
Depth to Water - feet(TOC)	7.47	Purge Method	Electric Submersible Pump
Well Depth (feet)	20		
Water Volume (gallons)	2.0	Purge Begin	09:53
Reference Elevation - feet(TOC)	+9.52	Purge End	10:00
Groundwater Elevation (feet)	+2.05	Purge Rate	1.3 GPM
Measurement Technique	Solinst Electric Water Sounder		

IMMISCIBLE LAYERS:

Top: None
Bottom: Not Observed
Detection Method: Visual
Collection Method: Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (Ec/Range)	Ph	TEMP. (°F)	COLOR/COMMENTS
09:53	1.0	576	7.80	71.2	Clear
09:55	3.5	4060	7.00	69.4	Lt. gray, opaque
09:58	6.0	4060	6.98	67.7	", semi-opaque
10:00	9.0	4030	6.92	67.4	Clear, faint odor
10:03	Depth to water:	7.65 feet			

SAMPLE COLLECTION DATA:

Sampling Equipment: Electric Submersible Pump

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
10:07	TPHd	2-250 ml amber glass bottles with H_2SO_4	15-17'
"	BTEX	2-40 ml glass vials with Hcl	"

Field Observations: Spray painted at well casing top.

BSK Job No.: P92270.3
Date: September 1993
Figure No.: 4

WELL FIELD LOG

Well Observation: x Date: 08/20/93
Sample Collection: x Date: 08/20/93

Project Name: American Brass & Iron
Location: Oakland, CA
Personnel: TWB
Weather: Overcast, ±70° F.

WELL INFORMATION:

Well Number	MW-2	Date Purged	08/20/93
Depth to Water - feet(TOC)	5.30	Purge Method	Electric Submersible Pump
Well Depth (feet)	17		
Water Volume (gallons)	7.5	Purge Begin	11:20
Reference Elevation - feet(TOC)	+7.60	Purge End	11:38
Groundwater Elevation (feet)	+2.30	Purge Rate	1.4 GPM
Measurement Technique	Solinst Electric Water Sounder		

IMMISCIBLE LAYERS:

Top: Light sheen observed at water surface
Bottom: Not Observed
Detection Method: Visual
Collection Method: Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (Ec/Range)	Ph	TEMP. (°F)	COLOR/COMMENTS
11:20	0.0	3610	7.63	76.3	Clear
11:22	5.0	1908	6.60	75.8	Gray, sulfide odor
11:25	11.0	1933	6.51	74.9	" ,opaque, spotty sheen
11:32	20.0	1988	6.52	74.4	", no sheen
11:38	26.0	1977	6.70	73.9	Lt. gray, semi-clear
11:40	Depth to water:	5.68 feet			

SAMPLE COLLECTION DATA:

Sampling Equipment: Electric submersible pump

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
11:45	EPA 601	2-40 ml glass vials with HCl	±10'
"	TPH-G and BTEX	2-40 ml glass vials with HCl	"
"	Total and Hydrocarbon Oil & Grease	1-liter amber glass bottle with H_2SO_4	"

Field Observations: None

BSK Job No.: P92270.3
Date: September 1993
Figure No.: 5

WELL FIELD LOG

Well Observation: x **Date:** 08/20/93
Sample Collection: x **Date:** 08/20/93

Project Name: American Brass & Iron
Location: Oakland, CA.
Personnel: TWB
Weather: Overcast, ±70° F.

WELL INFORMATION:

Well Number	MW-3	Date Purged	08/20/93
Depth to Water - feet(TOC)	8.28	Purge Method	Electric Submersible Pump
Well Depth (feet)	19		
Water Volume (gallons)	1.7	Purge Begin	08:32
Reference Elevation - feet(TOC)	+9.83	Purge End	08:39
Groundwater Elevation (feet)	+1.55	Purge Rate	0.9 GPM
Measurement Technique	Solinst Electric Water Sounder		

IMMISCIBLE LAYERS:

Top: None
Bottom: Not observed
Detection Method: Visual
Collection Method: Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (Ec/Range)	Ph	TEMP. (°F)	COLOR/COMMENTS
08:34	1	664	6.86	65.5	Clear
08:36	2.5	2560	6.56	67.1	"
08:37	5.0	2520	6.63	68.3	"
08:39	6.5	2550	6.60	69.1	"
08:42	Depth to water:	8.29 feet			

SAMPLE COLLECTION DATA:

Sampling Equipment: Electric submersible pump

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
08:42	TPH-G & BTEX	2-40 ml glass vials with HCl	± 17'

Field Observations: Spray painted at well casing top.

BSK Job No.: P92270.3
Date: September 1993
Figure No.: 6

WELL FIELD LOG

Well Observation: x **Date:** 08/20/93
Sample Collection: x **Date:** 08/20/93

Project Name: American Brass & Iron
Location: Oakland, CA
Personnel: TWB
Weather: Cloudy, ±65° F.

WELL INFORMATION:

Well Number	MW-4	Date Purged	08/20/93
Depth to Water - feet(TOC)	8.23	Purge Method	Electric Submersible Pump
Well Depth (feet)	26.5		
Water Volume (gallons)	2.9	Purge Begin	13:03
Reference Elevation - feet(TOC)	9.52	Purge End	13:11
Groundwater Elevation (feet)	+1.29	Purge Rate	1.3 GPM
Measurement Technique	Solinst Electric Water Sounder		

IMMISCIBLE LAYERS:

Top: Clear, distinct odor
Bottom: Not Observed
Detection Method: Visual
Collection Method: Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (Ec/Range)	Ph	TEMP. (°F)	COLOR/COMMENTS
13:04	1.0	659	7.55	79.4	Clear, odor
13:07	5.0	986	7.03	75.5	"
13:10	9.0	976	6.80	73.6	"
13:11	10.0	Depth to Water:	8.34 feet		"

SAMPLE COLLECTION DATA:

Sampling Equipment: Electric submersible pump

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
13:20	TPH-G & BTEX	2-40 ml glass vials with HCl	±10'
"	Total Lead	1-16 oz. plastic bottle with HNO_3	"

Field Observations: None

FIGURE: A-1

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

John Fehringer
AB&I
7825 San Leandro
Oakland, CA 94621

Date: 09/09/1993
NET Client Acct. No: 82300
NET Pacific Job No: 93.03660
Received: 08/24/1993

Client Reference Information

American Brass & Iron

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack FOR:
Laboratory Manager

9/15/93

Enclosure(s)

FIGURE: A-2

Client Acct: 82300
Client Name: AB&I
NET Job No: 93.03660

Date. 09/09/1993
ELAP Certificate: 1386

Ref: American Brass & Iron

SAMPLE DESCRIPTION: MW-1
Date Taken: 08/20/1993
Time Taken: 10:07
NET Sample No: 171407

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
METHOD 8020 (GC,Liquid)							
DILUTION FACTOR*	1						09/01/1993
Benzene	2.2		0.5	ug/L	8020		09/01/1993
Toluene	3.7		0.5	ug/L	8020		09/01/1993
Ethylbenzene	4.5		0.5	ug/L	8020		09/01/1993
Xylenes (Total)	17		0.5	ug/L	8020		09/01/1993
SURROGATE RESULTS	--						09/01/1993
Bromofluorobenzene (SURR)	99			% Rec.			09/01/1993
METHOD 3510/M8015						08/26/1993	
DILUTION FACTOR*	2						08/26/1993
as Diesel	2.1**		0.05	mg/L	3510		08/26/1993

** The positive result for Petroleum Hydrocarbons as Diesel does not appear to have a typical Diesel pattern.

FIGURE: A-3

Client Acct: 82300
Client Name: AB&I
NET Job No: 93.03660

Date: 09/09/1993
ELAP Certificate: 1386
Page: 3

Ref: American Brass & Iron

SAMPLE DESCRIPTION: MW-2
Date Taken: 08/20/1993
Time Taken: 11:45
NET Sample No: 171405

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
Oil & Grease (Total)	ND		5	mg/L	5520B		08/31/1993
Oil & Grease (Non-Polar)	ND		5	mg/L	5520B/F		08/31/1993
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						09/01/1993
DILUTION FACTOR*	1						09/01/1993
as Gasoline	0.72**		0.05	mg/L	5030		09/01/1993
METHOD 8020 (GC,Liquid)	--						09/01/1993
Benzene	2.9		0.5	ug/L	8020		09/01/1993
Toluene	4.2		0.5	ug/L	8020		09/01/1993
Ethylbenzene	6.3		0.5	ug/L	8020		09/01/1993
Xylenes (Total)	25		0.5	ug/L	8020		09/01/1993
SURROGATE RESULTS	--						09/01/1993
Bromofluorobenzene (SURR)	126***			% Rec.	5030		09/01/1993

** The positive result for Petroleum Hydrocarbons as Gasoline does not appear to have a typical Gasoline pattern.

*** High surrogate recovery due to matrix interference.

NET®

Client Acct: 82300
Client Name: AB&I
NET Job No: 93.03660

Date: 09/09/1993
ELAP Certificate: 1386
Page: 4

Ref: American Brass & Iron

SAMPLE DESCRIPTION: MW-2
Date Taken: 08/20/1993
Time Taken: 11:45
NET Sample No: 171405

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
METHOD 601 (GC,Liquid)							
DILUTION FACTOR*	1						08/27/1993
Bromodichloromethane	ND		0.4	ug/L	601		08/27/1993
Bromoform	ND		0.4	ug/L	601		08/27/1993
Bromomethane	ND		0.4	ug/L	601		08/27/1993
Carbon tetrachloride	ND		0.4	ug/L	601		08/27/1993
Chlorobenzene	ND		0.4	ug/L	601		08/27/1993
Chloroethane	4.7		0.4	ug/L	601		08/27/1993
2-Chloroethylvinyl ether	ND		1.0	ug/L	601		08/27/1993
Chloroform	ND		0.4	ug/L	601		08/27/1993
Chloromethane	ND		0.4	ug/L	601		08/27/1993
Dibromochloromethane	ND		0.4	ug/L	601		08/27/1993
1,2-Dichlorobenzene	ND		0.4	ug/L	601		08/27/1993
1,3-Dichlorobenzene	ND		0.4	ug/L	601		08/27/1993
1,4-Dichlorobenzene	ND		0.4	ug/L	601		08/27/1993
Dichlorodifluoromethane	ND		0.4	ug/L	601		08/27/1993
1,1-Dichloroethane	ND		0.4	ug/L	601		08/27/1993
1,2-Dichloroethane	ND		0.4	ug/L	601		08/27/1993
1,1-Dichloroethene	ND		0.4	ug/L	601		08/27/1993
trans-1,2-Dichloroethene	ND		0.4	ug/L	601		08/27/1993
1,2-Dichloropropane	ND		0.4	ug/L	601		08/27/1993
cis-1,3-Dichloropropene	ND		0.4	ug/L	601		08/27/1993
trans-1,3-Dichloropropene	ND		0.4	ug/L	601		08/27/1993
Methylene chloride	ND		10	ug/L	601		08/27/1993
1,1,2,2-Tetrachloroethane	ND		0.4	ug/L	601		08/27/1993
Tetrachloroethene	ND		0.4	ug/L	601		08/27/1993
1,1,1-Trichloroethane	ND		0.4	ug/L	601		08/27/1993
1,1,2-Trichloroethane	ND		0.4	ug/L	601		08/27/1993
Trichloroethene	ND		0.4	ug/L	601		08/27/1993
Trichlorofluoromethane	ND		0.4	ug/L	601		08/27/1993
Vinyl chloride	ND		0.4	ug/L	601		08/27/1993
SURROGATE RESULTS	--						08/27/1993
1,4-Difluorobenzene (SURR)	93			% Rec.	601		08/27/1993
1,4-Dichlorobutane (SURR)	79			% Rec.	601		08/27/1993

Client Acct: 82300
Client Name: AB&I
NET Job No: 93.03660

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Ref: American Brass & Iron

SAMPLE DESCRIPTION: MW-3
Date Taken: 08/20/1993
Time Taken: 08:42
NET Sample No: 171404

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						09/01/1993
DILUTION FACTOR*	1						09/01/1993
as Gasoline	0.19		0.05	mg/L	5030		09/01/1993
METHOD 8020 (GC,Liquid)	--						09/01/1993
Benzene	7.2		0.5	ug/L	8020		09/01/1993
Toluene	9.3		0.5	ug/L	8020		09/01/1993
Ethylbenzene	8.6		0.5	ug/L	8020		09/01/1993
Xylenes (Total)	31		0.5	ug/L	8020		09/01/1993
SURROGATE RESULTS	--						09/01/1993
Bromofluorobenzene (SURR)	100			% Rec.	5030		09/01/1993

FIGURE: A-6

Client Acct: 82300
Client Name: AB&I
NET Job No: 93.03660

Date: 09/09/1993
ELAP Certificate: 1386
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Ref: American Brass & Iron

SAMPLE DESCRIPTION: MW-4
Date Taken: 08/20/1993
Time Taken: 13:20
NET Sample No: 171406

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
Lead (GFAA)	ND		0.002	mg/L	EPA 7421	08/26/1993	08/30/1993
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						09/01/1993
DILUTION FACTOR*	1						09/01/1993
as Gasoline	0.35		0.05	mg/L	5030		09/01/1993
METHOD 8020 (GC,Liquid)	--						09/01/1993
Benzene	5.6		0.5	ug/L	8020		09/01/1993
Toluene	4.9		0.5	ug/L	8020		09/01/1993
Ethylbenzene	7.5		0.5	ug/L	8020		09/01/1993
Xylenes (Total)	22		0.5	ug/L	8020		09/01/1993
SURROGATE RESULTS	--						09/01/1993
Bromofluorobenzene (SURR)	103			% Rec.	5030		09/01/1993

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KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. Actual reporting limits and results have been multiplied by the listed dilution factor. **Do not** multiply the reporting limits or reported values by the dilution factor.
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than the applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, Rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, Rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986., Rev. 1, December 1987.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

Revised August, 1993

abb.93

APPENDIX "B"

PROJECT QUALITY ASSURANCE/

QUALITY CONTROL DOCUMENTATION

BSK & Associates

NET®

Client Acct: 82300
Client Name: AB&I
NET Job No: 93.03660

Date: 09/09/1993
ELAP Certificate: 1386
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Ref: American Brass & Iron

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials
Lead (GFAA)	105.2	0.02629	0.0250	mg/L	08/30/1993	ket
TPH (Gas/BTXE,Liquid)						
as Gasoline	110.3	1.1031	1.00	mg/L	09/01/1993	vin
Benzene	108.0	5.40	5.00	ug/L	09/01/1993	vin
Toluene	104.0	5.20	5.00	ug/L	09/01/1993	vin
Ethylbenzene	102.0	5.10	5.00	ug/L	09/01/1993	vin
Xylenes (Total)	104.1	15.61	15.0	ug/L	09/01/1993	vin
Bromofluorobenzene (SURR)	98.0	98	100	% Rec.	09/01/1993	vin
METHOD 8020 (GC,Liquid)						
Benzene	108.0	5.40	5.00	ug/L	09/01/1993	vin
Toluene	104.0	5.20	5.00	ug/L	09/01/1993	vin
Ethylbenzene	102.0	5.10	5.00	ug/L	09/01/1993	vin
Xylenes (Total)	104.1	15.61	15.0	ug/L	09/01/1993	vin
Bromofluorobenzene (SURR)	98.0	98	100	% Rec.	09/01/1993	vin
METHOD 3510/M8015						
as Diesel	109.0	1090	1000	mg/L	08/26/1993	tts
METHOD 601 (GC,Liquid)						
Bromodichloromethane	96.5	19.3	20.0	ug/L	08/27/1993	asm
Bromoform	89.0	17.8	20.0	ug/L	08/27/1993	asm
Bromomethane	86.0	17.2	20.0	ug/L	08/27/1993	asm
Carbon tetrachloride	96.0	19.2	20.0	ug/L	08/27/1993	asm
Chlorobenzene	99.0	19.8	20.0	ug/L	08/27/1993	asm
Chloroethane	86.0	17.2	20.0	ug/L	08/27/1993	asm
2-Chloroethylvinyl ether	97.5	19.5	20.0	ug/L	08/27/1993	asm
Chloroform	95.5	19.1	20.0	ug/L	08/27/1993	asm
Chloromethane	91.5	18.3	20.0	ug/L	08/27/1993	asm
Dibromochloromethane	90.0	18.0	20.0	ug/L	08/27/1993	asm
1,2-Dichlorobenzene	103.5	20.7	20.0	ug/L	08/27/1993	asm
1,3-Dichlorobenzene	104.5	20.9	20.0	ug/L	08/27/1993	asm
1,4-Dichlorobenzene	106.5	21.3	20.0	ug/L	08/27/1993	asm
Dichlorodifluoromethane	0.0	00.0	20.0	ug/L	08/27/1993	asm
1,1-Dichloroethane	93.0	18.6	20.0	ug/L	08/27/1993	asm
1,2-Dichloroethane	93.0	18.6	20.0	ug/L	08/27/1993	asm
1,1-Dichloroethene	86.5	17.3	20.0	ug/L	08/27/1993	asm
trans-1,2-Dichloroethene	92.0	18.4	20.0	ug/L	08/27/1993	asm
1,2-Dichloropropane	99.0	19.8	20.0	ug/L	08/27/1993	asm
cis-1,3-Dichloropropene	101.0	20.2	20.0	ug/L	08/27/1993	asm
trans-1,3-Dichloropropene	103.0	20.6	20.0	ug/L	08/27/1993	asm
Methylene chloride	102.0	20.4	20.0	ug/L	08/27/1993	asm
1,1,2,2-Tetrachloroethane	113.0	22.6	20.0	ug/L	08/27/1993	asm
Tetrachloroethene	102.0	20.4	20.0	ug/L	08/27/1993	asm

Client Acct: 82300
Client Name: AB&I
NET Job No: 93.03660

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Ref: American Brass & Iron

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials
1,1,1-Trichloroethane	96.5	19.3	20.0	ug/L	08/27/1993	asm
1,1,2-Trichloroethane	102.0	20.4	20.0	ug/L	08/27/1993	asm
Trichloroethene	100.5	20.1	20.0	ug/L	08/27/1993	asm
Trichlorofluoromethane	95.0	19.0	20.0	ug/L	08/27/1993	asm
Vinyl chloride	91.5	18.3	20.0	ug/L	08/27/1993	asm
1,4-Difluorobenzene (SURR)	100.0	100	100	% Rec.	08/27/1993	asm
1,4-Dichlorobutane (SURR)	91.0	91	100	% Rec.	08/27/1993	asm

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Client Acct: 82300
Client Name: AB&I
NET Job No: 93.03660

Date: 09/09/1993
ELAP Certificate: 1386
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Ref: American Brass & Iron

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials
Oil & Grease (Total)	ND	5	mg/L	08/31/1993	ket
Oil & Grease (Non-Polar)	ND	5	mg/L	08/31/1993	ket
Lead (GFAA)	ND	0.002	mg/L	08/30/1993	ket
Lead (GFAA)	ND	0.002	mg/L	09/02/1993	djm
TPH (Gas/BTXE,Liquid)					
as Gasoline	ND	0.05	mg/L	09/01/1993	vin
Benzene	ND	0.5	ug/L	09/01/1993	vin
Toluene	ND	0.5	ug/L	09/01/1993	vin
Ethylbenzene	ND	0.5	ug/L	09/01/1993	vin
Xylenes (Total)	ND	0.5	ug/L	09/01/1993	vin
Bromofluorobenzene (SURR)	100		% Rec.	09/01/1993	vin
METHOD 8020 (GC,Liquid)					
Benzene	ND	0.5	ug/L	09/01/1993	vin
Toluene	ND	0.5	ug/L	09/01/1993	vin
Ethylbenzene	ND	0.5	ug/L	09/01/1993	vin
Xylenes (Total)	ND	0.5	ug/L	09/01/1993	vin
Bromofluorobenzene (SURR)	100		% Rec.	09/01/1993	vin
METHOD 3510/M8015					
as Diesel	ND	0.05	mg/L	08/26/1993	tts
METHOD 601 (GC,Liquid)					
Bromodichloromethane	ND	0.4	ug/L	08/27/1993	asm
Bromoform	ND	0.4	ug/L	08/27/1993	asm
Bromomethane	ND	0.4	ug/L	08/27/1993	asm
Carbon tetrachloride	ND	0.4	ug/L	08/27/1993	asm
Chlorobenzene	ND	0.4	ug/L	08/27/1993	asm
Chloroethane	ND	0.4	ug/L	08/27/1993	asm
2-Chloroethylvinyl ether	ND	1.0	ug/L	08/27/1993	asm
Chloroform	ND	0.4	ug/L	08/27/1993	asm
Chloromethane	ND	0.4	ug/L	08/27/1993	asm
Dibromochloromethane	ND	0.4	ug/L	08/27/1993	asm
1,2-Dichlorobenzene	ND	0.4	ug/L	08/27/1993	asm
1,3-Dichlorobenzene	ND	0.4	ug/L	08/27/1993	asm
1,4-Dichlorobenzene	ND	0.4	ug/L	08/27/1993	asm
Dichlorodifluoromethane	ND	0.4	ug/L	08/27/1993	asm
1,1-Dichloroethane	ND	0.4	ug/L	08/27/1993	asm
1,2-Dichloroethane	ND	0.4	ug/L	08/27/1993	asm
1,1-Dichloroethene	ND	0.4	ug/L	08/27/1993	asm
trans-1,2-Dichloroethene	ND	0.4	ug/L	08/27/1993	asm
1,2-Dichloropropane	ND	0.4	ug/L	08/27/1993	asm
cis-1,3-Dichloropropene	ND	0.4	ug/L	08/27/1993	asm
trans-1,3-Dichloropropene	ND	0.4	ug/L	08/27/1993	asm
Methylene chloride	ND	10	ug/L	08/27/1993	asm
1,1,2,2-Tetrachloroethane	ND	0.4	ug/L	08/27/1993	asm
Tetrachloroethene	ND	0.4	ug/L	08/27/1993	asm
1,1,1-Trichloroethane	ND	0.4	ug/L	08/27/1993	asm
1,1,2-Trichloroethane	ND	0.4	ug/L	08/27/1993	asm
Trichloroethene	ND	0.4	ug/L	08/27/1993	asm
Trichlorofluoromethane	ND	0.4	ug/L	08/27/1993	asm

Client Acct: 82300
Client Name: AB&I
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METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials
Vinyl chloride	ND	0.4	ug/L	08/27/1993	asm
1,4-Difluorobenzene (SURR)	103		% Rec.	08/27/1993	asm
1,4-Dichlorobutane (SURR)	96		% Rec.	08/27/1993	asm

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Client Acct: 82300
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MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Analyst Initials
Oil & Grease (Total)	91.1	96.3	5.5	102.2	ND	93.1	105.3	mg/L	08/31/1993	ket
Oil & Grease (Non-Polar)	91.1	96.3	5.5	102.2	ND	93.1	105.3	mg/L	08/31/1993	ket
Lead (GFAA)	107.6	105.4	2.1	0.0250	ND	0.02690	0.02636	mg/L	08/30/1993	ket
TPH (Gas/BTXE,Liquid)										
as Gasoline	91.50	102.00	10.8	1.00	0.06			mg/L	09/01/1993	vin
Benzene	89.3	96.3	7.5	40.2	ND	35.9	38.7	ug/L	09/01/1993	vin
Toluene	89.2	96.3	7.7	102.2	ND	91.2	98.4	ug/L	09/01/1993	vin
Bromofluorobenzene (SURR)	96	108		100	86			% Rec.	09/01/1993	vin
METHOD 8020 (GC,Liquid)										
Benzene	89.3	96.3	7.5	40.2	ND	35.9	38.7	ug/L	09/01/1993	vin
Toluene	89.2	96.3	7.7	102.2	ND	91.2	98.4	ug/L	09/01/1993	vin
Bromofluorobenzene (SURR)	96	108		100	86			% Rec.	09/01/1993	vin
METHOD 601 (GC,Liquid)										
Chlorobenzene	103.0	94.5	8.5	20.0	ND	20.6	18.9	ug/L	08/27/1993	asm
1,1-Dichloroethene	90.0	98.5	9.0	20.0	ND	18.0	19.7	ug/L	08/27/1993	asm
Trichloroethene	103.5	113.5	9.2	20.0	ND	20.7	22.7	ug/L	08/27/1993	asm
1,4-Difluorobenzene (SURR)				100	105	92	95	% Rec.	08/27/1993	asm
1,4-Dichlorobutane (SURR)				100	102	97	104	% Rec.	08/27/1993	asm

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Client Acct: 82300
Client Name: AB&I
NET Job No: 93.03660

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LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS % Recovery	RPD	LCS Amount Found	LCS Amount Expected	Units	Date Analyzed	Analyst Initials
Oil & Grease (Total)	95.2		125.7	132.1	mg/L	08/31/1993	ket
Oil & Grease (Non-Polar)	75.9		100.3	132.1	mg/L	08/31/1993	ket
Lead (GFAA)	102.7		0.02567	0.0250	mg/L	08/30/1993	ket
Lead (GFAA)	102.8		0.0257	0.0250	mg/L	09/02/1993	djm
METHOD 3510/M8015 as Diesel	89.0		0.89	1.00	mg/L	08/26/1993	tts
METHOD 3510/M8015 as Diesel	85.0	4.6	0.85	1.00	mg/L	08/26/1993	tts

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

NOTICE

For your convenience, National Environmental Testing, Inc. is now multiplying the reporting limits by the dilution factor for all GC and GCMS methods.

This change will be effective for work checked in starting August 16, 1993.

Please see the * footnote regarding reporting limits on the enclosed Key to Abbreviations page.

If you have any questions please contact your Client Services Representative.

Linda DeMartino

Nora Pearmain

dilution93

ANALYTICAL BSK LABORATORIES
Environmental Services

1414 Stanislaus Street
Fresno, CA 93706
(209) 485-8310
(800) 877-8310
(209) 485-6935 FAX

Analyses Request / Chain of Custody

BSK Log Number: 5~~2~~8

Analytical Due Date:

Shaded areas for LAB use only

Client Name: American Brass & Iron	Report Attention:	Phone #
Address	Project, Quote or PO #	FAX #
City, State, Zip	Copy to:	System #

Sampled by: Tim Berger BSK

LAB use only Sample #	Type	# Cont.	Date Sampled	Time Sampled	Sample Description/Location	Comment or Station Code	Requested Analyses: TPHg-BTEX	TPHd	EPA 601	TRPH Oil & Grease	Total Lead	BTEX
			8/20/93	08:42	MW-3		X					
			"	10:07	MW-1	TPHd is w/o Preserv. TMB		X				X
			"	11:45	MW-2		X		X	X		
			"	13:20	MW-4	Field Filtered.	X				X	
					‡ Received only 500ml for diesel MW-1. VOAs							
					for MW-2 - 601 preserved. A-L. 8/24/93							

Matrix Type: L - Liquid S - Solid G - Gas
Type of Hazards Associated with Samples:

Additional Services:
Rush Priority: [ ] - 2 Day [ ] - 5 Day
[ ] - Formal Chain of Custody [ ] - QC Data package

Additional Services Authorized by: _____ (Signature)

Payment Received with Delivery
Date: _____ Amount: $ _____
Check # _____ Initials _____
Reciept # _____

Signature	Print Name	Company	Date	Time
Requested / Relinquished by: Tim Berger	Tim Berger	BSK & BSJOC.	8/20/93	
Received / Relinquished by: G.P. Lumbee	G.P. LUMBEE	NET	8/23/93	12:35
Received / Relinquished by: G.P. Lumbee	G.P. LUMBEE	NET	8/23/93	1600
Received / Relinquished by: Lopez	Anay Lopez via NCS courier	NET	8/24/93	0800
Received for Laboratory by:				

seals intact - A-L. 8/24/93

CUSTODY SEALS 8/23/93

FIGURE: B-8

BSK & Associates' WELL FIELD LOG

Well Observation: x **Date:** 12/03/93
Sample Collection: x **Date:** 12/03/93

Project Name: American Brass & Iron
Location: Oakland, CA
Personnel: FRG
Weather: Clear, ± 65° F.

WELL INFORMATION:

Well Number	MW-1	**Date Purged**	12/03/93
Depth to Water - feet(TOC)	7.48	**Purge Method**	Bailer
Well Depth (feet)	20		
Water Volume (gallons)	1.9	**Purge Begin**	11:06
Reference Elevation - feet(TOC)	+9.52	**Purge End**	11:19
Groundwater Elevation (feet)	+2.04	**Purge Rate**	0.62 GPM
Measurement Technique	Solinst Electric Water Sounder		

IMMISCIBLE LAYERS:

Top: Slight sheen
Bottom: Slight sheen, fine sand, clay colloids
Detection Method: Visual
Collection Method: Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (Ec/Range)	pH	TEMP. (°F)	COLOR/COMMENTS
11:09	2.0	1654	6.9	64.0	Brown, no sheen
11:13	4.0	1649	6.1	66.0	"
11:16	6.0	1684	5.9	66.0	"
11:19	8.0	1665	5.8	66.0	"
	Depth to water:	7.54 feet			

SAMPLE COLLECTION DATA:

Sampling Equipment: Teflon point-source bailer

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
11:30	TPHd	2-250 ml amber glass bottles with H_2SO_4	15-17'
"	BTEX	2-40 ml glass vials with Hcl	"

Field Observations: None

BSK & Associates' WELL FIELD LOG

Well Observation: x **Date:** 12/03/93
Sample Collection: x **Date:** 12/03/93

Project Name: American Brass & Iron
Location: Oakland, CA
Personnel: FRG
Weather: Overcast, ±65F.

WELL INFORMATION:

Well Number	MW-2	**Date Purged**	12/03/93
Depth to Water - feet(TOC)	5.21	**Purge Method**	Electric Submersible Pump
Well Depth (feet)	17		
Water Volume (gallons)	7.5	**Purge Begin**	09:25
Reference Elevation - feet(TOC)	+7.60	**Purge End**	09:41
Groundwater Elevation (feet)	+2.39	**Purge Rate**	1.9 GPM
Measurement Technique	Solinst Electric Water Sounder		

IMMISCIBLE LAYERS:

Top: None observed
Bottom: Gray color, fine sand
Detection Method: Visual
Collection Method: Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (Ec/Range)	pH	TEMP. (°F)	COLOR/COMMENTS
09:27	7.5	835	6.5	69.0	Clear
09:31	15.0	878	5.9	69.0	Gray, slight sheen
09:36	22.5	875	5.4	70.0	"
09:41	30.0	881	5.4	71.0	"
11:38	26.0	1977	6.70	73.9	"
	Depth to water:	5.45 feet			

SAMPLE COLLECTION DATA:

Sampling Equipment: Teflon point-source bailer

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
09:50	EPA 601	2-40 ml glass vials with HCl	±10'
"	TPH-G and BTEX	2-40 ml glass vials with HCl	"
"	Total and Hydrocarbon Oil & Grease	1-liter amber glass bottle with H_2SO_4	"

Field Observations: None

BSK & Associates' WELL FIELD LOG

Well Observation: x **Date:** 12/03/93
Sample Collection: x **Date:** 12/03/93

Project Name: American Brass & Iron
Location: Oakland, CA.
Personnel: FRG
Weather: Overcast, ±60° F.

WELL INFORMATION:

Well Number	MW-3	**Date Purged**	12/03/93
Depth to Water - feet(TOC)	8.11	**Purge Method**	Bailer
Well Depth (feet)	19		
Water Volume (gallons)	1.7	**Purge Begin**	08:03
Reference Elevation - feet(TOC)	+9.83	**Purge End**	08:18
Groundwater Elevation (feet)	+1.72	**Purge Rate**	0.5 GPM
Measurement Technique	Solinst Electric Water Sounder		

IMMISCIBLE LAYERS:

Top: None observed
Bottom: Slight sheen, brown tint
Detection Method: Visual
Collection Method: Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (Ec/Range)	pH	TEMP. (°F)	COLOR/COMMENTS
08:03	2.0	1240	5.3	58.0	Brown tint
08:09	4.0	1155	5.5	67.0	"
08:14	6.0	1168	5.5	68.0	"
08:18	8.0	1170	5.5	68.0	"
	Depth to water:	8.40 feet			

SAMPLE COLLECTION DATA:

Sampling Equipment: Teflon point-source bailer

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
08:30	TPH-G & BTEX	2-40 ml glass vials with HCl	± 17'

Field Observations: None

BSK & Associates' WELL FIELD LOG

Well Observation: x **Date:** 12/03/93
Sample Collection: x **Date:** 12/03/93

Project Name: American Brass & Iron
Location: Oakland, CA
Personnel: FRG
Weather: Clear, cool, ±50° F.

WELL INFORMATION:

Well Number	MW-4	**Date Purged**	12/03/93
Depth to Water - feet(TOC)	8.05	**Purge Method**	Bailer
Well Depth (feet)	26.5		
Water Volume (gallons)	2.7	**Purge Begin**	12:15
Reference Elevation - feet(TOC)	9.52	**Purge End**	12:27
Groundwater Elevation (feet)	+1.47	**Purge Rate**	1.0 GPM
Measurement Technique	Solinst Electric Water Sounder		

IMMISCIBLE LAYERS:

Top: Clear, indistinct odor
Bottom: Dark gray, similar odor
Detection Method: Visual
Collection Method: Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (Ec/Range)	Ph	TEMP. (°F)	COLOR/COMMENTS
12:15	3.0	501	6.1	70.0	Clear
12:19	6.0	492	5.7	70.0	"
12:23	9.0	491	5.6	67.0	"
12:27	12.0	495	5.6	69.0	"
	Depth to water:	--			

SAMPLE COLLECTION DATA:

Sampling Equipment: Teflon point-source Bailer

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
12:50	TPH-G & BTEX	2-40 ml glass vials with HCl	±10'
"	Total Lead	1-16 oz. plastic bottle with HNO_3 Field filtered	"

Field Observations: None

NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Pacific, Inc
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

John Fehringer
AB&I
7825 San Leandro
Oakland, CA 94621

Date: 12/20/1993
NET Client Acct. No: 82300
NET Pacific Job No: 93.05344
Received: 12/07/1993

Client Reference Information

Project No. P92270.3

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack
Laboratory Manager

Enclosure(s)

Ref: Project No. P92270.3

SAMPLE DESCRIPTION: MW-3
Date Taken: 12/03/1993
Time Taken: 08:30
NET Sample No: 180295

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						12/10/1993
DILUTION FACTOR*	1						12/10/1993
as Gasoline	0.08	G-	0.05	mg/L	5030		12/10/1993
METHOD 8020 (GC,Liquid)	--						12/10/1993
Benzene	ND		0.5	ug/L	8020		12/10/1993
Toluene	ND		0.5	ug/L	8020		12/10/1993
Ethylbenzene	ND		0.5	ug/L	8020		12/10/1993
Xylenes (Total)	ND		0.5	ug/L	8020		12/10/1993
SURROGATE RESULTS	--						12/10/1993
Bromofluorobenzene (SURR)	88			% Rec.	5030		12/10/1993

G- : The positive result has an atypical pattern for Gasoline analysis.

Ref: Project No. P92270.3

SAMPLE DESCRIPTION: MW-2
Date Taken: 12/03/1993
Time Taken: 09:50
NET Sample No: 180296

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
Oil & Grease (Total)	ND		5	mg/L	5520B		12/13/1993
Oil & Grease (Non-Polar)	ND		5	mg/L	5520B/F		12/13/1993
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						12/10/1993
DILUTION FACTOR*	1						12/10/1993
as Gasoline	0.90	G-	0.05	mg/L	5030		12/10/1993
METHOD 8020 (GC,Liquid)	--						12/10/1993
Benzene	ND		0.5	ug/L	8020		12/10/1993
Toluene	250	C	0.5	ug/L	8020		12/10/1993
Ethylbenzene	19	C	0.5	ug/L	8020		12/10/1993
Xylenes (Total)	5.1	C	0.5	ug/L	8020		12/10/1993
SURROGATE RESULTS	--						12/10/1993
Bromofluorobenzene (SURR)	104			% Rec.	5030		12/10/1993

C : Positive result confirmed by secondary column or GC/MS analysis.
G- : The positive result has an atypical pattern for Gasoline analysis.

Ref: Project No. P92270.3

SAMPLE DESCRIPTION: MW-2
Date Taken: 12/03/1993
Time Taken: 09:50
NET Sample No: 180296

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
METHOD 601 (GC,Liquid)							
DILUTION FACTOR*	1						12/14/1993
Bromodichloromethane	ND		0.4	ug/L	601		12/14/1993
Bromoform	ND		0.4	ug/L	601		12/14/1993
Bromomethane	ND		0.4	ug/L	601		12/14/1993
Carbon tetrachloride	ND		0.4	ug/L	601		12/14/1993
Chlorobenzene	ND		0.4	ug/L	601		12/14/1993
Chloroethane	3.8		0.4	ug/L	601		12/14/1993
2-Chloroethylvinyl ether	ND		1.0	ug/L	601		12/14/1993
Chloroform	ND		0.4	ug/L	601		12/14/1993
Chloromethane	ND		0.4	ug/L	601		12/14/1993
Dibromochloromethane	ND		0.4	ug/L	601		12/14/1993
1,2-Dichlorobenzene	ND		0.4	ug/L	601		12/14/1993
1,3-Dichlorobenzene	ND		0.4	ug/L	601		12/14/1993
1,4-Dichlorobenzene	ND		0.4	ug/L	601		12/14/1993
Dichlorodifluoromethane	ND		0.4	ug/L	601		12/14/1993
1,1-Dichloroethane	ND		0.4	ug/L	601		12/14/1993
1,2-Dichloroethane	ND		0.4	ug/L	601		12/14/1993
1,1-Dichloroethene	ND		0.4	ug/L	601		12/14/1993
trans-1,2-Dichloroethene	ND		0.4	ug/L	601		12/14/1993
1,2-Dichloropropane	ND		0.4	ug/L	601		12/14/1993
cis-1,3-Dichloropropene	ND		0.4	ug/L	601		12/14/1993
trans-1,3-Dichloropropene	ND		0.4	ug/L	601		12/14/1993
Methylene chloride	ND		10	ug/L	601		12/14/1993
1,1,2,2-Tetrachloroethane	ND		0.4	ug/L	601		12/14/1993
Tetrachloroethene	ND		0.4	ug/L	601		12/14/1993
1,1,1-Trichloroethane	ND		0.4	ug/L	601		12/14/1993
1,1,2-Trichloroethane	ND		0.4	ug/L	601		12/14/1993
Trichloroethene	ND		0.4	ug/L	601		12/14/1993
Trichlorofluoromethane	ND		0.4	ug/L	601		12/14/1993
Vinyl chloride	ND		0.4	ug/L	601		12/14/1993
SURROGATE RESULTS	--						12/14/1993
1,4-Difluorobenzene (SURR)	125			% Rec.	601		12/14/1993
Bromochloromethane (SURR)	88			% Rec.	601		12/14/1993

Ref: Project No. P92270.3

SAMPLE DESCRIPTION: MW-1
Date Taken: 12/03/1993
Time Taken: 11:30
NET Sample No: 180297

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
METHOD 8020 (GC,Liquid)							
DILUTION FACTOR*	1						12/10/1993
Benzene	ND		0.5	ug/L	8020		12/10/1993
Toluene	ND		0.5	ug/L	8020		12/10/1993
Ethylbenzene	ND		0.5	ug/L	8020		12/10/1993
Xylenes (Total)	ND		0.5	ug/L	8020		12/10/1993
SURROGATE RESULTS	--						12/10/1993
Bromofluorobenzene (SURR)	84			% Rec.			12/10/1993
METHOD 3510/M8015						12/10/1993	
DILUTION FACTOR*	4						12/13/1993
as Diesel	3.2	DH	0.2	mg/L	3510		12/13/1993

DH : The positive result appears to be a heavier hydrocarbon than Diesel.

Ref: Project No. P92270.3

SAMPLE DESCRIPTION: MW-4
Date Taken: 12/03/1993
Time Taken: 12:50
NET Sample No: 180298

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
Lead (GFAA)	ND		0.002	mg/L	EPA 7421	12/13/1993	12/16/1993
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						12/10/1993
DILUTION FACTOR*	1						12/10/1993
as Gasoline	1.1		0.05	mg/L	5030		12/10/1993
METHOD 8020 (GC,Liquid)	--						12/10/1993
Benzene	ND		0.5	ug/L	8020		12/10/1993
Toluene	ND		0.5	ug/L	8020		12/10/1993
Ethylbenzene	1.4	C	0.5	ug/L	8020		12/10/1993
Xylenes (Total)	2.8	C	0.5	ug/L	8020		12/10/1993
SURROGATE RESULTS	--						12/10/1993
Bromofluorobenzene (SURR)	114			% Rec.	5030		12/10/1993

C : Positive result confirmed by secondary column or GC/MS analysis.

Ref: Project No. P92270.3

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials
Lead (GFAA)	100.4	0.0251	0.0250	mg/L	12/16/1993	djm
TPH (Gas/BTXE,Liquid)						
as Gasoline	99.0	0.99	1.00	mg/L	12/10/1993	dkb
Benzene	82.2	4.11	5.00	ug/L	12/10/1993	dkb
Toluene	87.2	4.36	5.00	ug/L	12/10/1993	dkb
Ethylbenzene	91.0	4.55	5.00	ug/L	12/10/1993	dkb
Xylenes (Total)	90.0	13.5	15.0	ug/L	12/10/1993	dkb
Bromofluorobenzene (SURR)	88.0	88	100	% Rec.	12/10/1993	dkb
TPH (Gas/BTXE,Liquid)						
as Gasoline	99.0	0.99	1.00	mg/L	12/13/1993	lss
Benzene	89.6	4.48	5.00	ug/L	12/13/1993	lss
Toluene	112.6	5.63	5.00	ug/L	12/13/1993	lss
Ethylbenzene	106.4	5.32	5.00	ug/L	12/13/1993	lss
Xylenes (Total)	106.0	15.9	15.0	ug/L	12/13/1993	lss
Bromofluorobenzene (SURR)	104.0	104	100	% Rec.	12/13/1993	lss
METHOD 8020 (GC,Liquid)						
as Gasoline	99.0	0.99	1.00	mg/L	12/10/1993	dkb
Benzene	82.2	4.11	5.00	ug/L	12/10/1993	dkb
Toluene	87.2	4.36	5.00	ug/L	12/10/1993	dkb
Ethylbenzene	91.0	4.55	5.00	ug/L	12/10/1993	dkb
Xylenes (Total)	90.0	13.5	15.0	ug/L	12/10/1993	dkb
Bromofluorobenzene (SURR)	88.0	88	100	% Rec.	12/10/1993	dkb
METHOD 3510/M8015						
as Diesel	107.0	1070	1000	mg/L	12/13/1993	tts
METHOD 601 (GC,Liquid)						
Bromodichloromethane	96.5	19.3	20.0	ug/L	12/14/1993	asm
Bromoform	122.5	24.5	20.0	ug/L	12/14/1993	asm
Bromomethane	110.5	22.1	20.0	ug/L	12/14/1993	asm
Carbon tetrachloride	89.5	17.9	20.0	ug/L	12/14/1993	asm
Chlorobenzene	100.5	20.1	20.0	ug/L	12/14/1993	asm
Chloroethane	94.0	18.8	20.0	ug/L	12/14/1993	asm
2-Chloroethylvinyl ether	135.0	27.0	20.0	ug/L	12/14/1993	asm
Chloroform	106.0	21.2	20.0	ug/L	12/14/1993	asm
Chloromethane	79.0	15.8	20.0	ug/L	12/14/1993	asm
Dibromochloromethane	100.5	20.1	20.0	ug/L	12/14/1993	asm
1,2-Dichlorobenzene	98.0	19.6	20.0	ug/L	12/14/1993	asm
1,3-Dichlorobenzene	96.0	19.2	20.0	ug/L	12/14/1993	asm
1,4-Dichlorobenzene	94.0	18.8	20.0	ug/L	12/14/1993	asm
1,1-Dichloroethane	102.0	20.4	20.0	ug/L	12/14/1993	asm
1,2-Dichloroethane	101.0	20.2	20.0	ug/L	12/14/1993	asm
1,1-Dichloroethene	82.5	16.5	20.0	ug/L	12/14/1993	asm
trans-1,2-Dichloroethene	90.0	18.0	20.0	ug/L	12/14/1993	asm
1,2-Dichloropropane	93.0	18.6	20.0	ug/L	12/14/1993	asm
cis-1,3-Dichloropropene	94.0	18.8	20.0	ug/L	12/14/1993	asm
trans-1,3-Dichloropropene	100.5	20.1	20.0	ug/L	12/14/1993	asm

Ref: Project No. P92270.3

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials
Methylene chloride	100.0	20.0	20.0	ug/L	12/14/1993	asm
1,1,2,2-Tetrachloroethane	99.0	19.8	20.0	ug/L	12/14/1993	asm
Tetrachloroethene	99.0	19.8	20.0	ug/L	12/14/1993	asm
1,1,1-Trichloroethane	86.5	17.3	20.0	ug/L	12/14/1993	asm
1,1,2-Trichloroethane	100.5	20.1	20.0	ug/L	12/14/1993	asm
Trichloroethene	92.5	18.5	20.0	ug/L	12/14/1993	asm
Trichlorofluoromethane	91.0	18.2	20.0	ug/L	12/14/1993	asm
Vinyl chloride	110.0	22.0	20.0	ug/L	12/14/1993	asm
1,4-Difluorobenzene (SURR)	98.0	98	100	% Rec.	12/14/1993	asm
Bromochloromethane (SURR)	92.0	92	100	% Rec.	12/14/1993	asm

Ref: Project No. P92270.3

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials
Oil & Grease (Total)	ND	5	mg/L	12/10/1993	bbh
Oil & Grease (Non-Polar)	ND	5	mg/L	12/10/1993	bbh
Lead (GFAA)	ND	0.002	mg/L	12/16/1993	djm
TPH (Gas/BTXE,Liquid)					
as Gasoline	ND	0.05	mg/L	12/10/1993	dkb
Benzene	ND	0.5	ug/L	12/10/1993	dkb
Toluene	ND	0.5	ug/L	12/10/1993	dkb
Ethylbenzene	ND	0.5	ug/L	12/10/1993	dkb
Xylenes (Total)	ND	0.5	ug/L	12/10/1993	dkb
Bromofluorobenzene (SURR)	74		% Rec.	12/10/1993	dkb
TPH (Gas/BTXE,Liquid)					
as Gasoline	ND	0.05	mg/L	12/13/1993	lss
Benzene	ND	0.5	ug/L	12/13/1993	lss
Toluene	ND	0.5	ug/L	12/13/1993	lss
Ethylbenzene	ND	0.5	ug/L	12/13/1993	lss
Xylenes (Total)	ND	0.5	ug/L	12/13/1993	lss
Bromofluorobenzene (SURR)	97		% Rec.	12/13/1993	lss
METHOD 8020 (GC,Liquid)					
as Gasoline	ND	0.05	mg/L	12/10/1993	dkb
Benzene	ND	0.5	ug/L	12/10/1993	dkb
Toluene	ND	0.5	ug/L	12/10/1993	dkb
Ethylbenzene	ND	0.5	ug/L	12/10/1993	dkb
Xylenes (Total)	ND	0.5	ug/L	12/10/1993	dkb
Bromofluorobenzene (SURR)	74		% Rec.	12/10/1993	dkb
METHOD 3510/M8015					
as Diesel	ND	0.05	mg/L	12/13/1993	tts
METHOD 601 (GC,Liquid)					
Bromodichloromethane	ND	0.4	ug/L	12/14/1993	asm
Bromoform	ND	0.4	ug/L	12/14/1993	asm
Bromomethane	ND	0.4	ug/L	12/14/1993	asm
Carbon tetrachloride	ND	0.4	ug/L	12/14/1993	asm
Chlorobenzene	ND	0.4	ug/L	12/14/1993	asm
Chloroethane	ND	0.4	ug/L	12/14/1993	asm
2-Chloroethylvinyl ether	ND	1.0	ug/L	12/14/1993	asm
Chloroform	ND	0.4	ug/L	12/14/1993	asm
Chloromethane	ND	0.4	ug/L	12/14/1993	asm
Dibromochloromethane	ND	0.4	ug/L	12/14/1993	asm
1,2-Dichlorobenzene	ND	0.4	ug/L	12/14/1993	asm
1,3-Dichlorobenzene	ND	0.4	ug/L	12/14/1993	asm
1,4-Dichlorobenzene	ND	0.4	ug/L	12/14/1993	asm
Dichlorodifluoromethane	ND	0.4	ug/L	12/14/1993	asm
1,1-Dichloroethane	ND	0.4	ug/L	12/14/1993	asm
1,2-Dichloroethane	ND	0.4	ug/L	12/14/1993	asm
1,1-Dichloroethene	ND	0.4	ug/L	12/14/1993	asm
trans-1,2-Dichloroethene	ND	0.4	ug/L	12/14/1993	asm
1,2-Dichloropropane	ND	0.4	ug/L	12/14/1993	asm
cis-1,3-Dichloropropene	ND	0.4	ug/L	12/14/1993	asm
trans-1,3-Dichloropropene	ND	0.4	ug/L	12/14/1993	asm

Ref: Project No. P92270.3

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials
Methylene chloride	ND	10	ug/L	12/14/1993	asm
1,1,2,2-Tetrachloroethane	ND	0.4	ug/L	12/14/1993	asm
Tetrachloroethene	ND	0.4	ug/L	12/14/1993	asm
1,1,1-Trichloroethane	ND	0.4	ug/L	12/14/1993	asm
1,1,2-Trichloroethane	ND	0.4	ug/L	12/14/1993	asm
Trichloroethene	ND	0.4	ug/L	12/14/1993	asm
Trichlorofluoromethane	ND	0.4	ug/L	12/14/1993	asm
Vinyl chloride	ND	0.4	ug/L	12/14/1993	asm
1,4-Difluorobenzene (SURR)	80		% Rec.	12/14/1993	asm
Bromochloromethane (SURR)	73		% Rec.	12/14/1993	asm

Ref: Project No. P92270.3

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Analyst Initials
Oil & Grease (Total)	90.8	93.0	2.4	127.9	ND	116.1	122.7	mg/L	12/13/1993	pbg
Oil & Grease (Non-Polar)	90.8	93.0	2.4	127.9	ND	116.1	122.7	mg/L	12/13/1993	pbg
Lead (GFAA)	N/A	N/A	4.50		24			mg/L	12/16/1993	djm
Lead (GFAA)	97.6	98.0	0.4	0.0250	ND	0.0244	0.0245	mg/L	12/16/1993	djm
TPH (Gas/BTXE,Liquid) as Gasoline	99.0	101.0	1.9	1.00	0.10	1.09	1.11	mg/L	12/10/1993	dkb
Benzene	112.1	116.7	4.0	33.0	ND	37	38.5	ug/L	12/10/1993	dkb
Toluene	102.6	104.7	2.0	81.0	ND	83.1	84.8	ug/L	12/10/1993	dkb
Bromofluorobenzene (SURR)				100	80			% Rec.	12/10/1993	dkb
TPH (Gas/BTXE,Liquid) as Gasoline	97.0	91.0	6.4	1.00	0.35	1.32	1.26	mg/L	12/13/1993	lss
Benzene	104.3	103.0	1.3	43.9	ND	45.8	45.2	ug/L	12/13/1993	lss
Toluene	87.7	87.1	0.7	88.3	15	92.4	91.9	ug/L	12/13/1993	lss
Bromofluorobenzene (SURR)	122	113		100	108			% Rec.	12/13/1993	lss
METHOD 3510/M8015 as Diesel	80.0	75.0	6.5	2.00	0.09	1.69	1.59	mg/L	12/13/1993	tts
METHOD 601 (GC,Liquid) Chlorobenzene	97.0	109.0	11.6	20.0	ND	19.4	21.8	ug/L	12/14/1993	asm
1,1-Dichloroethene	82.0	80.5	1.8	20.0	ND	16.4	16.1	ug/L	12/14/1993	asm
Trichloroethene	88.0	85.0	3.5	20.0	2.0	19.6	19.0	ug/L	12/14/1993	asm
1,4-Difluorobenzene (SURR)	95	94	1.1	100	90			% Rec.	12/14/1993	asm
Bromochloromethane (SURR)	96	96	0.0	100	76			% Rec.	12/14/1993	asm

Ref: Project No. P92270.3

LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS % Recovery	RPD	LCS Amount Found	LCS Amount Expected	Units	Date Analyzed	Analyst Initials
Oil & Grease (Total)	99.2		121.2	122.2	mg/L	12/10/1993	bbh
Oil & Grease (Non-Polar)	73.1		99.4	135.9	mg/L	12/10/1993	pbg
Lead (GFAA)	105.2		0.0263	0.0250	mg/L	12/16/1993	djm
METHOD 3510/M8015 as Diesel	67.0		0.67	1.00	mg/L	12/13/1993	tts

ANALYTICAL BSK LABORATORIES
Environmental Services

1414 Stanislaus Street
Fresno, CA 93706
(209) 485-8310
(800) 877-8310
(209) 485-6935 FAX

6912

Analyses Request / Chain of Custody

BSK Log Number:

Analytical Due Date:

Client Name: ABoI - Invoice & Report to: (552 12/7/93)
Address: c/o BSK 1181 Quarry Ln.
City, State, Zip: Pleasanton CA 94566

Report Attention: Tim Berger Dave Robinson
Project, Quote or PO #: P92270.3
Copy to:
Phone #: (510) 462-4000
FAX #: (510) 462-6283
System #:

Shaded areas for LAB use only

Sampled by: CM/FRG

Sample #	Type	# Cont.	Date Sampled	Time Sampled	Sample Description/Location	Comment or Station Code	TPH-G	BTXE	EPA 601	Total Non-Polar oil/grease	TPH-D	Total Lead	* OK to analyze 500 ml per 3 FR(?) 12/9/93
		6	12/3/93	8:30	MW-3		X	X					
		5	12/3/93	9:50	MW-2		X	X	X	(X)			
		4	12/3/93	11:30	MW-1			X			X		
		3	12/3/93	12:50	MW-4		X	X				X	

Cooler Temp. 10.6°

12/6/93 1610 [initials]

Matrix Type: (L - Liquid) S - Solid G - Gas
Type of Hazards Associated with Samples:

Additional Services:
Rush Priority: [ ] - 2 Day [ ] - 5 Day
[ ] - Formal Chain of Custody [ ] - QC Data package

Additional Services Authorized by:

(Signature)

Payment Received with Delivery
Date: ______ Amount: $ ______
Check # ______ Initials ______
Reciept # ______

Signature		Print Name	Company	Date	Time
Requested (Relinquished by:)	[signature]	Francis R. Gregurek	BSK P		
(Received) / Relinquished by:	Betty Harvey	BETTY HARVEY			
Received / (Relinquished by:)	Betty Harvey	BETTY HARVEY	NET	12/6/93	11:15
(Received) / Relinquished by:	[signature]	J Sorensen	NET	12/6/93	1115
Received for Laboratory by:					

WELL FIELD LOG

Well Observation: x **Date:** 03/04/94
Sample Collection: x **Date:** 03/04/94

Project Name: American Brass & Iron
Location: Oakland, CA
Personnel: FRG
Weather: Clear, ± 65° F.

WELL INFORMATION:

Well Number	MW-1	**Date Purged**	03/04/94
Depth to Water - feet(TOC)	8.23	**Purge Method**	Point-source bailer
Well Depth (feet)	20		
Water Volume (gallons)	2.0	**Purge Begin**	12:45
Reference Elevation - feet(TOC)	+9.52	**Purge End**	12:56
Groundwater Elevation (feet)	+1.29	**Purge Rate**	0.7 GPM
Measurement Technique	Solinst Electric Water Sounder		

IMMISCIBLE LAYERS:

Top: None observed
Bottom: Yellow clay colloids
Detection Method: Visual
Collection Method: Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (Ec/Range)	Ph	TEMP. (°F)	COLOR/COMMENTS
12:47	2.0	352	7.86	68.6	Yellow tint
12:51	4.0	345	8.38	63.0	"
12:53	6.0	346	8.33	62.4	"
12:56	8.0	345	8.25	62.1	"
13:00	Depth to water:	8.72 feet			

SAMPLE COLLECTION DATA:

Sampling Equipment: Teflon point-source bailer

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
13:00	TPHd	2-250 ml amber glass bottles with H_2SO_4	15-17'
"	BTEX	2-40 ml glass vials with HCl	"

Field Observations: None

WELL FIELD LOG

Well Observation: x **Date:** 03/04/94
Sample Collection: x **Date:** 03/04/94

Project Name: American Brass & Iron
Location: Oakland, CA
Personnel: FRG
Weather: Clear, ±65F.

WELL INFORMATION:

Well Number	MW-2	**Date Purged**	03/04/94
Depth to Water - feet(TOC)	4.46	**Purge Method**	Electric Submersible Pump
Well Depth (feet)	17		
Water Volume (gallons)	8.0	**Purge Begin**	11:35
Reference Elevation - feet(TOC)	+7.60	**Purge End**	11:50
Groundwater Elevation (feet)	+3.14	**Purge Rate**	2.1 GPM
Measurement Technique	Solinst Electric Water Sounder		

IMMISCIBLE LAYERS:

Top: Yellow tint, red flakes
Bottom: Gray colloids
Detection Method: Visual
Collection Method: Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (Ec/Range)	pH	TEMP. (°F)	COLOR/COMMENTS
11:39	8.0	347	7.29	67.6	Gray water, slight sheen
11:42	16.0	341	6.58	67.1	Clearer, slight sheen
11:46	24.0	340	6.45	67.1	Nearly clear, no sheen
11:50	32.0	340	6.41	67.2	"
12:00	Depth to water:	4.70 feet			

SAMPLE COLLECTION DATA:

Sampling Equipment: Teflon point-source bailer

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
12:00	EPA 601	2-40 ml glass vials with HCl	±10'
"	TPH-G and BTEX	2-40 ml glass vials with HCl	"
"	Total and Hydrocarbon Oil & Grease	1-liter amber glass bottle with H_2SO_4	"

Field Observations: None

WELL FIELD LOG

Well Observation: x **Date:** 03/04/94
Sample Collection: x **Date:** 03/04/94

Project Name: American Brass & Iron
Location: Oakland, CA.
Personnel: FRG
Weather: Overcast, ±55° F.

WELL INFORMATION:

Well Number	MW-3	**Date Purged**	03/04/94
Depth to Water - feet(TOC)	7.29	**Purge Method**	Bailer
Well Depth (feet)	19		
Water Volume (gallons)	2.0	**Purge Begin**	08:32
Reference Elevation - feet(TOC)	+9.83	**Purge End**	08:49
Groundwater Elevation (feet)	+2.54	**Purge Rate**	0.6 GPM
Measurement Technique	Solinst Electric Water Sounder		

IMMISCIBLE LAYERS:

Top: None observed
Bottom: Slight brown tint
Detection Method: Visual
Collection Method: Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (Ec/Range)	pH	TEMP. (°F)	COLOR/COMMENTS
08:34	2.0	439	7.63	58.5	Slight brown tint
08:38	4.0	439	7.08	65.9	"
08:41	6.0	440	6.98	66.5	"
08:44	8.0	440	6.97	66.7	"
09:00	Depth to water:	7.40 feet			

SAMPLE COLLECTION DATA:

Sampling Equipment: Teflon point-source bailer

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
09:00	TPH-G & BTEX	2-40 ml glass vials with HCl	± 17'

Field Observations: None

WELL FIELD LOG

Well Observation: x **Date:** 03/04/94
Sample Collection: x **Date:** 03/04/94

Project Name: American Brass & Iron
Location: Oakland, CA
Personnel: FRG
Weather: Overcast, ±55° F.

WELL INFORMATION:

Well Number	MW-4	**Date Purged**	03/04/94
Depth to Water - feet(TOC)	7.27	**Purge Method**	Disposable Bailer
Well Depth (feet)	26.5		
Water Volume (gallons)	3.3	**Purge Begin**	09:45
Reference Elevation - feet(TOC)	9.52	**Purge End**	10:03
Groundwater Elevation (feet)	+2.25	**Purge Rate**	0.8 GPM
Measurement Technique	Solinst Electric Water Sounder		

IMMISCIBLE LAYERS:

Top: Red flakes (algae?)
Bottom: Black material, slight sheen, organic odor
Detection Method: Visual
Collection Method: Disposable bailer

WELL DEVELOPMENT/PURGE DATA:

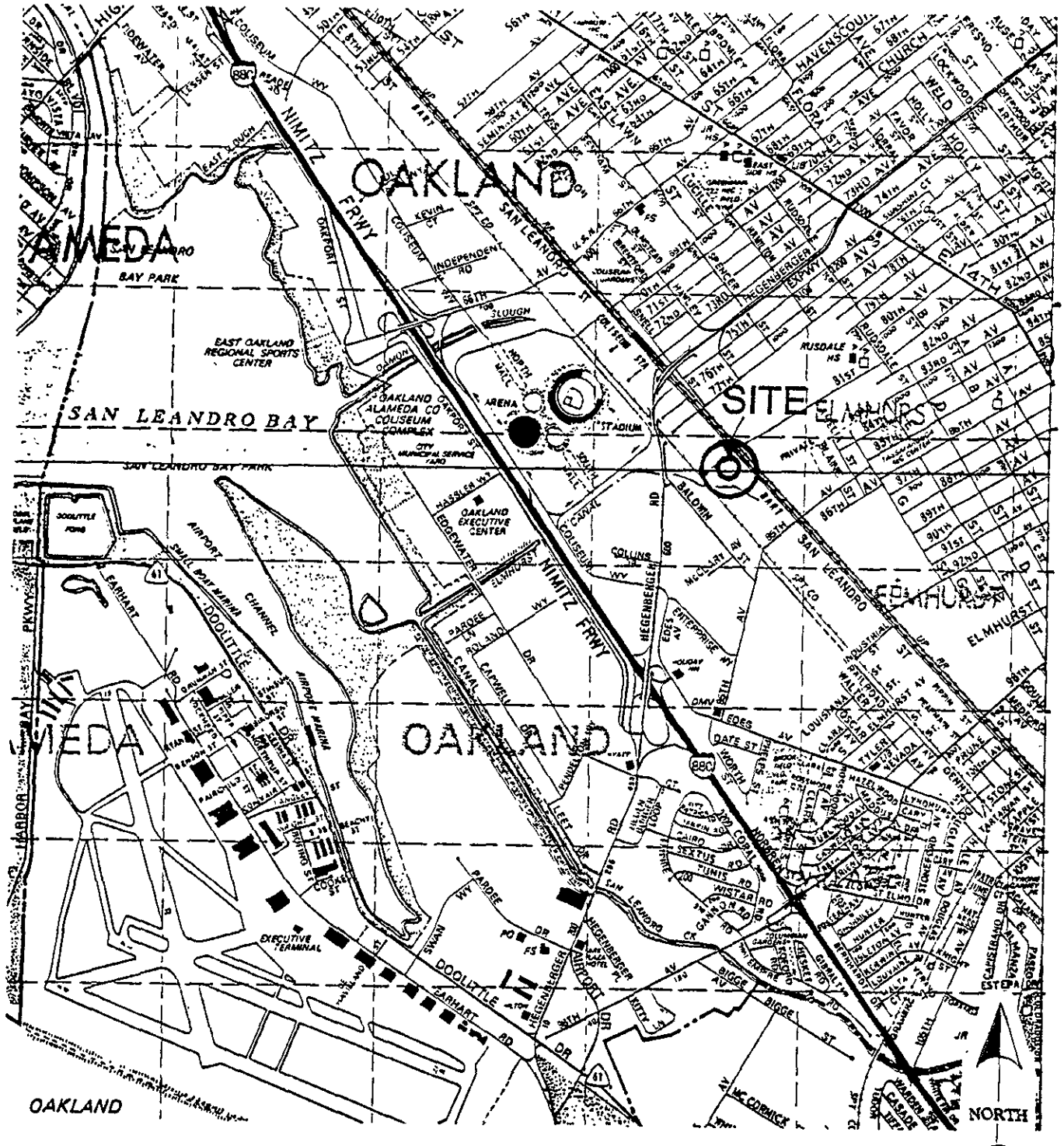
TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (Ec/Range)	pH	TEMP. (°F)	COLOR/COMMENTS
09:49	3.5	118	8.75	62.0	Gray tint
09:53	7.0	106	7.98	62.3	Slight gray tint
09:58	10.0	107	7.61	62.4	"
10:03	14.0	107	7.57	62.5	"
10:10	Depth to water:	7.35 feet			

SAMPLE COLLECTION DATA:

Sampling Equipment: Disposable Bailer

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
10:10	TPH-G & BTEX	2-40 ml glass vials with HCl	±10'
"	Total Lead	1-8 oz. plastic bottle with HNO_3 Field filtered	"

Field Observations: None



Source: Thomas Guide, 1992, Alameda and Contra Costa Counties

Scale: 1' = 2200'

FIRST QUARTERLY GROUNDWATER MONITORING AMERICAN BRASS & IRON FOUNDRY 7825 SAN LEANDRO STREET OAKLAND, CALIFORNIA	**VICINITY MAP** Job No. P92270.3 September 1993 FIGURE: 1	**BSK** & ASSOCIATES

NATIONAL ENVIRONMENTAL TESTING, INC.

Santa Rosa Division
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Dave Robinson
AB&I
7825 San Leandro
Oakland, CA 94621

Date: 03/26/1994
NET Client Acct. No: 82300
NET Pacific Job No: 94.00919
Received: 03/08/1994

Client Reference Information

Project No. P92270.3

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Linda DeMartino
Project Coordinator

Jim Hoch
Operations Manager

Enclosure(s)

Ref: Project No. P92270.3

SAMPLE DESCRIPTION: MW-1
Date Taken: 03/04/1994
Time Taken: 13:00
NET Sample No: 189190

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
METHOD 8020 (GC,Liquid)							
DILUTION FACTOR*	1						03/14/1994
Benzene	1.1	C	0.5	ug/L	8020		03/14/1994
Toluene	ND		0.5	ug/L	8020		03/14/1994
Ethylbenzene	ND		0.5	ug/L	8020		03/14/1994
Xylenes (Total)	ND		0.5	ug/L	8020		03/14/1994
SURROGATE RESULTS	--						03/14/1994
Bromofluorobenzene (SURR)	98			% Rec.	8020		03/14/1994
METHOD 3510/M8015						03/09/1994	
DILUTION FACTOR*	2						03/10/1994
as Diesel	0.71		0.05	mg/L	3510		03/10/1994

C : Positive result confirmed by secondary column or GC/MS analysis.

Ref: Project No. P92270.3

SAMPLE DESCRIPTION: MW-2
Date Taken: 03/04/1994
Time Taken: 12:00
NET Sample No: 189191

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
Oil & Grease (Total)	ND		5	mg/L	5520B		03/16/1994
Oil & Grease (Non-Polar)	ND		5	mg/L	5520B/F		03/16/1994
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						03/18/1994
DILUTION FACTOR*	1						03/18/1994
as Gasoline	0.42	G-	0.05	mg/L	5030		03/18/1994
METHOD 8020 (GC,Liquid)	--						03/18/1994
Benzene	ND		0.5	ug/L	8020		03/18/1994
Toluene	ND		0.5	ug/L	8020		03/18/1994
Ethylbenzene	ND		0.5	ug/L	8020		03/18/1994
Xylenes (Total)	3.6	C	0.5	ug/L	8020		03/18/1994
SURROGATE RESULTS	--						03/18/1994
Bromofluorobenzene (SURR)	137	MI		% Rec.	5030		03/18/1994

C : Positive result confirmed by secondary column or GC/MS analysis.
G- : The positive result has an atypical pattern for Gasoline analysis.
MI : Matrix Interference Suspected

Ref: Project No. P92270.3

SAMPLE DESCRIPTION: MW-2
Date Taken: 03/04/1994
Time Taken: 12:00
NET Sample No: 189191

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
METHOD 601 (GC,Liquid)							
DILUTION FACTOR*	1						03/15/1994
Bromodichloromethane	ND		0.4	ug/L	601		03/15/1994
Bromoform	ND		0.4	ug/L	601		03/15/1994
Bromomethane	ND		0.4	ug/L	601		03/15/1994
Carbon tetrachloride	ND		0.4	ug/L	601		03/15/1994
Chlorobenzene	ND		0.4	ug/L	601		03/15/1994
Chloroethane	3.7		0.4	ug/L	601		03/15/1994
2-Chloroethylvinyl ether	ND		1.0	ug/L	601		03/15/1994
Chloroform	ND		0.4	ug/L	601		03/15/1994
Chloromethane	ND		0.4	ug/L	601		03/15/1994
Dibromochloromethane	ND		0.4	ug/L	601		03/15/1994
1,2-Dichlorobenzene	ND		0.4	ug/L	601		03/15/1994
1,3-Dichlorobenzene	ND		0.4	ug/L	601		03/15/1994
1,4-Dichlorobenzene	ND		0.4	ug/L	601		03/15/1994
Dichlorodifluoromethane	ND		0.4	ug/L	601		03/15/1994
1,1-Dichloroethane	ND		0.4	ug/L	601		03/15/1994
1,2-Dichloroethane	ND		0.4	ug/L	601		03/15/1994
1,1-Dichloroethene	ND		0.4	ug/L	601		03/15/1994
trans-1,2-Dichloroethene	ND		0.4	ug/L	601		03/15/1994
1,2-Dichloropropane	ND		0.4	ug/L	601		03/15/1994
cis-1,3-Dichloropropene	ND		0.4	ug/L	601		03/15/1994
trans-1,3-Dichloropropene	ND		0.4	ug/L	601		03/15/1994
Methylene chloride	ND		10	ug/L	601		03/15/1994
1,1,2,2-Tetrachloroethane	ND		0.4	ug/L	601		03/15/1994
Tetrachloroethene	ND		0.4	ug/L	601		03/15/1994
1,1,1-Trichloroethane	ND		0.4	ug/L	601		03/15/1994
1,1,2-Trichloroethane	ND		0.4	ug/L	601		03/15/1994
Trichloroethene	ND		0.4	ug/L	601		03/15/1994
Trichlorofluoromethane	ND		0.4	ug/L	601		03/15/1994
Vinyl chloride	ND		0.4	ug/L	601		03/15/1994
SURROGATE RESULTS	--						03/15/1994
1,4-Difluorobenzene (SURR)	86			% Rec.	601		03/15/1994
1,4-Dichlorobutane (SURR)	74			% Rec.	601		03/15/1994

Ref: Project No. P92270.3

SAMPLE DESCRIPTION: MW-3
Date Taken: 03/04/1994
Time Taken: 09:00
NET Sample No: 189192

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						03/14/1994
DILUTION FACTOR*	1						03/14/1994
as Gasoline	ND		0.05	mg/L	5030		03/14/1994
METHOD 8020 (GC,Liquid)	--						03/14/1994
Benzene	ND		0.5	ug/L	8020		03/14/1994
Toluene	ND		0.5	ug/L	8020		03/14/1994
Ethylbenzene	ND		0.5	ug/L	8020		03/14/1994
Xylenes (Total)	ND		0.5	ug/L	8020		03/14/1994
SURROGATE RESULTS	--						03/14/1994
Bromofluorobenzene (SURR)	90			% Rec.	5030		03/14/1994

Ref: Project No. P92270.3

SAMPLE DESCRIPTION: MW-4
Date Taken: 03/04/1994
Time Taken: 10:10
NET Sample No: 189193

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
Lead (GFAA)	ND		0.002	mg/L	EPA 7421	03/15/1994	03/18/1994
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						03/14/1994
DILUTION FACTOR*	1						03/14/1994
as Gasoline	0.05		0.05	mg/L	5030		03/14/1994
METHOD 8020 (GC,Liquid)	--						03/14/1994
Benzene	ND		0.5	ug/L	8020		03/14/1994
Toluene	0.9		0.5	ug/L	8020		03/14/1994
Ethylbenzene	ND		0.5	ug/L	8020		03/14/1994
Xylenes (Total)	1.1		0.5	ug/L	8020		03/14/1994
SURROGATE RESULTS	--						03/14/1994
Bromofluorobenzene (SURR)	100			% Rec.	5030		03/14/1994

Ref: Project No. P92270.3

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials
Lead (GFAA)	106.4	0.0266	0.0250	mg/L	03/18/1994	djm
Lead (GFAA)	107.2	0.0268	0.0250	mg/L	03/23/1994	djm
TPH (Gas/BTXE,Liquid)						
as Gasoline	98.0	0.98	1.00	mg/L	03/14/1994	lss
Benzene	94.0	4.70	5.00	ug/L	03/14/1994	lss
Toluene	108.0	5.40	5.00	ug/L	03/14/1994	lss
Ethylbenzene	100.8	5.04	5.00	ug/L	03/14/1994	lss
Xylenes (Total)	104.7	15.7	15.0	ug/L	03/14/1994	lss
Bromofluorobenzene (SURR)	97.0	97	100	% Rec.	03/14/1994	lss
TPH (Gas/BTXE,Liquid)						
as Gasoline	85.4	0.854	1.00	mg/L	03/18/1994	vin
Benzene	107.4	5.37	5.00	ug/L	03/18/1994	vin
Toluene	98.8	4.94	5.00	ug/L	03/18/1994	vin
Ethylbenzene	95.0	4.75	5.00	ug/L	03/18/1994	vin
Xylenes (Total)	95.3	14.30	15.0	ug/L	03/18/1994	vin
Bromofluorobenzene (SURR)	103.0	103	100	% Rec.	03/18/1994	vin
METHOD 3510/M8015						
as Diesel	111.0	1110	1000	mg/L	03/10/1994	tts

Ref: Project No. P92270.3

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials
METHOD 601 (GC,Liquid)						
Bromodichloromethane	91.5	18.3	20.0	ug/L	03/14/1994	asm
Bromoform	82.0	16.4	20.0	ug/L	03/14/1994	asm
Bromomethane	96.5	19.3	20.0	ug/L	03/14/1994	asm
Carbon tetrachloride	88.5	17.7	20.0	ug/L	03/14/1994	asm
Chlorobenzene	84.5	16.9	20.0	ug/L	03/14/1994	asm
Chloroethane	96.5	19.3	20.0	ug/L	03/14/1994	asm
2-Chloroethylvinyl ether	94.0	18.8	20.0	ug/L	03/14/1994	asm
Chloroform	87.0	17.4	20.0	ug/L	03/14/1994	asm
Chloromethane	57.0	11.4	20.0	ug/L	03/14/1994	asm
Dibromochloromethane	85.5	17.1	20.0	ug/L	03/14/1994	asm
1,2-Dichlorobenzene	89.5	17.9	20.0	ug/L	03/14/1994	asm
1,3-Dichlorobenzene	88.5	17.7	20.0	ug/L	03/14/1994	asm
1,4-Dichlorobenzene	89.0	17.8	20.0	ug/L	03/14/1994	asm
Dichlorodifluoromethane	82.5	16.5	20.0	ug/L	03/14/1994	asm
1,1-Dichloroethane	84.5	16.9	20.0	ug/L	03/14/1994	asm
1,2-Dichloroethane	87.5	17.5	20.0	ug/L	03/14/1994	asm
1,1-Dichloroethene	86.0	17.2	20.0	ug/L	03/14/1994	asm
trans-1,2-Dichloroethene	83.0	16.6	20.0	ug/L	03/14/1994	asm
1,2-Dichloropropane	89.0	17.8	20.0	ug/L	03/14/1994	asm
cis-1,3-Dichloropropene	88.5	17.7	20.0	ug/L	03/14/1994	asm
trans-1,3-Dichloropropene	89.5	17.9	20.0	ug/L	03/14/1994	asm
Methylene chloride	76.0	15.2	20.0	ug/L	03/14/1994	asm
1,1,2,2-Tetrachloroethane	96.5	19.3	20.0	ug/L	03/14/1994	asm
Tetrachloroethene	88.0	17.6	20.0	ug/L	03/14/1994	asm
1,1,1-Trichloroethane	88.0	17.6	20.0	ug/L	03/14/1994	asm
1,1,2-Trichloroethane	90.0	18.0	20.0	ug/L	03/14/1994	asm
Trichloroethene	88.5	17.7	20.0	ug/L	03/14/1994	asm
Trichlorofluoromethane	88.0	17.6	20.0	ug/L	03/14/1994	asm
Vinyl chloride	89.0	17.8	20.0	ug/L	03/14/1994	asm
1,4-Difluorobenzene (SURR)	101.0	101	100	% Rec.	03/14/1994	asm
1,4-Dichlorobutane (SURR)	96.0	96	100	% Rec.	03/14/1994	asm

Ref: Project No. P92270.3

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials
Oil & Grease (Total)	ND	5	mg/L	03/16/1994	pbg
Oil & Grease (Non-Polar)	ND	5	mg/L	03/16/1994	pbg
Lead (GFAA)	0.003	0.002	mg/L	03/18/1994	djm
Lead (GFAA)	ND	0.002	mg/L	03/23/1994	djm
TPH (Gas/BTXE,Liquid)					
as Gasoline	ND	0.05	mg/L	03/14/1994	lss
Benzene	ND	0.5	ug/L	03/14/1994	lss
Toluene	ND	0.5	ug/L	03/14/1994	lss
Ethylbenzene	ND	0.5	ug/L	03/14/1994	lss
Xylenes (Total)	ND	0.5	ug/L	03/14/1994	lss
Bromofluorobenzene (SURR)	76		% Rec.	03/14/1994	lss
TPH (Gas/BTXE,Liquid)					
as Gasoline	ND	0.05	mg/L	03/18/1994	vin
Benzene	ND	0.5	ug/L	03/18/1994	vin
Toluene	ND	0.5	ug/L	03/18/1994	vin
Ethylbenzene	ND	0.5	ug/L	03/18/1994	vin
Xylenes (Total)	ND	0.5	ug/L	03/18/1994	vin
Bromofluorobenzene (SURR)	106		% Rec.	03/18/1994	vin
METHOD 3510/M8015					
as Diesel	ND	0.05	mg/L	03/10/1994	tts

Ref: Project No. P92270.3

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials
METHOD 601 (GC,Liquid)					
Bromodichloromethane	ND	0.4	ug/L	03/14/1994	asm
Bromoform	ND	0.4	ug/L	03/14/1994	asm
Bromomethane	ND	0.4	ug/L	03/14/1994	asm
Carbon tetrachloride	ND	0.4	ug/L	03/14/1994	asm
Chlorobenzene	ND	0.4	ug/L	03/14/1994	asm
Chloroethane	ND	0.4	ug/L	03/14/1994	asm
2-Chloroethylvinyl ether	ND	1.0	ug/L	03/14/1994	asm
Chloroform	ND	0.4	ug/L	03/14/1994	asm
Chloromethane	ND	0.4	ug/L	03/14/1994	asm
Dibromochloromethane	ND	0.4	ug/L	03/14/1994	asm
1,2-Dichlorobenzene	ND	0.4	ug/L	03/14/1994	asm
1,3-Dichlorobenzene	ND	0.4	ug/L	03/14/1994	asm
1,4-Dichlorobenzene	ND	0.4	ug/L	03/14/1994	asm
Dichlorodifluoromethane	ND	0.4	ug/L	03/14/1994	asm
1,1-Dichloroethane	ND	0.4	ug/L	03/14/1994	asm
1,2-Dichloroethane	ND	0.4	ug/L	03/14/1994	asm
1,1-Dichloroethene	ND	0.4	ug/L	03/14/1994	asm
trans-1,2-Dichloroethene	ND	0.4	ug/L	03/14/1994	asm
1,2-Dichloropropane	ND	0.4	ug/L	03/14/1994	asm
cis-1,3-Dichloropropene	ND	0.4	ug/L	03/14/1994	asm
trans-1,3-Dichloropropene	ND	0.4	ug/L	03/14/1994	asm
Methylene chloride	ND	10	ug/L	03/14/1994	asm
1,1,2,2-Tetrachloroethane	ND	0.4	ug/L	03/14/1994	asm
Tetrachloroethene	ND	0.4	ug/L	03/14/1994	asm
1,1,1-Trichloroethane	ND	0.4	ug/L	03/14/1994	asm
1,1,2-Trichloroethane	ND	0.4	ug/L	03/14/1994	asm
Trichloroethene	ND	0.4	ug/L	03/14/1994	asm
Trichlorofluoromethane	ND	0.4	ug/L	03/14/1994	asm
Vinyl chloride	ND	0.4	ug/L	03/14/1994	asm
1,4-Difluorobenzene (SURR)	102		% Rec.	03/14/1994	asm
1,4-Dichlorobutane (SURR)	79		% Rec.	03/14/1994	asm

Ref: Project No. P92270.3

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Analyst Initials
Lead (GFAA)	82.0	83.6	1.9	0.0250	0.006	0.0265	0.0269	mg/L	03/23/1994	djm
Lead (GFAA)	104.8	105.2	0.4	0.0250	0.007	0.0332	0.0333	mg/L	03/23/1994	djm
TPH (Gas/BTXE,Liquid)										
as Gasoline	99.0	95.0	4.1	1.00	ND	0.99	0.95	mg/L	03/14/1994	lss
Benzene	93.9	98.5	4.8	33	ND	31.0	32.5	ug/L	03/14/1994	lss
Toluene	95.3	98.3	3.1	95.8	ND	91.3	94.2	ug/L	03/14/1994	lss
TPH (Gas/BTXE,Liquid)										
as Gasoline	80.5	91.4	12.7	1.00	ND	0.805	0.914	mg/L	03/18/1994	vin
Benzene	92.4	103.4	11.1	40.7	ND	37.6	42.1	ug/L	03/18/1994	vin
Toluene	92.4	103.5	11.2	102.9	ND	95.1	106.5	ug/L	03/18/1994	vin
METHOD 3510/M8015										
as Diesel	85.0	89.0	4.6	1.00	ND	0.85	0.89	mg/L	03/10/1994	tts

Ref: Project No. P92270.3

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Analyst Initials
METHOD 601 (GC,Liquid)										
Chlorobenzene	86.0	85.0	1.2	20.0	ND	17.2	17.0	ug/L	03/15/1994	asm
1,1-Dichloroethene	83.0	84.5	1.8	20.0	ND	16.6	16.9	ug/L	03/15/1994	asm
Trichloroethene	91.0	92.5	1.6	20.0	ND	18.2	18.5	ug/L	03/15/1994	asm

Ref: Project No. P92270.3

LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS % Recovery	RPD	LCS Amount Found	LCS Amount Expected	Units	Date Analyzed	Analyst Initials
Oil & Grease (Total)	94.7		144	152	mg/L	03/16/1994	pbg
Oil & Grease (Non-Polar)	86.8		132	152	mg/L	03/16/1994	pbg
Lead (GFAA)	110.4		0.0276	0.0250	mg/L	03/18/1994	djm
Lead (GFAA)	106.0		0.0265	0.0250	mg/L	03/23/1994	djm
METHOD 3510/M8015 as Diesel	82.0		0.82	1.00	mg/L	03/10/1994	tts

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KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. Actual reporting limits and results have been multiplied by the listed dilution factor. **Do not** multiply the reporting limits or reported values by the dilution factor.
dw	:	Result expressed as dry weight.
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than the applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, Rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, Rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986., Rev. 1, December 1987.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

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ANALYTICAL BSK LABORATORIES
Environmental Services

1414 Stanislaus Street
Fresno, CA 93706
(209) 485-8310
(800) 877-8310
(209) 485-6935 FAX

Analyses Request / Chain of Custody

BSK Log Number: 8254

Analytical Due Date:

Shaded areas for LAB use only

Requested Analyses

Client Name: AB & I c/o BSK	Report Attention: Tim Berger	Phone #: (510) 462-4000
Address: 1181 Quarry Ln #300	Project, Quote or PO #: P92270.3	FAX #: (510) 462-6283
City, State, Zip: Pleasanton CA 94566	Copy to:	System #

Sampled by: F. Robert Greguras

LAB use only Sample #	Type	# Cont.	Date Sampled	Time Sampled	Sample Description/Location	Comment or Station Code	TPH-G	TPH-D	BTXE	Total Hydrocarbon Oil & Grease	EPA 601	Total Lead
		4	3/4/94	13:00	MW-1			X	X			
		5	3/4/94	12:00	MW-2		X		X	X	X	
		2	3/4/94	9:00	MW-3		X		X			
		3	3/4/94	10:10	MW-4		X		X			X
						Record water water temperature						
					Temp Record: 4.3°C	CUSTODY SEALED 3/7/94 Seal Intact						

Matrix Type: (L - Liquid) S - Solid G - Gas
Type of Hazards Associated with Samples:

Additional Services:
Rush Priority: [ ] - 2 Day [ ] - 5 Day
[ ] - Formal Chain of Custody [ ] - QC Data package

Additional Services Authorized by:

(Signature)

Payment Received with Delivery
Date: _____ Amount: $ _____
Check # _____ Initials _____
Reciept # _____

	Signature	Print Name	Company	Date	Time
Requested / Relinquished by:		F. Robert Greguras	BSK - P	3/7/94	9:00
Received / Relinquished by:		G.F. Lumbre	NET	3/7/94	10:05
Received / Relinquished by:		G.F. Lumbre	NET	3/7/94	18:00
Received / Relinquished by:	(VIA NCS)				
Received for Laboratory by:		K. Temple	NET	3/8/94	0800