ENVIRONMENTAL
PROTECTION
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December 27, 1996

UPDATED FACILITY CLOSURE ACTIVITY -
Grove Valve and Regulator Company
Emeryville, California

Prepared For:

Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Prepared By:

Environmental Management &
Engineering, Inc.
437 Industrial Lane
Birmingham, Alabama 35211
Project No. DRS-95-E942

Environmental Management
& Engineering, Inc.

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UPDATED FACILITY CLOSURE ACTIVITY

Grove Valve and Regulator
Emeryville, California

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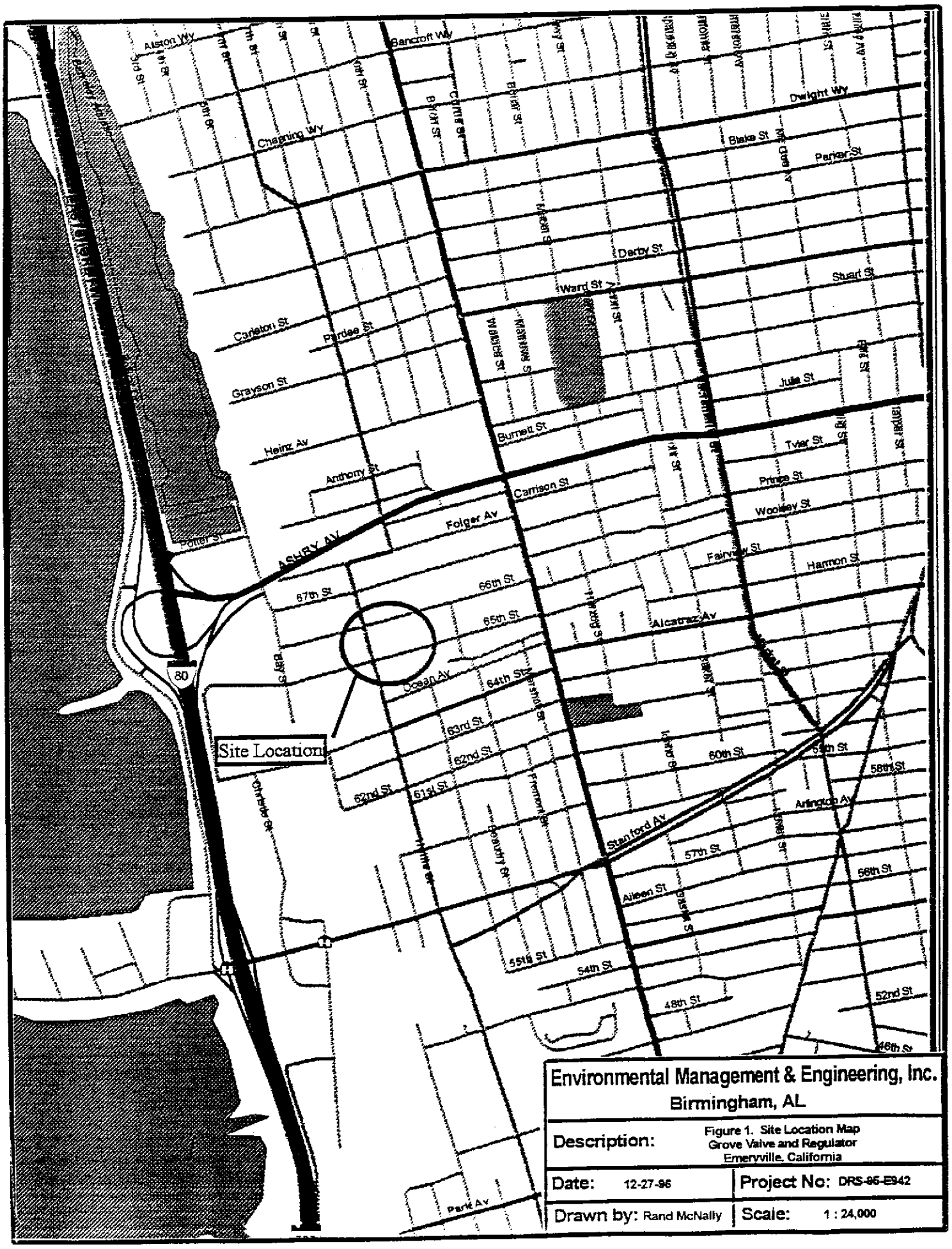
I. General Information

The Grove Valve and Regulator Company (Grove) facility (Figure 1) is situated on approximately seven acres located at 6529 Hollis Street, Emeryville, California and had been involved in the development, manufacture and sale of valves and pressure regulators for the oil and gas industry. The area in which the facility is located is highly developed with manufacturing, warehouses, commercial offices, etc. The area under roof at the facility totals approximately 250,000 square feet.

Grove has relocated its manufacturing operation to Houston, Texas and is in the process of closing the facility in preparation for the eventual sale of the property. The following is a summary of the recent closure activities which have been carried out. These activities represent a continuation of the closure activities outlined in the facility Closure Plan dated December 13, 1995 and the Updated Facility Closure Plan dated May 15, 1996.

II. Machine Sump Investigation

On May 21, 1996 Environmental Management & Engineering, Inc. (EME) investigated two (2) machine sumps located in the Main Manufacturer Building at the Grove facility. This investigation was prompted when two (2) machine tools were removed and limited oil staining (cutting oil) was observed on the underlying soil at the northernmost machine tool sump location. Two (2) borings were made at the machine sump locations to collect soil samples. These investigations/samples indicated localized and somewhat elevated levels of Total Petroleum Hydrocarbons as diesel (TPH-D) and Total Oil and Grease (TOG) in the northernmost machine sump.



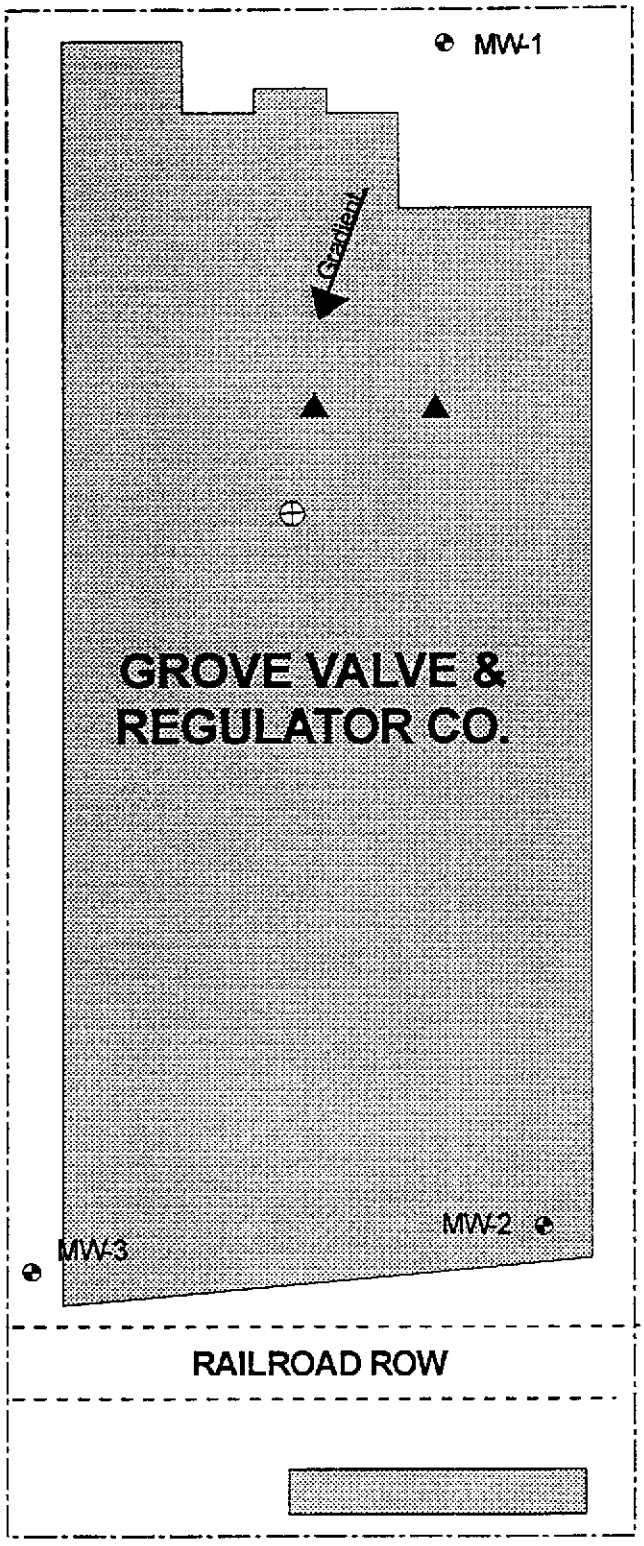
Environmental Management & Engineering, Inc. Birmingham, AL	
Description:	Figure 1. Site Location Map Grove Valve and Regulator Emeryville, California
Date: 12-27-96	Project No: DRS-95-E942
Drawn by: Rand McNally	Scale: 1 : 24,000

In a letter dated August 13, 1996, the Alameda County Department of Environmental Health (ACDEH) requested additional sampling to determine whether the groundwater in the area adjacent to the northernmost machine sump had been impacted by the cutting oil.

On December 12, 1996, EME conducted an additional investigation of the northernmost machine sump area as requested by the ACDEH and as described in EME's letter of December 2, 1996 (Attachment 1). Mr. Brian Oliva, Senior Hazardous Materials Specialist with the ACDEH, visited the location to observe the activities. The resulting inspection report is included as Attachment 2.

The additional investigation work consisted of installing a soil boring approximately 37 feet downgradient (northwest) of the northernmost machine sump in question (see Figure 2). This boring went to a depth of 15 feet where groundwater was encountered. A groundwater sample was then collected from the boring using a disposable bailer. The groundwater sample, equipment blank and trip blank were sent to American Environmental Laboratory, located in Pleasant Hill, CA, for analysis of Total Petroleum Hydrocarbons (TPH) by EPA Method 418.1 as specified by the ACDEH. After collection of the groundwater sample, the boring was grouted with cement.

The analytical results revealed no detectable concentration of TPH in the groundwater. A copy of the laboratory analytical report is included as Attachment 3.



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LEGEND

- ▲ Former Sump and Previous Boring Location
- ⊕ Soil Boring Additional Investigation
- ◒ Monitoring Well

ENVIRONMENTAL MANAGEMENT & ENGINEERING INC. Birmingham, AL			
Description:	FIGURE 2 BORING LOCATION MAP		
Date:	12-26-96	Project No.:	DRS-95-E942
Drawn By:	DAL	Scale:	NTS

III. Summary

The results of the recent groundwater sampling show that the groundwater in the area has not been impacted by the subject machine sump. The analysis of the groundwater sample shows no detectable TPH. Therefore, any contamination from the northernmost sump is localized. Further, the fact that the area is covered by the building slab means there are no exposure pathways and thus no apparent threat to human health or the environment.

ATTACHMENT 1 -- Environmental Management & Engineering, Inc. (EME) Letter dated December 2, 1996

Environmental Management & Engineering, Inc.
437 Industrial Lane Post Office Box 19866 Birmingham, AL 35219
(205) 940-7700 Fax (205) 940-7701

December 2, 1996

Mr. Brian Oliva
Senior Hazardous Materials Specialist
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

RE: Grove Valve and Regulator Company, Emeryville, California
DRS-95-E942

Dear Mr. Oliva:

As we discussed in our telephone conversation of November 21, 1996, Environmental Management & Engineering, Inc. (EME) will be conducting the additional investigation of the machine sump area requested in your letter of August 13, 1996.

We anticipate that our geologist will be on-site on December 11-12, 1996 to perform the requested groundwater sampling and to assess the facility for additional areas of the facility which might require investigation. The following work plan describes our proposed groundwater investigation.

A boring will be installed with a stainless steel hand auger approximately 25 to 50 feet downgradient (west/northwest) of the northernmost machine sump in question. The exact distance will be determined upon assessment of the building floor slab. As you will recall, this was the location of the deepest soil impact and the most likely location of potential impact to groundwater, if any. The boring will be advanced to a sufficient depth to allow collection of a groundwater sample with a disposable bailer. Following sampling activities, the boring will be grouted with cement. It is anticipated that a single downgradient boring will be adequate to confirm that there has been no impact to groundwater. However, should observations made during the investigation or sampling results reveal evidence of potential impact to groundwater, additional investigation will be conducted in coordination with you.

Groundwater samples, including appropriate quality control blanks, will be submitted to the American Environmental Network laboratory in Pleasant Hill, CA for analysis for Total Oil and Grease (TOG) by EPA Method 418.1 as we have previously discussed. All sampling and analyses will be conducted using proper decontamination and chain-of-custody procedures.

The results of the described investigation will be reported to you in a timely manner following receipt of the laboratory analytical results.

We will be in contact with you to confirm a schedule prior to our arrival at the site. Please let us know if you have any comments or questions. As always, we appreciate your assistance with this project.

Thank you for your kind consideration.

Sincerely,

Kevin Holloran
Environmental Specialist

KH/jjf

cc: Mr. Bill Tallent
Mr. Lee DeNooyer

ATTACHMENT 2 -- Inspection Report

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

1131 Harbor Bay Pkwy
Alameda CA 94502
510/567-6700

Hazardous Materials Inspection Form

II, III

Site ID # 7/4 Site Name Grove Valve + Reg Today's Date 12/12/96

Site Address Hollis St

City Emeryville Zip 94608 Phone

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

Job Number DRC-95-E942

Job Description Grove Valve + Reg.

Inspection Categories:

_____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER

_____ II. Hazardous Materials Business Plan, Acutely Hazardous Materials

✓ III. Underground Storage Tanks

Removal

File Name

Document Name

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

Comments: [illegible]

[illegible]

[illegible]

[illegible]

[illegible] BCS

Second [illegible] at 15 feet with [illegible] water

in [illegible]

Several photographs taken of site -

* [illegible] (ability to extract water for sampling)

* [illegible] Hazardous Waste [illegible]

Called [illegible] about bid process. — [illegible]

II, III

Contact [illegible]

Title

Signature

Inspector [illegible]

Signature

ATTACHMENT 3 -- Analytical Results

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

GROVE VALVE & REGULATOR CO.
11100 WEST AIRPORT BLVD.
STAFFORD, TX 77477-3014

ATTN: BILL TALLENT
CLIENT PROJ. ID: DRS-95-E942

REPORT DATE: 12/27/96

DATE(S) SAMPLED: 12/12/96

DATE RECEIVED: 12/13/96

AEN WORK ORDER: 9612212

PROJECT SUMMARY:

On December 13, 1996, this laboratory received 3 water sample(s).

Client requested sample(s) be analyzed for chemical parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Director

cc: Dennis Lewis (Env. Mgmt. & Engineering)

GROVE VALVE & REGULATOR CO.

SAMPLE ID: GW-1
AEN LAB NO: 9612212-01
AEN WORK ORDER: 9612212
CLIENT PROJ. ID: DRS-95-E942

DATE SAMPLED: 12/12/96
DATE RECEIVED: 12/13/96
REPORT DATE: 12/27/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Water Extrn for HCs		-		Extrn Date	12/23/96
Hydrocarbons (IR)	EPA 418.1	ND	0.5	mg/L	12/24/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

GROVE VALVE & REGULATOR CO.

SAMPLE ID: EB
AEN LAB NO: 9612212-02
AEN WORK ORDER: 9612212
CLIENT PROJ. ID: DRS-95-E942

DATE SAMPLED: 12/12/96
DATE RECEIVED: 12/13/96
REPORT DATE: 12/27/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Water Extrn for HCs		-		Extrn Date	12/23/96
Hydrocarbons (IR)	EPA 418.1	ND	0.5	mg/L	12/24/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

GROVE VALVE & REGULATOR CO.

SAMPLE ID: TB
AEN LAB NO: 9612212-03
AEN WORK ORDER: 9612212
CLIENT PROJ. ID: DRS-95-E942

DATE SAMPLED: 12/12/96
DATE RECEIVED: 12/13/96
REPORT DATE: 12/27/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Water Extrn for HCs		-		Extrn Date	12/23/96
Hydrocarbons (IR)	EPA 418.1	ND	0.5	mg/L	12/24/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9612212
CLIENT PROJECT ID: DRS-95-E942

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spikes(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analyses.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behaviour, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrument performance.

D: Surrogates diluted out.

I: Interference.

!: Indicates result outside of established laboratory QC limits.

ANALYSIS: Oil & Grease (IR)

MATRIX: Water

METHOD BLANK SAMPLES

SAMPLE TYPE: Blank-Method/Media blank
INSTRUMENT: IR Spectrophotometer
UNITS: mg/L
METHOD:

LAB ID: BLNK-1223-1
PREPARED: 12/23/96
ANALYZED: 12/23/96

INSTR RUN: IR\961223000000/1/
BATCH ID: IRW122396-1
DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Motor Oil	ND		0.5						

METHOD SPIKE SAMPLES

SAMPLE TYPE: Laboratory Control Spike
INSTRUMENT: IR Spectrophotometer
UNITS: mg/L
METHOD:

LAB ID: LCSW-1223-1
PREPARED: 12/23/96
ANALYZED: 12/23/96

INSTR RUN: IR\961223000000/2/1
BATCH ID: IRW122396-1
DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Motor Oil	6.99	ND	0.5	6.91	101	73	112		

---------- End of Quality Control Report ----------

[redacted]ime[redacted] M[redacted]eme[redacted] & E[redacted]eeri[redacted] Inc. [redacted]

Birmingham Office: (205) 940-7700 (205) 940-7701 Fax
Houston Office: (713) 939-7028 (205) 939-7029 Fax

9612212

CHAIN OF CUSTODY RECORD/ANALYSIS REQUEST

Att: Dennis Lewis

Client	Project	Date Delivered	Analyses Requested	Send Report to
Grove Valve	DRS - 95 E942			Environmental Mgmt and ENGINEERING, 437 Industrial Lane, BIRMINGHAM, AL 35219, Phone (205) 940-7700

Samplers, (Signature): [signature]

Sample #	Date Sampled	~~Time~~ Sampled LAB NO	Sample Description	No. of Containers	Total Oil & Grease						Remarks
GW-1	12-12-96	01A	Groundwater Sample	2 (bracketed)	X						Total Oil & Grease by
GW-1	12/12/96	01B	Groundwater Sample		X						EPA Method 413.1
EB	12/12/96	02A	EQUIPMENT BLANK	1	X						
TB	12/12/96	03A	TRIP BLANK	1	X						

Relinquished by (Signature)	Date Time	Received by (Signature)	Relinquished by (Signature)	Date Time	Received by (Signature)
[signature]	12/13 1035	[signature]	[signature]	12/13 1105	Ronald C. Jensen
Relinquished by (Signature)	Date Time	Received by (Signature)	Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by Laboratory by (Signature)	Indicate Special Hazards Here		