ENVIRONMENTAL PROTECTION

QUARTERLY REPORT 1ST QUARTER 1996

Grove Valve & Regulator Company Emeryville, California

February 22, 1996

Submitted To:

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

Prepared For:

Grove Valve & Regulator Company 6529 Hollis Street Emeryville, California 94549

Prepared By:

Environmental Management & Engineering, Inc. 437 Industrial Lane Birmingham, Alabama 35211 Project No. DRS-96-E977



Environmental Management & Engineering, Inc.

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GROVE VALVE AND REGULATOR CO. P.O. Box 721900 Houston, Texas 77272-19 0

Phone (713) 568-2211 • Fax (713)



March 4, 1996

Ms. Susan Hugo Senior Hazardous Materials Specialist Alameda County Health Care Services Agency Department of Environmental Health 1131 Harbor Bay Parkway Alameda, California 94502-6577

RE: Grove Valve & Regulator Company, Emeryville, CA

Quarterly Report - 1st Quarter 1996

DRS-96-E977

Dear Ms. Hugo:

Please find two (2) copies of the above captioned report as requested in your letter of June 29, 1995. I hereby state that, to the best of my knowledge, the report is accurate and that I concur with the conclusions and recommendations made therein. Please contact Mr. Kevin Holloran of Environmental Management & Engineering, Inc. (EME) at 205/940-7700 if you have any comments or questions. We appreciate your assistance with this matter.

Thank you for your kind consideration.

Regards,

Kenneth G. Banks

President

KGB/lmm

enc

February 22, 1996

QUARTERLY REPORT 1ST QUARTER 1996 — Grove Valve & Regulator Company Emeryville, California

Submitted To:

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

Prepared For:

Grove Valve & Regulator Company 6529 Hollis Street Emeryville, California 94549

Prepared By:

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



Environmental Management & Engineering, Inc

437 Industrial Lane Post Office Box 19866 Birmingham, AL 35219 (205) 940-7700 5715 Northwest Central Drive Suite 104 Houston, TX 77092 (713) 939-7028

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Attachment 2 "Field Activity Report", Environmental Sampling Services, January 1996

Attachment 3 Laboratory Analytical Reports for Groundwater Monitoring Events

Attachment 4 Laboratory Analytical Report for Sanitary Sewer Discharge Monitoring Event

OUARTERLY REPORT - 1ST QUARTER 1996

Grove Valve & Regulator Company Emeryville, California

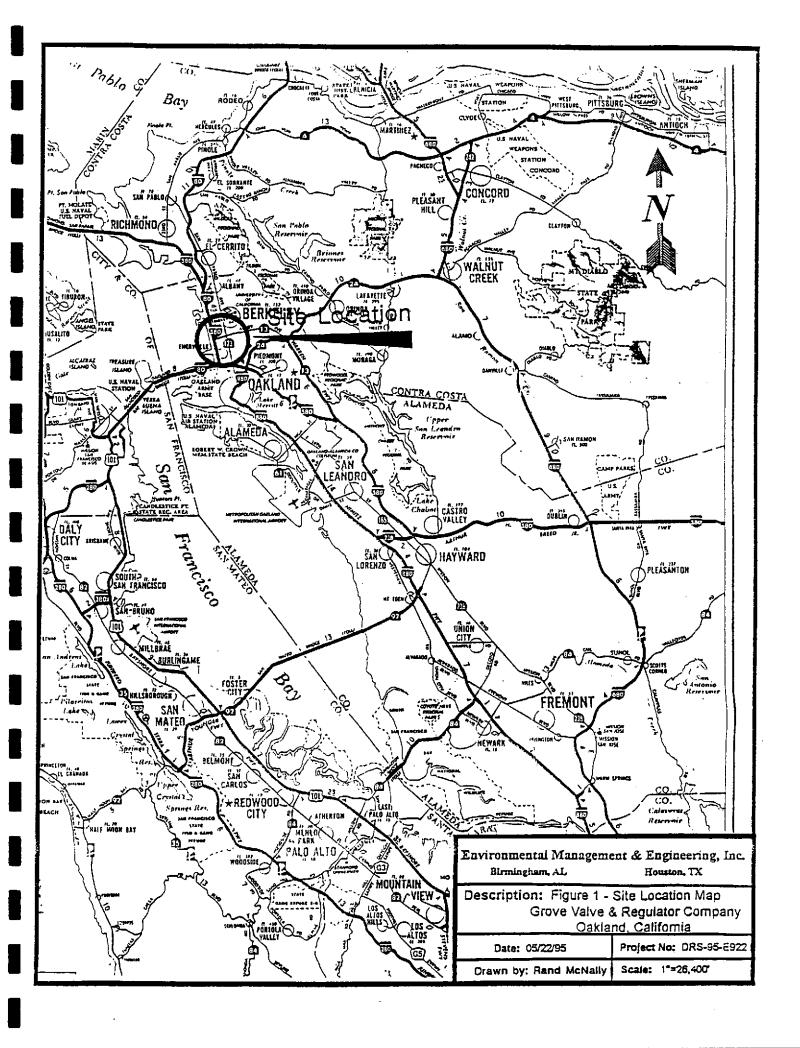
February 22, 1996

I. General Information

The Grove Valve & Regulator Company (Grove) facility is situated on approximately seven acres located at 6529 Hollis Street, Emeryville, California and has 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. Figure 1 is a facility site location map.

As a result of investigations of the soil and groundwater at the Grove Valve and Regulator Company of Emeryville, California, the Alameda County Health Care Services Agency Department of Environmental Health (ACDEH) requested a summary of the work to date including an overview as to whether further investigation of the site is warranted and, if so, a proposal for such. Quarterly monitoring of groundwater and reporting of results were also requested. Attachment 1 contains a copy of the referenced correspondence from the ACDEH. Environmental Management & Engineering, Inc. (EME) of Birmingham, Alabama produced the report, entitled "Groundwater/Soil Investigation Overview" and submitted it to the ACDEH in October of 1995. As requested by the ACDEH and proposed in the above referenced report, Grove has initiated a quarterly groundwater monitoring program.

The following is a description of the monitoring event for the first quarter of 1996 and summary of the project results to date.



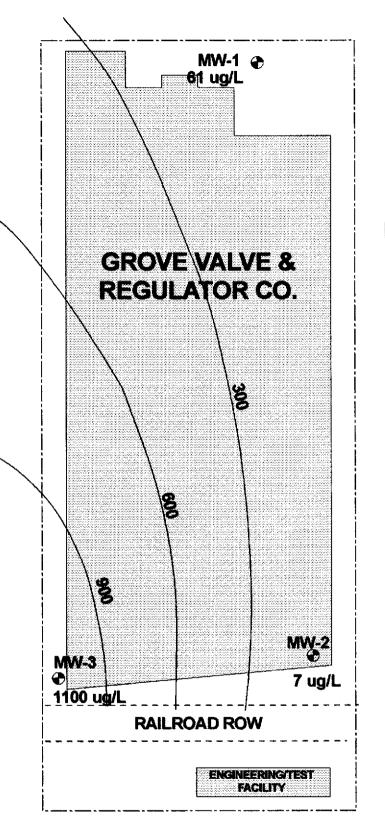
II. Quarterly Monitoring Activities

The sampling event was conducted on Wednesday, January 9, 1996, by Environmental Sampling Services of Lafayette, California. Static water levels and total well depth at the three monitoring wells were recorded and four casing volumes of water were evacuated from each well using a centrifugal pump and dedicated hoses. In addition to sampling each well, one duplicate sample was collected from monitoring well #3 for quality control purposes. A trip blank also accompanied the samples. All samples were transported under proper chain-of-custody to the American Environmental Network laboratory in Pleasant Hill, California for analysis for volatile organic compounds (VOC's). Attachment 2 is a copy of the Field Activity Report prepared by Environmental Sampling Services.

III. Quarterly Monitoring Results

Upon receipt of the analytical results for the January 1996 sampling event, it became apparent that the oil and grease parameter had been inadvertently omitted from the analysis request and that the VOC Method 8240 had been used rather than the 8010 and 8020 methods requested by the ACDEH. Mr. Kevin Holloran of EME notified Ms. Susan Hugo of the ACDEH of the discrepancy. Ms. Hugo stated that the parameters which were analyzed were sufficient for this event but that the requested parameters should be run for future quarterly monitoring events.

The analytical results of the January 1996 sampling event were consistent with those of previous events. The trichloroethene (TCE) concentration in the sample from MW-1 (the upgradient monitoring well) was 61 ug/L. The TCE concentration in the sample from MW-2 was 7 ug/L. The TCE concentrations in the sample and duplicate sample from MW-3 were 1400 and 1100 ug/L respectively. Figure 2 shows projected contaminant contours at the site based on these results. Laboratory reports, including QC/QA data and chain-of-custody documentation, for this event, as well as previous events, are





LEGEND

MONITORING WELL

61 ug/L TCE CONCENTRATION (SAMPLED 1/9/96)

ENVIRONMENTAL MANAGEMENT & ENGINEERING INC.

Birmingham , AL Houston, TX

Description: FIGURE 2

TRICHLOROETHENE CONTAMINATION CONTOURS

Date: 2/19/96 Project No.: DRS-95-E942

Drawn By: TJS/MKH Scale: NTS

presented as Attachment 3. Tabulated analytical results for all sampling events to date are presented in Table 1.

Static groundwater levels recorded during the January 1996 sampling event were also consistent with those of previous events. Groundwater flow direction and gradient is predominantly to the west toward San Francisco Bay. Figure 3 shows the groundwater gradient and flow direction based on these recorded levels. Tabulated historical static groundwater level readings are presented as Table 2.

In addition to quarterly groundwater monitoring, Grove conducts semi-annual discharge monitoring in accordance with East Bay Municipal Utilities District discharge requirements. Groundwater which infiltrates an elevator sump is discharged to the sanitary sewer after treatment by air-stripping. Grove collected both pre- and post-treatment samples on December 18, 1995. The pre-treatment sample was found to contain TCE at a concentration of 64 ug/L. The post-treatment sample did not contain detectable concentrations of any VOC's. As requested by Ms. Susan Hugo of the ACDEH, the analytical reports for the discharge monitoring event are included herein as Attachment 4.

IV. Summary and Recommendations

As mentioned previously, the results of the January 1996 monitoring event are consistent with those of previous sampling events. Both the analytical results and static groundwater level data continue to indicate that the groundwater contamination is a migrating slug of TCE from an off-site source(s). TCE concentrations in the upgradient monitoring well (MW-1) located adjacent to the facility property line, as well as in the upgradient elevator shaft sump remain elevated. Grove proposes continued quarterly monitoring until such time that there is a sufficient data base on which to draw further conclusions.

TABLE 1
SUMMARY OF GROUNDWATER SAMPLING ANALYTICAL RESULTS

(ug/l)

							(~8/-/											
Grove Valve Regulator Co.	WS-1	WS-2	MW-1	MW-1	MW-4(ID)				MW-1			MW-1R			MW-2	MW-2		MW-2
Emeryville, CA	Apr-91	Apr-91	Mar-92	Oct-92	Oct-92	Feb-93	Арг-95	Aug-95	Sep-95	Nov-95	Jan-96	Mar-92	Mar-92	Oct-92	Feb-93	Apr-95	Aug-95	Sep-95
AROMATIC HYDROCARBONS						<u> </u>												
	1																	
Benzene	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Chlorobenzene	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
1,2 Dichlorobenzene	NA	NA	ND	NA	NA	ND	ND	NA	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA
1,3 Dichlorobenzene	NA	NA.	ND	NA	NA	ND	ND	NA	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA
1,4 Dichlorobenzene	NA	NA	ND	NA	NA	ND	ND	NA	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA
Ethylbenzene	NA	NA	ND	ΝA	NA	ND	· ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Toluene	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Xylene	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
HALOGENATED ORGANICS								ļ								ļ		
Bromodichloromethane	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	ND	ND	ND	ND	ND	ND
Bromoform	NA NA	NA NA	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	NA NA	NA NA	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	NA NA	NA NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NA.	NA.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorethyl Vinyl Ether	NA.	NA.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	NA NA	NA.	ND	ND	ND	ND	ND	ND	ND	ND	ND	36	ND	ND	ND	ND	ND	ND
Chloromethane	NA NA	NA.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	-NA	NA NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	NA	NA.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1.1 Dichloroethane	ND	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	2	1 2	2	ND	ND
1.2 Dichloroethane	NA.	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1 Dichloroethene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1.2-Dichloroethene	5	20	33	24	24	15	20	12	18	18	16	ND	2	1	2	0.9	ND	ND
trans-1.2-Dichloroethene	ND	3	12	8	8	5	7	ND	7	7	7	ND						
1,2 Dichloropropane	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ПD
1,1,2,2 Tetrachioroethane	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1 Trichloroethane	120	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6	0.8	ND	ND	ND	ND
1,1,2 Trichloroethane	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	160	180	103	99	98	53	79	46	54	61	61	ND	. 4	3	3	5	ND	ND
Trichlorofluoromethane	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2 Trichlorotrifluoroethane	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = Not Detected

D = Duplicate

WS-1 - Elevator Shaft Sump Sample

NA = Not Analyzed

R = Replicate

TABLE 1
SUMMARY OF GROUNDWATER SAMPLING ANALYTICAL RESULTS
(ug/l)

Grove Valve Regulator Co.	WS-1	WS-2	MW-1	MW-1	MW-4(ID)	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1R						
Emeryville, CA	Apr-91	Apr-91	Mar-92	Oct-92	Oct-92	Feb-93	Арг-95	Aug-95	Sep-95	Nov-95	Jan-96	Mar-92	Mar-92	Oct-92	Feb-93	Apr-95	Aug-95	Sep-95
PESTICIDES & PCB'S																		
Aldrin	NA	NA	ND	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
alpha-BHC	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
beta-BHC	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
delta-BHC	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ÑA	ND	ND	NA	NA	NA
gamma-BHC	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Chlordane	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
4,4 DDD	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
2,4 DDD	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
4,4 DDE	NA	NA	ND	NA	NA	NA.	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
2,4 DDE	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
4,4 DDT	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
2,4 DDT	NA	NA	ND	NA	NA	NA	ΝA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Dieldrin	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Endosulfan I	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Endosulfan II	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Endosulfan Sulfate	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Endrin	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Endrin Aldehyde	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA	ND	ND	NA	NA	NA
Heptachlor	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Heptachlor Epoxide	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Methoxychlor	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Toxaphene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
PCB-1016	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
PCB-1221	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
PCB-1232	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
PCB-1242	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
PCB-1248	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
PCB-1254	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
PCB-1260	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
								<u> </u>					ļ	<u> </u>		<u> </u>	<u> </u>	↓
oil & grease (EPA Method 5520C)	NA	NA	ND	NA	NA	NA	NA	NA.	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Hydrocarbons (EPA Method 5520F)) NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA

ND = Not Detected

D = Duplicate

WS-1 - Elevator Shaft Sump Sample

NA = Not Analyzed

R = Replicate

TABLE 1
SUMMARY OF GROUNDWATER SAMPLING ANALYTICAL RESULTS
(ug/l)

	_				(**6/*/									
Grove Valve Regulator Co.			MW-2D		MW-3		MW-3	MW-3	MW-3	MW-3			MW-3D	
Emeryville, CA	Nov-95	Jan-96	Mar-92	Mar-92	Oct-92	Feb-93	Apr-95	Aug-95	Sep-95	Nov-95	Jan-96	Sep-95	Nov-95	Jan-96
AROMATIC HYDROCARBONS												-		
	<u> </u>				-									
Benzene	ND	ND	NA	ND	NA	ND								
Chlorobenzene	ND	ND	NA	ND	NA	ND								
1,2 Dichlorobenzene	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	ΝA	NA	NA
1,3 Dichlorobenzene	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA.	NA	NA	NA	NA
1,4 Dichlorobenzene	NA	NA	NA	ND	NA	ND	ND	NA						
Ethylbenzene	ND	ND	NA	ND	NA	ND								
Toluene	ND	ND	NA	ND	NA	ND								
Xylene	ND	ND	NA	ND	NA	ND								
HALOGENATED ORGANICS											l]		
								1						
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorethyl Vinyl Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1 Dichloroethane	ND	ND	3	0.6	0.7	ND								
1,2 Dichloroethane	ND	ND	ND	ND	0.6	ND								
1,1 Dichloroethene	ND	ND	ND	2	1	1	1	ND						
cis-1,2-Dichloroethene	ND	ND	2	18	13	13	28	19	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND]]	1	ND						
1,2 Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2 Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1 Trichloroethane	ND	ND	0.6	0.5	0.7	ND								
1,1,2 Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	7	4	1300	1100	1200	800	1400	1200	1400	1400	1200	1200	1100
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2 Trichlorotriffuorocthane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	5	2	3	9	ND						

ND = Not Detected

D = Duplicate

WS-1 - Elevator Shaft Sump Sample

NA = Not Analyzed

R = Replicate

TABLE 1 SUMMARY OF GROUNDWATER SAMPLING ANALYTICAL RESULTS (ug/l)

Grove Valve Regulator Co.	MW-2	MW-2	MW-2D	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3D	MW-3D	MW-3D
Emeryville, CA	Nov-95	Jan-96	Mar-92	Mar-92	Oct-92	Feb-93	Apr-95	Aug-95	Sep-95	Nov-95	Jan-96	Sep-95	Nov-95	Jan-96
PESTICIDES & PCB'S	ļ					<u> </u>								
		<u> </u>												
Aldrin	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4 DDD	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4 DDD	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4 DDE	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4 DDE	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4 DDT	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4 DDT	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	ND	ND	NA	'NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	NA	NA	ND	ND	NA	NA	NA	NA	NA	ΝA	NA	NA	NA	NA
Endrin	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1016	NA	NA	ND	ND	NA	NA	NA	NA	NA	ΝA	NA	NA	NA	NA
PCB-1221	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1232	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1242	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1248	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	NA.	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	†	1	†	1	† ****	T	1	1	 	† <u>-</u>	†	†	T	1
il & grease (EPA Method 5520C)	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ydrocarbons (EPA Method 5520F)	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

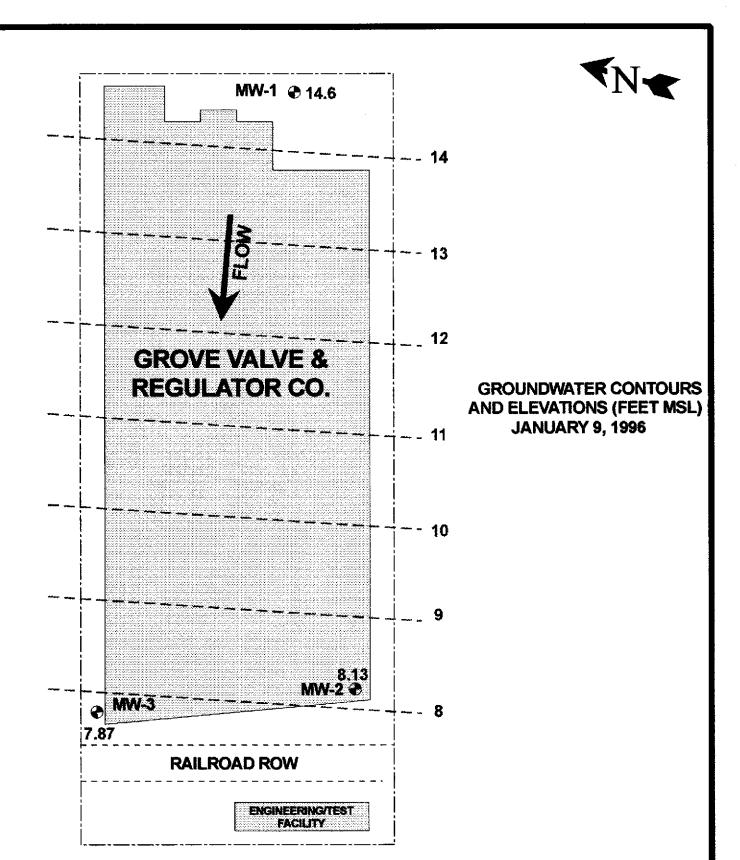
ND = Not Detected

D = Duplicate

WS-1 - Elevator Shaft Sump Sample

NA = Not Analyzed

R = Replicate



	NENTAL MANA ngham , AL	GEMENT & ENC Houst	
Description: GR		FIGURE 3 LEVELS AND G	RADIENT
Date:	2/19/96	Project No.:	DRS-95-E942
Drawn By:	MKH	Scale:	NTS

TABLE 2 STATIC WATER LEVEL READINGS GROVE VALVE AND REGULATOR COMPANY

WELL	DATE	TOC	WLR	SWL
MW-1	3/2/92	20.72	4.28	16.44
ł	3/26/92		4.89	15.83
	10/15/92		7.22	13.5
	8/18/95		8.52	12.2
}	9/14/95		6.71	14.01
	11/17/95		7.03	13.69
ł	1/9/96		6.12	14.6
MW-2	3/2/92	15.95	7.9	8.05
1	3/26/92		6.1	9.85
	10/15/92		7.42	8.53
i	8/18/95		6.65	9.3
	9/14/95		8.16	7.79
Ì	11/17/95		8.94	7.01
İ	1/9/96		7.82	8.13
MW-3	3/2/92	16.95	9.22	7.76
İ	3/26/92		8.38	8.6
]	10/15/92		9.32	7.66
	8/18/95		9.28	7.7
1	9/14/95		9	7.95
j	11/14/95		9.3	7.68
	1/9/96		9.08	7.87

NOTE: TOC = TOP OF CASING, FEET ABOVE MEAN SEA LEVEL

WLR = WATER LEVEL READING, FEET

SWL = STATIC WATER LEVEL , FEET ABOVE MEAN SEA LEVEL

V. Qualifications of Lead Professionals

Founder and President of EME, Dr. Gene Gonsoulin has over twenty-five years of Environmental and Natural Resource Management education and work experience and has provided services to numerous major industry projects, industry trade organizations, and state and federal governmental agencies. He has honed a broad array of specialized skills that provides sound environmental and natural resource management consulting and professional guidance for EME's technical staff. Included in his work experience are many years of direct employment/involvement in the oil and gas, drilling, production and natural gas transmission industry for domestic and international operations as well as continuing consulting work for a number of large companies both here and abroad.

Mr. Kevin Holloran, an Environmental Specialist with EME, has ten (10) years experience in the environmental field in both the regulatory and consulting aspects of the industry. He has extensive experience in the performance of environmental site assessments including both regulatory research and site work in the United States, Canada, Scotland, England and Belgium.

Ms. Robin Spencer has 15 years experience in the environmental engineering field. She is a Certified Hazardous Materials Manager and a Registered Environmental Assessor in the State of California.

Ms. Elyse Heilshorn is a consulting environmental engineer and a registered civil engineer (No. C036567) in the State of California, a Certified Hazardous Materials Manager, and a Registered Environmental Assessor. She has 18 years experience in the environmental field as an engineer and a chemist.

Gene Gonsoulin, Ph.D, President
Environmental Management &
Engineering, Inc.

Robins K. Spencer, CHMM R.E.A.

Kevin Holloran, Environmental Specialist Environmental Management &

Engineering, Inc.

Elyse D. Heilshorn

Registered Civil Engineer No. C036567

(Seal)

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY

FAXE

cc: Bill Tallent

DAVID J. KEARS, Agency Director

June 29, 1995

Grove Valve and EPARTMENT OF ENVIRONMENTAL HEALTH
Regulator Company
Executive Office

State Water Resources Control Board
Division of Clean Water Programs

Executiv

State Water Resources Control Board Division of Clean Water Programs UST Local Oversight Program 1131 Harbor Bay Parkway Alameda, CA 94502-6577 (510) 567-6700

RAFAT A. SHAHID, DIRECTOR

Mr. Kenneth Banks Grove Valve and Regulator Company 6529 Hollis Street Emeryville, California 94608

RE: Soil and Groundwater Contamination at Grove Valve and Regulator Company - 6529 Hollis Street, Emeryville, CA 94608

Dear Mr. Banks:

The Alameda County Department of Environmental Health, Environmental Protection Division has recently reviewed the Work Plan - Status of Environmental Investigation of Soil and Groundwater (April 1995) prepared by Robin Spencer for the referenced site.

The following are issues that must be addressed regarding the soil and groundwater investigation at the subject site:

- 1) The extent of the soil and groundwater contamination remains undefined. The latest sampling event (April 1995) revealed that the three on site monitoring wells detected trichlorosthene (TCE) up to 800 ppb in MW-3 which appeared to be the downgradient well. Vinyl chloride (9 ppb) and dichloroethene (28 ppb) were also detected in MW-3. A work plan must be submitted to determine the vertical and lateral extent of the soil and groundwater contamination.
- 2) The source of the soil and groundwater contamination at the site must be identified. Review of our files for the subject site indicated that chlorinated solvents (1,1,1 trichloroethane) had been used at the site.
- 3) Monitoring well MW-4 showed 98 ppb trichloroethene during the 10/15/92 sampling event. Please provide any other existing groundwater data for this well including copies of the boring log and monitoring well construction diagram. Additionally, the location of the well (MW-4) must be identified in the site map.
- 4) All the wells must be sampled every quarter and analyzed for the following target compounds: TPH as oil and grease, aromatic volatile hydrocarbons (8020) and halogenated volatile organics (8010).
- 5) Groundwater elevation must be measured and incorporated in the quarterly monitoring program to verify groundwater flow direction at the subject site.

Response to all the issues mentioned above including the work plan submittal must be provided to this office no later than August 21, 1995.

.

Mr. Kenneth Banks

RE: 6529 Hollis Street, Emeryville CA 94608

June 29, 1995 Page 2 of 2

Until cleanup is complete, you will need to submit quarterly reports to this office and the following items must be incorporated in your future reports or workplans:

- a cover letter from the responsible party stating the accuracy of the report and whether he/she concurs with the conclusions and recommendations in the report or workplan
- site map delineating contamination contours for soil and groundwater based on recent data should be included and the status of the investigation and cleanup must be identified
- proposed continuing or next phase of investigation / cleanup activities must be included to inform this department of the responsible party's intention
- any changes in the groundwater flow direction and gradient based on the measured data since the last sampling event must be explained
- historical records of groundwater level in each well must be tabulated to indicate the fluctuation in water levels
- tabulate analytical results from all previous sampling events; provide laboratory reports (including quality control/quality assurance) and chain of custody documentation

All reports and proposals must be submitted under seal of a California Registered Geologist or Registered Civil Engineer with a statement of qualifications for each lead professionals involved with the project.

Please contact me at (510) 567-6780 if you have any questions concerning this letter.

Sincerely,

Susan L. Hugo

ausan n. nugo

Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Director, Environmental Health
Jun Makishima, Acting Chief, Environmental Protection
Division / file

Gil Jensen, Alameda County District Attorney's Office Sum Arigala, San Francisco Bay RWQCB Robin Spencer, 6 Via San Inigo, Orinda, CA 94563 ATTACHMENT 2 — "Field Activity Report"
Environmental Sampling
Services, January 1996

FIELD ACTIVITY REPORT FOR JANUARY 1996 QUARTERLY SAMPLING AT GROVE VALVE AND REGULATOR COMPANY, EMERYVILLE, CALIFORNIA

Prepared for: Grove Valve and Regulator Company 11100 W. Airport Boulevard Stafford, TX 77477-3014

> By: Environmental Sampling Services 443 Donegal Way Lafayette, California 94549

> > Date Prepared: January 18, 1996

443 Donegal Way

Lafayette, CA 94549

Tel/Fax: (510) 372-8108

FIELD ACTIVITY REPORT FOR JANUARY 1996 QUARTERLY GROUNDWATER MONITORING AT GROVE VALVE AND REGULATOR COMPANY, EMERYVILLE, CA

ESS Personnel: Jacki Lee & Stephen Penman Duration of Activities: January 9, 1996

Water Level Measurements

Static water level and total well depth of three monitoring well were measured prior to well evacuation. Water level and total well depth measurements were referenced to the surveyor's mark on the well casing (Table 1). All readings were performed with an electrical water level indicator.

Sampling Procedures

Three monitoring wells (MW-1, MW-2, and MW-3) were purged and sampled. The monitoring wells were evacuated by using a centrifugal pump and dedicated suction hose. Following evacuation of four casing volumes, each monitoring well was sampled for EPA Method 8240.

All samples were collected into pre-labeled, laboratory-supplied sample containers. All samples were submitted to American Environmental Network in Pleasant Hill, California.

A length of suction hose is dedicated for each well. Each length of hose is stored in labeled plastic bags and kept on site for future use.

QA/QC

As directed by Grove Valve and Regulator, one QA/QC sample was collected. A duplicate of monitoring well, MW-3 was collected and labeled "MW-3-DUP". In addition, a travel blank for EPA Method 8240 was supplied by the laboratory. The trip blank remained with sample containers throughout the sampling event. All samples were inserted into glass protection material, sealed in ziplock bags, and placed in a chilled ice chest for storage and shipment.

Environmental Sampling Services (ESS)

443 Donegal Way Lafayette, CA 94549

Tel/Fax: (510) 372-8108

Chain of Custody (COC) Forms

All sampling and sample handling were conducted under strict chain of custody procedures. The COC included an analysis request section, sample date and time, and well identification. A carbon copy of the COC is enclosed.

A copy of the results are to be faxed to Environmental Management and Engineering Inc., attention Gene Gonsoulin at (205)940-7701, as requested by Grove Valve and Regulator Co.

Disposal of Purged Groundwater

The Groundwater generated from well purging was discharged and stored into three 55 gallon drums, and labeled by Environmental Sampling Services' personnel.

All work was performed under satisfactory workmanship and according to Grove Valve and Regulator's directive.

Jacqueline Lee President

encl

Table 1 Chain of Custody Well Sample Log Sheets

443 Donegal Way

Lafayette, CA 94549

Tel/Fax: (510) 372-8108

TABLE 1: SUMMARY OF JANUARY 1996 QUARTERLY GROUNDWATER MONITORING AT GROVE VALVE AND REGULATOR COMPANY, EMERYVILLE, CA

Well I.D.	Initial Water Level (ft) (measured 1/9/96)	Total Well Depth (ft)	Total Gallons Removed	Equivalent Casing Volume
MW-1	6.12	24.94	51	4.2
MW-2	7.82	24.32	53	5.0
MW-3	9.08	24.84	50	4.9

Client: Address: Contact: All. Contact	EIL Talled	NVF.		nt Road, Phone (5		ill, CA 9 90		FΚ	Lab	Des	Numi tination		ped:	Ple		est		ANALY	Page	OF CUSTO
Address Rep	ort To:	Se	nd Invoice To:							Con				- 1		. 1	TAT	•		
Alla	ax North to, who tal Management Flogs Gene Gunzautin at 1940-1701	3.	<u>came</u>	2 คร.	# 1.				Dat Clie	e Re ent Pi			ed:	50. (71 (71	e it 3) (3)	em 568 561	# 	<u>2.</u> 211	,	
Client P.O. N	To: 1 or 2 (Circle one) o.: PREONIC Cile n Member (s)	-				_		_ /			//	//	7	NAL'	YSIS /		//			
Lab Number	Client Sample Identification	Air Volume	Date/ Time Collected	Sample Type*	Pres.	No. of Cont.	Type of Cont.	/:		/	/	//	/	/	/	/	/	/ c	omment	s / Hazards
	MW - 1.		1/44. 1015	3	1101	3	V06	Х												
	MW-3		1/1/11/1205	7	HCI	3	VIC	Х												
	MW-3 DUT		1/1/96: 1205	7	HCI	3	VOC	χ											•	
	MW-2		1/1/16:1230		rk L	3	VOC	X												
	Travel Blank	1	1/1/16: 0800	7	HCL	1 3	An(X_		-			_							
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Relinquishe (Signature)	··· · · · · · · · · · · · · · · · · ·		DATE		TIME	·	Receive (Signate		,6	, .			<u> </u>	_ 	تطيفت			DATE		TIME
Relinquishe (Signature)	d by:		DATE		TIME		Receive (Signate	ed by:										DATE		TIME
Method of S	hlpment						Lab Co	mmer	nts											v

*Sample type (Specify): 1) 37mm 0.8 µm MCEF 2) 25mm 0.8 µm MCEF 3) 25mm 0.4 µm polycarb, filter
4) PVC filter, diam. _____ pore size _____ 5) Charcoal tube 6) Sitica gel tube 7) Water 8) Soil 9) Bulk Sample
10) Other ______ 11) Other _____ 11) Other _____ COPIES WHITE-JOB FILE YELLOW PROJECT FILE PINK-CLIENT

		ital Sami LOG SHEE		rvices	Well Identifi Date(s): 1 -	ication.: 1	VM →I	
Well De Is well s		x 2" YES / NO omments:	<i>©</i>	6"	Client Project Well Type: (Type of lock /	Number: 6 PVC Sta lock numbe	inless Ste	ve & Regultor co. el bio / 1400
Pump li	ines: NI	EW / CLE	EANED		fugal pump GR Bailer lines: (Tap Water Di	NEW / CI	LEANED	mp Other:
Method	d of cleani	ing bailer: .	Alconox I	Liquidnox	Tap Water DI	Rinse Othe	r:	
pH Mete Date(s) Method	er Serial N Calibrate I to measu	Number: <u>3</u> ed: 1/9/97	17254 & L evel: <u>So</u> l		Specific Condu	actance Mete actance Mete ness:	er Serial N er Red-line A	umber: F8016591 d(YES) / NO
		inus 6 . 12	= / 8.8 ; nes <u>4</u> = "k = 0.16	41. A gal 3 (2" well)	= 12.3 gallo llons for 4 c ("k" = 0.653	ons/one casir casing volum (4" well)	ng volume nes	•
	1		FIELD W	/ATER QU.	ALITY PARAM Specific	TETERS	1	
Date	Time	Discharge (gallons)	, , ,	Temp. (°C)	Conductance (umhos/cm)	Turbidity (NTU's)	Color	Comments
19/96	9:31	10	6.36	18	920	17.9	Clear	
	9:35	ಎಂ	6.46	18.5	1050	30.5	CONT	
	9:39	30	6.41	18.8	1080	37.3	۳۰ آباد	
	9:52	40	6.59	18.3	1100	31.3	71	
<u> </u>	9:57	50	6.58	18.6	1050	119	Claudy it. Brown	
	10:18	AS.	6.71	(B.4	1010	45.4	**	
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Total Dis	ischarge:_ of dispose	<u> </u>	_gallons arged water		gallon De	บท	Casing Vo	olumes Removed: 4.2
Commen QA/QC:_ Sampled		Permis	/ <u>\$</u>	as	Eq. Blank Di	- uplicate N	AS/MSD Enviro	Split nmental Sampling Service:
						İ	443 Done	gal Way, Lafayette, CA 9454! Tel/Fax: (510) 372-8108

Envir WELL :	onmen SAMPLE	tal Sam LOG SHE	pling Se	rvices	Weil Identifi Date(s):	ication.:	MW-	2
					Dacc(3)			
-		rove Val		- 14	Client Project			· · · · · · · · · · · · · · · · · · ·
	scription:	. 2" (FES) / NO	⊕	6"	Well Type: (inless Ste	
		mments:			Type of lock /	lock numbe		
				iler (entri	fugal pump GR	UNDFOS Rec	li-flow pu	mp Other:
		w / [cli				(NEW) / CI		
lethod	of cleans	ng pump:	Alconox	Liquidnox	Tap Water D	Rinse Oth	er:	
					Tap Water DI			
					sp. PVC bailer	Redi-Flow 2	pump C)ther:
		lumber: 21		7 10				lumber F8016591
		d: <u>1/9/96</u> ire water le			Specific Condu		r Red-line	ed: (FES)/ NO
		art: 7			Product Thick			
							-	
D= <u></u>	1.24 mii	nus 1.82	= 16.5	times "k" _a_z	= 10.7 gallo	ns/one casir	ig volume	
		IUAI tin	1es <u> </u>	42 ga 3 (2" well)	llons for 4 (k"= 0.653	asing volum	ies - "レ" _ 1 4.4	, : (6" unit
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	1		T T T	ATER QU	Specific	RETERS	}	T
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		(gallons)		(°C)	(umhos/cm)	(NTU's)		
9/96	بنيدها	3	6.69	17.9	3120	É	dady	
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	11:50	40	4.73	18.4	3330		И	414 C 9 3 gar
					T	<u> </u>	4	
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	11:57	55	6.46	18.2	3310	146	/1	
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atel Di	scharge:	63	_gailons		·		e	4 0e
	-		· ·	r To lak	elled barre		Casing vo	olumes Removed: 4.95
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		tai Samı LOG SHEE		rvices	Well Identifi Date(s):	cation.:	1-96	-3
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Purge M	lethod: 1	Teflon Disp	osable Ba	iler Centrif	ugai pump GRI	UNDFOS Rec	li-flow pur	np Other:
Pump li	nes: NI	EW / (LE	ANED		Bailer lines: (NEW C	LEANED.	
Method	of cleani	ng pump:	Alconox	Liquidnox	Tap Water Di	Rinse Oth	er:	***************************************
P					Tap Water DI	_ _ _		
					p. PVC bailed 1	Redi-Flow 2	pump O	ther:
pH Mete	er Seria) N	Vumber: <u>₹ [</u> :d:	1254 A	0 10				
Date(s) Method	to measu	ire water le	vel Solin	15+	Specific Condu Product Thicks	ctance Mete	r Red-line '∆	d:(YES)/ NO
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			"k"= 0.16	3 (2" well)	"k"= 0.653	.4" well)	"k"=1.46	(6" weil)
			FIELD W	ATER QU	ALITY PARAM	ETERS	-	<u> </u>
					Specific	· • • • • • • • • • • • • • • • • • • •		
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79/90	, IO:55		6.72	17.5	3010	78.4	S GOLY	
	10:59	16	6.55	18.0	3110	146	44	
	11:02		6.50	18.0	3110	165	•	dry C 25
	11:17	32	6.56	15.0	3030	105	u	" " 35
<u> </u>	11:34	Alp 4Z	6.40	17.8	3080	59		
	11:39	48	0.50	17.8	3090	333	Lt graph	
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		Aft. Sampl	6.59	17.8	3080	a 4	Sign	
	scharge:_		_gallons	,		•	Casing Vo	lumes Removed: 4.9
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	By: 34	the residences		as	Eq. 8lank 6	uplicati k	AS/MSD	Split
preu	~y===1							nmental Sampling Services gal Way, Lafayette, CA 94549
							J DOME	Tel/Fax: (510) 372-8108

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ATTACHMENT 3 - Laboratory Analytical Reports for Groundwater Monitoring Events

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

PAGE 1

GROVE VALVE & REGULATOR CO. 6529 HOLLIS STREET EMERYVILLE. CA 94608

ATTN: BILL TALLENT CLIENT PROJ. ID: -

P.O. NUMBER: PB55786

REPORT DATE: 09/06/95

DATE(S) SAMPLED: 08/18/95

DATE RECEIVED: 08/18/95

AEN WORK ORDER: 9508245

PROJECT SUMMARY:

On August 18, 1995, this laboratory received 3 water sample(s).

Client requested sample(s) be analyzed for organic 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.

LarryKlein

Laboratory Director

PAGE 2

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-1

AEN LAB NO: 9508245-01 AEN WORK ORDER: 9508245 CLIENT PROJ. ID: -

DATE SAMPLED: 08/18/95 DATE RECEIVED: 08/18/95 REPORT DATE: 09/06/95

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

PAGE 3

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-2

AEN LAB NO: 9508245-02 AEN WORK ORDER: 9508245

CLIENT PROJ. ID: -

DATE SAMPLED: 08/18/95 DATE RECEIVED: 08/18/95 REPORT DATE: 09/06/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT UNITS	DATE ANALYZED
ANALYTE /OCs in Water by 8240 Acetone Benzene Bromodichloromethane Bromomethane 2-Butanone Carbon Disulfide Carbon Tetrachloride Chlorobenzene Chloroethane 2-Chloroethyl Vinyl Ether Chloroform Chloromethane Dibromochloromethane 1,1-Dichloroethane 1,2-Dichloroethene cis-1,2-Dichloroethene trans-1,2-Dichloroethene trans-1,3-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene Ethylbenzene 2-Hexanone Methylene Chloride 4-Methyl-2-pentanone Styrene 1,1,2,2-Tetrachloroethane Tetrachloroethene Toluene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethene Trichloroethene		ES		

PAGE 4

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-3 AEN LAB NO: 9508245-03 AEN WORK ORDER: 9508245

CLIENT PROJ. ID: -

DATE SAMPLED: 08/18/95 DATE RECEIVED: 08/18/95 REPORT DATE: 09/06/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT UNITS	DATE ANALYZED
VOCs in Water by 8240 Acetone Benzene Bromodichloromethane Bromomethane 2-Butanone Carbon Disulfide Carbon Tetrachloride Chlorobenzene Chloroethane 2-Chloroethyl Vinyl Ether Chloroform Chloromethane Dibromochloromethane 1.1-Dichloroethane 1.2-Dichloroethane 1.1-Dichloroethene cis-1.2-Dichloroethene trans-1.2-Dichloropropane cis-1,3-Dichloropropane cis-1,3-Dichloropropene Ethylbenzene 2-Hexanone Methylene Chloride 4-Methyl-2-pentanone Styrene 1.1.2.2-Tetrachloroethane Tetrachloroethene Toluene 1.1.1-Trichloroethane Trichloroethane Trichloroethene		RESULT RESERVED RESER	100 ug/L 5 ug/L 5 ug/L 10 ug/L	08/23/95 08/23/95

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

SROVE VALVE HOUSTON

PAGE 5

AEN (CALIFORNIA) QUALITY CONTROL REPORT

AEN JOB NUMBER: 9508245

CLIENT PROJECT ID: -

Quality Control and Project Summary

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

Definitions

Laboratory Control Sample (LCS)/Method Spike(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 enalytical control consisting of all reegents, 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 analysis.

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

Surrogatest Organic compounds which are similar to analytes of interest in chemical behavior, 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 instrumental performance.

- D: Surrogates diluted out.
- #: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 8240

AEN JOB NO: 9508245 INSTRUMENT: 13 MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed			ţ	Percent Recovery				
	Client Id.	Lab Id.	1.2-Dichloro- ethane-d ₄	Toluene-d ₈	p-Bromofluoro- benzene			
08/23/95 08/23/95 08/23/95	MW-1 MW-2 MW-3	01 02 03	77 80 83	102 101 98	94 95 95			
QC Limits:	·		76-114	88-110	86-115			

DATE ANALYZED: 08/23/95 SAMPLE SPIKED: 9508149-04

INSTRUMENT: 13

Matrix Spike Recovery Summary

				QC Limi	ts
Analyte	Spike Added (ug/L)	Average Percent Recovery	RP0	Percent Recovery	RPD
1.1-Dichloroethene Trichloroethene Benzene Toluene Chlorobenzene	50 50 50 50 50	84 96 94 95 103	10 6 2 <1	59-155 71-157 37-151 47-150 37-160	25 25 25 25 25

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

L. Client: Address: Contact: Alt. Contact	F. Fritant Gara 6329 Hollis St. Emeryville CA 940 Bill Tallent		cent Road, l		II, CA 9 O	11'07' 4523	N.		b Num estinati ample	ion: s Shilpj	R	8-10	.ST	FOR	Page ANALYSIS / CHAI 7508245	
Address Repo	ort To:	Send Invoice To):	·			٦.	Lab Co Date F		Regul	red:	Rc 5	11.	?5 (See Call Bill	Tailer)
652°	ill Talent Value + Requiator 9. Hollis St. Myville, Cr. 94609	Cu. 3. hanu					- - - -	Date F Client Client	iaport Phone	Require No	-	<u>510-</u>	<u>6</u> 5	55	Sec (call Bill Tallent (SID)(7300 4048	55-7100
Send Report 1	To: ①or 2 (Circle one)	J [1 7	7	7	ALYSIS	7	7	7-1	
I Sample Team	o: CII n Member (s) <u> </u>	ient Project J.D. No.:			_	·		17.37		//	//	//	/,	//		
Lab	Cilent Sample Identification	Air Date/ Time Volume Collected	Sample Type*	Pres.	No. of Cont.	Type of Cont.]	$^{\prime}/$	//	//	//	/	/	Comments	s / Hazards
0:05	MM-1	Julie in	3c w[7	ilci	2	v CC	X				_[_	_[<u> </u>	
23746 03746 03747	MW-3	8)4/45:12 9/11/95:13 8/18/91	is いけ		2	VCC VCC	×					-	_		be TAT Landide	de alt
															2340 AT	, inst
					_		_				_ -				100 toj	Not 1300
													-		1913mg/12 191900 /	police L. Task:
Relinquishe (Signature) Relinquishe (Signature)	od by: 1	2 1 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8	45 E/Si	TIME 1349 TIME	5 5	Receiv (Signat Receiv (Signat	பre) ed by	11mg	ke.	 el	2 / S	, i	iel	6	DAJE E/18/95- DATE 8-18-45	TIME 15.30
Relinquishe (Signature) Method of S	ed by:	DAT	E E	TIME		Receiv (Signal	ed by lure)			-6/-		,,,,,,			DATE	TIME
1		*Sample type (Specily): 1											Sainp	ile		- 1-1-1

10) Other _______ 11) Other ______
CODIES WHITE LOSFIEF VEHOW PROJECTIFIE PLAK CLIENT

GROVE VALVE & REGULATOR CO. 6529 HOLLIS STREET EMERYVILLE, CA 94608

ATTN: BILL TALLENT CLIENT PROJ. ID: -

REPORT DATE: 09/26/95

DATE(S) SAMPLED: 09/14/95

DATE RECEIVED: 09/14/95

AEN WORK ORDER: 9509203

P.O. NUMBER: PB55786

PROJECT SUMMARY:

On September 14, 1995, this laboratory received 5 water sample(s).

Client requested sample(s) be analyzed for organic 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

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-1 AEN LAB NO: 9509203-01 AEN WORK ORDER: 9509203 CLIENT PROJ. ID: -

DATE SAMPLED: 09/14/95 DATE RECEIVED: 09/14/95 REPORT DATE: 09/26/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT UNITS	DATE ANALYZED
Volatile Organic Compounds Acetone Benzene Bromodichloromethane Bromomethane Z-Butanone Carbon Disulfide Carbon Tetrachloride Chloroethane Z-Chloroethyl Vinyl Ether Chloroform Chloromethane Dibromochloromethane 1.1-Dichloroethane 1.2-Dichloroethane 1.2-Dichloroethene trans-1,2-Dichloroethene trans-1,2-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene Ethylbenzene 2-Hexanone Methylene Chloride 4-Methyl-2-pentanone Styrene 1.1.2.2-Tetrachloroethane Tetrachloroethene Toluene 1.1.1-Trichloroethane Trichloroethene Vinyl Acetate Vinyl Chloride Xylenes, Total	EPA 8240 67-64-1 71-43-2 75-27-4 75-25-2 74-83-9 78-93-3 75-15-0 56-23-5 108-90-7 75-00-3 110-75-8 67-66-3 74-87-3 124-48-1 75-35-4 156-50-5 78-87-5 10061-02-6 100-41-4 591-78-6 75-09-2 108-10-1 100-42-5 79-34-5 127-18-4 108-88-3 71-55-6 79-01-6 108-05-4 75-01-4 1330-20-7		10555555555555555555555555555555555555	09/21/95 09/21/95

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

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-2 AEN LAB NO: 9509203-02 AEN WORK ORDER: 9509203

CLIENT PROJ. ID: -

DATE SAMPLED: 09/14/95 DATE RECEIVED: 09/14/95 **REPORT DATE: 09/26/95**

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT U	DATE NITS ANALYZED
Volatile Organic Compounds Acetone Benzene Bromodichloromethane Bromoform Bromomethane 2-Butanone Carbon Disulfide Carbon Tetrachloride Chlorobenzene Chloroethane 2-Chloroethyl Vinyl Ether Chloroform Chloromethane Dibromochloromethane 1.1-Dichloroethane 1.2-Dichloroethane 1.1-Dichloroethene cis-1.2-Dichloroethene trans-1.2-Dichloropropene trans-1.3-Dichloropropene trans-1.3-Dichloropropene Ethylbenzene 2-Hexanone Methylene Chloride 4-Methyl-2-pentanone Styrene 1.1.2.2-Tetrachloroethane Tetrachloroethene Toluene 1.1.1-Trichloroethane Toluene 1.1.2-Trichloroethane Trichloroethene Vinyl Acetate Vinyl Chloride Xylenes. Total	EPA 8240 67-64-1 71-43-2 75-27-4 75-25-2 74-83-9 78-93-3 75-15-0 56-23-5 108-90-7 75-00-3 110-75-8 67-66-3 74-87-3 124-48-1 75-34-3 107-06-2 75-35-4 156-60-5 78-87-5 10061-02-6 100-41-4 591-78-6 75-09-2 108-42-5 127-18-4 108-88-3 71-55-6 79-01-6 108-05-4 75-01-4 1330-20-7	555555555555555555555555555555555555555	100 100 100 100 100 100 100 100 100 100	09/21/95 09/21/95

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

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-3 AEN LAB NO: 9509203-03 AEN WORK ORDER: 9509203 CLIENT PROJ. ID: -

DATE SAMPLED: 09/14/95 DATE RECEIVED: 09/14/95 REPORT DATE: 09/26/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT UNITS	DATE ANALYZED
Volatile Organic Compounds Acetone Benzene Bromodichloromethane Bromoform Bromomethane 2-Bulanone Carbon Disulfide Carbon Tetrachloride Chlorobenzene Chloroethane 2-Chloroethyl Vinyl Ether Chloroform Chloromethane Dibromochloromethane 1.1-Dichloroethane 1.2-Dichloroethene trans-1,2-Dichloroethene trans-1,2-Dichloropropane cis-1.3-Dichloropropane cis-1.3-Dichloropropane ethylbenzene 2-Hexanone Methylene Chloride 4-Methyl-2-pentanone Styrene 1.1.2.2-Tetrachloroethane Tetrachloroethene Toluene 1.1.1-Trichloroethane Trichloroethene Vinyl Acetate Vinyl Chloride Xylenes. Total	EPA 8240 67-64-1 71-43-2 75-27-4 75-25-2 74-83-9 78-93-3 75-15-0 56-23-5 108-90-7 75-00-3 110-75-8 67-66-3 74-87-3 124-48-1 75-35-4 156-59-2 156-60-5 78-87-5 10061-02-6 100-41-4 591-78-6 75-09-2 108-10-1 100-42-5 79-34-5 127-18-8 108-38-3 71-55-6 108-05-4 75-01-4 1330-20-7		* 50 ug/L 500 ug/L 100 ug/L	09/21/95 09/21/96 09/21/96

P. 47/53

PAGE 5

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-3 AEN LAB NO: 9509203-03 AEN WORK ORDER: 9509203 CLIENT PROJ. ID: -

DATE SAMPLED: 09/14/95 DATE RECEIVED: 09/14/95 REPORT DATE: 09/26/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED

Reporting limits elevated due to high levels of target compounds. Sample run at dilution.

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

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-3-DUP AEN LAB NO: 9509203-04 AEN WORK ORDER: 9509203 CLIENT PROJ. ID:

DATE SAMPLED: 09/14/95 DATE RECEIVED: 09/14/95 REPORT DATE: 09/26/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT UNITS	DATE ANALYZED
Volatile Organic Compounds Acctone Benzene Bromodichloromethane Bromoform Bromomethane 2-Butanone Carbon Disulfide Carbon Tetrachloride Chlorobenzene Chloroethane 2-Chloroethane 2-Chloroethane Dibromochloromethane 1.1-Dichloroethane 1.2-Dichloroethane 1.2-Dichloroethene cis-1.2-Dichloroethene trans-1.2-Dichloropropane cis-1.3-Dichloropropane cis-1.3-Dichloropropene Ethylbenzene 2-Hexanone Methylene Chloride 4-Methyl-2-pentanone Styrene 1.1.2.2-Tetrachloroethane Tetrachloroethene Toluene 1.1.1-Trichloroethane Trichloroethene Trichloroethene Vinyl Acetate Vinyl Chloride Xylenes, Total	EPA 8240 67-64-1 71-43-2 75-27-4 75-25-2 74-83-9 78-93-3 75-15-0 56-23-5 108-90-3 110-75-8 67-66-3 74-87-3 124-48-1 75-35-4 156-60-5 78-87-5 10061-02-6 100-41-4 591-78-6 75-09-2 108-10-1 100-42-5 79-34-5 127-18-4 108-88-3 71-65-6 79-01-6 108-05-4 75-01-4 1330-20-7	25555555555555555555555555555555555555	1000 ug/LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL	09/21/95 09/21/95

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-3-DUP AEN LAB NO: 9509203-04 AEN WORK ORDER: 9509203 CLIENT PROJ. ID: -

, . 1

DATE SAMPLED: 09/14/95 DATE RECEIVED: 09/14/95 REPORT DATE: 09/26/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
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Reporting limits elevated due to high levels of larget compounds. Sample run at dilution.

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

GROVE VALVE & REGULATOR CO.

SAMPLE ID: TRIP BLANK AEN LAB NO: 9509203-05 AEN WORK ORDER: 9509203 CLIENT PROJ. ID: -

DATE SAMPLED: 09/14/95 DATE RECEIVED: 09/14/95 REPORT DATE: 09/26/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT UNITS	DATE ANALYZED
Volatile Organic Compounds Acetone Benzene Bromodichloromethane Bromoform Bromomethane 2-Butanone Carbon Disulfide Carbon letrachloride Chlorobenzene Chloroethane 2-Chloroethyl Vinyl Ether Chloroform Chloromethane 0ibromochloromethane 1.2-Dichloroethane 1.2-Dichloroethene cis-1.2-Dichloroethene trans-1.2-Dichloroethene trans-1.2-Dichloropropane cis-1.3-Dichloropropane cis-1.3-Dichloropropene trans-1.3-Dichloropropene Ethylbenzene 2-Hexanone Methylene Chloride 4-Methyl-2-pentanone Styrene 1.1.2.2-Tetrachloroethane Tetrachloroethene Toluene 1.1.1-Trichloroethane Trichloroethene Vinyl Acetate Vinyl Chloride Xylenes. Total	EPA 8240 67-64-1 71-43-2 75-27-4 75-25-2 74-83-9 78-93-3 75-15-0 56-23-5 108-90-7 75-00-3 110-75-8 67-66-3 74-87-3 124-48-1 75-34-3 107-06-2 75-35-4 156-60-5 78-87-5 10061-01-5 10061-02-6 100-41-4 591-78-6 75-09-2 108-10-1 100-42-5 79-34-5 127-18-4 108-88-3 71-55-6 79-00-5 79-01-6 108-05-4 75-01-4 1330-20-7	555555555555555555555555555555555555555	100 5 5 5 0 0 0 5 5 5 5 5 5 5 5 5 5 5 5	09/21/95 09/21/95

^{*}ND = Not detected at or above the reporting limit

^{* =} Value at or above reporting limit

FAX NO. 5109300256

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AEN (CALIFORNIA) QUALITY CONTROL REPORT

AEN JOB NUMBER: 9509203

CLIENT PROJECT ID: -

Quality Control and Project Summary

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

Laboratory Control Sample (LCS)/Method Spike(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 corried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

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

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

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 behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check stundards, samples, and Surrogate recovery is monitored as an indication of acceptable sample preparation and spiked samples. instrumental performance.

- D: Surrogates diluted out.
- #: Indicates result outside of established Laboratory QC limits.

QUALITY CONTROL DATA

FAX NO. 5109300256

METHOD: EPA 8240

AEN JOB NO: 9509203 INSTRUMENT: 13

MATRIX: WATER

Surrogate Standard Recovery Summary

			Percent Recovery					
Date Analy zed	Client Id.	Láb Id.	1.2-Dichloro- ethane-d ₄	Toluene-d ₈	p-Bromofluoro- benzene			
09/21/95 09/21/95 09/21/95 09/21/95 09/21/95	MW-1 MW-2 MW-3 MW-3 DUP TRIP BLANK	01 02 03 04 05	112 113 108 112 114	92 95 94 92 93	90 94 92 91 93			
QC Limits:			76-114	88-110	86-115			

DATE ANALYZED: 09/19/95 SAMPLE SPIKED: 9509150-02 INSTRUMENT: 13

Matrix Spike Recovery Summary

				QC Limi	ts
Analyte	Sp1ke Added (ug/L)	Average Percent Recovery	RPD	Percent Recovery	RPD
1,1-Dichloroethenc Trichloroethene Benzene Toluene Chlorobenzene	50 50 50 50 50	104 101 95 97 93	V8665	59-155 71-157 37-151 47-150 37-160	25 25 25 25 25 25

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

	io ling Client: Address: Contact: Alt. Cont	Emeryville, CA 946 Bill Tullent	DB	3440 Vincent Ph	H ENVIRONMENTA 21 VOTA incent Road, Pleasant Hil., CA 94523 Phone (510) 930 9090 FAX (510) 930 0256					REQUEST FOR ANALYSIS / CHAIN OF CUSTOD Lab Job Number: 9-14-95 Date Samples Shipped: 9-14-95									
Ac 2	ldross Flep	oon To:		d Invoice To:	3 a	bave_			O O	ate Re	suita l port R	tequir	ed:				<u>ክል ውረ</u>		
) } S		1 To: 1 or 2 (Clice and)							1	lient Pl			-	ALYSI		7			
	ert P.O. f	No.: Clion		.:					/6		//	//	//	//	/,	//	//		
· 	lab Numter	Client Sample Identification	Air Volume	Datel Time Collected	Sample Type*	Pres.	No. of Cont.	Type of Cont.	(B)			L	//	//			/ c	Commen	ts / Hazards
AHT.	0111-0 0211-0 031-0 031-0 0513	MW-Z MW-Z MW-3 DUP TRIP BLANK		eV14/95	wit.	Hei	Spenion langer	VOC	XXXXX										
CHLIFUKNIH																			
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-22-42 -23-42	(Signature Method o	os Ashpment and Delivered		Specifyt: 1) 37				Lab C	nemen		mm n	4 pars	nolura	ub. file					

*Sample type (Specify): 1) 37nin 6.8 µm MCEF 2) 25min 0.8 µm MCEF 3] 25min 0.4 µm polycaib. Mter

4) PVC filter, diam: ____ pore size ___ 5) Charcoal lube 6) Silica gal lube 7) Water 8) Soil 9) Bulk Sample

10) O8 er

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-1 AEM LAB NO: 9508245-01 ASH WORK ORDER: 9508245

DATE RECEIVED: 08/18/95 REPORT DATE: 08/23/9%

DATE SAMPLED: 08/18/95

CLIZMT PROJ. ID: -

MALYTE	METHOD/ CAS#	RESULT	reporting Lixit	UNITS	DATE ANALYZE:
	EPA 8240				
OCs in Water by 8240	67-64-1	ND	100	ug/L	08/23/9
Acetone	71-43-2	MD		ug/L	08/23/9
Benzene Bromodichloromethane	75-27-4	MD		ug/L	08/23/9
Bromoform	75-25-2	MD .		ug/L	08/23/9
	74-83-9	ND	. 10	ug/L	08/23/9
3romentane	78-93-3	377	100	ug/L	08/23/9
2-Buttanone	75-15-0	ND		ug/L	08/23/9
Carbon Disulfide	56-23-5	ND.		ug/L	08/23/9
Carbon Tetrachloride	108-90-7	ND		ug/L	08/23/9
Chlorobenzene	75-00-3	ND		ug/L	08/23/9
Chloroethane	110-75-8	סא		ug/L	08/23/9
2-Chloroethyl Vinyl Sther	67-66-3	ND		ug/L	08/23/9
Chloroform	74-87-3	ND		ug/L	08/23/9
Chloromethane	124-48-1	ND		ug/L	08/23/1
Dibromochloromethane	75-34-3	ND		ಬ ಡ್ಗ್ರಸ್ತ	08/23/5
1,1-Dichloroethane	107-06-2	ND		ug/L	08/23/9
1,2-Dichloroethane	75+35-4	ND		ug/L	· 08/23/3
1,1-Dichloroethene	156-59-2	12	_	ug/L	08/23/
cis-1,2-Dichloroethene	156-60-5	ND		ug/L	08/23/3
trans-1,2-Dichloroethens		ND		ug/L	08/23/
1.2-Dichloropropane	78 -87- 5 10061-01-5	MD		ug/L	08/23/
cis-1,3-Dichlosopropene	10061-02-6	MD		ug/L	08/23/9
trans-1,3-Dichloropropens	-	70D		ug/L	- 08/23/9
Ethylbenzene	100-41-4	ND		ug/L	08/23/
2-Hexanone	591-78-6	ND		ug/L	08/23/5
Methylene Chloride	75-49-7	100		ug/L	08/23/
4-Methyl-2-pentanone	108-10-1	MD		ug/L	08/23/
Styrene	100-42-5	ND		ug/L	08/23/3
1,1,2,2-Tetrachloroethane	79-34-5	ND		ug/L	09/23/3
Tecrachitorochiene	127-18-4	מא		ug/L	08/23/1
Toluena	108-88-3		_	ug/L	06/23/
1,1,1-Trichlorosthane	71-55-6	ND NO		ug/L	08/23/
1,1,2-Trichloroschane	79-00-5	46	_	ug/L	08/23/
Trichloroethene	79-01-5	ND		변경/교 변경/교	08/23/
Vinyl Acetate	108-05-4	ממ		ug/L	08/23/9
Vinyl Chloride Kylenes, Total	75-91-4 1330-20-7	ND		ug/L	08/23/9

ND = not detected at or above the reporting limit

WEN CALIFORNIA

^{- -} Value at or above reporting limit

SAMPLE ID: MW-2 AEN LAB NOT PROCELLA AEN WORK ONDEM: PROGRAS AEN LAB NO: 9508245-02

DATE SAMPLED: 08/18/95 DATE RECEIVED: 08/18/75 SELORE, DYLER: OR\73\80

analyte	method/ Cas#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZEI
		-			
MCs in Water by 8240	29A 8240				08/23/99
Acotoné	67 -64 -1	777		ug/L	08/23/9
Benzene	71-43-2	ND		ug/L	08/23/9
Bromodichloromeshane	75-27-4	ND		ug/L	08/23/9
Bromoform	75-25-2	2002 .		ug/L	08/23/9
Bromomethane	74-43-9	ND.		ug/L	08/23/9
2-Bucanone	78 -93-3	ND		ug/L	
Carbon Disulfide	75-15-0	ND		ug/L	08/23/9
Carbon Terrachloride	56-23-5	סא		ug /₺	08/23/9
Chlorobensene	108-90-7	ND	3	ug/L	08/23/9
Chloroethane	75-00-3	ХD	10	ug/L	08/23/4
2-Chloroethyl Vimyl Ether	110-75-8	ХD	10	ug/L	08/23/9
Chloroform	67- 66-3	ND		ug/L	08/23/9
Chloromethane	74-87-3	NC	10	ug/L	08/23/9
Dibromochloromethane	124-48-1	ND		ug/L	09/23/9
1.1-Dichloroethane	75-24-3	ND		ug/L	08/23/3
1.1-Dichloroethene	107-06-2	ND	5	ug/L	08/23/9
1.1-Dichloroethene	75-35-4	ХD	5	ug/L	08/23/9
cis-1.2-Dichlorosthene	156-59-2	סמ	5	ug/L	08/23/9
trans-1,3-Dionioroetheno	_56+60=3	165	5	ug/L	00/23/9
1,2-Dichloropropane	78-87-5	ХD	5	uq/L	08/23/9
	10061-01-5	ЖD	5	ug/L	02/23/9
cis-1,3-Dichloropropene	10061-02-6	100	5	ug/L	08/23/9
trans-1,3-Dichloropropene	100-41-4	ND	5	ug/L	08/23/9
Ethylbensene	591-78-6	ND	50	ug/L	08/23/9
2-Hexanone	75-09 2	7470		սց/Ն	08/23/9
Methylene Chlorida	108-10-1	ND		ug/L	08/23/9
4-Methyl-2-pentanone	100-42-5	ND		ug/L	08/23/9
Styrene		MD		ug/L	09/23/9
1,1,2,2-Tetrachloroethane	79-34-5	КD		ug/L	08/23/9
Tetrachloroethene	127-18-4	NTD.		ug/L	08/23/9
Toluena	108-88-3	ND		ug/L	08/23/9
1,1.1-Trichloroethane	71-55-6	** *		ug/도 ug/도	08/23/9
1,1,2-Trichlorgethane	79-00-5	ND ND		ug/L	08/23/9
Trichloroethene	79-01-6			ug/L .	08/23/7
Vinyl Acatate	108-05-4	ND ND	10	ug/L	08/23/9
Vinyl Chloride	75-01-4	• -			08/23/9
Xylenes, Total	1330-20-7	ND	10	ug/L	J J , 2 J , J

ND * Not detected at or above the reporting limit

^{*} a Value or or shove depositing limit

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GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-3

ABN LAB NO: 9508245-03 ABN WORK ORDER: 9508245

CLIENT PROJ. ID. -

DATE SAMPLED: 08/19/96 DATE RECEIVED: 08/18/95 REPORT DATE: 08/23/95

DIXLYBE	NETHOD/	Timess	REPORTING LIMIT	units	DATE ANALYZEI
OCs in Water by 8240	EFA 8240			<i>y_</i>	** /** 10
Acetone	67- 64- 1	ИD		ug/L	08/23/9
Benzene	71-43-2	ND		ug/L	08/23/9
Bromodichloromethane	75-27-4	NO		ug/L	08/23/9
bromoform	75-25-2	ND		ra/F	08/23/9
Bromomethane	74-83-9	KD		ug/L	09/23/9
2-Buranone	79- 9 3-3	, ND		ug/L	08/23/9
Carson Disulfide	75-15-0	ND		ug/L	08/23/9
Carbon Tetrachlorida	56 -23-5	ND		ug/L	08/22/9
Chlorobenzene	108-90-7	SE		ug/L	08/23/9
Chloroethane	75-00-3	ИD		na\r	08/23/9
2-Chloroethyi Vinyl Sther	110-75-8	MD		ug/L	08/23/9
Chloroform	67-66-3	ND		ug/L	08/23/9
Chloromethane	74-87-3	ND	10	ug/L	02/23/9
Dibromochloromethane	124-48-1	MД	5	ug/L	08/23/9
1,1-Dichloroethane	75 34-3	ХD	5	ug/L	08/22/9
1.2-Dichloroethane	107-06-2	ND	5	ug/L	08/23/5
1.1-Dichlorgethene	75-35-4	NID	5	ug/L	08/23/9
cis-1.2-Dichloroathene	156-89-3	19 •	- 5	ug/ %	08/23/9
trans-1.2-Dichloroethene	156+60-5	ND	5	ug/L	08/23/9
תמבתהתשממומות ר	THEFTER	7111 1	1	iin (Ti	08(71()
cis-1,3-Dichloropropens	10061-01-5	1972	•	ug/L	09/23/5
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	08/23/5
•	100-41-4	ХD	5	ug/L	09/23/5
Tily ibensens	591-78-6	רוזא	50	ng/Ti	28/23/9
ononexek	75-09-1	בוא	Ŷij.	ug/5	08/23//
Matnylone Chlorido	146-48-1	: 110	50	UM/L	00/03/0
a-machyi-k-peneauoue	100-42-5	ND	S	ug/I	68/23/9
Styrene	79-34-5	שא	_ S	ug/2	08/23/9
1,1,2,2-Tetrachloroethane	· • · · ·	ND		ug/L	08/23/9
Tetrachloroethenc	137-18-4 108- 38- 3	ND		ug/L	08/23/9
Toluene		ND	-	ug/L	08/23/9
1.1.1-Trichlorosthane	71-55-6 79-00-5	ND		ug/L	08/23/9
1,1,2-Trichloroethene	79-00-5	{640} ·		ug/L	08/23/9
Trichlorosthene	108 - 05 - 4	ND ND		ng/T	ONTYATE
Vinyl Acetata	75-01-4	מא		ug/L	08/23/9
Vinyl Chloride Mylencs, Total	1330-20-7	100		ug/L	08/23/9

ND - Not detected at or above the reporting limit

^{- -} Value at or above reporting limit

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tab kinibei	Client Sample Identification	Air Volume	Date/ Time Collected	Sample Type'	Pres.	Ho. of Cont.	Type at Cont.	M		$^{\prime}/^{\prime}$	//	//	$^{\prime}/_{\scriptscriptstyle I}$	//	Comments / F	lazaids	ORNIA
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5V(7)	MN-1		1/45 1235	ME		12	VDC.	X			<u> </u>	_ _	_[]		BUD TAT OU	silabl	
_3A(2)	MN-3		7x15:1320	<u>₩</u> (3)	Hea	2	אסכ	X	!	-					is Widnes	ls after	-
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American Environmental Network

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DOHS Certification: 1172

AIHA Accreditation: 11114-

PAGE 1

REPORT DATE: 12/01/95

DATE RECEIVED: 11/17/95

AEN WORK ORDER: 9511290

DATE(S) SAMPLED: 11/16/95-11/17/95

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

ATTN: BILL TALLENT CLIENT PROJ. ID: -

P.O. NUMBER: PB60146

PROJECT SUMMARY:

On November 17, 1995, this laboratory received 5 water sample(s).

Client requested sample(s) be analyzed for organic 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

SAMPLE ID: TRIP BLANK AEN LAB NO: 9511290-01 AEN WORK ORDER: 9511290

CLIENT PROJ. ID: -

DATE SAMPLED: 11/16/95 DATE RECEIVED: 11/17/95 REPORT DATE: 12/01/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT UNITS	DATE ANALYZED
Volatile Organic Compounds	EPA 8240			
Acetone	67-64-1	ND	100 ug/L	11/29/95
Benzene	71-43-2	ND	5 ug/L	11/29/95
Bromodichloromethane	75-27-4	ND	5 ug/L	11/29/95
Bromoform	75-25-2	ND	5 ug/L	11/29/95
Bromomethane	74-83-9	ND	10 ug/L	11/29/95
2-Butanone	78-93-3	ND	100 ug/L	11/29/95
Carbon Disulfide	75 - 15-0	ND	10 ug/L	11/29/95
Carbon Tetrachloride	56-23-5	ND ND	5 ug/L 5 ug/L	11/29/95 11/29/95
Chlorobenzene Chloroethane	108-90-7 75-00-3	ND ND	5 ug/L 10 ug/L	11/29/95
2-Chloroethyl Vinyl Ether	110-75-8	ND ND	10 ug/L	11/29/95
Chloroform	67-66-3	ND	e ≣.a	11/29/95
Chloromethane	74-87-3	ND	10 ug/l	11/29/95
Dibromochloromethane	124-48-1	ND	5 ug/L	11/29/95
1.1-Dichloroethane	75-34-3	ND	5 ug/L	11/29/95
1,2-Dichloroethane	107-06-2	ND	5 ug/L 10 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L	11/29/95
1.1-Dichloroethene	75-35-4	ND	5 ug/L	11/29/95
cis-1.2-Dichloroethene	156-59-2	ND	5 ug/L	11/29/95
trans-1,2-Dichloroethene	156-60-5	ND	5 ug/L	11/29/95
1.2-Dichloropropane	78-87-5	ND	5 ug/L	11/29/95
cis-1.3-Dichloropropene	10061-01-5	ND	5 ug/L	11/29/95
trans-1.3-Dichloropropene	10061-02-6	ND	5 ug/L	11/29/95
Ethylbenzene	100-41-4	ND	5 ug/L	11/29/95
2-Hexanone	591-78-6	ND	JU ug/L	11/29/95 11/29/95
Methylene Chloride	75 - 09-2 108-10-1	ND ND		11/29/95
4-Methyl-2-pentanone Styrene	100-10-1	ND ND	50 ug/L 5 ug/L	11/29/95
1,1.2.2-Tetrachloroethane	79-34-5	ND	5 ug/L	11/29/95
Tetrachloroethene	127-18-4	ND	5 ug/L	11/29/95
Toluene	108-88-3	ND	5 ug/L	11/29/95
1.1.1-Trichloroethane	71-55-6	ND	50 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L	11/29/95
1.1.2-Trichloroethane	79-00-5	ND	5 ug/L	11/29/95 11/29/95
Trichloroethene	79-01-6	ND		11/29/95
Vinyl Acetate	108-05-4	ND	50 ug/ L	11/29/95
Vinyl Chloride	75-01-4	ND	10 ug/L	11/29/95
Xylenes. Total	1330-20-7	ND	10 ug/L	11/29/95

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

SAMPLE ID: MW-1 AEN LAB NO: 9511290-02 AEN WORK ORDER: 9511290 CLIENT PROJ. ID: -

DATE SAMPLED: 11/17/95 DATE RECEIVED: 11/17/95 REPORT DATE: 12/01/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Volatile Organic Compounds	EPA_8240				
Acetone	67-64-1	ND	100 ug 5 ug 5 ug	g/L	11/29/95
Benzene Bromodichloromethane	71 -43- 2 75-27-4	ND ND	5 ug	9/L n/l	11/29/95 11/29/95
Bromoform	75-27-4 75-25-2	ND	5 ug	g/L g/L	11/29/95
Bromomethane	74-83-9	ND	10 ug	g/L g/l	11/29/95
2-Butanone	78-93-3	ND	100 ud	g/L	11/29/95
Carbon Disulfide	75-15-0	ND	10 ug 5 ug 5 ug	g/L	11/29/95
Carbon Tetrachloride	56-23-5	ND	5 u	g/L	11/29/95
Chlorobenzene	108-90-7	ND	5 ug	g/L	11/29/95
Chloroethane	75-00-3	ND	10 ud	g/L	11/29/95
2-Chloroethyl Vinyl Ether	110-75-8	ND		g/L	11/29/95
Chloroform Chloromethana	67-66-3	ND ND	5 UG	g/L	11/29/95 11/29/95
Chloromethane Dibromochloromethane	74-87-3 124-48-1	ND ND	10 UÇ	g/L g/L	11/29/95
1.1-Dichloroethane	75-34-3	ND		g/L g/L	11/29/95
1.2-Dichloroethane	107-06-2	ND	5 u	g/L	11/29/95
1.1-Dichloroethene	75-35-4	ND	5 uc	g/L	11/29/95
cis-1,2-Dichloroethene	156-59-2	18 *	f 5 ug	g/L	11/29/95
trans-1,2-Dichloroethene	156-60-5		์ 5 น จุ	g/L	11/29/95
1.2-Dichloropropane	78-87-5	ND	5 u g	g/L	11/29/95
cis-1,3-Dichloropropene	10061-01-5	ND	5 ug	g/L	11/29/95
trans-1,3-Dichloropropene	10061-02-6	ND	5 u g	g/L	11/29/95
Ethylbenzene	100-41-4	ND ND	50 ug	g/L	11/29/95 11/29/95
2-Hexanone Methylene Chloride	591-78-6 75 -0 9-2	ND ND	20 u g	9/L 7/i	11/29/95
4-Methyl-2-pentanone	108-10-1	ND	50 us	3/L	11/29/95
Styrene	100-42-5	ND	50 ug 5 ug 5 ug 5 ug 5 ug	9/L	11/29/95
1.1.2.2-Tetrachloroethane	79-34-5	ND	5 ug	g/L	11/29/95
Tetrachloroethene	127-18-4	ND	5 u	g/L	11/29/95
Toluene	108-88-3	ND	5 ug	g/L	11/29/95
1.1.1-Trichloroethane	71-55-6	ND	5 u]/L	11/29/95
1.1.2-Trichloroethane	79-00-5	ND	5 ug	J/ L	11/29/95
Trichloroethene	79-01-6	61 * ND	7 5 ug 50 ug	∮/ L ¬ / l	11/29/95 11/29/95
Vinyl Acetate Vinyl Chloride	108-05-4 75-01-4	ND	10 uç	⊌/	11/29/95
Xylenes, Total	1330-20-7	ND	10 ug	j, ∟ - /!	11/29/95

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

SAMPLE ID: MW-3

AEN LAB NO: 9511290-03 AEN WORK ORDER: 9511290 CLIENT PROJ. ID: -

DATE SAMPLED: 11/17/95 DATE RECEIVED: 11/17/95 REPORT DATE: 12/01/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	DATE UNITS ANALYZE
Volatile Organic Compounds	EPA 8240			
Acetone	67-64-1	ND	1000 ug/	
Benzene	71-43-2	ND	50 ug/	
Bromodichloromethane	75-27-4	ND	50 ug/	
Bromoform	75 - 25-2	ND	50 ug/	
Bromomethane	74-83-9	ND	100 ug/	
2-Butanone Carbon Disulfide	78-93-3 75-15-0	ND ND	1000 ug/ 100 ug/	L 11/29/9 L 11/29/9
Carbon Tetrachloride	56-23-5	ND ND	50 ug/	
Chlorobenzene	108-90-7	ND	50 ug/i	
Chloroethane	75-00-3	ND	100 ug/	11/29/9
2-Chloroethyl Vinyl Ether	110-75-8	ND	100 ug/l	11/29/9
Chloroform	67-66-3	ND	50 ug/l	11/29/9
Chloromethane	74-87-3	ND	100 ug/i	L 11/29/9
Dibromochloromethane	124-48-1	ND	50 ug/1	L 11/29/9
1,1-Dichloroethane	75-34-3	ND	50 ug/l	
1,2-Dichloroethane	107-06-2	ND	50 ug/	11/29/9
1.1-Dichloroethene	75-35-4	ND	50 ug/	11/29/9
cis-1.2-Dichloroethene	156-59-2	ND	50 ug/l	11/29/9
trans-1,2-Dichloroethene	156-60-5	ND	50 ug/l 50 ug/l	11/29/9 11/29/9
1.2-Dichloropropane	78-87-5 10061-01-5	ND ND	50 ug/l	_ 11/29/9
cis-1,3-Dichloropropene trans-1.3-Dichloropropene	10061-01-5	ND ND	50 ug/l	
Ethylbenzene	100-41-4	ND	50 ug/l	
2-Hexanone	591-78-6	ND	500 ug/i	
Methylene Chloride	75-09-2	ND	200 ug/l	
4-Methyl-2-pentanone	108-10-1	ND	500 ug/l	
Styrene	100-42-5	ND	50 ug/l	
1.1.2.2-Tetrachloroethane	79-34-5	ND	50 ug/l	11/29/9
Tetrachloroethene	127-18-4	ND	50 ug/l	
Toluene	108-88-3	ND	50 ug/l	_ 11/29/9
1.1.1-Trichloroethane	71-55-6	ND	50 ug/l	
1.1.2-Trichloroethane	79-00-5	ND	50 ug/l	_ 11/29/9
Trichloroethene	79-01-6	1.400 *		
Vinyl Acetate	108-05-4	ND	500 ug/l	
Vinyl Chloride	75-01-4	ND ND	100 ug/l	
Xylenes, Total	1330-20-7	טא	100 ug/l	_ 11/29/9

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-3

AEN LAB NO: 9511290-03 AEN WORK ORDER: 9511290 CLIENT PROJ. ID: -

DATE SAMPLED: 11/17/95

DATE RECEIVED: 11/17/95 REPORT DATE: 12/01/95

****	METHOD/		DATE		
ANALYTE	CAS#	RESULT	LIMIT	UNITS	ANALYZED

Reporting limits elevated due to high levels of target compounds. Sample run at dilution.

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

SAMPLE ID: MW-3 DUPLICATE AEN LAB NO: 9511290-04 AEN WORK ORDER: 9511290 CLIENT PROJ. ID: -

DATE SAMPLED: 11/17/95 DATE RECEIVED: 11/17/95 REPORT DATE: 12/01/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT UNITS	DATE ANALYZED
Volatile Organic Compounds	EPA 8240			
Acetone	67-64-1	ND	10 <u>0</u> 0 ug/L	11/29/95
Benzene	71-43-2	ND	50 ug/L	11/29/95
Bromodichloromethane	75-27-4	ND	50 ug/L	11/29/95
Bromoform	75-25-2	ND	50 ug/L	11/29/95
Bromomethane	74-83-9	ND	100 ug/L	11/29/95
2-Butanone	78-93-3	ND	1000 ug/L	11/29/95
Carbon Disulfide	75-15-0	ND	100 ug/L	11/29/95 11/29/95
Carbon Tetrachloride Chlorobenzene	56-23-5 108-90-7	ND ND	50 ug/L 50 ug/L	11/29/95
Chloroethane	75-00-3	ND	100 ug/L	11/29/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	100 ug/L 100 ug/L	11/29/95
Chloroform	67-66-3	ND	50 ug/L	11/29/95
Chloromethane	74-87-3	ND	100 ug/L	11/29/95
Dibromochloromethane	124-48-1	ND	50 ug/L	11/29/95
1.1-Dichloroethane	75-34-3	ND	50 ug/L	11/29/95
1.2-Dichloroethane	107-06-2	ND	50 ug/L	11/29/95
1.1-Dichloroethene	75-35-4	МD	50 ug/L	11/29/95
cis-1.2-Dichloroethene	156-59-2	ND	50 ug/L	11/29/95
trans-1,2-Dichloroethene	156-60-5	ND	50 ug/L	11/29/95
1.2-Dichloropropane	78-87-5	ND	50 ug/L	11/29/95
cis-1.3-Dichloropropene	10061-01-5	ND	50 ug/L	11/29/95
trans-1,3-Dichloropropene	10061-02-6	ND	50 ug/L	11/29/95
Ethylbenzene	100-41-4	ND	50 ug/L	11/29/95 11/29/95
2-Hexanone	591-78-6	ND	500 ug/L	11/29/95
Methylene Chloride	75-09-2 108-10-1	ND ND	200 ug/L 500 ug/L	11/29/95
4-Methyl-2-pentanone Styrene	100-42-5	ND	50 ug/L	11/29/95
1,1.2,2-Tetrachloroethane	79-34-5	ND	50 ug/L	11/29/95
Tetrachloroethene	127-18-4	ND	50 ug/L	11/29/95
Toluene	108-88-3	ND	50 ug/L	11/29/95
1.1.1-Trichloroethane	71-55-6	ND	50 ug/L	11/29/95
1.1.2-Trichloroethane	79-00-5	ND	50 ug/L	11/29/95
Trichloroethene	79-01-6	1,200 *		11/29/95
Vinyl Acetate	108-05-4	ND	500 ug/L	11/29/95
Vinyl Chloride	75-01-4	ND	100 ug/L	11/29/95
Xylenes, Total	1330-20-7	ND	100 ug/L	11/29/95

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-3 DUPLICATE AEN LAB NO: 9511290-04 AEN WORK ORDER: 9511290 DATE SAMPLED: 11/17/95 DATE RECEIVED: 11/17/95 REPORT DATE: 12/01/95

CLIENT PROJ. ID: -

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
MINALTIE	CASH	KESULI	CIMI (ONTIO	VIAVE I TER

Reporting limits elevated due to high levels of target compounds. Sample run at dilution.

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

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-2

AEN LAB NO: 9511290-05 AEN WORK ORDER: 9511290 CLIENT PROJ. ID: -

DATE SAMPLED: 11/17/95 DATE RECEIVED: 11/17/95 REPORT DATE: 12/01/95

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

AEN (CALIFORNIA) OUALITY CONTROL REPORT

AEN JOB NUMBER: 9511290

CLIENT PROJECT ID: -

Quality Control and Project Summary

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

<u>Definitions</u>

Laboratory Control Sample (LCS)/Method Spike(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 analysis.

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 behavior, 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 instrumental performance.

- D: Surrogates diluted out.
- #: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 8240

AEN JOB NO: 9511290 INSTRUMENT: 12

MATRIX: WATER

Surrogate Standard Recovery Summary

			Percent Recovery									
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro- ethane-d₄	- Toluene-d ₈	p-Bromofluoro- benzene							
11/29/95 11/29/95 11/29/95 11/29/95 11/29/95	TRIP BLANK MW-1 MW-3 MW-3 DUPLICATE MW-2	01 02 03 04 05	104 105 110 106 109	97 91 90 90 92	92 89 90 90 99							
QC Limits:			76-114	88-110	86-115							

DATE ANALYZED: 11/22/95 SAMPLE SPIKED: 9511255-03 INSTRUMENT: 12

Matrix Spike Recovery Summary

	Carles	A		QC Limi	ts
Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	Percent Recovery	RPD
1.1-Dichloroethene Trichloroethene Benzene Toluene Chlorobenzene	50 50 50 50 50	104 106 99 99 100	4 8 6 <1 2	59-155 71-157 37-151 47-150 37-160	25 25 25 25 25 25

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

1. Client: Acove Valve and Regulator Co. Address: [1100 West Airport Blvd. 5+afterd TX 77477-30] Contact: Bill Talent All. Contact: Address Report To:	3440 Vincent Ro Phon			Lab Do Date S Lab Co Date F Date F Client	onlact: Results F	n: Shipped Required equired: No.:		75	11 : 11 : 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1	290	I of LISTODY
Send Report To: (1) or 2 (Circle one) Client P.O. No.:: FC CO146 Client Project Sample Team Member (s) Stephen Tenson Jacks							ANALYS				,
Lab Client Sample Ai Number Identification Volu	r Date/ Time San Collected Typ	mple Pres No. of Cont.	Type of Cont.		///	//	//	$^{\prime}/$		Commer	nts / Hazards
01 AB Try Blank 62 A-6 MW-1 03 A-6 MW-2 04 A-7 MW-3 Deplicate 55 A-6 MW-3		t 16.1 3	70 ×1 jus X								
Relinquished by: (Signature) DATE TIME Received (Signature) (Signature)					10.6	40 C 70 C	165	4 St. 1	<u> </u>	DATE (1/17/95	17.26
Relinquished by: (Signature) Relinquished by: (Signature) Method of Shipment	DATE	TIME	Received by (Signature) Received by (Signature) Lab Comme	/ :						DATE	TIME

*Sample type (Specify): 1) 37mm 0.8 µm MCEF 2) 25mm 0.8 µm MCEF 3) 25mm 0.4 µm polycarb. filter 4) PVC filter, diam. ____ pore size ____ 5) Charcoal tube 6) Silica gel tube (7) Water) 8) Soil 9) Bulk Sample 10) Other ______ 11) Other _____ COPIES: WHITE - JOB FILE YELLOW - PROJECT FILE PINK - CLIENT

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

PAGE 1

GROVE VALVE & REGULATOR CO. 6529 HOLLIS STREET EMERYVILLE, CA 94608

ATTN: BILL TALLENT CLIENT PROJ. ID: -

REPORT DATE: 01/19/96

DATE(S) SAMPLED: 01/09/96

DATE RECEIVED: 01/09/96

AEN WORK ORDER: 9601076

P.O. NUMBER: PB60146

PROJECT SUMMARY:

On January 9, 1996, this laboratory received 5 water sample(s).

Client requested sample(s) be analyzed for organic 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.

arr#/Klein

Laboratory Director

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-1

AEN LAB NO: 9601076-01 AEN WORK ORDER: 9601076

CLIENT PROJ. ID: -

DATE SAMPLED: 01/09/96 DATE RECEIVED: 01/09/96 REPORT DATE: 01/19/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT UNITS	DATE ANALYZED
Volatile Organic Compounds Acetone Benzene Bromodichloromethane Bromoform	EPA 8240 67-64-1 71-43-2 75-27-4 75-25-2	ND ND ND ND	100 ug/L 5 ug/L 5 ug/L 5 ug/L	01/13/96 01/13/96 01/13/96 01/13/96
Bromomethane 2-Butanone Carbon Disulfide Carbon Tetrachloride Chlorobenzene Chloroethane	74-83-9 78-93-3 75-15-0 56-23-5 108-90-7 75-00-3	ND ND ND ND ND ND	10 ug/L 100 ug/L 10 ug/L 5 ug/L 5 ug/L 10 ug/L	01/13/96 01/13/96 01/13/96 01/13/96 01/13/96
2-Chloroethyl Vinyl Ether Chloroform Chloromethane Dibromochloromethane 1.1-Dichloroethane	110-75-8 67-66-3 74-87-3 124-48-1 75-34-3	ND ND ND ND ND	10 ug/L	01/13/96 01/13/96 01/13/96 01/13/96 01/13/96
1,2-Dichloroethane 1,1-Dichloroethene cis-1,2-Dichloroethene trans-1,2-Dichloroethene 1,2-Dichloropropane	107-06-2 75-35-4 156-59-2 156-60-5 78-87-5 10061-01-5	ND ND 16 * 7 * ND ND	φ ug/ L	01/13/96 01/13/96 01/13/96 01/13/96 01/13/96
cis-1,3-Dichloropropene trans-1,3-Dichloropropene Ethylbenzene 2-Hexanone Methylene Chloride 4-Methyl-2-pentanone	10061-01-3 10061-02-6 100-41-4 591-78-6 75-09-2 108-10-1	ND ND ND ND ND	5 ug/L 5 ug/L 50 ug/L 20 ug/L 50 ug/L	01/13/96 01/13/96 01/13/96 01/13/96 01/13/96
Styrene 1.1.2.2-Tetrachloroethane Tetrachloroethene Toluene 1.1.1-Trichloroethane	100-42-5 79-34-5 127-18-4 108-88-3 71-55-6	ND NO ND ND ND	5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L	01/13/96 01/13/96 01/13/96 01/13/96 01/13/96
1.1.2-Trichloroethane Trichloroethene Vinyl Acetate Vinyl Chloride Xylenes, Total	79-00-5 79-01-6 108-05-4 75-01-4 1330-20-7	ND 61 * ND ND ND	5 ug/L 5 ug/L 50 ug/L 10 ug/L 10 ug/L	01/13/96 01/13/96 01/13/96 01/13/96 01/13/96

ND = Not detected at or above the reporting limit

^{* =} Value at or above reporting limit

SAMPLE ID: MW-3

AEN LAB NO: 9601076-02 AEN WORK ORDER: 9601076 CLIENT PROJ. ID: -

DATE SAMPLED: 01/09/96 DATE RECEIVED: 01/09/96 REPORT DATE: 01/19/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT UNIT	DATE S ANALYZED
Volatile Organic Compounds	EPA 8240			
Acetone	67-64-1	ND	1000 ug/L	01/12/96
Benzene	71-43-2	ND	50 ug/L	01/12/96
Bromodichloromethane	75-27-4	ND	50 ug/L	01/12/96
Bromoform	75-25-2	ND	50 ug/L	01/12/96
Bromomethane	74-83-9	ND	100 ug/L	01/12/96
2-Butanone	78-93-3	ND	1000 ug/L	01/12/96
Carbon Disulfide	75-15-0	ND	100 ug/L	01/12/96
Carbon Tetrachloride	56-23-5	ND	50 ug/L	01/12/96
Chlorobenzene	108-90-7	ND	50 ug/L	01/12/96 01/12/96
Chloroethane	75-00-3 110-75-8	ND ND	100 ug/L 100 ug/L	01/12/96
2-Chloroethyl Vinyl Ether Chloroform	67-66-3	ND ND	50 ug/L	01/12/96
Chloromethane	74-87-3	ND	100 ug/L	01/12/96
Dibromochloromethane	124-48-1	ND	50 ug/L	01/12/96
1,1-Dichloroethane	75-34-3	ND	50 ug/L	01/12/96
1,2-Dichloroethane	107-06-2	ND	50 ug/L	01/12/96
1.1-Dichloroethene	75-35-4	ND	50 ug/L	01/12/96
cis-1.2-Dichloroethene	156-59-2	ND	50 ug/L	01/12/96
trans-1,2-Dichloroethene	156-60-5	ND	50 ug/L	01/12/96
1,2-Dichloropropane	78 - 87-5	ND	50 ug/L	01/12/96
cis-1,3-Dichloropropene	10061-01-5	ND	50 ug/L	01/12/96
trans-1,3-Dichloropropene	10061-02-6	ND	50 ug/L	01/12/96
Ethylbenzene	100-41-4	ND	50 ug/L	01/12/96
2-Hexanone	591-78-6	ND	500 ug/L	01/12/96
Methylene Chloride	75-09-2	ND	200 ug/L	01/12/96 01/12/96
4-Methy1-2-pentanone	108-10-1	ND	500 ug/L 50 ug/L	01/12/96
Styrene	100-42-5	ND ND	50 ug/L 50 ug/L	01/12/96
1,1,2,2-Tetrachloroethane	79-34-5 127-18-4	ND	50 ug/L	01/12/96
Tetrachloroethene Toluene	108-88-3	ND ND	50 ug/L	01/12/96
1.1.1-Trichloroethane	71-55-6	ND	50 ug/L	01/12/96
1,1,2-Trichloroethane	79-00-5	ND	50 ug/L	01/12/96
Trichloroethene	79-01-6	1,400 *		01/12/96
Vinyl Acetate	108-05-4	ND	500 ug/L	01/12/96
Vinyl Chloride	75-01-4	ND	100 ug/L	01/12/96
Xylenes, Total	1330-20-7	ND	100 ug/L	01/12/96

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-3

AEN LAB NO: 9601076-02 AEN WORK ORDER: 9601076

CLIENT PROJ. ID: -

DATE SAMPLED: 01/09/96 DATE RECEIVED: 01/09/96

REPORT DATE: 01/19/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED

Reporting limits elevated due to high levels of target compounds. Sample run at dilution.

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

SAMPLE ID: MW-3 DUP AEN LAB NO: 9601076-03 AEN WORK ORDER: 9601076

CLIENT PROJ. ID: -

DATE SAMPLED: 01/09/96 DATE RECEIVED: 01/09/96 REPORT DATE: 01/19/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT UNITS	DATE ANALYZED
Volatile Organic Compounds Acetone Benzene Bromodichloromethane	EPA 8240 67-64-1 71-43-2 75-27-4	ND ND ND	1000 ug/L 50 ug/L 50 ug/L	01/16/96 01/16/96 01/16/96
Bromoform Bromomethane 2-Butanone Carbon Disulfide Carbon Tetrachloride	75-25-2 74-83-9 78-93-3 75-15-0 56-23-5	ND ND ND ND ND	50 ug/L 100 ug/L 1000 ug/L 100 ug/L 50 ug/L	01/16/96 01/16/96 01/16/96 01/16/96 01/16/96
Chlorobenzene Chloroethane 2-Chloroethyl Vinyl Ether Chloroform	108-90-7 75-00-3 110-75-8 67-66-3 74-87-3	ND ND ND ND ND	50 ug/L 100 ug/L 100 ug/L 50 ug/L 100 ug/L	01/16/96 01/16/96 01/16/96 01/16/96 01/16/96
Chloromethane Dibromochloromethane 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethene	124-48-1 75-34-3 107-06-2 75-35-4	ND ND ND ND	50 ug/L 50 ug/L 50 ug/L 50 ug/L	01/16/96 01/16/96 01/16/96 01/16/96
cis-1,2-Dichloroethene trans-1,2-Dichloroethene 1,2-Dichloropropane cis-1,3-Dichloropropene trans-1,3-Dichloropropene	156-59-2 156-60-5 78-87-5 10061-01-5 10061-02-6	ND ND ND ND ND	50 ug/L 50 ug/L 50 ug/L 50 ug/L 50 ug/L	01/16/96 01/16/96 01/16/96 01/16/96 01/16/96
Ethylbenzene 2-Hexanone Methylene Chloride 4-Methyl-2-pentanone	100-41-4 591-78-6 75-09-2 108-10-1	ND ND ND ND	50 ug/L 500 ug/L 200 ug/L 500 ug/L	01/16/96 01/16/96 01/16/96 01/16/96 01/16/96
Styrene 1,1,2,2-Tetrachloroethane Tetrachloroethene Toluene 1,1,1-Trichloroethane	100-42-5 79-34-5 127-18-4 108-88-3 71-55-6	ND ND ND ND ND	50 ug/L 50 ug/L 50 ug/L 50 ug/L 50 ug/L	01/16/96 01/16/96 01/16/96 01/16/96
1.1.2-Trichloroethane Trichloroethene Vinyl Acetate Vinyl Chloride Xylenes. Total	79-00-5 79-01-6 108-05-4 75-01-4 1330-20-7	ND 1,100 * ND ND ND	50 ug/L 50 ug/L 500 ug/L 100 ug/L 100 ug/L	01/16/96 01/16/96 01/16/96 01/16/96 01/16/96

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-3 DUP AEN LAB NO: 9601076-03 AEN WORK ORDER: 9601076

DATE SAMPLED: 01/09/96 DATE RECEIVED: 01/09/96

REPORT DATE: 01/19/96

CLIENT PROJ. ID: -

METHOD/ DATE REPORTING **ANALYZED RESULT** LIMIT UNITS **ANALYTE** CAS#

Reporting limits elevated due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

GROVE VALVE & REGULATOR CO.

SAMPLE ID: MW-2

AEN LAB NO: 9601076-04 AEN WORK ORDER: 9601076 CLIENT PROJ. ID: -

DATE SAMPLED: 01/09/96 DATE RECEIVED: 01/09/96 **REPORT DATE:** 01/19/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT UNITS	DATE ANALYZED
Volatile Organic Compounds Acetone Benzene Bromodichloromethane Bromomethane 2-Butanone Carbon Disulfide Carbon Tetrachloride Chlorobenzene Chloroethane 2-Chloroethyl Vinyl Ether Chloroform Chloromethane Dibromochloromethane 1.1-Dichloroethane 1.2-Dichloroethene cis-1,2-Dichloroethene trans-1,2-Dichloroethene trans-1,2-Dichloropropene trans-1,3-Dichloropropene Ethylbenzene 2-Hexanone Methylene Chloride 4-Methyl-2-pentanone Styrene		RESULT ND ND ND ND ND ND ND ND ND ND ND ND ND N	100 ug/L 5 ug/L 5 ug/L 10 ug/L 10 ug/L 10 ug/L 10 ug/L 10 ug/L 5 ug/L	
1.1.2.2-Tetrachloroethane Tetrachloroethene Toluene 1.1.1-Trichloroethane 1.1.2-Trichloroethane Trichloroethene Vinyl Acetate Vinyl Chloride Xylenes, Total	79-34-5 127-18-4 108-88-3 71-55-6 79-00-5 79-01-6 108-05-4 75-01-4 1330-20-7	ND ND ND ND ND 7 * ND ND ND	5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L	01/13/96 01/13/96 01/13/96 01/13/96 01/13/96 01/13/96 01/13/96 01/13/96

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

SAMPLE ID: TRAVEL BLANK AEN LAB NO: 9601076-05 AEN WORK ORDER: 9601076

CLIENT PROJ. ID: -

DATE SAMPLED: 01/09/96 DATE RECEIVED: 01/09/96 REPORT DATE: 01/19/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT UNITS	DATE ANALYZED
Volatile Organic Compounds	EPA 8240			
Acetone	67-64-1	ND	100 ug/L	01/13/96
Benzene	71-43-2	МD	5 ug/L	01/13/96
Bromodichloromethane	75-27-4	ND	5 ug/L	01/13/96
Bromoform	75-25-2	ND	5 ug/L	01/13/96
Bromomethane	74-83-9	ND	10 ug/L	01/13/96
2-Butanone	78-93-3	ND	100 ug/L	01/13/96
Carbon Disulfide	75-15-0	ND	10 ug/L	01/13/96
Carbon Tetrachloride	56-23-5	ND	5 ug/L	01/13/96 01/13/96
Chlorobenzene	108-90-7	ND	5 ug/L 10 ug/L	01/13/96
Chloroethane	75-00-3	ND ND	10 ug/L 10 ug/L	01/13/96
2-Chloroethyl Vinyl Ether	110-75-8 67-66-3	ND ND	5 ug/L	01/13/96
Chloroform Chloromethane	74-87-3	ND ND	10 ug/L	01/13/96
Dibromochloromethane	124-48-1	ND	5 ug/L	01/13/96
1.1-Dichloroethane	75-34-3	ND ND	5 ug/L	01/13/96
1,2-Dichloroethane	107-06-2	ND	5 ug/L	01/13/96
1.1-Dichloroethene	75-35-4	ND		01/13/96
cis-1,2-Dichloroethene	156-59-2	ND	5 ug/L 5 ug/L 5 ug/L	01/13/96
trans-1.2-Dichloroethene	156-60-5	ND	5 ug/L	01/13/96
1,2-Dichloropropane	78-87-5	ND	5 ug/L	01/13/96
cis-1,3-Dichloropropene	10061-01-5	ND	5 ug/L 5 ug/L 5 ug/L	01/13/96
trans-1,3-Dichloropropene	10061-02-6	ND	5 uğ/L	01/13/96
Ethylbenzene	100-41-4	ND	5 ug/L	01/13/96
2-Hexanone	591-78-6	ND	50 ug/L	01/13/96
Methylene Chloride	75-09-2	ND	20 ug/L	01/13/96
4-Methy1-2-pentanone	108-10-1	ND	50 ug/L	01/13/96
Styrene	100-42-5	ND	5 ug/L	01/13/96
1,1,2,2-Tetrachloroethane	79-34 - 5	ND	5 ug/L	01/13/96
Tetrachloroethene	127-18-4	ND	5 ug/L	01/13/96
Toluene	108-88-3	ND	5 ug/L	01/13/96
1.1.1-Trichloroethane	71-55-6	ND	5 ug/L 5 ug/L	01/13/96
1.1.2-Trichloroethane	79-00-5	ND		01/13/96 01/13/96
Trichloroethene	79-01-6	ND ND		01/13/96
Vinyl Acetate	108-05-4	ND ND	50 ug/L 10 ug/L	01/13/96
Vinyl Chloride	75-01-4 1320, 20, 7	ND ND	10 ug/L 10 ug/L	01/13/96
Xylenes, Total	1330-20-7	IAD	10 ug/L	01/10/30

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

AEN (CALIFORNIA) OUALITY CONTROL REPORT

AEN JOB NUMBER: 9601076

CLIENT PROJECT ID: -

Quality Control and Project Summary

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

<u>Definitions</u>

Laboratory Control Sample (LCS)/Method Spike(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 analysis.

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 behavior, 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 instrumental performance.

- D: Surrogates diluted out.
- #: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 8240

AEN JOB NO: 9601076 INSTRUMENT: 13

MATRIX: WATER

Surrogate Standard Recovery Summary

			Percent Recovery									
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro ethane-d₄	- Toluene-d ₈	p-Bromofluoro- benzene							
01/13/96 01/12/96 01/16/96 01/13/96 01/13/96	MW-1 MW-3 MW-3 DUP MW-2 TRAVEL BLANK	01 02 03 04 05	98 101 110 86 99	99 91 96 96 96	91 87 95 91 89							
QC Limits:			76-114	88-110	86-115							

DATE ANALYZED: 01/05/96 SAMPLE SPIKED: 9512290-07 INSTRUMENT: 13

Matrix Spike Recovery Summary

		· · · · · · · · · · · · · · · · · · ·		QC Limi	ts
Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	Percent Recovery	RPD
1.1-Dichloroethene Trichloroethene Benzene Toluene Chlorobenzene	50 50 50 50 50	84 93 127 99 98	20 15 4 2	59-155 71-157 37-151 47-150 37-160	25 25 25 25 25

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

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	m Member (s) Tack to Les / Ste	-				_			/ ,	/ /	/ /	/ /	/ ,	/ /	/ /	/ /	/ /	/ /
Lab Number	Client Sample Identification	Air Volume	Date/ Time Collected	Sample Type*	Pres.	No. of Cont.	Type of Cont.		\$/ }		//	/	//			//		Comments / Hazards
MA-C	MW-1.		1/4/96: 1015	7	Het	3	VOC	X										phase fand
620 C	MW-3		1/96: 1205	7	H(1	12	N.C	X										1)
21.0	MW-S DOL	<u> </u>	19/16 1305	<u> </u>	11(1	1.3	VOC	Х										Nesults
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ATTACHMENT 4 -- Laboratory Analytical Report for Sanitary Sewer Discharge Monitoring Event

American Environmental Network

still V Accreditation (1907)

PAGE 1

REPORT DATE: 12/27/95

DATE(S) SAMPLED: 12/18/95

DATE RECEIVED: 12/18/95

AEN WORK ORDER: 9512230

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

ATTN: BILL TALLENT CLIENT PROJ. ID: -

Salation of L

P.O. NUMBER: PB60146

PROJECT SUMMARY:

On December 18, 1995, this laboratory received 2 water sample(s).

Client requested sample(s) be analyzed for organic 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.

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Larry Klein

Laboratory Director

(PRE-TREATMENT) SAMPLE ID: PORT-1

AEN LAB NO: 9512230-01 AEN WORK ORDER: 9512230 CLIENT PROJ. ID: -

DATE SAMPLED: 12/18/95 DATE RECEIVED: 12/18/95 REPORT DATE: 12/27/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT UNI	DATE TS ANALYZED
Volatile Organic Compounds	EPA 8240			
Acetone	67-64-1	ND	100 ug/L	12/20/95
Benzene	71-43-2	ND	5 ug/L	12/20/95
Bromodichloromethane	75-27-4	ND	5 ug/L	12/20/95
Bromoform	75-25-2	ND	5 ug/L	12/20/95
Bromomethane	74-83-9	ND	10 ug/L	12/20/95 12/20/95
2-Butanone	78-93-3	ND	100 ug/L	12/20/95
Carbon Disulfide	75-15-0	ND	10 ug/L	12/20/95
Carbon Tetrachloride	56-23-5	ND	5 ug/L 5 ug/L	12/20/95
Chlorobenzene	108-90-7	ND	5 ug/L	12/20/95
Chloroethane	75-00-3	ND ND	10 ug/L 10 ug/L	12/20/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	5 ug/L	12/20/95
Chloroform	67-66-3 74 - 87-3	ND	10~ //	12/20/95
Chloromethane Dibromochloromethane	124-48-1	ND ND	10 ug/L 5 ug/l	12/20/99
1,1-Dichloroethane	75-34-3	ND	5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L	12/20/9
1,2-Dichloroethane	107-06-2	ND	5 ug/L	12/20/95
1.1-Dichloroethene	75-35-4	27 *	5 ug/L	12/20/99
cis-1,2-Dichloroethene	156-59-2	ND	5 ug/L	12/20/95
trans-1,2-Dichloroethene	156-60-5	ND	5 ug/l.	12/20/95
1.2-Dichloropropane	78-87-5	ND	5 ug/L	12/20/95
cis-1.3-Dichloropropene	10061-01-5	ND	5 ug/L	12/20/95
trans-1,3-Dichloropropene	10061-02-6	ND	5 ua/L	12/20/95
Ethylbenzene	100-41-4	ND	5 ug/L	12/20/95
2-Hexanone	591-78-6	ND	50 ug/L	12/20/99
Methylene Chloride	75-09-2	ND	20 ug/L	12/20/95
4-Methyl-2-pentanone	108-10-1	ND	50 ug/L	12/20/95
Styrene	100-42-5	ND	5 ug/L	12/20/99
1.1.2.2-Tetrachloroethane	79-34-5	ND	5 ug/L	12/20/99
Tetrachloroethene	127-18-4	ND	5 ug/L	12/20/95
Toluene	108-88-3	ND	5 ug/L	12/20/95
1.1.1-Trichloroethane	71-55-6	28 *		12/20/95
1.1.2-Trichloroethane	79-00-5	ND	5 ug/L	12/20/95
Trichloroethene	79-01-6	64 *		12/20/95
Vinyl Acetate	108-05-4	ND ND	50 ug/L	12/20/95
Vinyl Chloride	75-01-4	ND ND	10 ug/L	12/20/95
Xylenes, Total	1330-20-7	ND	10 ug/L	12/20/99

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

GROVE VALVE & REGULATOR CO.

(POST-TREATMENT) SAMPLE ID: PORT-3

AEN LAB NO: 9512230-02 AEN WORK ORDER: 9512230 CLIENT PROJ. ID: -

DATE SAMPLED: 12/18/95 DATE RECEIVED: 12/18/95 REPORT DATE: 12/27/95

METHOD/ ANALYTE CAS#		RESULT	REPORTING LIMIT UNITS	DATE ANALYZED
Volatile Organic Compounds Acetone Benzene Bromodichloromethane	EPA 8240 67-64-1 71-43-2 75-27-4	ND ND ND	100 ug/L 5 ug/L 5 ug/L 5 ug/L	12/20/95 12/20/95 12/20/95 12/20/95
Bromoform Bromomethane 2-Butanone Carbon Disulfide Carbon Tetrachloride	75-25-2 74-83-9 78-93-3 75-15-0 56-23-5	ND ND ND ND ND	5 ug/L 10 ug/L 100 ug/L 10 ug/L 5 ug/L 5 ug/L	12/20/95 12/20/95 12/20/95 12/20/95 12/20/95
Chlorobenzene Chloroethane 2-Chloroethyl Vinyl Ether Chloroform Chloromethane	108-90-7 75-00-3 110-75-8 67-66-3 74-87-3	ND ND ND ND	10 ug/L 10 ug/L 5 ug/L	12/20/95 12/20/95 12/20/95 12/20/95 12/20/95
Dibromochloromethane 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethene cis-1,2-Dichloroethene	124-48-1 75-34-3 107-06-2 75-35-4 156-59-2	ND ND ND ND	10 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L	12/20/95 12/20/95 12/20/95 12/20/95
trans-1.2-Dichloroethene 1,2-Dichloropropane cis-1.3-Dichloropropene trans-1,3-Dichloropropene Ethylbenzene	156-60-5 78-87-5 10061-01-5 10061-02-6 100-41-4	ND ND ND ND ND	5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L	12/20/95 12/20/95 12/20/95 12/20/95 12/20/95
2-Hexanone Methylene Chloride 4-Methyl-2-pentanone Styrene	591-78-6 75-09-2 108-10-1 100-42-5 79-34-5	ND ND ND ND ND	20 ug/L 50 ug/L	12/20/95 12/20/95 12/20/95 12/20/95 12/20/95
1.1.2.2-Tetrachloroethane Tetrachloroethene Toluene 1.1.1-Trichloroethane 1.1.2-Trichloroethane	79-34-5 127-18-4 108-88-3 71-55-6 79-00-5	ND ND ND ND	5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L 5 ug/L	12/20/95 12/20/95 12/20/95 12/20/95
Trichloroethene Vinyl Acetate Vinyl Chloride Xylenes, Total	79-01-6 108-05-4 75-01-4 1330-20-7	ND ND ND ND	5 ug/L 50 ug/L 10 ug/L 10 ug/L	12/20/95 12/20/95 12/20/95 12/20/95

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

AEN (CALIFORNIA) OUALITY CONTROL REPORT

AEN JOB NUMBER: 9512230

CLIENT PROJECT ID: -

Quality Control and Project Summary

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

<u>Definitions</u>

Laboratory Control Sample (LCS)/Method Spike(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 8lank: 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 analysis.

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 behavior, 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 instrumental performance.

- D: Surrogates diluted out.
- #: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 8240

AEN JOB NO: 9512230

INSTRUMENT: 13 MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed			:	Percent Recov	ery
	Client Id.	Lab Id.	1,2-Dichloro- ethane-d₄	Toluene-d ₈	p-Bromofluoro- benzene
12/20/95 12/20/95	PORT-1 PORT-3	01 02	112 108	97 100	95 97
QC Limits:			76-114	88-110	86-115

DATE ANALYZED: 12/20/95 SAMPLE SPIKED: 9512195-05 INSTRUMENT: 13

Matrix Spike Recovery Summary

				QC Limits				
Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	Percent Recovery	RPD			
1.1-Dichloroethene Trichloroethene Benzene Toluene Chlorobenzene	50 50 50 50 50	120 104 113 99 101	4 <1 3 3	59-155 71-157 37-151 47-150 37-160	25 25 25 25 25			

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

*** END OF REPORT ***

Reporting to		Alor Ce A	merican					rk		A	\dot{E}	N					Page	of
Addross Contact Alt. Con	Stafford, TX 774 Bill Takent		3440 Vince - 3, <i>≤</i> - >	Phone (5 FAX (51	Pleasant FII 10) 930-909 0) 930-025	00	94323		Lab	Job Desi	tinati	on:	-				R ANALYSIS / (30	CHAIN OF CUSTODY
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[_	me as above	3.		os	aloove				Dat Dat Clie	e Res	sults port l none			CL	13)	56	3-141H 8-8311 3-141H	സ്താർ
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Lab Number	Client Sample Identification	Air Volume	Date/ Time Collected	Sample Type	Pres.	No. of Cont.	Type of Cont.		`\'	//		//	//	//	/	//	Comm	ents / Hazards
01 A-C	Port - 1		14/8/95-14/0	7	Hel	3	40,01	3							_[_		TREATME	UT SYSTEM
02 A-C	Port-3		14/8/95 14/5	1_7_	1101	3	Youl	3					_ _					ER CLIENT
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Method of	Shipment	*Sample time (Lab Co	mmer	ils									

*Sample type (Specify): 1) 37mm 0.8 µm MCEF 2) 25mm 0.8 µm MCEF 3) 25mm 0.4 µm polycarb. filter 4) PVC titter, diam. ____ pore size ____ 5) Charcoal tube 6) Silica gel tube (7) Water 8) Soil 9) Bulk Sample 10) Other ______ 11) Other _____ COPIES WHILE JOBTHE YELLOW PROJECTILE PILK CLENT