Public Service Company of New Mexico
Person Generating Station
Groundwater Treatment System

Treatment Effectiveness Report
Fourth Quarter 1996

February 11, 1997

Report Prepared Pursuant to Requirements Contained in:

The Person Generating Station Corrective Action Directive (NMT 360010342)
and
The New Mexico Environment Department Discharge Plan, DP-1006

Table of Contents

I. Introduction	1
II. Operational History	3
III. Groundwater Treatment Effectiveness	4
IV. Operational Dates	9
V. Influent / Effluent Flow Volumes	10
VI. Laboratory Analysis	12
A. Influent/Effluent Sampling for VOC's (8010 analysis)	12
B. Golf Course Pond Sampling	14
VII. Groundwater Sampling	15

Appendix A. Laboratory Reports

List of Figures

Figure 1. Person Generating Station Site Map	2
Figure 2. Total VOCs at PSMW-16	4
Figure 3. Total VOCs at the VEW	5
Figure 4. Total VOCs at EW-1	5
Figure 5. Total VOCs at PSMW-24, 25, 26	6
Figure 6. Total VOCs GTS Influent vs. Effluent	12
Figure 7. Concentration of PCE in Groundwater	16
Figure 8. Concentration of DCE in Groundwater	17
Figure 9. Concentration of TCA in Groundwater	18

List of Tables

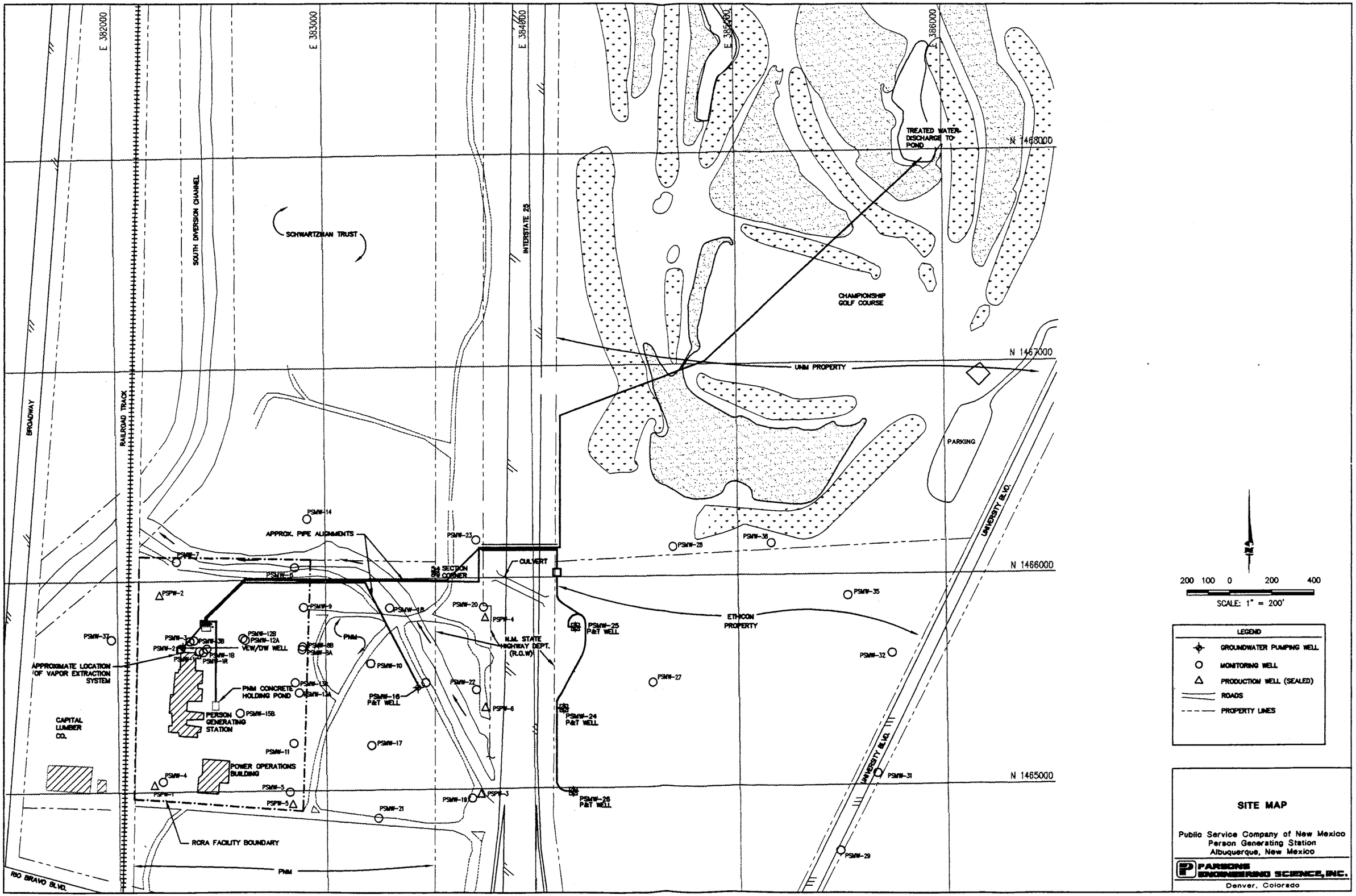
Table 1. Influent Concentrations at PSMW-16	6
Table 2. Influent Concentrations at VEW	7
Table 3. Influent Concentrations at EW-1	7
Table 4. Combined Influent Concentrations at PSMW-24, 25, and 26	8
Table 5. Significant Operational Activities	9
Table 6. Influent and Effluent Flow Volumes	11
Table 7. Influent and Effluent VOC Concentrations	13

I. Introduction

This report is prepared pursuant to requirements contained in the Person Generating Station Corrective Action Directive (NMT360010342) issued by the New Mexico Environment Department (NMED) Hazardous and Radioactive Materials Bureau, and requirements contained in Discharge Plan DP-1006 issued by the NMED Groundwater Protection and Remediation Bureau.

This report contains information on sampling results and operational activities at the Person Station Groundwater Treatment System (GTS). The GTS is designed to extract volatile organic compound contaminated groundwater, treat through an air stripper and granular activated carbon filter and discharge the treated water to an irrigation pond at the UNM Championship Golf Course.

Figure 1 is a site map of the Person Generating Station vicinity and shows well locations and the location of the pipeline system.


E 382000
E 383000
E 384000
E 385000
E 386000
N 1468000
N 1467000
N 1466000
N 1465000
BROADWAY
RAILROAD TRACK
SOUTH DIVERSION CHANNEL
SCHWARTZMAN TRUST
INTERSTATE 25
TREATED WATER DISCHARGE TO POND
CHAMPIONSHIP GOLF COURSE
UNM PROPERTY
PARKING
UNIVERSITY BLVD.
APPROX. PIPE ALIGNMENTS
54 SECTION 90 CORNER
CULVERT
ETHICON PROPERTY
N.M. STATE HIGHWAY DEPT. (R.O.W)
PNM
PNM CONCRETE HOLDING POND
PERSON GENERATING STATION
POWER OPERATIONS BUILDING
APPROXIMATE LOCATION OF VAPOR EXTRACTION SYSTEM
CAPITAL LUMBER CO.
RCRA FACILITY BOUNDARY
RIO BRAVO BLVD.
PSMW-1
PSMW-1B
PSMW-1R
PSMW-2
PSMW-3B
PSMW-4
PSMW-5
PSMW-6
PSMW-7
PSMW-8
PSMW-8B
PSMW-8A
PSMW-9
PSMW-10
PSMW-11
PSMW-12B
PSMW-12A
VEW/DW WELL
PSMW-13B
PSMW-13A
PSMW-14
PSMW-15B
PSMW-16
P&T WELL
PSMW-17
PSMW-18
PSMW-19
PSMW-20
PSMW-21
PSMW-22
PSMW-23
PSMW-24
P&T WELL
PSMW-25
P&T WELL
PSMW-26
P&T WELL
PSMW-27
PSMW-28
PSMW-29
PSMW-31
PSMW-32
PSMW-35
PSMW-36
PSMW-37
PSPW-1
PSPW-2
PSPW-3
PSPW-4
PSPW-5
PSPW-6
200 100 0 200 400
SCALE: 1" = 200'
LEGEND
GROUNDWATER PUMPING WELL
MONITORING WELL
PRODUCTION WELL (SEALED)
ROADS
PROPERTY LINES
SITE MAP
Public Service Company of New Mexico
Person Generating Station
Albuquerque, New Mexico
PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado
K:\PNM\850N0860, 04/19/95 at 11:48

II. Operational History

The GTS was started on Friday, January 27, 1995, with treated effluent being sent to the UNM Championship Golf Course.

During the first month of operation, a series of groundwater level measurements were taken at monitoring wells in the vicinity of PSMW-16 and the VEW in order to determine the radius of influence of each well on the surrounding aquifer. Results from that data indicate that PSMW-16 has a radius of influence of 600 feet when pumped at 13.3 gpm, and the VEW has a radius of influence of 80 feet when pumped at 5.6 gpm.

In August 1995, a third extraction well was added to the GTS. This well was designated EW-1 and was drilled and completed specifically for extraction purposes.

During 1995, the GTS encountered periodic minor problems as well as a more serious problem with mineralization of the system components down stream from the air stripper. PNM contractor Parsons-Engineering Science, Inc. was asked to evaluate potential solutions for this problem. In late November, the mineralization problem became so severe that the GTS was shut down pending resolution of the problem.

The GTS was kept down during most of the first quarter of 1996 while the mineralization problem was studied. Parsons-Engineering Science, Inc. evaluated several alternatives including chemical treatment by acid addition, chemical treatment by inhibitors, chemical treatment by water softening, and a mixed oxidant process. After discussing the various alternatives with the NMED Groundwater Bureau (as to the effect of treatment on the discharge plan) and the UNM Championship Golf Course superintendent, PNM selected the acid treatment system for implementation.

Installation of the acid treatment system began in early May 1996. In early April, construction activities were initiated to convert monitor wells PSMW-24, PSMW-25, and PSMW-26 to extraction wells. Consequently, the GTS was operated only sporadically during May and June. The GTS resumed regular operation in mid-June and has operated satisfactorily during the third and fourth quarters.

III. Groundwater Treatment Effectiveness

Figures 2, 3, and 4 show graphs of concentration of total VOC's as measured at wells PSMW-16, VEW, and EW-1 over the operation of the GTS. Figure 5 shows a graph of concentration of total VOC's in the combined influent from wells PSMW-24, PSMW-25, and PSMW-26 during the third and fourth quarter operation of the GTS. More detailed data for 1995 and 1996 are shown in Tables 1, 2, 3, and 4. From February 1, 1995, through March 8, 1995, the total Chlorinated VOC's dropped from 318.4 ppb to 128.3 ppb at PSMW-16. During the same period, total Chlorinated VOC's dropped from 6.1 ppb to 1.8 ppb at the VEW. As anticipated, concentrations rose again when the system was restarted in March.

During the remainder of 1995, concentrations have held relatively steady at PSMW-16 prior to GTS shutdown in November. Concentrations at VEW have fluctuated up and down. Concentrations at EW-1 have risen over the period of its operation. At GTS re-start in March 1996, total Chlorinated VOC's rose dramatically at both PSMW-16 and VEW (EW-1 was not re-started at this time and was not tested). In April 1996, prior to the installation of the acid treatment system, total Chlorinated VOC's had dropped at both PSMW-16 and VEW. Total Chlorinated VOC's increased slightly at PSMW-16 and in the combined influent from PSMW-24, PSMW-25, and PSMW-26 once the GTS resumed full operation in July 1996, but had dropped by the end of the third quarter. Total Chlorinated VOC's have continued to drop at VEW. EW-1 total Chlorinated VOC's increased dramatically once the system resumed full operation, but had dropped by the end of the third quarter.

During the fourth quarter total Chlorinated VOC's have remained relatively constant at VEW and PSMW-16. Total Chlorinated VOC's in the combined influent from PSMW-24, PSMW-25, and PSMW-26 increased at the beginning of the fourth quarter, but had decreased markedly by the end of the quarter. Total Chlorinated VOC's have increased at EW-1 during this quarter.

Laboratory reports for this quarter are contained in appendix A.

Figure 2
Total VOCs at PSMW-16

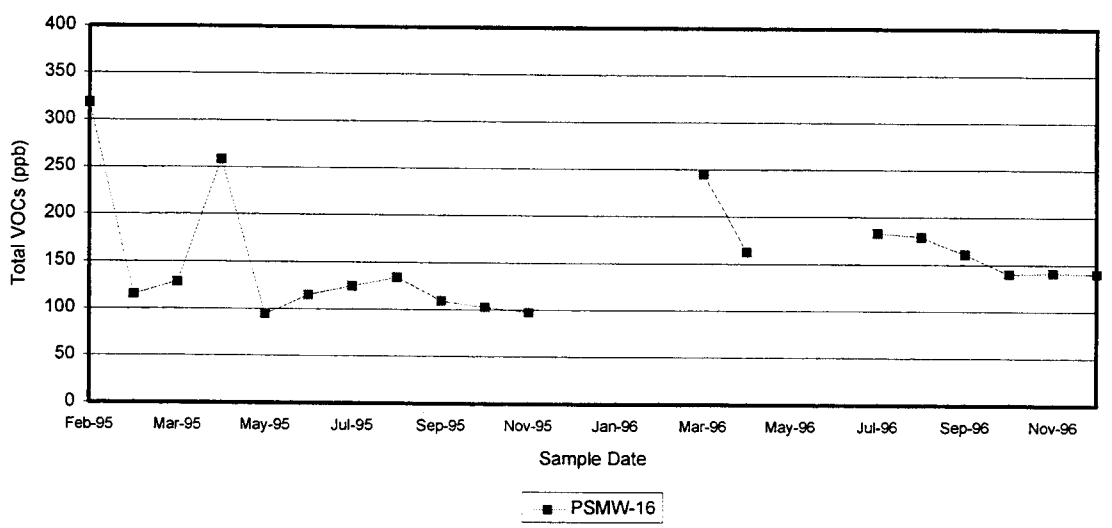


Figure 3
Total VOCs at the VEW

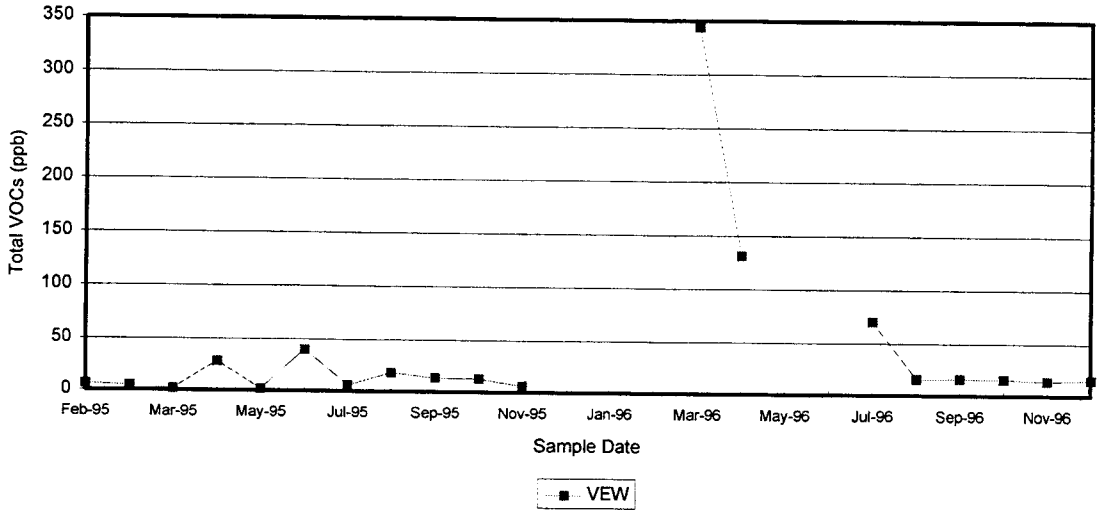


Figure 4
Total VOCs at EW-1

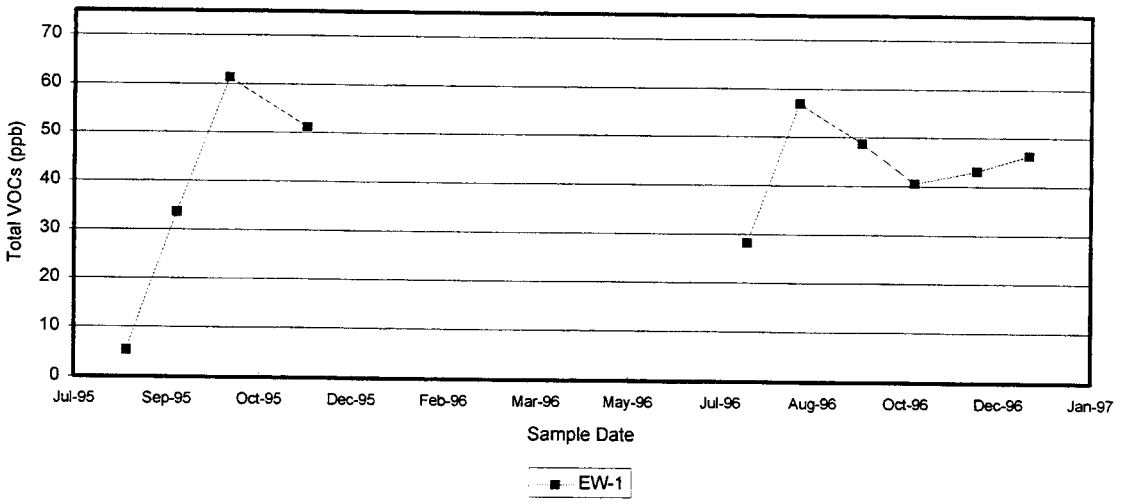


Figure 5
Total VOCs at PSMW-24,25,26

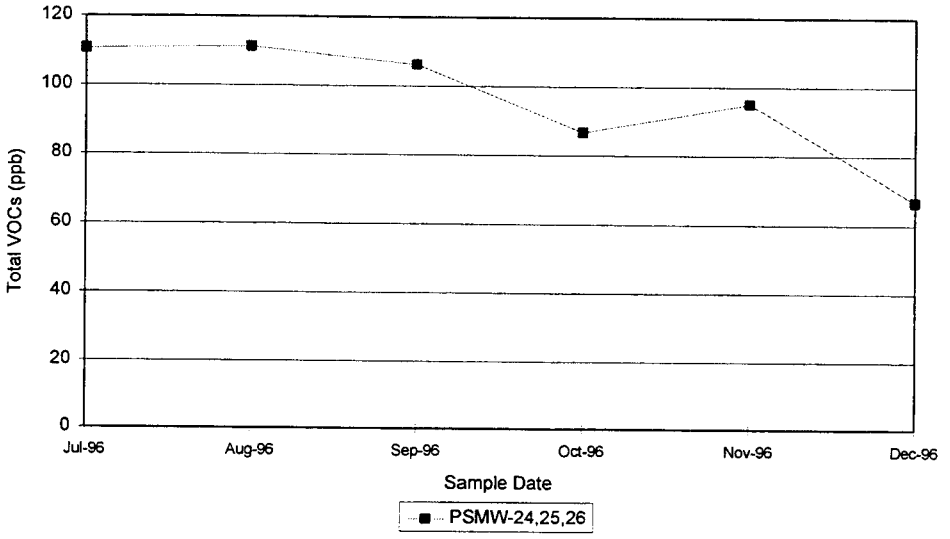


Table 1
Influent Concentrations at PSMW-16

Date	Laboratory Report No.	PCE (ppb)	DCE (ppb)	Total VOC's (ppb)
2/1/95	502304	200	110	318.4
2/15/95	502376	69	39	115.0
3/8/95	503317	78	46	128.3
4/10/95	504341	170	81	258.6
5/18/95	505371	62	30	94.6
6/21/95	506396	76	36	114.8
7/12/95	507327	75	41	124.3
8/17/95	508405	83	45	134.0
9/13/95	509339	69	35	109.2
10/11/95	510335	66	32	102.8
11/22/95	511367	58	35	97.5
3/20/96	603347	180	63	245.3
4/17/96	604367	110	46	162.5
7/18/96	607334	120	54	182.9
8/15/96	608331	120	51	179.1
9/18/96	609338	110	43	160.9
10/16/96	610361	97	37	140.0
11/19/96	611331	94	42	141.0
12/17/96	612331	96	39	140.0

Table 2
Influent Concentrations at VEW

Date	Laboratory Report No.	PCE (ppb)	DCE (ppb)	Total VOC's (ppb)
2/1/95	502304	5.3	0.8	6.1
2/15/95	502376	4	0.5	4.5
3/8/95	503317	1.5	0.3	1.8
4/10/95	504341	21	5.8	28.1
5/18/95	505371	1.4	<0.2	1.4
6/21/95	506396	25	9.4	39.8
7/12/95	507327	3.5	1.0	5.8
8/17/95	508405	6.4	1.1	17.7
9/13/95	509405	9.7	1.9	12.9
10/11/95	510335	9.3	1.8	12.5
11/22/95	511367	4.6	1.1	6.0
3/20/96	603347	270	72	344.3
4/17/96	604367	94	24	131.2
7/18/96	607334	47	14	70.6
8/15/96	608331	5.0	2.1	15.2
9/18/96	609338	3.1	2.1	15.8
10/16/96	610361	3.2	2.1	15.3
11/19/96	611331	0.8	1.8	13.6
12/17/96	612331	<0.5	2.0	15.0

Table 3
Influent Concentrations at EW-1

Date	Laboratory Report No.	PCE (ppb)	DCE(ppb)	Total VOC's (ppb)
8/17/95	508405	3.5	0.9	5.4
9/13/95	509339	25	6.1	33.6
10/11/95	510335	49	8.8	61.4
11/22/95	511367	38	9.5	51.3
7/18/96	607334	20	5.7	28.2
8/15/96	608331	45	8.4	57.0
9/18/96	609338	37	7.8	48.8
10/16/96	610361	29	7.3	40.6
11/19/96	611331	32	7.0	43.2
12/17/96	612331	33	7.7	46.4

Table 4
Combined Influent Concentrations at PSMW-24, 25, and 26

Date	Laboratory Report No.	PCE (ppb)	DCE(ppb)	Total VOC's (ppb)
7/18/96	607334	49	55	110.6
8/15/96	608331	47	50	111.3
9/18/96	609338	58	44	106.3
10/16/96	610361	41	40	86.8
11/19/96	611331	46	44	95.2
12/17/96	612331	33	30	66.7

IV. Operational Dates

The GTS was not operated from January 1, 1996, through March 19, 1996, due to mineralization problems as discussed above. The GTS was re-started on March 20, 1996. The acid treatment system was installed during the second quarter of 1996. Also during the second quarter, monitor wells PSMW-24, PSMW-25, and PSMW-26 were converted to extraction wells as part of Corrective Action Program Phase II implementation. During the fourth quarter the meter measuring the UNM Championship Golf Course discharge was converted to a more accurate electronic Fisher Porter meter. The table below details significant operational activities for this quarter.

Table 5
Significant Operational Activities

Date	Activity
11/27/96	Conversion of UNM Championship Golf Course discharge meter (Badger meter no. 94398834) to Fisher Porter electronic meter (Fisher Porter meter no. 960307112).

V. Influent and Effluent Flow Volumes

Flow totalizing meters are present on each influent well line and on the effluent flow line. Table 6 below details flow volumes from each influent well and the effluent line. Differences between total effluent and total influent may be attributed to water loss (evaporation) out the stack in the air stripper system and to differences, inaccuracies, and operational problems with the flow meters.

Table 6
Influent and Effluent Flow Volumes

Source	Meter Number	Start Reading	End Reading	Volume (Gallons)
Flow Volumes for October 1996:				
Influent (VEW)	Badger Meter No. 94976130	1,819,757	1,966,116	146,359
Influent (PSMW-16)	Hayes Meter No. 29408700	826,336	1,032,626	206,290
Influent (EW-1)	Hayes Meter No. 29408732	643,292	797,917	154,625
Influent (PSMW-24)	Fisher Porter Meter No. 960307112	536,480	676,750	140,270
Influent (PSMW-25)	Fisher Porter Meter No. 960307112	158,110	192,340	34,230
Influent (PSMW-26)	Fisher Porter Meter No. 960307112	273,720	354,570	80,850
Monitor Well Sample Purge	NA	NA	NA	913
Effluent (to Golf Course)	Badger Meter No. 94398834	6,431,040	7,209,800	778,760
Flow Volumes for November 1996:				
Influent (VEW)	Badger Meter No. 94976130	1,966,116	2,126,735	160,619
Influent (PSMW-16)	Hayes Meter No. 29408700	1,032,626	1,265,780	233,154
Influent (EW-1)	Hayes Meter No. 29408732	797,917	968,639	170,722
Influent (PSMW-24)	Fisher Porter Meter No. 960307112	676,750	859,090	182,340
Influent (PSMW-25)	Fisher Porter Meter No. 960307112	192,340	216,670	24,330
Influent (PSMW-26)	Fisher Porter Meter No. 960307112	354,570	450,190	95,620
Effluent (to Golf Course)	Badger Meter No. 94398834	7,209,800	7,412,500	202,700
Effluent (to Golf Course)	Fisher Porter Meter No. 960307112	0	660,733	660,733
Flow Volumes for December 1996:				
Influent (VEW)	Badger Meter No. 94976130	2,126,735	2,282,738	156,003
Influent (PSMW-16)	Hayes Meter No. 29408700	1,265,780	1,464,622	198,842
Influent (EW-1)	Hayes Meter No. 29408732	968,639	1,139,948	171,309
Influent (PSMW-24)	Fisher Porter Meter No. 960307112	859,090	1,102,128	243,038
Influent (PSMW-25)	Fisher Porter Meter No. 960307112	216,670	274,570	57,900
Influent (PSMW-26)	Fisher Porter Meter No. 960307112	450,190	526,530	76,340
Effluent (to Golf Course)	Fisher Porter Meter No.960307112	660,733	1,505,362	844,629
Quarterly Total for Influent (VEW+PSMW-16+EW-1+PSMW-24+PSMW-25+PSMW-26+MW Purge)				2,533,754
Quarterly Total for Effluent:				2,486,822
Annual Totals				
Annual Cumulative Influent Total for 1996:				5,662,956
Annual Cumulative Effluent Total for 1996:				5,681,822

VI. Laboratory Analysis

A. Influent/Effluent Sampling for VOC's (8010 analysis)

During the fourth quarter, influent and effluent sampling was conducted pursuant to the routine schedule outlined in the NMED approved discharge plan, i.e., once each month. (The GTS was not operational during January or February 1996, and was operated only sporadically during May and June 1996, thus no influent/effluent samples were collected.) Total VOC analysis of GTS Influent and Effluent (after GAC units) is shown graphically in Figure 6. More detailed data are shown in Table 7 below. Laboratory analytical data reports are contained in appendix A. All influent/effluent sampling results show that the GTS has consistently removed chlorinated VOC contaminants in the 50 to 200 ppb range to levels below laboratory detection limits in the effluent sent to the golf course. Laboratory analysis of the water stream at a point after the air stripper and before the granular activated carbon treatment also show that at these influent concentrations and a flow rate of approximately 20 to 25 gpm, the air stripper alone is capable of treating the groundwater to concentrations consistently below or near laboratory detection limits for chlorinated VOC's.

Figure 6
Total VOCs GTS Influent vs. Effluent

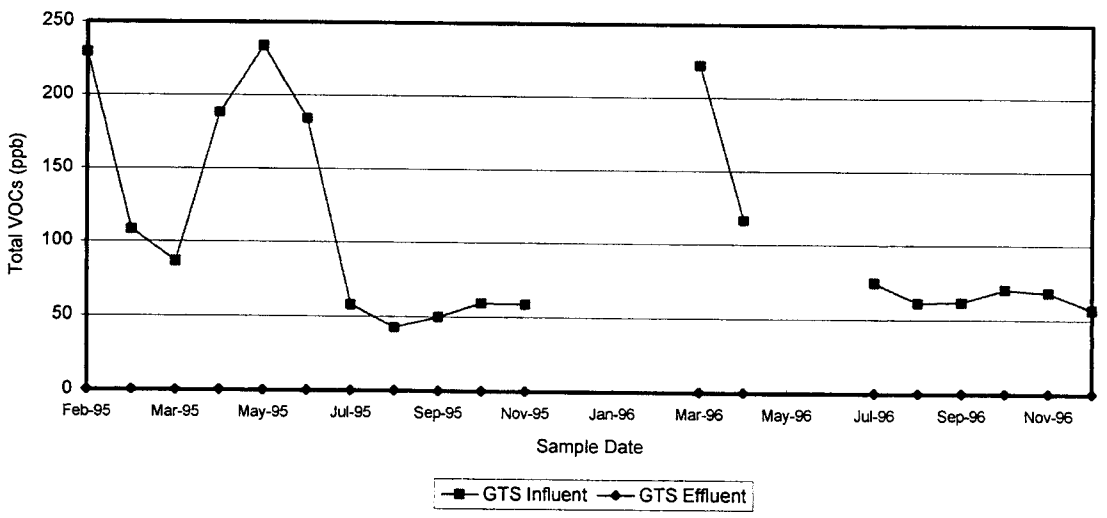


Table 7
Influent and Effluent VOC Concentrations

Sampling Date: 10/16/96	Lab Report Number: 610361		
VOC Compound	Influent (ppb)	Effluent After Air Stripper (ppb)	Effluent After GAC Unit (ppb)
Chloroform	2.0	< 0.5	< 0.5
1,1-Dichloroethane	1.0	< 0.3	< 0.3
1,1-Dichloroethene	22	< 0.2	< 0.2
Tetrachloroethene	43	< 0.5	< 0.5
1,1,1-Trichloroethane	2.4	< 1.0	< 1.0
TOTAL VOC'S	70.4	BDL	BDL

Sampling Date: 11/19/96	Lab Report Number: 611331		
VOC Compound	Influent (ppb)	Effluent After Air Stripper (ppb)	Effluent After GAC Unit (ppb)
Chloroform	1.6	< 0.5	< 0.5
1,1-Dichloroethane	1.0	< 0.3	< 0.3
1,1-Dichloroethene	21	< 0.2	< 0.2
Tetrachloroethene	42	< 0.5	< 0.5
1,1,1-Trichloroethane	2.6	< 1.0	< 1.0
TOTAL VOC'S	68.2	BDL	BDL

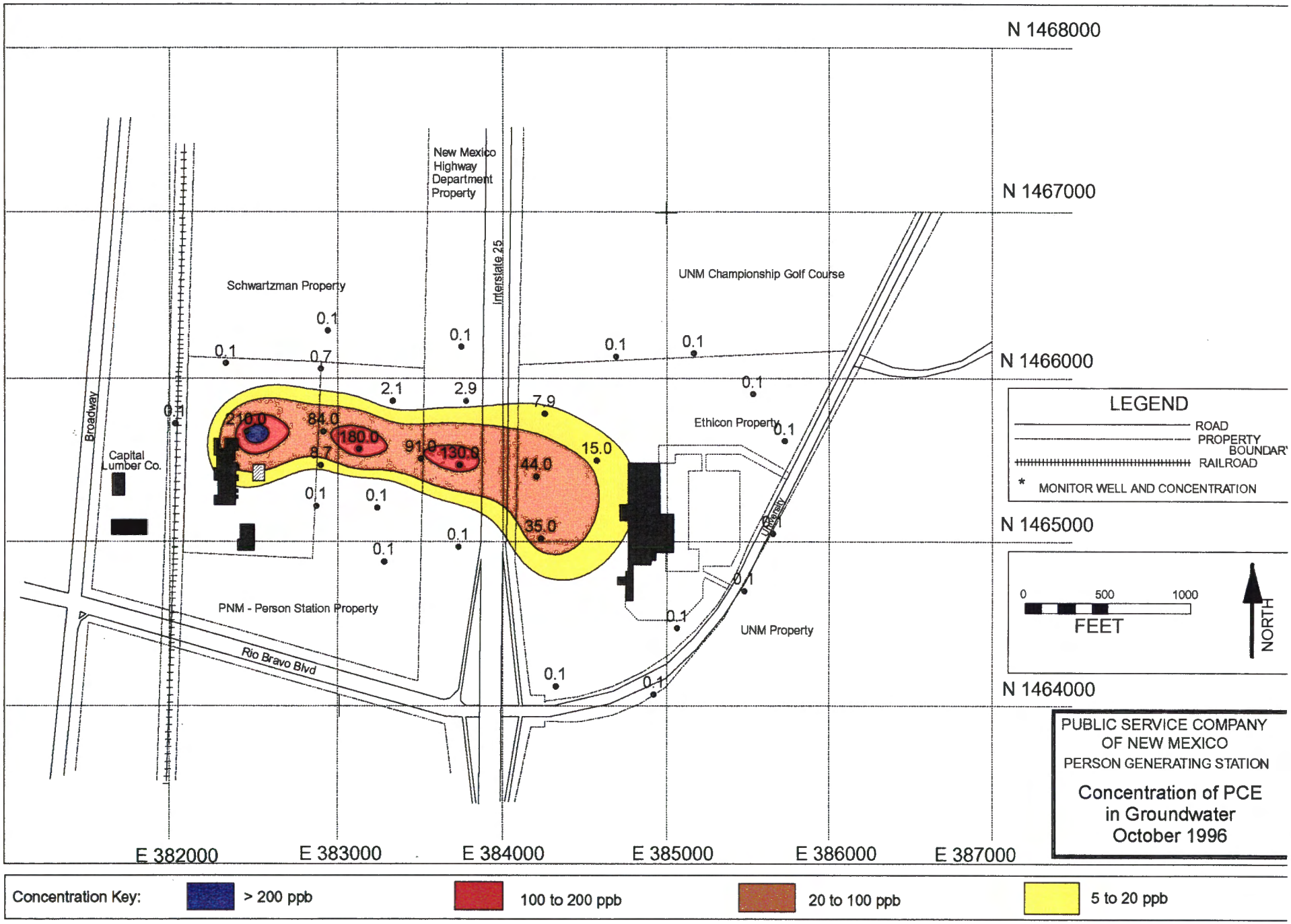
Sampling Date: 12/17/96	Lab Report Number: 612331		
VOC Compound	Influent (ppb)	Effluent After Air Stripper (ppb)	Effluent After GAC Unit (ppb)
Chloroform	1.4	< 0.5	< 0.5
1,1-Dichloroethane	0.9	< 0.3	< 0.3
1,1-Dichloroethene	18	< 0.2	< 0.2
Tetrachloroethene	34	< 0.5	< 0.5
1,1,1-Trichloroethane	2.5	< 1.0	< 1.0
TOTAL VOC'S	56.8	BDL	BDL

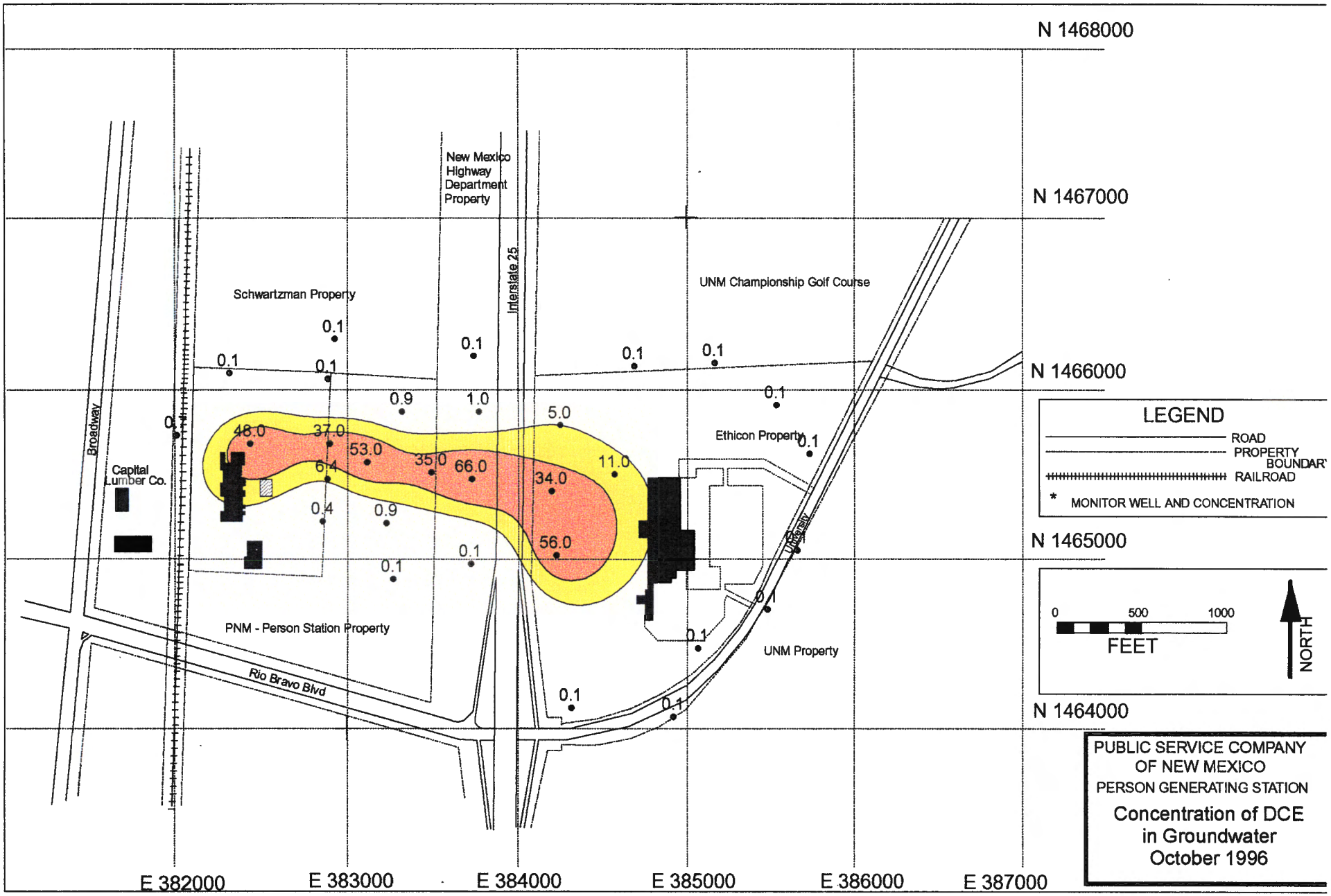
B. Golf Course Pond Sampling

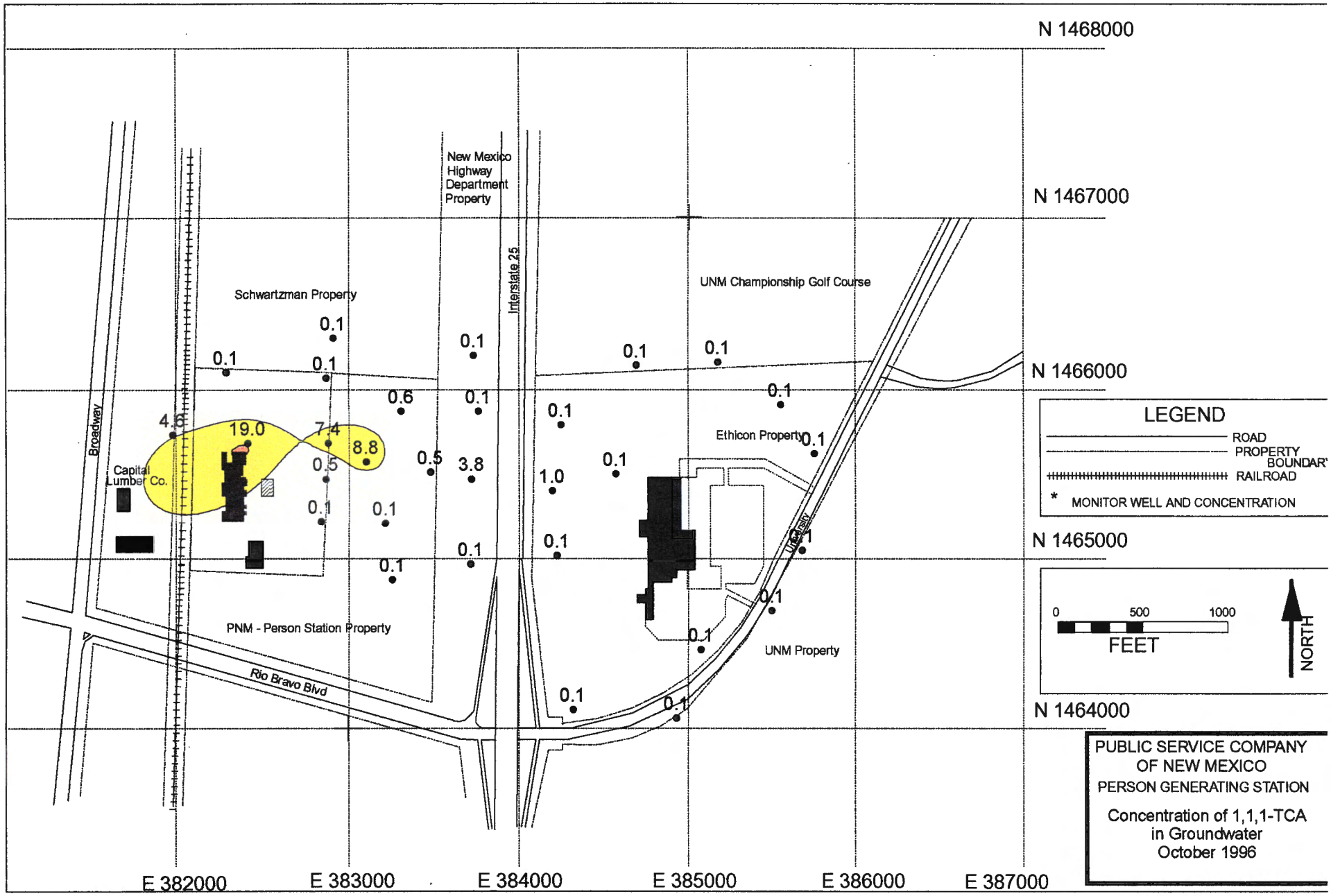
The GTS NMED Discharge Plan (DP 1006) requires monthly sampling of the east and west ponds for 8010 analysis during each month of operation. During the fourth quarter, the ponds were sampled three times pursuant to this requirement. No EPA Method 8010 parameters were detected in the samples. Copies of the laboratory reports are contained in appendix A.

VII. Groundwater Sampling

Under the RCRA permit, a network of groundwater monitoring wells are sampled on a twice per year schedule (normally in the spring and fall). Once sampling is complete and analytical results have been received, contour maps showing the distribution of the contaminants in the groundwater are prepared. Contour maps for PCE, DCE, and TCA for the most recent sampling event are shown in Figures 7, 8, and 9.


N 1468000
N 1467000
N 1466000
N 1465000
N 1464000
E 382000
E 383000
E 384000
E 385000
E 386000
E 387000
New Mexico Highway Department Property
Interstate 25
Schwartzman Property
UNM Championship Golf Course
Ethicon Property
Capital Lumber Co.
Broadway
PNM - Person Station Property
Rio Bravo Blvd
UNM Property
University
210.0
84.0
180.0
8.7
91.0
130.0
44.0
35.0
15.0
7.9
2.1
2.9
0.7
0.1
LEGEND
ROAD
PROPERTY BOUNDARY
RAILROAD
* MONITOR WELL AND CONCENTRATION
0
500
1000
FEET
NORTH
PUBLIC SERVICE COMPANY OF NEW MEXICO
PERSON GENERATING STATION
Concentration of PCE in Groundwater October 1996
Concentration Key:
> 200 ppb
100 to 200 ppb
20 to 100 ppb
5 to 20 ppb


N 1468000
N 1467000
N 1466000
N 1465000
N 1464000
E 382000
E 383000
E 384000
E 385000
E 386000
E 387000
New Mexico Highway Department Property
Interstate 25
Schwartzman Property
UNM Championship Golf Course
Ethicon Property
Broadway
Capital Lumber Co.
PNM - Person Station Property
Rio Bravo Blvd
UNM Property
University
48.0
37.0
53.0
35.0
66.0
34.0
56.0
11.0
5.0
6.4
0.4
0.9
1.0
0.1
LEGEND
ROAD
PROPERTY BOUNDAR
RAILROAD
* MONITOR WELL AND CONCENTRATION
0
500
1000
FEET
NORTH
PUBLIC SERVICE COMPANY OF NEW MEXICO
PERSON GENERATING STATION
Concentration of DCE in Groundwater October 1996
Concentration Key:
> 200 ppb
100 to 200 ppb
20 to 100 ppb
5 to 20 ppb


N 1468000
N 1467000
N 1466000
N 1465000
N 1464000
E 382000
E 383000
E 384000
E 385000
E 386000
E 387000
New Mexico Highway Department Property
Interstate 25
Schwartzman Property
UNM Championship Golf Course
Ethicon Property
Broadway
Capital Lumber Co.
PNM - Person Station Property
Rio Bravo Blvd
UNM Property
4.6
19.0
7.4
8.8
0.5
0.5
3.8
0.6
1.0
0.1
LEGEND
ROAD
PROPERTY BOUNDARY
RAILROAD
* MONITOR WELL AND CONCENTRATION
0
500
1000
FEET
NORTH
PUBLIC SERVICE COMPANY OF NEW MEXICO
PERSON GENERATING STATION
Concentration of 1,1,1-TCA in Groundwater October 1996
Concentration Key:
> 200 ppb
100 to 200 ppb
20 to 100 ppb
5 to 20 ppb

Appendix A. Laboratory Reports

American Environmental Network, Inc.

AEN I.D. 610361

October 29, 1996

PUBLIC SERVICE COMPANY
ALVARADO SQUARE-MSO408
ALBUQUERQUE, NM 87158

Project Name PERSON STATION
Project Number REMEDIATION

Attention: CHUCK ARATER

On 10/16/96 American Environmental Network (NM), Inc. (ADHS License No. AZ0015), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: mt

Enclosure

2709-D Pan American Freeway, NE • Albuquerque, NM 87107 • (505) 344-3777 • Fax (602) 344-4413

American Environmental Network, Inc.

CLIENT	: PUBLIC SERVICE COMPANY	AEN I.D.	: 610361
PROJECT #	: REMEDIATION	DATE RECEIVED	: 10/16/96
PROJECT NAME	: PERSON STATION	REPORT DATE	: 10/29/96

AEN ID. #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	GTS INFLUENT	AQUEOUS	10/16/96
02	GTS-Air Stripper Effluent East	AQUEOUS	10/16/96
03	GTS GAC EFFLUENT EAST	AQUEOUS	10/16/96
04	UNM EAST RESERVOIR	AQUEOUS	10/16/96
05	UNM WEST RESERVOIR	AQUEOUS	10/16/96
06	VEW INFLUENT	AQUEOUS	10/16/96
07	PSMW-16 INFLUENT	AQUEOUS	10/16/96
08	EW-1 INFLUENT	AQUEOUS	10/16/96
09	PSMW-24,25,26 INFLUENT	AQUEOUS	10/16/96
10	TRIP BLANK	AQUEOUS	10/16/96

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

AEN I.D.: 610361

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	GTS INFLUENT	AQUEOUS	10/16/96	NA	10/27/96	1
02	GTS-AIR STRIPPER EFFLUENT EAST	AQUEOUS	10/16/96	NA	10/27/96	1
03	GTS GAC EFFLUENT EAST	AQUEOUS	10/16/96	NA	10/27/96	1

PARAMETER	DET. LIMIT	UNITS	01	02	03
BROMODICHLORMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
BROMOFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROFORM	0.5	**UG/L**	**2.0**	< 0.5	< 0.5
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHANE	0.3	**UG/L**	**1.0**	< 0.3	< 0.3
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
1-DICHLOROETHENE	0.2	**UG/L**	**22 D(10)**	< 0.2	< 0.2
s-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TETRACHLOROETHENE	0.5	**UG/L**	**43 D(10)**	< 0.5	< 0.5
1,1,1-TRICHLOROETHANE	1.0	**UG/L**	**2.4**	< 1.0	< 1.0
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5
SURROGATE:					
BROMOCHLOROMETHANE (%)			105	114	103
SURROGATE LIMITS	(73 - 117)				

CHEMIST NOTES: D(10)DILUTED 10X, ANALYZED 10/27/96.

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

AEN I.D.: 610361

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	UNM EAST RESERVOIR	AQUEOUS	10/16/96	NA	10/27/96	1
05	UNM WEST RESERVOIR	AQUEOUS	10/16/96	NA	10/27/96	1
06	VEW INFLUENT	AQUEOUS	10/16/96	NA	10/27/96	1

PARAMETER	DET. LIMIT	UNITS	04	05	06
BROMODICHLORMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
BROMOFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHANE	0.3	**UG/L**	< 0.3	< 0.3	**2.7**
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
1-DICHLOROETHENE	0.2	**UG/L**	< 0.2	< 0.2	**2.1**
-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1 0	< 1.0	< 1.0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TETRACHLOROETHENE	0.5	**UG/L**	< 0.5	< 0.5	**3.2**
1,1,1-TRICHLOROETHANE	1.0	**UG/L**	< 1.0	< 1.0	**7.3**
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5
SURROGATE:					
BROMOCHLOROMETHANE (%)			110	108	111
SURROGATE LIMITS	(73 - 117)				

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

AEN I.D.: 610361

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	PSMW-16 INFLUENT	AQUEOUS	10/16/96	NA	10/27/96	1
08	EW-1 INFLUENT	AQUEOUS	10/16/96	NA	10/27/96	1
09	PSMW-24,25,26 INFLUENT	AQUEOUS	10/16/96	NA	10/27/96	1

PARAMETER	DET. LIMIT	UNITS	07	08	09
BROMODICHLORMETHANE	0.2	**UG/L**	< 0.2	< 0.2	**0.3**
BROMOFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROFORM	0.5	**UG/L**	**1.4**	< 0.5	**5.0**
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHANE	0.3	**UG/L**	**0.7**	**1.5**	**0.5**
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHENE	0.2	**UG/L**	**37 D(10)**	**7.3**	**40 D(10)**
-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
ıans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1 0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TETRACHLOROETHENE	0.5	**UG/L**	**97 D(10)**	**29 D(10)**	**41 D(10)**
1,1,1-TRICHLOROETHANE	1.0	**UG/L**	**3.9**	**2.8**	< 1.0
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0 3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0 5	< 0.5
SURROGATE:					
BROMOCHLOROMETHANE (%)			108	108	109
SURROGATE LIMITS	(73 - 117)				

CHEMIST NOTES: D(10)= DILUTED 10X, ANALYZED 10/28/96

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

AEN I.D.: 610361

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
10	TRIP BLANK	AQUEOUS	10/16/96	NA	10/27/96	1

PARAMETER	DET. LIMIT	UNITS	10
BROMODICHLORMETHANE	0.2	UG/L	< 0.2
BROMOFORM	0.5	UG/L	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5
CHLOROFORM	0.5	UG/L	< 0.5
CHLOROMETHANE	1.0	UG/L	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5
1,1-DICHLOROETHANE	0.3	UG/L	< 0.3
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5
1,1-DICHLOROETHENE	0.2	UG/L	< 0.2
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2
METHYLENE CHLORIDE	2.0	UG/L	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5
TETRACHLOROETHENE	0.5	UG/L	< 0.5
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5

SURROGATE:

BROMOCHLOROMETHANE (%)		108
SURROGATE LIMITS	(73 - 117)	

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8010		
BLANK I.D.	: 102696 B	AEN I.D.	: 610361
CLIENT	: PUBLIC SERVICE COMPANY	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 10/26/96
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5

SURROGATE:

BROMOCHLOROMETHANE (%)		113
SURROGATE LIMITS	(73 - 117)	

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8010		
BLANK I.D.	: 102796	AEN I.D.	: 610361
CLIENT	: PUBLIC SERVICE COMPANY	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 10/27/96
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5

SURROGATE:

BROMOCHLOROMETHANE (%)		110
SURROGATE LIMITS	(73 - 117)	

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8010		
BLANK I.D.	: 102896	AEN I.D.	: 610361
CLIENT	: PUBLIC SERVICE COMPANY	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 10/28/96
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5

SURROGATE:

BROMOCHLOROMETHANE (%)		107
SURROGATE LIMITS	(73 - 117)	

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY - QUALITY CONTROL
MSMSD

TEST	: PURGEABLE HALOCARBONS (EPA 8010)		
MSMSD #	: 610354-01	AEN I.D.	: 610361
CLIENT	: PUBLIC SERVICE COMPANY	DATE EXRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 10/27/96
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS
		UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
CHLOROBENZENE	<0.5	10.0	11.7	117	10.0	100	16	(87 - 124)	20
1,1-DICHLOROETHENE	<0.2	10.0	10.5	105	9.0	90	15	(44 - 99)	20
TRICHLOROETHENE	<0.3	10.0	9.6	96	10.7	107	11	(89 - 127)	20

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc., Albuquerque, NM
San Diego • Phoenix • Seattle • Pensacola • Ft. Collins • Portland • Albuquerque

CHAIN OF CUSTODY

DATE: _____ PAGE 1 OF 2

LAB # 610361

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER: RON JOHNSON

COMPANY: PUBLIC SERVICE COMPANY OF NEW MEXICO
ADDRESS: ALVARADO SQUARE - ~~0408~~ ER 16
ALBUQUERQUE, NM 87158
PHONE: (505) 241-~~2888~~ 4744
FAX: (505) 241-~~2870~~ 2487

BILL TO: SAME
COMPANY:
ADDRESS:
ATTN: ~~RON JOHNSON~~ CHUCK Prater

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020)	BTXE/MTBE (8020)			Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.			Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)			SDWA Primary Standards - Arizona	SDWA Secondary Standards - Arizona	SDWA Primary Standards - Federal	SDWA Secondary Standards - Federal			The 13 Priority Pollutant Metals	RCRA Metals by Total Digestion	RCRA Metals by TCLP (1311)		NUMBER OF CONTAINERS
GTS-INFLUENT	10-16-96	0920	W	-01							X																						3
GTS-AIR STRIPPER EFFLUENT EAST	10/16-96	0919	W	-02							X																						3
GTS-AIR STRIPPER EFFLUENT WEST			~~W~~								~~X~~																						
GTS GAC EFFLUENT EAST	10-16-96	0916	W	-03							X																						3
GTS GAC EFFLUENT WEST	—		~~W~~								~~X~~																						
UNM EAST RESERVOIR	10-16-96	1044	W	-04							X																						3
UNM WEST RESERVOIR	10/16-96	1036	W	-05							X																						3
TRIP BLANK			W								X																						

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJ. NO.:	REMEDIATION	NO. CONTAINERS	15
PROJ. NAME:	PERSON STATION	CUSTODY SEALS	(Y) N / NA
P.O. NO.:		RECEIVED INTACT	Yes
SHIPPED VIA:		RECEIVED COLD	Field

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☑ 2 WEEK

Comments:

PLEASE PROVIDE DATA ON DISKETTE AS WELL AS HARD COPY

SAMPLED & RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Chuck at Time: 1122	Signature: Time:	Signature: Time:
Printed Name: Chuck prater Date: 10-16-96	Printed Name: Date:	Printed Name: Date:
Company: PNM Phone: 241-4214	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: (LAB) 3.
Signature: Time:	Signature: Time:	Signature: [illegible] Time: 1130
Printed Name: Date:	Printed Name: Date:	Printed Name: John Caldwell Date: 10/16/96
Company:	Company:	Analytical Technologies, Inc.

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-10[illegible] Portland (503) 684-0447 • Albuquerque (505) 344-3777 DISTRIBUTION: White, Canary - ATI • Pink ORIGINATOR

Analytical Technologies, Inc. / Albuquerque

San Diego • Phoenix • Seattle • Pensacola • Ft. Collins • Portland • Albuquerque

CHAIN OF CUSTODY

DATE: _____ PAGE 2 OF 2

LAB: 610361

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER: RON JOHNSON

COMPANY: PUBLIC SERVICE COMPANY OF NEW MEXICO

ADDRESS: ALVARADO SQUARE - [redacted] ER 16

ALBUQUERQUE, NM 87158

PHONE: (505) [redacted]8 241-4744

FAX: (505) 241-[redacted] 2487

BILL TO: SAME

COMPANY:

ADDRESS:

ATTN: [redacted] CHUCK Amter

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020)	BTXE/MTBE (8020)			Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.			Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)			SDWA Primary Standards - Arizona	SDWA Secondary Standards - Arizona	SDWA Primary Standards - Federal	SDWA Secondary Standards - Federal			The 13 Priority Pollutant Metals	RCRA Metals by Total Digestion	RCRA Metals by TCLP (1311)		NUMBER OF CONTAINERS
VEW INFLUENT	10-16-96	0925	W	-06							X																						3
PSMW-16 INFLUENT	10-16-96	0922	W	-07							X																						3
EW-1 INFLUENT	10/16/96	0923	W	-08							X																						3
PSMW-24,25,26 INFLUENT	10/16/96	0921	W	-09							X																						2
TRIP BLANK	10-16-96	0925	W	-10							X																						1

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJ. NO.:	REMEDIATION	NO. CONTAINERS	13
PROJ. NAME:	PERSON STATION	CUSTODY SEALS	Y / N / NA
P.O. NO.:		RECEIVED INTACT	Yes
SHIPPED VIA:		RECEIVED COLD	Field

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☑ 2 WEEK

Comments:

PLEASE PROVIDE DATA ON DISKETTE AS WELL AS HARD COPY

SAMPLED & RELINQUISHED BY: 1.		RELINQUISHED BY: 2.		RELINQUISHED BY: 3.	
Signature: Chuck	Time: 1122	Signature:	Time:	Signature:	Time:
Printed Name: Chuck Amter	Date: 10-16-96	Printed Name:	Date:	Printed Name:	Date:
Company: PNM	Phone: 241-4744	Company:		Company:	

RECEIVED BY: 1.		RECEIVED BY: 2.		RECEIVED BY: (LAB) 3.	
Signature:	Time:	Signature:	Time:	Signature: John Calderon	Time: 1130
Printed Name:	Date:	Printed Name:	Date:	Printed Name: Tobin Calderon	Date: 10/16/96
Company:		Company:		Analytical Technologies, Inc.	

American Environmental Network, Inc.

AEN I.D. 611331

November 22, 1996

PUBLIC SERVICE COMPANY
ALVARADO SQUARE - ER16
ALBUQUERQUE, NM 87158

Project Name PERSON STATION
Project Number REMEDIATION

Attention: CHUCK ARATER

On 11/19/96 American Environmental Network (NM), Inc. (ADHS License No. AZ0015), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: mt

Enclosure

2709-D Pan American Freeway, NE • Albuquerque, NM 87107 • (505) 344-3777 • Fax (505) 344-4413

American Environmental Network, Inc.

CLIENT	: PUBLIC SERVICE COMPANY	AEN I.D.	: 611331
PROJECT #	: REMEDIATION	DATE RECEIVED	: 11/19/96
PROJECT NAME	: PERSON STATION	REPORT DATE	: 11/22/96

AEN	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
	GTS-INFLUENT	AQUEOUS	11/19/96
	GTS-Air Stripper Effluent West	AQUEOUS	11/19/96
	GTS GAC EFFLUENT WEST	AQUEOUS	11/19/96
04	UNM EAST RESERVOIR	AQUEOUS	11/19/96
05	UNM WEST RESERVOIR	AQUEOUS	11/19/96
06	VEW INFLUENT	AQUEOUS	11/19/96
07	PSMW-16 INFLUENT	AQUEOUS	11/19/96
08	EW-1 INFLUENT	AQUEOUS	11/19/96
09	PSMW-24,25,26, INFLUENT	AQUEOUS	11/19/96
10	TRIP BLANK	AQUEOUS	11/19/96

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE COMPANY AEN I.D.: 611331
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

SAMPLE ID #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	GTS-INFLUENT	AQUEOUS	11/19/96	NA	11/19/96	1
02	GTS-AIR STRIPPER EFFLUENT WEST	AQUEOUS	11/19/96	NA	11/19/96	1
03	GTS GAC EFFLUENT WEST	AQUEOUS	11/19/96	NA	11/19/96	1

PARAMETER	DET. LIMIT	UNITS	01	02	03
BROMODICHLORMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
BROMOFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROFORM	0.5	**UG/L**	**1.6**	< 0.5	< 0.5
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHANE	0.3	**UG/L**	**1.0**	< 0.3	< 0.3
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHENE	0.2	**UG/L**	**21 D(5)**	< 0.2	< 0.2
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TETRACHLOROETHENE	0.5	**UG/L**	**42 D(5)**	< 0.5	< 0.5
1,1,1-TRICHLOROETHANE	1.0	**UG/L**	**2.6**	< 1.0	< 1.0
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5
SURROGATE:					
BROMOCHLOROMETHANE (%)			102	97	99
SURROGATE LIMITS	(73 - 117)				

CHEMIST NOTES:
D(5)=DILUTED 5X, ANALYZED 11/20/96.

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE COMPANY AEN I.D.: 611331
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	UNM EAST RESERVOIR	AQUEOUS	11/19/96	NA	11/19/96	1
05	UNM WEST RESERVOIR	AQUEOUS	11/19/96	NA	11/19/96	1
06	VEW INFLUENT	AQUEOUS	11/19/96	NA	11/19/96	1

PARAMETER	DET. LIMIT	UNITS	04	05	06
BROMODICHLORMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
BROMOFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHANE	0.3	**UG/L**	< 0.3	< 0.3	**2.7**
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHENE	0.2	**UG/L**	< 0.2	< 0.2	**1.8**
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TETRACHLOROETHENE	0.5	**UG/L**	< 0.5	< 0.5	**0.8**
1,1,1-TRICHLOROETHANE	1.0	**UG/L**	< 1.0	< 1.0	**8.3**
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5
SURROGATE:					
BROMOCHLOROMETHANE (%)			107	112	101
SURROGATE LIMITS	(73 - 117)				

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

AEN I.D.: 611331

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	PSMW-16 INFLUENT	AQUEOUS	11/19/96	NA	11/19/96	1
08	EW-1 INFLUENT	AQUEOUS	11/19/96	NA	11/19/96	1
09	PSMW-24,25,26 INFLUENT	AQUEOUS	11/19/96	NA	11/20/96	1

PARAMETER	DET. LIMIT	UNITS	07	08	09
BROMODICHLORMETHANE	0.2	**UG/L**	< 0.2	< 0.2	**0.2**
BROMOFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROFORM	0.5	**UG/L**	**1.1**	< 0.5	**4.5**
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHANE	0.3	**UG/L**	**0.5**	**1.5**	**0.5**
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHENE	0.2	**UG/L**	**42 D(10)**	**7.0**	**44 D(10)**
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TETRACHLOROETHENE	0.5	**UG/L**	**94 D(10)**	**32 D(5)**	**46 D(10)**
1,1,1-TRICHLOROETHANE	1.0	**UG/L**	**3.4**	**2.7**	< 1.0
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5
SURROGATE:					
BROMOCHLOROMETHANE (%)			101	102	99
SURROGATE LIMITS	(73 - 117)				

CHEMIST NOTES:
D(5)=DILUTED 5X, ANALYZED 11/20/96. D(10)=DILUTED 10X, ANALYZED 11/20/96.

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

AEN I.D.: 611331

SAMPLE ID #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
10	TRIP BLANK	AQUEOUS	11/19/96	NA	11/19/96	1

PARAMETER	DET. LIMIT	UNITS	10
BROMODICHLORMETHANE	0.2	UG/L	< 0.2
BROMOFORM	0.5	UG/L	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5
CHLOROFORM	0.5	UG/L	< 0.5
CHLOROMETHANE	1.0	UG/L	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5
1,1-DICHLOROETHANE	0.3	UG/L	< 0.3
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5
1,1-DICHLOROETHENE	0.2	UG/L	< 0.2
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2
METHYLENE CHLORIDE	2.0	UG/L	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5
TETRACHLOROETHENE	0.5	UG/L	< 0.5
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5

SURROGATE:
BROMOCHLOROMETHANE (%) 102
SURROGATE LIMITS (73 - 117)

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8010		
BLANK I.D.	: 111996	AEN I.D.	: 611331
CLIENT	: PUBLIC SERVICE COMPANY	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 11/19/96
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5

SURROGATE:

BROMOCHLOROMETHANE (%)		107
SURROGATE LIMITS	(73 - 117)	

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8010		
BLANK I.D.	: 112096	AEN I.D.	: 611331
CLIENT	: PUBLIC SERVICE COMPANY	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 11/20/96
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5

SURROGATE:

BROMOCHLOROMETHANE (%)		103
SURROGATE LIMITS	(73 - 117)	

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY - QUALITY CONTROL
MSMSD

TEST	: PURGEABLE HALOCARBONS (EPA 8010)		
MSMSD #	: 611331-05	AEN I.D.	: 611331
CLIENT	: PUBLIC SERVICE COMPANY	DATE EXRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 11/20/96
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS
		UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
CHLOROBENZENE	<0.5	10.0	10.7	107	10.3	103	4	(87 - 124)	20
1,1-DICHLOROETHENE	<0.2	10.0	9.9	99	9.7	97	2	(40 - 120)	20
TRICHLOROETHENE	<0.3	10.0	11.8	118	11.1	111	6	(89 - 127)	20

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

American Environmental Network, Inc.

AEN I.D. 612331

December 23, 1996

PUBLIC SERVICE COMPANY OF NM
ALVARADO SQUARE-MS0408
ALBUQUERQUE, NM 87158

Project Name PERSON STATION
Project Number REMEDIATION

Attention: CHUCK ARATER

On 12/17/96 American Environmental Network (NM), Inc. (ADHS License No. AZ0015), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: mt
cc: Ron Johnson
Enclosure

2709-D Pan American Freeway, NE • Albuquerque, NM 87107 • (505) 344-3777 • Fax (505) 344-4413

American Environmental Network, Inc.

CLIENT	: PUBLIC SERVICE COMPANY OF NM	AEN I.D.	: 612331
PROJECT #	: REMEDIATION	DATE RECEIVED	: 12/17/96
PROJECT NAME	: PERSON STATION	REPORT DATE	: 12/23/96

AEN ID. #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	GTS-INFLUENT	AQUEOUS	12/17/96
02	GTS-Air Stripper Effluent West	AQUEOUS	12/17/96
03	GTS GAC EFFLUENT WEST	AQUEOUS	12/17/96
04	UNM EAST RESERVOIR	AQUEOUS	12/17/96
05	UNM WEST RESERVOIR	AQUEOUS	12/17/96
06	VEW INFLUENT	AQUEOUS	12/17/96
07	PSMW-16 INFLUENT	AQUEOUS	12/17/96
08	EW-1 INFLUENT	AQUEOUS	12/17/96
09	PSMW-24,25,26 INFLUENT	AQUEOUS	12/17/96
10	TRIP BLANK	AQUEOUS	12/17/96

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE COMPANY OF NM
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

AEN I.D.: 612331

SAMPLE ID #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	GTS-INFLUENT	AQUEOUS	12/17/96	NA	12/18/96	1
02	GTS-AIR STRIPPER EFFLUENT WEST	AQUEOUS	12/17/96	NA	12/18/96	1
03	GTS GAC EFFLUENT WEST	AQUEOUS	12/17/96	NA	12/18/96	1

PARAMETER	DET. LIMIT	UNITS	01	02	03
BROMODICHLORMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
BROMOFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROFORM	0.5	**UG/L**	**1.4**	< 0.5	< 0.5
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHANE	0.3	**UG/L**	**0.9**	< 0.3	< 0.3
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHENE	0.2	**UG/L**	**18**	< 0.2	< 0.2
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TETRACHLOROETHENE	0.5	**UG/L**	**34 D(10)**	< 0.5	< 0.5
1,1,1-TRICHLOROETHANE	1.0	**UG/L**	**2.5**	< 1.0	< 1.0
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5
SURROGATE:					
BROMOCHLOROMETHANE (%)			104	104	100
SURROGATE LIMITS	(73 - 117)				

CHEMIST NOTES:
D(10)=DILUTED 10X, ANALYZED 12/19/96.

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE COMPANY OF NM
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

AEN I.D.: 612331

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	UNM EAST RESERVOIR	AQUEOUS	12/17/96	NA	12/18/96	1
05	UNM WEST RESERVOIR	AQUEOUS	12/17/96	NA	12/18/96	1
06	VEW INFLUENT	AQUEOUS	12/17/96	NA	12/18/96	1

PARAMETER	DET. LIMIT	UNITS	04	05	06
BROMODICHLORMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
BROMOFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHANE	0.3	**UG/L**	< 0.3	< 0.3	**3.0**
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHENE	0.2	**UG/L**	< 0.2	< 0.2	**2.0**
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TETRACHLOROETHENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1,1-TRICHLOROETHANE	1.0	**UG/L**	< 1.0	< 1.0	**10**
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5
SURROGATE:					
BROMOCHLOROMETHANE (%)			104	107	108
SURROGATE LIMITS	(73 - 117)				

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE COMPANY OF NM
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

AEN I.D.: 612331

SAMPLE ID #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	PSMW-16 INFLUENT	AQUEOUS	12/17/96	NA	12/19/96	1
08	EW-1 INFLUENT	AQUEOUS	12/17/96	NA	12/19/96	1
09	PSMW-24,25,26 INFLUENT	AQUEOUS	12/17/96	NA	12/19/96	1

PARAMETER	DET. LIMIT	UNITS	07	08	09
BROMODICHLORMETHANE	0.2	**UG/L**	< 0.2	< 0.2	**0.2**
BROMOFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROFORM	0.5	**UG/L**	**1.1**	< 0.5	**3.2**
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHANE	0.3	**UG/L**	**0.6**	**2.0**	**0.3**
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHENE	0.2	**UG/L**	**39 D(10)**	**7.7**	**30 D(10)**
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TETRACHLOROETHENE	0.5	**UG/L**	**96 D(10)**	**33 D(10)**	**33 D(10)**
1,1,1-TRICHLOROETHANE	1.0	**UG/L**	**3.3**	**3.7**	< 1.0
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5
SURROGATE:					
BROMOCHLOROMETHANE (%)			103	106	101
SURROGATE LIMITS	(73 - 117)				

CHEMIST NOTES.
D(10)=DILUTED 10X, ANALYZED 12/20/96.

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE COMPANY OF NM AEN I.D.: 612331
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

SAMPLE ID #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL FACTOR
10	TRIP BLANK	AQUEOUS	12/17/96	NA	12/19/96	1

PARAMETER	DET. LIMIT	UNITS	10
BROMODICHLORMETHANE	0.2	UG/L	< 0.2
BROMOFORM	0.5	UG/L	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5
CHLOROFORM	0.5	UG/L	< 0.5
CHLOROMETHANE	1.0	UG/L	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5
1,1-DICHLOROETHANE	0.3	UG/L	< 0.3
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5
1,1-DICHLOROETHENE	0.2	UG/L	< 0.2
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2
METHYLENE CHLORIDE	2.0	UG/L	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5
TETRACHLOROETHENE	0.5	UG/L	< 0.5
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5
SURROGATE:			
BROMOCHLOROMETHANE (%)			98
SURROGATE LIMITS	(73 - 117)		

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8010		
BLANK I.D.	: 121896	AEN I.D.	: 612331
CLIENT	: PUBLIC SERVICE COMPANY OF NM	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 12/18/96
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5

SURROGATE:

BROMOCHLOROMETHANE (%)		106
SURROGATE LIMITS	(73 - 117)	

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8010		
BLANK I.D.	: 121996	AEN I.D.	: 612331
CLIENT	: PUBLIC SERVICE COMPANY OF NM	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 12/19/96
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5

SURROGATE:

BROMOCHLOROMETHANE (%)		104
SURROGATE LIMITS	(73 - 117)	

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8010		
BLANK I.D.	: 122096	AEN I.D.	: 612331
CLIENT	: PUBLIC SERVICE COMPANY OF NM	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 12/20/96
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5

SURROGATE:

BROMOCHLOROMETHANE (%)		102
SURROGATE LIMITS	(73 - 117)	

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY - QUALITY CONTROL
MSMSD

TEST	: PURGEABLE HALOCARBONS (EPA 8010)		
MSMSD #	: 612331-05	AEN I.D.	: 612331
CLIENT	: PUBLIC SERVICE COMPANY OF NM	DATE EXRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 12/19-20/96
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS
		UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
CHLOROBENZENE	<0.5	10.0	10.6	106	9.6	96	10	(87 - 124)	20
1,1-DICHLOROETHENE	<0.2	10.0	10.1	101	9.0	90	12	(40 - 120)	20
TRICHLOROETHENE	<0.3	10.0	11.8	118	11.3	113	4	(89 - 127)	20

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

AnalyticalTechnologies,Inc., Albuquerque, NM
San Diego • Phoenix • Seattle • Pensacola • Ft. Collins • Portland • Albuquerque

CHAIN OF CUSTODY

DATE: 12/17 PAGE 1 OF 2

ATI LAB I.D. 612331

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER: RON JOHNSON

COMPANY: PUBLIC SERVICE COMPANY OF NEW MEXICO
ADDRESS: ALVARADO SQUARE - 0408
ALBUQUERQUE, NM 87158
PHONE: (505) 241-~~2836~~ 4744
FAX: (505) 241-~~2848~~ 2487

BILL TO: SAME
COMPANY:
ADDRESS:
ATTN: ~~RON JOHNSON~~ CHUCK Amer

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020)	BTXE/MTBE (8020)			Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.			Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)			SDWA Primary Standards - Arizona	SDWA Secondary Standards - Arizona	SDWA Primary Standards - Federal	SDWA Secondary Standards - Federal			The 13 Priority Pollutant Metals	RCRA Metals by Total Digestion	RCRA Metals by TCLP (1311)		NUMBER OF CONTAINERS
GTS-INFLUENT	12-17-96	1032	W	-01							X																						3
~~GTS-AIR STRIPPER EFFLUENT EAST~~			~~W~~								~~X~~																						
GTS-AIR STRIPPER EFFLUENT WEST	12-17-96	1030	W	-02							X																						3
~~GTS GAC EFFLUENT EAST~~			~~W~~								~~X~~																						
GTS GAC EFFLUENT WEST	12-17-96	1029	W	-03							X																						3
UNM EAST RESERVOIR	12-17-96	1100	W	-04							X																						3
UNM WEST RESERVOIR	12-17-96	1102	W	-05							X																						3
TRIP BLANK			W								X																						

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJ. NO.:	REMEDIATION	NO. CONTAINERS	28
PROJ. NAME:	PERSON STATION	CUSTODY SEALS	Y / N / (NA)
P.O. NO.:		RECEIVED INTACT	Yes
SHIPPED VIA:		RECEIVED COLD	10°C

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☑ 2 WEEK

Comments:

PLEASE PROVIDE DATA ON DISKETTE AS WELL AS HARD COPY & copy to Ron Johnson

SAMPLED & RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Chuck Time: 11:45	Signature: Time:	Signature: Time:
Printed Name: C Hyckhardt Date: 12-17-96	Printed Name: Date:	Printed Name: Date:
Company: PNM Phone: 241-4744	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: (LAB) 3.
Signature: Time:	Signature: Time:	Signature: Francine Torrio Time: 11:45
Printed Name: Date:	Printed Name: Date:	Printed Name: Francine Torrio Date: 12/17/96
Company:	Company:	Analytical Technologies, Inc.

AnalyticalTechnologies,Inc., Albuquerque, NM
San Diego • Phoenix • Seattle • Pensacola • Ft. Collins • Portland • Albuquerque

CHAIN OF CUSTODY

DATE: 12/17 PAGE 2 OF 2

ATI LAB I.D. 612331

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER: RON JOHNSON

COMPANY: PUBLIC SERVICE COMPANY OF NEW MEXICO
ADDRESS: ALVARADO SQUARE - 0408
ALBUQUERQUE, NM 87158
PHONE: (505) 241-~~2808~~ 4744
FAX: (505) 241-~~2349~~ 2497

BILL TO: SAME
COMPANY:
ADDRESS:
ATTN: ~~RON JOHNSON~~ CHUCK Arnio

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020)	BTXE/MTBE (8020)			Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.			Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)			SDWA Primary Standards - Arizona	SDWA Secondary Standards - Arizona	SDWA Primary Standards - Federal	SDWA Secondary Standards - Federal			The 13 Priority Pollutant Metals	RCRA Metals by Total Digestion	RCRA Metals by TCLP (1311)		NUMBER OF CONTAINERS
VEW INFLUENT	12-17-96	1033	W	-06							X																						3
PSMW-16 INFLUENT	12-17-96	1036	W	-07							X																						3
EW-1 INFLUENT	12-17-96	1035	W	-08							X																						3
PSMW-24,25,26 INFLUENT	12-17-96	1037	W	-09							X																						3
TRIP BLANK	12-17	10:00	W	-10							X																						

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJ. NO.:	REMEDIATION	NO. CONTAINERS	28
PROJ. NAME:	PERSON STATION	CUSTODY SEALS	Y / N / (NA)
P.O. NO.:		RECEIVED INTACT	yes
SHIPPED VIA:		RECEIVED COLD	10°C

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☑ 2 WEEK

Comments:

PLEASE PROVIDE DATA ON DISKETTE AS WELL AS HARD COPY

SAMPLED & RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [illegible] Time: 1141	Signature: Time:	Signature: Time:
Printed Name: CHUCK Arnio Date: 12-17-96	Printed Name: Date:	Printed Name: Date:
Company: PNM Phone: 241-4744	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: (LAB) 3.
Signature: Time:	Signature: Time:	Signature: Francine Torivio Time: 11:45
Printed Name: Date:	Printed Name: Date:	Printed Name: Francine Torivio Date: 12/17/9
Company:	Company:	Analytical Technologies, Inc.