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of New Mexico
2401 Aztec NE
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Albuquerque, NM 87107

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May 10, 2001

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Mr. Carl Will
Hazardous Waste Bureau
New Mexico Environment Department
2044 A Galisteo, P.O. Box 26110
Santa Fe, NM 87502

RE: *Treatment Effectiveness Report, First Quarter 2001*, Public Service Company of New Mexico Person Generating Station Groundwater Treatment System, NMT 360010342

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Toni K. Ristau
Director, Environmental Services

Enclosed please find three copies of the subject report submitted pursuant to requirements contained in the Person Station Corrective Action Directive issued in September 1991.

If you have any questions, please contact me at (505) 855-6392.

Sincerely,

John Hale, P.E.
Technical Project Manager

Enclosures

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

Treatment Effectiveness Report
First Quarter 2001

May 10, 2001

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

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Executive Summary

Contour maps of the three primary contaminants of concern, PCE, DCE, and TCA, are shown in Figures 10, 11, and 12, respectively. These contour maps indicate the areal extent of the groundwater plume and the associated contaminant concentrations within the plume. The contour maps are prepared twice per year using data from the spring and fall sampling events.

Figure 10 indicates that the low PCE concentration zone (5 ppb to 20 ppb) and the moderate PCE concentration zone (20 ppb to 100 ppb) have remained approximately the same in size since October 2000. However, the high PCE concentration zone (100 ppb to 200 ppb) that was present in the October 2000 contour map has disappeared. Figure 11 indicates that the low and moderate DCE concentration zones have changed shape slightly since last October. Figure 12 indicates the reappearance of a small, low concentration TCA plume.

Due to the locally declining groundwater table, PSMW-16 was not operated during this quarter. PSMW-24 was not operated during this quarter due to a damaged pump. Operational problems with the sulfuric acid injection pump prevented operation of the east treatment train during the first quarter.

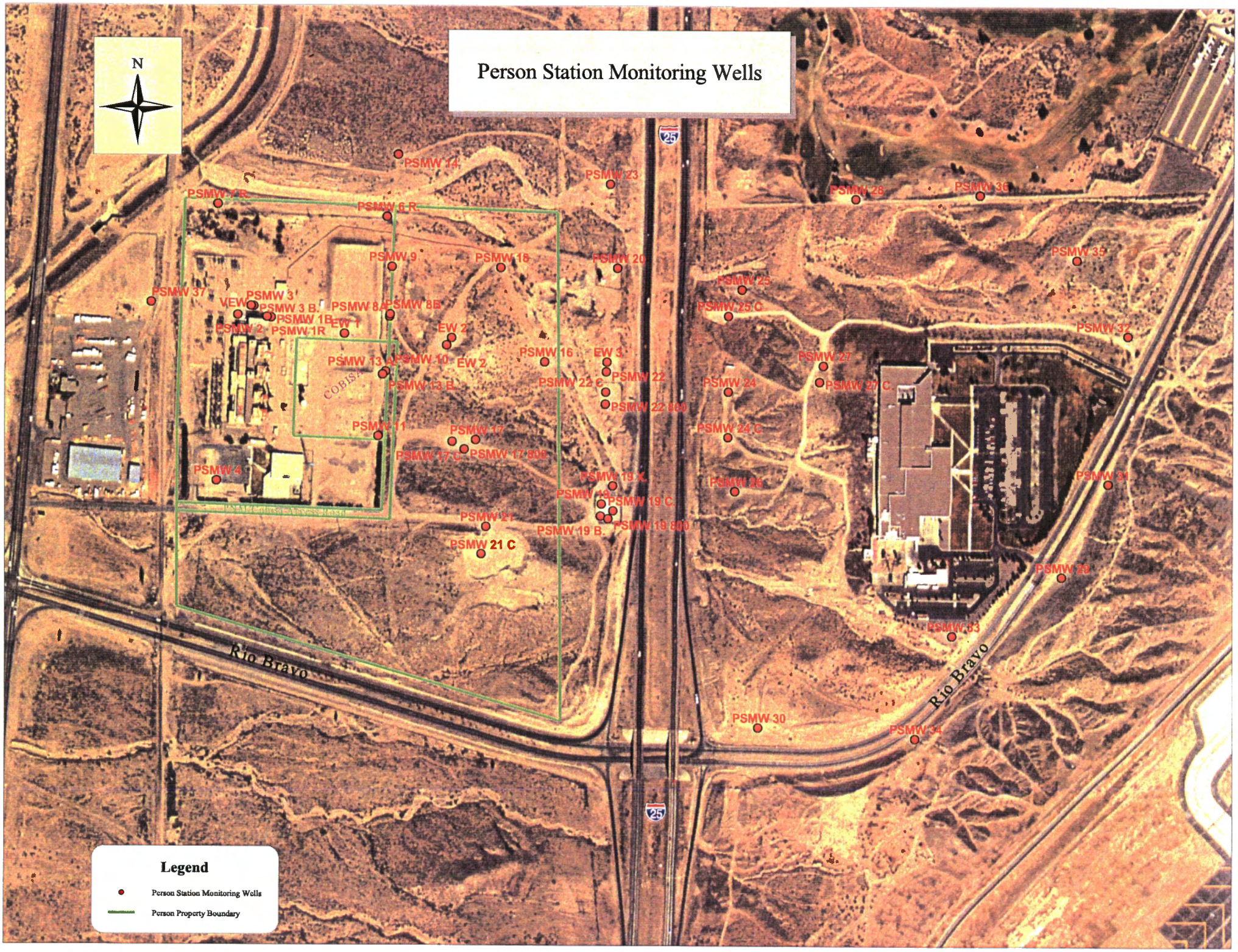
I. Introduction

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 Generating Station Groundwater Treatment System (GTS). The GTS is designed to extract volatile organic compound (VOC) 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 monitor well and extraction well locations.

Person Station Monitoring Wells



II. Operational History

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

During 1995, the GTS encountered periodic minor problems as well as a more serious problem with mineralization of the system components downstream from the air stripper. The GTS was kept off-line for most of the first quarter of 1996 while the mineralization problem was studied. After evaluation of various treatment methods, an acid treatment system was selected as the most feasible solution to the mineralization problem.

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 (PSMW-24, 25, and 26) to extraction wells. The GTS resumed regular operation in mid-June 1996.

The Person Generating Station Discharge Plan, DP-1006, was amended and approved by the Groundwater Protection and Remediation Bureau in mid-June 1997. As part of the amended plan, the existing plan requirement for the sulfuric acid treatment system was replaced. Previously, acid addition to the effluent was restricted to 35 mg/l. The new requirement specifies adjustment of the acid treatment system to maintain an effluent pH range of 6.0 to 9.0. A pH probe and chart recorder were installed on the effluent discharge tank for daily monitoring of pH, and effluent samples are collected monthly for total sulfate analysis.

In an effort to enhance the GTS effectiveness by increasing system pumping rates, two new extraction wells were completed during October 1999. The new wells are designated EW-2 and EW-3.

Due to the locally declining groundwater table, PSMW-16 has not been in operation for the past few quarters. PSMW-24 has not been in operation during the past few quarters due to a damaged pump. Upon removal and inspection of the pump, an excessive amount of sand was found inside the pump. The sand is due to a hole in the well casing or screen. Either condition renders the well unusable. Two new extraction wells will be drilled next quarter to replace PSMW-16 and PSMW-24.

Operational problems with the sulfuric acid injection pump prevented operation of the east treatment train during the past few quarters.

III. Groundwater Treatment Effectiveness

Figures 2, 3, and 4 show graphs of concentration of total chlorinated VOCs as measured at wells PSMW-16, VEW, and EW-1 over the operational period of the GTS. Figure 5 shows a graph of concentration of total chlorinated VOCs in the combined influent from wells PSMW-24, 25, and 26 over the operational period of these wells. Figures 6 and 7 show graphs of concentration of total chlorinated VOCs over the operational period of EW-3 and EW-2. More detailed data for these wells are shown in Tables 1, 2, 3, 4, 5, and 6.

As previously noted, PSMW-16 and PSMW-24 has not been in operation. Both extraction wells will be abandoned and replaced with two new extraction wells during the second quarter of 2001.

Due to operational problems with the east treatment train acid injection pump, the east treatment train has remained off-line for the past few quarters. Consequently, EW-3 has only operated intermittently and no samples were collected from the well this quarter. The operation of EW-3 requires that both treatment trains be in operation, due to the large volume of water that EW-3 is capable of pumping.

In the VEW and the combined influent from PSMW-24, 25, and 26, total chlorinated VOCs remained relatively constant during this quarter.

Total chlorinated VOCs fluctuated at EW-1 and EW-2 this quarter.

Laboratory reports for this quarter are contained in Appendix A.

Figure 2
Total VOCs at PSMW-16

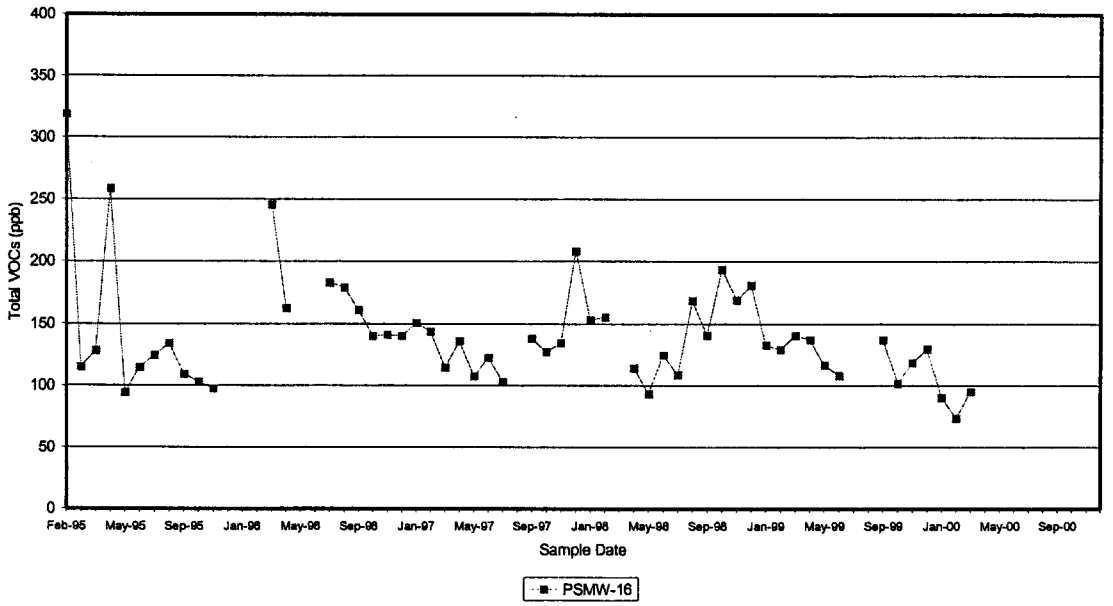


Figure 3
Total VOCs at VEW

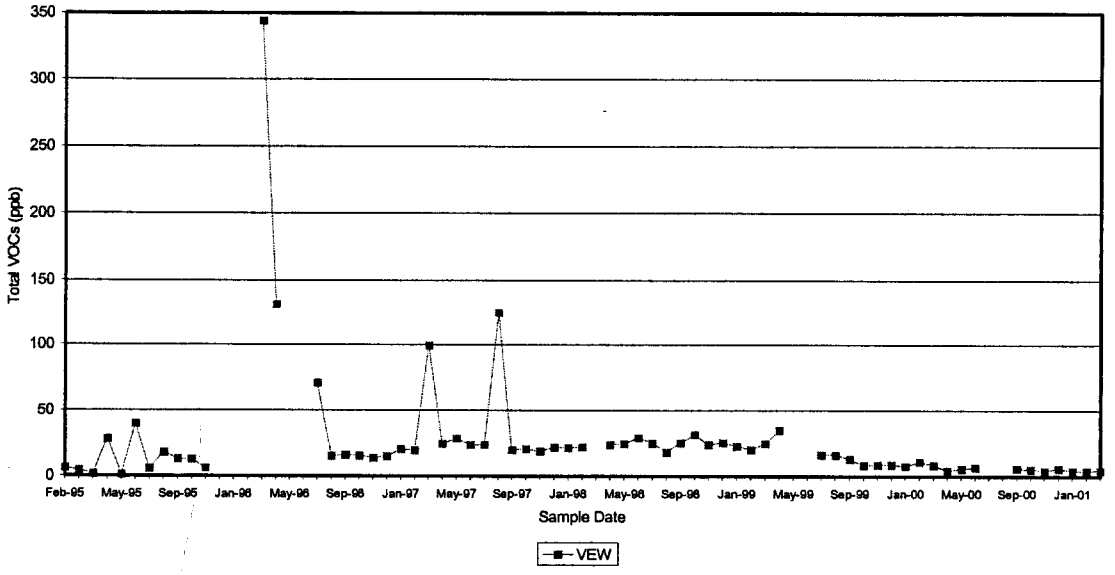


Figure 4
Total VOCs at EW-1

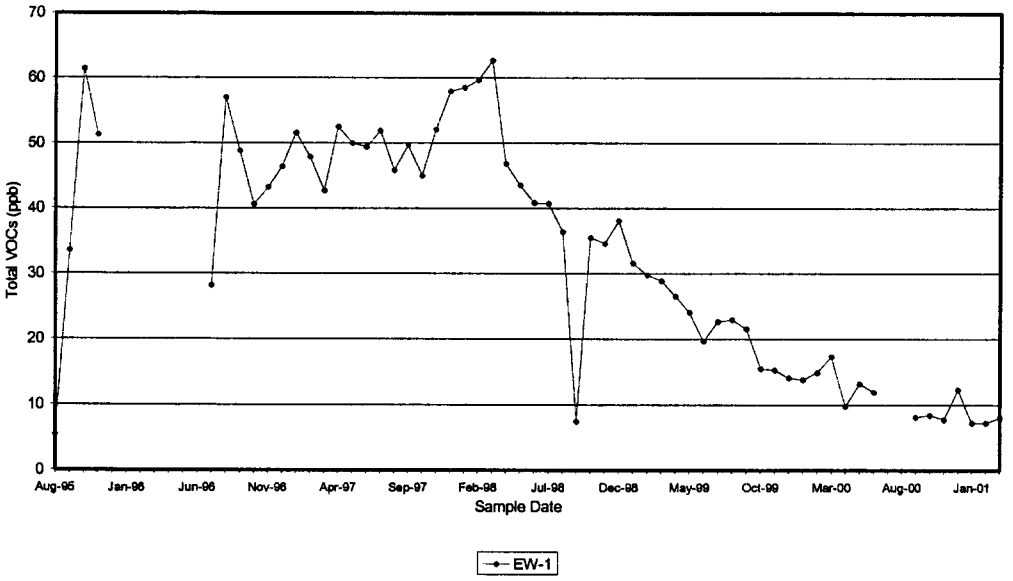


Figure 5
Total VOCs at PSMW-24,25,26

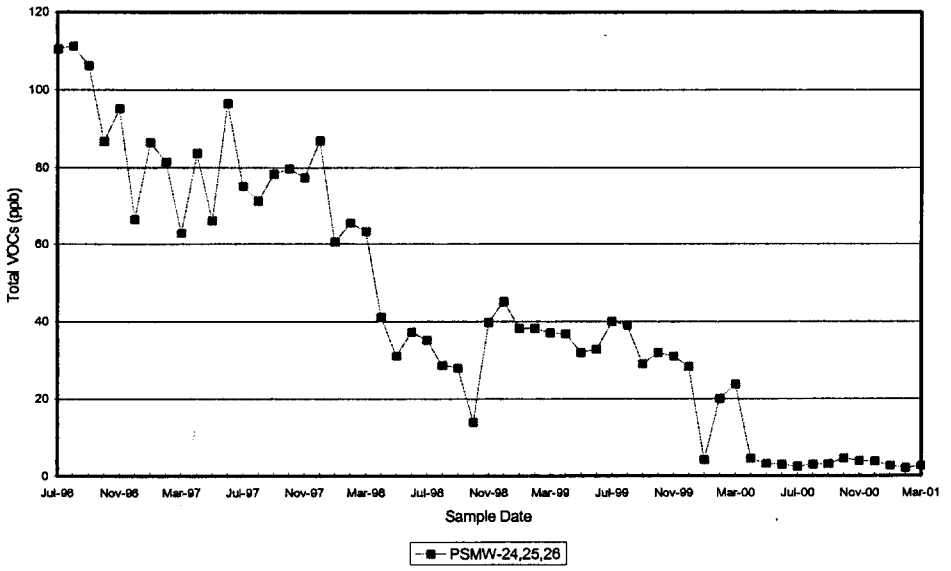


Figure 6
Total VOCs at EW-3

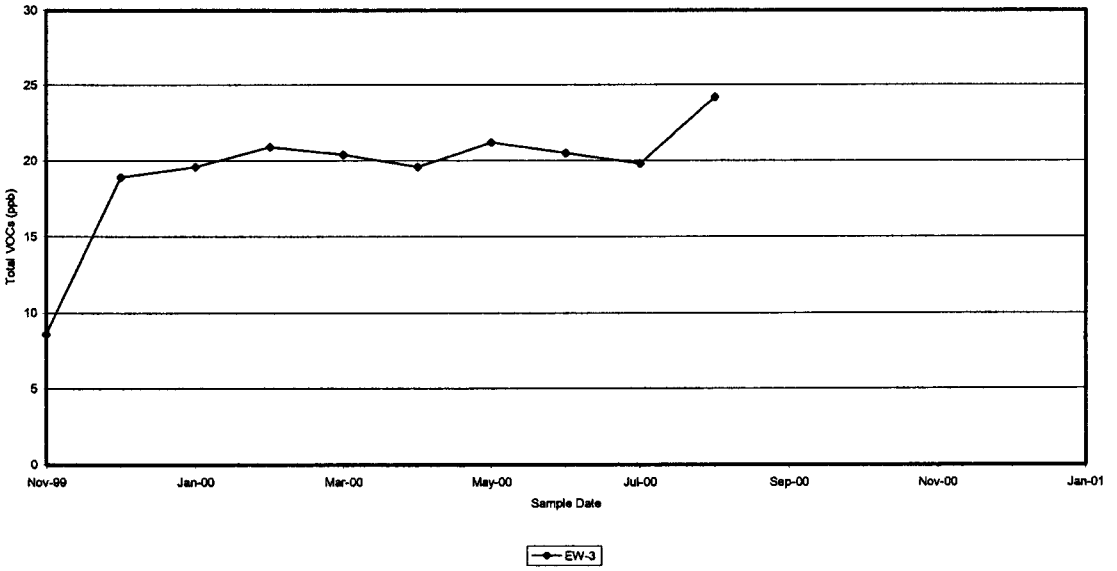


Figure 7
Total VOCs at EW-2

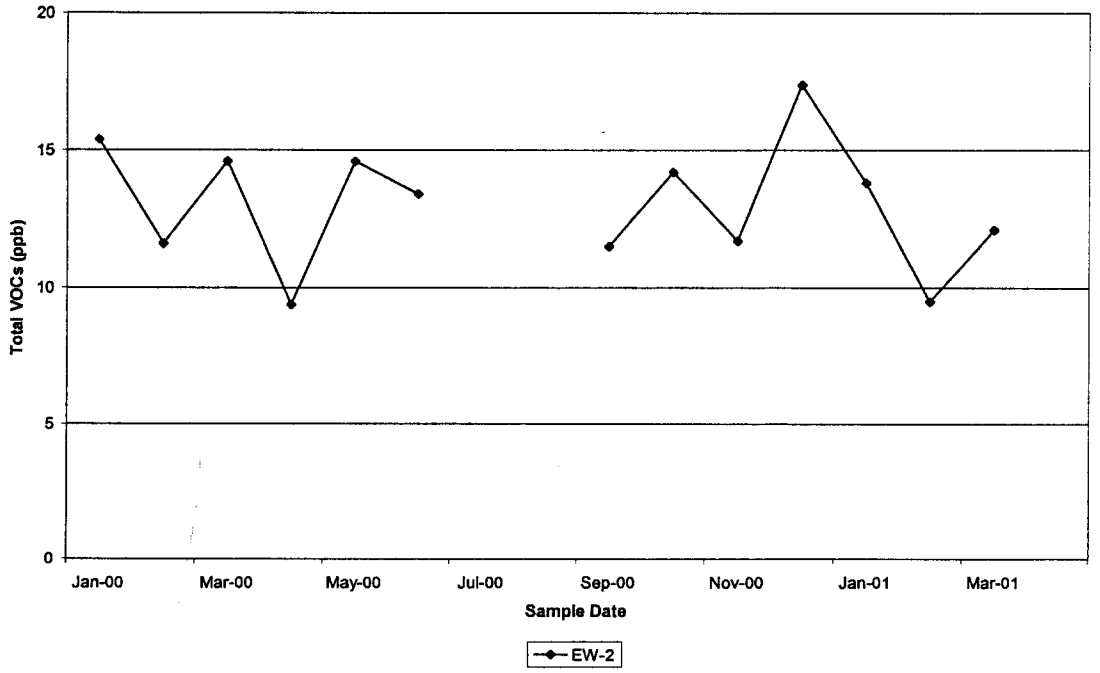


Table 1
Influent Concentrations at PSMW-16

Date	Laboratory Report No.	PCE (ppb)	DCE (ppb)	Total VOCs (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
1/16/97	701336	99	46	150.7
2/13/97	702332	100	40	143.7
3/19/97	703344	88	23	114.6
4/17/97	704355	93	38	135.8
5/15/97	705347	71	32	107.6
6/18/97	706353	83	36	122.6
7/23/97	707360	67	34	103.1
9/15/97	709332	100	34	137.9
10/15/97	710358	92	31	127.2
11/19/97	711335	95	34	134.5
12/16/97	712318	140	68	208
1/15/98	801334	110	37	153.1
2/11/98	802336	110	38	155.3
NS	-	-	-	-
4/8/98	804337	78	30	114.4
5/20/98	805379	67	23	93.4
6/16/98	806353	89	30	124.6
7/1/98	807300	76	29	108.8
8/13/98	808040	120	41	168.5
9/16/98	809042	110	26	140.7
10/7/98	810021	120	68	193.4
11/17/98	811049	100	64	169
12/9/98	812045	110	66	180.7
1/7/99	901010	100	28	132.8
2/4/99	902014	100	26	129.3
3/3/99	903010	100	36	140.5
4/21/99	904091	100	32	137.0
5/14/99	905048	87	25	116.7
6/9/99	906040	79	25	108.3
NS	-	-	-	-
NS	-	-	-	-
9/2/99	909005	99	32	136.8
10/11/99	910036	75	23	102
11/10/99	911035	80	33	118.6
12/8/99	912027	87	36	129.5
1/12/00	001021	64	20	90.5
2/10/00	002042	54	13	73.6
3/7/00	003023	62	26	95.1
NS	-	-	-	-
NS	-	-	-	-
NS	-	-	-	-

NS: Not Sampled

Table 2
Influent Concentrations at VEW

Date	Laboratory Report No.	PCE (ppb)	DCE (ppb)	Total VOCs (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
1/16/97	701336	0.9	3.2	20.2
2/13/97	702332	1.0	2.4	19.2
3/19/97	703344	68	17	99.5
4/17/97	704355	2.8	3.4	24.4
5/15/97	705347	6.1	5.3	28.5
6/18/97	706353	3.8	4.2	23.5
7/23/97	707360	2.9	4.0	23.6
8/13/97	708339	57	50	124.8
9/15/97	709332	1.7	3.4	19.8
10/15/97	710358	3.2	3.1	20.5
11/19/97	711335	1.3	3.2	18.7
12/16/97	712318	1	4.8	21.7
1/15/98	801334	2.5	3.6	21.3
2/11/98	802336	2.9	3.7	22
NS	-	-	-	-
4/8/98	804337	6.4	5.0	23.7
5/20/98	805379	8.4	5.4	24.3
6/16/98	806353	11	6.2	29.1
7/1/98	807300	7.6	4.6	25.0
8/13/98	808040	5.6	3.8	18.2
9/16/98	809042	8.9	5.6	25.3
10/7/98	810021	10	9.4	31.7
11/17/98	811049	6.9	5.2	23.7
12/9/98	812045	7.9	5.6	25.4
1/7/99	901010	7.7	4.3	22.5
2/4/99	902014	7.0	4.0	20.0
3/3/99	903010	7.9	6.2	24.7
4/21/99	904091	17.0	8.9	34.8
NS	-	-	-	-
NS	-	-	-	-
7/6/99	907015	5.5	3.0	16.3
8/5/99	908021	5.4	3.2	16.3
9/2/99	909005	2.5	2.6	13.0
10/11/99	910036	0.7	0.9	8.3
11/10/99	911035	< 0.5	1	8.7
12/8/99	912027	0.8	1.1	8.8
1/12/00	001021	0.9	1.1	7.6
2/10/00	002042	3.7	1.3	11.1
3/7/00	003023	1.1	1.3	8.3
4/12/00	004041	1.2	1.2	4.5
5/3/00	005014	< 0.5	0.9	5.6
6/8/00	006035	< 0.5	0.8	6.7
NS	-	-	-	-
NS	-	-	-	-
9/19/00	009101	0.7	< 0.5	6.0
10/4/00	010016	< 0.5	1.5	5.2
11/3/00	011012	< 0.5	0.5	4.4
12/5/00	012017	< 0.5	0.5	5.9
1/17/01	101052	< 0.5	0.5	4.2
2/15/01	102052	< 0.5	0.6	4.2
3/1/01	103007	< 0.5	0.4	4.5

NS: Not Sampled

Table 3
Influent Concentrations at EW-1

Date	Laboratory Report No.	PCE (ppb)	DCE(ppb)	Total VOCs (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
1/16/97	701336	36	9.2	51.6
2/13/97	702332	32	7.7	47.9
3/19/97	703344	29	5.7	42.7
4/17/97	704355	31	8.4	52.5
5/15/97	705347	27	9.7	50
6/18/97	706353	23	8.6	49.4
7/23/97	707360	25	9.5	51.9
8/13/97	708339	20	6.8	45.8
9/15/97	709332	21	8.5	49.7
10/15/97	710358	18	6.5	45
11/19/97	711335	20	9.7	52.1
12/16/97	712318	21	12	58
1/15/98	801334	20	11	58.5
2/11/98	802336	21	11	59.7
3/11/98	803324	20	16	62.7
4/8/98	804337	16	9.7	46.8
5/20/98	805379	16	9	43.5
6/16/98	806353	13	7.9	40.8
7/1/98	807300	12	7.7	40.7
8/13/98	808040	8.5	7	36.4
9/16/98	809042	3.2	2.7	7.4
10/7/98	810021	9.5	7.7	35.5
11/17/98	811049	10	7.5	34.6
12/9/98	812045	12	8.4	38.1
1/7/99	901010	10	5.8	31.6
2/4/99	902014	10	5.7	29.8
3/3/99	903010	8.2	6.9	28.9
4/21/99	904091	8.3	5.5	26.6
5/14/99	905048	7.1	4.6	24.1
6/9/99	906040	5.5	3.5	19.7
7/6/99	907015	6.1	4.1	22.7
8/5/99	908021	6.2	4.3	23.0
9/2/99	909005	5.5	4.6	21.6
10/11/99	910036	5	2.3	15.5
11/10/99	911035	4	2.4	15.3
12/8/99	912027	3.7	2.5	14.1
1/12/00	001021	4.7	2.5	13.8
2/10/00	002042	4.3	3.2	14.9
3/7/00	003023	5.2	3.2	17.3
4/12/00	004041	3.7	2.6	9.8
5/3/00	005014	4	2.6	13.2
6/8/00	006035	3.3	2.3	11.9
NS	-	-	-	-
NS	-	-	-	-
9/19/00	009101	1.7	0.6	8.1
10/4/00	010016	1.1	1.5	8.4
11/3/00	011012	0.9	0.9	7.7
12/5/00	012017	2.6	1.6	12.3
1/17/01	101052	2.7	1.3	7.2
2/15/01	102052	2.4	1.3	7.2
3/1/01	103007	2.8	1.4	8.0

NS: Not Sampled

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

Date	Laboratory Report No.	PCE (ppb)	DCE (ppb)	Total VOCs (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
1/16/97	701336	41	41	86.5
2/13/97	702332	41	37	81.5
3/19/97	703344	37	23	63.0
4/17/97	704355	42	37	83.8
5/15/97	705347	33	30	66.4
6/18/97	706353	39	55	96.6
7/23/97	707360	37	36	75.2
8/13/97	708339	39	30	71.5
9/15/97	709332	42	34	78.4
10/15/97	710358	48	29	79.8
11/19/97	711335	41	34	77.5
12/16/97	712318	40	47	87
1/15/98	801334	33	25	60.6
2/11/98	802336	36	27	65.7
3/11/98	803324	30	31	63.4
4/8/98	804337	21	18	41
5/20/98	805379	18	12	31.1
6/16/98	806353	21	15	37.3
7/1/98	807300	18	16	35.2
8/13/98	808040	14	13	28.6
9/16/98	809042	6.5	4.4	27.9
10/7/98	810021	5	7.3	13.9
11/17/98	811049	22	17	39.7
12/9/98	812045	25	19	45
1/7/99	901010	22	15	38.2
2/4/99	902014	23	14	38.2
3/3/99	903010	20	16	37.1
4/21/99	904091	20	15	36.8
5/14/99	905048	18	14	32
6/9/99	906040	18	14	32.8
7/6/99	907015	22	18	40
8/5/99	908021	22	17	39
9/2/99	909005	17	12	29
10/11/99	910036	19	13	32
11/10/99	911035	18	13	31
12/8/99	912027	16	12	28.3
1/12/00	001021	2.7	1.5	4.2
2/10/00	002042	10	0.2	20
3/7/00	003023	13	10	23.7
4/12/00	004041	2.5	2	4.5
5/3/00	005014	1.9	1.3	3.2
6/8/00	006035	1.8	1.2	3
7/24/00	007056	1.6	0.8	2.4
8/16/00	008062	2.1	0.9	3
9/19/00	009101	2.4	0.7	3.1
10/4/00	010016	2.5	2.1	4.6
11/3/00	011012	1.7	1.3	3.9
12/5/00	012017	1.3	1.0	3.8
1/17/01	101052	1.2	1.0	2.7
2/15/01	102052	1.1	1.0	2.1
3/1/01	103007	1.2	1.0	2.7

NS: Not Sampled

Table 5
Influent Concentrations at EW-2

Date	Laboratory Report No.	PCE (ppb)	DCE (ppb)	Total VOCs (ppb)
1/12/00	001021	2.7	4.3	15.4
2/10/00	002042	1.5	2.7	11.6
3/7/00	003023	2.7	4.3	14.6
4/12/00	004041	0.9	4.2	9.4
5/3/00	005014	1.9	4.4	14.6
6/8/00	006035	1	3.9	13.4
NS	-	-	-	-
NS	-	-	-	-
9/19/00	009101	0.9	2.2	11.5
10/4/00	010016	1.9	4.1	14.2
11/3/00	011012	1.1	3	11.7
12/5/00	012017	3.5	2.9	17.4
1/17/01	101052	3.5	3.4	13.8
2/15/01	102052	0.9	2.2	9.5
3/1/01	103007	2.1	2.9	12.1

NS: Not Sampled

Table 6
Influent Concentrations at EW-3

Date	Laboratory Report No.	PCE (ppb)	DCE (ppb)	Total VOCs (ppb)
11/10/99	911035	5.1	2.9	8.6
12/8/99	912027	12	6.3	18.9
1/12/00	001021	13	5.7	19.6
2/10/00	002042	12	7.7	20.9
3/7/00	003023	12	7.3	20.4
4/12/00	004041	11	8	19.6
5/3/00	005014	12	8	21.2
6/8/00	006035	11	7.9	20.5
7/24/00	007056	12	6.3	19.8
8/16/00	008062	13	9.1	24.2
NS	-	-	-	-

NS: Not Sampled

IV. Operational Activities

Operational activities during the first quarter included continued work on the pH probes and the east treatment train sulfuric acid injection pump. Operational problems with the acid injection pump include a malfunctioning electronic controller and leaking seals.

V. Influent and Effluent Flow Volumes

Flow totalizing meters are present on each influent well line and on the effluent flow line. Table 7 below details flow volumes from each influent well and the effluent line. Differences between total influent and total effluent volumes 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 7
Influent and Effluent Flow Volumes

Source	Meter Number	Start Reading	End Reading	Volume (Gallons)
Flow Volumes for January 2001:				
Influent (VEW)	Badger Meter No. 94976130	5,752,297	5,979,250	226,953
Influent (PSMW-16)	Hayes Meter No. 29408700	7,143,037	7,143,037	0
Influent (EW-1)	Hayes Meter No. 29408732	7,530,107	7,685,000	154,893
Influent (EW-2)	Badger Meter No. 15796506	2,206,953	2,488,490	281,537
Influent (EW-3)	Badger Meter No. 15796517	1,764,153	1,764,210	57
Influent (PSMW-24)	Fisher Porter Meter No. 960307112	6,731,260	6,731,260	0
Influent (PSMW-25)	Fisher Porter Meter No. 960307112	2,565,400	2,602,470	37,070
Influent (PSMW-26)	Fisher Porter Meter No. 960307112	2,912,130	2,956,280	44,150
Monitor Well Sample Purge				
Effluent (to Golf Course)	Fisher Porter Meter No. 960307112	2,845,557	3,567,614	722,057
Flow Volumes February 2001:				
Influent (VEW)	Badger Meter No. 94976130	5,979,250	6,097,979	118,729
Influent (PSMW-16)	Hayes Meter No. 29408700	7,143,078	7,143,078	0
Influent (EW-1)	Hayes Meter No. 29408732	7,685,000	7,767,534	82,534
Influent (EW-2)	Badger Meter No. 15796506	2,488,490	2,638,954	150,464
Influent (EW-3)	Badger Meter No. 15796517	1,764,210	1,764,259	49
Influent (PSMW-24)	Fisher Porter Meter No. 960307112	6,731,260	6,731,260	0
Influent (PSMW-25)	Fisher Porter Meter No. 960307112	2,602,470	2,617,910	15,440
Influent (PSMW-26)	Fisher Porter Meter No. 960307112	2,956,280	2,977,020	20,740
Monitor Well Sample Purge				15
Effluent (to Golf Course)	Fisher Porter Meter No. 960307112	3,567,614	3,943,903	376,289
Flow Volumes for March 2001:				
Influent (VEW)	Badger Meter No. 94976130	6,097,979	6,313,172	215,193
Influent (PSMW-16)	Hayes Meter No. 29408700	7,143,037	7,143,037	0
Influent (EW-1)	Hayes Meter No. 29408732	7,767,534	7,918,233	150,699
Influent (EW-2)	Badger Meter No. 15796506	2,638,954	2,912,959	274,005
Influent (EW-3)	Badger Meter No. 15796517	1,764,259	1,764,259	0
Influent (PSMW-24)	Fisher Porter Meter No. 960307112	6,731,260	6,731,260	0
Influent (PSMW-25)	Fisher Porter Meter No. 960307112	2,617,910	2,655,020	37,110
Influent (PSMW-26)	Fisher Porter Meter No. 960307112	2,977,020	3,027,980	50,960
Monitor Well Sample Purge				
Effluent (to Golf Course)	Fisher Porter Meter No.960307112	3,943,903	4,649,684	705,781
Quarterly Total for Influent (VEW+PSMW-16+EW-1+EW-2+EW-3+PSMW-24+PSMW-25+PSMW-26+Monitor Well Sample Purge)				1,860,598
Quarterly Total for Effluent:				1,804,127
Annual Totals				
Annual Cumulative Influent Total for 2001:				1,860,598
Annual Cumulative Effluent Total for 2001:				1,804,127

VI. Laboratory Analysis

A. Influent and Effluent Sampling for Chlorinated VOCs (8021 Analysis)

During the first quarter, influent and effluent sampling was conducted pursuant to the routine schedule outlined in DP-1006, i.e., once each month. Chlorinated VOC analysis of GTS influent and effluent (after GAC units) is shown graphically in Figures 8 and 9. More detailed data are shown in Table 8 below.

As noted in previous treatment effectiveness reports, the addition of EW-2 and EW-3 required the operation of both treatment trains (east and west) to handle the increased influent flow rate. However, due to operational difficulties with the sulfuric acid injection pump, the east treatment train has remained out of service this quarter.

As Figure 9 indicates, total chlorinated VOCs in the GTS west treatment train influent fluctuated this quarter.

Laboratory analytical data reports are contained in Appendix A. Influent and effluent sampling results indicate that the GTS has consistently removed chlorinated VOC contaminants in the 20 to 200 ppb range to levels below laboratory detection limits in the effluent sent to the golf course. Laboratory analysis of the water 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 50 gpm, the air stripper alone is capable of treating the groundwater to concentrations consistently below or near laboratory detection limits for chlorinated VOCs.

Figure 8
Total VOCs GTS Influent vs. Effluent - East

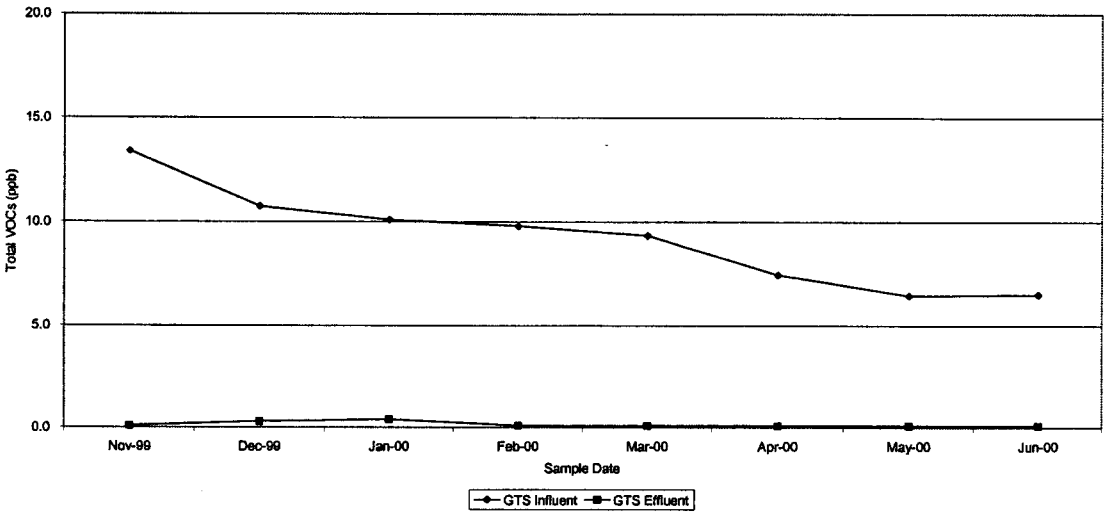


Figure 9
Total VOCs GTS Influent vs. Effluent - West

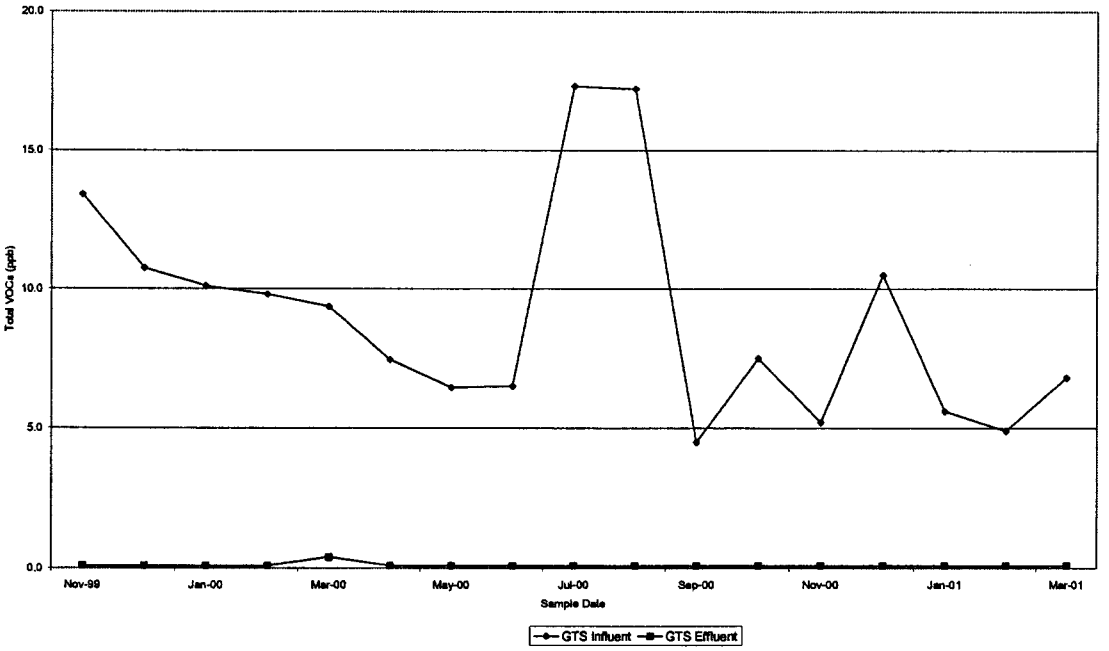


Table 8
Influent and Effluent VOC Concentrations

Sampling Date: 1/17/01	Lab Report Number: 101052				
VOC Compound	Influent (ppb)	Effluent After East Air Stripper (ppb)	Effluent After West Air Stripper (ppb)	Effluent After East GAC Unit (ppb)	Effluent After West GAC Unit (ppb)
1,1-Dichloroethane	2.9	NA	< 0.3	NA	< 0.3
1,1-Dichloroethene	1.0	NA	< 0.2	NA	< 0.2
Tetrachloroethene	1.7	NA	< 0.5	NA	< 0.5
TOTAL VOC'S	5.6	NA	BDL	NA	BDL

Sampling Date: 2/15/01	Lab Report Number: 102052				
VOC Compound	Influent (ppb)	Effluent After East Air Stripper (ppb)	Effluent After West Air Stripper (ppb)	Effluent After East GAC Unit (ppb)	Effluent After West GAC Unit (ppb)
1,1-Dichloroethane	3.1	NA	< 0.3	NA	< 0.3
1,1-Dichloroethene	1.0	NA	< 0.2	NA	< 0.2
Tetrachloroethene	0.8	NA	< 0.5	NA	< 0.5
TOTAL VOC'S	4.9	NA	BDL	NA	BDL

Sampling Date: 3/1/00	Lab Report Number: 103007				
VOC Compound	Influent (ppb)	Effluent After East Air Stripper (ppb)	Effluent After West Air Stripper (ppb)	Effluent After East GAC Unit (ppb)	Effluent After West GAC Unit (ppb)
1,1-Dichloroethane	4.0	NA	< 0.3	NA	< 0.3
1,1-Dichloroethene	1.3	NA	< 0.2	NA	< 0.2
Tetrachloroethene	1.5	NA	< 0.5	NA	< 0.5
TOTAL VOC'S	6.8	NA	BDL	NA	BDL

B. Effluent Sulfate Analysis and pH Monitoring

The June 1997 amendment to DP-1006 requires monthly sulfate analysis and daily pH monitoring of the GTS effluent. Table 9 presents the results of the first quarter sulfate analysis using EPA Method 375.4. The elevated sulfate concentrations in the samples collected this quarter are due to operational difficulties with the system pH probes and electronic controllers. Maintenance personnel have been working to correct the problem.

The monthly minimum, maximum, and average pH readings for this quarter are shown in Table 10.

Table 9
GTS Effluent Sulfate Concentrations

Date	Lab Report Number	Sulfate (mg/l)
1/17/01	101052	720
2/15/01	102052	1040
3/1/01	103007	865

Table 10
Monthly pH Readings

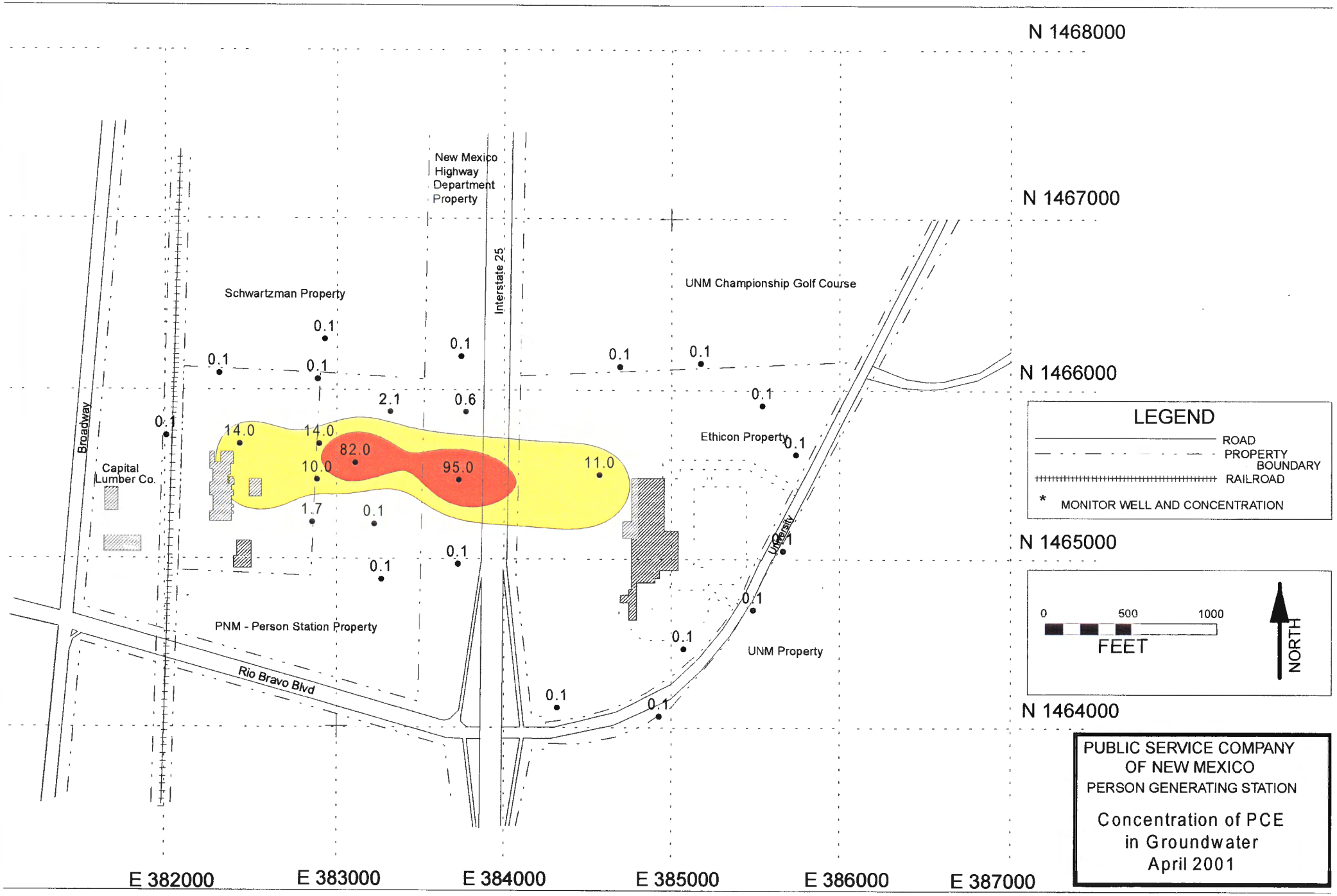
Date	Minimum pH	Maximum pH	Average pH
1/01	1.5	7.4	6.3
2/01	7.0	7.5	7.3
3/01	7.1	7.2	7.2

C. Golf Course Pond Sampling

DP-1006 requires monthly sampling of the east and west ponds for 8021 (Halo) analysis during each month of operation. During the first quarter, the ponds were sampled three times pursuant to this requirement. No EPA Method 8021 (Halo) 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 analyzed, contour maps showing the areal extent and concentration of the contaminants in the groundwater are prepared. Contour maps for PCE, DCE, and TCA for the 2001 spring sampling event are shown in Figures 10, 11, and 12, respectively.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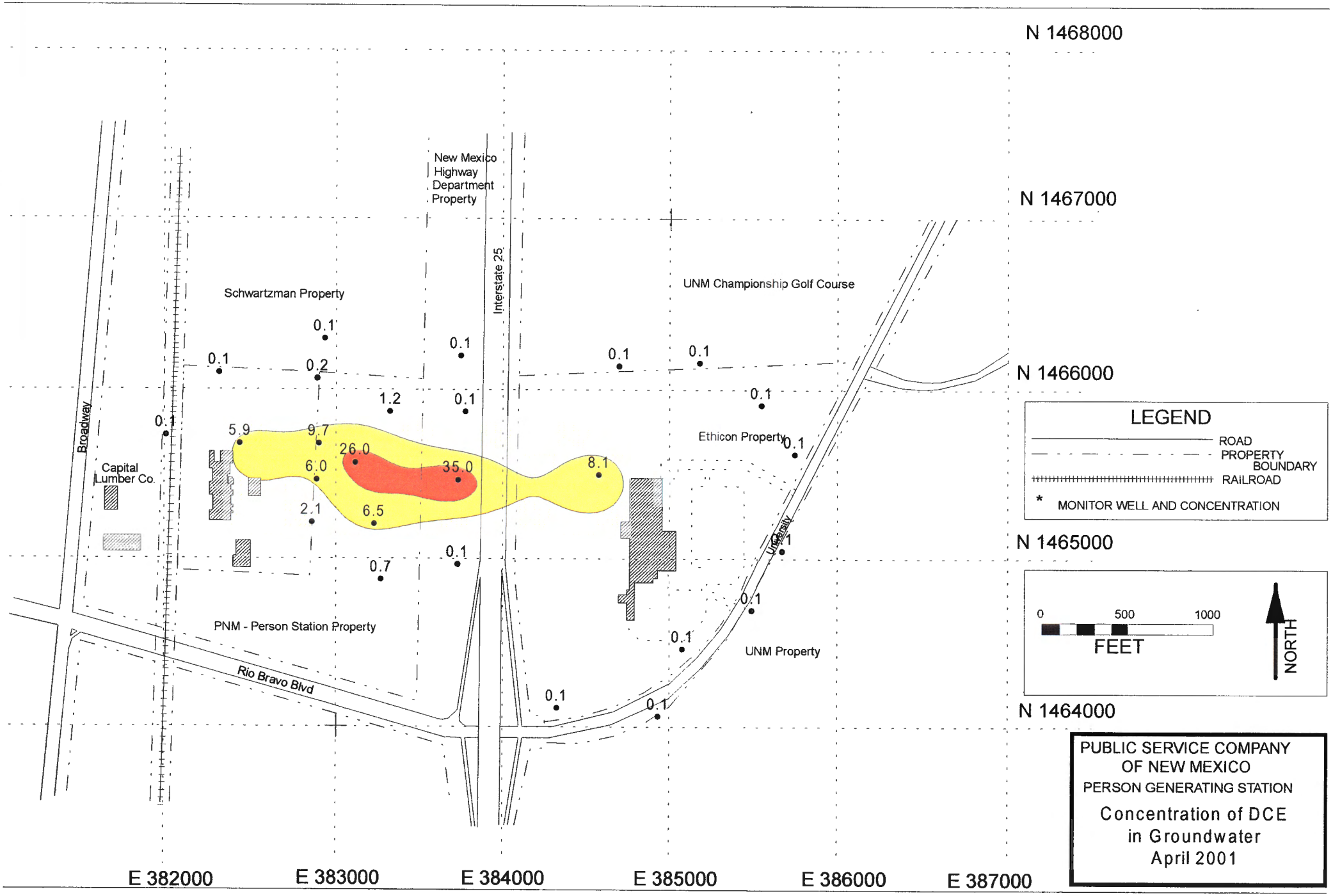
N 1467000
N 1466000
N 1465000
N 1464000
E 382000
E 383000
E 384000
E 385000
E 386000
E 387000
New Mexico Highway Department Property
Interstate 25
Schwartzman Property
UNM Championship Golf Course
Ethicon Property
Broadway
Capital Lumber Co.
PNM - Person Station Property
Rio Bravo Blvd
University
UNM Property
0.1
2.1
0.6
14.0
82.0
10.0
95.0
11.0
1.7
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
April 2001
Concentration Key:
> 200 ppb
100 to 200 ppb
20 to 100 ppb
5 to 20 ppb


N 1468000
N 1467000
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E 382000
E 383000
E 384000
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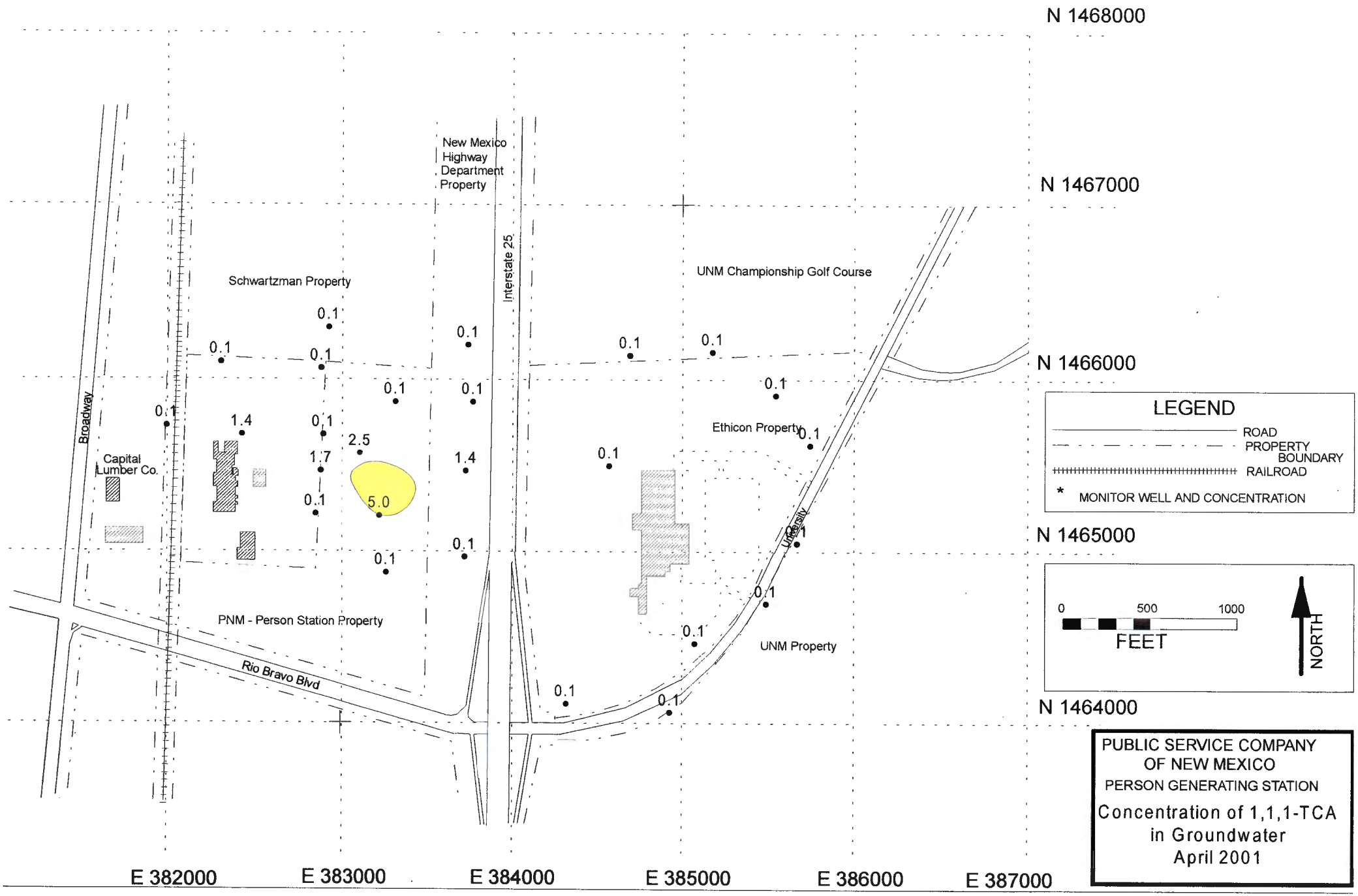
E 386000
E 387000
New Mexico Highway Department Property
Interstate 25
Schwartzman Property
UNM Championship Golf Course
Ethicon Property
Broadway
Capital Lumber Co.
PNM - Person Station Property
Rio Bravo Blvd
University
UNM Property
0.1
0.2
1.2
5.9
9.7
26.0
6.0
35.0
8.1
2.1
6.5
0.7
LEGEND
ROAD
PROPERTY BOUNDARY
RAILROAD
* MONITOR WELL AND CONCENTRATION
0
500
1000
FEET
NORTH
PUBLIC SERVICE COMPANY OF NEW MEXICO
PERSON GENERATING STATION
Concentration of DCE in Groundwater
April 2001
Concentration Key:
> 200 ppb
100 to 200 ppb
20 to 100 ppb
5 to 20 ppb


N 1468000
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N 1465000
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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
University
UNM Property
0.1
1.4
1.7
2.5
5.0
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
April 2001
Concentration Key:
> 200 ppb
100 to 200 ppb
20 to 100 ppb
5 to 20 ppb

Appendix A. Laboratory Reports

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

Pinnacle Lab ID number **101052**
January 31, 2001

PUBLIC SERVICE COMPANY
ALVARADO SQUARE-ER-16
ALBUQUERQUE, NM 87158

Project Name PERSON STATION
Project Number REMEDIATION

Attention: CHUCK ARATER

On 01/17/01 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), 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.

EPA method 8021 HALO analyses were performed by Pinnacle Laboratories, Inc. Albuquerque, NM.

All other analyses were performed by Severn Trent Laboratories, Inc. Pensacola, FL.

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

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: jt

Enclosure

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

CLIENT	: PUBLIC SERVICE COMPANY	PINNACLE ID	: 101052
PROJECT #	: REMEDIATION	DATE RECEIVED	: 01/17/01
PROJECT NAME	: PERSON STATION	REPORT DATE	: 01/31/01

PINNACLE ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
1052 - 01	GTS-INFLUENT	AQUEOUS	01/17/01
1052 - 02	GTS-AIR STRIPPER EFFLUENT WEST	AQUEOUS	01/17/01
101052 - 03	GTS-GAC EFFLUENT WEST	AQUEOUS	01/17/01
1052 - 04	UNM EAST RESERVOIR	AQUEOUS	01/17/01
1052 - 05	UNM WEST RESERVOIR	AQUEOUS	01/17/01
101052 - 06	TRIP BLANK	AQUEOUS	01/17/01
101052 - 07	VEW INFLUENT	AQUEOUS	01/17/01
1052 - 08	EW-1 INFLUENT	AQUEOUS	01/17/01
101052 - 09	PSMW 24,25,26 INFLUENT	AQUEOUS	01/17/01
1010[illegible] - 10	EW-2	AQUEOUS	01/17/01
10[illegible] - 11	SURGE TANK DISCHARGE	AQUEOUS	01/17/01

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : 8021 HALO
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

PINNACLE I.D.: 101052

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

PARAMETER	DET. LIMIT	UNITS	GTS-INFLUENT	GTS-AIR STRIPPER EFFLUENT WEST	GTS-GAC EFFLUENT WEST
BROMODICHLOROMETHANE	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**	**2.9**	< 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**	**1.0**	< 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**	**1.7**	< 0.5	< 0.5
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 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 (%)		85	103	103
SURROGATE LIMITS	(71 - 126)			

CHEMIST NOTES: N/A

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : 8021 HALO
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

PINNACLE I.D.: 101052

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	UNM EAST RESERVOIR	AQUEOUS	01/17/01	NA	01/17/01	1
05	UNM WEST RESERVOIR	AQUEOUS	01/17/01	NA	01/17/01	1
06	TRIP BLANK	AQUEOUS	01/17/01	NA	01/17/01	1

PARAMETER	DET. LIMIT	UNITS	UNM EAST RESERVOIR	UNM WEST RESERVOIR	TRIP BLANK
BROMODICHLOROMETHANE	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	< 0.3
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	< 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	< 0.5	< 0.5	< 0.5
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 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 (%)			100	101	95
SURROGATE LIMITS	(71 - 126)				

CHEMIST NOTES:
N/A

PINNACLE LABORATORIES

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GAS CHROMATOGRAPHY RESULTS

TEST : 8021 HALO
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

PINNACLE I.D.: 101052

SAMPLE I.D. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	VEW INFLUENT	AQUEOUS	01/17/01	NA	01/17/01	1
08	EW-1 INFLUENT	AQUEOUS	01/17/01	NA	01/17/01	1
09	PSMW 24,25,26 INFLUENT	AQUEOUS	01/17/01	NA	01/17/01	1

PARAMETER	DET. LIMIT	UNITS	VEW INFLUENT	EW-1 INFLUENT	PSMW 24,25,26 INFLUENT
BROMODICHLOROMETHANE	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**	**3.7**	**3.2**	< 0.3
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHENE	0.2	**UG/L**	**0.5**	**1.3**	**1.0**
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	**2.7**	**1.2**
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 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 (%)			100	100	99
SURROGATE LIMITS	(71 - 126)				

CHEMIST NOTES:
N/A

PINNACLE LABORATORIES

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GAS CHROMATOGRAPHY RESULTS

TEST : 8021 HALO
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

PINNACLE I.D.: 101052

SAMPLE I.D. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
J0	EW-2	AQUEOUS	01/17/01	NA	01/17/01	1

PARAMETER	DET. LIMIT	UNITS	EW-2
BROMODICHLOROMETHANE	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**	**5.0**
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5
1,1-DICHLOROETHENE	0.2	**UG/L**	**3.4**
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**	**3.5**
1,1,1-TRICHLOROETHANE	1.0	**UG/L**	**1.9**
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 (%)		103
SURROGATE LIMITS	(71 - 126)	

CHEMIST NOTES:
N/A

PINNACLE LABORATORIES

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GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021		
BLANK I.D.	: 011701	PINNACLE I.D.	: 101052
CLIENT	: PUBLIC SERVICE COMPANY	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 01/17/01
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BROMODICHLOROMETHANE	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 (%)		97
SURROGATE LIMITS	(71 - 126)	

CHEMIST NOTES:
N/A

PINNACLE LABORATORIES

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Phone (505) 344-3777
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GAS CHROMATOGRAPHY - QUALITY CONTROL
MSMSD

TEST : EPA 8021 MODIFIED
MSMSD # : 011701
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

PINNACLE I.D. : 101052
DATE EXTRACTED : NA
DATE ANALYZED : 01/17/01
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	9.7	97	9.5	95	2	(87 - 124)	20
1,1-DICHLOROETHENE	<0.2	10.0	9.3	93	8.7	87	7	(80 - 120)	20
TRICHLOROETHENE	<0.3	10.0	10.5	105	10.3	103	2	(89 - 127)	20

CHEMIST NOTES:
N/A

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

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

SEVERN TRENT SERVICES

STL Pensacola
LOG NO: C1-01352
Received: 18 JAN 01
Reported: 26 JAN 01

Ms. Jacinta Tenorio
Pinnacle Laboratories
2709-D Pan American Freeway Northeast
Albuquerque, NM 87107

Requisition: 101052

Project: 101052, PNM PERSON STATION
Sampled By: Client
Code: 125910126

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
01352-1	101052/SURGE TANK D.	01-17-01/12:03

PARAMETER	01352-1
Sulfate as SO4 (375.4), mg/l	720
Dilution Factor	25
Prep Date	01.25.01
Analysis Date	01.25.01
Batch ID	SEW008
Prep Method	375.4
Analyst	BE

SEVERN TRENT SERVICES

STL Pensacola
LOG NO: C1-01352
Received: 18 JAN 01
Reported: 26 JAN 01

Ms. Jacinta Tenorio
Pinnacle Laboratories
2709-D Pan American Freeway Northeast
Albuquerque, NM 87107

Requisition: 101052

Project: 101052, PNM PERSON STATION
Sampled By: Client
Code: 125910126

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
01352-4	Matrix Spike % Recovery	
01352-5	Matrix Spike Duplicate % Recovery	

PARAMETER	01352-4	01352-5
Sulfate as SO4 (375.4), mg/l	76 %	95 %
Dilution Factor	1	1
Prep Date	01.25.01	01.25.01
Analysis Date	01.25.01	01.25.01
Batch ID	SEW008	SEW008
Prep Method	375.4	375.4
Analyst	BE	BE

Lance Larson, Project Manager

Final Page Of Report

SEVERN TRENT SERVICES

STL Pensacola
LOG NO: C1-01352
Received: 18 JAN 01
Reported: 26 JAN 01

Ms. Jacinta Tenorio
Pinnacle Laboratories
2709-D Pan American Freeway Northeast
Albuquerque, NM 87107

Requisition: 101052

Project: 101052, PNM PERSON STATION
Sampled By: Client
Code: 125910126

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED
01352-2	Method Blank	
01352-3	Lab Control Standard % Recovery	

PARAMETER	01352-2	01352-3
Sulfate as SO4 (375.4), mg/l	<5.0	91 %
Dilution Factor	1	1
Prep Date	01.25.01	01.25.01
Analysis Date	01.25.01	01.25.01
Batch ID	SEW008	SEW008
Prep Method	375.4	375.4
Analyst	BE	BE

SEVERN TRENT SERVICES

Data Qualifiers for Final Report

STL Pensacola

STL-Pensacola Inorganic/Organic	
B1	The analyte was detected in the associated method blank (sample itself is flagged even though sample is ND).
B2	The analyte was detected in the sample(s) and in the associated method blank analyzed on the day samples were extruded; however, this analyte was not detected in the blank analyzed with the samples.
B3	The analyte was found in the associated blank as well as in the associated sample(s) (qualifier is applied to the sample, notto the blank).
B4	Sample results were corrected due to contaminants in Fractionation Blank
D	Diluted out (surrogate or spike due to sample dilution)
E	Compound concentration exceeds the upper calibration range of the instrument.
F	The reported value is < STL-Pensacola RL and > the STL-Pensacola MDL; therefore, the quantitation is estimation (The STL-PN RL is at or above lowest calibration standard in the initial calibration curve).
G	Sample and/or duplicate result is at or below 5 X (times) the STL Reporting Limit and the absolute difference between the sample and duplicate result is at or below the STL reporting limit; therefore, the results are "in control".
H1	Sample and/or duplicate is below 5 X (times) the STL Reporting Limit and the absolute difference between the results exceeds the STL Reporting Limit; therefore, the results are "out of control"
H2	Sample and duplicate (or MS and MSD) RPD is above control limit.
J (description)	The analyte was positively identified, the quantitation may be an estimation
J4	(For positive results)Temperature limits exceeded (<2°C or ≥ 6°C), non-reportable for NDPES compliance monitoring.
J6	(For positive results) LCS or Surrogate %R is > upper control limit (UCL), results may be biased high
J7	The reported value is > the laboratory MDL and < lowest calibration standard; therefore, the quantitation is an estimation (this qualifier should only be used when the STL-PN RL is below the lowest calibration standard in the initial calibration).
J8	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.
J9	(For positive results) LCS or Surrogate %R is < lower control limit (LCL), results may be biased low
M1	A matrix effect was present ([1]sample, MS or MSD was analyzed twice to confirm surrogate/spike failure, [2]sample and/or MS/MSD chromatogram(s) had interfering peaks, [3]sample result was > 4 X spike added, [4]metals serial dilution was performed, or [5]metals post spike is < 40% R)
M2	The MS and/or MSD %R or RPD was outside upper or lower control limits; not necessarily due to matrix effect.
N/C	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
Q	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-digestion) spike.
R (description)	The data may be unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
R1	(For nondetects) Temperature limits exceeded (<2°C or ≥ 6°C); non-reportable for NDPES compliance monitoring
R2	Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt, non-reportable for NDPES compliance monitoring
R3	Improper preservation, incorrect preservative present in sample upon receipt, non-reportable for NPDES compliance
R4	Holding time exceeded, non-reportable for NDPES compliance monitoring.
R5	Collection requirements not met, improper container used for sample
R6	LCS or surrogate %R is < LCL and analyte is not detected or surrogate %R is < 10% for detects/nondetects.
R7	Internal standard area outside –50% to +100% of calibration verification standard.
R8	Initial calibration or any calibration verification exceeds acceptance criteria.
R9	Not filtered and preserved at time of collection.
R10	Headspace >1/4" in diameter in volatile vials, non-reportable for NPDES compliance monitoring
R11	Samples were filtered and preserved within 4 hours of collection.
R12	Analysis performed outside the 12-hour tune or not within tune criteria.
S1	The Method of Standard Additions (MSA) has been performed on this sample.
S2	Incorrect sample amount was submitted to the laboratory for analysis
S3 (Flashpoint)	This method is not designed for solids and the results may not be accepted by any regulator for such purposes.
T	Second-column or detector confirmation exceeded the SW-846 criteria of 40% RPD for this compound.
TIC	The compound is not within the initial calibration curve. It is searched for qualitatively or as a Tentatively Identified Compound.
U	The reported value is ≤ Laboratory MDL (value for result will be the MDL, never below the MDL)
W	Post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is less than 50% spike absorbance.
@	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis).
#	Elevated reporting limit due to insufficient sample size
1 pt	The compound has been quantitated against a one point calibration.
* (Metals & Wet Chem)	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)

STL PENSACOLA
STATE CERTIFICATIONS

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL)

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater)

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental)

State of California, Department of Health Services, Laboratory ID No. 2338 (Hazardous Waste and Wastewater)

State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (Drinking Water, Hazardous Waste and Wastewater)

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL)

Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater)

Florida, Radioactive Materials License No. G0733-1

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste)

Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water)

State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water)

Louisiana Department of Environmental Quality, Environmental Laboratory Accreditation Program, Agency Interest ID 30748 (Environmental - Accreditation Pending)

State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida)

Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Hazardous Waste and Wastewater)

State of Michigan, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida)

New Hampshire DES ELAP, Laboratory ID No. 250599A (Wastewater)

State of New Jersey, Department of Environmental Protection & Energy, Laboratory ID No. 49006 (Wastewate and Hazardous Waster)

New York State, Department of Health, Laboratory ID No. 11503 (Wastewater and Solids/Hazardous Waste)

North Carolina Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater)

North Dakota DH&Consol Labs, Laboratory ID No. R-108 (Drinking Water, Wastewater and Hazardous Waste by Reciprocity with Florida)

State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater)

Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water)

South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater by Reciprocity with FL and Solids/Hazardous Waste by Reciprocity with CA)

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water)

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL)

State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater)

West Virginia Division of Environmental Protection, Office of Water Resources, Laboratory ID No. 136 (Hazardous Waste and Wastewater by Reciprocity with FL)

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704

STL Pensacola
PROJECT SAMPLE INSPECTION FORM

SEVERN TRENT SERVICES

Lab Order #: C101352 Date Received: 1/18/01

1. Was there a Chain of Custody? **Yes** No*
2. Was Chain of Custody properly filled out and relinquished? **Yes** No*
3. Were samples received cold? (Criteria: 2° - 6°C: STL-SOP) **Yes** No* N/A
4. Were all samples properly labeled and identified? **Yes** No*
5. Did samples require splitting or compositing♦? Req By: PM Client Other♦ Yes* **No**
6. Were samples received in proper containers for analysis requested? **Yes** No*
7. Were all sample containers received intact? **Yes** No*
8. Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*+ Yes No* **N/A**
9. Is there sufficient volume for analysis requested? **Yes** No* N/A *(Can)*
10. Were samples received within Holding Time? (REFER TO STL-SOP 1040) **Yes** No*
11. Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section. Yes* No **N/A**
12. If sent, were matrix spike bottles returned? Yes No* **N/A**
13. Was Project Manager notified of problems? (initials:_____) Yes No* **N/A**

Airbill Number(s): 1Z8781680143700534

Shipped By: UPS

Cooler Number(s): Client

Shipping Charges: N/A

Cooler Weight(s): 35#

Cooler Temp(s) (°C): 5°C CCK3

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

Multiple project cooler

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: MHS **Date:** 1/18/01 **Logged By:** Pen **Date:** 1/18/01

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form. For holding times, the analytical department will flag immediate hold time samples(pH, Dissolved O_2, Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.*

♦ *If Other, note who requested the splitting or compositing of samples on the Comment Section of this form. All volatile samples requested to be split or composited must be done in the Volatile Lab. Document: "Volatile sample values may be compromised due to sample splitting (compositing)"*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938, section 2.2.12).*

Pinnacle Laboratories, Inc. **Interlab Chain of Custody** Date: 01.17 Page: 1 of 1

Network Project Manager: Jacinta A. Tenorio

Pinnacle Laboratories, Inc.
2709-D Pan American Freeway, NE
Albuquerque, New Mexico 87107
(505) 344-3777 Fax (505) 344-4413

C101352

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Metals (8) RCRA	RCRA TCLP METALS	Metals-13 PP List	Metals-TAL (23 METALS)	Sulfate	TOX	TOC	Gen Chemistry:		Oil and Grease	Volatile Organics GC/MS (8260)	BOD	COD	PESTICIDES/PCB (608/8082)	Herbicides (615/8151)	PNA (8310)/8270 SIMS	8240 (TCLP 1311) ZHE		Base/Neutral Acid Compounds GC/MS (625/8270)	URANIUM (ICP-MS)	RADIUM 226+228	Gross Alpha/Beta	TO-14	NUMBER OF CONTAINERS
101052/SURGE TANK D	01.17.01	1203	AQ	1					X																			

PROJECT INFORMATION	SAMPLE RECEIPT	SAMPLES SENT TO:	RELINQUISED BY: 1.	RELINQUISED BY: 2.
PROJECT #: 101052	Total Number of Containers	PENSACOLA - STL-FL X	Signature: [illegible] Time: 1620	Signature: Time:
PROJ. NAME: Persun Station	Chain of Custody Seals	ESL - OR	Printed Name: HM Robertson Date: 01.17.01	Printed Name: Date:
QC LEVEL: STD. IV	Received Intact?	STL - CT	Pinnacle Laboratories, Inc.	Company
QC REQUIRED: MS MSD BLANK	Received Good Cond./Cold	ATEL - AZ	RECEIVED BY: 1.	RECEIVED BY: 2
TAT: STANDARD RUSH!!	LAB NUMBER:	ATEL - MARION	Signature: [illegible] Time: 1015	Signature: Time:
DUE DATE: < 3 wks	COMMENTS:	ATEL - MELMORE	Printed Name: R. ELSPERMAN Date: 1/18/01	Printed Name: Date:
RUSH SURCHARGE:		BARRINGER	Company STL-PNL	Company
CLIENT DISCOUNT:		ENVIRO TEST LABS		
SPECIAL CERTIFICATION REQUIRED: YES NO		WCAS		
		WOHL		

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: 1-17-01 PAGE: 1 OF 2

PLI Accession #: 101052

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: CHUCK ARATER

COMPANY: PUBLIC SERVICE COMPANY OF NEW MEXICO
ADDRESS: ALVARADO SQUARE - ER16
ALBUQUERQUE, NM 87158
PHONE: (505) 241-4744
FAX: (505) 241-2487

BILL TO: SAME
COMPANY:
ADDRESS: ATTN: CHUCK ARATER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject		(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐		8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)	General Chemistry:		Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:		NUMBER OF CONTAINERS
GTS-INFLUENT	1/17/01	1210	W	001									X																				3
GTS-AIR STRIPPER EFFLUENT EAST																																	
GTS-AIR STRIPPER EFFLUENT WEST	1/17/01	1209	W	002									X																				3
GTS-GAC EFFLUENT EAST																																	
GTS-GAC EFFLUENT WEST	1/17/01	1206	W	003									X																				3
UNM EAST RESERVIOR	1/17/01	1235	W	004									X																				3
UNM WEST RESERVOIR	1/17/01	1246	W	005									X																				3
TRIP BLANK	1/17/01	1120	AQ	006									X																				1

PROJECT INFORMATION

PROJ. NO.: Remediation
PROJ. NAME: Person Station
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS	16
CUSTODY SEALS	Y / N / NA
RECEIVED INTACT	Y / N
BLUE ICE / ICE	Y / N

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

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

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

~~4~~ 3 copies Please

PLEASE PROVIDE DATA ON DISKETTE AS WELL AS EXTRA HARD COPY TO RON JOHNSON MS-0408

Direct From Field

RELINQUISHED BY: 1.
Signature: [illegible] Time: 1330
Printed Name: CHUCK ARATER Date: 1-17-01
Company: PNM
See reverse side (Force Majeure)

RECEIVED BY: 1.
Signature: Time:
Printed Name: Date:
Company:

RELINQUISHED BY: 2.
Signature: Time:
Printed Name: Date:
Company:

RECEIVED BY: (LAB) 2.
Signature: [illegible] Time: 1330
Printed Name: [illegible] Date: 1/17/01
Pinnacle Laboratories Inc.

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: 1-17-01 PAGE: 2 OF 2

PLI Accession #: 101052

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PROJECT MANAGER: CHUCK ARATER

COMPANY: PUBLIC SERVICE COMPANY OF NEW MEXICO
ADDRESS: ALVARADO SQUARE - ER16
ALBUQUERQUE, NM 87158
PHONE: (505) 241-4744
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BILL TO: SAME
COMPANY:
ADDRESS: ATTN: CHUCK ARATER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject		(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐	Total Soy	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)	General Chemistry:		Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:		NUMBER OF CONTAINERS
VEW INFLUENT	1/17/01	1211	W										X																				3
PSMW-16 INFLUENT																																	
EW- 1 INFLUENT	1/17/01	1212	W										X																				3
PSMW 24,25,26 INFLUENT	1/17/01	1213	W										X																				3
EW-3																																	
EW-2	1/17/01	1214	W										X																				3
Surge Tank Discharge	1/17/01	1207	W													X																	1

PROJECT INFORMATION

PROJ. NO.: Remediation
PROJ. NAME: Person Station
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS	13
CUSTODY SEALS	Y / N / NA
RECEIVED INTACT	Yes
BLUE ICE/ICE	Y/N

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

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

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

~~4~~ 3 copies Please

PLEASE PROVIDE DATA ON DISKETTE AS WELL AS EXTRA HARD COPY TO RON JOHNSON MS-0408

Direct from Field

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
Signature: [signature] Time: 1330	Signature: Time:
Printed Name: Chuck Arater Date: 1-17-01	Printed Name: Date:
Company: PNM	Company:
See reverse side (Force Majeure)	
RECEIVED BY: 1.	**RECEIVED BY: (LAB) 2.**
Signature: Time:	Signature: [signature] Time: 1330
Printed Name: Date:	Printed Name: John Caldwell Date: 1/17/01
Company:	Pinnacle Laboratories Inc.

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

Pinnacle Lab ID number **102052**
February 26, 2001

PUBLIC SERVICE COMPANY
ALVARADO SQUARE-ER16
ALBUQUERQUE, NM 87158

Project Name PERSON STATION
Project Number REMEDIATION

Attention: CHUCK ARATER

On 02/15/01 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), 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.

EPA method 8021 analyses were performed by Pinnacle Laboratories, Inc. Albuquerque, NM.

All other analyses were performed by Environmental Services Laboratory, Inc. Portland, OR.

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

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: jt

Enclosure

PINNACLE LABORATORIES

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CLIENT	: PUBLIC SERVICE COMPANY	PINNACLE ID	: 102052
PROJECT #	: REMEDIATION	DATE RECEIVED	: 02/15/01
ROJECT NAME	: PERSON STATION	REPORT DATE	: 02/26/01

PINNACLE ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
2052 - 01	GTS-INFLUENT	AQUEOUS	02/15/01
2052 - 02	GTS-AIR STRIPPER EFFFLUENT WEST	AQUEOUS	02/15/01
102052 - 03	GTS-GAC EFFLUENT WEST	AQUEOUS	02/15/01
2052 - 04	UNM EAST RESERVOIR	AQUEOUS	02/15/01
2052 - 05	UNM WEST RESERVOIR	AQUEOUS	02/15/01
102052 - 06	TRIP BLANK	AQUEOUS	02/15/01
102052 - 07	VEW INFLUENT	AQUEOUS	02/15/01
2052 - 08	EW-1 INFLUENT	AQUEOUS	02/15/01
02052 - 09	PSMW 24,25,26 INFLUENT	AQUEOUS	02/15/01
102052 - 10	EW-2	AQUEOUS	02/15/01
2 - 11	SURGE TANK DISCHARGE	AQUEOUS	02/15/01

PINNACLE LABORATORIES

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GAS CHROMATOGRAPHY RESULTS

:ST : 8021 HALO
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
ROJECT NAME : PERSON STATION

PINNACLE I.D.: 102052

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
	GTS-INFLUENT	AQUEOUS	02/15/01	NA	02/22/01	1
	GTS-AIR STRIPPER EFFFLUENT WEST	AQUEOUS	02/15/01	NA	02/22/01	1
03	GTS-GAC EFFLUENT WEST	AQUEOUS	02/15/01	NA	02/22/01	1

PARAMETER	DET. LIMIT	UNITS	GTS-INFLUENT	GTS-AIR STRIPPER EFFFLUENT WEST	GTS-GAC EFFLUENT WEST
BROMODICHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
ROMOFORM	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
HLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
HLOROETHANE	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
OMOCHLOROMETHANE	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
-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHANE	0.3	**UG/L**	**3.1**	< 0.3	< 0.3
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
-DICHLOROETHENE	0.2	**UG/L**	**1.0**	< 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
2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
-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
1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TETRACHLOROETHENE	0.5	**UG/L**	**0.8**	< 0.5	< 0.5
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
ICHLOROETHENE	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 (%)			94	102	105
SURROGATE LIMITS	(71 - 126)				

HEMIST NOTES:
N/A

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PINNACLE LABORATORIES

GAS CHROMATOGRAPHY RESULTS

EST : 8021 HALO
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

PINNACLE I.D.: 102052

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	UNM EAST RESERVOIR	AQUEOUS	02/15/01	NA	02/22/01	1
	UNM WEST RESERVOIR	AQUEOUS	02/15/01	NA	02/22/01	1
08	TRIP BLANK	AQUEOUS	02/15/01	NA	02/22/01	1

PARAMETER	DET. LIMIT	UNITS	UNM EAST RESERVOIR	UNM WEST RESERVOIR	TRIP BLANK
ROMODICHLOROMETHANE	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
ARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2
HLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
HLOROFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
LOROMETHANE	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
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
-DICHLOROETHANE	0.3	UG/L	< 0.3	< 0.3	< 0.3
-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
ns-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0
-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
ns-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
ETHYLENE 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-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3
RICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
NYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5
SURROGATE:					
OMOCHLOROMETHANE (%)			111	108	118
SURROGATE LIMITS	(71 - 126)				

CHEMIST NOTES:
N/A.

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PINNACLE LABORATORIES

GAS CHROMATOGRAPHY RESULTS

:ST : 8021 HALO
LIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
ROJECT NAME : PERSON STATION

PINNACLE I.D.: 102052

MPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	VEW INFLUENT	AQUEOUS	02/15/01	NA	02/23/01	1
	EW-1 INFLUENT	AQUEOUS	02/15/01	NA	02/23/01	1
09	PSMW 24,25,26 INFLUENT	AQUEOUS	02/15/01	NA	02/23/01	1

RAMETER	DET. LIMIT	UNITS	VEW INFLUENT	EW-1 INFLUENT	PSMW 24,25,26 INFLUENT
BROMODICHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
BROMOFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
ROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
RBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
HLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
LOROFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
HLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
ROMOETHANE (EDB)	0.2	UG/L	< 0.2	< 0.2	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
-DICHLOROETHANE	0.3	**UG/L**	**3.6**	**3.5**	< 0.3
,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHENE	0.2	**UG/L**	**0.6**	**1.3**	**1.0**
-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
ns-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
-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
ns-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
TRACHLOROETHENE	0.5	**UG/L**	< 0.5	**2.4**	**1.1**
,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
RICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3
ICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5
RROGATE:					
OMOCHLOROMETHANE (%)			116	98	92
SURROGATE LIMITS	(71 - 126)				

CH ST NOTES:
A

PINNACLE LABORATORIES

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GAS CHROMATOGRAPHY RESULTS

:ST : 8021 HALO
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

PINNACLE I.D.: 102052

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
10	EW-2	AQUEOUS	02/15/01	NA	02/22/01	1

PARAMETER	DET. LIMIT	UNITS	EW-2
BROMODICHLOROMETHANE	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
CHLOROETHANE	0.3	**UG/L**	**4.7**
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5
1,1-DICHLOROETHENE	0.2	**UG/L**	**2.2**
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**	**0.9**
1,1,1-TRICHLOROETHANE	1.0	**UG/L**	**1.7**
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 (%)		99
SURROGATE LIMITS	(71 - 126)	

CHEMIST NOTES:
N/A

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021		
BLANK I.D.	: 022201-B	PINNACLE I.D.	: 102052
CLIENT	: PUBLIC SERVICE COMPANY	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 02/22/01
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BROMODICHLOROMETHANE	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	(71 - 126)	

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY - QUALITY CONTROL
MSMSD

TEST : EPA 8021 MODIFIED
SMSD # : 102048-01
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

PINNACLE I.D. : 102052
DATE EXTRACTED : NA
DATE ANALYZED : 02/22/01
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	9.4	94	9.0	90	4	(87 - 124)	20
1,1-DICHLOROETHENE	<0.2	10.0	8.3	83	8.1	81	2	(80 - 120)	20
TRICHLOROETHENE	<0.3	10.0	10.4	104	9.9	99	5	(89 - 127)	20

CHEMIST NOTES:

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

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

Environmental Services Laboratory, Inc.

E S L

17400 SW Upper Boones Ferry Road, Suite 270 • Portland, OR 97224 • (503) 670-8520

February 21, 2001

Jacinta A. Tenorio
Pinnacle Laboratories
2709-D Pan American Fwy NE
Albuquerque, NM 87107
TEL: 505-344-3777
FAX (505) 344-4413

RE: 102052/PNM

Order No.: 0102103

Dear Jacinta A. Tenorio,

Environmental Services Laboratory received 1 sample on 2/16/01 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
Sulfate (EPA 375.4)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety, without the written approval from the Laboratory.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Nichole Karl

Nichole Karl
Project Manager

Keith Hunter

Technical Review

Environmental Services Laboratory

Date: *21-Feb-01*

CLIENT:	Pinnacle Laboratories	**Client Sample ID:**	Surge Tank Discharge/102052-0
Lab Order:	0102103	**Tag Number:**	
Project:	102052/PNM	**Collection Date:**	2/15/01
Lab ID:	0102103-01A	**Matrix:**	AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE		**EPA 375.4**				Analyst: **gvs**
Sulfate	1,040	250		mg/L	50	2/19/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Environmental Services Laboratory

Date: *21-Feb-01*

CLIENT: Pinnacle Laboratories
Work Order: 0102103
Project: 102052/PNM

QC SUMMARY REPORT
Method Blank

Sample ID: **MBlank** Batch ID: **01 SULFATE** Test Code: **EPA 375.4** Units: **mg/L** Analysis Date **2/19/01** Prep Date:

Client ID: **0102103** Run ID: **HIT MAN_010219A** SeqNo: **68025**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	5									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Environmental Services Laboratory

Date: *21-Feb-01*

CLIENT: Pinnacle Laboratories
Work Order: 0102103
Project: 102052/PNM

QC SUMMARY REPORT

Sample Duplicate

Sample ID: **0102072-01B DUP** Batch ID: **01 SULFATE** Test Code: **EPA 375.4** Units: **mg/L** Analysis Date **2/19/01** Prep Date:

Client ID: **0102103** Run ID: **HIT MAN_010219A** SeqNo: **68028**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate, Diss	ND	5	0	0	0.0%	80	120	0	0.0%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Environmental Services Laboratory

Date: *21-Feb-01*

CLIENT: Pinnacle Laboratories
Work Order: 0102103
Project: 102052/PNM

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **0102072-01B MS** Batch ID: **01 SULFATE** Test Code: **EPA 375.4** Units: **mg/L** Analysis Date **2/19/01** Prep Date:
Client ID: **0102103** Run ID: **HIT MAN_010219A** SeqNo: **68029**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate, Diss	13	5	12	0	108.3%	75	125	0			

Sample ID: **0102072-01B MSD** Batch ID: **01 SULFATE** Test Code: **EPA 375.4** Units: **mg/L** Analysis Date **2/19/01** Prep Date:
Client ID: **0102103** Run ID: **HIT MAN_010219A** SeqNo: **68030**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate, Diss	12.4	5	12	0	103.3%	75	125	13	4.7%	20	

Sample ID: **0102092-02B MS** Batch ID: **01 SULFATE** Test Code: **EPA 375.4** Units: **mg/L** Analysis Date **2/19/01** Prep Date:
Client ID: **0102103** Run ID: **HIT MAN_010219A** SeqNo: **68036**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate, Diss	42.22	12.5	8	34.7	94.1%	75	125	0			

Sample ID: **0102092-02B MSD** Batch ID: **01 SULFATE** Test Code: **EPA 375.4** Units: **mg/L** Analysis Date **2/19/01** Prep Date:
Client ID: **0102103** Run ID: **HIT MAN_010219A** SeqNo: **68037**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate, Diss	41.5	12.5	8	34.7	85.0%	75	125	42.22	1.7%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Environmental Services Laboratory

Date: *21-Feb-01*

CLIENT: Pinnacle Laboratories
Work Order: 0102103
Project: 102052/PNM

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS** Batch ID: **01 SULFATE** Test Code: **EPA 375.4** Units: **mg/L** Analysis Date **2/19/01** Prep Date:

Client ID: **0102103** Run ID: **HIT MAN_010219A** SeqNo: **68026**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	11.6	5	12	0	96.7%	85	115	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

nacle Laboratories, Inc. **Interla Chain of Custody** Date: 2/15 Page: 1 of ___

Network Project Manager: Jacinta A. Tenorio

Pinnacle Laboratories, Inc.
2709-D Pan American Freeway, NE
Albuquerque, New Mexico 87107
(505) 344-3777 Fax (505) 344-4413

0102103

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Metals (8) RCRA	RCRA TCLP METALS	Metals-13 PP List	Metals-TAL (23 METALS)		TOX	TOC	Gen Chemistry: SO4		Oil and Grease	Volatile Organics GC/MS (8260)	BOD	COD	PESTICIDES/PCB (608/8082)	Herbicides (615/8151)	PNA (8310)/8270 SIMS	8240 (TCLP 1311) ZHE		Base/Neutral Acid Compounds GC/MS (625/8270)	URANIUM (ICP-MS)	RADIUM 226+228	Gross Alpha/Beta	TO-14	NUMBER OF CONTAINERS
Surge Tank Discharge/ 102052-01	2/15	1404	AQ	01								X																

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:	
PROJECT #: 102052		Total Number of Containers		PENSACOLA - STL-FL	
PROJ. NAME: PNM		Chain of Custody Seals		ESL - OR	X
QC LEVEL: STD IV		Received Intact?		STL - CT	
QC REQUIRED: MS MSD BLANK		Received Good Cond./Cold		ATEL - AZ	
TAT: STANDARD RUSH!!		LAB NUMBER:		ATEL - MARION	
				ATEL - MELMORE	
DUE DATE: 3/1	COMMENTS:			BARRINGER	
RUSH SURCHARGE: —				ENVIRO TEST LABS	
CLIENT DISCOUNT: —				WCAS	
SPECIAL CERTIFICATION REQUIRED: YES NO				WOHL	

RELINQUISED BY: 1.	RELINQUISED BY: 2.
Signature: Francine Tenorio Time: 1700	Signature: Time:
Printed Name: Francine Tenorio Date: 2/15/0	Printed Name: Date:
Pinnacle Laboratories, Inc.	Company
RECEIVED BY: 1.	**RECEIVED BY: 2**
Signature: Nichole Kerr Time: 10:00	Signature: Time:
Printed Name: Nichole Kerr Date: 2/16	Printed Name: Date:
Company ESL	Company

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: 2-15-01 PAGE: 1 OF 2

PLI Accession #: 102052

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: CHUCK ARATER

COMPANY: PUBLIC SERVICE COMPANY OF NEW MEXICO
ADDRESS: ALVARADO SQUARE - ER16
ALBUQUERQUE, NM 87158
PHONE: (505) 241-4744
FAX: (505) 241-2487

BILL TO: SAME
COMPANY:
ADDRESS: ATTN: CHUCK ARATER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject		(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐		8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)	General Chemistry:		Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:		NUMBER OF CONTAINERS
GTS-INFLUENT	2-15-01	1412	AQ										X																				3
GTS-AIR STRIPPER EFFLUENT EAST																																	
GTS-AIR STRIPPER EFFLUENT WEST	2-15-01	1410	AQ										X																				3
GTS-GAC EFFLUENT EAST																																	
GTS-GAC EFFLUENT WEST	2-15-01	1408	AQ										X																				3
UNM EAST RESERVIOR	2-15-01	1428	↓										X																				3
UNM WEST RESERVOIR	2-15-01	1434	↓										X																				3
TRIP BLANK	2/15	1330	AQ										X																				1

PROJECT INFORMATION

PROJ. NO.: Remediation
PROJ. NAME: Person Station
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS: 16
CUSTODY SEALS: YES (NO)
RECEIVED INTACT: YES NO
BLUE ICE/ICE: YES NO

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

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

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

~~4~~ 3 copies Please

PLEASE PROVIDE DATA ON DISKETTE AS WELL AS EXTRA HARD COPY TO RON JOHNSON MS-0408

Fran Field

RELINQUISHED BY: 1.
Signature: [illegible] Time: 1510
Printed Name: Chuck Arater Date: 2-15-01
Company: PNL
See reverse side (Force Majeure)

RECEIVED BY: 1.
Signature: Time:
Printed Name: Date:
Company:

RELINQUISHED BY: 2.
Signature: Time:
Printed Name: Date:
Company:

RECEIVED BY: (LAB) 2.
Signature: [illegible] Time: 1515
Printed Name: Francine Tonvio Date: 2/15/01
Pinnacle Laboratories Inc.

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: 2-15-01 PAGE: 2 OF 2

PLI Accession #: 102052

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: CHUCK ARATER

COMPANY: PUBLIC SERVICE COMPANY OF NEW MEXICO
ADDRESS: ALVARADO SQUARE - ER16
ALBUQUERQUE, NM 87158
PHONE: (505) 241-4744
FAX: (505) 241-2487

BILL TO: SAME
COMPANY:
ADDRESS: ATTN: CHUCK ARATER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject	(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐	Total SO4	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)	General Chemistry:		Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:		NUMBER OF CONTAINERS
VEW INFLUENT	2-15-01	1414	W									X																				3
PSMW-16 INFLUENT																																
EW- 1 INFLUENT	2-15-01	1415	W									X																				3
PSMW 24,25,26 INFLUENT	2-15-01	1416	W									X																				3
EW-3																																
EW-2	2-15-01	1417	W									X																				3
Surge Tank Discharge	2-15-01	1404	W												X																	1

PROJECT INFORMATION

PROJ. NO.: Remediation
PROJ. NAME: Person Station
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS	12
CUSTODY SEALS	Y/N/NA
RECEIVED INTACT	Y/N
BLUE ICE/ICE	12°C

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

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

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

4 copies Please
3

PLEASE PROVIDE DATA ON DISKETTE AS WELL AS EXTRA HARD COPY TO RON JOHNSON MS-0408

From Field

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
Signature: [illegible] Time: 1510	Signature: Time:
Printed Name: Chuck Arater Date: 2-15-01	Printed Name: Date:
Company: PNM	Company:
See reverse side (Force Majeure)	
RECEIVED BY: 1.	**RECEIVED BY: (LAB) 2.**
Signature: Time:	Signature: [illegible] Time: 1515
Printed Name: Date:	Printed Name: [illegible] Date: 2/15/01
Company:	Pinnacle Laboratories Inc.

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

Pinnacle Lab ID number **103007**
March 13, 2001

PUBLIC SERVICE COMPANY
ALVARADO SQUARE-ER16
ALBUQUERQUE, NM 87158

Project Name PERSON STATION
Project Number REMEDIATION

Attention: CHUCK ARATER

On 03/01/01 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), 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.

EPA method 8021 HALO analyses were performed by Pinnacle Laboratories, Inc. Albuquerque, NM.

All other analyses were performed by Environmental Services Laboratory, Inc. Portland, OR.

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

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: jt

Enclosure

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

CLIENT	: PUBLIC SERVICE COMPANY	PINNACLE ID	: 103007
PROJECT #	: REMEDIATION	DATE RECEIVED	: 03/01/01
PROJECT NAME	: PERSON STATION	REPORT DATE	: 03/13/01

PINNACLE ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
103007 - 01	GTS-INFLUENT	AQUEOUS	03/01/01
103007 - 02	GTS-AIR STRIPPER EFFLUENT WEST	AQUEOUS	03/01/01
103007 - 03	GTS-GAC EFFLUENT WEST	AQUEOUS	03/01/01
103007 - 04	UNM EAST RESERVOIR	AQUEOUS	03/01/01
103007 - 05	UNM WEST RESERVOIR	AQUEOUS	03/01/01
103007 - 06	TRIP BLANK	AQUEOUS	03/01/01
103007 - 07	VEW INFLUENT	AQUEOUS	03/01/01
103007 - 08	EW-1 INFLUENT	AQUEOUS	03/01/01
103007 - 09	PSMW 24,25,26 INFLUENT	AQUEOUS	03/01/01
103007 - 10	EW-2	AQUEOUS	03/01/01
103007 - 11	SURGE TANK DISCHARGE	AQUEOUS	03/01/01

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : 8021 HALO
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

PINNACLE I.D.: 103007

SAMPLE I.D. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
[illegible]	GTS-INFLUENT	AQUEOUS	03/01/01	NA	03/05/01	1
02	GTS-AIR STRIPPER EFFLUENT WEST	AQUEOUS	03/01/01	NA	03/05/01	1
[illegible]	GTS-GAC EFFLUENT WEST	AQUEOUS	03/01/01	NA	03/05/01	1

PARAMETER	DET. LIMIT	UNITS	GTS-INFLUENT	GTS-AIR STRIPPER EFFLUENT WEST	GTS-GAC EFFLUENT WEST
BROMODICHLOROMETHANE	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**	**4.0**	< 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**	**1.3**	< 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**	**1.5**	< 0.5	< 0.5
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 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 (%)			123	118	115
SURROGATE LIMITS	(71 - 126)				

CHEMIST NOTES:
N/A

PINNACLE LABORATORIES

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GAS CHROMATOGRAPHY RESULTS

TEST : 8021 HALO
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

PINNACLE I.D.: 103007

SAMPLE #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
	UNM EAST RESERVOIR	AQUEOUS	03/01/01	NA	03/05/01	1
05	UNM WEST RESERVOIR	AQUEOUS	03/01/01	NA	03/05/01	1
06	TRIP BLANK	AQUEOUS	03/01/01	NA	03/05/01	1

PARAMETER	DET. LIMIT	UNITS	UNM EAST RESERVOIR	UNM WEST RESERVOIR	TRIP BLANK
BROMODICHLOROMETHANE	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
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	< 0.3
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	< 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	< 0.5	< 0.5	< 0.5
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 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 (%)			112	105	124
SURROGATE LIMITS	(71 - 126)				

CHEMIST NOTES:
N/A

PINNACLE LABORATORIES

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GAS CHROMATOGRAPHY RESULTS

TEST : 8021 HALO
LIENT : PUBLIC SERVICE COMPANY
ROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

PINNACLE I.D.: 103007

SAMPLE . #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
	VEW INFLUENT	AQUEOUS	03/01/01	NA	03/05/01	1
08	EW-1 INFLUENT	AQUEOUS	03/01/01	NA	03/05/01	1
	PSMW 24,25,26 INFLUENT	AQUEOUS	03/01/01	NA	03/06/01	1

PARAMETER	DET. LIMIT	UNITS	VEW INFLUENT	EW-1 INFLUENT	PSMW 24,25,26 INFLUENT
ROMODICHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
ROMOFORM	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
HLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
HLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROFORM	0.5	**UG/L**	< 0.5	< 0.5	**0.5**
ROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
OMOCHLOROMETHANE	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
3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHANE	0.3	**UG/L**	**4.1**	**3.8**	< 0.3
2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
1-DICHLOROETHENE	0.2	**UG/L**	**0.4**	**1.4**	**1.0**
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
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
ETHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0
1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TETRACHLOROETHENE	0.5	**UG/L**	< 0.5	**2.8**	**1.2**
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
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 (%)			117	112	112
SURROGATE LIMITS	(71 - 126)				

CHEMIST NOTES:
N/A

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GAS CHROMATOGRAPHY RESULTS

TEST : 8021 HALO
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

PINNACLE I.D.: 103007

SAMPLE #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
	EW-2	AQUEOUS	03/01/01	NA	03/06/01	1

PARAMETER	DET. LIMIT	UNITS	EW-2
BROMODICHLOROMETHANE	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	**5.4**
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5
1,1-DICHLOROETHENE	0.2	UG/L	**2.9**
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**	**2.1**
1,1,1-TRICHLOROETHANE	1.0	**UG/L**	**1.7**
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 (%)		112
SURROGATE LIMITS	(71 - 126)	

CHEMIST NOTES:
N

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PINNACLE LABORATORIES

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021		
BLANK I.D.	: 030701-A	PINNACLE I.D.	: 103007
CLIENT	: PUBLIC SERVICE COMPANY	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 03/07/01
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BROMODICHLOROMETHANE	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
[illegible]CHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1[illegible]-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
c[illegible]-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
c[illegible]-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1[illegible],2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1[illegible],2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5

SURROGATE:

BROMOCHLOROMETHANE (%)		118
SURROGATE LIMITS	(71 - 126)	

CHEMIST NOTES:
NA

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PINNACLE LABORATORIES

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021		
BLANK I.D.	: 030701-B	PINNACLE I.D.	: 103007
CLIENT	: PUBLIC SERVICE COMPANY	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 03/07/01
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BROMODICHLOROMETHANE	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
DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
c -1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
c -1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1 ,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
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	(71 - 126)	

CHEMIST NOTES:
NA

PINNACLE LABORATORIES

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GAS CHROMATOGRAPHY - QUALITY CONTROL
MSMSD

TEST : EPA 8021 MODIFIED
SMSD # : 103003-01
CLIENT : PUBLIC SERVICE COMPANY
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

PINNACLE I.D. : 103007
DATE EXTRACTED : NA
DATE ANALYZED : 03/07/01
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	11.0	110	10.7	107	3	(87 - 124)	20
1,1-DICHLOROETHENE	<0.2	10.0	10.3	103	9.4	94	9	(80 - 120)	20
TRICHLOROETHENE	<0.3	10.0	10.9	109	10.4	104	5	(89 - 127)	20

CHEMIST NOTES:
NA

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

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

Environmental Services Laboratory, Inc.

E S L

17400 SW Upper Boones Ferry Road, Suite 270 • Portland, OR 97224 • (503) 670-8520

March 07, 2001

Jacinta A. Tenorio
Pinnacle Laboratories
2709-D Pan American Fwy NE
Albuquerque, NM 87107
TEL: 505-344-3777
FAX (505) 344-4413

RE: 103007/PNM

Order No.: 0103010

Dear Jacinta A. Tenorio,

Environmental Services Laboratory received 1 sample on 3/2/01 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
Sulfate (EPA 375.4)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety, without the written approval from the Laboratory.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Nichole Karl

Nichole Karl
Project Manager

Keith Hunter

Technical Review

Environmental Services Laboratory

Date: *07-Mar-01*

CLIENT:	Pinnacle Laboratories	**Client Sample ID:**	Surge Tank Discharge/103007-1
Lab Order:	0103010	**Tag Number:**	
Project:	103007/PNM	**Collection Date:**	3/1/01
Lab ID:	0103010-01A	**Matrix:**	AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE		**EPA 375.4**				Analyst: **gvs**
Sulfate	865	250		mg/L	50	3/6/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Environmental Services Laboratory

Date: *07-Mar-01*

CLIENT: Pinnacle Laboratories
Work Order: 0103010
Project: 103007/PNM

QC SUMMARY REPORT

Method Blank

Sample ID: **MBlank** Batch ID: **01 SULFATE** Test Code: **EPA 375.4** Units: **mg/L** Analysis Date **3/6/01** Prep Date:

Client ID: **0103010** Run ID: **HIT MAN_010306B** SeqNo: **70501**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	5									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Environmental Services Laboratory

Date: *07-Mar-01*

CLIENT: Pinnacle Laboratories
Work Order: 0103010
Project: 103007/PNM

QC SUMMARY REPORT

Sample Duplicate

Sample ID: **0103028-03A DUP** Batch ID: **01 SULFATE** Test Code: **EPA 375.4** Units: **mg/L** Analysis Date **3/6/01** Prep Date:

Client ID: **0103010** Run ID: **HIT MAN_010306B** SeqNo: **70509**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	5	0	0	0.0%	80	120	0	0.0%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Environmental Services Laboratory

Date: *07-Mar-01*

CLIENT: Pinnacle Laboratories
Work Order: 0103010
Project: 103007/PNM

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **0103028-03A MS** Batch ID: **01 SULFATE** Test Code: **EPA 375.4** Units: **mg/L** Analysis Date **3/6/01** Prep Date:
Client ID: **0103010** Run ID: **HIT MAN_010306B** SeqNo: **70510**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	5	8	0	0.0%	75	125	0			MI

Sample ID: **0103028-03A MSD** Batch ID: **01 SULFATE** Test Code: **EPA 375.4** Units: **mg/L** Analysis Date **3/6/01** Prep Date:
Client ID: **0103010** Run ID: **HIT MAN_010306B** SeqNo: **70511**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	5	8	0	0.0%	75	125	0	0.0%	20	MI

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Environmental Services Laboratory

Date: *07-Mar-01*

CLIENT: Pinnacle Laboratories
Work Order: 0103010
Project: 103007/PNM

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS** Batch ID: **01 SULFATE** Test Code: **EPA 375.4** Units: **mg/L** Analysis Date **3/6/01** Prep Date:

Client ID: **0103010** Run ID: **HIT MAN_010306B** SeqNo: **70502**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	11.99	5	12	0	99.9%	85	115	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Pinnacle Laboratories, Inc. — Interlab Chain of Custody

Date: 3/1 Page: 1 of

Network Project Manager: Jacinta A. Tenorio

Pinnacle Laboratories, Inc.
2709-D Pan American Freeway, NE
Albuquerque, New Mexico 87107
(505) 344-3777 Fax (505) 344-4413

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Metals (8) RCRA	RCRA TCLP METALS	Metals-13 PP List	Metals-TAL (23 METALS)		TOX	TOC	Gen Chemistry: 504		Oil and Grease	Volatile Organics GC/MS (8260)	BOD	COD	PESTICIDES/PCB (608/8082)	Herbicides (615/8151)	PNA (8310)/8270 SIMS	8240 (TCLP 1311) ZHE		Base/Neutral Acid Compounds GC/MS (625/8270)	URANIUM (ICP-MS)	RADIUM 226+228	Gross Alpha/Beta	TO-14	NUMBER OF CONTAINERS
Surge Tank Discharge/ 103007-11	3/1	1207	AQ	01								X																

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:	
PROJECT #: 103007		Total Number of Containers		PENSACOLA - STL-FL	
PROJ. NAME: PNM		Chain of Custody Seals		ESL - OR	X
QC LEVEL: STD IV		Received Intact?		STL - CT	
QC REQUIRED: MS MSD BLANK		Received Good Cond./Cold		ATEL - AZ	
TAT: STANDARD RUSH!!		LAB NUMBER: 0103010		ATEL - MARION	
				ATEL - MELMORE	
DUE DATE: 3/15	COMMENTS:			BARRINGER	
RUSH SURCHARGE: —				ENVIRO TEST LABS	
CLIENT DISCOUNT: —				WCAS	
SPECIAL CERTIFICATION REQUIRED: YES NO				WOHL	

RELINQUISED BY: 1.	RELINQUISED BY: 2.
Signature: Francine Torres Time: 1700	Signature: Time:
Printed Name: Francine Torres Date: 3/1/01	Printed Name: Date:
Pinnacle Laboratories, Inc.	Company
RECEIVED BY: 1.	**RECEIVED BY: 2.**
Signature: Nichole Karl Time:	Signature: Time:
Printed Name: Nichole Karl Date: 3/2	Printed Name: Date:
Company	Company

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: 3-1-01 PAGE: 1 OF 2

PLI Accession #: 103007

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: CHUCK ARATER

COMPANY: PUBLIC SERVICE COMPANY OF NEW MEXICO
ADDRESS: ALVARADO SQUARE - ER16
ALBUQUERQUE, NM 87158
PHONE: (505) 241-4744
FAX: (505) 241-2487

BILL TO: SAME
COMPANY:
ADDRESS: ATTN: CHUCK ARATER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject		(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐		8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)	General Chemistry:		Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:		NUMBER OF CONTAINERS
GTS-INFLUENT	3-1-01	1212	W	01									X																				3
GTS-AIR STRIPPER EFFLUENT EAST																																	
GTS-AIR STRIPPER EFFLUENT WEST	3-1-01	1211	W	02									X																				3
GTS-GAC EFFLUENT EAST																																	
GTS-GAC EFFLUENT WEST	3-1-01	1209	W	03									X																				3
UNM EAST RESERVIOR	3-1-01	1234	W	04									X																				3
UNM WEST RESERVOIR	3-1-01	1240	W	05									X																				3
TRIP BLANK	3-1-01		W	06									X																				1

PROJECT INFORMATION

PROJ. NO.: Remediation
PROJ. NAME: Person Station
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS	16
CUSTODY SEALS	Y N NA
RECEIVED INTACT	Y
BLUE ICE/ICE	ICE

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

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

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

4 copies Please
3

PLEASE PROVIDE DATA ON DISKETTE AS WELL AS EXTRA HARD COPY TO RON JOHNSON MS-0408

Direct from field

RELINQUISHED BY: 1.
Signature: [illegible] Time: 1:20P
Printed Name: CHUCK ARATER Date: 3-1-01
Company: PNM
See reverse side (Force Majeure)

RECEIVED BY: 1.
Signature: Time:
Printed Name: Date:
Company:

RELINQUISHED BY: 2.
Signature: Time:
Printed Name: Date:
Company:

RECEIVED BY: (LAB) 2.
Signature: [illegible] Time: 1:20P
Printed Name: L. Fritz Froehlich Date: 3/1/01
Pinnacle Laboratories Inc.

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: 3-1-01 PAGE: 2 OF 2

PLI Accession #: 103007

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: CHUCK ARATER

COMPANY: PUBLIC SERVICE COMPANY OF NEW MEXICO
ADDRESS: ALVARADO SQUARE - ER16
ALBUQUERQUE, NM 87158
PHONE: (505) 241-4744
FAX: (505) 241-2487

BILL TO: SAME
COMPANY:
ADDRESS: ATTN: CHUCK ARATER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject		(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐	Total Soy	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)	General Chemistry:		Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:		NUMBER OF CONTAINERS
VEW INFLUENT	3-1-01	1214	W	07									X																				3
PSMW-16 INFLUENT																																	
EW- 1 INFLUENT	3-1-01	1215	W	08									X																				3
PSMW 24,25,26 INFLUENT	3-1-01	1216	W	09									X																				3
EW-3																																	
EW-2	3-1-01	1217	W	10									X																				3
Surge Tank Discharge	3-1-01	1207	W	11												X																	1

PROJECT INFORMATION

PROJ. NO.: Remediation
PROJ. NAME: Person Station
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS: 13
CUSTODY SEALS: Y / N / NA
RECEIVED INTACT: Y
BLUE ICE/ICE: ICE

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

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

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

4 copies Please
3

PLEASE PROVIDE DATA ON DISKETTE AS WELL AS EXTRA HARD COPY TO RON JOHNSON MS-0408

Direct from field

RELINQUISHED BY: 1.
Signature: [illegible] Time: 1:20P
Printed Name: Chuck Arater Date: 3-1-01
Company: PWM
See reverse side (Force Majeure)

RECEIVED BY: 1.
Signature: Time:
Printed Name: Date:
Company:

RELINQUISHED BY: 2.
Signature: Time:
Printed Name: Date:
Company:

RECEIVED BY: (LAB) 2.
Signature: [illegible] Time: 1:20P
Printed Name: C. Fritz Froehlich Date: 3/1/01
Pinnacle Laboratories Inc.