GW - 73

MONITORING REPORTS

DATE:

1996

Western Water Consultants, Inc.

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AND ENVIRONMENTAL CONSULTING

611 SKYLINE ROAD
LARAMIE, WY 82070
(307) 742-0031
FAX (307) 721-2913

701 ANTLER DR., SUITE 233
CASPER, WY 82601
(307) 473-2707
FAX (307) 237-0828

1901 ENERGY COURT, SUITE 270
GILLETTE, WY 82716
(307) 682-1880

1949 SUGARLAND DR., SUITE 134
SHERIDAN, WY 82801
(307) 672-0761
FAX (307) 674-4265

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FINAL REPORT
GROUND-WATER INVESTIGATION
FOR THE DOWELL FACILITY
HOBBS, NEW MEXICO

December 13, 1996

Prepared for:

Dowell, a division of Schlumberger Technology Corporation
300 Schlumberger Drive
Sugar Land, Texas 77478

Prepared By:

Western Water Consultants, Inc.

611 Skyline Road
Laramie, Wyoming 82070

701 Antler Drive
Suite 233
Casper, WY 82601

1901 Energy Court
Suite 270
Gillette, WY 82718

1949 Sugarland Drive
Suite 134
Sheridan, WY 82801

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1.0 INTRODUCTION

This report discusses the ground-water investigation, proposed future drilling locations, and changes to the present remediation systems at the Dowell, a division of Schlumberger Technology Corporation, facility in Hobbs, New Mexico. Authorization to proceed was provided by the New Mexico Oil Conservation Division (NMOCD) per a letter to Dowell dated October 7, 1996.

1.1 Facility Description

The Dowell facility is located at 1105 West Bender Boulevard in Hobbs, New Mexico. A facility map is shown on Figure 1-1. The facility provides services for area oil and gas production wells. Services include well cementing, well acidizing and stimulating, and formation fracturing. The facility consists of a main office building and laboratory, truck maintenance building and wash bay, dry chemicals warehouse, various above ground storage tanks, and acid plant.

2.0 GROUND-WATER INVESTIGATION

This section discusses the methods utilized during the ground-water investigation at the 3 potential source areas. The areas investigated were the former underground storage tank (UST) area, former wastewater collection area, and former acid collection and loading area (Figure 1-1).

2.1 Field Work

On October 23-25, 1996, Western Water Consultants, Inc. (WWC) supervised the drilling and installation of 4 two-inch diameter monitoring wells by Scarborough Drilling of Lamesa, Texas. The wells range in depth from 84 to 85 feet below ground-surface. Monitoring well MW-1 was installed upgradient of the potential source areas as a background well. Monitoring wells MW- 2, MW-3 and MW-4 were installed in the assumed downgradient direction from the areas (Figure 2-1). Ground-water at the time of the monitoring well installation was assumed to be flowing to the southeast at a depth of approximately 70 feet below ground surface. The monitoring wells were properly completed and developed according to NMOCD guidelines. Monitoring well completions are presented on well logs as Appendix A.

2.2 Lithology

Lithology consisted of 33-38 feet of moderate orange pink-light brown caliche overlying interbedded mod. orange pink-light brown, very fine to fine grained sands and sandstones. The

sandstones are poor to moderately well indurated with calcium carbonate cement. Ground-water is absent in the overlying caliche and is encountered in the sand at 72-74 feet. The lithology is consistent across the site in terms of the general thickness of the caliche and character of the underlying sands. Complete lithologic descriptions are provided on the well logs included as Appendix A.

2.3 Field Screening

Field screening was performed by checking cuttings and split spoon samples for volatile organic compounds (VOCs) with an Environmental Instruments 580D photoionization detector (PID). Cuttings were continuously screened by passing the PID through them and examined visually for signs of hydrocarbon staining. The PID was calibrated with an isobutylene standard prior to field screening each day. The only staining or PID detections encountered occurred in MW-2 just southeast of the former waste water collection area. The PID readings are provided on the well logs included as Appendix A.

2.4 Soil Sample Collection and Results

One soil sample was collected for laboratory analysis from each soil boring. The samples were collected as close as possible to the soil/water interface for laboratory analysis. These samples were collected according to WWC protocol for analysis by EPA Method 8260. Results of the soil sample analysis are shown on Table 1. The methylene chloride in the soil samples is probably a lab contaminant as verified by its presence in the method blanks of all 4 samples. The consistent concentrations of ethylbenzene, 2-butenone, and isopropylbenzene in the soil samples and the absence of these analytes in the water samples, except for MW-2, lead us to believe the results are suspect and not indicative of the contaminants actually present in the soil. The laboratory data sheets are presented as Appendix B.

2.5 Static Water Levels

Static water levels were measured with a Solinst water level probe from the top of the PVC casing. Depth to water varied from 70 to 72 feet below ground surface. Results of the water level measurements are shown on Table 2. The water levels were used to construct a potentiometric surface map (Figure 2-1), which shows the ground-water flow direction is to the east at a hydraulic gradient of 0.005 ft./ft..

2.6 Ground-water Sampling and Results

Ground-water samples were collected according to WWC protocol following proper development of the wells, and analyzed for volatile organic compounds by EPA Method 8260. To verify the results of the initial sampling, a second round of sampling was performed on November

21, 1996. Results of the both sampling events are shown on Table 3. Halocarbons and aromatic hydrocarbons are present in the wells at the source areas. Low concentrations of halocarbons are present in MW-1, which is the upgradient well. The types of contaminants present in the water are consistent with those being removed by the SVE system. All water produced during well development or purging was disposed in a stock tank to evaporate.

2.7 Soil Disposal

Drill cuttings generated during the monitoring well installations were stockpiled on plastic on site. Soil samples will be collected at a future time to characterize the soil, prior to being properly disposed pending NMOCD approval.

3.0 PROPOSED DRILLING ACTIVITIES

To confirm the horizontal extent of the noted contaminants in Table 3, 5 new wells are proposed along the east and south property lines (Figure 2-1). These wells would be installed to ground-water, properly developed, and the ground-water sampled for laboratory analysis by EPA Method 8260.

4.0 MODIFICATIONS TO THE SVE SYSTEM

Because of operational difficulties in operating the AcuVac engine-driven soil vapor extraction (SVE) blower in Unit 3 (Figure 1-1), it will be replaced with an electrically driven blower. An additional well will also be added to each of the three SVE units.

4.1 Unit 3 Blower Replacement

The AcuVac blower will be replaced with an electric motor driven blower. The electric blower will have a capacity of 200 cubic feet per minute (CFM) at an inlet vacuum of about 66 inches of water, at site atmospheric conditions. The electric motor will be rated at 10 horsepower.

Soil vapor produced by the new blower will be fed to a catalytic oxidizer. The catalytic oxidizer will have a volumetric capacity of at least 200 CFM, and will use natural gas as fuel. The oxidizer will employ materials of construction and catalyst which can withstand the acid gas generation anticipated from oxidizing the chlorinated hydrocarbons that are typically extracted from the SVE wells in Unit 3.

It is possible that an acid gas scrubber may be required to treat the exhaust from catalytic

oxidation of the soil vapor extracted from Unit 3. Such a scrubber will be installed if necessary, and the unit's operational characteristics will be coordinated with the catalytic oxidizer. Authorization will be obtained for the catalytic oxidizer (and for the acid gas scrubber, if necessary) in accordance with the requirements of the New Mexico Air Quality Bureau.

Figure 4-1 is a schematic drawing of the anticipated new SVE equipment configuration for Unit 3.

4.2 Additional SVE Wells

There is an additional well adjacent to the area served by each unit of the existing SVE system, and it is proposed to connect those wells into the respective units. The additional wells were originally designed and constructed in consideration of this eventuality. Wells to be newly included in the SVE system have been redesignated to maintain consistency with the existing SVE wells. Reconfiguration of the individual units is illustrated in Figures 4-2 through 4-5. New well designations are shown in tables on the respective unit figures.

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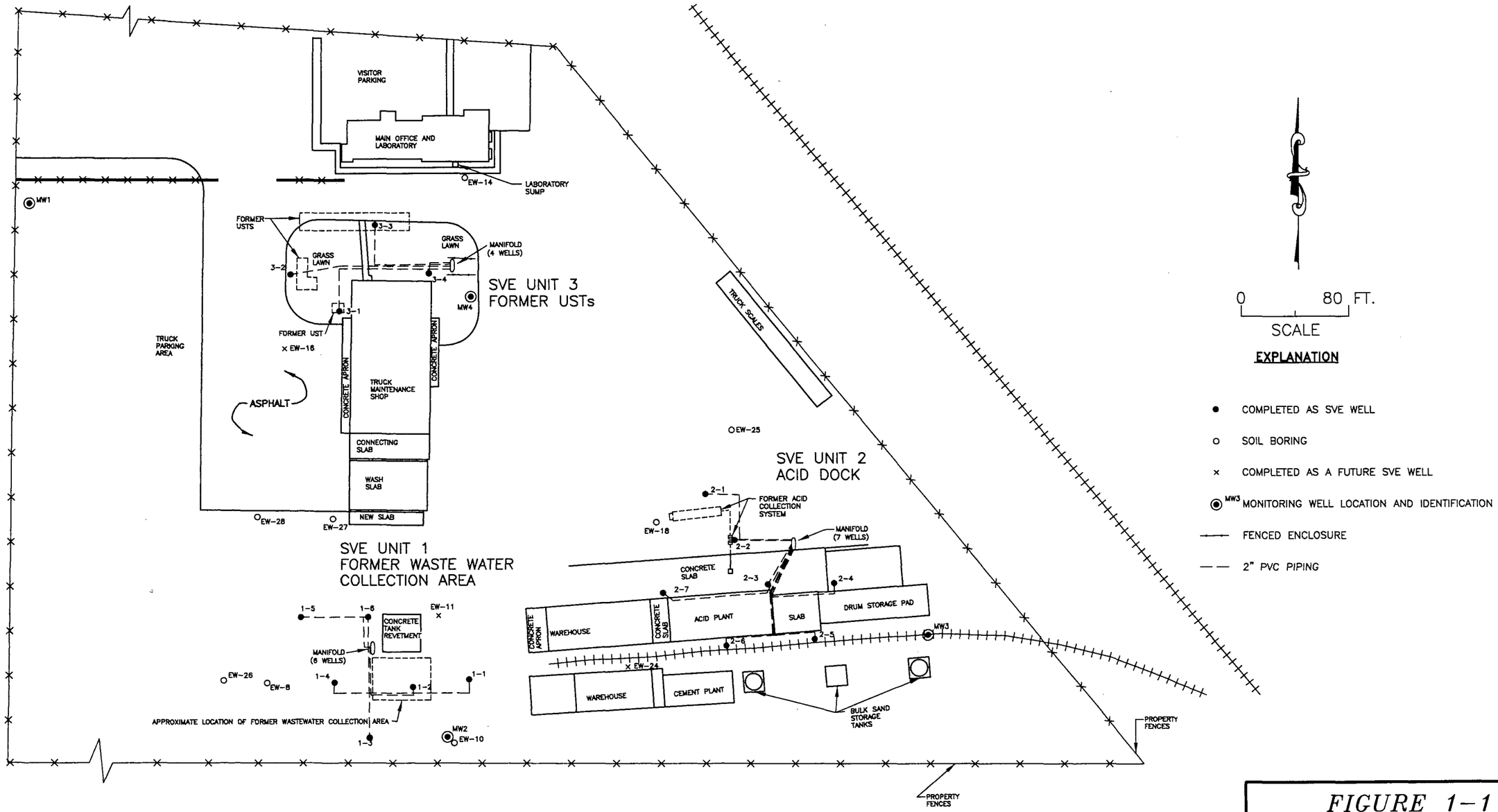

0 80 FT.

SCALE

EXPLANATION

- ● COMPLETED AS SVE WELL
- ○ SOIL BORING
- × COMPLETED AS A FUTURE SVE WELL
- ◉ MW3 MONITORING WELL LOCATION AND IDENTIFICATION
- —— FENCED ENCLOSURE
- — — 2" PVC PIPING

FIGURE 1-1

SITE MAP AND LOCATION OF SOIL BORINGS AND WELLS

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY CORPORATION, HOBBS, NM

Western Water Consultants, Inc.

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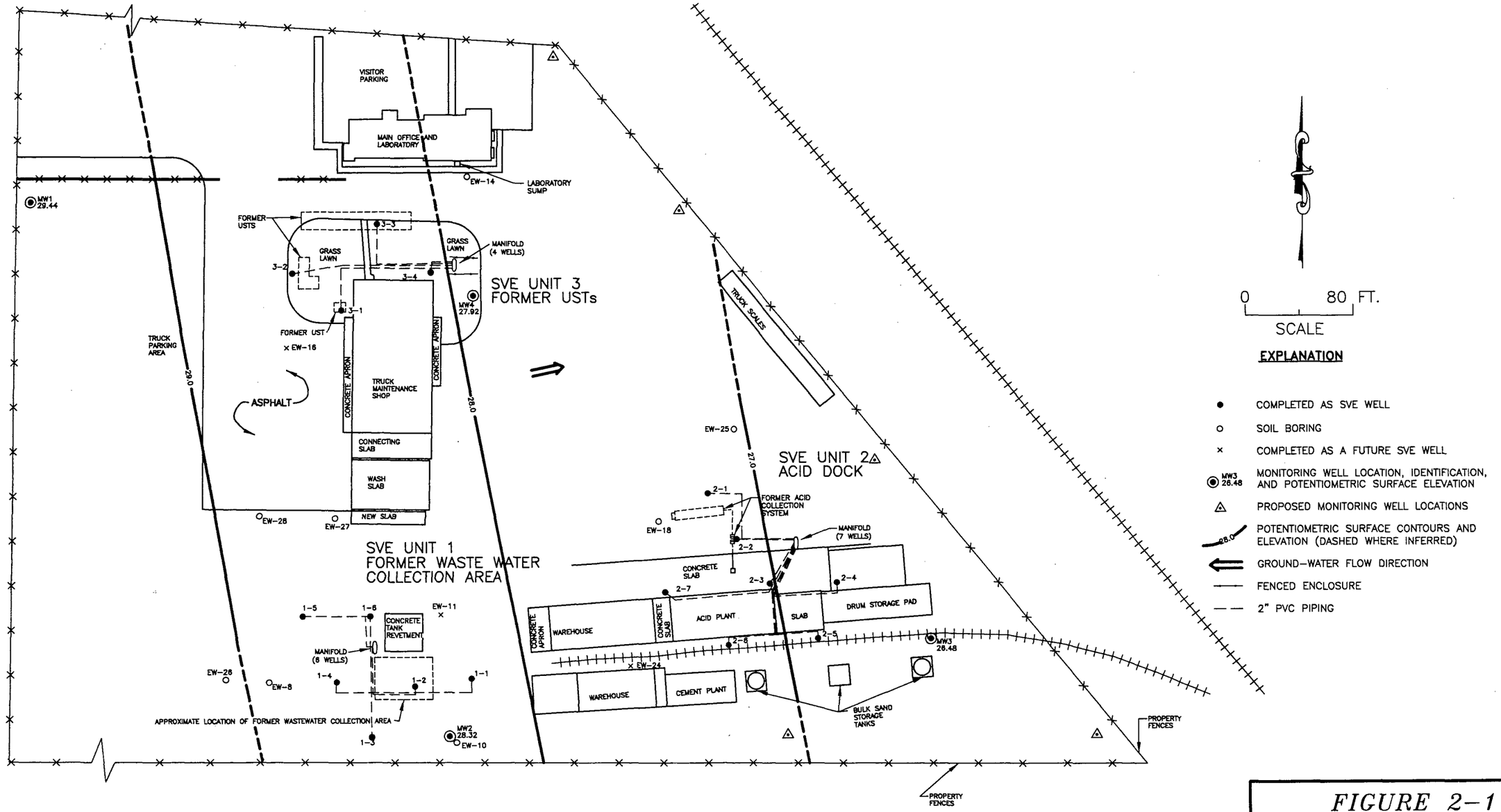


FIGURE 2-1

POTENTIOMETRIC SURFACE MAP

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY CORPORATION, HOBBS, NM

Western Water Consultants, Inc.

Table 1. Soil Samples for the Dowell Facility in Hobbs, New Mexico

Sample Location	Sample ID	Sample Depth	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENE (mg/L)	NAPHTHA-LENE (mg/L)
MW-1	93007-1.10/96	77-79'	10/24/96	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.087	ND(0.050)	ND(0.050)	ND(0.050)
MW-2	93007-3.10/96	70-72'	10/24/96	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.087	ND(0.050)	ND(0.050)	0.301
MW-3	93007-4.10/96	70-72'	10/24/96	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.094	ND(0.050)	ND(0.050)	ND(0.050)
MW-4	93007-5.10/96	70-72'	10/24/96	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.091	ND(0.050)	ND(0.050)	ND(0.050)

Notes:

Only commonly detected compounds are listed. Other compounds that have been detected infrequently are included in the laboratory reports.
ND - Not Detected at detection limit shown in parenthesis.

1,1-DCA - 1,1-Dichloroethane
1,2-DCA - 1,2-Dichloroethane
1,1-DCE - 1,1-Dichloroethene
PCE - Tetrachloroethene
TCA - 1,1,1-Trichloroethane
TCE - Trichloroethene

Table 2. Static Water Levels for the Dowell Facility in Hobbs, New Mexico

Well Number	Top of Casing Elevation (ft)	Date Measured	Depth to Water (ft)	Static Water Elevation (ft)	Difference from prior Level (ft)	Water Column (ft)
MW-1	99.61	10/25/96	70.22	29.39		13.78
		11/21/96	70.17	29.44	0.05	13.83
MW-2	98.35	10/25/96	70.03	28.32		14.97
		11/21/96	70.03	28.32	0	14.97
MW-3	99.37	10/25/96	72.88	26.49		12.12
		11/21/96	72.89	26.48	-0.01	12.11
MW-4	100.29	10/25/96	72.41	27.88		12.59
		11/21/96	72.37	27.92	0.04	12.63

NOTE:

* = measured from a temporary benchmark of arbitrary elevation = 100.00 feet.
Benchmark is located on the southwest corner of the concrete revetment footer by the former wastewater pond.

Table 3. Chemicals Detected in Ground-Water Samples Dowell, Hobbs, New Mexico Facility

Well Number	Date Sampled	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	PCE (mg/L)	TCA (mg/L)	TCE (mg/L)	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	TOTAL XYLENE (mg/L)	NAPHTHA-LENE (mg/L)
MW-1	10/25/96	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)
	11/21/96	0.006	ND(0.001)	ND(0.001)	0.007	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)
MW-2	10/25/96	0.259	0.002	0.012	0.014	0.044	ND(0.002)	0.042	0.016	0.049	0.027	0.007
duplicate	10/25/96	0.268	0.002	0.015	0.024	0.044	ND(0.002)	0.044	0.016	0.049	0.026	0.006
	11/21/96	0.322	ND(0.005)	0.030	0.049	0.247	ND(0.005)	0.070	0.027	0.050	0.046	0.008
MW-3	10/25/96	0.023	ND(0.002)	0.007	0.012	0.007	ND(0.002)	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.006
	11/21/96	0.017	ND(0.002)	0.007	0.019	0.028	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	0.001J
MW-4	10/25/96	0.110	0.051	0.498	2.590	1.040	0.005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)
	11/21/96	0.110	ND(0.05)	0.623	3.526	0.941	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.10)	ND(0.05)
duplicate	11/21/96	0.106	0.042	0.694	3.980	1.080	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.04)	ND(0.02)

Notes:

Only commonly detected compounds are listed. Other compounds that have been detected infrequently are included in the laboratory reports.
ND - Not Detected at detection limit shown in parenthesis.
J - Detected at concentration below the method detection limit.

1,1-DCA - 1,1-Dichloroethane
1,2-DCA - 1,2-Dichloroethane
1,1-DCE - 1,1-Dichloroethene
PCE - Tetrachloroethene
TCA - 1,1,1-Trichloroethane
TCE - Trichloroethene

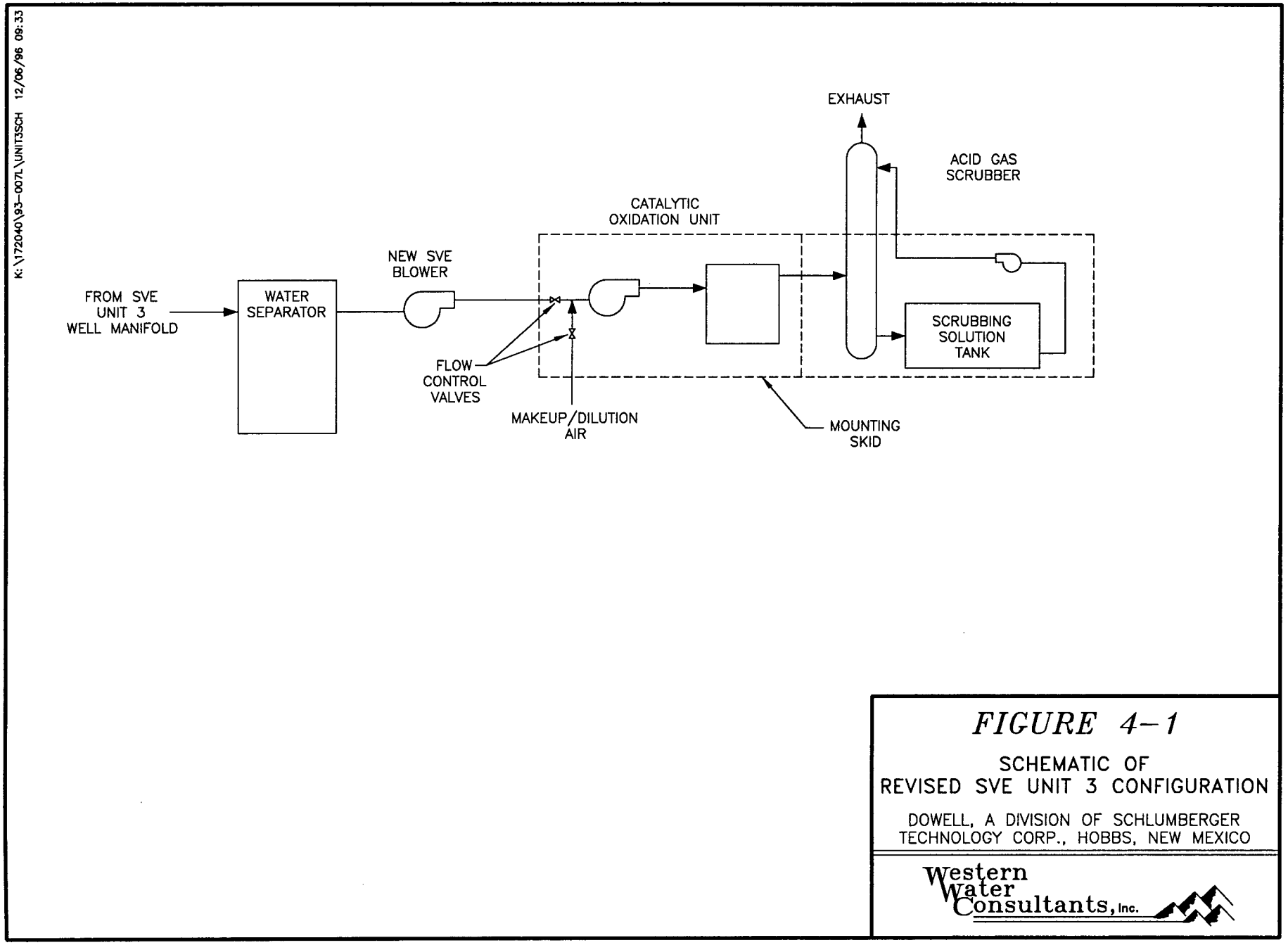


FIGURE 4-1

SCHEMATIC OF
REVISED SVE UNIT 3 CONFIGURATION

DOWELL, A DIVISION OF SCHLUMBERGER
TECHNOLOGY CORP., HOBBS, NEW MEXICO

Western Water Consultants, Inc.

K:\172040\93-007L\UNIT3SVE 12/06/96 09:05

1105 WEST BENDER BOULEVARD

VISITOR PARKING

MAIN OFFICE AND LABORATORY

PROPERTY FENCES

LABORATORY SUMP

FORMER USTS

3-3

MANIFOLD

3-2

3-4

GRASS LAWN

3-1

GRASS LAWN

FORMER UST

3-5

TRUCK PARKING AREA

CONCRETE APRON

TRUCK MAINTENANCE SHOP

CONCRETE APRON

ASPHALT

CONNECTING SLAB

WASH SLAB

NEW SLAB

SVE UNIT 3 FORMER USTs

0 40 FT.

SCALE

EXPLANATION

- ● COMPLETED AS SVE WELL
- × TO BE RECONSTRUCTED AS AN ADDITIONAL SVE WELL
- —— FENCED ENCLOSURE
- ---- 2" PVC PIPING
- —— PROPOSED MODIFICATIONS SHOWN IN BLUE

ORIGINAL IDENTIFICATION	REVISED IDENTIFICATION
UNIT 3	
EW-1	3-3
EW-12	3-1
EW-13	3-2
EW-15	3-4
EW-16	3-5

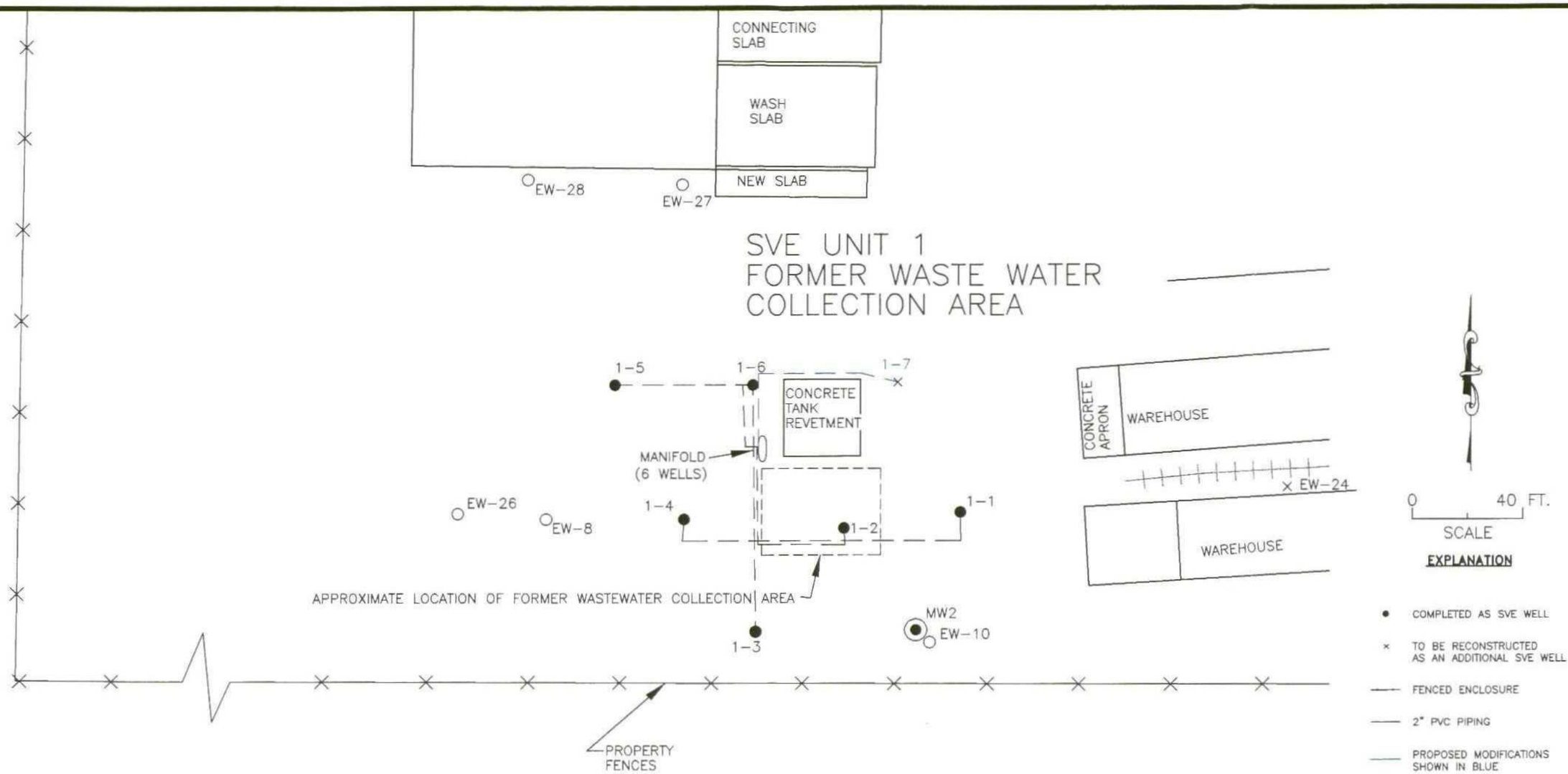
FIGURE 4-2

SITE MAP, PROPOSED
UNIT 3 SVE SYSTEM MODIFICATION

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY, CORP., HOBBS, NEW MEXICO

Western Water Consultants, Inc.

K:\172040\93-0072\UNIT1SVE 12/13/06 13:20



ORIGINAL IDENTIFICATION	REVISED IDENTIFICATION
UNIT 1	
EW-2	1-2
EW-4	1-6
EW-5	1-1
EW-6	1-3
EW-7	1-4
EW-9	1-5
EW-11	1-7

FIGURE 4-3

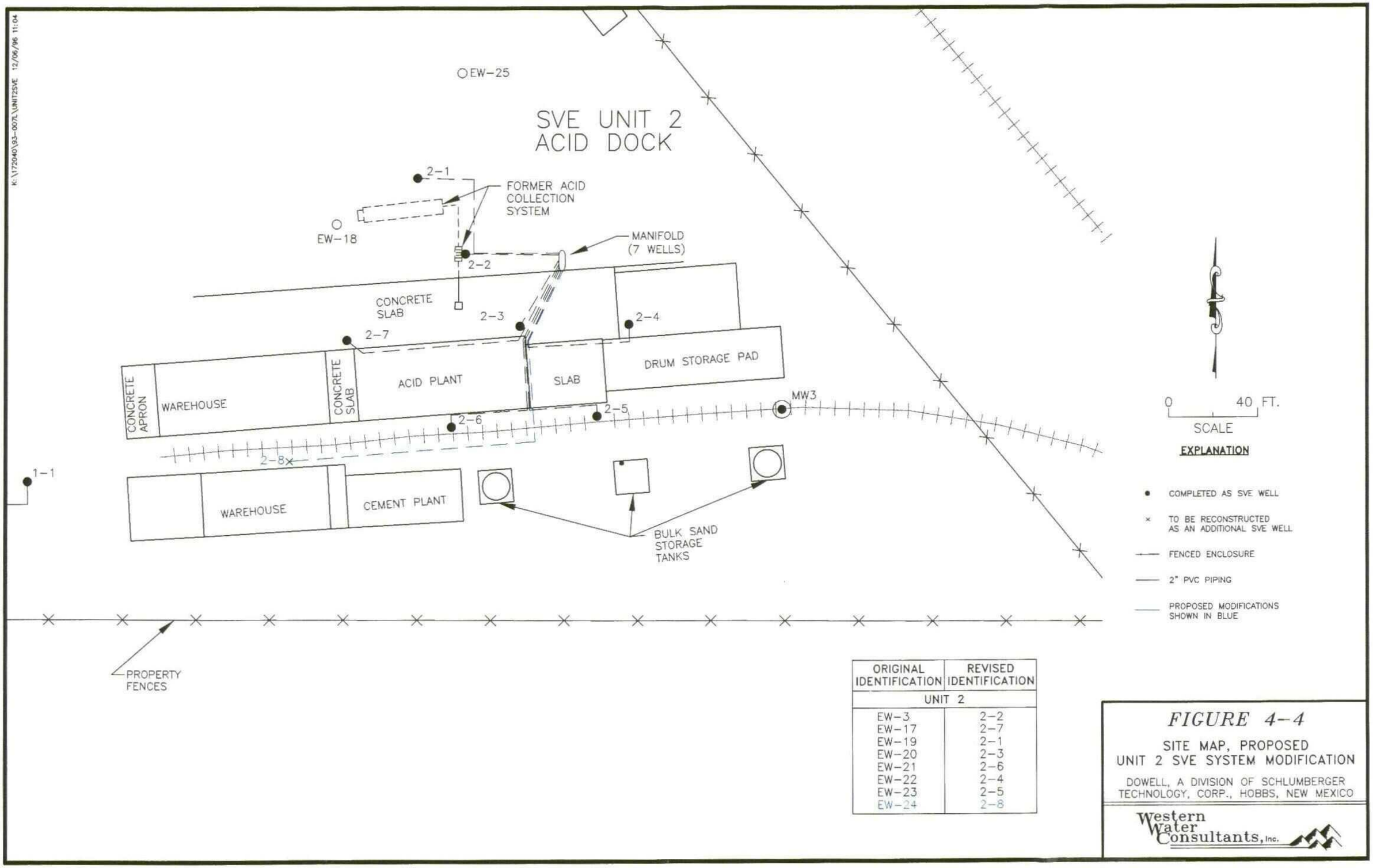
SITE MAP, PROPOSED
UNIT 1 SVE SYSTEM MODIFICATION

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY, CORP., HOBBS, NEW MEXICO

Western Water Consultants, Inc.

K:\172040\93-007L\UNIT2SVE 12/06/96 11:04

SVE UNIT 2 ACID DOCK



ORIGINAL IDENTIFICATION	REVISED IDENTIFICATION
UNIT 2	
EW-3	2-2
EW-17	2-7
EW-19	2-1
EW-20	2-3
EW-21	2-6
EW-22	2-4
EW-23	2-5
EW-24	2-8

FIGURE 4-4

SITE MAP, PROPOSED
UNIT 2 SVE SYSTEM MODIFICATION

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY, CORP., HOBBS, NEW MEXICO

Western Water Consultants, Inc.

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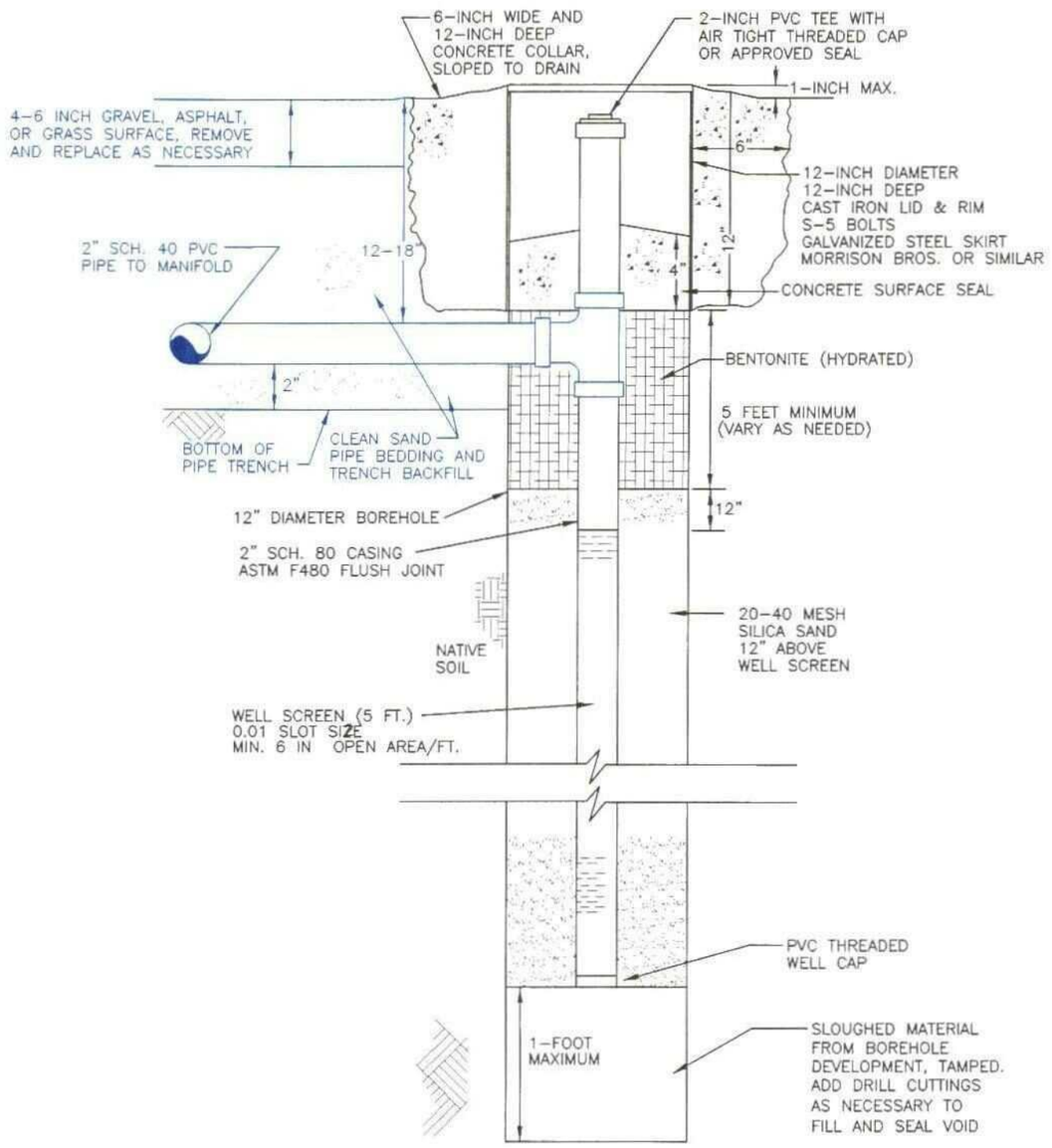
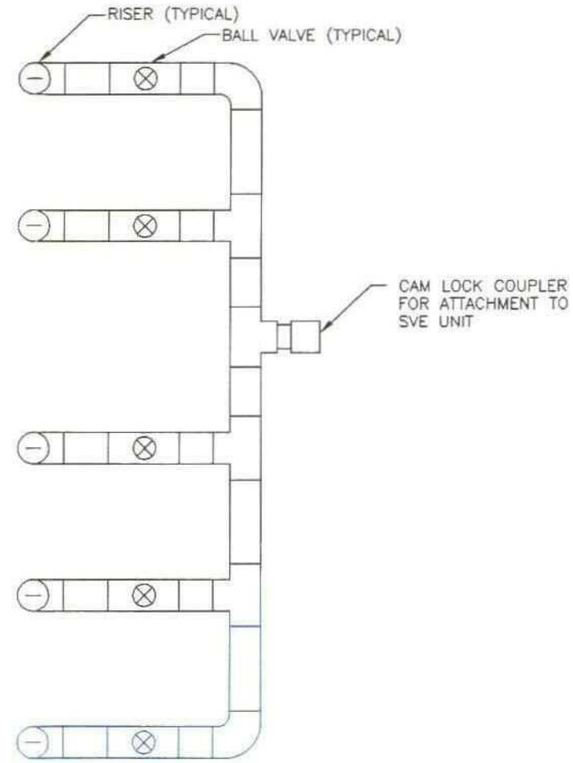
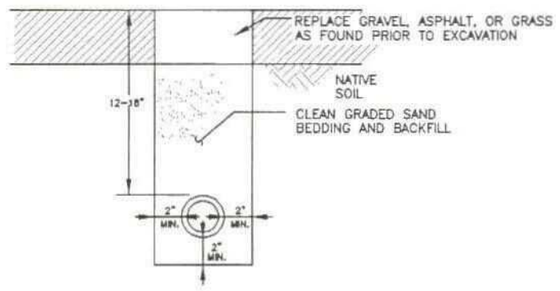


RECONSTRUCTION OF WELL 3-5 (TYPICAL OF 3)
FOR SVE SERVICE
(MODIFICATIONS IN BLUE)
NO SCALE

NOTE: ALL PIPING 2" SCH. 40 PVC.



MODIFICATION OF SVE MANIFOLD
TO INCORPORATE WELL 3-5 (TYPICAL)
(MODIFICATIONS IN BLUE)
NO SCALE



SINGLE HEADER PIPE
TRENCH DETAIL
NO SCALE

FIGURE 4-5

SVE SYSTEM
MODIFICATION DETAILS

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY CORP., HOBBS, NEW MEXICO

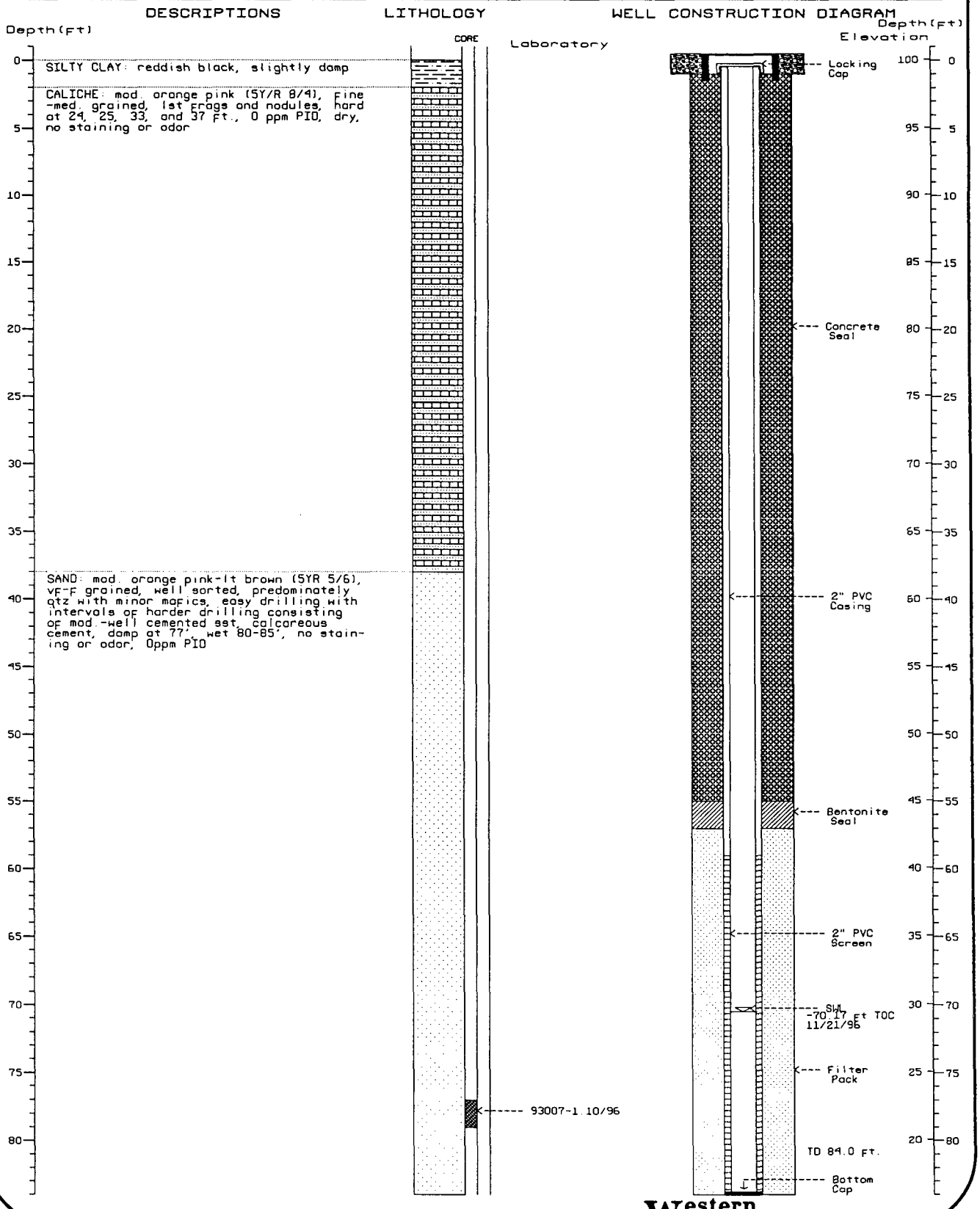
Western Water Consultants, Inc.

APPENDIX A

MONITORING WELL 93007 MW-1

LOCATION: Dowell Facility, Hobbs, New Mexico
18.5' E, 17.5' S of the NE property corner
1105 West Bender Boulevard
LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Scarbourough Drilling (Lane Scarborough)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: October 23, 1996

WELL OWNER: Dowell Schlumberger (JN 93007.2)
DRILLING METHOD: Air Rotary, 5 in. OD
CASING: 2 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 8/16 Mesh Silica Sand
TOP OF CASING ELEVATION: 99.61 feet
(Reference Datum: Arbitrary = 100.00 feet)

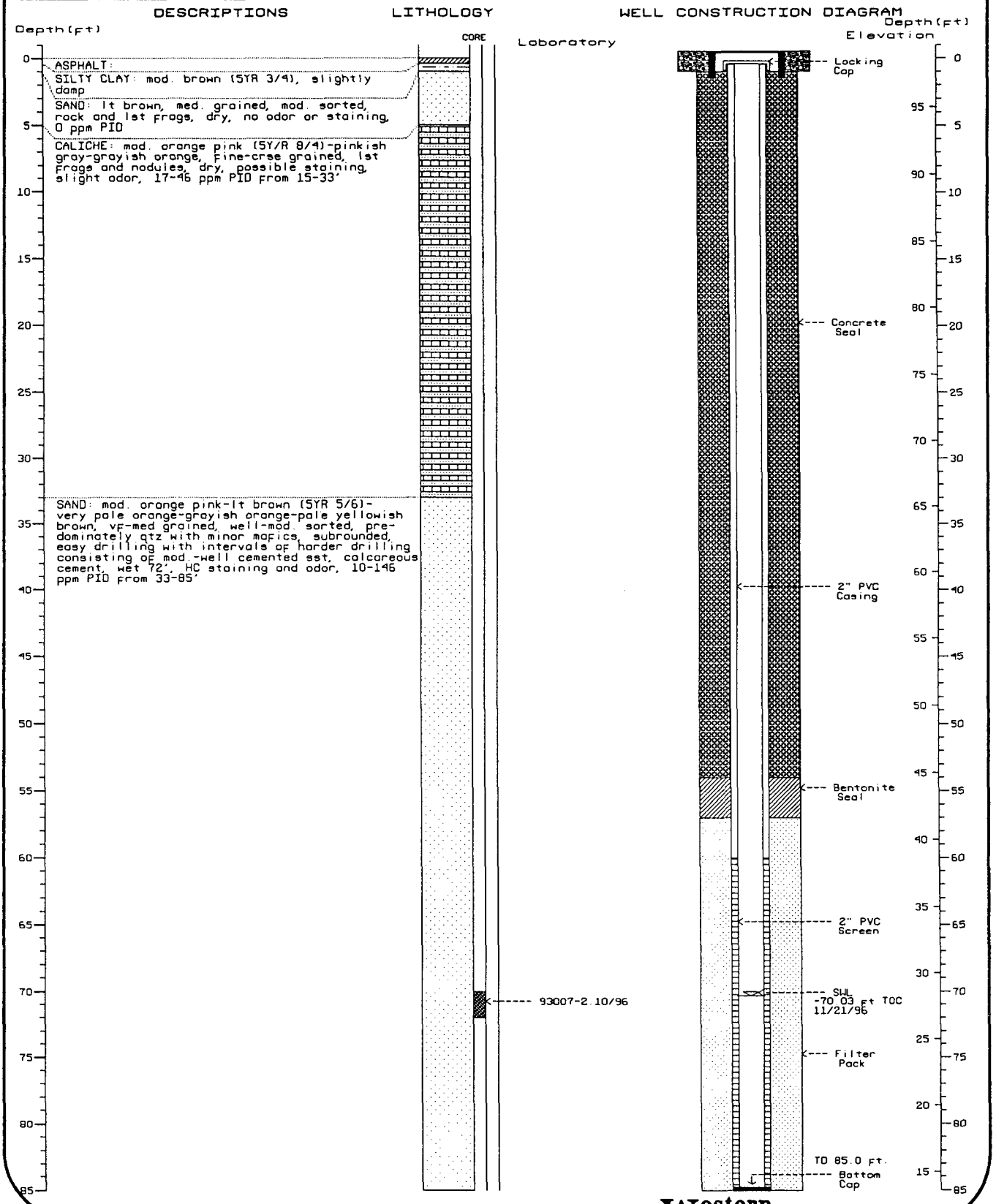


Western Water Consultants, Inc.

MONITORING WELL 93007 MW-2

LOCATION: Dowell Facility, Hobbs, New Mexico
63.5' S, 20.0' E of former waste pond revetment
1105 West Bender Boulevard
LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Scarbourough Drilling (Lane Scarborough)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: October 24, 1996

WELL OWNER: Dowell Schlumberger (JN 93007.2)
DRILLING METHOD: Air Rotary, 5 in. OD
CASING: 2 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 8/16 Mesh Silica Sand
TOP OF CASING ELEVATION: 98.35 feet
(Reference Datum: Arbitrary = 100.00 feet)

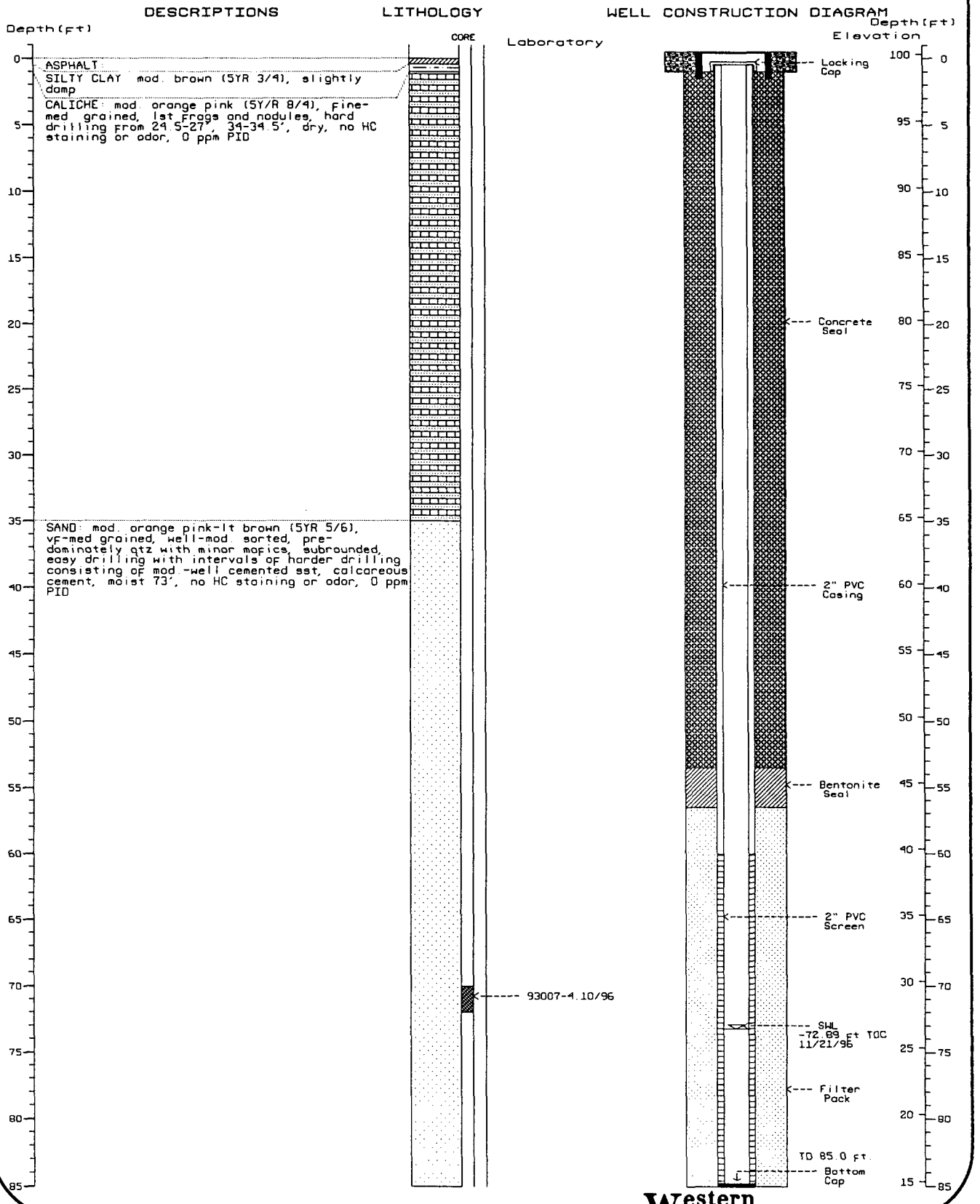


Western Water Consultants, Inc.

MONITORING WELL 93007 MW-3

LOCATION: Dowell Facility, Hobbs, New Mexico
14.5' S the SE corner of chemical storage revetment
1105 West Bender Boulevard
LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Scarbourough Drilling (Lane Scarborough)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: October 24, 1996

WELL OWNER: Dowell Schlumberger (JN 93007.2)
DRILLING METHOD: Air Rotary, 5 in. OD
CASING: 2 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 8/16 Mesh Silica Sand
TOP OF CASING ELEVATION: 99.37 feet
(Reference Datum Arbitrary = 100.00 feet)

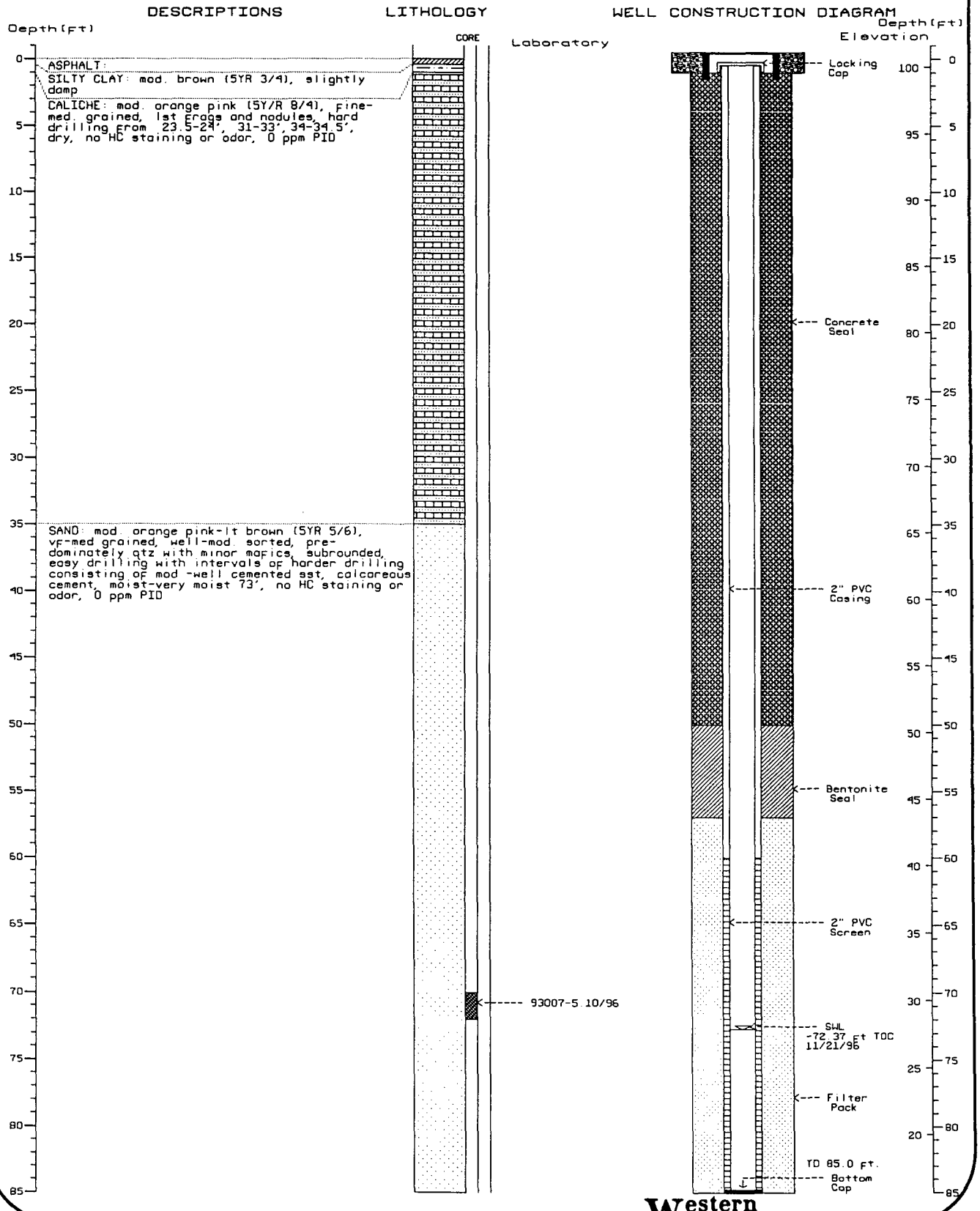


Western Water Consultants, Inc.

MONITORING WELL 93007 MW-4

LOCATION: Dowell Facility, Hobbs, New Mexico
29.5' E, 11.0' S of the NE corner of truck shop
1105 West Bender Boulevard
LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Scarbourough Drilling (Lane Scarborough)
DRILLERS LICENSE No.: NA
INSTALLATION DATE: October 24, 1996

WELL OWNER: Dowell Schlumberger (JN 93007.2)
DRILLING METHOD: Air Rotary, 5 in. OD
CASING: 2 in. Dia. Flush Joint Sch. 40 PVC
SCREEN: Factory Slotted Casing; 0.020 in.
FILTER PACK: 8/16 Mesh Silica Sand
TOP OF CASING ELEVATION: 100.29 feet
(Reference Datum: Arbitrary = 100.00 feet)



Western Water Consultants, Inc.

APPENDIX B

ENERGY LABORATORIES, INC.
P.O. BOX 3258 • CASPER, WY 82602 • PHONE (307) 235-0515
2393 SALT CREEK HIGHWAY • CASPER, WY 82601 • FAX (307) 234-1639

EPA METHOD 8260

MW-1

Client:	Western Water Consultants		
Sample ID:	93007-1.10/96	Date Sampled:	10/25/96
Laboratory ID:	C96-59729	Date Received:	10/29/96
Matrix:	Water	Date Analyzed:	10/29/96
Dilution Factor:	2	Date Reported:	October 31, 1996

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	2.0
74-87-3	Chloromethane	ND	2.0
75-01-4	Vinyl chloride (Chloroethene)	ND	2.0
74-83-9	Bromomethane	ND	2.0
75-00-3	Chloroethane	ND	2.0
75-69-4	Trichlorofluoromethane	ND	2.0
75-35-4	1,1 - Dichloroethene	ND	2.0
75-09-2	Methylene chloride (Dichloromethane)	ND	2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.0
75-34-3	1,1 - Dichloroethane	ND	2.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	2.0
74-97-5	Bromochloromethane	ND	2.0
67-66-3	Chloroform (Trichloromethane)	ND	2.0
594-20-7	2,2 - Dichloropropane	ND	2.0
71-55-6	1,1,1 - Trichloroethane	ND	2.0
107-06-2	1,2 - Dichloroethane	ND	2.0
563-58-6	1,1 - Dichloropropene	ND	2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.0
71-43-2	Benzene	ND	2.0
74-95-3	Dibromomethane	ND	2.0
78-87-5	1,2 - Dichloropropane	ND	2.0
79-01-6	Trichloroethene	ND	2.0
75-27-4	Bromodichloromethane	ND	2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.0
79-00-5	1,1,2 - Trichloroethane	ND	2.0
108-88-3	Toluene	ND	2.0
106-93-4	1,2 - Dibromoethane	ND	2.0
142-28-9	1,3 - Dichloropropane	ND	2.0
124-48-1	Dibromochloromethane	ND	2.0
127-18-4	Tetrachloroethene	ND	2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.0
108-90-7	Chlorobenzene	ND	2.0
100-41-4	Ethylbenzene	ND	2.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	4.0
75-25-2	Bromoform (Tribromomethane)	ND	2.0
100-42-5	Styrene (Ethenylbenzene)	ND	2.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.0
96-18-4	1,2,3 - Trichloropropane	ND	2.0

ND - Analyte not detected at stated limit of detection

MW-1

EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 93007-1.10/96
Laboratory ID: C96-59729

Date Sampled: 10/25/96
Date Analyzed: 10/29/96
Date Reported: October 31, 1996

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.0
108-86-1	Bromobenzene	ND	2.0
103-65-1	n - Propylbenzene	ND	2.0
95-49-8	2 - Chlorotoluene	ND	2.0
106-43-4	4 - Chlorotoluene	ND	2.0
108-67-8	1,3,5 - Trimethylbenzene	ND	2.0
98-06-6	tert - Butylbenzene	ND	2.0
95-63-6	1,2,4 - Trimethylbenzene	ND	2.0
135-98-8	sec - Butylbenzene	ND	2.0
541-73-1	1,3 - Dichlorobenzene	ND	2.0
106-46-7	1,4 - Dichlorobenzene	ND	2.0
99-87-6	4-Isopropyltoluene	ND	2.0
95-50-1	1,2 - Dichlorobenzene	ND	2.0
104-51-8	n - Butylbenzene	ND	2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	10.0
120-82-1	1,2,4 - Trichlorobenzene	ND	2.0
91-20-3	Naphthalene	ND	2.0
87-68-3	Hexachlorobutadiene	ND	2.0
87-61-6	1,2 3 - Trichlorobenzene	ND	2.0

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	713977	736966	96.9%	50 - 200 %
Fluorobenzene	1409313	1399843	101%	50 - 200 %
1,4 - Difluorobenzene	1207864	1219541	99.0%	50 - 200 %
Chlorobenzene - d5	905180	874231	104%	50 - 200 %
1,4 - Dichlorobenzene - d4	454655	455965	99.7%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.1	101%	86 - 118 %
Toluene - d8	10.3	103%	88 - 110 %
4 - Bromofluorobenzene	9.65	96.5%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.2	102%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.96\WEST_WAT.ER\ORGANIC.CAS\96_59727.xls

Analyst: yw
Reviewed: sec

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EPA METHOD 8260

MW-2

Client: Western Water Consultants
Sample ID: 93007-2.10/96
Laboratory ID: C96-59727
Matrix: Water
Dilution Factor: 2

Date Sampled: 10/25/96
Date Received: 10/29/96
Date Analyzed: 10/29/96
Date Reported: October 31, 1996

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	2.0
74-87-3	Chloromethane	ND	2.0
75-01-4	Vinyl chloride (Chloroethene)	ND	2.0
74-83-9	Bromomethane	ND	2.0
75-00-3	Chloroethane	ND	2.0
75-69-4	Trichlorofluoromethane	ND	2.0
75-35-4	**1,1 - Dichloroethene**	**12.4**	2.0
75-09-2	Methylene chloride (Dichloromethane)	ND	2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.0
75-34-3	**1,1 - Dichloroethane**	**259**	2.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	2.0
74-97-5	Bromochloromethane	ND	2.0
67-66-3	Chloroform (Trichloromethane)	ND	2.0
594-20-7	2,2 - Dichloropropane	ND	2.0
71-55-6	**1,1,1 - Trichloroethane**	**44.4**	2.0
107-06-2	**1,2 - Dichloroethane**	**2.32**	2.0
563-58-6	1,1 - Dichloropropene	ND	2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.0
71-43-2	**Benzene**	**42.0**	2.0
74-95-3	Dibromomethane	ND	2.0
78-87-5	1,2 - Dichloropropane	ND	2.0
79-01-6	Trichloroethene	ND	2.0
75-27-4	Bromodichloromethane	ND	2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.0
79-00-5	1,1,2 - Trichloroethane	ND	2.0
108-88-3	**Toluene**	**49.0**	2.0
106-93-4	1,2 - Dibromoethane	ND	2.0
142-28-9	1,3 - Dichloropropane	ND	2.0
124-48-1	Dibromochloromethane	ND	2.0
127-18-4	**Tetrachloroethene**	**14.1**	2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.0
108-90-7	Chlorobenzene	ND	2.0
100-41-4	**Ethylbenzene**	**15.8**	2.0
108-38-3	**m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)**	**17.3**	4.0
75-25-2	Bromoform (Tribromomethane)	ND	2.0
100-42-5	Styrene (Ethenylbenzene)	ND	2.0
95-47-6	**o - Xylene (1,2-Dimethylbenzene)**	**9.34**	2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.0
96-18-4	1,2,3 - Trichloropropane	ND	2.0

ND - Analyte not detected at stated limit of detection

MW-2

EPA METHOD 8260

Client:	Western Water Consultants	Date Sampled:	10/25/96
Sample ID:	93007-2.10/96	Date Analyzed:	10/29/96
Laboratory ID:	C96-59727	Date Reported:	October 31, 1996

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.0
108-86-1	Bromobenzene	ND	2.0
103-65-1	n - Propylbenzene	ND	2.0
95-49-8	2 - Chlorotoluene	ND	2.0
106-43-4	4 - Chlorotoluene	ND	2.0
108-67-8	**1,3,5 - Trimethylbenzene**	**6.14**	2.0
98-06-6	tert - Butylbenzene	ND	2.0
95-63-6	**1,2,4 - Trimethylbenzene**	**5.84**	2.0
135-98-8	sec - Butylbenzene	ND	2.0
541-73-1	1,3 - Dichlorobenzene	ND	2.0
106-46-7	1,4 - Dichlorobenzene	ND	2.0
99-87-6	4-Isopropyltoluene	ND	2.0
95-50-1	1,2 - Dichlorobenzene	ND	2.0
104-51-8	n - Butylbenzene	ND	2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	10.0
120-82-1	1,2,4 - Trichlorobenzene	ND	2.0
91-20-3	**Naphthalene**	**7.12**	2.0
87-68-3	Hexachlorobutadiene	ND	2.0
87-61-6	1,2 3 - Trichlorobenzene	ND	2.0

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	755210	736966	102%	50 - 200 %
Fluorobenzene	1426592	1399843	102%	50 - 200 %
1,4 - Difluorobenzene	1237072	1219541	101%	50 - 200 %
Chlorobenzene - d5	887717	874231	102%	50 - 200 %
1,4 - Dichlorobenzene - d4	443892	455965	97.4%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.92	99.2%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.69	96.9%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.97	99.7%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: yw

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EPA METHOD 8260

Duplicate MW-2

Client:	**Western Water Consultants**		
Sample ID:	93007-A.10/96	Date Sampled:	10/25/96
Laboratory ID:	C96-59731	Date Received:	10/29/96
Matrix:	Water	Date Analyzed:	10/29/96
Dilution Factor:	2	Date Reported:	October 31, 1996

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	2.0
74-87-3	Chloromethane	ND	2.0
75-01-4	Vinyl chloride (Chloroethene)	ND	2.0
74-83-9	Bromomethane	ND	2.0
75-00-3	Chloroethane	ND	2.0
75-69-4	Trichlorofluoromethane	ND	2.0
75-35-4	**1,1 - Dichloroethene**	**15.4**	2.0
75-09-2	Methylene chloride (Dichloromethane)	ND	2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.0
75-34-3	**1,1 - Dichloroethane**	**268**	2.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	2.0
74-97-5	Bromochloromethane	ND	2.0
67-66-3	Chloroform (Trichloromethane)	ND	2.0
594-20-7	2,2 - Dichloropropane	ND	2.0
71-55-6	**1,1,1 - Trichloroethane**	**43.8**	2.0
107-06-2	**1,2 - Dichloroethane**	**2.48**	2.0
563-58-6	1,1 - Dichloropropene	ND	2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.0
71-43-2	**Benzene**	**43.8**	2.0
74-95-3	Dibromomethane	ND	2.0
78-87-5	1,2 - Dichloropropane	ND	2.0
79-01-6	Trichloroethene	ND	2.0
75-27-4	Bromodichloromethane	ND	2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.0
79-00-5	1,1,2 - Trichloroethane	ND	2.0
108-88-3	**Toluene**	**48.6**	2.0
106-93-4	1,2 - Dibromoethane	ND	2.0
142-28-9	1,3 - Dichloropropane	ND	2.0
124-48-1	Dibromochloromethane	ND	2.0
127-18-4	**Tetrachloroethene**	**24.0**	2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.0
108-90-7	Chlorobenzene	ND	2.0
100-41-4	**Ethylbenzene**	**15.9**	2.0
108-38-3	**m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)**	**17.2**	4.0
75-25-2	Bromoform (Tribromomethane)	ND	2.0
100-42-5	Styrene (Ethenylbenzene)	ND	2.0
95-47-6	**o - Xylene (1,2-Dimethylbenzene)**	**9.14**	2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.0
96-18-4	1,2,3 - Trichloropropane	ND	2.0

ND - Analyte not detected at stated limit of detection

Duplicate
MW-2

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	10/25/96
Sample ID:	93007-A.10/96	Date Analyzed:	10/29/96
Laboratory ID:	C96-59731	Date Reported:	October 31, 1996

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.0
108-86-1	Bromobenzene	ND	2.0
103-65-1	n - Propylbenzene	ND	2.0
95-49-8	2 - Chlorotoluene	ND	2.0
106-43-4	4 - Chlorotoluene	ND	2.0
108-67-8	**1,3,5 - Trimethylbenzene**	**6.18**	2.0
98-06-6	tert - Butylbenzene	ND	2.0
95-63-6	**1,2,4 - Trimethylbenzene**	**58.4**	2.0
135-98-8	sec - Butylbenzene	ND	2.0
541-73-1	1,3 - Dichlorobenzene	ND	2.0
106-46-7	1,4 - Dichlorobenzene	ND	2.0
99-87-6	4-Isopropyltoluene	ND	2.0
95-50-1	1,2 - Dichlorobenzene	ND	2.0
104-51-8	n - Butylbenzene	ND	2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	10.0
120-82-1	1,2,4 - Trichlorobenzene	ND	2.0
91-20-3	**Naphthalene**	**6.06**	2.0
87-68-3	Hexachlorobutadiene	ND	2.0
87-61-6	1,2 3 - Trichlorobenzene	ND	2.0

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	780506	736966	106%	50 - 200 %
Fluorobenzene	1483736	1399843	106%	50 - 200 %
1,4 - Difluorobenzene	1292562	1219541	106%	50 - 200 %
Chlorobenzene - d5	934190	874231	107%	50 - 200 %
1,4 - Dichlorobenzene - d4	469498	455965	103%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.99	99.9%	86 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	9.76	97.6%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.0	100%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

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Analyst: yw
Reviewed: sec

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EPA METHOD 8260

MW-3

Client: Western Water Consultants
Sample ID: 93007-3.10/96
Laboratory ID: C96-59728
Matrix: Water
Dilution Factor: 2

Date Sampled: 10/25/96
Date Received: 10/29/96
Date Analyzed: 10/29/96
Date Reported: October 31, 1996

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	2.0
74-87-3	Chloromethane	ND	2.0
75-01-4	Vinyl chloride (Chloroethene)	ND	2.0
74-83-9	Bromomethane	ND	2.0
75-00-3	Chloroethane	ND	2.0
75-69-4	Trichlorofluoromethane	ND	2.0
75-35-4	**1,1 - Dichloroethene**	**7.06**	2.0
75-09-2	Methylene chloride (Dichloromethane)	ND	2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.0
75-34-3	**1,1 - Dichloroethane**	**23.2**	2.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	**cis - 1,2 - Dichloroethene**	**2.34**	2.0
74-97-5	Bromochloromethane	ND	2.0
67-66-3	Chloroform (Trichloromethane)	ND	2.0
594-20-7	2,2 - Dichloropropane	ND	2.0
71-55-6	**1,1,1 - Trichloroethane**	**7.38**	2.0
107-06-2	1,2 - Dichloroethane	ND	2.0
563-58-6	1,1 - Dichloropropene	ND	2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.0
71-43-2	**Benzene**	**2.10**	2.0
74-95-3	Dibromomethane	ND	2.0
78-87-5	1,2 - Dichloropropane	ND	2.0
79-01-6	Trichloroethene	ND	2.0
75-27-4	Bromodichloromethane	ND	2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.0
79-00-5	1,1,2 - Trichloroethane	ND	2.0
108-88-3	Toluene	ND	2.0
106-93-4	1,2 - Dibromoethane	ND	2.0
142-28-9	1,3 - Dichloropropane	ND	2.0
124-48-1	Dibromochloromethane	ND	2.0
127-18-4	**Tetrachloroethene**	**11.9**	2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.0
108-90-7	Chlorobenzene	ND	2.0
100-41-4	Ethylbenzene	ND	2.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	4.0
75-25-2	Bromoform (Tribromomethane)	ND	2.0
100-42-5	Styrene (Ethenylbenzene)	ND	2.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.0
96-18-4	1,2,3 - Trichloropropane	ND	2.0

ND - Analyte not detected at stated limit of detection

MW-3

EPA METHOD 8260

Client: **Western Water Consultants**
Sample ID: 93007-3.10/96
Laboratory ID: C96-59728

Date Sampled: 10/25/96
Date Analyzed: 10/29/96
Date Reported: October 31, 1996

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.0
108-86-1	Bromobenzene	ND	2.0
103-65-1	n - Propylbenzene	ND	2.0
95-49-8	2 - Chlorotoluene	ND	2.0
106-43-4	4 - Chlorotoluene	ND	2.0
108-67-8	1,3,5 - Trimethylbenzene	ND	2.0
98-06-6	tert - Butylbenzene	ND	2.0
95-63-6	1,2,4 - Trimethylbenzene	ND	2.0
135-98-8	sec - Butylbenzene	ND	2.0
541-73-1	1,3 - Dichlorobenzene	ND	2.0
106-46-7	1,4 - Dichlorobenzene	ND	2.0
99-87-6	4-Isopropyltoluene	ND	2.0
95-50-1	1,2 - Dichlorobenzene	ND	2.0
104-51-8	n - Butylbenzene	ND	2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	10.0
120-82-1	1,2,4 - Trichlorobenzene	ND	2.0
91-20-3	**Naphthalene**	**5.50**	2.0
87-68-3	Hexachlorobutadiene	ND	2.0
87-61-6	1,2 3 - Trichlorobenzene	ND	2.0

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	771191	736966	105%	50 - 200 %
Fluorobenzene	1507122	1399843	108%	50 - 200 %
1,4 - Difluorobenzene	1299473	1219541	107%	50 - 200 %
Chlorobenzene - d5	947457	874231	108%	50 - 200 %
1,4 - Dichlorobenzene - d4	472848	455965	104%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.3	103%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.61	96.1%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.96\WEST_WAT.ER\ORGANIC.CAS\96_59727.xls

Analyst: yw
Reviewed: sec

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EPA METHOD 8260

MW-4

Client:	**Western Water Consultants**		
Sample ID:	93007-4.10/96	Date Sampled:	10/25/96
Laboratory ID:	C96-59730	Date Received:	10/29/96
Matrix:	Water	Date Analyzed:	10/29/96
Dilution Factor:	2	Date Reported:	October 31, 1996

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
75-71-8	Dichlorodifluoromethane	ND	2.0
74-87-3	Chloromethane	ND	2.0
75-01-4	Vinyl chloride (Chloroethene)	ND	2.0
74-83-9	Bromomethane	ND	2.0
75-00-3	Chloroethane	ND	2.0
75-69-4	Trichlorofluoromethane	ND	2.0
75-35-4	**1,1 - Dichloroethene**	**498**	2.0
75-09-2	Methylene chloride (Dichloromethane)	ND	2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.0
75-34-3	**1,1 - Dichloroethane**	**109**	2.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	2.0
74-97-5	Bromochloromethane	ND	2.0
67-66-3	**Chloroform (Trichloromethane)**	**35.1**	2.0
594-20-7	2,2 - Dichloropropane	ND	2.0
71-55-6	**1,1,1 - Trichloroethane**	**1,040**	2.0
107-06-2	**1,2 - Dichloroethane**	**51.2**	2.0
563-58-6	1,1 - Dichloropropene	ND	2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.0
71-43-2	Benzene	ND	2.0
74-95-3	Dibromomethane	ND	2.0
78-87-5	1,2 - Dichloropropane	ND	2.0
79-01-6	**Trichloroethene**	**5.28**	2.0
75-27-4	Bromodichloromethane	ND	2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.0
79-00-5	**1,1,2 - Trichloroethane**	**22.2**	2.0
108-88-3	Toluene	ND	2.0
106-93-4	1,2 - Dibromoethane	ND	2.0
142-28-9	1,3 - Dichloropropane	ND	2.0
124-48-1	Dibromochloromethane	ND	2.0
127-18-4	**Tetrachloroethene**	**2,590**	2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.0
108-90-7	Chlorobenzene	ND	2.0
100-41-4	Ethylbenzene	ND	2.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	4.0
75-25-2	Bromoform (Tribromomethane)	ND	2.0
100-42-5	Styrene (Ethenylbenzene)	ND	2.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.0
96-18-4	1,2,3 - Trichloropropane	ND	2.0

ND - Analyte not detected at stated limit of detection

MW-4

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	10/25/96
Sample ID:	93007-4.10/96	Date Analyzed:	10/29/96
Laboratory ID:	C96-59730	Date Reported:	October 31, 1996

C.A.S. #	TARGET COMPOUNDS	*CONCENTRATION (µg/L)*	*LIMIT OF DETECTION (µg/L)*
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	2.0
108-86-1	Bromobenzene	ND	2.0
103-65-1	n - Propylbenzene	ND	2.0
95-49-8	2 - Chlorotoluene	ND	2.0
106-43-4	4 - Chlorotoluene	ND	2.0
108-67-8	1,3,5 - Trimethylbenzene	ND	2.0
98-06-6	tert - Butylbenzene	ND	2.0
95-63-6	1,2,4 - Trimethylbenzene	ND	2.0
135-98-8	sec - Butylbenzene	ND	2.0
541-73-1	1,3 - Dichlorobenzene	ND	2.0
106-46-7	1,4 - Dichlorobenzene	ND	2.0
99-87-6	4-Isopropyltoluene	ND	2.0
95-50-1	1,2 - Dichlorobenzene	ND	2.0
104-51-8	n - Butylbenzene	ND	2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	10.0
120-82-1	1,2,4 - Trichlorobenzene	ND	2.0
91-20-3	Naphthalene	ND	2.0
87-68-3	Hexachlorobutadiene	ND	2.0
87-61-6	1,2 3 - Trichlorobenzene	ND	2.0

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	744952	736966	101%	50 - 200 %
Fluorobenzene	1496663	1399843	107%	50 - 200 %
1,4 - Difluorobenzene	1285008	1219541	105%	50 - 200 %
Chlorobenzene - d5	988290	874231	113%	50 - 200 %
1,4 - Dichlorobenzene - d4	488066	455965	107%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.3	103%	86 - 118 %
Toluene - d8	10.3	103%	88 - 110 %
4 - Bromofluorobenzene	9.75	97.5%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.96\WEST_WAT.ER\ORGANIC.CAS\96_59727.xls

Analyst: yw
Reviewed: sec

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EPA METHOD 8260

QC RESULTS - MATRIX SPIKE (MS), MATRIX SPIKE DUPLICATE (MSD)

Client:	**Western Water Consultants**	Date Sampled:	10/25/96
Sample Set:	C96-59727 through C96-59732	Date Received:	10/29/96
Laboratory ID:	C96-59727 S	Date Analyzed:	10/29/96
Matrix:	Water	Date Reported:	October 31, 1996

INTERNAL STANDARDS

	ICAL / CCAL AREA	SPIKED SAMPLE AREA	%	SPIKE DUPLICATE AREA	%	ACCEPTANCE RANGE
Pentafluorobenzene	736966	764544	104%	752122	102%	50 - 200 %
Fluorobenzene	1399843	1488781	106%	1438980	103%	50 - 200 %
1,4 - Difluorobenzene	1219541	1281292	105%	1245461	102%	50 - 200 %
Chlorobenzene - d5	874231	927839	106%	911119	104%	50 - 200 %
1,4 - Dichlorobenzene-d4	455965	453701	99.5%	448905	98.5%	50 - 200 %

SYSTEM MONITORING COMPOUNDS

	SPIKED SAMPLE CONCENTRATION	PERCENT RECOVERY	SPIKE DUPLICATE CONCENTRATION	PERCENT ECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.99	99.9%	9.79	97.9%	86 - 118 %
Toluene - d8	10.1	101%	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	9.65	96.5%	9.51	95.1%	86 - 115 %
1,2 - Dichlorobenzene-d4	10.1	101%	10.1	101%	80 - 120 %

SPIKED SAMPLE RESULTS

	SPIKED SAMPLE CONCENTRATION	ORIG. CONC. (µg/L) *	SPIKE AMOUNT (µg/L)	PERCENT RECOVERY	ACCEPTANCE RANGE
Vinyl chloride	10.2	ND	10.0	102%	80 - 120 %
1,1 - Dichloroethene	11.8	0.62	10.0	112%	80 - 120 %
2 - Butanone (MEK)	9.53	ND	10.0	95.3%	80 - 120 %
Chloroform	10.0	ND	10.0	100%	80 - 120 %
1,2 - Dichloroethane	9.63	0.12	10.0	95.1%	80 - 120 %
Carbon tetrachloride	9.96	ND	10.0	99.6%	80 - 120 %
Benzene	12.0	2.10	10.0	99.4%	80 - 120 %
Trichloroethene	9.60	ND	10.0	96.0%	80 - 120 %
Tetrachloroethene	11.0	0.71	10.0	103%	80 - 120 %
Chlorobenzene	9.52	ND	10.0	95.2%	80 - 120 %
1,4 - Dichlorobenzene	9.30	ND	10.0	93.0%	80 - 120 %

SPIKE DUPLICATE SAMPLE RESULTS

*** Concentration does not include dilution correction**

	SPIKE DUP CONCENTRATION	ORIG. CONC. (µg/L) *	SPIKE (µg/L)	PERCENT RECOVERY	RPD	RPD LIMITS
Vinyl chloride	10.2	ND	10.0	102%	0.2%	10 %
1,1 - Dichloroethene	11.9	0.62	10.0	112%	0.1%	10 %
2 - Butanone (MEK)	10.2	ND	10.0	102%	6.8%	10 %
Chloroform	9.98	ND	10.0	99.8%	0.4%	10 %
1,2 - Dichloroethane	9.81	0.12	10.0	96.9%	1.9%	10 %
Carbon tetrachloride	10.2	ND	10.0	102%	2.3%	10 %
Benzene	12.4	2.10	10.0	103%	3.4%	10 %
Trichloroethene	9.77	ND	10.0	97.7%	1.8%	10 %
Tetrachloroethene	11.4	0.71	10.0	107%	3.4%	10 %
Chlorobenzene	9.69	ND	10.0	96.9%	1.8%	10 %
1,4 - Dichlorobenzene	9.79	ND	10.0	97.9%	5.3%	10 %

MATRIX SPIKE: 0 of 22 Matrix Spike results are outside of established QC Limits
MATRIX SPIKE DUPLICATE: 0 of 11 Matrix Spike Duplicate results are outside of established QC Limits

Report Approved By: _____

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Analyst: yw
Reviewed: sec

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EPA METHOD 8260

mw-1

Client:	**Western Water Consultants**		
Sample ID:	93007-1.11/96	Date Sampled:	11/21/96
Laboratory ID:	C96-65023	Date Received:	11/26/96
Matrix:	Water	Date Analyzed:	12/02/96
Dilution Factor:	1	Date Reported:	December 4, 1996

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
76 71 8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	**1,1 - Dichloroethane**	**5.52**	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	**1,1,1 - Trichloroethane**	**1.73**	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	**Tetrachloroethene**	**6.88**	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100 41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

MW-1

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	11/21/96
Sample ID:	93007-1.11/96	Date Analyzed:	12/02/96
Laboratory ID:	C96-65023	Date Reported:	12/04/96

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	989112	1014808	97.5%	50 - 200 %
Fluorobenzene	2343547	2283094	103%	50 - 200 %
1,4 - Difluorobenzene	2011655	1952185	103%	50 - 200 %
Chlorobenzene - d5	1515286	1445155	105%	50 - 200 %
1,4 - Dichlorobenzene - d4	583298	580267	101%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	11.0	110%	88 - 118 %
Toluene - d8	10.2	102%	88 - 110 %
4 - Bromofluorobenzene	9.72	97.2%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.2	102%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Analyst: yw

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EPA METHOD 8260

MW-2

Client:	**Western Water Consultants**		
Sample ID:	93007-2.11/96	Date Sampled:	11/21/96
Laboratory ID:	C96-65024	Date Received:	11/26/96
Matrix:	Water	Date Analyzed:	12/02/96
Dilution Factor:	5	Date Reported:	December 4, 1996

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	5.0
74-87-3	Chloromethane	ND	5.0
75-01-4	Vinyl chloride (Chloroethene)	ND	5.0
74-83-9	Bromomethane	ND	5.0
75-00-3	Chloroethane	ND	5.0
75-69-4	Trichlorofluoromethane	ND	5.0
75-35-4	**1,1 - Dichloroethene**	**30.4**	5.0
75-09-2	Methylene chloride (Dichloromethane)	ND	5.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	5.0
75-34-3	**1,1 - Dichloroethane**	**322**	5.0
78-93-3	2 -Butanone (MEK)	ND	50.0
156-59-2	cis - 1,2 - Dichloroethene	ND	5.0
74-97-5	Bromochloromethane	ND	5.0
67-66-3	Chloroform (Trichloromethane)	ND	5.0
594-20-7	2,2 - Dichloropropane	ND	5.0
71-55-6	**1,1,1 - Trichloroethane**	**247**	5.0
107-06-2	1,2 - Dichloroethane	ND	5.0
563-58-6	1,1 - Dichloropropene	ND	5.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	5.0
71-43-2	**Benzene**	**70.2**	5.0
74-95-3	Dibromomethane	ND	5.0
78-87-5	1,2 - Dichloropropane	ND	5.0
79-01-6	Trichloroethene	ND	5.0
75-27-4	Bromodichloromethane	ND	5.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	5.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	5.0
79-00-5	1,1,2 - Trichloroethane	ND	5.0
108-88-3	**Toluene**	**49.7**	5.0
106-93-4	1,2 - Dibromoethane	ND	5.0
142-28-9	1,3 - Dichloropropane	ND	5.0
124-48-1	Dibromochloromethane	ND	5.0
127-18-4	**Tetrachloroethene**	**48.6**	5.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	5.0
108-90-7	Chlorobenzene	ND	5.0
100-41-4	**Ethylbenzene**	**26.9**	5.0
108-38-3	**m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)**	**30.0**	10.0
75-25-2	Bromoform (Tribromomethane)	ND	5.0
100-42-5	Styrene (Ethenylbenzene)	ND	5.0
95-47-6	**o - Xylene (1,2-Dimethylbenzene)**	**15.9**	5.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	5.0
96-18-4	1,2,3 - Trichloropropane	ND	5.0

ND - Analyte not detected at stated limit of detection

MW-2

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	11/21/96
Sample ID:	93007-2.11/96	Date Analyzed:	12/02/96
Laboratory ID:	C96-65024	Date Reported:	12/04/96

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	5.0
108-86-1	Bromobenzene	ND	5.0
103-65-1	n - Propylbenzene	ND	5.0
95-49-8	2 - Chlorotoluene	ND	5.0
106-43-4	4 - Chlorotoluene	ND	5.0
108-67-8	**1,3,5 - Trimethylbenzene**	**10.6**	5.0
98-06-6	tert - Butylbenzene	ND	5.0
95-63-6	**1,2,4 - Trimethylbenzene**	**9.25**	5.0
135-98-8	sec - Butylbenzene	ND	5.0
541-73-1	1,3 - Dichlorobenzene	ND	5.0
106-46-7	1,4 - Dichlorobenzene	ND	5.0
99-87-6	4-Isopropyltoluene	ND	5.0
95-50-1	1,2 - Dichlorobenzene	ND	5.0
104-51-8	n - Butylbenzene	ND	5.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	25.0
120-82-1	1,2,4 - Trichlorobenzene	ND	5.0
91-20-3	**Naphthalene**	**8.05**	5.0
87-68-3	Hexachlorobutadiene	ND	5.0
87-61-6	1,2 3 - Trichlorobenzene	ND	5.0

ND - Analyte not detected at statod limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1002103	1014808	98.7%	50 - 200 %
Fluorobenzene	2200163	2283094	96.4%	50 - 200 %
1,4 - Difluorobenzene	1927302	1952185	98.7%	50 - 200 %
Chlorobenzene - d5	1438021	1446155	99.5%	50 - 200 %
1,4 - Dichlorobenzene - d4	565149	580267	97.4%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.0	100%	86 - 118 %
Toluene - d8	10.3	103%	88 - 110 %
4 - Bromofluorobenzene	9.71	97.1%	86 - 115 %
1,2 - Dichlorobenzene - d4	9.96	99.6%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS 96\WEST_WAT.ER\ORGANIC.CAS\96_65023.xls

Analyst: yw
Reviewed: sec

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EPA METHOD 8260

mw-3

Client:	**Western Water Consultants**		
Sample ID:	93007-3.11/96	Date Sampled:	11/21/96
Laboratory ID:	C96-65025	Date Received:	11/26/96
Matrix:	Water	Date Analyzed:	12/02/96
Dilution Factor:	2	Date Reported:	December 4, 1996

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	2.0
74-87-3	Chloromethane	ND	2.0
75-01-4	Vinyl chloride (Chloroethene)	ND	2.0
74-83-9	Bromomethane	ND	2.0
75-00-3	Chloroethane	ND	2.0
75-69-4	Trichlorofluoromethane	ND	2.0
75-35-4	**1,1 - Dichloroethene**	**6.80**	2.0
75-09-2	Methylene chloride (Dichloromethane)	ND	2.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	2.0
75-34-3	**1,1 - Dichloroethane**	**16.9**	2.0
78-93-3	2 -Butanone (MEK)	ND	20.0
156-59-2	cis - 1,2 - Dichloroethene	ND	2.0
74-97-5	Bromochloromethane	ND	2.0
67-66-3	**Chloroform (Trichloromethane)**	**3.68**	2.0
594-20-7	2,2 - Dichloropropane	ND	2.0
71-55-6	**1,1,1 - Trichloroethane**	**28.2**	2.0
107-06-2	1,2 - Dichloroethane	ND	2.0
563-58-6	1,1 - Dichloropropene	ND	2.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	2.0
71-43-2	Benzene	ND	2.0
74-95-3	Dibromomethane	ND	2.0
78-87-5	1,2 - Dichloropropane	ND	2.0
79-01-6	Trichloroethene	ND	2.0
75-27-4	Bromodichloromethane	ND	2.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	2.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	2.0
79-00-5	1,1,2 - Trichloroethane	ND	2.0
108-88-3	Toluene	ND	2.0
106-93-4	1,2 - Dibromoethane	ND	2.0
142-28-9	1,3 - Dichloropropane	ND	2.0
124-48-1	Dibromochloromethane	ND	2.0
127-18-4	**Tetrachloroethene**	**18.5**	2.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	2.0
108-90-7	Chlorobenzene	ND	2.0
100-41-4	Ethylbenzene	ND	2.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	4.0
75-25-2	Bromoform (Tribromomethane)	ND	2.0
100-42-5	Styrene (Ethenylbenzene)	ND	2.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	2.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	2.0
96-18-4	1,2,3 - Trichloropropane	ND	2.0

ND - Analyte not detected at stated limit of detection

MW-3

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	11/21/96
Sample ID:	93007-3.11/96	Date Analyzed:	12/02/96
Laboratory ID:	C96-65025	Date Reported:	12/04/96

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)		LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND		2.0
108-86-1	Bromobenzene	ND		2.0
103-65-1	n - Propylbenzene	ND		2.0
95-49-8	2 - Chlorotoluene	ND		2.0
106-43-4	4 - Chlorotoluene	ND		2.0
108-67-8	1,3,5 - Trimethylbenzene	ND		2.0
98-06-6	tert - Butylbenzene	ND		2.0
95-63-6	1,2,4 - Trimethylbenzene	ND		2.0
135-98-8	sec - Butylbenzene	ND		2.0
541-73-1	1,3 - Dichlorobenzene	ND		2.0
106-46-7	1,4 - Dichlorobenzene	ND		2.0
99-87-6	4-Isopropyltoluene	ND		2.0
95-50-1	1,2 - Dichlorobenzene	ND		2.0
104-51-8	n - Butylbenzene	ND		2.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND		10.0
120-82-1	1,2,4 - Trichlorobenzene	ND		2.0
91-20-3	**Naphthalene**	**1.08**	**J**	2.0
87-68-3	Hexachlorobutadiene	ND		2.0
87-61-6	1,2 3 - Trichlorobenzene	ND		2.0

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	976242	1014808	96.2%	50 - 200 %
Fluorobenzene	2341659	2283094	103%	50 - 200 %
1,4 - Difluorobenzene	1929595	1952185	98.8%	50 - 200 %
Chlorobenzene - d5	1511445	1445155	105%	50 - 200 %
1,4 - Dichlorobenzene - d4	590390	580267	102%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.7	107%	86 - 118 %
Toluene - d8	10.3	103%	88 - 110 %
4 - Bromofluorobenzene	9.98	99.8%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.3	103%	80 - 120 %

REFERENCES

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MAILING: P.O. BOX 3258 • CASPER, WY 82602
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MW-4

EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	93007-4.11/96	Date Sampled:	11/21/96
Laboratory ID:	C96-65026	Date Received:	11/26/96
Matrix:	Water	Date Analyzed:	12/02/96
Dilution Factor:	50	Date Reported:	December 4, 1996

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	50.0
74-87-3	Chloromethane	ND	50.0
75-01-4	Vinyl chloride (Chloroethene)	ND	50.0
74-83-9	Bromomethane	ND	50.0
75-00-3	Chloroethane	ND	50.0
75-69 4	Trichlorofluoromethane	ND	50.0
75-35-4	**1,1 - Dichloroethene**	**623**	50.0
75-09-2	Methylene chloride (Dichloromethane)	ND	50.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	50.0
75-34-3	**1,1 - Dichloroethane**	**110**	50.0
78-93-3	2 -Butanone (MEK)	ND	500.0
156-59-2	cis - 1,2 - Dichloroethene	ND	50.0
74-97-5	Bromochloromethane	ND	50.0
67-66-3	Chloroform (Trichloromethane)	ND	50.0
594-20-7	2,2 - Dichloropropane	ND	50.0
71-55-6	**1,1,1 - Trichloroethane**	**941**	50.0
107-06-2	1,2 - Dichloroethane	ND	50.0
563-58-6	1,1 - Dichloropropene	ND	50.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	50.0
71-43 2	Benzene	ND	50.0
74-95-3	Dibromomethane	ND	50.0
78-87-5	1,2 - Dichloropropane	ND	50.0
79-01-6	Trichloroethene	ND	50.0
75-27-4	Bromodichloromethane	ND	50.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	50.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	50.0
79-00-5	1,1,2 - Trichloroethane	ND	50.0
108-88-3	Toluene	ND	50.0
106-93-4	1,2 - Dibromoethane	ND	50.0
142-28-9	1,3 - Dichloropropane	ND	50.0
124-48-1	Dibromochloromethane	ND	50.0
127-18-4	**Tetrachloroethene**	**3526**	50.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	50.0
108-90-7	Chlorobenzene	ND	50.0
100-41-4	Ethylbenzene	ND	50.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	100.0
75-25-2	Bromoform (Tribromomethane)	ND	50.0
100-42-5	Styrene (Ethenylbenzene)	ND	50.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	50.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	50.0
96-18-4	1,2,3 - Trichloropropane	ND	50.0

ND - Analyte not detected at stated limit of detection

MW-4

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	11/21/96
Sample ID:	93007-4.11/96	Date Analyzed:	12/02/96
Laboratory ID:	C96-65026	Date Reported:	12/04/96

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	50.0
108-86-1	Bromobenzene	ND	50.0
103-65-1	n - Propylbenzene	ND	50.0
95-49-8	2 - Chlorotoluene	ND	50.0
106-43-4	4 - Chlorotoluene	ND	50.0
108-67-8	1,3,5 - Trimethylbenzene	ND	50.0
98 06-6	tert - Butylbenzene	ND	50.0
95-63-6	1,2,4 - Trimethylbenzene	ND	50.0
135-98-8	sec - Butylbenzene	ND	50.0
541-73-1	1,3 - Dichlorobenzene	ND	50.0
106-46-7	1,4 - Dichlorobenzene	ND	50.0
99-87-6	4-Isopropyltoluene	ND	50.0
95-50-1	1,2 - Dichlorobenzene	ND	50.0
104-51-8	n - Butylbenzene	ND	50.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	250.0
120-82-1	1,2,4 - Trichlorobenzene	ND	50.0
91-20-3	Naphthalene	ND	50.0
87-68-3	Hexachlorobutadiene	ND	50.0
87-61-6	1,2 3 - Trichlorobenzene	ND	50.0

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1040798	1014808	103%	50 - 200 %
Fluorobenzene	2333286	2283094	102%	50 - 200 %
1,4 - Difluorobenzene	2043874	1952185	105%	50 - 200 %
Chlorobenzene - d5	1534915	1445155	106%	50 - 200 %
1,4 - Dichlorobenzene - d4	598965	580267	103%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.3	103%	86 - 118 %
Toluene - d8	10.1	101%	88 - 110 %
4 - Bromofluorobenzene	9.83	98.3%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.2	102%	80 - 120 %

REFERENCES

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Analyst: yw
Reviewed: BDC

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EPA METHOD 8260

Duplicate MW-4

Client:	**Western Water Consultants**		
Sample ID:	93007-A.11/96	Date Sampled:	11/21/96
Laboratory ID:	C96-65027	Date Received:	11/26/96
Matrix:	Water	Date Analyzed:	12/02/96
Dilution Factor:	20	Date Reported:	December 4, 1996

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	20.0
74-87-3	Chloromethane	ND	20.0
75-01-4	Vinyl chloride (Chloroethene)	ND	20.0
74-83-9	Bromomethane	ND	20.0
75-00-3	Chloroethane	ND	20.0
75-69-4	Trichlorofluoromethane	ND	20.0
75-35-4	**1,1 - Dichloroethene**	**694**	20.0
75-09-2	Methylene chloride (Dichloromethane)	ND	20.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	20.0
75-34-3	**1,1 - Dichloroethane**	**106**	20.0
78-93-3	2 -Butanone (MEK)	ND	200.0
156 59 2	cis - 1,2 - Dichloroethene	ND	20.0
74-97-5	Bromochloromethane	ND	20.0
67-66-3	**Chloroform (Trichloromethane)**	**36.2**	20.0
594-20-7	2,2 - Dichloropropane	ND	20.0
71-55-6	**1,1,1 - Trichloroethane**	**1,080**	20.0
107-06-2	**1,2 - Dichloroethane**	**42.2**	20.0
563-58-6	1,1 - Dichloropropene	ND	20.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	20.0
71-43-2	Benzene	ND	20.0
74-95-3	Dibromomethane	ND	20.0
78-87-5	1,2 - Dichloropropane	ND	20.0
79-01-6	Trichloroethene	ND	20.0
75-27-4	Bromodichloromethane	ND	20.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	20.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	20.0
79-00-5	1,1,2 - Trichloroethane	ND	20.0
108-88-3	Toluene	ND	20.0
106-93-4	1,2 - Dibromoethane	ND	20.0
142-28-9	1,3 - Dichloropropane	ND	20.0
124-48-1	Dibromochloromethane	ND	20.0
127-18-4	**Tetrachloroethene**	**3,980**	20.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	20.0
108-90-7	Chlorobenzene	ND	20.0
100-41-4	Ethylbenzene	ND	20.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	40.0
75-25-2	Bromoform (Tribromomethane)	ND	20.0
100-42-5	Styrene (Ethenylbenzene)	ND	20.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	20.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	20.0
96-18-4	1,2,3 - Trichloropropane	ND	20.0

ND - Analyte not detected at stated limit of detection

Duplicate MW-4

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	11/21/96
Sample ID:	93007-A.11/96	Date Analyzed:	12/02/96
Laboratory ID:	C96-65027	Date Reported:	12/04/96

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	20.0
108-86-1	Bromobenzene	ND	20.0
103-65-1	n - Propylbenzene	ND	20.0
95 49 8	2 - Chlorotoluene	ND	20.0
106-43-4	4 - Chlorotoluene	ND	20.0
108-67-8	1,3,5 - Trimethylbenzene	ND	20.0
98-06-6	tert - Butylbenzene	ND	20.0
95-63-6	1,2,4 - Trimethylbenzene	ND	20.0
135-98-8	sec - Butylbenzene	ND	20.0
541-73-1	1,3 - Dichlorobenzene	ND	20.0
106-46-7	1,4 - Dichlorobenzene	ND	20.0
99-87-6	4-Isopropyltoluene	ND	20.0
95-50-1	1,2 - Dichlorobenzene	ND	20.0
104-51-8	n - Butylbenzene	ND	20.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	100.0
120-82-1	1,2,4 - Trichlorobenzene	ND	20.0
91-20-3	Naphthalene	ND	20.0
87-68-3	Hexachlorobutadiene	ND	20.0
87-61-6	1,2 3 - Trichlorobenzene	ND	20.0

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	988002	1014808	97.4%	50 - 200 %
Fluorobenzene	2319672	2283094	102%	50 - 200 %
1,4 - Difluorobenzene	1973277	1952185	101%	50 - 200 %
Chlorobenzene - d5	1512720	1445155	105%	50 - 200 %
1,4 - Dichlorobenzene - d4	602695	580267	104%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	10.6	106%	86 - 118 %
Toluene - d8	10.3	103%	88 - 110 %
4 - Bromofluorobenzene	10.0	100%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.2	102%	80 - 120 %

REFERENCES

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Analyst: yw
Reviewed: sec

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EPA METHOD 8260

Client:	**Western Water Consultants**		
Sample ID:	Trip Blank	Date Sampled:	11/21/96
Laboratory ID:	C96-65028	Date Received:	11/26/96
Matrix:	Water	Date Analyzed:	12/02/96
Dilution Factor:	1	Date Reported:	December 4, 1996

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
75-71-8	Dichlorodifluoromethane	ND	1.0
74-87-3	Chloromethane	ND	1.0
75-01-4	Vinyl chloride (Chloroethene)	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
75-35-4	1,1 - Dichloroethene	ND	1.0
75-09-2	Methylene chloride (Dichloromethane)	ND	1.0
156-60-5	trans - 1, 2 - Dichloroethene	ND	1.0
75-34-3	1,1 - Dichloroethane	ND	1.0
78-93-3	2 -Butanone (MEK)	ND	10.0
156-59-2	cis - 1,2 - Dichloroethene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
67-66-3	Chloroform (Trichloromethane)	ND	1.0
594-20-7	2,2 - Dichloropropane	ND	1.0
71-55-6	1,1,1 - Trichloroethane	ND	1.0
107-06-2	1,2 - Dichloroethane	ND	1.0
563-58-6	1,1 - Dichloropropene	ND	1.0
56-23-5	Carbon tetrachloride (Tetrachloromethane)	ND	1.0
71-43-2	Benzene	ND	1.0
74-95-3	Dibromomethane	ND	1.0
78-87-5	1,2 - Dichloropropane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
10061-01-5	cis - 1,3 - Dichloropropene	ND	1.0
10061-02-6	trans - 1,3 - Dichloropropene	ND	1.0
79-00-5	1,1,2 - Trichloroethane	ND	1.0
108-88-3	Toluene	ND	1.0
106-93-4	1,2 - Dibromoethane	ND	1.0
142-28-9	1,3 - Dichloropropane	ND	1.0
124-48-1	Dibromochloromethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
630-20-6	1,1,1,2 - Tetrachloroethane	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
108-38-3	m,p - Xylenes (1,3- & 1,4-Dimethylbenzene)	ND	2.0
75-25-2	Bromoform (Tribromomethane)	ND	1.0
100-42-5	Styrene (Ethenylbenzene)	ND	1.0
95-47-6	o - Xylene (1,2-Dimethylbenzene)	ND	1.0
79-34-5	1,1,2,2 - Tetrachloroethane	ND	1.0
96-18-4	1,2,3 - Trichloropropane	ND	1.0

ND - Analyte not detected at stated limit of detection

EPA METHOD 8260

Client:	**Western Water Consultants**	Date Sampled:	11/21/96
Sample ID:	Trip Blank	Date Analyzed:	12/02/96
Laboratory ID:	C96-65028	Date Reported:	12/04/96

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF DETECTION (µg/L)
98-82-8	Isopropylbenzene (1-Methylethylbenzene)	ND	1.0
108-86-1	Bromobenzene	ND	1.0
103-65-1	n - Propylbenzene	ND	1.0
95-49-8	2 - Chlorotoluene	ND	1.0
106-43-4	4 - Chlorotoluene	ND	1.0
108-67-8	1,3,5 - Trimethylbenzene	ND	1.0
98-06-6	tert - Butylbenzene	ND	1.0
95-63-6	1,2,4 - Trimethylbenzene	ND	1.0
135-98-8	sec - Butylbenzene	ND	1.0
541-73-1	1,3 - Dichlorobenzene	ND	1.0
106-46-7	1,4 - Dichlorobenzene	ND	1.0
99-87-6	4-Isopropyltoluene	ND	1.0
95-50-1	1,2 - Dichlorobenzene	ND	1.0
104-51-8	n - Butylbenzene	ND	1.0
96-12-8	1,2 - Dibromo - 3 - chloropropane	ND	5.0
120-82-1	1,2,4 - Trichlorobenzene	ND	1.0
91-20-3	Naphthalene	ND	1.0
87-68-3	Hexachlorobutadiene	ND	1.0
87-61-6	1,2 3 - Trichlorobenzene	ND	1.0

ND - Analyte not detected at stated limit of detection

INTERNAL STANDARDS	AREA	ICAL / CCAL AREA	PERCENT RECOVERY	ACCEPTANCE RANGE
Pentafluorobenzene	1086265	1014808	107%	50 - 200 %
Fluorobenzene	2370968	2283094	104%	50 - 200 %
1,4 - Difluorobenzene	2060117	1952185	106%	50 - 200 %
Chlorobenzene - d5	1547036	1445155	107%	50 - 200 %
1,4 - Dichlorobenzene - d4	607659	580267	105%	50 - 200 %

SYSTEM MONITORING COMPOUNDS	CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.85	98.5%	86 - 118 %
Toluene - d8	10.3	103%	88 - 110 %
4 - Bromofluorobenzene	9.64	96.4%	86 - 115 %
1,2 - Dichlorobenzene - d4	10.1	101%	80 - 120 %

REFERENCES

Method 8260: Volatile Organics by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Technique
Test Methods for Evaluating Solid Waste, SW-846, Third Edition, USEPA, November 1990

Report File: F:\REPORTS\CLIENTS.96\WEST_WAT.ER\ORGANIC.CAS\06_65023.xls

Analyst: yw
Reviewed: sec

ENERGY LABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
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EPA METHOD 8260

QC RESULTS - MATRIX SPIKE (MS), MATRIX SPIKE DUPLICATE (MSD)

Client:	**Western Water Consultants**	Date Sampled:	11/21/96
Sample Set:	C96-65023 through C96-65027	Date Received:	11/26/96
Laboratory ID:	C96-65023 S	Date Analyzed:	12/02/96
Matrix:	Water	Date Reported:	December 4, 1996

INTERNAL STANDARDS

	ICAL / CCAL AREA	SPIKED SAMPLE AREA	%	SPIKE DUPLICATE AREA	%	ACCEPTANCE RANGE
Pentafluorobenzene	1014808	1019840	100%	1065184	105%	50 - 200 %
Fluorobenzene	2283094	2153097	94.3%	2384188	104%	50 - 200 %
1,4 - Difluorobenzene	1952185	1854102	95.0%	2057283	105%	50 - 200 %
Chlorobenzene - d5	1445165	1441683	99.8%	1554771	108%	50 - 200 %
1,4 - Dichlorobenzene-d4	580267	587754	101%	590701	102%	50 - 200 %

SYSTEM MONITORING COMPOUNDS

	SPIKED SAMPLE CONCENTRATION	PERCENT RECOVERY	SPIKE DUPLICATE CONCENTRATION	PERCENT RECOVERY	ACCEPTANCE RANGE
Dibromofluoromethane	9.60	96.0%	9.93	99.3%	86 - 118 %
Toluene - d8	10.7	107%	10.4	104%	88 - 110 %
4 - Bromofluorobenzene	9.83	98.3%	9.53	95.3%	86 - 115 %
1,2 - Dichlorobenzene-d4	10.0	100%	10.1	101%	80 - 120 %

SPIKED SAMPLE RESULTS

	SPIKED SAMPLE CONCENTRATION	ORIG. CONC. (µg/L) *	SPIKE AMOUNT (µg/L)	PERCENT RECOVERY	ACCEPTANCE RANGE
Vinyl chloride	10.3	ND	10.0	103%	80 - 120 %
1,1 - Dichloroethene	10.1	ND	10.0	101%	80 - 120 %
2 - Butanone (MEK)	10.0	ND	10.0	100%	80 - 120 %
Chloroform	9.60	ND	10.0	96.0%	80 - 120 %
1,2 - Dichloroethane	9.39	ND	10.0	93.9%	80 - 120 %
Carbon tetrachloride	10.3	ND	10.0	103%	80 - 120 %
Benzene	9.96	ND	10.0	99.6%	80 - 120 %
Trichloroethene	9.90	ND	10.0	99.0%	80 - 120 %
Tetrachloroethene	11.1	0.69	10.0	104%	80 - 120 %
Chlorobenzene	9.68	ND	10.0	96.8%	80 - 120 %
1,4 - Dichlorobenzene	9.30	ND	10.0	93.0%	80 - 120 %

SPIKE DUPLICATE SAMPLE RESULTS

*** Concentration does not include dilution correction**

	SPIKE DUP CONCENTRATION	ORIG. CONC. (µg/L) *	SPIKE (µg/L)	PERCENT RECOVERY	RPD	RPD LIMITS
Vinyl chloride	10.2	ND	10.0	102%	0.4%	10 %
1,1 - Dichloroethene	10.4	ND	10.0	104%	2.9%	10 %
2 - Butanone (MEK)	9.89	ND	10.0	98.9%	1.1%	10 %
Chloroform	10.4	ND	10.0	104%	8.0%	10 %
1,2 - Dichloroethane	9.60	ND	10.0	96.0%	2.2%	10 %
Carbon tetrachloride	10.5	ND	10.0	105%	1.9%	10 %
Benzene	10.2	ND	10.0	102%	2.0%	10 %
Trichloroethene	9.84	ND	10.0	98.4%	0.6%	10 %
Tetrachloroethene	10.8	0.69	10.0	101%	3.1%	10 %
Chlorobenzene	9.64	ND	10.0	96.4%	0.4%	10 %
1,4 - Dichlorobenzene	9.85	ND	10.0	98.5%	7.0%	10 %

MATRIX SPIKE: 0 of 22 Matrix Spike results are outside of established QC Limits
MATRIX SPIKE DUPLICATE: 0 of 11 Matrix Spike Duplicate results are outside of established QC Limits

Report Approved By:
Report File: F:\REPORTS\CLIENTS.96\WEST_WAT.ER\ORGANIC.CAS\96_65023.xls

Analyst: yw
Reviewed: sac

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S COMMERCIAL AVE. • FARMINGTON, NM 87401
PHONE (806) 796-2900 • 5262 34th ST • LUBBOCK, TX 79407

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
P.O. BOX 4128
LARAMIE, WYOMING 82071
FAX TO: 307-721-2913

mw-1
77-79'

Receiving Date: 10/24/96
Reporting Date: 10/25/96
Project Number: 93007L-96.2
Project Name: NOT GIVEN
Project Location: NOT GIVEN
Sample ID: 93007-1.10/96
Lab Number: H2689-1

Analysis Date: 10/24/96
Sampling Date: 10/23/96
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

	VOLATILES - 8260 (ppm)	Sample Result H2689-1	Method Blank	QC	%IA	True Value QC
1	Dichlorodifluoromethane	<0.050	<0.050	0.081	81	0.100
2	Chloromethane	<0.050	<0.050	0.107	107	0.100
3	Vinyl chloride	<0.050	<0.050	0.106	106	0.100
4	Bromomethane	<0.050	<0.050	0.115	115	0.100
5	Chloroethane	<0.050	<0.050	0.107	107	0.100
6	Acetone	<0.050	<0.050	0.085	85	0.100
7	1,1-Dichloroethene	<0.050	<0.050	0.105	105	0.100
8	Trichlorofluoromethane	<0.050	<0.050	0.108	108	0.100
9	Carbon Disulfide	<0.050	<0.050	0.103	103	0.100
10	Methylene chloride	0.174	0.118	0.110	110	0.100
11	trans-1,2-Dichloroethene	<0.050	<0.050	0.109	109	0.100
12	1,1-Dichloroethane	<0.050	<0.050	0.112	112	0.100
13	Vinyl Acetate	<0.050	<0.050	0.097	97	0.100
14	2-Butanone	1.428	<0.050	0.081	81	0.100
15	cis-1,2-Dichloroethene	<0.050	<0.050	0.093	93	0.100
16	2,2-Dichloropropane	<0.050	<0.050	0.084	84	0.100
17	Chloroform	<0.050	<0.050	0.082	82	0.100
18	Bromochloromethane	<0.050	<0.050	0.088	88	0.100
19	1,1,1-Trichloroethane	<0.050	<0.050	0.099	99	0.100
20	1,2-Dichloroethane	<0.050	<0.050	0.102	102	0.100
21	1,1-Dichloropropene	<0.050	<0.050	0.085	85	0.100
22	Benzene	<0.050	<0.050	0.103	103	0.100
23	Carbon tetrachloride	<0.050	<0.050	0.096	96	0.100
24	Trichloroethene	<0.050	<0.050	0.104	104	0.100
25	Dibromomethane	<0.050	<0.050	0.115	115	0.100
26	Bromodichloromethane	<0.050	<0.050	0.109	109	0.100
27	trans-1,3-Dichloropropene	<0.050	<0.050	0.102	102	0.100
28	4-methyl-2-pentanone	<0.050	<0.050	0.106	106	0.100
29	1,2-Dichloropropane	<0.050	<0.050	0.104	104	0.100
30	cis-1,3-Dichloropropene	<0.050	<0.050	0.085	85	0.100
31	Toluene	<0.050	<0.050	0.103	103	0.100

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PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
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PHONE (806) 796-2800 • 5262 34th ST. • LUBBOCK, TX 79407

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
P.O. BOX 4128
LARAMIE, WYOMING 82071
FAX TO: 307-721-2913

Receiving Date: 10/24/96
Reporting Date: 10/25/96
Project Number: 93007L-96.2
Project Name: NOT GIVEN
Project Location: NOT GIVEN
Sample ID: 93007-1.10/96
Lab Number: H2689-1

Analysis Date: 10/24/96
Sampling Date: 10/23/96
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

	VOLATILES - 8260 (ppm)	Sample Result H2689-1	Method Blank	QC	%IA	True Value QC
32	1,1,2-Trichloroethane	<0.050	<0.050	0.109	109	0.100
33	1,3-Dichloropropane	<0.050	<0.050	0.104	104	0.100
34	2-Hexanone	<0.050	<0.050	0.083	83	0.100
35	Dibromochloromethane	<0.050	<0.050	0.104	104	0.100
36	1,2-Dibromoethane	<0.050	<0.050	0.108	108	0.100
37	Tetrachloroethene	<0.050	<0.050	0.094	94	0.100
38	Chlorobenzene	<0.050	<0.050	0.107	107	0.100
39	1,1,1,2-Tetrachloroethane	<0.050	<0.050	0.104	104	0.100
40	Ethylbenzene	0.087	<0.050	0.101	101	0.100
41	m, p - Xylene	<0.100	<0.100	0.201	101	0.200
42	Bromoform	<0.050	<0.050	0.107	107	0.100
43	Styrene	<0.050	<0.050	0.107	107	0.100
44	o-Xylene	<0.050	<0.050	0.107	107	0.100
45	1,1,2,2-Tetrachloroethane	<0.050	<0.050	0.104	104	0.100
46	1,2,3-Trichloropropane	<0.050	<0.050	0.107	107	0.100
47	Isopropylbenzene	0.163	<0.050	0.103	103	0.100
48	Bromobenzene	<0.050	<0.050	0.109	109	0.100
49	2-Chlorotoluene	<0.050	<0.050	0.101	101	0.100
50	n-propylbenzene	<0.050	<0.050	0.100	100	0.100
51	4-Chlorotoluene	<0.050	<0.050	0.096	96	0.100
52	1,3,5-Trimethylbenzene	<0.050	<0.050	0.101	101	0.100
53	tert-Butylbenzene	<0.050	<0.050	0.101	101	0.100
54	1,2,4-Trimethylbenzene	<0.050	<0.050	0.103	103	0.100
55	1,3-Dichlorobenzene	<0.050	<0.050	0.100	100	0.100
56	sec-Butylbenzene	<0.050	<0.050	0.102	102	0.100
57	1,4 Dichlorobenzene	<0.050	<0.050	0.101	101	0.100
58	4-Isopropyltoluene	<0.050	<0.050	0.101	101	0.100
59	1,2-Dichlorobenzene	<0.050	<0.050	0.102	102	0.100
60	n-Butylbenzene	<0.050	<0.050	0.101	101	0.100
61	1,2-dibromo-3-chloropropane	<0.050	<0.050	0.093	93	0.100
62	1,2,4-Trichlorobenzene	<0.050	<0.050	0.112	112	0.100

CARDINAL LABORATORIES

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PHONE (806) 796-2800 • 5262 34th ST. • LUBBOCK, TX 79407

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
P.O. BOX 4128
LARAMIE, WYOMING 82071
FAX TO: 307-721-2913

Receiving Date: 10/24/96
Reporting Date: 10/25/96
Project Number: 93007L-96.2
Project Name: NOT GIVEN
Project Location: NOT GIVEN
Sample ID: 93007-1.10/96
Lab Number: H2689-1

Analysis Date: 10/24/96
Sampling Date: 10/23/96
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

VOLATILES - 8260 (ppm)	Sample Result H2689-1	Method Blank	QC	%IA	True Value QC
63 Naphthalene	<0.050	<0.050	0.101	101	0.100
64 1,2,3-Trichlorobenzene	<0.050	<0.050	0.111	111	0.100

		% Recovery
65	Dibromofluoromethane	108
66	Toluene-D8	91
67	4-Bromofluorobenzene	94

METHODS: EPA SW-846-8260.

Burgess J. A. Cooke, Ph. D.

10/25/96
Date

CARDINAL LABORATORIES

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PHONE (806) 796-2800 • 5262 34th ST. • LUBBOCK, TX 79407

mw-2
70-72'

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
P.O. BOX 4128
LARAMIE, WYOMING 82071
FAX TO: 307-721-2913

Receiving Date: 10/24/96
Reporting Date: 10/25/96
Project Number: 93007L-96.2
Project Name: NOT GIVEN
Project Location: NOT GIVEN
Sample ID: 93007-3.10/96
Lab Number: H2689-2

Analysis Date: 10/24/96
Sampling Date: 10/23/96
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

	VOLATILES - 8260 (ppm)	Sample Result H2689-2	Method Blank	QC	%IA	True Value QC
1	Dichlorodifluoromethane	<0.050	<0.050	0.081	81	0.100
2	Chloromethane	<0.050	<0.050	0.107	107	0.100
3	Vinyl chloride	<0.050	<0.050	0.106	106	0.100
4	Bromomethane	<0.050	<0.050	0.115	115	0.100
5	Chloroethane	<0.050	<0.050	0.107	107	0.100
6	Acetone	<0.050	<0.050	0.085	85	0.100
7	1,1-Dichloroethene	<0.050	<0.050	0.105	105	0.100
8	Trichlorofluoromethane	<0.050	<0.050	0.108	108	0.100
9	Carbon Disulfide	<0.050	<0.050	0.103	103	0.100
10	Methylene chloride	0.122	0.118	0.110	110	0.100
11	trans-1,2-Dichloroethene	<0.050	<0.050	0.109	109	0.100
12	1,1-Dichloroethane	<0.050	<0.050	0.112	112	0.100
13	Vinyl Acetate	<0.050	<0.050	0.097	97	0.100
14	2-Butanone	1.269	<0.050	0.081	81	0.100
15	cis-1,2-Dichloroethene	<0.050	<0.050	0.093	93	0.100
16	2,2-Dichloropropane	<0.050	<0.050	0.084	84	0.100
17	Chloroform	<0.050	<0.050	0.082	82	0.100
18	Bromochloromethane	<0.050	<0.050	0.088	88	0.100
19	1,1,1-Trichloroethane	<0.050	<0.050	0.099	99	0.100
20	1,2-Dichloroethane	<0.050	<0.050	0.102	102	0.100
21	1,1-Dichloropropene	<0.050	<0.050	0.085	85	0.100
22	Benzene	<0.050	<0.050	0.103	103	0.100
23	Carbon tetrachloride	<0.050	<0.050	0.096	96	0.100
24	Trichloroethene	<0.050	<0.050	0.104	104	0.100
25	Dibromomethane	<0.050	<0.050	0.115	115	0.100
26	Bromodichloromethane	<0.050	<0.050	0.109	109	0.100
27	trans-1,3-Dichloropropene	<0.050	<0.050	0.102	102	0.100
28	4-methyl-2-pentanone	<0.050	<0.050	0.106	106	0.100
29	1,2-Dichloropropane	<0.050	<0.050	0.104	104	0.100
30	cis-1,3-Dichloropropene	<0.050	<0.050	0.085	85	0.100
31	Toluene	<0.050	<0.050	0.103	103	0.100

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401
PHONE (806) 796-2800 • 5262 34th ST. • LUBBOCK, TX 79407

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
P.O. BOX 4128
LARAMIE, WYOMING 82071
FAX TO: 307-721-2913

Receiving Date: 10/24/96
Reporting Date: 10/25/96
Project Number: 93007L-96.2
Project Name: NOT GIVEN
Project Location: NOT GIVEN
Sample ID: 93007-3.10/96
Lab Number: H2689-2

Analysis Date: 10/24/96
Sampling Date: 10/23/96
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

VOLATILES - 8260 (ppm)		Sample Result H2689-2	Method Blank	QC	%IA	True Value QC
32	1,1,2-Trichloroethane	<0.050	<0.050	0.109	109	0.100
33	1,3-Dichloropropane	<0.050	<0.050	0.104	104	0.100
34	2-Hexanone	<0.050	<0.050	0.083	83	0.100
35	Dibromochloromethane	<0.050	<0.050	0.104	104	0.100
36	1,2-Dibromoethane	<0.050	<0.050	0.108	108	0.100
37	Tetrachloroethene	<0.050	<0.050	0.094	94	0.100
38	Chlorobenzene	<0.050	<0.050	0.107	107	0.100
39	1,1,1,2-Tetrachloroethane	<0.050	<0.050	0.104	104	0.100
40	Ethylbenzene	0.087	<0.050	0.101	101	0.100
41	m, p - Xylene	<0.100	<0.100	0.201	101	0.200
42	Bromoform	<0.050	<0.050	0.107	107	0.100
43	Styrene	<0.050	<0.050	0.107	107	0.100
44	o-Xylene	<0.050	<0.050	0.107	107	0.100
45	1,1,2,2-Tetrachloroethane	<0.050	<0.050	0.104	104	0.100
46	1,2,3-Trichloropropane	<0.050	<0.050	0.107	107	0.100
47	Isopropylbenzene	0.147	<0.050	0.103	103	0.100
48	Bromobenzene	<0.050	<0.050	0.109	109	0.100
49	2-Chlorotoluene	<0.050	<0.050	0.101	101	0.100
50	n-propylbenzene	<0.050	<0.050	0.100	100	0.100
51	4-Chlorotoluene	<0.050	<0.050	0.096	96	0.100
52	1,3,5-Trimethylbenzene	<0.050	<0.050	0.101	101	0.100
53	tert-Butylbenzene	<0.050	<0.050	0.101	101	0.100
54	1,2,4-Trimethylbenzene	0.099	<0.050	0.103	103	0.100
55	1,3-Dichlorobenzene	<0.050	<0.050	0.100	100	0.100
56	sec-Butylbenzene	<0.050	<0.050	0.102	102	0.100
57	1,4 Dichlorobenzene	<0.050	<0.050	0.101	101	0.100
58	4-Isopropyltoluene	<0.050	<0.050	0.101	101	0.100
59	1,2-Dichlorobenzene	<0.050	<0.050	0.102	102	0.100
60	n-Butylbenzene	0.063	<0.050	0.101	101	0.100
61	1,2-dibromo-3-chloropropane	<0.050	<0.050	0.093	93	0.100
62	1,2,4-Trichlorobenzene	<0.050	<0.050	0.112	112	0.100

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401
PHONE (806) 796-2800 • 5262 34th ST. • LUBBOCK, TX 79407

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
P.O. BOX 4128
LARAMIE, WYOMING 82071
FAX TO: 307-721-2913

Receiving Date: 10/24/96
Reporting Date: 10/25/96
Project Number: 93007L-96.2
Project Name: NOT GIVEN
Project Location: NOT GIVEN
Sample ID: 93007-3.10/96
Lab Number: H2689-2

Analysis Date: 10/24/96
Sampling Date: 10/23/96
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

VOLATILES - 8260 (ppm)		Sample Result H2689-2	Method Blank	QC	%IA	True Value QC
63	Naphthalene	0.301	<0.050	0.101	101	0.100
64	1,2,3-Trichlorobenzene	<0.050	<0.050	0.111	111	0.100

		% Recovery
65	Dibromofluoromethane	88
66	Toluene-D8	79
67	4-Bromofluorobenzene	87

METHODS: EPA SW-846-8260.

Burgess J. A. Cooke, Ph. D.

10/25/96
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401
PHONE (806) 796-2800 • 5262 34th ST • LUBBOCK, TX 79407

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ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
P.O. BOX 4128
LARAMIE, WYOMING 82071
FAX TO: 307-721-2913

Receiving Date: 10/24/96
Reporting Date: 10/25/96
Project Number: 93007L-96.2
Project Name: NOT GIVEN
Project Location: NOT GIVEN
Sample ID: 93007-4.10/96
Lab Number: H2689-3

Analysis Date: 10/24/96
Sampling Date: 10/24/96
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

	VOLATILES - 8260 (ppm)	Sample Result H2689-3	Method Blank	QC	%IA	True Value QC
1	Dichlorodifluoromethane	<0.050	<0.050	0.081	81	0.100
2	Chloromethane	<0.050	<0.050	0.107	107	0.100
3	Vinyl chloride	<0.050	<0.050	0.106	106	0.100
4	Bromomethane	<0.050	<0.050	0.115	115	0.100
5	Chloroethane	<0.050	<0.050	0.107	107	0.100
6	Acetone	<0.050	<0.050	0.085	85	0.100
7	1,1-Dichloroethene	<0.050	<0.050	0.105	105	0.100
8	Trichlorofluoromethane	<0.050	<0.050	0.108	108	0.100
9	Carbon Disulfide	<0.050	<0.050	0.103	103	0.100
10	Methylene chloride	0.168	0.118	0.110	110	0.100
11	trans-1,2-Dichloroethene	<0.050	<0.050	0.109	109	0.100
12	1,1-Dichloroethane	<0.050	<0.050	0.112	112	0.100
13	Vinyl Acetate	<0.050	<0.050	0.097	97	0.100
14	2-Butanone	1.324	<0.050	0.081	81	0.100
15	cis-1,2-Dichloroethene	<0.050	<0.050	0.093	93	0.100
16	2,2-Dichloropropane	<0.050	<0.050	0.084	84	0.100
17	Chloroform	<0.050	<0.050	0.082	82	0.100
18	Bromochloromethane	<0.050	<0.050	0.088	88	0.100
19	1,1,1-Trichloroethane	<0.050	<0.050	0.099	99	0.100
20	1,2-Dichloroethane	<0.050	<0.050	0.102	102	0.100
21	1,1-Dichloropropene	<0.050	<0.050	0.085	85	0.100
22	Benzene	<0.050	<0.050	0.103	103	0.100
23	Carbon tetrachloride	<0.050	<0.050	0.096	96	0.100
24	Trichloroethene	<0.050	<0.050	0.104	104	0.100
25	Dibromomethane	<0.050	<0.050	0.115	115	0.100
26	Bromodichloromethane	<0.050	<0.050	0.109	109	0.100
27	trans-1,3-Dichloropropene	<0.050	<0.050	0.102	102	0.100
28	4-methyl-2-pentanone	<0.050	<0.050	0.106	106	0.100
29	1,2-Dichloropropane	<0.050	<0.050	0.104	104	0.100
30	cis-1,3-Dichloropropene	<0.050	<0.050	0.085	85	0.100
31	Toluene	<0.050	<0.050	0.103	103	0.100

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PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401
PHONE (806) 796-2300 • 5252 34th ST • LUBBOCK, TX 79407

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
P.O. BOX 4128
LARAMIE, WYOMING 82071
FAX TO: 307-721-2913

Receiving Date: 10/24/96
Reporting Date: 10/25/96
Project Number: 93007L-96.2
Project Name: NOT GIVEN
Project Location: NOT GIVEN
Sample ID: 93007-4.10/96
Lab Number: H2689-3

Analysis Date: 10/24/96
Sampling Date: 10/24/96
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

	VOLATILES - 8260 (ppm)	Sample Result H2689-3	Method Blank	QC	%IA	True Value QC
32	1,1,2-Trichloroethane	<0.050	<0.050	0.109	109	0.100
33	1,3-Dichloropropane	<0.050	<0.050	0.104	104	0.100
34	2-Hexanone	<0.050	<0.050	0.083	83	0.100
35	Dibromochloromethane	<0.050	<0.050	0.104	104	0.100
36	1,2-Dibromoethane	<0.050	<0.050	0.108	108	0.100
37	Tetrachloroethene	<0.050	<0.050	0.094	94	0.100
38	Chlorobenzene	<0.050	<0.050	0.107	107	0.100
39	1,1,1,2-Tetrachloroethane	<0.050	<0.050	0.104	104	0.100
40	Ethylbenzene	0.094	<0.050	0.101	101	0.100
41	m, p - Xylene	<0.100	<0.100	0.201	101	0.200
42	Bromoform	<0.050	<0.050	0.107	107	0.100
43	Styrene	<0.050	<0.050	0.107	107	0.100
44	o-Xylene	<0.050	<0.050	0.107	107	0.100
45	1,1,2,2-Tetrachloroethane	<0.050	<0.050	0.104	104	0.100
46	1,2,3-Trichloropropane	<0.050	<0.050	0.107	107	0.100
47	Isopropylbenzene	0.221	<0.050	0.103	103	0.100
48	Bromobenzene	<0.050	<0.050	0.109	109	0.100
49	2-Chlorotoluene	<0.050	<0.050	0.101	101	0.100
50	n-propylbenzene	<0.050	<0.050	0.100	100	0.100
51	4-Chlorotoluene	<0.050	<0.050	0.096	96	0.100
52	1,3,5-Trimethylbenzene	<0.050	<0.050	0.101	101	0.100
53	tert-Butylbenzene	<0.050	<0.050	0.101	101	0.100
54	1,2,4-Trimethylbenzene	<0.050	<0.050	0.103	103	0.100
55	1,3-Dichlorobenzene	<0.050	<0.050	0.100	100	0.100
56	sec-Butylbenzene	<0.050	<0.050	0.102	102	0.100
57	1,4 Dichlorobenzene	<0.050	<0.050	0.101	101	0.100
58	4-Isopropyltoluene	<0.050	<0.050	0.101	101	0.100
59	1,2-Dichlorobenzene	<0.050	<0.050	0.102	102	0.100
60	n-Butylbenzene	<0.050	<0.050	0.101	101	0.100
61	1,2-dibromo-3-chloropropane	<0.050	<0.050	0.093	93	0.100
62	1,2,4-Trichlorobenzene	<0.050	<0.050	0.112	112	0.100

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401
PHONE (806) 796-2800 • 5262 34th ST • LUBBOCK, TX 79407

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
P.O. BOX 4128
LARAMIE, WYOMING 82071
FAX TO: 307-721-2913

Receiving Date: 10/24/96
Reporting Date: 10/25/96
Project Number: 93007L-96.2
Project Name: NOT GIVEN
Project Location: NOT GIVEN
Sample ID: 93007-4.10/96
Lab Number: H2689-3

Analysis Date: 10/24/96
Sampling Date: 10/24/96
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

VOLATILES - 8260 (ppm)		Sample Result H2689-3	Method Blank	QC	%IA	True Value QC
63	Naphthalene	<0.050	<0.050	0.101	101	0.100
64	1,2,3-Trichlorobenzene	<0.050	<0.050	0.111	111	0.100

		% Recovery
65	Dibromofluoromethane	85
66	Toluene-D8	90
67	4-Bromofluorobenzene	89

METHODS: EPA SW-846-8260.

Burgess J. A. Cooke, Ph. D.

10/25/96
Date

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PHONE (806) 796-2800 • 5252 34th ST. • LUBBOCK, TX 79407

MW-4
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ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
P.O. BOX 4128
LARAMIE, WYOMING 82071
FAX TO: 307-721-2913

Receiving Date: 10/24/96
Reporting Date: 10/25/96
Project Number: 93007L-96.2
Project Name: NOT GIVEN
Project Location: NOT GIVEN
Sample ID: 93007-5.10/96
Lab Number: H2689-4

Analysis Date: 10/24/96
Sampling Date: 10/24/96
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

	VOLATILES - 8260 (ppm)	Sample Result H2689-4	Method Blank	QC	%IA	True Value QC
1	Dichlorodifluoromethane	<0.050	<0.050	0.081	81	0.100
2	Chloromethane	<0.050	<0.050	0.107	107	0.100
3	Vinyl chloride	<0.050	<0.050	0.106	106	0.100
4	Bromomethane	<0.050	<0.050	0.115	115	0.100
5	Chloroethane	<0.050	<0.050	0.107	107	0.100
6	Acetone	<0.050	<0.050	0.085	85	0.100
7	1,1-Dichloroethene	<0.050	<0.050	0.105	105	0.100
8	Trichlorofluoromethane	<0.050	<0.050	0.108	108	0.100
9	Carbon Disulfide	<0.050	<0.050	0.103	103	0.100
10	Methylene chloride	0.205	0.118	0.110	110	0.100
11	trans-1,2-Dichloroethene	<0.050	<0.050	0.109	109	0.100
12	1,1-Dichloroethane	<0.050	<0.050	0.112	112	0.100
13	Vinyl Acetate	<0.050	<0.050	0.097	97	0.100
14	2-Butanone	1.426	<0.050	0.081	81	0.100
15	cis-1,2-Dichloroethene	<0.050	<0.050	0.093	93	0.100
16	2,2-Dichloropropane	<0.050	<0.050	0.084	84	0.100
17	Chloroform	<0.050	<0.050	0.082	82	0.100
18	Bromochloromethane	<0.050	<0.050	0.088	88	0.100
19	1,1,1-Trichloroethane	<0.050	<0.050	0.099	99	0.100
20	1,2-Dichloroethane	<0.050	<0.050	0.102	102	0.100
21	1,1-Dichloropropene	<0.050	<0.050	0.085	85	0.100
22	Benzene	<0.050	<0.050	0.103	103	0.100
23	Carbon tetrachloride	<0.050	<0.050	0.096	96	0.100
24	Trichloroethene	<0.050	<0.050	0.104	104	0.100
25	Dibromomethane	<0.050	<0.050	0.115	115	0.100
26	Bromodichloromethane	<0.050	<0.050	0.109	109	0.100
27	trans-1,3-Dichloropropene	<0.050	<0.050	0.102	102	0.100
28	4-methyl-2-pentanone	<0.050	<0.050	0.106	106	0.100
29	1,2-Dichloropropane	<0.050	<0.050	0.104	104	0.100
30	cis-1,3-Dichloropropene	<0.050	<0.050	0.085	85	0.100
31	Toluene	<0.050	<0.050	0.103	103	0.100

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401
PHONE (806) 796-2800 • 5262 34th ST. • LUBBOCK, TX 79407

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LARAMIE, WYOMING 82071
FAX TO: 307-721-2913

Receiving Date: 10/24/96
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Project Number: 93007L-96.2
Project Name: NOT GIVEN
Project Location: NOT GIVEN
Sample ID: 93007-5.10/96
Lab Number: H2689-4

Analysis Date: 10/24/96
Sampling Date: 10/24/96
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

	VOLATILES - 8260 (ppm)	Sample Result H2689-4	Method Blank	QC	%IA	True Value QC
32	1,1,2-Trichloroethane	<0.050	<0.050	0.109	109	0.100
33	1,3-Dichloropropane	<0.050	<0.050	0.104	104	0.100
34	2-Hexanone	<0.050	<0.050	0.083	83	0.100
35	Dibromochloromethane	<0.050	<0.050	0.104	104	0.100
36	1,2-Dibromoethane	<0.050	<0.050	0.108	108	0.100
37	Tetrachloroethene	<0.050	<0.050	0.094	94	0.100
38	Chlorobenzene	<0.050	<0.050	0.107	107	0.100
39	1,1,1,2-Tetrachloroethane	<0.050	<0.050	0.104	104	0.100
40	Ethylbenzene	0.091	<0.050	0.101	101	0.100
41	m, p - Xylene	<0.100	<0.100	0.201	101	0.200
42	Bromoform	<0.050	<0.050	0.107	107	0.100
43	Styrene	<0.050	<0.050	0.107	107	0.100
44	o-Xylene	<0.050	<0.050	0.107	107	0.100
45	1,1,2,2-Tetrachloroethane	<0.050	<0.050	0.104	104	0.100
46	1,2,3-Trichloropropane	<0.050	<0.050	0.107	107	0.100
47	Isopropylbenzene	0.169	<0.050	0.103	103	0.100
48	Bromobenzene	<0.050	<0.050	0.109	109	0.100
49	2-Chlorotoluene	<0.050	<0.050	0.101	101	0.100
50	n-propylbenzene	<0.050	<0.050	0.100	100	0.100
51	4-Chlorotoluene	<0.050	<0.050	0.096	96	0.100
52	1,3,5-Trimethylbenzene	<0.050	<0.050	0.101	101	0.100
53	tert-Butylbenzene	<0.050	<0.050	0.101	101	0.100
54	1,2,4-Trimethylbenzene	<0.050	<0.050	0.103	103	0.100
55	1,3-Dichlorobenzene	<0.050	<0.050	0.100	100	0.100
56	sec-Butylbenzene	<0.050	<0.050	0.102	102	0.100
57	1,4 Dichlorobenzene	<0.050	<0.050	0.101	101	0.100
58	4-Isopropyltoluene	<0.050	<0.050	0.101	101	0.100
59	1,2-Dichlorobenzene	<0.050	<0.050	0.102	102	0.100
60	n-Butylbenzene	<0.050	<0.050	0.101	101	0.100
61	1,2-dibromo-3-chloropropane	<0.050	<0.050	0.093	93	0.100
62	1,2,4-Trichlorobenzene	<0.050	<0.050	0.112	112	0.100

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401
PHONE (806) 796-2800 • 5252 34th ST. • LUBBOCK, TX 79407

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ATTN: KEVIN MATTSON
P.O. BOX 4128
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Project Name: NOT GIVEN
Project Location: NOT GIVEN
Sample ID: 93007-5.10/96
Lab Number: H2689-4

Analysis Date: 10/24/96
Sampling Date: 10/24/96
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

VOLATILES - 8260 (ppm)	Sample Result H2689-4	Method Blank	QC	%IA	True Value QC
63 Naphthalene	<0.050	<0.050	0.101	101	0.100
64 1,2,3-Trichlorobenzene	<0.050	<0.050	0.111	111	0.100

	% Recovery
65 Dibromofluoromethane	92
66 Toluene-D8	82
67 4-Bromofluorobenzene	88

METHODS: EPA SW-846-8260.

Burgess J. A. Cooke, Ph.D.

10/25/96
Date

Western Water Consultants, Inc.

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AND ENVIRONMENTAL CONSULTING

611 SKYLINE ROAD
LARAMIE, WY 82070
(307) 742-0031
FAX (307) 721-2913

701 ANTLER DR., SUITE 233
CASPER, WY 82601
(307) 473-2707
FAX (307) 237-0828

1901 ENERGY COURT, SUITE 270
GILLETTE, WY 82716
(307) 682-1880

1949 SUGARLAND DR., SUITE 134
SHERIDAN, WY 82801
(307) 672-0761
FAX (307) 674-4265

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ANNUAL REPORT ON THE SOIL VAPOR EXTRACTION SYSTEMS AT THE DOWELL SCHLUMBERGER FACILITY, HOBBS, NEW MEXICO

October 29, 1996

Submitted To:

New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco
Santa Fe, New Mexico 87505

Prepared For:

Dowell, a division of Schlumberger Technology Corporation
300 Schlumberger Drive
Sugar Land, Texas 77478

Prepare By:

Western Water Consultants, Inc.

611 Skyline Road
Laramie, Wyoming 82070

701 Antler Drive
Suite 233
Casper, WY 82601

1901 Energy Court
Suite 270
Gillette, WY 82718

1949 Sugarland Drive
Suite 134
Sheridan, WY 82801

Western Water Consultants, Inc.

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1.0 INTRODUCTION

Dowell, a division of Schlumberger Technology Corporation (Dowell), operates an oil field service facility located at 1105 West Bender Boulevard in Hobbs, New Mexico. Services offered at the facility include well cementing, well acidizing and stimulating, and formation fracturing for oil and gas production wells in the Hobbs vicinity. The facility includes an office building, laboratory, truck maintenance building, wash bay, dry chemicals warehouse, aboveground storage tanks, and an acid plant. Previous investigations at the Hobbs facility identified three areas suitable for Soil Vapor Extraction (SVE) mitigation. These areas include a former waste water lagoon, an acid dock, and the vicinity of two former under ground storage tanks (USTs).

A work plan showing the proposed location and design of the SVE systems was submitted to the New Mexico Oil Conservation Division (NMOCD) on January 27, 1995, and approved by NMOCD in a letter dated May 10,1995. The SVE systems were installed in June and July 1995 in the areas indicated in Figure 1-1. *Determination of Extent of Soil Contamination and Installation of Soil Vapor Extraction Systems at the Dowell Schlumberger Facility Hobbs, New Mexico, September 29, 1995,* documents the construction of the SVE systems. The purpose of this report is to present the results from the three SVE systems during the first year of operation.

2.1 SVE System Installation

As stated previously, three sites were identified as suitable for SVE mitigation at Dowell's Hobbs, New Mexico, facility. In October 1994, three SVE pilot tests were conducted in the vicinity of a former waste water lagoon, the acid dock, and in the vicinity of two former USTs. The results of the pilot tests indicated 50 ft as a conservative estimate of the radius of influence in the caliche underlying the facility. During the week of June 11-17, 1995, Western Water Consultants Inc., (WWC) supervised the drilling of 25 new soil borings in a 50 ft offset pattern from the existing three SVE pilot test wells. Cuttings from the soil borings were used to delineate the horizontal extent of source area. Twenty wells were completed as SVE wells and eight wells were abandoned from the 25 new soil borings and the three existing pilot wells.

During the week of June 11-17, 1995, WWC constructed three separate SVE systems using 17 of the SVE wells and burying PVC header pipe from each well to a central manifold for each system. SVE Unit 1 includes six wells in the area of the former waste water lagoon, SVE Unit 2 has seven wells in the vicinity of the acid dock, and SVE Unit 3 involves four wells in the in the vicinity of two former USTs. Three SVE wells (EW-11, EW-16, EW-22) were not connected to a manifold; however, they may be used in the future to address outlying source areas.

The vacuum for each SVE system is provided by an AcuVac internal combustion engine driving a Roots-type blower. Extracted well vapors are directed through the engine to be destroyed in the combustion process with a catalytic converter further mitigating the exhaust. Three AcuVac units were delivered to the Hobbs facility on July 10, 1995. SVE Unit 1 began operation on July 10, 1995, and SVE Units 2 and 3 began operation on July 12, 1995.

2.2 SVE Maintenance Record

Dowell contracted with Gordon & Lawton, Inc. (Gordon & Lawton) of Austin, Texas, to perform the regular maintenance and monitoring of the SVE systems at the Hobbs facility. In addition to performing system maintenance, Gordon & Lawton measures well vacuum, system flowrate, hours of operation for the AcuVac engines, and Total Petroleum Hydrocarbons (TPH)

(Appendix A). The harsh operating conditions at Dowell's Hobbs facility resulted in a variety of problems with the AcuVac engines during the first 6 months of operation (July through December 1995) (Figure 2-1) . However, modifications to the engines resulted in an improved operation percentage during the second 6 months of operation (January through June 1996) (Figure 2-2). These modifications included increasing the size of the oil reservoirs for the AcuVac engines and adding a caustic injection system to SVE Unit 2 and SVE Unit 3. In addition, SVE Unit 3 was change from a four cylinder engine to a six cylinder engine to increase production in the vicinity of the former USTs.

2.3 Monitoring

A Horiba Auto Emmissions Analyzer is used by Gordon & Lawton to analyze the exhaust from each SVE unit at the Hobbs facility as part of their routine system maintenance. TPH readings provide relative information on the emissions from each SVE system. WWC collected air samples from the input gases prior to the AcuVac engine and the exhaust gases after the catalytic converter for SVE Unit 1 and SVE Unit 3 at Dowell's Hobbs facility five times during the period from July 10, 1995, through July 24, 1996. SVE Unit 2 was sampled four times during the same time frame. Collected samples were analyzed by Environmental Protection Agency (EPA) method 8260 (Appendix B). Gordon & Lawton collected air samples from SVE Unit 1, SVE Unit 2, and SVE Unit 3 on April 11, 1995, for analysis by EPA Method 8260 (Appendix C).

3.1 SVE Unit 1, Former Waste Water Lagoon

SVE Unit 1 was sampled on July 13, 1995; August 12, 1995; September 7, 1995; April 11, 1996; and July 24, 1996. Figure 3-1 is a graph of the input and output concentrations for halocarbons and benzene, toluene, ethyl benzene, and xylene (BTEX). SVE Unit 1 was not in operation from August 5, 1995, through August 11, 1995. Consequently, sample results from the August 12, 1995, indicate a significant drop for the input values for halocarbons and BTEX and a slight increase in the output value of halocarbons. Except for the August 12, 1995 readings, input and output concentrations for both halocarbons and BTEX show a downward trend in the data.

Table 3-1 summarizes the operation data and the air sample results for five sampling events from SVE Unit 1. Table 3-1 also provides estimates of the mass of halocarbons and BTEX extracted from the source area and emitted from the catalytic converter by SVE Unit 1. Estimates were calculated from the hours of operation, time-weighted flowrate, and the sample concentration for the period using Equation 3-1. SVE Unit 1 extracted 20.13 pounds of BTEX and 29.25 pounds of halocarbons from July 10, 1995, through July 24, 1996. During the same time frame, 0.24 pounds of BTEX and 1.37 pounds of halocarbons were released into the atmosphere from SVE Unit 1.

$$(T \times 60\frac{minutes}{hour}) \times (F \times 0.0283\frac{meters^3}{feet^3}) \times (C \times 0.000001\frac{kilograms}{milligrams} \times 0.4545\frac{pounds}{kilograms}) = Production(Pounds)$$

T = Time of Operation in Hours
F = Flowrate in Standard Cubic Feet per Minute
C = Sample Concentration in Milligrams per Cubic Meter

Equation 3-1. Estimation Equation for SVE Unit Production.

3.2 SVE Unit 2, Acid Dock

SVE Unit 2 was sampled on July 13, 1995; August 12, 1995; April 11, 1996; and July 24, 1996. Figure 3-2 is a graph of the input and output concentrations for halocarbons and

BTEX. Concentrations of halocarbons and BTEX in input samples for SVE Unit 2 were substantially lower than for SVE Unit 1. The extracted vapors contain higher concentrations of BTEX than halocarbons and the amount of BTEX in the input sample is decreasing steadily. Conversely, the amount of halocarbons in the input sample has risen slightly. Output sample values from SVE Unit 2 have remained very low for BTEX with halocarbons remaining below the detection limit.

Table 3-2 summarizes the operation data and air sample results for four sampling events from SVE Unit 2. Table 3-2 also provides estimates of the mass of halocarbons and BTEX extracted from the source area and emitted from the catalytic converter by SVE Unit 2. Estimates were calculated from the hours of operation, time weighted flowrate, and the sample concentration for the period using Equation 3-1. SVE Unit 2 extracted 4.18 pounds of BTEX and 1.83 pounds of halocarbons from July 12, 1995, through July 24, 1996. During the same time frame, 0.01 pounds of BTEX and no halocarbons were released into the atmosphere from SVE Unit 2.

3.3 SVE Unit 3, Former USTs

SVE Unit 3 was sampled on July 13, 1995; August 12, 1995; September 7, 1995; April 11, 1996; and July 24, 1996. Figure 3-3 is a graph of the input and output concentrations for halocarbons and BTEX from the five sampling events. Input air samples from SVE Unit 3 exhibited very low BTEX concentrations and high halocarbon concentrations. The second input halocarbon sample increased significantly; however, SVE Unit 3 was not operating from August 9, 1995, through August 11, 1995. After the August sample, halocarbon concentrations show a significant reduction trend. The output of BTEX is very low; however, the output of halocarbons rises for the first three samples, then drops for the two final samples.

Table 3-3 summarizes the operation data and air sample results for five sampling events from SVE Unit 3. Table 3-3 also provides estimates of the mass of halocarbons and BTEX extracted from the source area and emitted from the catalytic converter by SVE Unit 3. Estimates were calculated from the hours of operation, time weighted flowrate, and the sample concentration for the period using Equation 3-1. SVE Unit 3 extracted 0.37 pounds of BTEX and 90.40 pounds of halocarbons from July 12, 1995, through July 24, 1996. During the same time frame, 0.14 pounds of BTEX and4.61 pounds of halocarbons were released into the atmosphere from SVE Unit 3.

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1105 WEST BENDER BOULEVARD

VISITOR PARKING

MAIN OFFICE AND LABORATORY

EW-14

LABORATORY SUMP

FORMER USTS

3-3

MANIFOLD (4 WELLS)

3-2

3-4

GRASS LAWN

SVE UNIT 3
FORMER USTs

EW-12

FORMER UST

× EW-16

GRASS LAWN

TRUCK PARKING AREA

CONCRETE APRON

TRUCK MAINTENANCE SHOP

CONCRETE APRON

ASPHALT

CONNECTING SLAB

WASH SLAB

NEW SLAB

EW-28

EW-27

SVE UNIT 1
FORMER WASTE
WATER LAGOON

1-5

1-6

EW-11

CONCRETE TANK REVETMENT

MANIFOLD (6 WELLS)

EW-26

EW-8

1-4

1-2

1-1

APPROXIMATE LOCATION OF FORMER WASTEWATER POND

1-3

EW-10

TRUCK SCALES

EW-25

SVE UNIT 2
ACID DOCK

2-1

FORMER ACID COLLECTION SYSTEM

EW-18

MANIFOLD (7 WELLS)

2-2

CONCRETE SLAB

2-7

2-3

2-4

CONCRETE APRON

WAREHOUSE

CONCRETE SLAB

ACID PLANT

SLAB

DRUM STORAGE PAD

2-6

2-5

× EW-24

WAREHOUSE

CEMENT PLANT

BULK SAND STORAGE TANKS

PROPERTY FENCES

PROPERTY FENCES

0 80 FT.

SCALE

EXPLANATION

- ● COMPLETED AS SVE WELL
- ○ SOIL BORING
- × COMPLETED AS A FUTURE SVE WELL
- —— FENCED ENCLOSURE
- ---- 2" PVC PIPING

FIGURE 1-1

AS-BUILT SITE MAP
SVE SYSTEMS

DOWELL, A dIVISION OF SCHLUMBERGER TECHNOLOGY, CORP., HOBBS, NEW MEXICO

Western Water Consultants, Inc.

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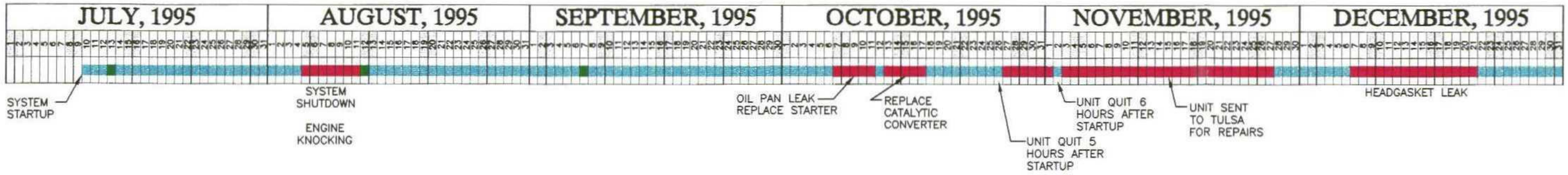
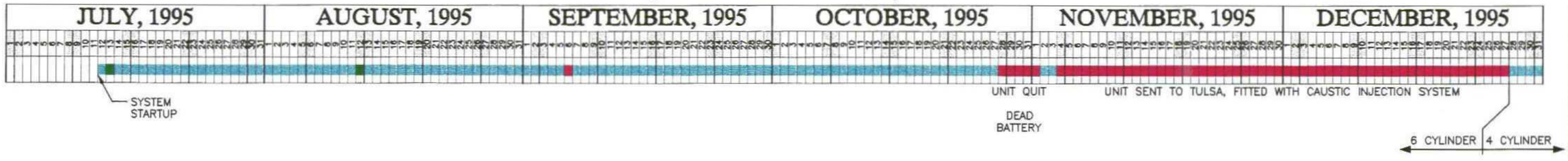
FORMER WASTE WATER LAGOON, UNIT 1

(OPERATION PERCENTAGE 64%)



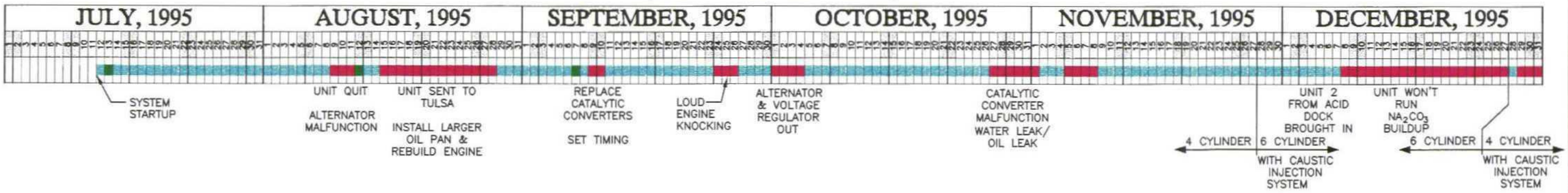
ACID DOCK, UNIT 2

(OPERATION PERCENTAGE 65%)



FORMER USTs, UNIT 3

(OPERATION PERCENTAGE 66%)



EXPLANATION

UNIT IS RUNNING EXCEPT FOR BRIEF SHUTDOWNS FOR ROUTINE MAINTENANCE

UNIT IS NOT OPERATING

AIR SAMPLES COLLECTED

FIGURE 2-1

SVE OPERATION TIMELINE
07/01/95 THRU 12/31/95

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY, CORP.

Western Water Consultants, Inc.

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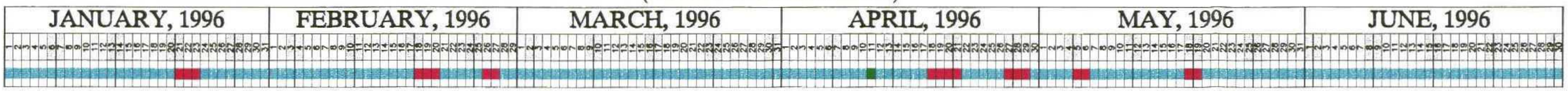
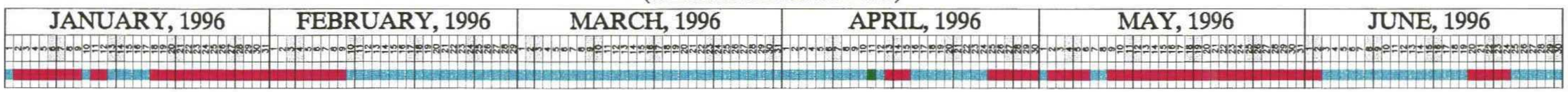
FORMER WASTE WATER LAGOON, UNIT 1

(OPERATION PERCENTAGE 90%)



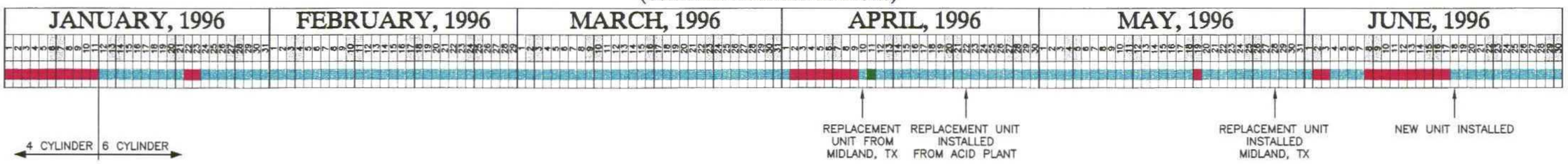
ACID DOCK, UNIT 2

(OPERATION PERCENTAGE 58%)



FORMER USTs, UNIT 3

(OPERATION PERCENTAGE 81%)



EXPLANATION

UNIT IS RUNNING EXCEPT FOR BRIEF SHUTDOWNS FOR ROUTINE MAINTENANCE

UNIT IS NOT OPERATING

AIR SAMPLES COLLECTED

FIGURE 2-2

SVE OPERATION TIMELINE
01/01/96 THRU 06/30/96

DOWELL, A DIVISION OF SCHLUMBERGER TECHNOLOGY, CORP.

Western Water Consultants, Inc.

FIGURE 3-1. SVE UNIT 1, FORMER LAGOON

Air Sample Data

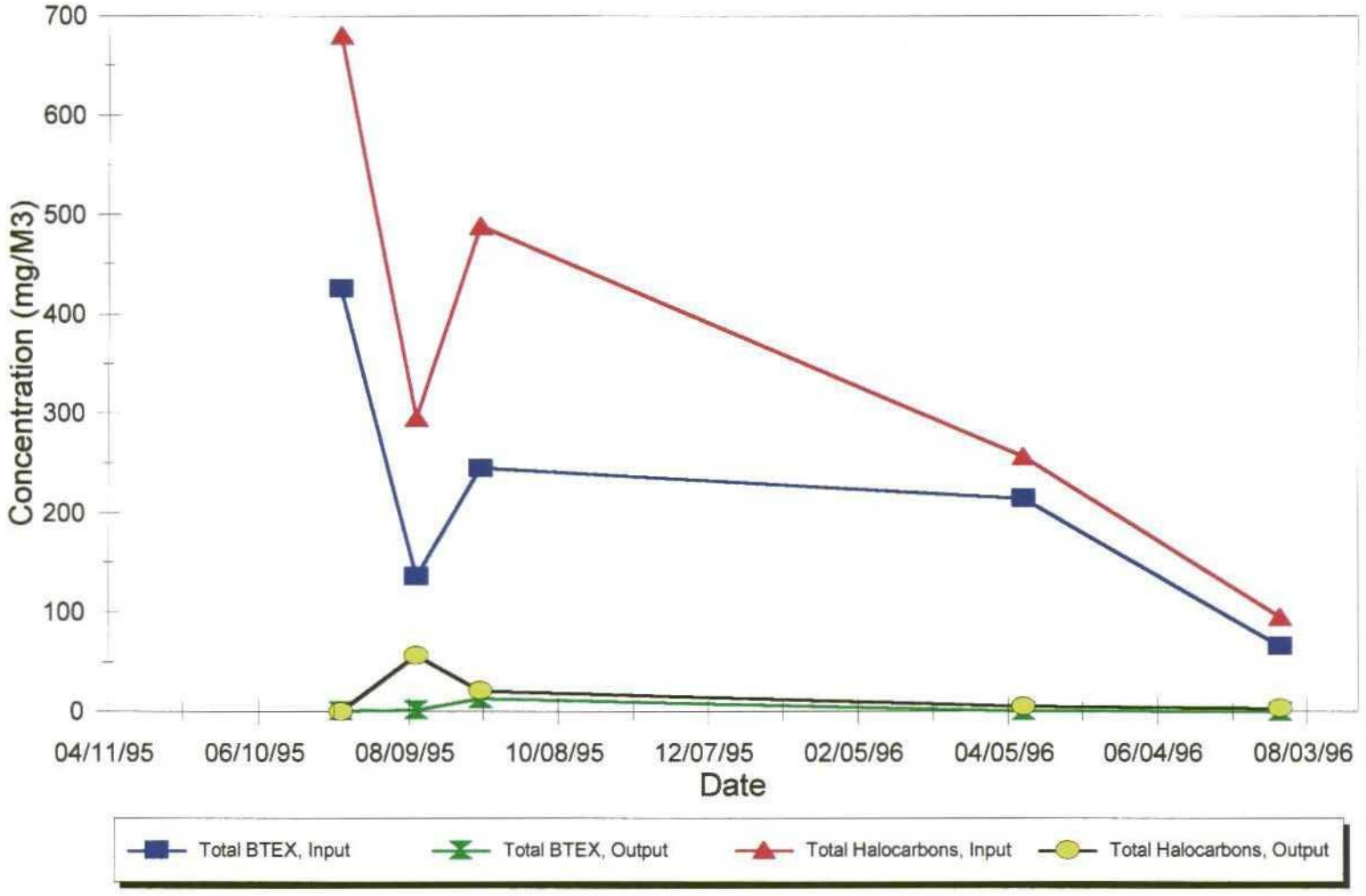


Table 3-1. SVE UNIT 1, (Former Waste Water Lagoon) Production Estimates at the Dowell's Hobbs, New Mexico Facility.

Date	Hour Meter Reading	AIR FLOW from Well (scfm)	AIR FLOW w/ Makeup Air (scfm)	TPH	Comments	Sample Location	Benzene (mg/m3)	Toluene (mg/m3)	Ethyl-Benzene (mg/m3)	Total Xylene (mg/m3)	1,1-DCE (mg/m3)	1,1-DCA (mg/m3)	Chloromethane (mg/m3)	1,1,1-TCA (mg/m3)	Vinyl Chloride (mg/m3)	TCE (mg/m3)	PCE (mg/m3)	Total Input BTEX (mg/m3)	Total Output BTEX (mg/m3)	Total Input Halocarbons (mg/m3)	Total Output Halocarbons (mg/m3)	
07/10/95	3	25	17	95																		
07/13/95	63	25	19	164	Sampling Event	Sample Input Data Results	26.00	256.00	30.60	111.20	46.20	48.30	ND(0.2)	450.00	ND(0.2)	1.23	135.00	425.80		680.73		
						Sample Exhaust Data Results	0.83	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)		0.83		0.00	
	63 Hours	25.0 (scfm) Time Weighted Flowrate 07/10/95 to 07/13/95				**SVE Extraction 07/10/95 Thru 07/13/95**	**0.03**	**0.31**	**0.04**	**0.14**	**0.06**	**0.06**	**0.00**	**0.55**	**0.00**	**0.00**	**0.16**	**0.52**		**0.83**		**Pounds**
						SVE Emissions 07/10/95 Thru 07/13/95	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**	**Pounds**
07/20/95	220	25	19	44																		
08/12/95	571	30	18	68	Sampling Event	Sample Input Data Results	18.30	46.40	20.00	51.40	23.90	35.20	ND(0.2)	216.80	ND(0.2)	1.30	19.00	136.10		296.00		
						Sample Exhaust Data Results	1.90	ND(0.2)	ND(0.2)	ND(0.2)	5.00	ND(0.2)	12.80	ND(0.2)	35.70	ND(0.2)	3.70		1.90		57.20	
	508 Hours	25.0 (scfm) Time Weighted Flowrate 07/13/95 to 08/12/95				**SVE Extraction 07/13/95 Thru 08/12/95**	**0.18**	**0.45**	**0.20**	**0.50**	**0.23**	**0.34**	**0.00**	**2.12**	**0.00**	**0.01**	**0.19**	**1.33**		**2.90**		**Pounds**
						SVE Emissions 07/13/95 Thru 08/12/95	**0.02**	**0.00**	**0.00**	**0.00**	**0.05**	**0.00**	**0.13**	**0.00**	**0.35**	**0.00**	**0.04**		**0.02**		**0.56**	**Pounds**
08/15/95	630	30	18	326																		
09/07/95	1133	20	18	112	Sampling Event	Sample Input Data Results	19.10	118.30	16.60	91.20	56.70	34.80	ND(0.2)	283.00	ND(0.2)	2.73	111.80	245.20		489.03		
						Sample Exhaust Data Results	8.50	2.90	0.80	3.40	ND(0.2)	ND(0.2)	6.80	ND(0.2)	8.60	ND(0.2)	6.00		13.40		21.40	
	562 Hours	29.6 (scfm) Time Weighted Flowrate 08/12/95 to 09/07/95				**SVE Extraction 08/12/95 Thru 09/07/95**	**0.25**	**1.52**	**0.21**	**1.17**	**0.73**	**0.45**	**0.00**	**3.63**	**0.00**	**0.04**	**1.44**	**3.15**		**6.28**		**Pounds**
						SVE Emissions 08/12/95 Thru 09/07/95	**0.08**	**0.04**	**0.01**	**0.04**	**0.00**	**0.00**	**0.09**	**0.00**	**0.11**	**0.00**	**0.08**		**0.17**		**0.27**	**Pounds**
09/08/95	1160	18	18																			
11/02/95	1962	18	18	48	UNIT Sent to Tulsa for Repairs (11/9/95)																	
11/28/95	1978	10	20		UNIT Returned from Tulsa																	
11/29/95	2002	10		266	Sampling Event (Exhaust Only)	Sample Exhaust After Cat/Ox Unit	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	15.30	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)		0.00		15.30	
04/11/96	4591	30	12	16	Sampling Event	Sample Input Data Results	ND(0.2)	114.00	19.10	81.50	9.70	11.40	ND(0.2)	116.00	ND(0.2)	ND(0.2)	120.00	214.60		257.10		
						Sample Exhaust Data Results	1.00	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	4.10	ND(0.2)	1.20	ND(0.2)	0.50		1.00		5.80	
	3,458 Hours	18.7 (scfm)Time Weighted Flowrate 09/07/95 to 04/11/96				**SVE Extraction 09/07/95 Thru 04/11/96**	**0.00**	**5.67**	**0.95**	**4.06**	**0.48**	**0.57**	**0.00**	**5.77**	**0.00**	**0.00**	**5.97**	**10.68**		**12.90**		**Pounds**
						SVE Emissions 09/07/95 Thru 04/11/96	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.20**	**0.00**	**0.06**	**0.00**	**0.02**		**0.05**		**0.29**	**Pounds**
04/16/96	4703	30		32																		
06/26/96	5979	70	10																			
07/24/96					Sampling Event	Sample Input Data Results	2.80	49.50	2.60	11.20	6.90	6.10	ND(0.50)	64.60	ND(0.50)	0.40	17.90	66.10		95.90		
						Sample Exhaust Data Results	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)	2.40	ND(0.30)	0.70	ND(0.30)	0.60		0.00		3.70	
	2,060 Hours *	42.3 *(scfm)Time Weighted Flowrate 04/11/96 Thru 07/24/96				**SVE Extraction 04/11/96 Thru 07/24/96**	**0.19**	**3.33**	**0.17**	**0.75**	**0.48**	**0.41**	**0.00**	**4.34**	**0.00**	**0.03**	**1.20**	**4.45**		**5.45**		**Pounds**
						SVE Emissions 04/11/96 Thru 07/24/96	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.16**	**0.00**	**0.05**	**0.00**	**0.04**		**0.00**		**0.26**	**Pounds**
						Total SVE Extraction 07/10/95 Thru 07/24/96	**0.65**	**11.29**	**1.57**	**6.62**	**1.97**	**1.83**	**0.00**	**16.42**	**0.00**	**0.08**	**8.96**	**20.13**		**29.25**		**Pounds**
						Total SVE Emissions 07/10/95 Thru 07/24/96	**0.15**	**0.04**	**0.01**	**0.04**	**0.05**	**0.00**	**0.58**	**0.00**	**0.57**	**0.00**	**0.18**		**0.24**		**1.37**	**Pounds**

Notes (mg/m3) =milligrams/cubic meter

ND =Not Detected at detection limit shown in parentheses

* =Based on 24 Hour/Day Operation at 70 scfm from 06/26/96 thru 07/24/96

20 = No Flowrate Data, Previous Value Assumed

(scfm) = standard cubic feet / minute

DCA=Dichloroethane

DCE= Dichloroethene

TCA=Trichloroethane

PCE=Tetrachloroethene

TPH= Total Petroleum Hydrocarbons (Measured by Gordon & Lawton, Inc using a Horiba Auto Emissions Analyzer)

Sampling Event = Indicates Analytical Samples Taken and the Results of the Laboratory Analysis

SVE Extraction 04/11/96 Thru 07/24/96 =Indicates the Amount of Analyte Extracted from All the Wells or Emitted to the Atmosphere for Unit 1 During the Specified Time Frame

Total SVE Extraction 07/10/95 Thru 07/24/96 = Indicates the Amount of Analyte Extracted from All the Wells or Emitted to the Atmosphere for Unit 1 Thru 07/24/96

FIGURE 3-2. SVE UNIT 2, ACID DOCK

Air Sample Data

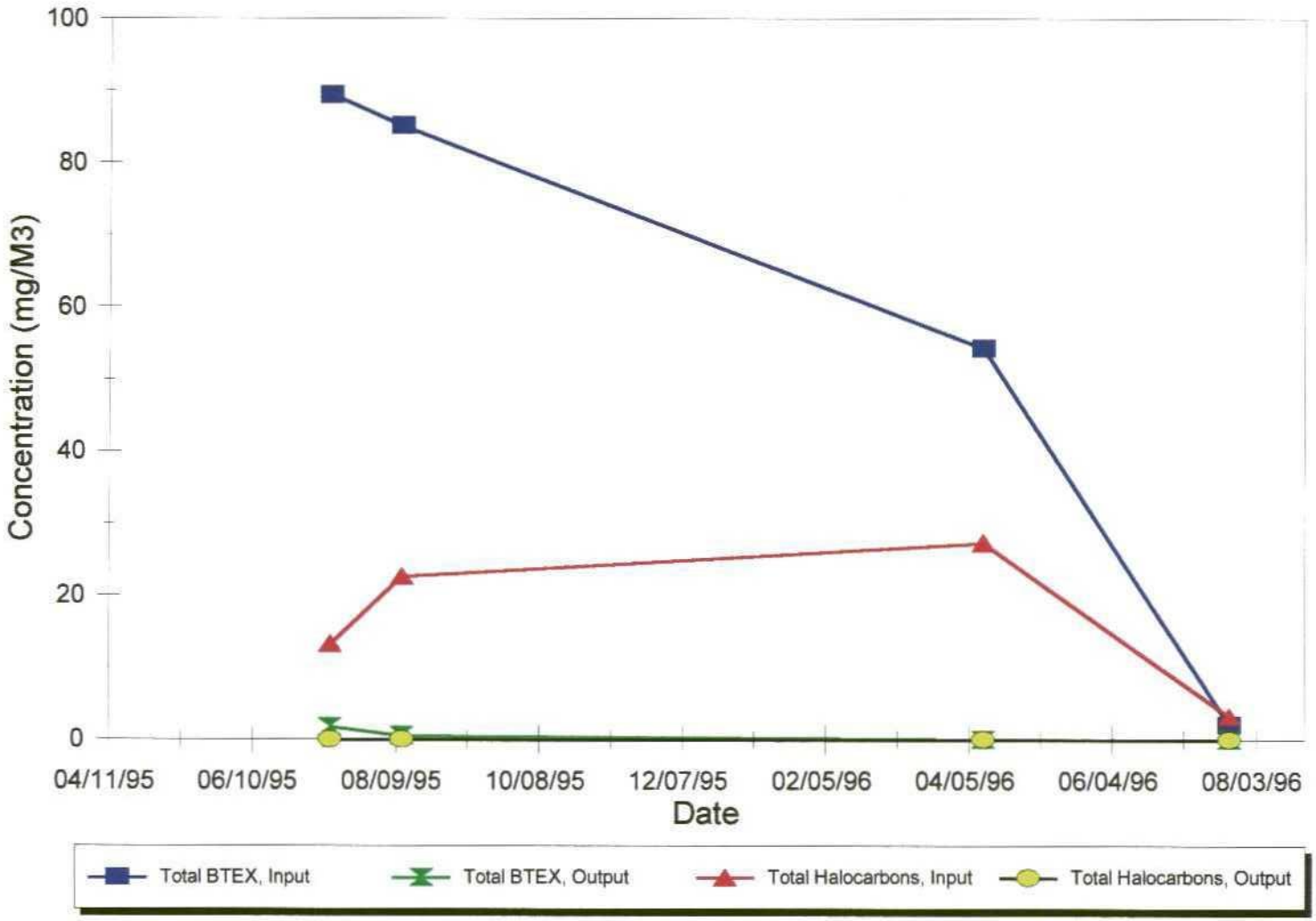


Table 3-2. SVE UNIT 2, (Acid Dock) Production Estimates at the Dowell's Hobbs, New Mexico Facilty.

Date	Hour Meter Reading	AIR FLOW from Well (scfm)	AIR FLOW w/ Makeup Air (scfm)	TPH	Comments	Sample Location	Benzene (mg/m3)	Toluene (mg/m3)	Ethyl-Benzene (mg/m3)	Total Xylene (mg/m3)	1,1-DCE (mg/m3)	1,1-DCA (mg/m3)	Chloromethane (mg/m3)	1,1,1-TCA (mg/m3)	Vinyl Chloride (mg/m3)	TCE (mg/m3)	PCE (mg/m3)	Total Input BTEX (mg/m3)	Total Output BTEX (mg/m3)	Total Input Halocarbons (mg/m3)	Total Output Halocarbons (mg/m3)	
07/12/95	3	25	25	276																		
07/13/95	22	28			Sampling Event	Sample Input Data Results	3.13	27.20	12.90	46.18	1.52	1.53	ND(0.2)	3.39	ND(0.2)	ND(0.2)	6.91	89.41		13.35		
						Sample Exhaust Data Results	ND(0.2)	0.26	ND(0.2)	1.50	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)		1.76		0.00	
	22 Hours	25.0 (scfm) Time Weighted Flowrate Average 07/12/95 thru 07/13/95				**SVE Extraction 07/10/95 Thru 07/13/95**	**0.00**	**0.01**	**0.01**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.04**		**0.01**		**Pounds**
						SVE Emissions 07/10/95 Thru 07/13/95	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**	**Pounds**
07/20/95	150	25	14	100	Hour Meter Malfunction																	
07/27/95	150	25	14	100	Hour Meter Malfunction																	
08/04/95	150	25	14	187	Hour Meter Malfunction																	
08/12/95	152	25	25	330	Replace Hour Meter, Sampling Event	Sample Input Data Results	1.42	24.80	10.40	48.50	5.10	1.60	ND(0.2)	7.00	ND(0.2)	ND(0.2)	8.90	85.12		22.60		
						Sample Exhaust Data Results	ND(0.2)	0.50	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)		0.50		0.00	
	720 Hours	25.0 (scfm) Time Weighted Flowrate Average 07/13/95 thru 08/12/95				**SVE Extraction 07/13/95 Thru 08/12/95**	**0.02**	**0.34**	**0.14**	**0.67**	**0.07**	**0.02**	**0.00**	**0.10**	**0.00**	**0.00**	**0.12**	**1.18**		**0.31**		**Pounds**
						SVE Emissions 07/13/95 Thru 08/12/95	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.01**		**0.00**	**Pounds**
08/15/95	226	42	25	132																		
11/02/95	1953	18	18	98	UNIT Sent to Tulsa for Repairs (11/9/95)																	
12/27/95	2192	18	18		Four Cylinder Unit Installed																	
04/11/96	3869	10	16	108	Sampling Event	Sample Input Data Results	0.70	17.70	5.60	30.30	1.90	0.60	ND(0.2)	5.50	ND(0.2)	0.30	19.00	54.30		27.30		
						Sample Exhaust Data Results	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)		0.00		0.00	
	3,532 Hours	19.8 (scfm) Time Weighted Flowrate Average 08/12/95 thru 04/11/96				**SVE Extraction 08/12/95 Thru 04/11/96**	**0.04**	**0.98**	**0.30**	**1.64**	**0.10**	**0.03**	**0.00**	**0.30**	**0.00**	**0.02**	**1.03**	**2.93**		**1.47**		**Pounds**
						SVE Emissions 08/12/95 Thru 04/11/96	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**	**Pounds**
04/16/96	3931	16	16	44																		
06/26/96	4546	8	8																			
07/24/96					Sampling Event	Sample Input Data Results	ND(0.30)	1.00	ND(0.30)	1.10	0.80	ND(0.30)	ND(0.50)	0.90	ND(0.50)	ND(0.30)	1.60	2.10		3.30		
						Sample Exhaust Data Results	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.50)	ND(0.30)	ND(0.50)	ND(0.50)	ND(0.50)		0.00		0.00	
	1,319* Hours	12.3 *(scfm) Time Weighted Flowrate Average 04/11/96 thru 07/24/96				**SVE Extraction 04/11/96 Thru 07/24/96**	**0.00**	**0.01**	**0.00**	**0.01**	**0.01**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.02**	**0.03**		**0.04**		**Pounds**
						SVE Emissions04/11/96 Thru 07/24/96	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**	**Pounds**
						Total SVE Extraction 07/12/95 Thru 07/24/96	**0.06**	**1.32**	**0.45**	**2.34**	**0.18**	**0.06**	**0.00**	**0.41**	**0.00**	**0.02**	**1.17**	**4.18**		**1.83**		**Pounds**
						Total SVE Emissions 07/12/95 Thru 07/24/96	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.01**		**0.00**	**Pounds**

Notes:
(mg/m3) =milligrams/cubic meter
ND =Not Detected at detection limit shown in parentheses
20 = No Flowrate Data, Previous Value Assumed
* =Based on 24 Hour/Day Operation at 8 scfm from 06/26/96 thru 07/24/96
2192 = New SVE Unit Installed
(scfm) = standard cubic feet / minute

DCA=Dichloroethane
DCE= Dichloroethene

TCA=Trichloroethane
PCE=Tetrachloroethene

TPH= Total Petroleum Hydrocarbons (Measured by Gordon & Lawton, Inc. using a Honba Auto Emissions Analyzer).

Sampling Event = Indicates Analytical Samples Taken and the Results of the Laboratory Analysis.
SVE Extraction 04/11/96 Thru 07/24/96 =Indicates the Amount of Analyte Extracted from All the Wells or Emitted to the Atmosphere for Unit 2 During the Specified Time Frame.
Total SVE Extraction 07/10/95 Thru 07/24/96 =Indicates the Amount of Analyte Extracted from All the Wells or Emitted to the Atmosphere for Unit 2 Thru 07/24/96

FIGURE 3-3. SVE UNIT 3, FORMER USTs

Air Sample Data

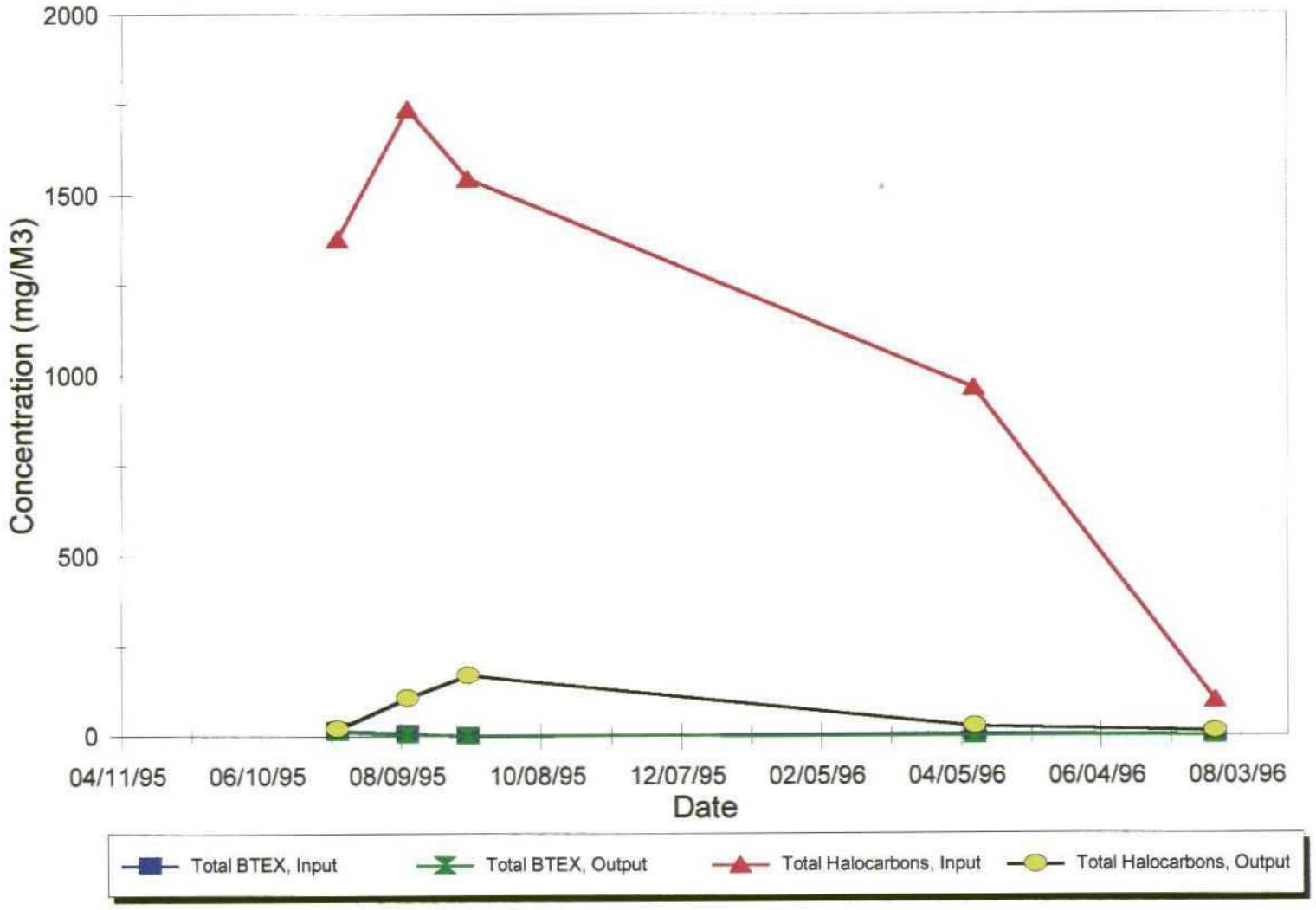


Table 3-3. SVE UNIT 3, (Former USTs) Production Estimates at the Dowell's Hobbs, New Mexico Facility.

Date	Hour Meter Reading	AIR FLOW from Well (scfm)	AIR FLOW w/ Makeup Air (scfm)	TPH	Comments	Sample Location	Benzene (mg/m3)	Toluene (mg/m3)	Ethyl-Benzene (mg/m3)	Total Xylene (mg/m3)	1,1-DCE (mg/m3)	1,1-DCA (mg/m3)	Chloromethane (mg/m3)	1,1,1-TCA (mg/m3)	Vinyl Chloride (mg/m3)	TCE (mg/m3)	PCE (mg/m3)	Total Input BTEX (mg/m3)	Total Output BTEX (mg/m3)	Total Input Halocarbons (mg/m3)	Total Output Halocarbons (mg/m3)	
07/12/95	3	20	18	22																		
07/13/95	24	27	18	10	Sampling Event	Sample Input Data Results	2.08	5.95	1.17	6.84	281.00	10.90	ND(0.2)	215.00	ND(0.2)	2.08	870.00	15.84		1379.58		
						Sample Exhaust Data Results	2.89	1.41	0.72	7.86	0.27	ND(0.2)	17.20	ND(0.2)	0.97	ND(0.2)	2.76		12.90		21.10	
	24 Hours	20.0 (scfm) Time Weighted Flowrate Average 07/12/95 thru 07/13/95				SVE Extraction 07/12/95 Thru 07/13/95	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.08	0.00	0.00	0.32	0.01		0.51		Pounds
						SVE Emissions 07/12/95 Thru 07/13/95	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00		0.00		0.01	Pounds
07/20/95	192	23	18	75																		
08/12/95	646	19	15	230	Sampling Event	Sample Input Data Results	0.40	1.90	0.90	4.90	506.00	15.60	ND(0.2)	579.00	ND(0.2)	2.10	636.00	8.10		1738.70		
						Sample Exhaust Data Results	4.90	ND(0.2)	ND(0.2)	ND(0.2)	2.80	ND(0.2)	48.00	ND(0.2)	35.00	0.60	21.50		4.90		108.10	
	822 Hours	23.3 (scfm) Time Weighted Flowrate Average 07/13/95 thru 08/12/95				SVE Extraction 07/13/95 Thru 08/12/95	0.00	0.02	0.01	0.05	5.68	0.17	0.00	8.47	0.00	0.02	7.11	0.09		19.44		Pounds
						SVE Emissions 07/13/95 Thru 08/12/95	0.05	0.00	0.00	0.00	0.03	0.00	0.54	0.00	0.39	0.01	0.24		0.05		1.21	Pounds
08/14/95	689	19	15		UNIT Sent to Tulsa for Repairs (8/15/95)																	
08/29/95	690	19	15		UNIT Returned from Tulsa																	
09/07/95	904	19	15	94	Sampling Event	Sample Input Data Results	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	593.40	13.30	ND(0.2)	492.00	ND(0.2)	2.00	444.40	0.00		1545.10		
						Sample Exhaust Data Results	1.10	0.50	ND(0.2)	ND(0.2)	56.20	ND(0.2)	ND(0.2)	31.90	ND(0.2)	0.90	81.40		1.60		170.40	
	258 Hours	20.9 (scfm) Time Weighted Flowrate Average 08/12/95 thru 09/07/95				SVE Extraction 08/12/95 Thru 09/07/95	0.00	0.00	0.00	0.00	2.47	0.06	0.00	2.05	0.00	0.01	1.85	0.00		6.43		Pounds
						SVE Emissions 08/12/95 Thru 09/07/95	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.13	0.00	0.00	0.34		0.01		0.71	Pounds
09/08/95	931	15	15	2000																		
11/27/95	2178	25			4 Cylinder UNIT Sent to Tulsa																	
11/28/95	2045	19	12		6 Cylinder UNIT Installed																	
12/27/95	2238	21			6 Cylinder UNIT Sent to Tulsa for Repairs																	
12/28/95	2199				4 Cylinder Reinstalled																	
01/12/96	2240	18	22		6 Cylinder UNIT Installed																	
04/05/96	4008	10			UNIT Sent to Tulsa for Repairs																	
04/10/96	2406	90	0		New UNIT Installed from Midland, TX																	
04/11/96	2421	80	0	118	Sampling Event	Sample Input Data Results	ND(0.2)	0.90	0.50	3.40	99.40	ND(0.2)	ND(0.2)	254.00	ND(0.2)	1.90	611.00	4.80		965.40		
						Sample Exhaust Data Results	0.60	ND(0.2)	ND(0.2)	ND(0.2)	0.90	ND(0.2)	10.10	ND(0.2)	6.80	0.40	8.50		0.80		28.70	
	3,250 Hours	22.8 (scfm) Time Weighted Flowrate Average 09/07/95 thru04/11/96				SVE Extraction 09/07/95 Thru 04/11/96	0.00	0.05	0.03	0.18	5.68	0.00	0.00	14.53	0.00	0.06	34.94	0.27		55.21		Pounds
						SVE Emissions 09/07/95 Thru 04/11/96	0.03	0.00	0.00	0.00	0.05	0.00	0.58	0.00	0.39	0.02	0.49		0.03		1.53	Pounds
04/16/96	2545	60	0	8																		
04/19/96	2610	0	35		Well Flow Shut Off																	
04/23/96	4015	60	0	12	Old UNIT Removed/Acid Plant UNIT Reinstalled																	
05/23/96	2686	50			Old UNIT Removed/Midland, TX UNIT Installed																	
06/13/96	4767	55	0	13	Old UNIT Taken to Tulsa for Repairs, New UNIT																	
06/26/96	4956	60	0	56	Convert UNIT to Gas																	
07/24/96					Sampling Event	Sample Input Data Results	ND(0.03)	ND(0.03)	ND(0.03)	ND(0.03)	47.10	4.80	ND(0.05)	ND(0.03)	ND(0.05)	0.50	46.20	0.00		98.80		
						Sample Exhaust Data Results	0.40	ND(0.03)	ND(0.03)	ND(0.03)	1.30	ND(0.03)	6.80	ND(0.03)	2.20	ND(0.03)	2.80		0.40		12.90	
	1,980* Hours	58.5 *(scfm) Time Weighted Flowrate Average 04/11/96 thru 07/24/96				SVE Extraction 04/11/96 Thru 07/24/96	0.00	0.00	0.00	0.00	4.21	0.43	0.00	0.00	0.00	0.04	4.13	0.00		8.81		Pounds
						SVE Emissions 04/11/96 Thru 07/24/96	0.04	0.00	0.00	0.00	0.12	0.00	0.58	0.00	0.20	0.00	0.25		0.04		1.15	Pounds
						Total SVE Extraction 07/12/95 Thru 07/24/96	**0.01**	**0.07**	**0.04**	**0.25**	**18.12**	**0.66**	**0.00**	**23.13**	**0.00**	**0.13**	**48.35**	**0.37**		**90.40**		Pounds
						Total SVE Emissions 07/12/95 Thru 07/24/96	**0.13**	**0.00**	**0.00**	**0.00**	**0.43**	**0.00**	**1.71**	**0.13**	**0.98**	**0.04**	**1.32**		**0.14**		**4.61**	Pounds

Notes.
(mg/m3) =milligrams/cubic meter
ND =Not Detected at detection limit shown in parentheses
20 = No Flowrate Data; Previous Value Assumed
* =Based on 24 Hour/Day Operation at 58.5 scfm from 08/26/96 thru 07/24/96
2192 = New SVE Unit Installed
(scfm) = standard cubic feet / minute

DCA=Dichloroethane
DCE= Dichloroethene
TCA=Trichloroethane
PCE=Tetrachloroethene
TPH= Total Petroleum Hydrocarbons (Measured by Gordon & Lawton, Inc using a Horiba Auto Emissions Analyzer)

Sampling Event = Indicates Analytical Samples Taken and the Results of the Laboratory Analysis
SVE Extraction 04/11/95 Thru 07/13/95 =Indicates the Amount of Analyte Extracted from All the Wells or Emitted to the Atmosphere for Unit 3 During the Specified Time Frame
Total SVE Extraction 07/12/95 Thru 07/24/96 =Indicates the Amount of Analyte Extracted from All the Wells or Emitted to the Atmosphere for Unit 3 Thru 07/24/96

APPENDIX A

SVE OPERATION DATA

ATTACHMENT 1

MAINTENANCE SCHEDULE AND LOGS
LAGOON UNIT

Lagoon SVE Unit No. 1 - Hobbs, N.M.

	DATE	Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
Mon.	10-Jul-95	3	25/17	95			set up unit
Tues.	11-Jul-95	17	22/17	70			
Wed.	12-Jul-95	46	28/18	87			install belt tensioner bracket
Thurs.	13-Jul-95	63	25/19	164			install drain hose on blower
Fri.	14-Jul-95						
Sat.	15-Jul-95						
Sun.	16-Jul-95						
Mon.	17-Jul-95						
Tues.	18-Jul-95						
Wed.	19-Jul-95						
Thurs.	20-Jul-95	220	25/19	44			remove belt tensioner
Fri.	21-Jul-95						
Sat.	22-Jul-95						
Sun.	23-Jul-95						
Mon.	24-Jul-95						
Tues.	25-Jul-95						
Wed.	26-Jul-95						
Thurs.	27-Jul-95	387	25/19	58	y		oil is thickening
Fri.	28-Jul-95						
Sat.	29-Jul-95						
Sun.	30-Jul-95						
Mon.	31-Jul-95						
Tues.	01-Aug-95						
Wed.	02-Aug-95						
Thurs.	03-Aug-95						
Fri.	04-Aug-95	569			y		take idler pully off, collect oil sample shut unit down -knocking, check compression change out lifters, oil thickens quickly
Sat.	05-Aug-95						
Sun.	06-Aug-95						
Mon.	07-Aug-95						
Tues.	08-Aug-95						
Wed.	09-Aug-95						
Thurs.	10-Aug-95						
Fri.	11-Aug-95						
Sat.	12-Aug-95	571	30/18	68	y		added slick 50 to oil in attempt

Lagoon SVE Unit No. 1 - Hobbs, N.M.
(continued)

	DATE	Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
							to improve oil performance
Sun.	13-Aug-95						
Mon.	14-Aug-95						
Tues.	15-Aug-95	630	30/18	326	y		switched to synthetic oil due to oil thickening, engine knocking
Wed.	16-Aug-95						
Thurs.	17-Aug-95						
Fri.	18-Aug-95						
Sat.	19-Aug-95						
Sun.	20-Aug-95						
Mon.	21-Aug-95						
Tues.	22-Aug-95	793	25/16	160	y		added Castrol fully synthetic oil
Wed.	23-Aug-95						
Thurs.	24-Aug-95	838	30/18	174	y		changed to syntetic oil, Castrol due to oil thickening
Fri.	25-Aug-95						
Sat.	26-Aug-95						
Sun.	27-Aug-95						
Mon.	28-Aug-95						
Tues.	29-Aug-95						
Wed.	30-Aug-95						
Thurs.	31-Aug-95	1004	30/18	170	y		switched to CE-20 oil
Fri.	01-Sep-95						
Sat.	02-Sep-95	1057	30/18		y		
Sun.	03-Sep-95	1058	30/18				
Mon.	04-Sep-95						
Tues.	05-Sep-95						
Wed.	06-Sep-95						
Thurs.	07-Sep-95	1133	20/18	112			unit down on arrival, oil tarry flushed with clean oil
Fri.	08-Sep-95	1160	18/18		y		washed unit, air filter pole broken rewelded, switched to CE-20 oil
Sat.	09-Sep-95						
Sun.	10-Sep-95						
Mon.	11-Sep-95	1224	18/18				
Tues.	12-Sep-95				y	y	changed oil to CE-20

Lagoon SVE Unit No. 1 - Hobbs, N.M.
(continued)

	DATE	Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
Wed.	13-Sep-95						
Thurs.	14-Sep-95						
Fri.	15-Sep-95	1293	18/18		y		switched out oil pan, new pan warped attempt to fix in the field, switched to CE-30 oil. Changed converters
Sat.	16-Sep-95						
Sun.	17-Sep-95						
Mon.	18-Sep-95						
Tues.	19-Sep-95						
Wed.	20-Sep-95						
Thurs.	21-Sep-95	1437	18/18				oil pan leak
Fri.	22-Sep-95						
Sat.	23-Sep-95				y		
Sun.	24-Sep-95						
Mon.	25-Sep-95						add one gallon oil
Tues.	26-Sep-95						
Wed.	27-Sep-95	1578	18/18		y		add one gallon oil
Thurs.	28-Sep-95						
Fri.	29-Sep-95						
Sat.	30-Sep-95						
Sun.	01-Oct-95						
Mon.	02-Oct-95						
Tues.	03-Oct-95						
Wed.	04-Oct-95						
Thurs.	05-Oct-95						
Fri.	06-Oct-95	1775	18/18		y		added CE-30, flow gauge malfunction bad oil pan leak
Sat.	07-Oct-95						
Sun.	08-Oct-95						
Mon.	09-Oct-95						
Tues.	10-Oct-95						
Wed.	11-Oct-95				y		replaced oil pan, new drip pan
Thurs.	12-Oct-95	1778	18/18				conveters fail, replace
Fri.	13-Oct-95						new converters malfunction

Lagoon SVE Unit No. 1 - Hobbs, N.M.
(continued)

	DATE	Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
							calibrate oil pan
Sat.	14-Oct-95						
Sun.	15-Oct-95						
Mon.	16-Oct-95						
Tues.	17-Oct-95						
Wed.	18-Oct-95	1782	18/18	69			replaced malfunctioning converters
Thurs.	19-Oct-95						
Fri.	20-Oct-95						
Sat.	21-Oct-95						
Sun.	22-Oct-95	1884	18/18				added two gal. oil
Mon.	23-Oct-95						
Tues.	24-Oct-95						added two gal. oil, exhaust leak
Wed.	25-Oct-95						
Thurs.	26-Oct-95	1957	18/18				third cylinder is leaking oil
Fri.	27-Oct-95						
Sat.	28-Oct-95						
Sun.	29-Oct-95						
Mon.	30-Oct-95						
Tues.	31-Oct-95						
Wed.	01-Nov-95						
Thurs.	02-Nov-95	1962	18/18	48	y	y	changed propane filter, tightened carborator, retimed
Fri.	03-Nov-95						
Sat.	04-Nov-95						
Sun.	05-Nov-95						
Mon.	06-Nov-95						
Tues.	07-Nov-95						
Wed.	08-Nov-95						
Thurs.	09-Nov-95	1969					unit shut down
Fri.	10-Nov-95						
Sat.	11-Nov-95						
Sun.	12-Nov-95						
Mon.	13-Nov-95						
Tues.	14-Nov-95						
Wed.	15-Nov-95						unit taken to Tulsa for overhaul
Thurs.	16-Nov-95						

Lagoon SVE Unit No. 1 - Hobbs, N.M.
(continued)

	DATE	Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
Fri.	17-Nov-95						
Sat.	18-Nov-95						
Sun.	19-Nov-95						
Mon.	20-Nov-95						
Tues.	21-Nov-95						
Wed.	22-Nov-95						
Thurs.	23-Nov-95						
Fri.	24-Nov-95						
Sat.	25-Nov-95						
Sun.	26-Nov-95						
Mon.	27-Nov-95						
Tues.	28-Nov-95	1976	10/20		y		unit returned from Tulsa new valves, valve guides, cam shaft new pistons, main bearings, new clutch
Wed.	29-Nov-95	2002		266			
Thurs.	30-Nov-95						
Fri.	01-Dec-95						
Sat.	02-Dec-95						
Sun.	03-Dec-95						
Mon.	04-Dec-95						
Tues.	05-Dec-95						
Wed.	06-Dec-95	2172	10/20		y		head gasket leak
Thurs.	07-Dec-95						
Fri.	08-Dec-95						
Sat.	09-Dec-95						
Sun.	10-Dec-95						
Mon.	11-Dec-95						
Tues.	12-Dec-95						
Wed.	13-Dec-95						
Thurs.	14-Dec-95						
Fri.	15-Dec-95						
Sat.	16-Dec-95						
Sun.	17-Dec-95						
Mon.	18-Dec-95						
Tues.	19-Dec-95						C. Madden drains oil from unit
Wed.	20-Dec-95	2188		330			Oil leaking from manifold and oil pan

Lagoon SVE Unit No. 1 - Hobbs, N.M.
(continued)

	DATE	Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
Thurs.	21-Dec-95						
Fri.	22-Dec-95				y		oil replaced, unit restarted
Sat.	23-Dec-95						
Sun.	24-Dec-95						
Mon.	25-Dec-95						
Tues.	26-Dec-95						
Wed.	27-Dec-95	2314			y	y	replaced fan belt, pullys misaligned distributer loose, tigntened, retimed coolant leak repaired, coolant replaced
Thurs.	28-Dec-95	2329		118			washed unit, installed storage building
Fri.	29-Dec-95						
Sat.	30-Dec-95						
Sun.	31-Dec-95						
Mon.	01-Jan-96						
Tues.	02-Jan-96						
Wed.	03-Jan-96						
Thurs.	04-Jan-96						
Fri.	05-Jan-96	2497	15/22	124	y		
Sat.	06-Jan-96						
Sun.	07-Jan-96						
Mon.	08-Jan-96						
Tues.	09-Jan-96						
Wed.	10-Jan-96	2620	15/30		y		compression test OK
Thurs.	11-Jan-96						
Fri.	12-Jan-96						
Sat.	13-Jan-96						very bad oil leak, called HiTech
Sun.	14-Jan-96						
Mon.	15-Jan-96						
Tues.	16-Jan-96						
Wed.	17-Jan-96	2799	20/24	76	y	y	wash unit
Thurs.	18-Jan-96						
Fri.	19-Jan-96						
Sat.	20-Jan-96						
Sun.	21-Jan-96						
Mon.	22-Jan-96						
Tues.	23-Jan-96						

Lagoon SVE Unit No. 1 - Hobbs, N.M.
(continued)

	DATE	Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
Wed.	24-Jan-96	2898	15/24	150	y	y	unit using oil
Thurs.	25-Jan-96						
Fri.	26-Jan-96						
Sat.	27-Jan-96						
Sun.	28-Jan-96						
Mon.	29-Jan-96						
Tues.	30-Jan-96						
Wed.	31-Jan-96	3050	20/22	90	y	y	washed converters four hours two gallons condensate drained
Thurs.	01-Feb-96						
Fri.	02-Feb-96						
Sat.	03-Feb-96						
Sun.	04-Feb-96						
Mon.	05-Feb-96						
Tues.	06-Feb-96						
Wed.	07-Feb-96						
Thurs.	08-Feb-96	3272		64	y		low well vac, rotameter malfunction
Fri.	09-Feb-96						
Sat.	10-Feb-96						
Sun.	11-Feb-96						
Mon.	12-Feb-96						
Tues.	13-Feb-96						
Wed.	14-Feb-96						
Thurs.	15-Feb-96	3443	20/22	71	y	y	
Fri.	16-Feb-96						
Sat.	17-Feb-96						
Sun.	18-Feb-96						
Mon.	19-Feb-96						
Tues.	20-Feb-96						
Wed.	21-Feb-96	3465		64	y	y	flow meter malfunction
Thurs.	22-Feb-96						
Fri.	23-Feb-96						
Sat.	24-Feb-96						
Sun.	25-Feb-96						
Mon.	26-Feb-96						
Tues.	27-Feb-96						

Lagoon SVE Unit No. 1 - Hobbs, N.M.
(continued)

	DATE	Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
Wed.	28-Feb-96	3570	22/24	59	y		converters replaced
Thurs.	29-Feb-96						
Fri.	01-Mar-96						
Sat.	02-Mar-96						
Sun.	03-Mar-96						
Mon.	04-Mar-96						
Tues.	05-Mar-96	3734	25/20		y		unit washed
Wed.	06-Mar-96						
Thurs.	07-Mar-96						
Fri.	08-Mar-96						
Sat.	09-Mar-96						
Sun.	10-Mar-96						
Mon.	11-Mar-96						
Tues.	12-Mar-96						
Wed.	13-Mar-96						
Thurs.	14-Mar-96	3928	17/22	100	y	y	repair propane leak
Fri.	15-Mar-96						
Sat.	16-Mar-96						
Sun.	17-Mar-96						
Mon.	18-Mar-96						
Tues.	19-Mar-96						
Wed.	20-Mar-96	4069	30/14	114		y	flushed condensate from lines well vacs from 7-30" H2O
Thurs.	21-Mar-96						
Fri.	22-Mar-96						
Sat.	23-Mar-96						
Sun.	24-Mar-96						
Mon.	25-Mar-96						
Tues.	26-Mar-96						
Wed.	27-Mar-96						
Thurs.	28-Mar-96	4263	25/14	60	y	y	collect 13 gallons condensate from lines, strong fuel odor
Fri.	29-Mar-96						
Sat.	30-Mar-96						
Sun.	31-Mar-96						
Mon.	01-Apr-96						

Lagoon SVE Unit No. 1 - Hobbs, N.M.
(continued)

	DATE	Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
Tues.	02-Apr-96						
Wed.	03-Apr-96						
Thurs.	04-Apr-96	4424	25/16	24			one gallon condensate drained
Fri.	05-Apr-96						
Sat.	06-Apr-96						
Sun.	07-Apr-96						
Mon.	08-Apr-96						
Tues.	09-Apr-96	4544	25/14		y	y	wash converters
Wed.	10-Apr-96						
Thurs.	11-Apr-96	4591	30/12	16			Summa #9732B, TPH all well 500, #1=726, #2=1760, #3=280, #4=990, #5=230, #6=324
Fri.	12-Apr-96						
Sat.	13-Apr-96						
Sun.	14-Apr-96						
Mon.	15-Apr-96						
Tues.	16-Apr-96	4703		32		y	five gal. condensate drained
Wed.	17-Apr-96						
Thurs.	18-Apr-96						
Fri.	19-Apr-96						
Sat.	20-Apr-96						
Sun.	21-Apr-96						
Mon.	22-Apr-96	4732	24/22	30	y		oil leak at pan, tightened nuts
Tues.	23-Apr-96						
Wed.	24-Apr-96						
Thurs.	25-Apr-96						
Fri.	26-Apr-96						
Sat.	27-Apr-96						
Sun.	28-Apr-96						
Mon.	29-Apr-96						
Tues.	30-Apr-96	4843	14/28	62	y	y	
Wed.	01-May-96						

Lagoon SVE Unit No. 1 - Hobbs, N.M.

	DATE	Hr.	FLOW Well/Air	TPH	OI x	PLUG x	COMMENTS
Wed.	01-May-96						
Thurs.	02-May-96						
Fri.	03-May-96						
Sat.	04-May-96						
Sun.	05-May-96						
Mon.	06-May-96						
Tues.	07-May-96	4952	20/18	10	n	n	unit down on arrival, changed propane filter
Wed.	08-May-96						
Thurs.	09-May-96						
Fri.	10-May-96						
Sat.	11-May-96						
Sun.	12-May-96						
Mon.	13-May-96	5015	22/20	108	n	y	unit down on arrival, change H2O knock out filter and intake air filter, cleaned unit tightend loose alternator belt, add oil
Tues.	14-May-96						
[illegible].	15-May-96						
[illegible]urs.	16-May-96						
Fri.	17-May-96						
Sat.	18-May-96						
Sun.	19-May-96						
Mon.	20-May-96	5108			y	y	catalytic converter requires change
Tues.	21-May-96	5116	26/16	46	n	n	replaced converter
Wed.	22-May-96						
Thurs.	23-May-96						
Fri.	24-May-96						
Sat.	25-May-96						
Sun.	26-May-96						
Mon.	27-May-96	5264	25/16	48	y	y	
Tues.	28-May-96						
Wed.	29-May-96						
Thurs.	30-May-96						
Fri.	31-May-96						
Sat.	01-Jun-96						
Sun.	02-Jun-96						
Mon.	03-Jun-96	5424	21/14	56	y	y	timed unit, turned wells 3 & 4 off due to low vac. Wells 1,2,5,6 & 7 = 7" H2O
Tues.	04-Jun-96						

Lagoon SVE Unit No. 1 - Hobbs, N.M.

	DATE	Hr.	FLOW Well/Air	TPH	OI x	PLUG x	COMMENTS
Wed.	05-Jun-96						
Thurs.	06-Jun-96						
Fri.	07-Jun-96						
Sat.	08-Jun-96						
Sun.	09-Jun-96						
Mon.	10-Jun-96	5593	25/14	96	y	y	exhaust temp. guage replaced
Tues.	11-Jun-96						
Wed.	12-Jun-96						
Thurs.	13-Jun-96						
Fri.	14-Jun-96						
Sat.	15-Jun-96						
Sun.	16-Jun-96						
Mon.	17-Jun-96						
Tues.	18-Jun-96	5784	62/4	180	y	y	TPH #1 = 996 ppm, #2=1670, #3=190, #4=864 #5=286, #6=296, all well = 550 ppm Well Vac No. 1=18" H2O, #2=18", #3=>30" #4=23", #5=23", #6=30", all well = 7.5"
ed.	19-Jun-96						
Thurs.	20-Jun-96						
Fri.	21-Jun-96						
Sat.	22-Jun-96						
Sun.	23-Jun-96						
Mon.	24-Jun-96						
Tues.	25-Jun-96	5951	65/8		y	y	washed unit, replaced knock-out filter
Wed.	26-Jun-96	5979	70/10		n	n	meet K. Brannon, J. Miller, N. Campbell
Thurs.	27-Jun-96						
Fri.	28-Jun-96						
Sat.	29-Jun-96						
Mon.	30-Jun-96						
Tues.	01-Jul-96						

ATTACHMENT 2

MAINTENANCE SCHEDULE AND LOGS
ACID PLANT UNIT

Acid Plant SVE Unit No. 2 - Hobbs, N.M.

	DATE	Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
Wed.	12-Jul-95	3	25/25	276			unit installed, well vacs 15-30
Thurs.	13-Jul-95	22	28/25				
Fri.	14-Jul-95						
Sat.	15-Jul-95						
Sun.	16-Jul-95						
Mon.	17-Jul-95						
Tues.	18-Jul-95						
Wed.	19-Jul-95						
Thurs.	20-Jul-95	150	25/14	100	y		hour meter malfunction
Fri.	21-Jul-95						
Sat.	22-Jul-95						
Sun.	23-Jul-95						
Mon.	24-Jul-95						
Tues.	25-Jul-95						
Wed.	26-Jul-95						
Thurs.	27-Jul-95	150	25/14	100	y		hour meter malfunction
Fri.	28-Jul-95						
Sat.	29-Jul-95						
Sun.	30-Jul-95						
Mon.	31-Jul-95						
Tues.	01-Aug-95						
Wed.	02-Aug-95						
Thurs.	03-Aug-95						
Fri.	04-Aug-95	150	25/14	187			hour meter malfunction
Sat.	05-Aug-95						
Sun.	06-Aug-95						
Mon.	07-Aug-95						
Tues.	08-Aug-95						
Wed.	09-Aug-95						
Thurs.	10-Aug-95						
Fri.	11-Aug-95						
Sat.	12-Aug-95	152	25/25	330			hour meter replaced add one quart slick-50
Sun.	13-Aug-95						

Acid Plant SVE Unit No. 2 - Hobbs, N.M.
(continued)

	DATE	Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
Mon.	14-Aug-95						
Tues.	15-Aug-95	226	42/25	132	y		
Wed.	16-Aug-95						
Thurs.	17-Aug-95						
Fri.	18-Aug-95						
Sat.	19-Aug-95						
Sun.	20-Aug-95						
Mon.	21-Aug-95						
Tues.	22-Aug-95	389	35/20	512	y		flow guage malfunction
Wed.	23-Aug-95						
Thurs.	24-Aug-95	435	30/18	144			
Fri.	25-Aug-95						
Sat.	26-Aug-95						
Sun.	27-Aug-95						
Mon.	28-Aug-95						
Tues.	29-Aug-95						
Wed.	30-Aug-95						
Thurs.	31-Aug-95	600	30/21	145	y		change oil to CE-20
Fri.	01-Sep-95						
Sat.	02-Sep-95						
Sun.	03-Sep-95	656	26/19				unit is knocking badly
Mon.	04-Sep-95						
Tues.	05-Sep-95						
Wed.	06-Sep-95						
Thurs.	07-Sep-95	757	18/19	128			
Fri.	08-Sep-95	776	18/18		y		collect oil sample, compression good
Sat.	09-Sep-95						
Sun.	10-Sep-95						
Mon.	11-Sep-95	846	18/18				oil in good condition
Tues.	12-Sep-95						
Wed.	13-Sep-95						
Thurs.	14-Sep-95						
Fri.	15-Sep-95	936	18/18		y		heavy rain - no TPH
Sat.	16-Sep-95						

Acid Plant SVE Unit No. 2 - Hobbs, N.M.
(continued)

	DATE	Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
Sun.	17-Sep-95						
Mon.	18-Sep-95						
Tues.	19-Sep-95						
Wed.	20-Sep-95						
Thurs.	21-Sep-95	1081	18/18				well flow gauge malfunction
Fri.	22-Sep-95						
Sat.	23-Sep-95						
Sun.	24-Sep-95						
Mon.	25-Sep-95						
Tues.	26-Sep-95						
Wed.	27-Sep-95	1223	18/18	84	y		
Thurs.	28-Sep-95						
Fri.	29-Sep-95						
Sat.	30-Sep-95						
Sun.	01-Oct-95						
Mon.	02-Oct-95						
Tues.	03-Oct-95						
Wed.	04-Oct-95						
Thurs.	05-Oct-95	1417	18/18	106			
Fri.	06-Oct-95						
Sat.	07-Oct-95						
Sun.	08-Oct-95						
Mon.	09-Oct-95						
Tues.	10-Oct-95						
Wed.	11-Oct-95						
Thurs.	12-Oct-95	1584	18/18	98			well gauge malfunction
Fri.	13-Oct-95						
Sat.	14-Oct-95						
Sun.	15-Oct-95						
Mon.	16-Oct-95						
Tues.	17-Oct-95						
Wed.	18-Oct-95	1729	18/18	190	y		unit running well
Thurs.	19-Oct-95						
Fri.	20-Oct-95						

Acid Plant SVE Unit No. 2 - Hobbs, N.M.
(continued)

	DATE	Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
Sat.	21-Oct-95						
Sun.	22-Oct-95						
Mon.	23-Oct-95						
Tues.	24-Oct-95						
Wed.	25-Oct-95						
Thurs.	26-Oct-95	1923	18/18	210			10 milliliters condensate
Fri.	27-Oct-95						
Sat.	28-Oct-95						
Sun.	29-Oct-95						
Mon.	30-Oct-95						
Tues.	31-Oct-95						
Wed.	01-Nov-95						
Thurs.	02-Nov-95	1953	18/18	98	y		repaired hose leak
Fri.	03-Nov-95						
Sat.	04-Nov-95						
Sun.	05-Nov-95						
Mon.	06-Nov-95						
Tues.	07-Nov-95						
Wed.	08-Nov-95						
Thurs.	09-Nov-95						unit taken to Tulsa for retro fit of caustic injection system for UST area
Fri.	10-Nov-95						
Sat.	11-Nov-95						
Sun.	12-Nov-95						
Mon.	13-Nov-95						
Tues.	14-Nov-95						
Wed.	15-Nov-95						
Thurs.	16-Nov-95						
Fri.	17-Nov-95						
Sat.	18-Nov-95						
Sun.	19-Nov-95						
Mon.	20-Nov-95						
Tues.	21-Nov-95						
Wed.	22-Nov-95						

Acid Plant SVE Unit No. 2 - Hobbs, N.M.
(continued)

	DATE	Hr.	FLOW Well/Air	TPH x	OIL x	PLUG		COMMENTS
Thurs.	23-Nov-95							
Fri.	24-Nov-95							
Sat.	25-Nov-95							
Sun.	26-Nov-95							
Mon.	27-Nov-95							
Tues.	28-Nov-95							
Wed.	29-Nov-95							
Thurs.	30-Nov-95							
Fri.	01-Dec-95							
Sat.	02-Dec-95							
Sun.	03-Dec-95							
Mon.	04-Dec-95							
Tues.	05-Dec-95							
Wed.	06-Dec-95							
Thurs.	07-Dec-95							
Fri.	08-Dec-95							
Sat.	09-Dec-95							
Sun.	10-Dec-95							
Mon.	11-Dec-95							
Tues.	12-Dec-95							
Wed.	13-Dec-95							
Thurs.	14-Dec-95							
Fri.	15-Dec-95							
Sat.	16-Dec-95							
Sun.	17-Dec-95							
Mon.	18-Dec-95							
Tues.	19-Dec-95							
Wed.	20-Dec-95							
Thurs.	21-Dec-95							
Fri.	22-Dec-95							
Sat.	23-Dec-95							
Sun.	24-Dec-95							
Mon.	25-Dec-95							
Tues.	26-Dec-95							

Acid Plant SVE Unit No. 2 - Hobbs, N.M.
(continued)

DATE		Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
Wed.	27-Dec-95						
Thurs.	28-Dec-95	2192	18/18				four cylinder unit installed, this unit had been located in the UST area and had been cleaned of acid gas damage
Fri.	29-Dec-95						
Sat.	30-Dec-95						
Sun.	31-Dec-95						
Mon.	01-Jan-96						
Tues.	02-Jan-96						
Wed.	03-Jan-96						
Thurs.	04-Jan-96						
Fri.	05-Jan-96						
Sat.	06-Jan-96						
Sun.	07-Jan-96						
Mon.	08-Jan-96						
Tues.	09-Jan-96						
Wed.	10-Jan-96	2322	18/18		y	y	alternator repaired
Thurs.	11-Jan-96						
Fri.	12-Jan-96						
Sat.	13-Jan-96	2328					fan belt replaced
Sun.	14-Jan-96						
Mon.	15-Jan-96						
Tues.	16-Jan-96						
Wed.	17-Jan-96	2412	12/22	84	y	y	
Thurs.	18-Jan-96						
Fri.	19-Jan-96						
Sat.	20-Jan-96						
Sun.	21-Jan-96						
Mon.	22-Jan-96						
Tues.	23-Jan-96						
Wed.	24-Jan-96						
Thurs.	25-Jan-96	2418					HiTech attempts timing belt repair unable to time unit
Fri.	26-Jan-96						

Acid Plant SVE Unit No. 2 - Hobbs, N.M.
(continued)

	DATE	Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
Sat.	27-Jan-96						
Sun.	28-Jan-96						
Mon.	29-Jan-96						
Tues.	30-Jan-96						
Wed.	31-Jan-96						
Thurs.	01-Feb-96						
Fri.	02-Feb-96						
Sat.	03-Feb-96						
Sun.	04-Feb-96						
Mon.	05-Feb-96						
Tues.	06-Feb-96						
Wed.	07-Feb-96						
Thurs.	08-Feb-96	2418					attempt made to restart and time unit
Fri.	09-Feb-96	2418					attempt made to restart and time unit again
Sat.	10-Feb-96						Ben restarts unit
Sun.	11-Feb-96						
Mon.	12-Feb-96						
Tues.	13-Feb-96	2511			y	y	plugs oil fouled
Wed.	14-Feb-96						
Thurs.	15-Feb-96						
Fri.	16-Feb-96						
Sat.	17-Feb-96						
Sun.	18-Feb-96						
Mon.	19-Feb-96						
Tues.	20-Feb-96						
Wed.	21-Feb-96	2712	10/20	124	y	y	unit has top end noise
Thurs.	22-Feb-96						
Fri.	23-Feb-96						
Sat.	24-Feb-96						
Sun.	25-Feb-96						
Mon.	26-Feb-96						
Tues.	27-Feb-96						
Wed.	28-Feb-96	2876	20/22	124			unit has top end noise
Thurs.	29-Feb-96						

Acid Plant SVE Unit No. 2 - Hobbs, N.M.
(continued)

DATE		Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
Fri.	01-Mar-96						
Sat.	02-Mar-96						
Sun.	03-Mar-96						
Mon.	04-Mar-96						
Tues.	05-Mar-96						
Wed.	06-Mar-96	3040	14/20	112			250 ml condensate drained
Thurs.	07-Mar-96						
Fri.	08-Mar-96						
Sat.	09-Mar-96						
Sun.	10-Mar-96						
Mon.	11-Mar-96						
Tues.	12-Mar-96						
Wed.	13-Mar-96						
Thurs.	14-Mar-96	3236	24/20	64	y	y	knocking noise, oil leak, well vacs from 3-15" H2O
Fri.	15-Mar-96						
Sat.	16-Mar-96						
Sun.	17-Mar-96						
Mon.	18-Mar-96						
Tues.	19-Mar-96						
Wed.	20-Mar-96	3375	23/20	82		y	well vacs 15-30" H2O
Thurs.	21-Mar-96						
Fri.	22-Mar-96						
Sat.	23-Mar-96						
Sun.	24-Mar-96						
Mon.	25-Mar-96						
Tues.	26-Mar-96						
Wed.	27-Mar-96						
Thurs.	28-Mar-96	3568	17/15	100	y	y	coolant leak repaired
Fri.	29-Mar-96						
Sat.	30-Mar-96						
Sun.	31-Mar-96						
Mon.	01-Apr-96						
Tues.	02-Apr-96						

Acid Plant SVE Unit No. 2 - Hobbs, N.M.
(continued)

	DATE	Hr.	FLOW Well/Air	TPH	OIL x	PLUG x	COMMENTS
Wed.	03-Apr-96						
Thurs.	04-Apr-96	3732	16/18	48			surged condensate from lines
Fri.	05-Apr-96						
Sat.	06-Apr-96						
Sun.	07-Apr-96						
Mon.	08-Apr-96						
Tues.	09-Apr-96	3852	16/18	47	y	y	oil sight glass leaking
Wed.	10-Apr-96						
Thurs.	11-Apr-96	3899	10/16	108			Summa canister #9337B collected TPH all well = 108, #1=34, #2=54, #3=256 #4=70, #5=52, #6=42, #7=38, sight guage leak
Fri.	12-Apr-96						
Sat.	13-Apr-96						
Sun.	14-Apr-96						
Mon.	15-Apr-96						
Tues.	16-Apr-96	3931	16/16	44	y		repaired oil sight glass, tightened bolts at fly wheel, one gallon condensate collected
Wed.	17-Apr-96						
Thurs.	18-Apr-96						
Fri.	19-Apr-96						
Sat.	20-Apr-96						
Sun.	21-Apr-96						
Mon.	22-Apr-96	4074	20/20	8		y	fan belt loose, repaired
Tues.	23-Apr-96						
Wed.	24-Apr-96						
Thurs.	25-Apr-96						
Fri.	26-Apr-96						
Sat.	27-Apr-96						
Sun.	28-Apr-96						
Mon.	29-Apr-96						
Tues.	30-Apr-96	4129	18/22	22	y		changed propane filter, replaced converter

Acid Plant SVE Unit No. 2 - Hobbs, N.M.

	DATE	Hr.	FLOW Well/Air	TPH	OI x	PLUG x	COMMENTS
Wed.	01-May-96						
Thurs.	02-May-96						
Fri.	03-May-96						
Sat.	04-May-96						
Sun.	05-May-96						
Mon.	06-May-96						
Tues.	07-May-96						
Wed.	08-May-96	4154	18/22	16	n	n	unit down, replace voltage regualtor, alternator checked out OK, Murphy switch replaced
Thurs.	09-May-96						
Fri.	10-May-96						
Sat.	11-May-96						
ı.	12-May-96						
ıvıon.	13-May-96	4165					air filter changed, propane reg. cleaned
Tues.	14-May-96	4165					could not start unit
Wed.	15-May-96						
Thurs.	16-May-96	4165					bypass murphy switch, engine will start but will not keep running
Fri.	17-May-96						
Sat.	18-May-96						
Sun.	19-May-96						
Mon.	20-May-96	4165					bypass murphy switch, engine will start but will not keep running
Tues.	21-May-96						attempt to replace ingnition system unit will not run
Wed.	22-May-96						
Thurs.	23-May-96	4165					replaced coil, unit will not run
Fri.	24-May-96						
Sat.	25-May-96						
Sun.	26-May-96						
Mon.	27-May-96						
Tues.	28-May-96						
:d.	29-May-96	4165					fix exposed wire, replaced cat. converter with UST converters

Acid Plant SVE Unit No. 2 - Hobbs, N.M.

	DATE	Hr.	FLOW Well/Air	TPH	OI x	PLUG x	COMMENTS
Thurs.	30-May-96	4165					recharge battery, still no start
Fri.	31-May-96						
Sat.	01-Jun-96						
Sun.	02-Jun-96						
Mon.	03-Jun-96	4167	12/20	10	y	y	switched & cleaned well scfm guage repaired dist. cap, retimed, fixed propane vac. leak., tightened knock out filter hose & pipes, changed converters to brand new ones from Tulsa, well vacs on 1,2,4,&5 very low
Tues.	04-Jun-96						
Wed.	05-Jun-96						
Thurs.	06-Jun-96						
	07-Jun-96						
Sat.	08-Jun-96						
Sun.	09-Jun-96						
Mon.	10-Jun-96	4331	22/10	86	y	y	exhaust temp guage down
Tues.	11-Jun-96						
Wed.	12-Jun-96						
Thurs.	13-Jun-96						
Fri.	14-Jun-96						
Sat.	15-Jun-96						
Sun.	16-Jun-96						
Mon.	17-Jun-96						
Tues.	18-Jun-96	4524	14/10	152	n	n	battery has dead cell
Wed.	19-Jun-96						
Thurs.	20-Jun-96						
Fri.	21-Jun-96						
Sat.	22-Jun-96						
Sun.	23-Jun-96						
Mon.	24-Jun-96						
Tues.	25-Jun-96	4542					replace battery, replace knock-out filter with new, finer filter, has regulator checked, nit will not start, electrical
Wed.	26-Jun-96	4546	8/8		n	n	had entire electircal system checked

Acid Plant SVE Unit No. 2 - Hobbs, N.M.

	DATE	Hr.	FLOW Well/Air	TPH	OI x	PLUG x	COMMENTS
							discovered several bad connections, repaired
Thurs.	27-Jun-96						
Fri.	28-Jun-96						
Sat.	29-Jun-96						
Mon.	30-Jun-96						

ATTACHMENT 3

MAINTENANCE SCHEDULE AND LOGS
UST UNIT

UST SVE Unit No. 3 - Hobbs, N.M.

DAY	DATE	HO	FLOW Well/Air	TPH	OIL X	PLUG X	COMMENTS
Wed.	12-Jul-95	3	20/18	22			unit start up, well vacs 27-30" H2O
Thurs.	13-Jul-95	24	27/18	10			
Fri.	14-Jul-95						
Sat.	15-Jul-95						
Sun.	16-Jul-95						
Mon.	17-Jul-95						
Tues.	18-Jul-95						
Wed.	19-Jul-95						
Thurs.	20-Jul-95	192	23/18	75	y		add oil
Fri.	21-Jul-95						
Sat.	22-Jul-95						
Sun.	23-Jul-95						
Mon.	24-Jul-95						
Tues.	25-Jul-95						
Wed.	26-Jul-95						
Thrus.	27-Jul-95	356	22/18	83	y		oil thickens quickly
Fri.	28-Jul-95						
Sat.	29-Jul-95						
Sun.	30-Jul-95						
Mon.	31-Jul-95						
Tues.	01-Aug-95						
Wed.	02-Aug-95						
Thrus.	03-Aug-95						
Fri.	04-Aug-95	545	20/18	193	y		oil thickens quickly
Sat.	05-Aug-95						
Sun.	06-Aug-95						
Mon.	07-Aug-95						
Tues.	08-Aug-95						
Wed.	09-Aug-95						
Thrus.	10-Aug-95						
Fri.	11-Aug-95				y		oil sampled - alternator malfunction
Sat.	12-Aug-95	646	19/15	230			oil thickens quickly
Sun.	13-Aug-95						
Mon.	14-Aug-95	689	19/15				

UST SVE Unit No. 3 - Hobbs, N.M.
(continued)

DAY	DATE	HO	FLOW Well/Air	TPH	OIL X	PLUG X	COMMENTS
Tues.	15-Aug-95						unit is taken to Tulsa for repair
Wed.	16-Aug-95						due to tarry oil
Thrus.	17-Aug-95						
Fri.	18-Aug-95						
Sat.	19-Aug-95						
Sun.	20-Aug-95						
Mon.	21-Aug-95						
Tues.	22-Aug-95						
Wed.	23-Aug-95						
Thrus.	24-Aug-95						
Fri.	25-Aug-95						
Sat.	26-Aug-95						
Sun.	27-Aug-95						
Mon.	28-Aug-95						
Tues.	29-Aug-95	690	19/15				unit reinstalled, oil type replaced
Wed.	30-Aug-95						with CE-20
Thrus.	31-Aug-95	740	19/15	210			oil remains clean
Fri.	01-Sep-95						
Sat.	02-Sep-95	791	32/15		y		one gallon oil consumed, oil dark but not viscous, sample collected engine knocking
Sun.	03-Sep-95	808	22/15				unit running very rough
Mon.	04-Sep-95						
Tues.	05-Sep-95						
Wed.	06-Sep-95						
Thrus.	07-Sep-95	904	19/15	94	y		unit running very rough three gallons condensate drained timing off
Fri.	08-Sep-95	931	15/15	2000		y	distributer is loose, retimed. compression check, converter malfuction ←
Sat.	09-Sep-95						
Sun.	10-Sep-95						
Mon.	11-Sep-95				y		converter changed
Tues.	12-Sep-95						

UST SVE Unit No. 3 - Hobbs, N.M.
(continued)

DAY	DATE	HO	FLOW Well/Air	TPH	OIL X	PLUG X	COMMENTS
Wed.	13-Sep-95						
Thrus.	14-Sep-95						
Fri.	15-Sep-95	1024	15/15		y		change oil to new oil type CE-30
Sat.	16-Sep-95						
Sun.	17-Sep-95						
Mon.	18-Sep-95				y		
Tues.	19-Sep-95						
Wed.	20-Sep-95						
Thrus.	21-Sep-95	1168	20/18	126	y		
Fri.	22-Sep-95						
Sat.	23-Sep-95						Ben shuts unit down do to strong knock
Sun.	24-Sep-95						
Mon.	25-Sep-95						
Tues.	26-Sep-95						
Wed.	27-Sep-95	1221	18/15	64			unit off on arrival - knocking sound much corrosion inside cabinet
Thrus.	28-Sep-95						
Fri.	29-Sep-95						
Sat.	30-Sep-95				y		alternator malfunction
Sun.	01-Oct-95						
Mon.	02-Oct-95						
Tues.	03-Oct-95						
Wed.	04-Oct-95						
Thrus.	05-Oct-95	1223			y		battery recharged
Fri.	06-Oct-95						alternator and voltage reg. replaced acid gas = 6.5 ppm, much corrosion
Sat.	07-Oct-95						
Sun.	08-Oct-95						
Mon.	09-Oct-95						
Tues.	10-Oct-95						
Wed.	11-Oct-95			750			acid gas odor strong
Thrus.	12-Oct-95	1378	18/10	320	y		
Fri.	13-Oct-95	1379	25/20	20			exhaust leak near cabinet. converters plugged and are replaced, leak repaired

UST SVE Unit No. 3 - Hobbs, N.M.
(continued)

DAY	DATE	HO	FLOW Well/Air	TPH	OIL X	PLUG X	COMMENTS
Sat.	14-Oct-95						
Sun.	15-Oct-95						
Mon.	16-Oct-95	1459			y		
Tues.	17-Oct-95						
Wed.	18-Oct-95	1504	3/4 open	150			flow meter malfunction
Thrus.	19-Oct-95						
Fri.	20-Oct-95						
Sat.	21-Oct-95						
Sun.	22-Oct-95						
Mon.	23-Oct-95						
Tues.	24-Oct-95	1601			y		exhaust leak
Wed.	25-Oct-95						
Thrus.	26-Oct-95	1692	full	2900			converter and meter malfunction acid gas odor, acid gas drager 2.5 ppm water and oil leak, blow by at tube SHUT DOWN
Fri.	27-Oct-95						
Sat.	28-Oct-95						
Sun.	29-Oct-95						
Mon.	30-Oct-95						
Tues.	31-Oct-95						
Wed.	01-Nov-95						
Thurs.	02-Nov-95	1692	3/4 open	116	y		blow by observed from stick port, rotameter capped, water leak repaired two gallons condensate drained from lines, acid gas 2.5 ppm converters replaced
Fri.	03-Nov-95						
Sat.	04-Nov-95						
Sun.	05-Nov-95						
Mon.	06-Nov-95						
Tues.	07-Nov-95						
Wed.	08-Nov-95						
Thurs.	09-Nov-95	1740	3/4 open		y	y	added antifreeze, acid gas 0 ppm

UST SVE Unit No. 3 - Hobbs, N.M.
(continued)

DAY	DATE	HO	FLOW Well/Air	TPH	OIL X	PLUG X	COMMENTS
							compression test - results good
Fri.	10-Nov-95						
Sat.	11-Nov-95						
Sun.	12-Nov-95						
Mon.	13-Nov-95						
Tues.	14-Nov-95						
Wed.	15-Nov-95	1890			y		
Thurs.	16-Nov-95						
Fri.	17-Nov-95						
Sat.	18-Nov-95						
Sun.	19-Nov-95						
Mon.	20-Nov-95	2011			y		
Tues.	21-Nov-95	2025	na	200			unit has bad blow-by, converters out flow meter malfunction
Wed.	22-Nov-95						
Thurs.	23-Nov-95						
Fri.	24-Nov-95						
Sat.	25-Nov-95	2129			y		unit has oil blow by
Sun.	26-Nov-95						
Mon.	27-Nov-95	2178					HiTech removes 4-cylinder to Tulsa
Tues.	28-Nov-95	2045	19/12		y	n	new 6-cylinder injection unit installed change to CE-30 oil, fixed oil leak
Wed.	29-Nov-95	2059	19/12	98			attempt to test for best caustic concentration. Insufficient HCL produced, just carbonic acid. test inconclusive - will use 0.1 N NaOH
Thurs.	30-Nov-95						
Fri.	01-Dec-95	2091			y		
Sat.	02-Dec-95						
Sun.	03-Dec-95						
Mon.	04-Dec-95						
Tues.	05-Dec-95				y		added 30 gallons 0.1 N NaOH
Wed.	06-Dec-95	2211	21/11	147	y	n	plugs have light build-up oil gasket leak

UST SVE Unit No. 3 - Hobbs, N.M.
(continued)

DAY	DATE	HO	FLOW Well/Air	TPH	OIL X	PLUG X	COMMENTS
Thurs.	07-Dec-95						
Fri.	08-Dec-95						
Sat.	09-Dec-95						
Sun.	10-Dec-95						
Mon.	11-Dec-95						
Tues.	12-Dec-95	2238					plugs have ash buildup. new carborator? move unit?
Wed.	13-Dec-95						
Thurs.	14-Dec-95	2238					carborator has much build up of sodium carbonate. intake manifold coated with black tar w/ pebbels. one gallon condensate (red)
Fri.	15-Dec-95						
Sat.	16-Dec-95						
Sun.	17-Dec-95						
Mon.	18-Dec-95						
Tues.	19-Dec-95						
Wed.	20-Dec-95	2238			y		manifold removed, heavy buildup of caustic observed coating rods, 1/8 to 1/4" deposit and white coated black "pebbels"
Thurs.	21-Dec-95						
Fri.	22-Dec-95						
Sat.	23-Dec-95						
Sun.	24-Dec-95						
Mon.	25-Dec-95						
Tues.	26-Dec-95						
Wed.	27-Dec-95	2238					Hitech picks up unit to clean out caustic buildup
Thurs.	28-Dec-95						Hitech reinstalls 4-cylinder
Fri.	29-Dec-95						
Sat.	30-Dec-95						
Sun.	31-Dec-95						
Mon.	01-Jan-96						

UST SVE Unit No. 3 - Hobbs, N.M.
(continued)

DAY	DATE	HO	FLOW Well/Air	TPH	OIL X	PLUG X	COMMENTS
Tues.	02-Jan-96						
Wed.	03-Jan-96						
Thurs.	04-Jan-96						
Fri.	05-Jan-96	2199		145			repaired alternator wire
Sat.	06-Jan-96						
Sun.	07-Jan-96						
Mon.	08-Jan-96						
Tues.	09-Jan-96						
Wed.	10-Jan-96						
Thurs.	11-Jan-96						
Fri.	12-Jan-96	2240	18/22				installed injection modified unit 6-cylinder unit caustic concentration reduced from 0.1N NaOH to 0.01 N NaOH
Sat.	13-Jan-96						
Sun.	14-Jan-96						
Mon.	15-Jan-96						
Tues.	16-Jan-96						
Wed.	17-Jan-96	2321	60/20		y	n	
Thurs.	18-Jan-96						
Fri.	19-Jan-96						
Sat.	20-Jan-96						
Sun.	21-Jan-96						
Mon.	22-Jan-96						
Tues.	23-Jan-96						
Wed.	24-Jan-96	2432	30/18	160	y	y	unit not accepting caustic
Thurs.	25-Jan-96						
Fri.	26-Jan-96						
Sat.	27-Jan-96						
Sun.	28-Jan-96						
Mon.	29-Jan-96						
Tues.	30-Jan-96						
Wed.	31-Jan-96	2589	20/23	89	y	n	caustic use only 6 gallons
Thurs.	01-Feb-96						

UST SVE Unit No. 3 - Hobbs, N.M.
(continued)

DAY	DATE	HO	FLOW Well/Air	TPH	OIL X	PLUG X	COMMENTS
Fri.	02-Feb-96						
Sat.	03-Feb-96						
Sun.	04-Feb-96						
Mon.	05-Feb-96						
Tues.	06-Feb-96						
Wed.	07-Feb-96						
Thurs.	08-Feb-96	2783	10/32		y	n	unit sounds rough
Fri.	09-Feb-96	2800	25/28	115			well vacs 10-12" H20
Sat.	10-Feb-96						
Sun.	11-Feb-96						
Mon.	12-Feb-96						
Tues.	13-Feb-96	2878	15/28	77	y	y	oil leak at front of pan only two gallons of caustic used
Wed.	14-Feb-96						
Thurs.	15-Feb-96						
Fri.	16-Feb-96						
Sat.	17-Feb-96						
Sun.	18-Feb-96						
Mon.	19-Feb-96						
Tues.	20-Feb-96						
Wed.	21-Feb-96	3076	25/14	98	y	y	one gal. condensate drained
Thurs.	22-Feb-96						
Fri.	23-Feb-96						
Sat.	24-Feb-96						
Sun.	25-Feb-96						
Mon.	26-Feb-96						
Tues.	27-Feb-96						
Wed.	28-Feb-96	3240	24/22	74	y	y	only two gallons of caustic used rotameter repaired
Thurs.	29-Feb-96						
Fri.	01-Mar-96						
Sat.	02-Mar-96						
Sun.	03-Mar-96						
Mon.	04-Mar-96						

UST SVE Unit No. 3 - Hobbs, N.M.
(continued)

DAY	DATE	HO	FLOW Well/Air	TPH	OIL X	PLUG X	COMMENTS
Tues.	05-Mar-96	3391	21/24		n	n	
Wed.	06-Mar-96	3403	24/21	100	y	y	cylinder No. 2 oil fouled.
Thurs.	07-Mar-96						
Fri.	08-Mar-96						
Sat.	09-Mar-96						
Sun.	10-Mar-96						
Mon.	11-Mar-96						
Tues.	12-Mar-96						
Wed.	13-Mar-96	3573	15/22		y	y	fixed major propane leak at regulator
Thurs.	14-Mar-96	3594	15/22	98	n	n	installed elevated caustic tank at DSI's request. attempt to fix oil pan gasket leak
Fri.	15-Mar-96						
Sat.	16-Mar-96						
Sun.	17-Mar-96						
Mon.	18-Mar-96						
Tues.	19-Mar-96						
Wed.	20-Mar-96	3735	25/8	68	y	y	2 gal condensate flushed from lines 10 gal caustic used, front seal leak
Thurs.	21-Mar-96						
Fri.	22-Mar-96						
Sat.	23-Mar-96						
Sun.	24-Mar-96						
Mon.	25-Mar-96						
Tues.	26-Mar-96						
Wed.	27-Mar-96						
Thurs.	28-Mar-96	3904	10/8	86	y	y	unit down, little caustic used flushed 3.5 gal. condensate from lines oil leak at front seal increasing
Fri.	29-Mar-96						
Sat.	30-Mar-96						
Sun.	31-Mar-96						
Mon.	01-Apr-96						
Tues.	02-Apr-96						

UST SVE Unit No. 3 - Hobbs, N.M.
(continued)

DAY	DATE	HO	FLOW Well/Air	TPH	OIL X	PLUG X	COMMENTS
Wed.	03-Apr-96	4008	na	na	na	na	unit down, much carbon buildup on valves. water in oil and unit sounds bad on start up, HiTech says OK to start but use care. compression test inconsistent. very bad oil leak at front seal.
Thurs.	04-Apr-96	4008	na	na	na	na	attmept to start, unit "freezes" up
Fri.	05-Apr-96	4008	na	na	na	na	AcuVac picks up unit for repair
Sat.	06-Apr-96						
Sun.	07-Apr-96						
Mon.	08-Apr-96						
Tues.	09-Apr-96						
Wed.	10-Apr-96	2406	60/0		y	y	Concrete Tank unit from Midland is placed at UST location
Thurs.	11-Apr-96	2421	80/0	118	n	n	replaced converters with converters from old UST unit, replaced propane guage, no. 4 plug slt. cross thread note carbon build up on cylinders
Fri.	12-Apr-96						
Sat.	13-Apr-96						
Sun.	14-Apr-96						
Mon.	15-Apr-96						
Tues.	16-Apr-96	2545	60/0	8	y	n	flushed 1.5 gal. condensate from lines
Wed.	17-Apr-96						
Thurs.	18-Apr-96						
Fri.	19-Apr-96	2610	0/35				turned well flow off to "flush" unit before shut down and storage ran air only and flushed with WD40
Sat.	20-Apr-96						
Sun.	21-Apr-96						
Mon.	22-Apr-96	2685	0/35				unit had been running on air only to "clean out" acid, unit removed and placed in storage at yard

UST SVE Unit No. 3 - Hobbs, N.M.
(continued)

DAY	DATE	HO	FLOW Well/Air	TPH	OIL X	PLUG X	COMMENTS
Mon.	22-Apr-96	4016	60/0	12			old "acid plant" unit reinstalled rebuilt caustic injection system
Tues.	23-Apr-96						
Wed.	24-Apr-96						
Thurs.	25-Apr-96						
Fri.	26-Apr-96						
Sat.	27-Apr-96						
Sun.	28-Apr-96						
Mon.	29-Apr-96						
Tues.	30-Apr-96						
Wed.	01-May-96	4224	60/0	104	y	y	reattached caustic inject

UST SVE Unit No. 3 - Hobbs, N.M.

DAY	DATE	Hr.	FLOW Well/Air	TPH	OI X	PLUG X	COMMENTS
Wed.	01-May-96	4224	60/0	104	y	y	reattached caustic inject
Thurs.	02-May-96						
Fri.	03-May-96						
Sat.	04-May-96						
Sun.	05-May-96						
Mon.	06-May-96						
Tues.	07-May-96	4371	40/20 ?	68	y	y	
Wed.	08-May-96						
Thurs.	09-May-96						
Fri.	10-May-96						
Sat.	11-May-96						
Sun.	12-May-96						
Mon.	13-May-96	4514	60/0?	110	y	y	plug six oil fouled
Tues.	14-May-96						
·d.	15-May-96						
·urs.	16-May-96						
Fri.	17-May-96						
Sat.	18-May-96						
Sun.	19-May-96						
Mon.	20-May-96	4630	60/0		y	y	unit down on arrival, oil?
Tues.	21-May-96	4645	60/0	4	n	n	switched rotameter
Wed.	22-May-96						
Thurs.	23-May-96	4679	50/0		n	n	engine using about 1 gal oil/12 hrs.
Fri.	24-May-96						
Sat.	25-May-96						
Sun.	26-May-96						
Mon.	27-May-96	4761			y	y	egine down on arrival, added oil, after 10 min. engine sprayed oil from sight guage shut unit down
Tues.	28-May-96	2686			y	y	old unit removed, SVET500965 replaces unit with injection system with unit once located at Concrete Tank in Midland after start oil forced out of sight glass
Wed.	29-May-96	2690	50/0	220	n	n	replaced converters
·rs.	30-May-96	2720	52/0				engine used one gallon oil since 5/29
·ri.	31-May-96						

UST SVE Unit No. 3 - Hobbs, N.M.

DAY	DATE	Hr.	FLOW Well/Air	TPH	OI X	PLUG X	COMMENTS
Sat.	01-Jun-96						
Sun.	02-Jun-96						
Mon.	03-Jun-96	2772	60/0	110	y	y	compression test #1=110, #2=65, #3=75, 4=120 #5=85, 6=83, added oil to cylinders for test 2, #1=120, #2=70, #3=80, #4=125, #5=125, #6 85, after water cleaning of engine, #1=110, #2=65, #3=75, #4=120, #5=85, #6=83, unit wa using large amounts of oil, severe blow by water added to engine to clean cylinders HiTech removes T50066 to Tulsa at 4765 hrs
Tues.	04-Jun-96						
Wed.	05-Jun-96						
Thurs.	06-Jun-96						
Fri.	07-Jun-96	2868					plugs oil fouled, added 1.5 gal. oil
[illegible]	08-Jun-96						
[illegible]	09-Jun-96						
Mon.	10-Jun-96	2868					unit shut down due to oil pouring from plugs
Tues.	11-Jun-96						
Wed.	12-Jun-96	2868					removed caustic stroage barrel
Thurs.	13-Jun-96						
Fri.	14-Jun-96						
Sat.	15-Jun-96						
Sun.	16-Jun-96						
Mon.	17-Jun-96	2871					unit down due to oil buring
Tues.	18-Jun-96	4767	55/0	18	y	y	Jim Sadler picks up unit which had once been located at the Concrete Tank in Midland and takes it to Tulsa for repair. Meet R. Deuel on-site, Well No. 1 TPH=6 ppm, #1=10, #2=8, #3=10 ppm, #4=4 ppm, all well vac = 14" H2O
Wed.	19-Jun-96						
Thurs.	20-Jun-96						
Fri.	21-Jun-96						
Sat.	22-Jun-96						
Sun.	23-Jun-96						
n.	24-Jun-96						
ues.	25-Jun-96	4927	55/0				

UST SVE Unit No. 3 - Hobbs, N.M.

DAY	DATE	Hr.	FLOW Well/Air	TPH	OI X	PLUG X	COMMENTS
Wed.	26-Jun-96	4956	60/0	56	y	y	converted unit to gas, met K. Brannon J. Miller and K. Campbell on site K. Brannon requests use of ring, marine, 2-cycle plug and redesign of cat. converter
Thurs.	27-Jun-96						
Fri.	28-Jun-96						
Sat.	29-Jun-96						
Mon.	30-Jun-96						

APPENDIX B

AIR SAMPLE DATA

93-007 D

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	7/17/95
Address:	P.O.Box 4128	Lab #:	H2090-1
City, State:	Laramie, WY 82070		
Project Name:	93-007.1 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	7/13/95
Sample Type:	Air	Sample Condition:	Intact

Sample ID: Unit 1 7/95-Input

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	<0.2	
Vinyl Chloride	<0.2	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	46.2	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	16.5	
Methylene chloride	<0.2	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	48.3	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	4.3	
2,2-Dichloropropane	<0.2	
Chloroform	2.24	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	450.0	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	28.0	
Carbon tetrachloride	<0.2	
Trichloroethene	1.23	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	256.0	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	135.0	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	30.6	
m,p-Xylene	73.4	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	37.8	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	7.14	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	42.0	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	6.4	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	7/17/95
Address:	P.O. Box 4128	Lab #:	H2090-1
City, State:	Laramie, WY 82070		
Project Name:	93-007.1 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	7/13/95
Sample Type:	Air	Sample Condition:	Intact
Sample ID:	Unit 1 7/95-Input		

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	<0.2	
1,2,4-Trimethylbenzene	15.0	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	0.99	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	1.0	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	0.85	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	<0.2	
Naphthalene	<0.2	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
1,2 Dibromoethane	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA 8260

Larry L. Bailey

7/17/95
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Western Water Consultants, Inc. Date: 7/17/95
Address: P.O.Box 4128 Lab #: H2090-2
City, State: Laramie, WY 82070
Project Name: 93-007.1 Dowell- Hobbs
Location: not given
Sampled by: RD Date: 7/13/95
Sample Type: Air Sample Condition: Intact

Sample ID: Unit 1 7/95-Exhaust

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	<0.2	
Vinyl Chloride	<0.2	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	<0.2	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	<0.2	
Methylene chloride	<0.2	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	<0.2	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	<0.2	
2,2-Dichloropropane	<0.2	
Chloroform	0.25	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	<0.2	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	0.83	
Carbon tetrachloride	<0.2	
Trichloroethene	<0.2	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	0.2	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	<0.2	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	<0.2	
m,p-Xylene	<0.4	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	<0.2	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	<0.2	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	<0.2	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	<0.2	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	7/17/95
Address:	P.O. Box 4128	Lab #:	H2090-2
City, State:	Laramie, WY 82070		
Project Name:	93-007.1 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	7/13/95
Sample Type:	Air	Sample Condition:	Intact

Sample ID: Unit 1 7/95-Exhaust

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	<0.2	
1,2,4-Trimethylbenzene	<0.2	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	<0.2	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	<0.2	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	<0.2	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	<0.2	
Naphthalene	<0.2	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
1,2 Dibromoethane	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA 8260

Larry L. Bailey

7/17/95
Date

CARDINAL LABORATORIES

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FINAL ANALYSIS REPORT

Company: Western Water Consultants, Inc. Date: 7/17/95
Address: P.O.Box 4128 Lab #: H2090-3
City, State: Laramie, WY 82070
Project Name: 93-007.1 Dowell- Hobbs
Location: not given
Sampled by: RD Date: 7/13/95
Sample Type: Air Sample Condition: Intact

Sample ID: Unit 2 7/95-Input

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	<0.2	
Vinyl Chloride	<0.2	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	28.6	
1,1-Dichloroethene	1.52	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	<0.2	
Methylene chloride	<0.2	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	1.53	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	<0.2	
2,2-Dichloropropane	<0.2	
Chloroform	0.32	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	2.29	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	3.13	
Carbon tetrachloride	<0.2	
Trichloroethene	<0.2	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	27.2	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	6.91	
Chlorobenzene	0.39	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	12.9	
m,p-Xylene	36.2	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	9.98	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	0.76	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	1.21	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	1.24	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	7/17/95
Address:	P.O. Box 4128	Lab #:	H2090-3
City, State:	Laramie, WY 82070		
Project Name:	93-007.1 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	7/13/95
Sample Type:	Air	Sample Condition:	Intact

Sample ID: Unit 2 7/95-Input

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	<0.2	
1,2,4-Trimethylbenzene	3.21	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	0.24	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	0.23	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	<0.2	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	<0.2	
Naphthalene	<0.2	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
1,2 Dibromoethane	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA 8260

Larry L. Bailey

7/17/95
Date

CARDINAL LABORATORIES

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FINAL ANALYSIS REPORT

Company: Western Water Consultants, Inc.
Address: P.O.Box 4128
City, State: Laramie, WY 82070
Project Name: 93-007.1 Dowell- Hobbs
Location: not given
Sampled by: RD
Sample Type: Air

Date: 7/17/95
Lab #: H2090-4
Date: 7/13/95
Sample Condition: Intact

Sample ID: Unit 2 7/95-Exhaust

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	<0.2	
Vinyl Chloride	<0.2	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	<0.2	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	<0.2	
Methylene chloride	<0.2	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	<0.2	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	<0.2	
2,2-Dichloropropane	<0.2	
Chloroform	0.24	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	<0.2	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	<0.2	
Carbon tetrachloride	<0.2	
Trichloroethene	<0.2	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	0.26	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	<0.2	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	<0.2	
m,p-Xylene	0.74	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	0.76	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	<0.2	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	<0.2	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	0.22	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	7/17/95
Address:	P.O. Box 4128	Lab #:	H2090-4
City, State:	Laramie, WY 82070		
Project Name:	93-007.1 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	7/13/95
Sample Type:	Air	Sample Condition:	Intact
Sample ID:	Unit 2 7/95-Exhaust		

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	<0.2	
1,2,4-Trimethylbenzene	0.6	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	<0.2	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	<0.2	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	<0.2	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	<0.2	
Naphthalene	<0.2	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
1,2 Dibromoethane	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA 8260

Larry L. Bailey

7/17/95
Date

CARDINAL LABORATORIES

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FINAL ANALYSIS REPORT

Company: Western Water Consultants, Inc. Date: 7/17/95
Address: P.O.Box 4128 Lab #: H2090-5
City, State: Laramie, WY 82070
Project Name: 93-007.1 Dowell- Hobbs
Location: not given
Sampled by: RD Date: 7/13/95
Sample Type: Air Sample Condition: Intact

Sample ID: Unit 3 7/95-Input

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	<0.2	
Vinyl Chloride	<0.2	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	281.0	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	<0.2	
Methylene chloride	<0.2	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	10.9	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	<0.2	
2,2-Dichloropropane	<0.2	
Chloroform	4.15	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	215.0	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	2.08	
Carbon tetrachloride	0.36	
Trichloroethene	2.68	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	5.95	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	870.0	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	1.17	
m,p-Xylene	4.51	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	2.13	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	<0.2	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	0.29	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	1.71	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	7/17/95
Address:	P.O. Box 4128	Lab #:	H2090-5
City, State:	Laramie, WY 82070		
Project Name:	93-007.1 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	7/13/95
Sample Type:	Air	Sample Condition:	Intact
Sample ID:	Unit 3 7/95-Input		

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	<0.2	
1,2,4-Trimethylbenzene	1.13	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	<0.2	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	<0.2	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	<0.2	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	<0.2	
Naphthalene	<0.2	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
1,2 Dibromoethane	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA 8260

Larry L. Bailey

7/17/95
Date

CARDINAL LABORATORIES

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FINAL ANALYSIS REPORT

Company: Western Water Consultants, Inc. Date: 7/17/95
Address: P.O.Box 4128 Lab #: H2090-6
City, State: Laramie, WY 82070
Project Name: 93-007.1 Dowell- Hobbs
Location: not given
Sampled by: RD Date: 7/13/95
Sample Type: Air Sample Condition: Intact

Sample ID: Unit 3 7/95-Exhaust

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	17.2	
Vinyl Chloride	0.87	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	0.27	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	<0.2	
Methylene chloride	<0.2	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	<0.2	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	<0.2	
2,2-Dichloropropane	<0.2	
Chloroform	0.21	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	<0.2	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	2.89	
Carbon tetrachloride	<0.2	
Trichloroethene	<0.2	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	1.41	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	2.76	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	0.72	
m,p-Xylene	3.44	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	4.44	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	0.52	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	4.88	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	5.6	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	7/17/95
Address:	P.O. Box 4128	Lab #:	H2090-6
City, State:	Laramie, WY 82070		
Project Name:	93-007.1 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	7/13/95
Sample Type:	Air	Sample Condition:	Intact
Sample ID:	Unit 3 7/95-Exhaust		

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	<0.2	
1,2,4-Trimethylbenzene	3.28	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	<0.2	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	<0.2	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	<0.2	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	<0.2	
Naphthalene	<0.2	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
1,2 Dibromoethane	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA 8260

Larry L. Bailey

7/17/95
Date

93-007 D

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	8/16/95
Address:	P.O.Box 4128	Lab #:	H2134-1
City, State:	Laramie, WY 82070		
Project Name:	93-007.2 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	8/12/95
Sample Type:	Air	Sample Condition:	Intact
Sample ID:	Unit 1 8/95-Input		

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	<0.2	
Vinyl Chloride	<0.2	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	23.9	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	6.5	
Methylene chloride	1.29	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	35.2	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	2.97	
2,2-Dichloropropane	<0.2	
Chloroform	1.52	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	216.6	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	18.3	
Carbon tetrachloride	<0.2	
Trichloroethene	1.3	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	46.4	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	19.0	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	20.0	
m,p-Xylene	51.4	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	<0.2	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	8.2	
Isopropylbenzene	5.9	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	<0.2	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	4.8	

FINAL ANALYSIS REPORT

Company:	*Western Water Consultants, Inc.*	*Date:*	*8/16/95*
Address:	*P.O. Box 4128*	*Lab #:*	*H2134-1*
City, State:	*Laramie, WY 82070*		
Project Name:	*93-007.2 Dowell- Hobbs*		
Location:	*not given*		
Sampled by:	*RD*	*Date:*	*8/12/95*
Sample Type:	*Air*	*Sample Condition:*	*Intact*

Sample ID: *Unit 1 8/95-Input*

PARAMETER	*RESULT*	*UNITS* mg/M3
tert-Butylbenzene	*<0.2*	
1,2,4-Trimethylbenzene	*11.1*	
1,3-Dichlorobenzene	*<0.2*	
sec-Butylbenzene	*<0.2*	
1,4-Dichlorobenzene	*<0.2*	
4-Isopropyltoluene	*<0.2*	
1,2-Dichlorobenzene	*<0.2*	
n-Butylbenzene	*0.7*	
1,2-dibromo-3-chloropropane	*<0.2*	
1,2,4-Trichlorobenzene	*<0.2*	
Naphthalene	*<0.2*	
1,2,3-Trichlorobenzene	*<0.2*	
Hexachlorobutadiene	*<0.2*	
2-Chloroethoxyethene	*<0.2*	
Methyl iodide	*<0.2*	

METHOD: VOLATILES - EPA 8260

Gayle A. Potter

8/17/95
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	8/16/95
Address:	P.O.Box 4128	Lab #:	H2134-2
City, State:	Laramie, WY 82070		
Project Name:	93-007.2 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	8/12/95
Sample Type:	Air	Sample Condition:	Intact

Sample ID: Unit 1 8/95-Output

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	12.8	
Vinyl Chloride	35.7	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	5.0	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	<0.2	
Methylene chloride	1.1	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	<0.2	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	<0.2	
2,2-Dichloropropane	<0.2	
Chloroform	<0.2	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	<0.2	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	1.9	
Carbon tetrachloride	<0.2	
Trichloroethene	<0.2	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	<0.2	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	3.7	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	<0.2	
m,p-Xylene	<0.2	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	<0.2	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	<0.2	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	<0.2	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	<0.2	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	8/16/95
Address:	P.O. Box 4128	Lab #:	H2134-2
City, State:	Laramie, WY 82070		
Project Name:	93-007.2 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	8/12/95
Sample Type:	Air	Sample Condition:	Intact

Sample ID: Unit 1 8/95-Output

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	<0.2	
1,2,4-Trimethylbenzene	<0.2	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	<0.2	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	<0.2	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	<0.2	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	<0.2	
Naphthalene	<0.2	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
2-Chloroethoxyethene	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA 8260

Gayle A. Potter

8/17/95
Date

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	8/16/95
Address:	P.O.Box 4128	Lab #:	H2134-3
City, State:	Laramie, WY 82070		
Project Name:	93-007.2 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	8/12/95
Sample Type:	Air	Sample Condition:	Intact

Sample ID: Unit 2 8/95-Input

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	<0.2	
Vinyl Chloride	<0.2	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	5.1	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	3.2	
Methylene chloride	1.5	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	1.6	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	<0.2	
2,2-Dichloropropane	<0.2	
Chloroform	<0.2	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	7.0	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	1.42	
Carbon tetrachloride	<0.2	
Trichloroethene	<0.2	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	24.8	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	8.9	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	10.4	
m,p-Xylene	36.0	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	12.5	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	1.63	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	2.5	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	2.2	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	8/16/95
Address:	P.O. Box 4128	Lab #:	H2134-3
City, State:	Laramie, WY 82070		
Project Name:	93-007.2 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	8/12/95
Sample Type:	Air	Sample Condition:	Intact
Sample ID:	Unit 2 8/95-Input		

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	<0.2	
1,2,4-Trimethylbenzene	4.8	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	0.5	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	0.5	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	0.5	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	<0.2	
Naphthalene	<0.2	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
2-Chloroetoxyethene	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA 8260

Gayle A. Potter

8/17/95
Date

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	8/16/95
Address:	P.O.Box 4128	Lab #:	H2134-4
City, State:	Laramie, WY 82070		
Project Name:	93-007.2 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	8/12/95
Sample Type:	Air	Sample Condition:	Intact

Sample ID: Unit 2 8/95-Output

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	<0.2	
Vinyl Chloride	<0.2	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	<0.2	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	<0.2	
Methylene chloride	<0.2	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	<0.2	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	<0.2	
2,2-Dichloropropane	<0.2	
Chloroform	<0.2	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	<0.2	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	<0.2	
Carbon tetrachloride	<0.2	
Trichloroethene	<0.2	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	0.5	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	<0.2	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	<0.2	
m,p-Xylene	<0.2	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	<0.2	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	<0.2	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	<0.2	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	<0.2	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	8/16/95
Address:	P.O. Box 4128	Lab #:	H2134-4
City, State:	Laramie, WY 82070		
Project Name:	93-007.2 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	8/12/95
Sample Type:	Air	Sample Condition:	Intact
Sample ID:	Unit 2 8/95-Output		

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	<0.2	
1,2,4-Trimethylbenzene	<0.2	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	<0.2	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	<0.2	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	<0.2	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	<0.2	
Naphthalene	<0.2	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
2-Chloroethoxyethene	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA 8260

Gayle A. Potter

8/17/95
Date

CARDINAL LABORATORIES

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FINAL ANALYSIS REPORT

Company: Western Water Consultants, Inc.
Address: P.O.Box 4128
City, State: Laramie, WY 82070
Project Name: 93-007.2 Dowell- Hobbs
Location: not given
Sampled by: RD
Sample Type: Air

Date: 8/16/95
Lab #: H2134-5
Date: 8/12/95
Sample Condition: Intact

Sample ID: Unit 3 8/95-Input

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	<0.2	
Vinyl Chloride	<0.2	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	506.0	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	<0.2	
Methylene chloride	1.3	
trans-1,2-Dichloroethene	0.5	
1,1-Dichloroethane	15.6	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	<0.2	
2,2-Dichloropropane	<0.2	
Chloroform	1.2	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	579.0	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	1.4	
Benzene	0.4	
Carbon tetrachloride	0.3	
Trichloroethene	2.1	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	1.9	
1,1,2-Trichloroethane	34.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	636.0	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	0.9	
m,p-Xylene	3.0	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	1.9	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	0.3	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	2.8	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	0.6	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	8/16/95
Address:	P.O. Box 4128	Lab #:	H2134-5
City, State:	Laramie, WY 82070		
Project Name:	93-007.2 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	8/12/95
Sample Type:	Air	Sample Condition:	Intact

Sample ID: Unit 3 8/95-Input

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	0.2	
1,2,4-Trimethylbenzene	1.6	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	<0.2	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	<0.2	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	<0.2	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	<0.2	
Naphthalene	<0.2	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
2-Chloroethoxyethene	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA 8260

Gayle A. Potter

8/17/95
Date

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	8/16/95
Address:	P.O.Box 4128	Lab #:	H2134-6
City, State:	Laramie, WY 82070		
Project Name:	93-007.2 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	8/12/95
Sample Type:	Air	Sample Condition:	Intact

Sample ID: Unit 3 8/95-Output

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	48.0	
Vinyl Chloride	35.0	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	2.8	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	<0.2	
Methylene chloride	1.9	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	<0.2	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	<0.2	
2,2-Dichloropropane	<0.2	
Chloroform	<0.2	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	<0.2	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	4.9	
Carbon tetrachloride	<0.2	
Trichloroethene	0.8	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	<0.2	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	21.5	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	<0.2	
m,p-Xylene	<0.2	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	<0.2	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	<0.2	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	<0.2	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	<0.2	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	8/16/95
Address:	P.O. Box 4128	Lab #:	H2134-6
City, State:	Laramie, WY 82070		
Project Name:	93-007.2 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	8/12/95
Sample Type:	Air	Sample Condition:	Intact
Sample ID:	Unit 3 8/95-Output		

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	<0.2	
1,2,4-Trimethylbenzene	<0.2	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	<0.2	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	<0.2	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	<0.2	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	<0.2	
Naphthalene	<0.2	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
2-Chloroethoxyethene	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA 8260

Gayle A. Potter

8/17/95
Date

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	9/13/95
Address:	P.O.Box 4128	Lab #:	H2169-3
City, State:	Laramie, WY 82070		
Project Name:	93-007 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	9/7/95
Sample Type:	Air	Sample Condition:	Intact

Sample ID: Unit 1 Input 9/95-1

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	<0.2	
Vinyl Chloride	<0.2	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	56.7	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	7.3	
Methylene chloride	3.4	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	34.8	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	4.7	
2,2-Dichloropropane	<0.2	
Chloroform	2.2	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	283.0	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	19.1	
Carbon tetrachloride	<0.2	
Trichloroethene	2.73	
Dibromomethane	<0.2	
Bromodichloromethane	0.36	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	118.3	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	111.8	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	16.6	
m,p-Xylene	62.4	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	28.8	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	9.0	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	13.2	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	8.1	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	9/13/95
Address:	P.O. Box 4128	Lab #:	H2169-3
City, State:	Laramie, WY 82070		
Project Name:	93-007 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	9/7/95
Sample Type:	Air	Sample Condition:	Intact

Sample ID: Unit 1 Input 9/95-1

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	2.4	
1,2,4-Trimethylbenzene	18.2	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	1.3	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	<0.2	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	1.0	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	<0.2	
Naphthalene	<0.2	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
2-Chloroethoxyethene	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA SW-846-8260

Manuel Garbalena

9-13-95
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 * 2111 BEECHWOOD * ABILENE, TX 79603
PHONE (505) 393-2326 * 101 E. MARLAND * HOBBS, NM 88240
PHONE (505) 326-4669 * 118 S. COMMERCIAL AVE. * FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	9/13/95
Address:	P.O.Box 4128	Lab #:	H2169-4
City, State:	Laramie, WY 82070		
Project Name:	93-007 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	9/7/95
Sample Type:	Air	Sample Condition:	Intact

Sample ID: Unit 1 Output 9/95-1

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	6.8	
Vinyl Chloride	8.6	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	<0.2	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	<0.2	
Methylene chloride	<0.2	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	<0.2	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	<0.2	
2,2-Dichloropropane	<0.2	
Chloroform	0.6	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	<0.2	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	6.5	
Carbon tetrachloride	<0.2	
Trichloroethene	<0.2	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	2.9	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	6.0	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	0.6	
m,p-Xylene	2.2	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	1.2	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	<0.2	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	<0.2	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	<0.2	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	9/13/95
Address:	P.O. Box 4128	Lab #:	H2169-4
City, State:	Laramie, WY 82070		
Project Name:	93-007 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	9/7/95
Sample Type:	Air	Sample Condition:	Intact
Sample ID:	Unit 1 Output 9/95-1		

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	<0.2	
1,2,4-Trimethylbenzene	0.4	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	<0.2	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	<0.2	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	<0.2	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	<0.2	
Naphthalene	<0.2	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
2-Chloroethoxyethene	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA SW-846-8260

Manuel Garbalena

9-13-95
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	9/13/95
Address:	P.O.Box 4128	Lab #:	H2169-5
City, State:	Laramie, WY 82070		
Project Name:	93-007 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	9/7/95
Sample Type:	Air	Sample Condition:	Intact
Sample ID:	Unit 1 Output 9/95-2		

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	<0.2	
Vinyl Chloride	<0.2	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	<0.2	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	<0.2	
Methylene chloride	<0.2	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	<0.2	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	<0.2	
2,2-Dichloropropane	<0.2	
Chloroform	0.6	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	<0.2	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	1.3	
Carbon tetrachloride	<0.2	
Trichloroethene	<0.2	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	<0.2	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	<0.2	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	<0.2	
m,p-Xylene	<0.2	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	<0.2	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	<0.2	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	<0.2	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	<0.2	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	9/13/95
Address:	P.O. Box 4128	Lab #:	H2169-5
City, State:	Laramie, WY 82070		
Project Name:	93-007 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	9/7/95
Sample Type:	Air	Sample Condition:	Intact
Sample ID:	Unit 1 Output 9/95-2		

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	<0.2	
1,2,4-Trimethylbenzene	<0.2	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	<0.2	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	<0.2	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	<0.2	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	<0.2	
Naphthalene	<0.2	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
2-Chloroethoxyethene	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA SW-846-8260

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Manuel Garbalena

9-13-95

Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	9/13/95
Address:	P.O.Box 4128	Lab #:	H2169-6
City, State:	Laramie, WY 82070		
Project Name:	93-007 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	9/7/95
Sample Type:	Air	Sample Condition:	Intact
Sample ID:	Unit 2 Output 9/95		

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	<0.2	
Vinyl Chloride	<0.2	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	<0.2	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	<0.2	
Methylene chloride	3.4	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	<0.2	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	<0.2	
2,2-Dichloropropane	<0.2	
Chloroform	<0.2	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	<0.2	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	<0.2	
Carbon tetrachloride	<0.2	
Trichloroethene	<0.2	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	<0.2	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	<0.2	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	<0.2	
m,p-Xylene	<0.2	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	<0.2	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	<0.2	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	<0.2	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	<0.2	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	9/13/95
Address:	P.O. Box 4128	Lab #:	H2169-6
City, State:	Laramie, WY 82070		
Project Name:	93-007 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	9/7/95
Sample Type:	Air	Sample Condition:	Intact
Sample ID:	Unit 2 Output 9/95		

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	<0.2	
1,2,4-Trimethylbenzene	<0.2	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	<0.2	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	<0.2	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	<0.2	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	<0.2	
Naphthalene	<0.2	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
2-Chloroethoxyethene	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA SW-846-8260

Manuel Garbalena

9-13-95
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Western Water Consultants, Inc.
Address: P.O.Box 4128
City, State: Laramie, WY 82070
Project Name: 93-007 Dowell- Hobbs
Location: not given
Sampled by: RD
Sample Type: Air

Date: 9/13/95
Lab #: H2169-1
Date: 9/7/95
Sample Condition: Intact

Sample ID: Unit 3 Input 9/95-1

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	<0.2	
Vinyl Chloride	<0.2	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	593.4	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	<0.2	
Methylene chloride	<0.2	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	13.3	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	<0.2	
2,2-Dichloropropane	<0.2	
Chloroform	2.0	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	492.0	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	1.4	
Benzene	<0.2	
Carbon tetrachloride	1.2	
Trichloroethene	2.0	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	<0.2	
1,1,2-Trichloroethane	5.7	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	444.4	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	<0.2	
m,p-Xylene	<0.2	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	<0.2	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	<0.2	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	<0.2	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	<0.2	

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	9/13/95
Address:	P.O. Box 4128	Lab #:	H2169-1
City, State:	Laramie, WY 82070		
Project Name:	93-007 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	9/7/95
Sample Type:	Air	Sample Condition:	Intact
Sample ID:	Unit 3 Input 9/95-1		

PARAMETER	RESULT	UNITS mg/M3
tert-Butylbenzene	<0.2	
1,2,4-Trimethylbenzene	<0.2	
1,3-Dichlorobenzene	<0.2	
sec-Butylbenzene	<0.2	
1,4-Dichlorobenzene	<0.2	
4-Isopropyltoluene	<0.2	
1,2-Dichlorobenzene	<0.2	
n-Butylbenzene	<0.2	
1,2-dibromo-3-chloropropane	<0.2	
1,2,4-Trichlorobenzene	1.1	
Naphthalene	0.8	
1,2,3-Trichlorobenzene	<0.2	
Hexachlorobutadiene	<0.2	
2-Chloroethoxyethene	<0.2	
Methyl iodide	<0.2	

METHOD: VOLATILES - EPA SW-846-8260

Manuel Garbalena

9-13-95
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company:	Western Water Consultants, Inc.	Date:	9/13/95
Address:	P.O.Box 4128	Lab #:	H2169-2
City, State:	Laramie, WY 82070		
Project Name:	93-007 Dowell- Hobbs		
Location:	not given		
Sampled by:	RD	Date:	9/7/95
Sample Type:	Air	Sample Condition:	Intact
Sample ID:	Unit 3 Output 9/95-1		

PARAMETER	RESULT	UNITS: mg/M3
Dichlorodifluoromethane	<0.2	
Chloromethane	<0.2	
Vinyl Chloride	<0.2	
Bromomethane	<0.2	
Chloroethane	<0.2	
Acetone	<0.2	
1,1-Dichloroethene	56.2	
Trichlorofluoromethane	<0.2	
Carbon Disulfide	<0.2	
Methylene chloride	<0.2	
trans-1,2-Dichloroethene	<0.2	
1,1-Dichloroethane	<0.2	
Vinyl Acetate	<0.2	
2-Butanone	<0.2	
cis-1,2-Dichloroethene	<0.2	
2,2-Dichloropropane	<0.2	
Chloroform	<0.2	
Bromochloromethane	<0.2	
1,1,1-Trichloroethane	31.9	
1,2-Dichloroethane	<0.2	
1,1-Dichloropropene	<0.2	
Benzene	1.1	
Carbon tetrachloride	<0.2	
Trichloroethene	0.9	
Dibromomethane	<0.2	
Bromodichloromethane	<0.2	
trans-1,3-Dichloropropene	<0.2	
4-methyl-2-pentanone	<0.2	
1,2-Dichloropropane	<0.2	
cis-1,3-Dichloropropene	<0.2	
Toluene	0.5	
1,1,2-Trichloroethane	<0.2	
1,3-Dichloropropane	<0.2	
2-Hexanone	<0.2	
Dibromochloromethane	<0.2	
1,2-Dibromoethane	<0.2	
Tetrachloroethene	81.4	
Chlorobenzene	<0.2	
1,1,1,2-Tetrachloroethane	<0.2	
Ethylbenzene	<0.2	
m,p-Xylene	<0.2	
Bromoform	<0.2	
Styrene	<0.2	
o-Xylene	<0.2	
1,1,2,2-Tetrachloroethane	<0.2	
1,2,3-Trichloropropane	<0.2	
Isopropylbenzene	<0.2	
Bromobenzene	<0.2	
2-Chlorotoluene	<0.2	
n-propylbenzene	<0.2	
4-Chlorotoluene	<0.2	
1,3,5-Trimethylbenzene	<0.2	

FINAL ANALYSIS REPORT

Company:	*Western Water Consultants, Inc.*	*Date:*	*9/13/95*
Address:	*P.O. Box 4128*	*Lab #:*	*H2169-2*
City, State:	*Laramie, WY 82070*		
Project Name:	*93-007 Dowell- Hobbs*		
Location:	*not given*		
Sampled by:	*RD*	*Date:*	*9/7/95*
Sample Type:	*Air*	*Sample Condition:*	*Intact*

Sample ID: Unit 3 Output 9/95-1

PARAMETER	*RESULT*	*UNITS* mg/M3
tert-Butylbenzene	*<0.2*	
1,2,4-Trimethylbenzene	*<0.2*	
1,3-Dichlorobenzene	*<0.2*	
sec-Butylbenzene	*<0.2*	
1,4-Dichlorobenzene	*<0.2*	
4-Isopropyltoluene	*<0.2*	
1,2-Dichlorobenzene	*<0.2*	
n-Butylbenzene	*<0.2*	
1,2-dibromo-3-chloropropane	*<0.2*	
1,2,4-Trichlorobenzene	*<0.2*	
Naphthalene	*<0.2*	
1,2,3-Trichlorobenzene	*<0.2*	
Hexachlorobutadiene	*<0.2*	
2-Chloroethoxyethene	*<0.2*	
Methyl iodide	*<0.2*	

METHOD: VOLATILES - EPA SW-846-8260

Manuel Garbalena

9-13-95

Date

CARDINAL LABORATORIES

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ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

UNIT 1

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-WatPDInput 4/96
Lab Number: H2490-3

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-3	Method Blank	QC	%IA	True Value QC
1	Dichlorodifluoromethane	1.0	<0.2	<0.2	0.086	86	0.100
2	Chloromethane	1.0	<0.2	<0.2	0.085	85	0.100
3	Vinyl chloride	1.0	<0.2	<0.2	0.092	92	0.100
4	Bromomethane	1.0	<0.2	<0.2	0.088	88	0.100
5	Chloroethane	1.0	<0.2	<0.2	0.094	94	0.100
6	Acetone	1.0	<0.2	<0.2	0.107	107	0.100
7	1,1-Dichloroethene	1.0	9.7	<0.2	0.083	83	0.100
8	Trichlorofluoromethane	1.0	<0.2	<0.2	0.088	88	0.100
9	Carbon Disulfide	1.0	6.6	1.2	0.091	91	0.100
10	Methylene chloride	1.0	<0.2	0.6	0.100	100	0.100
11	trans-1,2-Dichloroethene	1.0	<0.2	<0.2	0.098	98	0.100
12	1,1-Dichloroethane	1.0	11.4	<0.2	0.080	80	0.100
13	Vinyl Acetate	1.0	<0.2	<0.2	0.111	111	0.100
14	2-Butanone	1.0	<0.2	<0.2	0.094	94	0.100
15	cis-1,2-Dichloroethene	1.0	1.5	<0.2	0.082	82	0.100
16	2,2-Dichloropropane	1.0	<0.2	<0.2	0.084	84	0.100
17	Chloroform	1.0	1.4	0.5	0.096	96	0.100
18	Bromochloromethane	1.0	<0.2	<0.2	0.101	101	0.100
19	1,1,1-Trichloroethane	1.0	116.0	<0.2	0.089	89	0.100
20	1,2-Dichloroethane	1.0	<0.2	<0.2	0.103	103	0.100
21	1,1-Dichloropropene	1.0	<0.2	<0.2	0.096	96	0.100
22	Benzene	1.0	<0.2	<0.2	0.099	99	0.100
23	Carbon tetrachloride	1.0	<0.2	<0.2	0.089	89	0.100
24	Trichloroethene	1.0	<0.2	<0.2	0.095	95	0.100
25	Dibromomethane	1.0	<0.2	<0.2	0.109	109	0.100
26	Bromodichloromethane	1.0	<0.2	<0.2	0.100	100	0.100
27	trans-1,3-Dichloropropene	1.0	<0.2	<0.2	0.102	102	0.100
28	4-methyl-2-pentanone	1.0	<0.2	<0.2	0.101	101	0.100
29	1,2-Dichloropropane	1.0	<0.2	<0.2	0.105	105	0.100
30	cis-1,3-Dichloropropene	1.0	<0.2	<0.2	0.102	102	0.100

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

UNIT 1

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-WatPDInput 4/96
Lab Number: H2490-3

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-3	Method Blank	QC	%IA	True Value QC
31	Toluene	1.0	114.0	<0.2	0.099	99	0.100
32	1,1,2-Trichloroethane	1.0	<0.2	<0.2	0.104	104	0.100
33	1,3-Dichloropropane	1.0	<0.2	<0.2	0.105	105	0.100
34	2-Hexanone	1.0	<0.2	<0.2	0.103	103	0.100
35	Dibromochloromethane	1.0	<0.2	<0.2	0.103	103	0.100
36	1,2-Dibromoethane	1.0	<0.2	<0.2	0.106	106	0.100
37	Tetrachloroethene	1.0	120.0	<0.2	0.096	96	0.100
38	Chlorobenzene	1.0	<0.2	<0.2	0.102	102	0.100
39	1,1,1,2-Tetrachloroethane	1.0	<0.2	<0.2	0.095	95	0.100
40	Ethylbenzene	1.0	19.1	<0.2	0.098	98	0.100
41	m, p - Xylene	2.0	52.5	<0.2	0.189	94	0.200
42	Bromoform	1.0	<0.2	<0.2	0.105	105	0.100
43	Styrene	1.0	<0.2	<0.2	0.092	92	0.100
44	o-Xylene	1.0	29.0	<0.2	0.101	101	0.100
45	1,1,2,2-Tetrachloroethane	1.0	<0.2	<0.2	0.106	106	0.100
46	1,2,3-Trichloropropane	1.0	<0.2	<0.2	0.113	113	0.100
47	Isopropylbenzene	1.0	6.4	<0.2	0.092	92	0.100
48	Bromobenzene	1.0	<0.2	<0.2	0.101	101	0.100
49	2-Chlorotoluene	1.0	<0.2	<0.2	0.101	101	0.100
50	n-propylbenzene	1.0	7.1	<0.2	0.098	98	0.100
51	4-Chlorotoluene	1.0	<0.2	<0.2	0.101	101	0.100
52	1,3,5-Trimethylbenzene	1.0	5.2	<0.2	0.094	94	0.100
53	tert-Butylbenzene	1.0	<0.2	<0.2	0.092	92	0.100
54	1,2,4-Trimethylbenzene	1.0	9.4	<0.2	0.094	94	0.100
55	1,3-Dichlorobenzene	1.0	<0.2	<0.2	0.098	98	0.100
56	sec-Butylbenzene	1.0	0.8	<0.2	0.093	93	0.100
57	1,4 Dichlorobenzene	1.0	<0.2	<0.2	0.086	86	0.100
58	4-Isopropyltoluene	1.0	0.6	<0.2	0.092	92	0.100
59	1,2-Dichlorobenzene	1.0	<0.2	<0.2	0.096	96	0.100
60	n-Butylbenzene	1.0	0.4	<0.2	0.098	98	0.100

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

UNIT 1

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-WatPDInput 4/96
Lab Number: H2490-3

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-3	Method Blank	QC	%IA	True Value QC
61	1,2-dibromo-3-chloropropane	1.0	<0.2	<0.2	0.110	110	0.100
62	1,2,4-Trichlorobenzene	1.0	<0.2	<0.2	0.087	87	0.100
63	Naphthalene	1.0	<0.2	<0.2	0.097	97	0.100
64	1,2,3-Trichlorobenzene	1.0	<0.2	<0.2	0.091	91	0.100
65	Hexachlorobutadiene	1.0	<0.2	<0.2	0.092	92	0.100
66	2-Chloroethoxyethene	1.0	<0.2	<0.2	0.094	94	0.100
67	Methyl iodide	1.0	<0.2	<0.2	0.093	93	0.100

		% Recovery	Relative Percent Difference
68	Dibromofluoromethane	MI(62)*	5
69	Toluene-D8	102	12
70	4-Bromofluorobenzene	93	8

METHODS: EPA SW-846-8260

*Matrix interference

Burgess J. A. Cooke, Ph. D.

4/17/96
Date

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

UNIT 1

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-WatPDExh. 4/96
Lab Number: H2490-4

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-4	Method Blank	QC	%IA	True Value QC
1	Dichlorodifluoromethane	1.0	<0.2	<0.2	0.086	86	0.100
2	Chloromethane	1.0	4.1	<0.2	0.085	85	0.100
3	Vinyl chloride	1.0	1.2	<0.2	0.092	92	0.100
4	Bromomethane	1.0	<0.2	<0.2	0.088	88	0.100
5	Chloroethane	1.0	<0.2	<0.2	0.094	94	0.100
6	Acetone	1.0	<0.2	<0.2	0.107	107	0.100
7	1,1-Dichloroethene	1.0	<0.2	<0.2	0.083	83	0.100
8	Trichlorofluoromethane	1.0	<0.2	<0.2	0.088	88	0.100
9	Carbon Disulfide	1.0	1.5	1.2	0.091	91	0.100
10	Methylene chloride	1.0	0.8	0.6	0.100	100	0.100
11	trans-1,2-Dichloroethene	1.0	<0.2	<0.2	0.098	98	0.100
12	1,1-Dichloroethane	1.0	<0.2	<0.2	0.080	80	0.100
13	Vinyl Acetate	1.0	<0.2	<0.2	0.111	111	0.100
14	2-Butanone	1.0	<0.2	<0.2	0.094	94	0.100
15	cis-1,2-Dichloroethene	1.0	<0.2	<0.2	0.082	82	0.100
16	2,2-Dichloropropane	1.0	<0.2	<0.2	0.084	84	0.100
17	Chloroform	1.0	0.4	0.5	0.096	96	0.100
18	Bromochloromethane	1.0	<0.2	<0.2	0.101	101	0.100
19	1,1,1-Trichloroethane	1.0	<0.2	<0.2	0.089	89	0.100
20	1,2-Dichloroethane	1.0	<0.2	<0.2	0.103	103	0.100
21	1,1-Dichloropropene	1.0	<0.2	<0.2	0.096	96	0.100
22	Benzene	1.0	1.0	<0.2	0.099	99	0.100
23	Carbon tetrachloride	1.0	<0.2	<0.2	0.089	89	0.100
24	Trichloroethene	1.0	<0.2	<0.2	0.095	95	0.100
25	Dibromomethane	1.0	<0.2	<0.2	0.109	109	0.100
26	Bromodichloromethane	1.0	<0.2	<0.2	0.100	100	0.100
27	trans-1,3-Dichloropropene	1.0	<0.2	<0.2	0.102	102	0.100
28	4-methyl-2-pentanone	1.0	<0.2	<0.2	0.101	101	0.100
29	1,2-Dichloropropane	1.0	<0.2	<0.2	0.105	105	0.100
30	cis-1,3-Dichloropropene	1.0	<0.2	<0.2	0.102	102	0.100

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

UNIT 1

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-WatPDExh. 4/96
Lab Number: H2490-4

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-4	Method Blank	QC	%IA	True Value QC
31	Toluene	1.0	<0.2	<0.2	0.099	99	0.100
32	1,1,2-Trichloroethane	1.0	<0.2	<0.2	0.104	104	0.100
33	1,3-Dichloropropane	1.0	<0.2	<0.2	0.105	105	0.100
34	2-Hexanone	1.0	<0.2	<0.2	0.103	103	0.100
35	Dibromochloromethane	1.0	<0.2	<0.2	0.103	103	0.100
36	1,2-Dibromoethane	1.0	<0.2	<0.2	0.106	106	0.100
37	Tetrachloroethene	1.0	0.5	<0.2	0.096	96	0.100
38	Chlorobenzene	1.0	<0.2	<0.2	0.102	102	0.100
39	1,1,1,2-Tetrachloroethane	1.0	<0.2	<0.2	0.095	95	0.100
40	Ethylbenzene	1.0	<0.2	<0.2	0.098	98	0.100
41	m, p - Xylene	2.0	<0.4	<0.2	0.189	94	0.200
42	Bromoform	1.0	<0.2	<0.2	0.105	105	0.100
43	Styrene	1.0	<0.2	<0.2	0.092	92	0.100
44	o-Xylene	1.0	<0.2	<0.2	0.101	101	0.100
45	1,1,2,2-Tetrachloroethane	1.0	<0.2	<0.2	0.106	106	0.100
46	1,2,3-Trichloropropane	1.0	<0.2	<0.2	0.113	113	0.100
47	Isopropylbenzene	1.0	<0.2	<0.2	0.092	92	0.100
48	Bromobenzene	1.0	<0.2	<0.2	0.101	101	0.100
49	2-Chlorotoluene	1.0	<0.2	<0.2	0.101	101	0.100
50	n-propylbenzene	1.0	<0.2	<0.2	0.098	98	0.100
51	4-Chlorotoluene	1.0	<0.2	<0.2	0.101	101	0.100
52	1,3,5-Trimethylbenzene	1.0	<0.2	<0.2	0.094	94	0.100
53	tert-Butylbenzene	1.0	<0.2	<0.2	0.092	92	0.100
54	1,2,4-Trimethylbenzene	1.0	<0.2	<0.2	0.094	94	0.100
55	1,3-Dichlorobenzene	1.0	<0.2	<0.2	0.098	98	0.100
56	sec-Butylbenzene	1.0	<0.2	<0.2	0.093	93	0.100
57	1,4 Dichlorobenzene	1.0	<0.2	<0.2	0.086	86	0.100
58	4-Isopropyltoluene	1.0	<0.2	<0.2	0.092	92	0.100
59	1,2-Dichlorobenzene	1.0	<0.2	<0.2	0.096	96	0.100
60	n-Butylbenzene	1.0	<0.2	<0.2	0.098	98	0.100

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

UNIT 1

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-WatPDExh. 4/96
Lab Number: H2490-4

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-4	Method Blank	QC	%IA	True Value QC
61	1,2-dibromo-3-chloropropane	1.0	<0.2	<0.2	0.110	110	0.100
62	1,2,4-Trichlorobenzene	1.0	<0.2	<0.2	0.087	87	0.100
63	Naphthalene	1.0	<0.2	<0.2	0.097	97	0.100
64	1,2,3-Trichlorobenzene	1.0	<0.2	<0.2	0.091	91	0.100
65	Hexachlorobutadiene	1.0	<0.2	<0.2	0.092	92	0.100
66	2-Chloroethoxyethene	1.0	<0.2	<0.2	0.094	94	0.100
67	Methyl iodide	1.0	<0.2	<0.2	0.093	93	0.100

		% Recovery	Relative Percent Difference
68	Dibromofluoromethane	116	5
69	Toluene-D8	97	12
70	4-Bromofluorobenzene	92	8

METHODS: EPA SW-846-8260

Burgess J. A. Cooke, Ph. D.

4/17/96
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
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ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

UNIT 2

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-ACDKINPT. 4/96
Lab Number: H2490-5

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-5	Method Blank	QC	%IA	True Value QC
1	Dichlorodifluoromethane	1.0	<0.2	<0.2	0.086	86	0.100
2	Chloromethane	1.0	<0.2	<0.2	0.085	85	0.100
3	Vinyl chloride	1.0	<0.2	<0.2	0.092	92	0.100
4	Bromomethane	1.0	<0.2	<0.2	0.088	88	0.100
5	Chloroethane	1.0	<0.2	<0.2	0.094	94	0.100
6	Acetone	1.0	<0.2	<0.2	0.107	107	0.100
7	1,1-Dichloroethene	1.0	1.9	<0.2	0.083	83	0.100
8	Trichlorofluoromethane	1.0	<0.2	<0.2	0.088	88	0.100
9	Carbon Disulfide	1.0	2.2	1.2	0.091	91	0.100
10	Methylene chloride	1.0	1.1	0.6	0.100	100	0.100
11	trans-1,2-Dichloroethene	1.0	<0.2	<0.2	0.098	98	0.100
12	1,1-Dichloroethane	1.0	0.6	<0.2	0.080	80	0.100
13	Vinyl Acetate	1.0	<0.2	<0.2	0.111	111	0.100
14	2-Butanone	1.0	<0.2	<0.2	0.094	94	0.100
15	cis-1,2-Dichloroethene	1.0	<0.2	<0.2	0.082	82	0.100
16	2,2-Dichloropropane	1.0	<0.2	<0.2	0.084	84	0.100
17	Chloroform	1.0	0.4	0.5	0.096	96	0.100
18	Bromochloromethane	1.0	<0.2	<0.2	0.101	101	0.100
19	1,1,1-Trichloroethane	1.0	5.5	<0.2	0.089	89	0.100
20	1,2-Dichloroethane	1.0	<0.2	<0.2	0.103	103	0.100
21	1,1-Dichloropropene	1.0	<0.2	<0.2	0.096	96	0.100
22	Benzene	1.0	0.7	<0.2	0.099	99	0.100
23	Carbon tetrachloride	1.0	<0.2	<0.2	0.089	89	0.100
24	Trichloroethene	1.0	0.3	<0.2	0.095	95	0.100
25	Dibromomethane	1.0	<0.2	<0.2	0.109	109	0.100
26	Bromodichloromethane	1.0	<0.2	<0.2	0.100	100	0.100
27	trans-1,3-Dichloropropene	1.0	<0.2	<0.2	0.102	102	0.100
28	4-methyl-2-pentanone	1.0	<0.2	<0.2	0.101	101	0.100
29	1,2-Dichloropropane	1.0	<0.2	<0.2	0.105	105	0.100
30	cis-1,3-Dichloropropene	1.0	<0.2	<0.2	0.102	102	0.100

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
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ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-ACDKINPT. 4/96
Lab Number: H2490-5

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-5	Method Blank	QC	%IA	True Value QC
31	Toluene	1.0	17.7	<0.2	0.099	99	0.100
32	1,1,2-Trichloroethane	1.0	<0.2	<0.2	0.104	104	0.100
33	1,3-Dichloropropane	1.0	<0.2	<0.2	0.105	105	0.100
34	2-Hexanone	1.0	<0.2	<0.2	0.103	103	0.100
35	Dibromochloromethane	1.0	<0.2	<0.2	0.103	103	0.100
36	1,2-Dibromoethane	1.0	<0.2	<0.2	0.106	106	0.100
37	Tetrachloroethene	1.0	19.0	<0.2	0.096	96	0.100
38	Chlorobenzene	1.0	<0.2	<0.2	0.102	102	0.100
39	1,1,1,2-Tetrachloroethane	1.0	<0.2	<0.2	0.095	95	0.100
40	Ethylbenzene	1.0	5.6	<0.2	0.098	98	0.100
41	m, p - Xylene	2.0	19.8	<0.2	0.189	94	0.200
42	Bromoform	1.0	<0.2	<0.2	0.105	105	0.100
43	Styrene	1.0	<0.2	<0.2	0.092	92	0.100
44	o-Xylene	1.0	10.5	<0.2	0.101	101	0.100
45	1,1,2,2-Tetrachloroethane	1.0	<0.2	<0.2	0.106	106	0.100
46	1,2,3-Trichloropropane	1.0	<0.2	<0.2	0.113	113	0.100
47	Isopropylbenzene	1.0	1.6	<0.2	0.092	92	0.100
48	Bromobenzene	1.0	<0.2	<0.2	0.101	101	0.100
49	2-Chlorotoluene	1.0	<0.2	<0.2	0.101	101	0.100
50	n-propylbenzene	1.0	2.2	<0.2	0.098	98	0.100
51	4-Chlorotoluene	1.0	<0.2	<0.2	0.101	101	0.100
52	1,3,5-Trimethylbenzene	1.0	2.1	<0.2	0.094	94	0.100
53	tert-Butylbenzene	1.0	<0.2	<0.2	0.092	92	0.100
54	1,2,4-Trimethylbenzene	1.0	4.3	<0.2	0.094	94	0.100
55	1,3-Dichlorobenzene	1.0	<0.2	<0.2	0.098	98	0.100
56	sec-Butylbenzene	1.0	0.3	<0.2	0.093	93	0.100
57	1,4 Dichlorobenzene	1.0	<0.2	<0.2	0.086	86	0.100
58	4-Isopropyltoluene	1.0	0.3	<0.2	0.092	92	0.100
59	1,2-Dichlorobenzene	1.0	<0.2	<0.2	0.096	96	0.100
60	n-Butylbenzene	1.0	<0.2	<0.2	0.098	98	0.100

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

UNIT 2

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-ACDKINPT. 4/96
Lab Number: H2490-5

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-5	Method Blank	QC	%IA	True Value QC
61	1,2-dibromo-3-chloropropane	1.0	<0.2	<0.2	0.110	110	0.100
62	1,2,4-Trichlorobenzene	1.0	<0.2	<0.2	0.087	87	0.100
63	Naphthalene	1.0	<0.2	<0.2	0.097	97	0.100
64	1,2,3-Trichlorobenzene	1.0	<0.2	<0.2	0.091	91	0.100
65	Hexachlorobutadiene	1.0	<0.2	<0.2	0.092	92	0.100
66	2-Chloroethoxyethene	1.0	<0.2	<0.2	0.094	94	0.100
67	Methyl iodide	1.0	<0.2	<0.2	0.093	93	0.100

		% Recovery	Relative Percent Difference
68	Dibromofluoromethane	87	5
69	Toluene-D8	91	12
70	4-Bromofluorobenzene	94	8

METHODS: EPA SW-846-8260

Burgess J. A. Cooke, Ph. D.

4/17/96
Date

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

UNIT 2

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-ACDKExh. 4/96
Lab Number: H2490-6

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-6	Method Blank	QC	%IA	True Value QC
1	Dichlorodifluoromethane	1.0	<0.2	<0.2	0.086	86	0.100
2	Chloromethane	1.0	<0.2	<0.2	0.085	85	0.100
3	Vinyl chloride	1.0	<0.2	<0.2	0.092	92	0.100
4	Bromomethane	1.0	<0.2	<0.2	0.088	88	0.100
5	Chloroethane	1.0	<0.2	<0.2	0.094	94	0.100
6	Acetone	1.0	<0.2	<0.2	0.107	107	0.100
7	1,1-Dichloroethene	1.0	<0.2	<0.2	0.083	83	0.100
8	Trichlorofluoromethane	1.0	<0.2	<0.2	0.088	88	0.100
9	Carbon Disulfide	1.0	1.4	1.2	0.091	91	0.100
10	Methylene chloride	1.0	1.2	0.6	0.100	100	0.100
11	trans-1,2-Dichloroethene	1.0	<0.2	<0.2	0.098	98	0.100
12	1,1-Dichloroethane	1.0	<0.2	<0.2	0.080	80	0.100
13	Vinyl Acetate	1.0	<0.2	<0.2	0.111	111	0.100
14	2-Butanone	1.0	<0.2	<0.2	0.094	94	0.100
15	cis-1,2-Dichloroethene	1.0	<0.2	<0.2	0.082	82	0.100
16	2,2-Dichloropropane	1.0	<0.2	<0.2	0.084	84	0.100
17	Chloroform	1.0	0.6	0.5	0.096	96	0.100
18	Bromochloromethane	1.0	<0.2	<0.2	0.101	101	0.100
19	1,1,1-Trichloroethane	1.0	<0.2	<0.2	0.089	89	0.100
20	1,2-Dichloroethane	1.0	<0.2	<0.2	0.103	103	0.100
21	1,1-Dichloropropene	1.0	<0.2	<0.2	0.096	96	0.100
22	Benzene	1.0	<0.2	<0.2	0.099	99	0.100
23	Carbon tetrachloride	1.0	<0.2	<0.2	0.089	89	0.100
24	Trichloroethene	1.0	<0.2	<0.2	0.095	95	0.100
25	Dibromomethane	1.0	<0.2	<0.2	0.109	109	0.100
26	Bromodichloromethane	1.0	<0.2	<0.2	0.100	100	0.100
27	trans-1,3-Dichloropropene	1.0	<0.2	<0.2	0.102	102	0.100
28	4-methyl-2-pentanone	1.0	<0.2	<0.2	0.101	101	0.100
29	1,2-Dichloropropane	1.0	<0.2	<0.2	0.105	105	0.100
30	cis-1,3-Dichloropropene	1.0	<0.2	<0.2	0.102	102	0.100

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

UNIT 2

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-ACDKExh. 4/96
Lab Number: H2490-6

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-6	Method Blank	QC	%IA	True Value QC
31	Toluene	1.0	<0.2	<0.2	0.099	99	0.100
32	1,1,2-Trichloroethane	1.0	<0.2	<0.2	0.104	104	0.100
33	1,3-Dichloropropane	1.0	<0.2	<0.2	0.105	105	0.100
34	2-Hexanone	1.0	<0.2	<0.2	0.103	103	0.100
35	Dibromochloromethane	1.0	<0.2	<0.2	0.103	103	0.100
36	1,2-Dibromoethane	1.0	<0.2	<0.2	0.106	106	0.100
37	Tetrachloroethene	1.0	<0.2	<0.2	0.096	96	0.100
38	Chlorobenzene	1.0	<0.2	<0.2	0.102	102	0.100
39	1,1,1,2-Tetrachloroethane	1.0	<0.2	<0.2	0.095	95	0.100
40	Ethylbenzene	1.0	<0.2	<0.2	0.098	98	0.100
41	m, p - Xylene	2.0	<0.4	<0.2	0.189	94	0.200
42	Bromoform	1.0	<0.2	<0.2	0.105	105	0.100
43	Styrene	1.0	<0.2	<0.2	0.092	92	0.100
44	o-Xylene	1.0	<0.2	<0.2	0.101	101	0.100
45	1,1,2,2-Tetrachloroethane	1.0	<0.2	<0.2	0.106	106	0.100
46	1,2,3-Trichloropropane	1.0	<0.2	<0.2	0.113	113	0.100
47	Isopropylbenzene	1.0	<0.2	<0.2	0.092	92	0.100
48	Bromobenzene	1.0	<0.2	<0.2	0.101	101	0.100
49	2-Chlorotoluene	1.0	<0.2	<0.2	0.101	101	0.100
50	n-propylbenzene	1.0	<0.2	<0.2	0.098	98	0.100
51	4-Chlorotoluene	1.0	<0.2	<0.2	0.101	101	0.100
52	1,3,5-Trimethylbenzene	1.0	<0.2	<0.2	0.094	94	0.100
53	tert-Butylbenzene	1.0	<0.2	<0.2	0.092	92	0.100
54	1,2,4-Trimethylbenzene	1.0	<0.2	<0.2	0.094	94	0.100
55	1,3-Dichlorobenzene	1.0	<0.2	<0.2	0.098	98	0.100
56	sec-Butylbenzene	1.0	<0.2	<0.2	0.093	93	0.100
57	1,4 Dichlorobenzene	1.0	<0.2	<0.2	0.086	86	0.100
58	4-Isopropyltoluene	1.0	<0.2	<0.2	0.092	92	0.100
59	1,2-Dichlorobenzene	1.0	<0.2	<0.2	0.096	96	0.100
60	n-Butylbenzene	1.0	<0.2	<0.2	0.098	98	0.100

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

UNIT 2

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-ACDKExh. 4/96
Lab Number: H2490-6

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-6	Method Blank	QC	%IA	True Value QC
61	1,2-dibromo-3-chloropropane	1.0	<0.2	<0.2	0.110	110	0.100
62	1,2,4-Trichlorobenzene	1.0	<0.2	<0.2	0.087	87	0.100
63	Naphthalene	1.0	<0.2	<0.2	0.097	97	0.100
64	1,2,3-Trichlorobenzene	1.0	<0.2	<0.2	0.091	91	0.100
65	Hexachlorobutadiene	1.0	<0.2	<0.2	0.092	92	0.100
66	2-Chloroethoxyethene	1.0	<0.2	<0.2	0.094	94	0.100
67	Methyl iodide	1.0	<0.2	<0.2	0.093	93	0.100

		% Recovery	Relative Percent Difference
68	Dibromofluoromethane	103	5
69	Toluene-D8	99	12
70	4-Bromofluorobenzene	97	8

METHODS: EPA SW-846-8260

Burgess J. A. Cooke, Ph. D.

4/17/96
Date

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

Unit 3

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-TKShpInpt 4/96
Lab Number: H2490-1

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-1	Method Blank	QC	%IA	True Value QC
1	Dichlorodifluoromethane	1.0	<0.2	<0.2	0.086	86	0.100
2	Chloromethane	1.0	<0.2	<0.2	0.085	85	0.100
3	Vinyl chloride	1.0	<0.2	<0.2	0.092	92	0.100
4	Bromomethane	1.0	<0.2	<0.2	0.088	88	0.100
5	Chloroethane	1.0	<0.2	<0.2	0.094	94	0.100
6	Acetone	1.0	<0.2	<0.2	0.107	107	0.100
7	1,1-Dichloroethene	1.0	99.4	<0.2	0.083	83	0.100
8	Trichlorofluoromethane	1.0	<0.2	<0.2	0.088	88	0.100
9	Carbon Disulfide	1.0	1.5	1.2	0.091	91	0.100
10	Methylene chloride	1.0	0.9	0.6	0.100	100	0.100
11	trans-1,2-Dichloroethene	1.0	<0.2	<0.2	0.098	98	0.100
12	1,1-Dichloroethane	1.0	<0.2	<0.2	0.080	80	0.100
13	Vinyl Acetate	1.0	<0.2	<0.2	0.111	111	0.100
14	2-Butanone	1.0	<0.2	<0.2	0.094	94	0.100
15	cis-1,2-Dichloroethene	1.0	<0.2	<0.2	0.082	82	0.100
16	2,2-Dichloropropane	1.0	<0.2	<0.2	0.084	84	0.100
17	Chloroform	1.0	1.7	0.5	0.096	96	0.100
18	Bromochloromethane	1.0	<0.2	<0.2	0.101	101	0.100
19	1,1,1-Trichloroethane	1.0	254.0	<0.2	0.089	89	0.100
20	1,2-Dichloroethane	1.0	<0.2	<0.2	0.103	103	0.100
21	1,1-Dichloropropene	1.0	<0.2	<0.2	0.096	96	0.100
22	Benzene	1.0	<0.2	<0.2	0.099	99	0.100
23	Carbon tetrachloride	1.0	<0.2	<0.2	0.089	89	0.100
24	Trichloroethene	1.0	1.0	<0.2	0.095	95	0.100
25	Dibromomethane	1.0	<0.2	<0.2	0.109	109	0.100
26	Bromodichloromethane	1.0	<0.2	<0.2	0.100	100	0.100
27	trans-1,3-Dichloropropene	1.0	<0.2	<0.2	0.102	102	0.100
28	4-methyl-2-pentanone	1.0	<0.2	<0.2	0.101	101	0.100
29	1,2-Dichloropropane	1.0	<0.2	<0.2	0.105	105	0.100
30	cis-1,3-Dichloropropene	1.0	<0.2	<0.2	0.102	102	0.100

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

UNIT 3

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-TKShpInpt 4/96
Lab Number: H2490-1

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-1	Method Blank	QC	%IA	True Value QC
31	Toluene	1.0	0.9	<0.2	0.099	99	0.100
32	1,1,2-Trichloroethane	1.0	0.2	<0.2	0.104	104	0.100
33	1,3-Dichloropropane	1.0	<0.2	<0.2	0.105	105	0.100
34	2-Hexanone	1.0	<0.2	<0.2	0.103	103	0.100
35	Dibromochloromethane	1.0	<0.2	<0.2	0.103	103	0.100
36	1,2-Dibromoethane	1.0	<0.2	<0.2	0.106	106	0.100
37	Tetrachloroethene	1.0	611	<0.2	0.096	96	0.100
38	Chlorobenzene	1.0	<0.2	<0.2	0.102	102	0.100
39	1,1,1,2-Tetrachloroethane	1.0	<0.2	<0.2	0.095	95	0.100
40	Ethylbenzene	1.0	0.5	<0.2	0.098	98	0.100
41	m, p - Xylene	2.0	2.5	<0.2	0.189	94	0.200
42	Bromoform	1.0	<0.2	<0.2	0.105	105	0.100
43	Styrene	1.0	<0.2	<0.2	0.092	92	0.100
44	o-Xylene	1.0	0.9	<0.2	0.101	101	0.100
45	1,1,2,2-Tetrachloroethane	1.0	<0.2	<0.2	0.106	106	0.100
46	1,2,3-Trichloropropane	1.0	<0.2	<0.2	0.113	113	0.100
47	Isopropylbenzene	1.0	<0.2	<0.2	0.092	92	0.100
48	Bromobenzene	1.0	<0.2	<0.2	0.101	101	0.100
49	2-Chlorotoluene	1.0	<0.2	<0.2	0.101	101	0.100
50	n-propylbenzene	1.0	<0.2	<0.2	0.098	98	0.100
51	4-Chlorotoluene	1.0	<0.2	<0.2	0.101	101	0.100
52	1,3,5-Trimethylbenzene	1.0	0.2	<0.2	0.094	94	0.100
53	tert-Butylbenzene	1.0	<0.2	<0.2	0.092	92	0.100
54	1,2,4-Trimethylbenzene	1.0	0.6	<0.2	0.094	94	0.100
55	1,3-Dichlorobenzene	1.0	<0.2	<0.2	0.098	98	0.100
56	sec-Butylbenzene	1.0	<0.2	<0.2	0.093	93	0.100
57	1,4 Dichlorobenzene	1.0	<0.2	<0.2	0.086	86	0.100
58	4-Isopropyltoluene	1.0	<0.2	<0.2	0.092	92	0.100
59	1,2-Dichlorobenzene	1.0	<0.2	<0.2	0.096	96	0.100
60	n-Butylbenzene	1.0	<0.2	<0.2	0.098	98	0.100

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

Unit 3

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-TKShpInpt 4/96
Lab Number: H2490-1

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-1	Method Blank	QC	%IA	True Value QC
61	1,2-dibromo-3-chloropropane	1.0	<0.2	<0.2	0.110	110	0.100
62	1,2,4-Trichlorobenzene	1.0	<0.2	<0.2	0.087	87	0.100
63	Naphthalene	1.0	<0.2	<0.2	0.097	97	0.100
64	1,2,3-Trichlorobenzene	1.0	<0.2	<0.2	0.091	91	0.100
65	Hexachlorobutadiene	1.0	<0.2	<0.2	0.092	92	0.100
66	2-Chloroethoxyethene	1.0	<0.2	<0.2	0.094	94	0.100
67	Methyl iodide	1.0	<0.2	<0.2	0.093	93	0.100

		% Recovery	Relative Percent Difference
68	Dibromofluoromethane	96	5
69	Toluene-D8	102	12
70	4-Bromofluorobenzene	100	8

METHODS: EPA SW-846-8260

Burgess J. A. Cooke, Ph. D.

4/17/96
Date

CARDINAL LABORATORIES

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

UNIT 3

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-TKShpExh. 4/96
Lab Number: H2490-2

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

	VOLATILES - 8260 (mg/m3)	Detection Limit	Sample Result H2490-2	Method Blank	QC	%IA	True Value QC
1	Dichlorodifluoromethane	1.0	<0.2	<0.2	0.086	86	0.100
2	Chloromethane	1.0	10.1	<0.2	0.085	85	0.100
3	Vinyl chloride	1.0	6.8	<0.2	0.092	92	0.100
4	Bromomethane	1.0	<0.2	<0.2	0.088	88	0.100
5	Chloroethane	1.0	<0.2	<0.2	0.094	94	0.100
6	Acetone	1.0	<0.2	<0.2	0.107	107	0.100
7	1,1-Dichloroethene	1.0	0.9	<0.2	0.083	83	0.100
8	Trichlorofluoromethane	1.0	<0.2	<0.2	0.088	88	0.100
9	Carbon Disulfide	1.0	1.8	1.2	0.091	91	0.100
10	Methylene chloride	1.0	1.2	0.6	0.100	100	0.100
11	trans-1,2-Dichloroethene	1.0	<0.2	<0.2	0.098	98	0.100
12	1,1-Dichloroethane	1.0	<0.2	<0.2	0.080	80	0.100
13	Vinyl Acetate	1.0	<0.2	<0.2	0.111	111	0.100
14	2-Butanone	1.0	<0.2	<0.2	0.094	94	0.100
15	cis-1,2-Dichloroethene	1.0	<0.2	<0.2	0.082	82	0.100
16	2,2-Dichloropropane	1.0	<0.2	<0.2	0.084	84	0.100
17	Chloroform	1.0	0.4	0.5	0.096	96	0.100
18	Bromochloromethane	1.0	<0.2	<0.2	0.101	101	0.100
19	1,1,1-Trichloroethane	1.0	<0.2	<0.2	0.089	89	0.100
20	1,2-Dichloroethane	1.0	<0.2	<0.2	0.103	103	0.100
21	1,1-Dichloropropene	1.0	<0.2	<0.2	0.096	96	0.100
22	Benzene	1.0	0.6	<0.2	0.099	99	0.100
23	Carbon tetrachloride	1.0	<0.2	<0.2	0.089	89	0.100
24	Trichloroethene	1.0	0.4	<0.2	0.095	95	0.100
25	Dibromomethane	1.0	<0.2	<0.2	0.109	109	0.100
26	Bromodichloromethane	1.0	<0.2	<0.2	0.100	100	0.100
27	trans-1,3-Dichloropropene	1.0	<0.2	<0.2	0.102	102	0.100
28	4-methyl-2-pentanone	1.0	<0.2	<0.2	0.101	101	0.100
29	1,2-Dichloropropane	1.0	<0.2	<0.2	0.105	105	0.100
30	cis-1,3-Dichloropropene	1.0	<0.2	<0.2	0.102	102	0.100

CARDINAL LABORATORIES

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

Unit 3

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-TKShpExh. 4/96
Lab Number: H2490-2

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-2	Method Blank	QC	%IA	True Value QC
31	Toluene	1.0	<0.2	<0.2	0.099	99	0.100
32	1,1,2-Trichloroethane	1.0	<0.2	<0.2	0.104	104	0.100
33	1,3-Dichloropropane	1.0	<0.2	<0.2	0.105	105	0.100
34	2-Hexanone	1.0	<0.2	<0.2	0.103	103	0.100
35	Dibromochloromethane	1.0	<0.2	<0.2	0.103	103	0.100
36	1,2-Dibromoethane	1.0	<0.2	<0.2	0.106	106	0.100
37	Tetrachloroethene	1.0	8.5	<0.2	0.096	96	0.100
38	Chlorobenzene	1.0	<0.2	<0.2	0.102	102	0.100
39	1,1,1,2-Tetrachloroethane	1.0	<0.2	<0.2	0.095	95	0.100
40	Ethylbenzene	1.0	<0.2	<0.2	0.098	98	0.100
41	m, p - Xylene	2.0	<0.4	<0.2	0.189	94	0.200
42	Bromoform	1.0	<0.2	<0.2	0.105	105	0.100
43	Styrene	1.0	<0.2	<0.2	0.092	92	0.100
44	o-Xylene	1.0	<0.2	<0.2	0.101	101	0.100
45	1,1,2,2-Tetrachloroethane	1.0	<0.2	<0.2	0.106	106	0.100
46	1,2,3-Trichloropropane	1.0	<0.2	<0.2	0.113	113	0.100
47	Isopropylbenzene	1.0	<0.2	<0.2	0.092	92	0.100
48	Bromobenzene	1.0	<0.2	<0.2	0.101	101	0.100
49	2-Chlorotoluene	1.0	<0.2	<0.2	0.101	101	0.100
50	n-propylbenzene	1.0	<0.2	<0.2	0.098	98	0.100
51	4-Chlorotoluene	1.0	<0.2	<0.2	0.101	101	0.100
52	1,3,5-Trimethylbenzene	1.0	<0.2	<0.2	0.094	94	0.100
53	tert-Butylbenzene	1.0	<0.2	<0.2	0.092	92	0.100
54	1,2,4-Trimethylbenzene	1.0	<0.2	<0.2	0.094	94	0.100
55	1,3-Dichlorobenzene	1.0	<0.2	<0.2	0.098	98	0.100
56	sec-Butylbenzene	1.0	<0.2	<0.2	0.093	93	0.100
57	1,4 Dichlorobenzene	1.0	<0.2	<0.2	0.086	86	0.100
58	4-Isopropyltoluene	1.0	<0.2	<0.2	0.092	92	0.100
59	1,2-Dichlorobenzene	1.0	<0.2	<0.2	0.096	96	0.100
60	n-Butylbenzene	1.0	<0.2	<0.2	0.098	98	0.100

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: RICK DENELL
611 SKYLINE RD.
LARAMIE WYOMING
FAX TO:

UNIT 3

Receiving Date: 04/11/96
Reporting Date: 04/17/96
Project Number: 93007L-96
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Sample ID: 93007-TKShpExh. 4/96
Lab Number: H2490-2

Analysis Date: 04/15/96
Sampling Date: 04/11/96
Sample Type: AIRBAG
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES - 8260 (mg/m3)		Detection Limit	Sample Result H2490-2	Method Blank	QC	%IA	True Value QC
61	1,2-dibromo-3-chloropropane	1.0	<0.2	<0.2	0.110	110	0.100
62	1,2,4-Trichlorobenzene	1.0	<0.2	<0.2	0.087	87	0.100
63	Naphthalene	1.0	<0.2	<0.2	0.097	97	0.100
64	1,2,3-Trichlorobenzene	1.0	<0.2	<0.2	0.091	91	0.100
65	Hexachlorobutadiene	1.0	<0.2	<0.2	0.092	92	0.100
66	2-Chloroethoxyethene	1.0	<0.2	<0.2	0.094	94	0.100
67	Methyl iodide	1.0	<0.2	<0.2	0.093	93	0.100

		% Recovery	Relative Percent Difference
68	Dibromofluoromethane	80	5
69	Toluene-D8	97	12
70	4-Bromofluorobenzene	92	8

METHODS: EPA SW-846-8260

Burgess J. A. Cooke, Ph. D.

4/17/96
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-1
Sample ID: 93007TSEXHST.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

VOLATILES - 8260 (mg/M3; ppb)		Detection Limit	Sample Result H2585-1	Method Blank
1	Dichlorodifluoromethane	0.50	<0.50	<0.50
2	Chloromethane	0.50	6.60	<0.50
3	Vinyl chloride	0.50	2.20	<0.50
4	Bromomethane	0.50	<0.50	<0.50
5	Chloroethane	0.50	<0.50	<0.50
6	1,1-Dichloroethene	0.30	1.30	<0.30
7	Trichlorofluoromethane	0.50	<0.50	<0.50
8	Methylene chloride	0.30	0.40	<0.30
9	trans-1,2-Dichloroethene	0.30	<0.30	<0.30
10	1,1-Dichloroethane	0.30	<0.30	<0.30
11	cis-1,2-Dichloroethene	0.30	<0.30	<0.30
12	2,2-Dichloropropane	0.30	<0.30	<0.30
13	Chloroform	0.30	<0.30	<0.30
14	Bromochloromethane	0.30	<0.30	<0.30
15	1,1,1-Trichloroethane	0.30	<0.30	<0.30
16	1,2-Dichloroethane	0.30	<0.30	<0.30
17	1,1-Dichloropropene	0.30	<0.30	<0.30
18	Benzene	0.30	0.40	<0.30
19	Carbon tetrachloride	0.30	<0.30	<0.30
20	Trichloroethene	0.30	<0.30	<0.30
21	Dibromomethane	0.30	<0.30	<0.30
22	Bromodichloromethane	0.30	<0.30	<0.30
23	trans-1,3-Dichloropropene	0.30	<0.30	<0.30
24	1,2-Dichloropropane	0.30	<0.30	<0.30
25	cis-1,3-Dichloropropene	0.30	<0.30	<0.30
26	Toluene	0.30	<0.30	<0.30
27	1,1,2-Trichloroethane	0.30	<0.30	<0.30
28	1,3-Dichloropropane	0.30	<0.30	<0.30
29	Dibromochloromethane	0.30	<0.30	<0.30
30	1,2-Dibromoethane	0.30	<0.30	<0.30
31	Tetrachloroethene	0.30	2.80	<0.30

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-1
Sample ID: 93007TSEXHST.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

	VOLATILES - 8260 (mg/M3; ppb)	Detection Limit	Sample Result H2585-1	Method Blank
32	Chlorobenzene	0.30	<0.30	<0.30
33	1,1,1,2-Tetrachloroethane	0.30	<0.30	<0.30
34	Ethylbenzene	0.30	<0.30	<0.30
35	m, p - Xylene	0.60	<0.60	<0.60
36	Bromoform	0.30	<0.30	<0.30
37	Styrene	0.30	<0.30	<0.30
38	o-Xylene	0.30	<0.30	<0.30
39	1,1,2,2-Tetrachloroethane	0.30	<0.30	<0.30
40	1,2,3-Trichloropropane	0.30	<0.30	<0.30
41	Isopropylbenzene	0.30	<0.30	<0.30
42	Bromobenzene	0.30	<0.30	<0.30
43	2-Chlorotoluene	0.30	<0.30	<0.30
44	n-propylbenzene	0.30	<0.30	<0.30
45	4-Chlorotoluene	0.30	<0.30	<0.30
46	1,3,5-Trimethylbenzene	0.30	<0.30	<0.30
47	tert-Butylbenzene	0.30	<0.30	<0.30
48	1,2,4-Trimethylbenzene	0.30	<0.30	<0.30
49	1,3-Dichlorobenzene	0.30	<0.30	<0.30
50	sec-Butylbenzene	0.30	<0.30	<0.30
51	1,4 Dichlorobenzene	0.30	<0.30	<0.30
52	4-Isopropyltoluene	0.30	<0.30	<0.30
53	1,2-Dichlorobenzene	0.30	<0.30	<0.30
54	n-Butylbenzene	0.30	<0.30	<0.30
56	1,2-dibromo-3-chloropropane	0.30	<0.30	<0.30
57	1,2,4-Trichlorobenzene	0.30	<0.30	<0.30
58	Naphthalene	0.30	<0.30	<0.30
59	1,2,3-Trichlorobenzene	0.30	<0.30	<0.30

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-1
Sample ID: 93007TSEXHST.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

VOLATILES - 8260 (mg/M3; ppb)	Detection Limit	Sample Result H2585-1	Method Blank
		% Recovery	Relative Percent Difference
Surrogates			
60 Fluorobenzene		100	NA
61 Toluene-D8		104	NA
62 4-Bromofluorobenzene		101	NA
Matrix Spikes			
63 1,1-Dichloroethene		96	4
64 Benzene		100	2
65 Toluene		102	3
66 Trichloroethene		94	2
67 Chlorobenzene		106	2

METHODS: EPA SW-846-8260.

Burgess J.A. Cooke, Ph. D.

8/13/96
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-2
Sample ID: 93007TSINPUT.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

	VOLATILES - 8260 (mg/M3; ppb0	Detection Limit	Sample Result H2585-2	Method Blank
1	Dichlorodifluoromethane	0.50	<0.50	<0.50
2	Chloromethane	0.50	<0.50	<0.50
3	Vinyl chloride	0.50	<0.50	<0.50
4	Bromomethane	0.50	<0.50	<0.50
5	Chloroethane	0.50	<0.50	<0.50
6	1,1-Dichloroethene	0.30	47.1	<0.30
7	Trichlorofluoromethane	0.50	<0.50	<0.50
8	Methylene chloride	0.30	<0.30	<0.30
9	trans-1,2-Dichloroethene	0.30	<0.30	<0.30
10	1,1-Dichloroethane	0.30	4.80	<0.30
11	cis-1,2-Dichloroethene	0.30	<0.30	<0.30
12	2,2-Dichloropropane	0.30	<0.30	<0.30
13	Chloroform	0.30	0.60	<0.30
14	Bromochloromethane	0.30	<0.30	<0.30
15	1,1,1-Trichloroethane	0.30	<0.30	<0.30
16	1,2-Dichloroethane	0.30	<0.30	<0.30
17	1,1-Dichloropropene	0.30	<0.30	<0.30
18	Benzene	0.30	<0.30	<0.30
19	Carbon tetrachloride	0.30	<0.30	<0.30
20	Trichloroethene	0.30	0.50	<0.30
21	Dibromomethane	0.30	<0.30	<0.30
22	Bromodichloromethane	0.30	<0.30	<0.30
23	trans-1,3-Dichloropropene	0.30	<0.30	<0.30
24	1,2-Dichloropropane	0.30	<0.30	<0.30
25	cis-1,3-Dichloropropene	0.30	<0.30	<0.30
26	Toluene	0.30	<0.30	<0.30
27	1,1,2-Trichloroethane	0.30	<0.30	<0.30
28	1,3-Dichloropropane	0.30	<0.30	<0.30
29	Dibromochloromethane	0.30	<0.30	<0.30
30	1,2-Dibromoethane	0.30	<0.30	<0.30
31	Tetrachloroethene	0.30	46.2	<0.30

CARDINAL LABORATORIES

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ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-2
Sample ID: 93007TSINPUT.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

VOLATILES - 8260 (mg/M3; ppb0		Detection Limit	Sample Result H2585-2	Method Blank
32	Chlorobenzene	0.30	<0.30	<0.30
33	1,1,1,2-Tetrachloroethane	0.30	<0.30	<0.30
34	Ethylbenzene	0.30	<0.30	<0.30
35	m, p - Xylene	0.60	<0.60	<0.60
36	Bromoform	0.30	<0.30	<0.30
37	Styrene	0.30	<0.30	<0.30
38	o-Xylene	0.30	<0.30	<0.30
39	1,1,2,2-Tetrachloroethane	0.30	<0.30	<0.30
40	1,2,3-Trichloropropane	0.30	<0.30	<0.30
41	Isopropylbenzene	0.30	<0.30	<0.30
42	Bromobenzene	0.30	<0.30	<0.30
43	2-Chlorotoluene	0.30	<0.30	<0.30
44	n-propylbenzene	0.30	<0.30	<0.30
45	4-Chlorotoluene	0.30	<0.30	<0.30
46	1,3,5-Trimethylbenzene	0.30	<0.30	<0.30
47	tert-Butylbenzene	0.30	<0.30	<0.30
48	1,2,4-Trimethylbenzene	0.30	<0.30	<0.30
49	1,3-Dichlorobenzene	0.30	<0.30	<0.30
50	sec-Butylbenzene	0.30	<0.30	<0.30
51	1,4 Dichlorobenzene	0.30	<0.30	<0.30
52	4-Isopropyltoluene	0.30	<0.30	<0.30
53	1,2-Dichlorobenzene	0.30	<0.30	<0.30
54	n-Butylbenzene	0.30	<0.30	<0.30
56	1,2-dibromo-3-chloropropane	0.30	<0.30	<0.30
57	1,2,4-Trichlorobenzene	0.30	<0.30	<0.30
58	Naphthalene	0.30	<0.30	<0.30
59	1,2,3-Trichlorobenzene	0.30	<0.30	<0.30

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-2
Sample ID: 93007TSINPUT.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

VOLATILES - 8260 (mg/M3; ppb0	Detection Limit	Sample Result H2585-2	Method Blank
		% Recovery	Relative Percent Difference
Surrogates			
60 Fluorobenzene		99	NA
61 Toluene-D8		103	NA
62 4-Bromofluorobenzene		100	NA
Matrix Spikes			
63 1,1-Dichloroethene		96	4
64 Benzene		100	2
65 Toluene		102	3
66 Trichloroethene		94	2
67 Chlorobenzene		106	2

METHODS: EPA SW-846-8260.

Burgess J. A. Cooke, Ph. D.

8/13/96
Date

CARDINAL LABORATORIES

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ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-3
Sample ID: 93007WPEXHST.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

	VOLATILES - 8260 (mg/M3; ppb)	Detection Limit	Sample Result H2585-3	Method Blank
1	Dichlorodifluoromethane	0.50	<0.50	<0.50
2	Chloromethane	0.50	2.40	<0.50
3	Vinyl chloride	0.50	0.70	<0.50
4	Bromomethane	0.50	<0.50	<0.50
5	Chloroethane	0.50	<0.50	<0.50
6	1,1-Dichloroethene	0.30	<0.30	<0.30
7	Trichlorofluoromethane	0.50	<0.50	<0.50
8	Methylene chloride	0.30	<0.30	<0.30
9	trans-1,2-Dichloroethene	0.30	<0.30	<0.30
10	1,1-Dichloroethane	0.30	<0.30	<0.30
11	cis-1,2-Dichloroethene	0.30	<0.30	<0.30
12	2,2-Dichloropropane	0.30	<0.30	<0.30
13	Chloroform	0.30	<0.30	<0.30
14	Bromochloromethane	0.30	<0.30	<0.30
15	1,1,1-Trichloroethane	0.30	<0.30	<0.30
16	1,2-Dichloroethane	0.30	<0.30	<0.30
17	1,1-Dichloropropene	0.30	<0.30	<0.30
18	Benzene	0.30	<0.30	<0.30
19	Carbon tetrachloride	0.30	<0.30	<0.30
20	Trichloroethene	0.30	<0.30	<0.30
21	Dibromomethane	0.30	<0.30	<0.30
22	Bromodichloromethane	0.30	<0.30	<0.30
23	trans-1,3-Dichloropropene	0.30	<0.30	<0.30
24	1,2-Dichloropropane	0.30	<0.30	<0.30
25	cis-1,3-Dichloropropene	0.30	<0.30	<0.30
26	Toluene	0.30	<0.30	<0.30
27	1,1,2-Trichloroethane	0.30	<0.30	<0.30
28	1,3-Dichloropropane	0.30	<0.30	<0.30
29	Dibromochloromethane	0.30	<0.30	<0.30
30	1,2-Dibromoethane	0.30	<0.30	<0.30
31	Tetrachloroethene	0.30	0.60	<0.30

CARDINAL LABORATORIES

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ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-3
Sample ID: 93007WPEXHST.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

VOLATILES - 8260 (mg/M3; ppb)		Detection Limit	Sample Result H2585-3	Method Blank
32	Chlorobenzene	0.30	<0.30	<0.30
33	1,1,1,2-Tetrachloroethane	0.30	<0.30	<0.30
34	Ethylbenzene	0.30	<0.30	<0.30
35	m, p - Xylene	0.60	<0.60	<0.60
36	Bromoform	0.30	<0.30	<0.30
37	Styrene	0.30	<0.30	<0.30
38	o-Xylene	0.30	<0.30	<0.30
39	1,1,2,2-Tetrachloroethane	0.30	<0.30	<0.30
40	1,2,3-Trichloropropane	0.30	<0.30	<0.30
41	Isopropylbenzene	0.30	<0.30	<0.30
42	Bromobenzene	0.30	<0.30	<0.30
43	2-Chlorotoluene	0.30	<0.30	<0.30
44	n-propylbenzene	0.30	<0.30	<0.30
45	4-Chlorotoluene	0.30	<0.30	<0.30
46	1,3,5-Trimethylbenzene	0.30	<0.30	<0.30
47	tert-Butylbenzene	0.30	<0.30	<0.30
48	1,2,4-Trimethylbenzene	0.30	<0.30	<0.30
49	1,3-Dichlorobenzene	0.30	<0.30	<0.30
50	sec-Butylbenzene	0.30	<0.30	<0.30
51	1,4 Dichlorobenzene	0.30	<0.30	<0.30
52	4-Isopropyltoluene	0.30	<0.30	<0.30
53	1,2-Dichlorobenzene	0.30	<0.30	<0.30
54	n-Butylbenzene	0.30	<0.30	<0.30
56	1,2-dibromo-3-chloropropane	0.30	<0.30	<0.30
57	1,2,4-Trichlorobenzene	0.30	<0.30	<0.30
58	Naphthalene	0.30	<0.30	<0.30
59	1,2,3-Trichlorobenzene	0.30	<0.30	<0.30

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-3
Sample ID: 93007WPEXHST.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

VOLATILES - 8260 (mg/M3; ppb)	Detection Limit	Sample Result H2585-3	Method Blank
		% Recovery	Relative Percent Difference
Surrogates			
60 Fluorobenzene		99	NA
61 Toluene-D8		102	NA
62 4-Bromofluorobenzene		105	NA
Matrix Spikes			
63 1,1-Dichloroethene		96	4
64 Benzene		100	2
65 Toluene		102	3
66 Trichloroethene		94	2
67 Chlorobenzene		106	2

METHODS: EPA SW-846-8260.

Burgess J. A. Cooke, Ph. D.

8/13/96
Date

CARDINAL LABORATORIES

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ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-5
Sample ID: 93007ADEXHST.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

	VOLATILES - 8260 (mg/M3; ppb)	Detection Limit	Sample Result H2585-5	Method Blank
1	Dichlorodifluoromethane	0.50	<0.50	<0.50
2	Chloromethane	0.50	<0.50	<0.50
3	Vinyl chloride	0.50	<0.50	<0.50
4	Bromomethane	0.50	<0.50	<0.50
5	Chloroethane	0.50	<0.50	<0.50
6	1,1-Dichloroethene	0.30	<0.30	<0.30
7	Trichlorofluoromethane	0.50	<0.50	<0.50
8	Methylene chloride	0.30	<0.30	<0.30
9	trans-1,2-Dichloroethene	0.30	<0.30	<0.30
10	1,1-Dichloroethane	0.30	<0.30	<0.30
11	cis-1,2-Dichloroethene	0.30	<0.30	<0.30
12	2,2-Dichloropropane	0.30	<0.30	<0.30
13	Chloroform	0.30	<0.30	<0.30
14	Bromochloromethane	0.30	<0.30	<0.30
15	1,1,1-Trichloroethane	0.30	<0.30	<0.30
16	1,2-Dichloroethane	0.30	<0.30	<0.30
17	1,1-Dichloropropene	0.30	<0.30	<0.30
18	Benzene	0.30	<0.30	<0.30
19	Carbon tetrachloride	0.30	<0.30	<0.30
20	Trichloroethene	0.30	<0.30	<0.30
21	Dibromomethane	0.30	<0.30	<0.30
22	Bromodichloromethane	0.30	<0.30	<0.30
23	trans-1,3-Dichloropropene	0.30	<0.30	<0.30
24	1,2-Dichloropropane	0.30	<0.30	<0.30
25	cis-1,3-Dichloropropene	0.30	<0.30	<0.30
26	Toluene	0.30	<0.30	<0.30
27	1,1,2-Trichloroethane	0.30	<0.30	<0.30
28	1,3-Dichloropropane	0.30	<0.30	<0.30
29	Dibromochloromethane	0.30	<0.30	<0.30
30	1,2-Dibromoethane	0.30	<0.30	<0.30
31	Tetrachloroethene	0.30	<0.30	<0.30

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-5
Sample ID: 93007ADEXHST.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

VOLATILES - 8260 (mg/M3; ppb)		Detection Limit	Sample Result H2585-5	Method Blank
32	Chlorobenzene	0.30	<0.30	<0.30
33	1,1,1,2-Tetrachloroethane	0.30	<0.30	<0.30
34	Ethylbenzene	0.30	<0.30	<0.30
35	m, p - Xylene	0.60	<0.60	<0.60
36	Bromoform	0.30	<0.30	<0.30
37	Styrene	0.30	<0.30	<0.30
38	o-Xylene	0.30	<0.30	<0.30
39	1,1,2,2-Tetrachloroethane	0.30	<0.30	<0.30
40	1,2,3-Trichloropropane	0.30	<0.30	<0.30
41	Isopropylbenzene	0.30	<0.30	<0.30
42	Bromobenzene	0.30	<0.30	<0.30
43	2-Chlorotoluene	0.30	<0.30	<0.30
44	n-propylbenzene	0.30	<0.30	<0.30
45	4-Chlorotoluene	0.30	<0.30	<0.30
46	1,3,5-Trimethylbenzene	0.30	<0.30	<0.30
47	tert-Butylbenzene	0.30	<0.30	<0.30
48	1,2,4-Trimethylbenzene	0.30	<0.30	<0.30
49	1,3-Dichlorobenzene	0.30	<0.30	<0.30
50	sec-Butylbenzene	0.30	<0.30	<0.30
51	1,4 Dichlorobenzene	0.30	<0.30	<0.30
52	4-Isopropyltoluene	0.30	<0.30	<0.30
53	1,2-Dichlorobenzene	0.30	<0.30	<0.30
54	n-Butylbenzene	0.30	<0.30	<0.30
56	1,2-dibromo-3-chloropropane	0.30	<0.30	<0.30
57	1,2,4-Trichlorobenzene	0.30	<0.30	<0.30
58	Naphthalene	0.30	<0.30	<0.30
59	1,2,3-Trichlorobenzene	0.30	<0.30	<0.30

CARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-5
Sample ID: 93007ADEXHST.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

VOLATILES - 8260 (mg/M3; ppb)	Detection Limit	Sample Result H2585-5	Method Blank
		% Recovery	Relative Percent Difference
Surrogates			
60 Fluorobenzene		100	NA
61 Toluene-D8		101	NA
62 4-Bromofluorobenzene		104	NA
Matrix Spikes			
63 1,1-Dichloroethene		96	4
64 Benzene		100	2
65 Toluene		102	3
66 Trichloroethene		94	2
67 Chlorobenzene		106	2

METHODS: EPA SW-846-8260.

Burgess J. A. Cooke, Ph. D.

8/13/96
Date

CARDINAL LABORATORIES

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ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-6
Sample ID: 93007ADINPUT.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

VOLATILES - 8260 (mg/M3; ppb)		Detection Limit	Sample Result H2585-6	Method Blank
1	Dichlorodifluoromethane	0.50	<0.50	<0.50
2	Chloromethane	0.50	<0.50	<0.50
3	Vinyl chloride	0.50	<0.50	<0.50
4	Bromomethane	0.50	<0.50	<0.50
5	Chloroethane	0.50	<0.50	<0.50
6	1,1-Dichloroethene	0.30	0.80	<0.30
7	Trichlorofluoromethane	0.50	<0.50	<0.50
8	Methylene chloride	0.30	<0.30	<0.30
9	trans-1,2-Dichloroethene	0.30	<0.30	<0.30
10	1,1-Dichloroethane	0.30	<0.30	<0.30
11	cis-1,2-Dichloroethene	0.30	<0.30	<0.30
12	2,2-Dichloropropane	0.30	<0.30	<0.30
13	Chloroform	0.30	<0.30	<0.30
14	Bromochloromethane	0.30	<0.30	<0.30
15	1,1,1-Trichloroethane	0.30	0.90	<0.30
16	1,2-Dichloroethane	0.30	<0.30	<0.30
17	1,1-Dichloropropene	0.30	<0.30	<0.30
18	Benzene	0.30	<0.30	<0.30
19	Carbon tetrachloride	0.30	<0.30	<0.30
20	Trichloroethene	0.30	<0.30	<0.30
21	Dibromomethane	0.30	<0.30	<0.30
22	Bromodichloromethane	0.30	<0.30	<0.30
23	trans-1,3-Dichloropropene	0.30	<0.30	<0.30
24	1,2-Dichloropropane	0.30	<0.30	<0.30
25	cis-1,3-Dichloropropene	0.30	<0.30	<0.30
26	Toluene	0.30	1.00	<0.30
27	1,1,2-Trichloroethane	0.30	<0.30	<0.30
28	1,3-Dichloropropane	0.30	<0.30	<0.30
29	Dibromochloromethane	0.30	<0.30	<0.30
30	1,2-Dibromoethane	0.30	<0.30	<0.30
31	Tetrachloroethene	0.30	1.60	<0.30

CARDINAL LABORATORIES

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-6
Sample ID: 93007ADINPUT.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

	VOLATILES - 8260 (mg/M3; ppb)	Detection Limit	Sample Result H2585-6	Method Blank
32	Chlorobenzene	0.30	<0.30	<0.30
33	1,1,1,2-Tetrachloroethane	0.30	<0.30	<0.30
34	Ethylbenzene	0.30	<0.30	<0.30
35	m, p - Xylene	0.60	0.70	<0.60
36	Bromoform	0.30	<0.30	<0.30
37	Styrene	0.30	<0.30	<0.30
38	o-Xylene	0.30	0.40	<0.30
39	1,1,2,2-Tetrachloroethane	0.30	<0.30	<0.30
40	1,2,3-Trichloropropane	0.30	<0.30	<0.30
41	Isopropylbenzene	0.30	<0.30	<0.30
42	Bromobenzene	0.30	<0.30	<0.30
43	2-Chlorotoluene	0.30	<0.30	<0.30
44	n-propylbenzene	0.30	<0.30	<0.30
45	4-Chlorotoluene	0.30	<0.30	<0.30
46	1,3,5-Trimethylbenzene	0.30	<0.30	<0.30
47	tert-Butylbenzene	0.30	<0.30	<0.30
48	1,2,4-Trimethylbenzene	0.30	<0.30	<0.30
49	1,3-Dichlorobenzene	0.30	<0.30	<0.30
50	sec-Butylbenzene	0.30	<0.30	<0.30
51	1,4 Dichlorobenzene	0.30	<0.30	<0.30
52	4-Isopropyltoluene	0.30	<0.30	<0.30
53	1,2-Dichlorobenzene	0.30	<0.30	<0.30
54	n-Butylbenzene	0.30	<0.30	<0.30
56	1,2-dibromo-3-chloropropane	0.30	<0.30	<0.30
57	1,2,4-Trichlorobenzene	0.30	<0.30	<0.30
58	Naphthalene	0.30	<0.30	<0.30
59	1,2,3-Trichlorobenzene	0.30	<0.30	<0.30

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-6
Sample ID: 93007ADINPUT.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

VOLATILES - 8260 (mg/M3; ppb)	Detection Limit	Sample Result H2585-6	Method Blank
		% Recovery	Relative Percent Difference
Surrogates			
60 Fluorobenzene		99	NA
61 Toluene-D8		97	NA
62 4-Bromofluorobenzene		102	NA
Matrix Spikes			
63 1,1-Dichloroethene		96	4
64 Benzene		100	2
65 Toluene		102	3
66 Trichloroethene		94	2
67 Chlorobenzene		106	2

METHODS: EPA SW-846-8260.

Burgess J. A. Cooke, Ph. D.

8/13/96
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-4
Sample ID: 93007WPINPUT.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

	VOLATILES - 8260 (mg/M3; ppb)	Detection Limit	Sample Result H2585-4	Method Blank
1	Dichlorodifluoromethane	0.50	<0.50	<0.50
2	Chloromethane	0.50	<0.50	<0.50
3	Vinyl chloride	0.50	<0.50	<0.50
4	Bromomethane	0.50	<0.50	<0.50
5	Chloroethane	0.50	<0.50	<0.50
6	1,1-Dichloroethene	0.30	6.90	<0.30
7	Trichlorofluoromethane	0.50	<0.50	<0.50
8	Methylene chloride	0.30	<0.30	<0.30
9	trans-1,2-Dichloroethene	0.30	<0.30	<0.30
10	1,1-Dichloroethane	0.30	6.10	<0.30
11	cis-1,2-Dichloroethene	0.30	<0.30	<0.30
12	2,2-Dichloropropane	0.30	<0.30	<0.30
13	Chloroform	0.30	<0.30	<0.30
14	Bromochloromethane	0.30	<0.30	<0.30
15	1,1,1-Trichloroethane	0.30	64.6	<0.30
16	1,2-Dichloroethane	0.30	<0.30	<0.30
17	1,1-Dichloropropene	0.30	<0.30	<0.30
18	Benzene	0.30	2.80	<0.30
19	Carbon tetrachloride	0.30	<0.30	<0.30
20	Trichloroethene	0.30	0.40	<0.30
21	Dibromomethane	0.30	<0.30	<0.30
22	Bromodichloromethane	0.30	<0.30	<0.30
23	trans-1,3-Dichloropropene	0.30	<0.30	<0.30
24	1,2-Dichloropropane	0.30	<0.30	<0.30
25	cis-1,3-Dichloropropene	0.30	<0.30	<0.30
26	Toluene	0.30	49.5	<0.30
27	1,1,2-Trichloroethane	0.30	<0.30	<0.30
28	1,3-Dichloropropane	0.30	<0.30	<0.30
29	Dibromochloromethane	0.30	<0.30	<0.30
30	1,2-Dibromoethane	0.30	<0.30	<0.30
31	Tetrachloroethene	0.30	17.9	<0.30

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WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-4
Sample ID: 93007WPINPUT.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

VOLATILES - 8260 (mg/M3; ppb)		Detection Limit	Sample Result H2585-4	Method Blank
32	Chlorobenzene	0.30	<0.30	<0.30
33	1,1,1,2-Tetrachloroethane	0.30	<0.30	<0.30
34	Ethylbenzene	0.30	2.60	<0.30
35	m, p - Xylene	0.30	7.40	<0.30
36	Bromoform	0.30	<0.30	<0.30
37	Styrene	0.30	<0.30	<0.30
38	o-Xylene	0.30	3.80	<0.30
39	1,1,2,2-Tetrachloroethane	0.30	<0.30	<0.30
40	1,2,3-Trichloropropane	0.30	<0.30	<0.30
41	Isopropylbenzene	0.30	0.90	<0.30
42	Bromobenzene	0.30	<0.30	<0.30
43	2-Chlorotoluene	0.30	<0.30	<0.30
44	n-propylbenzene	0.30	1.10	<0.30
45	4-Chlorotoluene	0.30	<0.30	<0.30
46	1,3,5-Trimethylbenzene	0.30	0.80	<0.30
47	tert-Butylbenzene	0.30	<0.30	<0.30
48	1,2,4-Trimethylbenzene	0.30	1.20	<0.30
49	1,3-Dichlorobenzene	0.30	<0.30	<0.30
50	sec-Butylbenzene	0.30	<0.30	<0.30
51	1,4 Dichlorobenzene	0.30	<0.30	<0.30
52	4-Isopropyltoluene	0.30	<0.30	<0.30
53	1,2-Dichlorobenzene	0.30	<0.30	<0.30
54	n-Butylbenzene	0.30	<0.30	<0.30
56	1,2-dibromo-3-chloropropane	0.30	<0.30	<0.30
57	1,2,4-Trichlorobenzene	0.30	<0.30	<0.30
58	Naphthalene	0.30	<0.30	<0.30
59	1,2,3-Trichlorobenzene	0.30	<0.30	<0.30

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ANALYTICAL RESULTS FOR
WESTERN WATER CONSULTANTS
ATTN: KEVIN MATTSON
611 SKYLINE RD. P.O. BOX4128
LARAMIE, WY 82071-4128
FAX TO:

Receiving Date: 07/23/96
Reporting Date: 08/02/96
Project Number: 93-007L-96.1
Project Name: NOT GIVEN
Lab Number: H2585-4
Sample ID: 93007WPINPUT.7/96
Revised Report Date: 08/13/96

Analysis Date: 07/30/96
Sampling Date: 07/23/96
Sample Type: AIRBAGS
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: KR

VOLATILES - 8260 (mg/M3; ppb)	Detection Limit	Sample Result H2585-4	Method Blank
		% Recovery	Relative Percent Difference
Surrogates			
60 Fluorobenzene		99	NA
61 Toluene-D8		96	NA
62 4-Bromofluorobenzene		101	NA
Matrix Spikes			
63 1,1-Dichloroethene		96	4
64 Benzene		100	2
65 Toluene		102	3
66 Trichloroethene		94	2
67 Chlorobenzene		106	2

METHODS: EPA SW-846-8260.

Burgess J. A. Cooke, Ph. D.

8/13/96
Date

APPENDIX C

SUMMA CANISTER AIR SAMPLE DATA

APRIL 11, 1996 SOIL VAPOR DATA FROM SVE WELLS
DOWELL - HOBBS, N.M.

PARAMETER	unit	Lagoon Unit No. 1	Acid Plant Unit No. 2	UST Unit No. 3
CO2	%	5.2	7.9%	2.3%
O2	%	16%	11%	20%
TPH as Hexane	ppm	1500	410	120
1,1-dichloroethene	ppm	2.5	0.5	18
acetone	ppm	4.1	0.6	<
1,1-dichloroethane	ppm	3.5	0.1	<
1,1,1-trichloroethane	ppm	27	0.4	54
benzene	ppm	3.1	0.1	<
toluene	ppm	44	4	<
tetrachloroethene	ppm	26	1.4	140
ethylbenzene	ppm	8.4	1.4	<
xylenes	ppm	46	10	<
4-ethyltoluene	ppm	17	2.9	<
1,3,5-trimethylbenzene	ppm	4.1	0.8	<
1,2,4-trimethylbenzene	ppm	10	2.1	<
napthalene	ppm	<	0.2	<
TENTATIVELY INDENTIFIED COMPOUNDS				
alkane substituted benzene (C9)	ppm	5.2	<	<
alkane substituted benzene (C9)	ppm	6.9	<	<
alkane substituted benzene (C9)	ppm	9.5	1	<
alkane substituted benzene (C10)	ppm	<	1.3	<
alkane substituted benzene (C10)	ppm	<	1.8	<
alkane substituted bicycloalkane (C11)	ppm	4	<	<
alkane substituted cycloalkane (C10)	ppm	<	1.7	<
alkane substituted cycloalkane (C9)	ppm	<	1.7	<
alkane substituted cycloalkane (C8)	ppm	4.3	2.5	<
alkane substituted cycloalkane (C7)	ppm	<	1.2	<

APRIL 11, 1996 SOIL VAPOR DATA FROM SVE WELLS
DOWELL - HOBBS, N.M. (continued)

alkane substituted				
cycloalkane (C6)		10	<	<
branched alkene (C10)	ppm	4.6	<	<
branched alkane (C10)	ppm	5.2	<	<
branched alkane (C11)	ppm	5.2	3	<
branched alkane (C8)	ppm	16	1.1	<
decane	ppm	<	3.2	<
no match	ppm	10	1	<
n-octane	ppm	11	1.2	<

< = below detection limits, see laboratory report forms