# GW - 191 MONITORING REPORTS DATE: 2002 - 1999

KINDERMORGAN

July 22, 2002

Mr. Wayne Price New Mexico Oil Conversation Division 2040 S. Pacheco Santa Fe, New Mexico 87505

AIIG 1 3 2002 Environmental Bureau Oil Conservation Division

Re: Former Hobbs Gas Plant – GW-191 2001 Annual Groundwater Monitoring Report Lea County, New Mexico

Dear Mr. Price:

Enclosed please find the 2001 Annual Groundwater Monitoring Report for the above referenced facility. Please accept our apologies for the delay in submitting this report, as we are aware the due date for future annual reports will be February 1 of each year.

If you have any questions or require additional information, please contact me at (713) 369-9193.

Sincerely, KINDER MORGAN, INC.

John M Greer Manager, Environmental Remediation

cc: Ms. Donna Williams - New Mexico OCD - Hobbs

One Allen Center 500 Dallas Street Suite 1000 Houston, TX 77002 (713) 369-9000

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AIIR 1 3 2002 Environmental Bureau

# Oil Conservation Division **2001 ANNUAL GROUNDWATER MONITORING REPORT**

# **DISCHARGE PLAN GW-191**

# FORMER HOBBS GAS PLANT LEA COUNTY, NEW MEXICO

KINDER MORGAN, INC. **ONE ALLEN CENTER** 500 DALLAS STREET, SUITE 1000 HOUSTON, TEXAS 77002

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# 2001 ANNUAL GROUNDWATER MONITORING REPORT DISCHARGE PLAN GW-191

# FORMER HOBBS GAS PLANT HOBBS, NEW MEXICO

DATE PREPARED: JUNE 20, 2002

ECO-LOGICAL PROJECT NO. 279-512

PREPARED FOR: New Mexico Oil Conservation Division

> **ON BEHALF OF:** KINDER MORGAN, INC.

**PREPARED BY:** ECO-LOGICAL ENVIRONMENTAL SERVICES, INC.

Shane Estep, Project Manager

Scott Springer, Prøject Geologist

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## **1.0 EXECUTIVE SUMMARY**

The main objective of the semi-annual groundwater sampling event is to evaluate the concentration and distribution of dissolved phase hydrocarbons, and to monitor any changes from the baseline condition as determined from previous sampling events at the facility. The purpose of this report is to fulfill the requirements of the groundwater monitoring plan approved by the New Mexico Oil Conservation Division (OCD). This report covers the semi-annual groundwater monitoring and sampling events conducted during 2001.

The Abatement Plan was modified in December 1998 and December 2000. Modifications to the plan removed monitor wells MW-2, MW-4 and MW-8 from the requirements of sampling and changed the quarterly sampling to semi-annual sampling.

A total of ten (10) monitor wells are present at the site with eight (8) of the wells being inside the plant property and two (2) located outside the southwestern area of the former plant site.

The plant has not been in operation for over five (5) years. In the summer of 2000 all equipment belonging to Kinder Morgan, Inc (KMI) was removed. The remaining equipment and structures have been sold to Transwestern Pipeline Company.

The latest analytical results showed that benzene levels in monitor well MW-6 continue to be present above the New Mexico Water Quality Control Commission (WQCC) Guideline level of 0.01 parts per million (ppm), at the concentration of 0.02 ppm in January. Monitor well MW-6 was dry during the October sampling event. Analytical data from monitor well MW-7 indicted that it exceeded the guideline level during the October sampling event. Prior to the October sampling event benzene had not been detected in monitor well MW-7.

During the January sampling event all monitor wells located at the site were non-detect for benzene, toluene, ethylbenzene and xylene (BTEX) with the exception of MW-6. Monitor well MW-6 contained benzene at a concentration of 0.02 ppm and MW-5 was dry during this sampling event.

During the October sampling event all monitor wells located at the site were non-detect for BTEX with the exception of MW-3, and MW-7. Monitor well MW-3 contained benzene at a concentration of 0.0059 ppm which is below the WQCC guidelines. Monitor well MW-7 contained benzene at a concentration of 0.0252 ppm which is above the WQCC guidelines. Four (4) monitor wells MW-1, MW-4, MW-5 and MW-6 were dry during this sampling event.

Only one monitor well, MW-9, has historically contained chlorides above the established guidelines (20 NMAC 6.2.3103) of 250 ppm. The chlorides in this monitor well started at 42 ppm in January and have increased to 166 ppm by the September sampling event. Monitor well MW-9 has a history of high and low period of chlorides, therefore the increase in this years concentrations does not indicate an increasing trend in the chloride levels.

# 2.0 FIELD PROCEDURES AND DATA

The initial task was to detect the static groundwater levels relative to the north side of the top of each monitor well casing and to examine each monitor well for the presence of PSH using an interface probe with a calibrated tape (Table 1). Monitor wells were measured from the least impacted to the most impacted as determined by previous sampling events and field observations. All equipment was properly decontaminated between gauging of monitor wells.

At the time of the January sampling event the depth to the static groundwater surface at the site ranged from 57.84 to 64.45 feet below the ground surface. Monitor well MW-2 has had the same groundwater measurement (2 inches above the total well depth) since the January 2000 monitoring event indicating that water is trapped in the bottom cap and that the actual water level has dropped below the screened interval of the casing. During this sampling event monitor well MW-5 was not sampled due to the lack of water.

At the time of the September sampling event the depth to the static groundwater surface at the site ranged from 58.91 to 66.51 feet below the ground surface. During this sampling event monitor wells MW-1, MW-5 and MW-6 were not sampled due to the lack of water.

After obtaining all measurements, the volume of water in each casing was calculated. These wells were then purged by hand bailing or using a submersible electric pump system that was washed and rinsed before and after each use. The wells were purged until three (3) well volumes were retrieved or until dry. After allowing the wells to recover to within 70 percent of the original depths, samples were collected using a new, single use, one (1) liter bailer.

Groundwater samples were then submitted to TraceAnalysis in Lubbock, Texas for analysis. Based on previous analytical results and as approved by the OCD letter dated December 15, 1998, a minimized analytical schedule was performed. All monitor wells sampled were analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA SW846-8021B. Monitor wells MW-7, MW-9 and MW-10 were also analyzed for total chlorides.

Each sample collected for chlorides was placed into one (1) 250 ml plastic jar with no preservative and each sample collected for BTEX was placed into two (2) VOA jars with Teflon lids preserved with hydrochloric acid. Samples were labeled with the sample identification, job name, sample location, sampler name, preservative, and sample date. This information was transferred to a chain-of-custody (COC). After sampling, the jars were placed on ice and maintained at  $4^{\circ}$  Celsius.

A summary of groundwater analytical results are presented in Tables 13 through 22. Hydrocarbon distribution maps are presented in Figures 5 through 6. Copies of the certified laboratory reports and COC documentation for the monitor period are presented in Sections 4 and 5.

# 3.0 CHRONOLOGY OF EVENTS

The Oil Conservation Division (OCD) of New Mexico inspected the plant on October 16, 1995, and noted several deficiencies. The deficiencies, and the related directives, were detailed in a letter issued by OCD on December 6, 1995. The letter was issued under OCD statutory authority and requires that KN Energy undertake and complete certain activities to fulfill OCD requirements. Previous activities undertaken by KN Energy and the substance of activities reflected in this report, are to fulfill the requirements directed by OCD. The following chronology briefly summarizes the relevant activities conducted at the facility:

1994	KN Energy took possession of the plant in 1994 following a merger with American Oil and Gas.
Dec. 6, 1995	OCD directive issued to KN Energy on the initial items requiring action as a result of the Oct. 16, 1995 inspection.
Jan. 26, 1996	KN Energy initial response to OCD directive.
Jan. 30, 1996	Work Plan for soils delineation submitted with the inclusion that one monitor well would be installed if impacted soil was discovered within ten feet of the groundwater.
Mar. 27, 1996	Delineation Work Plan approved by OCD with report due July1, 1996.
June 6, 1996	Soils Delineation Investigation Report filed with scope of work for extended Groundwater Delineation included.
Sept. 26, 1996	Directive received from OCD requiring the full delineation work plan of all contamination at the site including groundwater be submitted for approval.
Oct. 9, 1996	Work Plan for groundwater delineation filed as per the Sept. 26, 1996 OCD directive.
Oct. 15, 1996	Approval of groundwater delineation work plan received from OCD.
Dec. 11, 1996	KN announces impending closure of plant. Eco-logical submits requests for extension of time and change from Discharge Permit to Closure Plan, with the installation of additional monitor wells.
Dec. 17, 1996	OCD approves request for extension of time and the additional monitor wells.
Jan. 14, 1997	Additional groundwater monitoring well installed, and Abatement Plan and Closure Plan Report were submission to OCD as per Dec. 17, 1996 OCD directive.

- Feb. 7, 1997 Phone conference held with OCD, Eco-logical and KN personnel to discuss results of report and proposed work plan.
- Feb. 25, 1997 After review of Abatement Plan and phone conference, OCD issued a directive stating that the existing monitor wells also be tested for the entire suite of 20 NMAC 6.2.3103 constituents excluding uranium, radioactivity and PCB's, and additional wells be installed to define the points of compliance in the groundwater. An update/amendment report to be submitted by May 25, 1997.
- March 13, 1997 Response to Feb. 1997 OCD letter submitted outlining the points to be followed in the extended delineation work plan.
- April 1997 Three additional monitor wells installed and a quarterly sampling and monitoring event occurs.
- May 10, 1997 Submission of updated Abatement Report filed with OCD as per the February. 25, 1997 directive.
- June 26, 1997 OCD approves the updated Abatement Report including reducing the testing to BTEX, Naphthalene, and Chlorides, and that an annual report be submitted by June 1, 1998.
- July 1997 Quarterly Sampling and Monitoring Event.
- Oct. 1997 Quarterly Sampling and Monitoring Event.
- October 1997 Sump, Cryoskid, Flare Pit, and Compressor soils excavated and stock piled prior to remediation pursuant to the approved Stage 1 Abatement Plan and Site Closure Plan dated January 14, 1997.
- November 1997 Initial Treatment of excavated soils performed.
- January 1998 Quarterly Sampling and Monitoring Event.
- March 1998 Submission of Annual Groundwater Sampling Report to the OCD, with a recommendation to stop testing for Naphthalene and discontinue sampling of MW-2, MW-4 and MW-8.
- April 3, 1998 Quarterly Sampling and Monitoring Event.
- June 25, 1998 Quarterly Sampling and Monitoring Event. Impacted stockpiled soil retreated.

October 2, 1998 Quarterly Sampling and Monitoring Event. Stock piled soil tested below OCD levels.

November 1998 Backfilling of excavations performed.

December 1998 OCD contacted by Eco-logical regarding January 1998 Annual Groundwater Report and Reduced Analyses Plan. OCD approved reduced analyses in letter dated December 15, 1998.

January 1999 Quarterly Sampling and Monitoring Event.

April 1999 Quarterly Sampling and Monitoring Event.

July 1999 Quarterly Sampling and Monitoring Event.

October 1999 Quarterly Sampling and Monitoring Event.

- October 1999 K N Energy, Inc. changed name to Kinder Morgan, Inc. (Parent company of American Processing, L.P.)
- January 2000 Quarterly Sampling and Monitoring Event.
- April 2000 Quarterly Sampling and Monitoring Event.
- June 2000 Removal of all KMI Equipment.
- July 2000 Quarterly Sampling and Monitoring Event.
- October 2000 Quarterly Sampling and Monitoring Event.
- Dec. 4, 2000 KMI issued letter to OCD to renew Discharge Plan GW191 and proposes a reduction in groundwater sampling freqency for the year 2001. The selected monitor wells will be sampled the first and third quarters of the year.
- January 24, 2001 Sampling and Monitoring Event.
- February 2001 2000 Annual Report.
- March 23, 2001 OCD issues Discharge Plan Renewal, GW-191
- October 18, 2001 Sampling and Monitoring Event.

# 4.0 CONCLUSIONS

The plant operations have ceased at the site and the sources that may have caused the impacts to the groundwater have been removed. In addition, the removed impacted soils have been remediated to meet WQCC Guideline levels and have been returned to the excavations per the Soils Work Plan approved in January 1996. Two (2) of the ten (10) monitor wells (MW-6 and MW-7) at the Former Hobbs Gas Plant have shown dissolved phase hydrocarbons (benzene) at levels above the OCD Guidelines at different times throughout the year.

- Eighteen (18) groundwater monitoring and sampling events have been conducted at this site.
- Groundwater has dropped an average of 4.9 feet since the first sampling event of October 1996.
- During the year dissolved phase hydrocarbons have been detected above OCD Guidelines in two (2) of the ten (10) monitor wells at the site (MW-6 and MW-7) however, no free-phase hydrocarbons have been observed at the site.
- Only MW-6 has consistently contained concentrations of benzene above the WQCC Guideline level. The highest concentration down-gradient from the source is in monitor well MW-7 at a concentration of 0.0252 ppm. As of the October 2001 sampling event, monitor well MW-6 was dry.
- Soil cleanup objectives of the January 1997 Abatement and Closure plan have been met.

The level of benzene in MW-6 has been above the WQCC Guideline level of 0.01 ppm, but has been consistently declining. Benzene levels in MW-5 have remained below action levels during all of the 1999 and 2000 sampling events, but did not have enough water to sample in 2001. Chloride levels present in MW-9 have decreased to below WQCC levels in the last two sampling events. Based on interviews with American Processing personnel no source of the chloride can be placed on former operations of the plant. The source of the chloride is not known and is **not** believed to be from the plant.

The semi-annual monitoring plan approved by the OCD in March 23, 2001 and the OCD Discharge Plan Renewal will be continued in 2002.

# 5.0 QUALITY ASSURANCE / QUALITY CONTROL PROCEDURES

Field quality assurance/quality control (QA/QC) measures consisted of equipment decontamination, use of disposable sampling equipment, calibration of field instruments, ensuring that the samples were analyzed within the EPA holding times, documentation of work activities in a bound logbook, and adherence to strict chain-of-custody protocol. The laboratory QA/QC measures were based on guidance published in the most current edition of the EPA Test Methods for Evaluating Solid Waste SW-846.

# 5.1 Trip Blanks

Trip blanks were analyzed for BTEX to detect potential cross contamination of constituents between aqueous samples during shipment.

# 5.2 Field Duplicates

Duplicate sample of monitoring well MW-6 during the January sampling event was collected to provide a check on the precision of the laboratory techniques. Test results of the duplicate sample are within 13% of the original sample for total BTEX.

Sample	Benzene	Toluene	Ethyl benzene	Xylene	BTEX	Test Method
MW-6	0.020	<0.005	<0.005	<0.005	0.020	EPA 8021B
MW-6D	0.023	<0.005	<0.005	<0.005	0.023	EPA 8021B

Reported laboratory quality control parameters do not appear to indicate suspect results. No damaged or compromised containers were noted. No unusual relative percent difference (RPD) results were noted.

# 5.3 Holding Time Limits

Holding times before extraction and analysis are specified in Test Methods for Evaluating Solid Waste Physical / Chemical Methods, SW-846 by EPA. All laboratory analysis was preformed within specified holding times.

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Date	Monitor Well	TOC Elevation Feet	TD Feet	Depth to PSH Feet	Depth to GW Feet	GW Elevation Corrected for PSH Feet
January 24, 2001	MW-1	495.73	59.00	0.00	59.82	435.91
January 24, 2001	MW-2	502.41	62.80	0.00	62.37	440.04
January 24, 2001	MW-3	499.13	64.90	0.00	62.83	436.30
January 24, 2001	MW-4	501.12	63.30	0.00	64.45	436.67
January 24, 2001	MW-5	500.84	65.00	0.00	Dry	Dry
January 24, 2001	MW-6	496.27	62.70	0.00	61.22	435.05
January 24, 2001	MW-7	495.44	69.00	0.00	61.84	433.60
January 24, 2001	MW-8	501.81	70.90	0.00	65.38	436.43
January 24, 2001	MW-9	496.85	67.30	0.00	61.67	435.18
January 24, 2001	MW-10	492.46	66.50	0.00	57.84	434.62

Table 1
January Groundwater / Product Levels

- Date	Monitor Well	TOC Elevation Feet	TD Feet	Depth to PSH Feet	Depth to GW Feet	GW Elevation Corrected for PSH Feet
October 18, 2001	<u>MW-1</u>	495.73	59.00	0.00	Dry	Dry
October 18, 2001	MW-2	502.41	62.80	0.00	62.37	440.04
October 18, 2001	MW-3	499.13	64.90	0.00	64.17	434.96
October 18, 2001	MW-4	501.12	63.30	0.00	Dry	Dry
October 18, 2001	MW-5	500.84	65.00	0.00	Dry	Dry
October 18, 2001	MW-6	496.27	62.70	0.00	Dry	Dry
October 18, 2001	MW-7	495.44	69.00	0.00	62.79	432.65
October 18, 2001	MW-8	501.81	70.90	0.00	66.51	435.30
October 18, 2001	MW-9	496.85	67.30	0.00	62.94	433.91
October 18, 2001	MW-10	492.46	66.50	0.00	58.91	433.55

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Table 2		
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December Groundwater / Product Levels

Table 3	
Historic Groundwater / Product Levels	

# Monitor Well #1

Screened Interval - 436.70' to 456.70'

Date	TOC Elevation	Depth to PSH Feet	Depth to GW Feet	Product Thickness	Adjusted Thickness	GW Elevation Corrected for PSH
	Feet			Feet	Feet	Feet
September 17, 1996	495.73	0.00	53.10	0.00	0.00	442.63
October 23, 1996	495.73	0.00	53.34	0.00	0.00	442.39
April 10, 1997	495.73	0.00	54.32	0.00	0.00	441.41
July 7, 1997	495.73	0.00	54.64	0.00	0.00	441.09
October 8, 1997	495.73	0.00	54.98	0.00	0.00	440.75
January 6, 1998	495.73	0.00	55.28	0.00	0.00	440.45
April 3, 1998	495.73	0.00	55.60	0.00	0.00	440.13
June 25, 1998	495.73	0.00	55.87	0.00	0.00	439.86
October 2, 1998	495.73	0.00	56.36	0.00	0.00	439.37
January 5, 1999	495.73	0.00	54.98	0.00	0.00	440.75
April 1, 1999	495.73	0.00	56.89	0.00	0.00	438.84
July 14, 1999	495.73	0.00	57.39	0.00	0.00	438.34
October 22, 1999	495.73	0.00	57.74	0.00	0.00	437.99
January 25, 2000	495.73	0.00	59.00	0.00	0.00	436.73
April 3, 2000	495.73	0.00	58.51	0.00	0.00	437.22
July 17, 2000	495.73	0.00	59.10	0.00	0.00	436.63
October 24, 2000	495.73	0.00	59.45	0.00	0.00	436.28
January 24, 2001	495.73	0.00	59.82	0.00	0.00	435.91
October 18, 2001	495.73	0.00	Dry	0.00	0.00	Dry

# Table 4 Historic Groundwater / Product Levels

# Monitor Well #2

# Screened Interval - 440.00' to 460.00'

Date	TOC: Elevation	Depth to PSH Feet	Depth to GW Feet	Product Thickness	Adjusted Thickness	GW Elevation Corrected for PSH
	Feet			Feet	Feet	Feet
September 17, 1996			Not I	nstalled		
October 23, 1996	502.41	0.00	58.33	0.00	0.00	444.08
April 10, 1997	502.41	0.00	59.54	0.00	0.00	442.87
July 7, 1997	502.41	0.00	60.00	0.00	0.00	442.41
October 8, 1997	502.41	0.00	60.39	0.00	0.00	442.02
January 6, 1998	502.41	0.00	60.70	0.00	0.00	441.71
April 3, 1998	502.41	0.00	61.06	0.00	0.00	441.35
June 25, 1998	502.41	0.00	61.37	0.00	0.00	441.04
October 2, 1998	502.41	0.00	61.91	0.00	0.00	440.50
January 5, 1999	502.41	0.00	60.39	0.00	0.00	442.02
April 1, 1999	502.41	0.00	62.28	0.00	0.00	440.13
July 14, 1999	502.41	0.00	62.28	0.00	0.00	440.13
October 22, 1999	502.41	0.00	62.31	0.00	0.00	440.10
January 25, 2000	502.41	0.00	62.34	0.00	0.00	440.07
April 3, 2000	502.41	0.00	62.34	0.00	0.00	440.07
July 17, 2000	502.41	0.00	62.34	0.00	0.00	440.07
October 24, 2000	502.41	0.00	62.37	0.00	0.00	440.04
January 24, 2001	502.41	0.00	62.37	0.00	0.00	440.04
October 18, 2001	502.41	0.00	62.37	0.00	0.00	440.04

# Table 5Historic Groundwater / Product Levels

# Monitor Well #3

# Screened Interval - 434.20' to 454.23'

Date	TOC	Depth to PSH Feet	Depth to GW	Product	Adjusted	GW Elevation				
	Feet	Acet	Ticci	Feet	Feet	Feet				
September 17, 1996		Not Installed								
October 23, 1996	499.13	0.00	56.28	0.00	0.00	442.85				
April 10, 1997	499.13	0.00	57.25	0.00	0.00	441.88				
July 7, 1997	499.13	0.00	57.59	0.00	0.00	441.54				
October 8, 1997	499.13	0.00	57.92	0.00	0.00	441.21				
January 6, 1998	499.13	0.00	58.24	0.00	0.00	440.89				
April 3, 1998	499.13	0.00	58.41	0.00	0.00	440.72				
June 25, 1998	499.13	0.00	58.84	0.00	0.00	440.29				
October 2, 1998	499.13	0.00	59.36	0.00	0.00	439.77				
January 5, 1999	499.13	0.00	57.92	0.00	0.00	441.21				
April 1, 1999	499.13	0.00	59.89	0.00	0.00	439.24				
July 14, 1999	499.13	0.00	60.40	0.00	0.00	438.73				
October 22, 1999	499.13	0.00	60.76	0.00	0.00	438.37				
January 25, 2000	499.13	0.00	61.21	0.00	0.00	437.92				
April 3, 2000	499.13	0.00	61.57	0.00	0.00	437.56				
July 17, 2000	499.13	0.00	62.11	0.00	0.00	437.02				
October 24, 2000	499.13	0.00	62.48	0.00	0.00	436.65				
January 24, 2001	499.13	0.00	62.83	0.00	0.00	436.30				
October 18, 2001	499.13	0.00	64.17	0.00	0.00	434.96				

# Historic Groundwater / Product Levels

### Monitor Well #4

Screened	Interval -	436.67'	to 456.67'

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Date	TOC	Depth to PSH	Depth to GW	Product Thickness	Adjusted	GW Elevation				
Lee na star	Feet	Tett	Teel	Feet	Feet	Feet				
September 17, 1996		Not Installed								
October 23, 1996	501.12	0.00	58.12	0.00	0.00	443.00				
April 10, 1997	501.12	0.00	58.83	0.00	0.00	442.29				
July 7, 1997	501.12	0.00	59.19	0.00	0.00	441.93				
October 8, 1997	501.12	0.00	59.56	0.00	0.00	441.56				
January 6, 1998	501.12	0.00	59.91	0.00	0.00	441.21				
April 3, 1998	501.12	0.00	60.21	0.00	0.00	440.91				
June 25, 1998	501.12	0.00	60.48	0.00	0.00	440.64				
October 2, 1998	501.12	0.00	60.97	0.00	0.00	440.15				
January 5, 1999	501.12	0.00	59.56	0.00	0.00	441.56				
April 1, 1999	501.12	0.00	61.57	0.00	0.00	439.55				
July 14, 1999	501.12	0.00	62.03	0.00	0.00	439.09				
October 22, 1999	501.12	0.00	62.37	0.00	0.00	438.75				
January 25, 2000	501.12	0.00	62.82	0.00	0.00	438.30				
April 3, 2000	501.12	0.00	63.14	0.00	0.00	437.98				
July 17, 2000	501.12	0.00	63.73	0.00	0.00	437.39				
October 24, 2000	501.12	0.00	64.10	0.00	0.00	437.02				
January 24, 2001	501.12	0.00	64.45	0.00	0.00	436.67				
October 18, 2001	501.12	0.00	Dry	0.00	0.00	Dry				

Table /
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## Historic Groundwater / Product Levels

## Monitor Well #5

# Screened Interval - 435.92' to 455.92'

Date	TOC	Depth to PSH Feet	Depth to GW	Product Thickness	Adjusted	GW Elevation				
and the second	Feet	Teet	rect	Feet	Feet	Feet				
September 17, 1996		Not Installed								
October 23, 1996	500.84	0.00	58.96	0.00	0.00	441.88				
April 10, 1997	500.84	0.00	59.77	0.00	0.00	441.07				
July 7, 1997	500.84	0.00	60.10	0.00	0.00	440.74				
October 8, 1997	500.84	0.00	60.31	0.00	0.00	440.53				
January 6, 1998	500.84	0.00	60.76	0.00	0.00	440.08				
April 3, 1998	500.84	0.00	61.05	0.00	0.00	439.79				
June 25, 1998	500.84	0.00	61.05	0.00	0.00	439.79				
October 2, 1998	500.84	0.00	61.77	0.00	0.00	439.07				
January 5, 1999	500.84	0.00	60.31	0.00	0.00	440.53				
April 1, 1999	500.84	0.00	62.24	0.00	0.00	438.60				
July 14, 1999	500.84	0.00	62.76	0.00	0.00	438.08				
October 22, 1999	500.84	0.00	63.08	0.00	0.00	437.76				
January 25, 2000	500.84	0.00	63.51	0.00	0.00	437.33				
April 3, 2000	500.84	0.00	63.84	0.00	0.00	437.00				
July 17, 2000	500.84	0.00	64.35	0.00	0.00	436.49				
October 24, 2000	500.84	0.00	64.68	0.00	0.00	436.16				
January 24, 2001	500.84	0.00	Dry	0.00	0.00	Dry				
October 18, 2001	500.84	0.00	Dry	0.00	0.00	Dry				

# Table 8 Historic Groundwater / Product Levels

# Monitor Well #6

## Screened Interval - 433.60' to 456.60'

Date	TOC Flevation	Depth to PSH Feet	Depth to GW	Product Thickness	Adjusted Thickness	GW Elevation			
a ann an an	Feet	The second second		Feet	Feet	Feet			
September 17, 1996	Not Installed								
October 23, 1996	496.27	0.00	55.53	0.00	0.00	440.74			
April 10, 1997	496.27	0.00	56.28	0.00	0.00	439.99			
July 7, 1997	496.27	0.00	56.58	0.00	0.00	439.69			
October 8, 1997	496.27	0.00	56.68	0.00	0.00	439.59			
January 6, 1998	496.27	0.00	57.23	0.00	0.00	439.04			
April 3, 1998	496.27	0.00	57.49	0.00	0.00	438.78			
June 25, 1998	496.27	. 0.00	57.49	0.00	0.00	438.78			
October 2, 1998	496.27	0.00	57.17	0.00	0.00	439.10			
January 5, 1999	496.27	0.00	56.88	0.00	0.00	439.39			
April 1, 1999	496.27	0.00	58.52	0.00	0.00	437.75			
July 14, 1999	496.27	0.00	59.08	0.00	0.00	437.19			
October 22, 1999	496.27	0.00	59.36	0.00	0.00	436.91			
January 25, 2000	496.27	0.00	59.77	0.00	0.00	436.50			
April 3, 2000	496.27	0.00	60.08	0.00	0.00	436.19			
July 17, 2000	496.27	0.00	60.50	0.00	0.00	435.77			
October 24, 2000	496.27	0.00	60.86	0.00	0.00	435.41			
January 24, 2001	496.27	0.00	61.22	0.00	0.00	435.05			
October 18, 2001	496.27	0.00	Dry	0.00	0.00	Dry			

# Table 9 Historic Groundwater / Product Levels

# Monitor Well #7

# Screened Interval - 426.40' to 446.40'

Date	TOC Elevation	Depth to PSH Feet	Depth to GW	Product	Adjusted Thickness	GW Elevation			
and an	Feet		1000	Feet	Feet	Feet			
September 17, 1996			Not I	nstalled					
October 23, 1996		Not Installed							
April 10, 1997	495.44	0.00	57.28	0.00	0.00	438.16			
July 7, 1997	495.44	0.00	57.54	0.00	0.00	437.90			
October 8, 1997	495.44	0.00	57.85	0.00	0.00	437.59			
January 6, 1998	495.44	0.00	58.17	0.00	0.00	437.27			
April 3, 1998	495.44	0.00	58.47	0.00	0.00	436.97			
June 25, 1998	495.44	0.00	58.70	0.00	0.00	436.74			
October 2, 1998	495.44	0.00	58.99	0.00	0.00	436.45			
January 5, 1999	495.44	0.00	57.85	0.00	0.00	437.59			
April 1, 1999	495.44	0.00	59.36	0.00	0.00	436.08			
July 14, 1999	495.44	0.00	59.84	0.00	0.00	435.60			
October 22, 1999	495.44	0.00	60.14	0.00	0.00	435.30			
January 25, 2000	495.44	0.00	60.58	0.00	0.00	434.86			
April 3, 2000	495.44	0.00	_ 60.83	0.00	0.00	434.61			
July 17, 2000	495.44	0.00	61.10	0.00	0.00	434.34			
October 24, 2000	495.44	0.00	61.46	0.00	0.00	433.98			
January 24, 2001	495.44	0.00	61.84	0.00	0.00	433.60			
October 18, 2001	495.44	0.00	62.79	0.00	0.00	432.65			

Historic Groundwater / Product Levels

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## Monitor Well #8

# Screened Interval - 430.90' to 450.90'

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Date	TOC	Depth to PSH	Depth to GW	Product	Adjusted	GW Elevation				
	Feet	Peti	Acct.	Feet	Feet	Feet				
September 17, 1996		Not Installed								
October 23, 1996			Not I	nstalled						
April 10, 1997	501.81	0.00	60.32	0.00	0.00	441.49				
July 7, 1997	501.81	0.00	60.67	0.00	0.00	441.14				
October 8, 1997	501.81	0.00	61.00	0.00	0.00	440.81				
January 6, 1998	501.81	0.00	61.35	0.00	0.00	440.46				
April 3, 1998	501.81	0.00	61.61	0.00	0.00	440.20				
June 25, 1998	501.81	0.00	61.87	0.00	0.00	439.94				
October 2, 1998	501.81	0.00	62.27	0.00	0.00	439.54				
January 5, 1999	501.81	0.00	61.00	0.00	0.00	440.81				
April 1, 1999	501.81	0.00	62.79	0.00	0.00	439.02				
July 14, 1999	501.81	0.00	63.19	0.00	0.00	438.62				
October 22, 1999	501.81	0.00	63.51	0.00	0.00	438.30				
January 25, 2000	501.81	0.00	63.97	0.00	0.00	437.84				
April 3, 2000	501.81	0.00	64.26	0.00	0.00	437.55				
July 17, 2000	501.81	0.00	64.68	0.00	0.00	437.13				
October 24, 2000	501.81	0.00	65.04	0.00	0.00	436.77				
January 24, 2001	501.81	0.00	64.38	0.00	0.00	437.43				
October 18, 2001	501.81	0.00	66.51	0.00	0.00	435.30				

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	Table 11	
Historic	Groundwater /	<b>Product Levels</b>

# Monitor Well #9

# Screened Interval - 429.50' to 449.50'

Date	TOC	Depth to PSH	Depth to GW	Product	Adjusted	GW Elevation			
<ul> <li>A state of some state</li> </ul>	Feet	1,000	1.00	Feet	Feet	Feet			
September 17, 1996		Not Installed							
October 23, 1996		Not Installed							
April 10, 1997	496.85	0.00	56.29	0.00	0.00	440.56			
July 7, 1997	496.85	0.00	56.66	0.00	0.00	440.19			
October 8, 1997	496.85	0.00	57.00	0.00	0.00	439.85			
January 6, 1998	496.85	0.00	57.38	0.00	0.00	439.47			
April 3, 1998	496.85	0.00	57.67	0.00	0.00	439.18			
June 25, 1998	496.85	0.00	57.95	0.00	0.00	438.90			
October 2, 1998	496.85	0.00	58.34	0.00	0.00	438.51			
January 5, 1999	496.85	0.00	57.00	0.00	0.00	439.85			
April 1, 1999	496.85	0.00	58.73	0.00	0.00	438.12			
July 14, 1999	496.85	0.00	59.31	0.00	0.00	437.54			
October 22, 1999	496.85	0.00	59.61	0.00	0.00	437.24			
January 25, 2000	496.85	0.00	60.07	0.00	0.00	436.78			
April 3, 2000	496.85	0.00	60.43	0.00	0.00	436.42			
July 17, 2000	496.85	0.00	60.92	0.00	0.00	435.93			
October 24, 2000	496.85	0.00	61.30	0.00	0.00	435.55			
January 24, 2001	496.85	0.00	61.67	. 0.00	0.00	435.18			
October 18, 2001	496.85	0.00	62.94	0.00	0.00	433.91			

Historic Groundwater / Product Levels

# Monitor Well #10

# Screened Interval - 426.00' to 446.00'

Date	TOC Elevation Feet	Depth to PSH Feet	Depth to GW Feet	Product Thickness Feet	Adjusted Thickness Feet	GW Elevation Corrected for PSH			
September 17, 1996	<u>rect</u>	Sheet and the second	Not I	installed	reet				
October 23, 1996		Not Installed							
April 10, 1997	492.46	0.00	52.83	0.00	0.00	439.63			
July 7, 1997	492.46	0.00	53.09	0.00	0.00	439.37			
October 8, 1997	492.46	0.00	53.43	0.00	0.00	439.03			
January 6, 1998	492.46	0.00	53.86	0.00	0.00	438.60			
April 3, 1998	492.46	0.00	54.17	0.00	0.00	438.29			
June 25, 1998	492.46	0.00	54.35	0.00	0.00	438.11			
October 2, 1998	492.46	0.00	54.76	0.00	0.00	437.70			
January 5, 1999	492.46	0.00	54.43	0.00	0.00	438.03			
April 1, 1999	492.46	0.00	55.04	0.00	0.00	437.42			
July 14, 1999	492.46	0.00	55.59	0.00	0.00	436.87			
October 22, 1999	492.46	0.00	55.94	0.00	0.00	436.52			
January 25, 2000	492.46	0.00	56.35	0.00	0.00	436.11			
April 3, 2000	492.46	0.00	56.96	0.00	0.00	435.50			
July 17, 2000	492.46	0.00	57.02	0.00	0.00	435.44			
October 24, 2000	492.46	0.00	57.44	0.00	0.00	435.02			
January 24, 2001	492.46	0.00	57.84	0.00	0.00	434.62			
October 18, 2001	492.46	0.00	58.91	0.00	0.00	433.55			

# Historic Groundwater Analytical Results (mg/l)

# Monitor Well #1

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Date	В	Т	E	X	Phenol	Naphthalene	Chloride		
02/14/96	0.083	<0.001	<0.001	0.008					
02/29/96	<0.001	<0.001	<0.001	<0.001					
04/20/96	0.305	<0.001	0.002	0.032	<0.001	0.017			
10/23/96	0.352	<0.001	0.026	0.081	0.025	0.01			
04/10/97	0.268	<0.001	0.012	0.034	<0.001	0.007			
07/07/97	0.243					0.005			
10/08/97	0.180	<0.001	0.012	<0.001		.003	<10		
01/06/98	0,138	<0.001	0.008	<0.001		0.002	6.2		
04/03/98	0.109	<0.001	0.004	0.006		0.003	51		
06/25/98	0.071	<0.001	0.002	0.003		<0.001	7.3		
10/02/98	0:078	<0.005	<0.005	<0.005		<0.001	. 14.0		
01/05/99	0.005	<0.001	<0.001	<0.001			-		
04/01/99	<0.005	<0.005	<0.005	<0.005					
07/14/99	<0.005	<0.005	<0.005	<0.005					
10/22/99	<0.001	<0.001	<0.001	<0.001					
01/25/00	0.001	<0.001	<0.001	<0.001					
04/03/00	<0.005	<0.005	<0.005	<0.005					
07/17/00	<0.005	<0.005	<0.005	<0.005		· · · · · · · · · · · · · · · · · · ·	·		
10/24/00	0.055	0.036	0.025	0.090					
01/24/01	<0.005	<0.005	<0.005	<0.005					
10/18/01	Not enough water to sample.								

Shaded areas indicate over OCD Limits

# Historic Groundwater Analytical Results (mg/l)

Date	В	Т	E	x	Phenol	Naphthalene	Chloride		
10/23/96	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01			
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
07/07/97	<0.001					••			
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	19		
01/06/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	27		
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	96		
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	25.0		
10/02/98	0.002	<0.001	<0.001	<0.001		<0.001			
01/05/99	Sampling discontinued as approved by OCD								

# Monitor Well #2
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### Historic Groundwater Analytical Results (mg/l)

### Monitor Well #3

Date	В	Т	E	x	Phenol	Naphthalene	Chloride
10/23/96	0.001	<0.001	<0.001	<0.001	<0.001	<0.01	
04/10/97	0.016	<0.001	<0.001	0.005	<0.001	<0.001	
07/07/97	0.003	-					
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	64
01/06/98	<0.001	<0.001	<0.001	<0.001		<0.001	58
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	130
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	12
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	46
01/05/99	<0.001	<0.001	<0.001	<0.001			
04/01/99	<0.001	<0.001	<0.001	<0.001			
07/14/99	<0.001	<0.001	<0.001	<0.001			
10/22/99	<0.001	<0.001	<0.001	<0.001		40 <b>4</b> 0	
01/25/00	<0.001	<0.001	<0.001	<0.001			
04/03/00	<0.005	<0.005	<0.005	<0.005			
07/17/00	0.010	<0.005	<0.005	<0.005			
10/24/00	0.020	0.008	<0.005	0.014			
01/24/01	<0.005	<0.005	<0.005	<0.005			100
10/18/01	0.0059	<0.001	<0.001	<0.001			

Shaded areas indicate over OCD Limits

### Historic Groundwater Analytical Results (mg/l)

### Monitor Well #4

Date	В	Т	E .	X	Phenol	Naphthalene	Chloride
10/23/96	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
07/07/97	<0.001						
10/08/97	<0.001	<0.001	<0.001	<0.001	·	<0.001	<10
01/06/98	<0.001	<0.001	<0.001	<0.001		<0.001	10
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	58
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	11
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	18
01/05/99			Sampling d	liscontinued	as approved 1	by OCD	

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### Historic Groundwater Analytical Results (mg/l)

### Monitor Well #5

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Date	В	Т	Е	X	Phenol	Naphthalene	Chloride
10/23/96	0.135	<0.001	0.006	0.071	<0.001	<0.01	
04/10/97	0:043	<0.001	<0.001	0.063	<0.001	0.001	
07/07/97	0.015					<0.001	
10/08/97	0.050	<0.001	<0.001	<0.001		0.001	24
01/06/98	0.031	<0.001	<0.001	0.010		<0.001	27
04/03/98	0.037	<0.001	0.002	0.019		0.001	69
06/25/98	0:017	<0.001	<0.001	0.006		<0.001	23
10/02/98	0.011	<0.001	<0.001	<0.001		<0.001	87
01/05/99	0.005	<0.001	<0.001	<0.001			_
04/01/99	0.003	<0.001	<0.001	<0.001			
07/14/99	<0.001	<0.001	<0.001	<0.001			
10/22/99	<0.001	<0.001	<0.001	<0.001	-		
01/25/00	<0.001	<0.001	<0.001	<0.001			
04/03/00	<0.005	<0.005	<0.005	<0.005			
07/17/00	<0.005	<0.005	<0.005	<0.005			
10/24/00	<0.005	<0.005	<0.005	<0.005			
01/24/01			No	t enough wat	er to sample		
10/18/01			No	t enough wat	er to sample.		

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Shaded areas indicate over OCD Limits

### Historic Groundwater Analytical Results (mg/l)

### Monitor Well #6

Date	В	T	E	X	Phenol	Naphthalene	Chloride
10/23/96	0.192	<0.001	<0.001	0.013	<0.001	<0.01	
04/10/97	0.272	<0.001	<0.001	0.014	<0.001	<0.001	
07/07/97	0.106						
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	30
01/06/98	0.132	<0.001	<0.001	0.004		<0.001	31
04/03/98	0.165	<0.001	<0.001	0.008		<0.001	98
06/25/98	0.143	<0.001	<0.001	0.009		<0.001	28
10/02/98	0.157	<0.005	<0.005	0.012		<0.001	31
01/05/99	0.123	<0.001	<0.001	0.004			56
04/01/99	0.120	<0.001	<0.001	<0.005			31
07/14/99	0.093	<0.005	<0.005	<0.005			34
10/22/99	0:090	<0.001	<0.001	<0.001			31.5
01/25/00	0.105	<0.001	<0.001	<0.001		<b></b>	35
04/03/00	0.157	<0.005	<0.005	<0.005		· •	33
07/17/00	0.126	<0.005	<0.005	<0.005			33
10/24/00	0.031	<0.005	<0.005	0.006			30
01/24/01	0.020	<0.005	<0.005	<0.005			28
10/18/01			No	t enough wat	er to sample	•	

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Shaded areas indicate over OCD Limits

### Historic Groundwater Analytical Results (mg/l)

### Monitor Well #7

Date	В	T	E	X	Phenol .	Naphthalene	Chloride
01/09/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
07/07/97	<0.001						
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	33
01/06/98	<0.001	<0.001	<0.001	<0.001		<0.001	37
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	120
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	33
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	36
01/05/99	<0.001	<0.001	<0.001	<0.001		••	74
04/01/99	<0.001	<0.001	<0.001	<0.001			36
07/14/99	<0.001	<0.001	<0.001	<0.001			35
10/22/99	<0.001	<0.001	<0.001	<0.001			35.2
01/25/00	<0.001	<0.001	<0.001	<0.001			32
04/03/00	<0.001	<0.001	<0.001	<0.001		·	31
07/17/00	<0.001	<0.001	<0.001	<0.001		<b>C</b> itics	32
10/24/00	<0.001	<0.001	<0.001	<0.001			33
01/24/01	<0.005	<0.005	<0.005	<0.005			33
10/18/01	0.0252	<0.001	<0.001	<0.001			39.5

Shaded areas indicate over OCD Limits

### Historic Groundwater Analytical Results (mg/l)

### Monitor Well #8

Date	В	T	E	X	Phenol	Naphthalene	Chloride
10/23/96				Well Not I	installed		
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
07/07/97	<0.001						
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	15
01/06/98	<0.001	<0.001	<0.001	<0.001		<0.001	27
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	160
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	26
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	27
01/05/99			Sampling o	liscontinued	as approved	by OCD	

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### Historic Groundwater Analytical Results (mg/l)

### Monitor Well #9

Date	В	· · T · ·	E	Х	Phenol	Naphthalene	Chloride
10/23/96				Well Not I	nstalled		
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	320
07/07/97	<0.001					-*	41
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	560
01/06/98	<0.001	<0.001	<0.001	<0.001		<0.001	490
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	460
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	290
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	200
01/05/99	<0.001	<0.001	<0.001	<0.001	-		520
04/01/99	<0.001	<0.001	<0.001	<0.001			260
07/14/99	<0.001	<0.001	<0.001	<0.001			284
10/22/99	<0.001	<0.001	<0.001	<0.001			278
01/25/00	<0.005	<0.005	<0.005	<0.005			300
04/03/00	<0.005	<0.005	0.012	<0.005			250
07/17/00	<0.001	<0.001	<0.001	<0.001		. <b></b>	95
10/24/00	<0.001	<0.001	<0.001	<0.001			40
01/24/01	<0.005	<0.005	<0.005	<0.005			42
10/18/01	<0.001	<0.001	<0.001	<0.001	·		166

Shaded areas indicate over OCD Limits

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### Historic Groundwater Analytical Results (mg/l)

Date	В	T	Е	Х	Phenol	Naphthalene	Chloride
10/23/96				Well Not I	nstalled		
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
07/07/97	<0.001		-1			-	8.8
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	110
01/06/98	<0.001	<0.001	<0.001	<0.001		<0.001	101
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	180
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	140
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	160
01/05/99	<0.001	<0.001	<0.001	<0.001			140
04/01/99	<0.001	<0.001	<0.001	<0.001			128
07/14/99	<0.001	<0.001	<0.001	<0.001			124
10/22/99	<0.001	<0.001	<0.001	<0.001			122
01/25/00	<0.001	<0.001	<0.001	<0.001		-	120
04/03/00	<0.001	<0.001	<0.001	<0.001		•••	130
07/17/00	<0.005	<0.005	<0.005	<0.005			130
10/24/00	<0.001	<0.001	<0.001	<0.001			150
01/24/01	<0.005	<0.005	<0.005	<0.005			18
10/18/01	<0.001	<0.001	<0.001	<0.001			119

### Monitor Well #10

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### Analytical and Quality Control Report

Scott Springer	Report Date:	July 1, 2002
Eco-Logical Environmental Services		
2200 Market Street		
Midland, TX 79703	Order ID Number:	A01012908

Project Number:279-512Project Name:Former Hobbs Gas PlantProject Location:Hobbs, NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
163762	MW-1	Water	1/24/01	11:30	1/27/01
163763	MW-3	Water	1/24/01	11:14	1/27/01
163764	MW-6	Water	1/24/01	11:53	1/27/01
163765	MW-7	Water	1/24/01	10:35	1/27/01
163766	MW-9	Water	1/24/01	11:20	1/27/01
163767	MW-10	Water	1/24/01	10:57	1/27/01
163768	MW-6D	Water	1/24/01	11:53	1/27/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed. Note: the RDL is equal to MQL for all organic analytes including TPH.

The test results contained within this report meet all requirements of LAC 33:I unless otherwise noted.

This report consists of a total of 7 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

for Dr. Blair Leftwich, Director

Report Date: July 1, 2002 279-512

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Order Number: A01012908 Former Hobbs Gas Plant

### **Analytical Report**

Sample: Analysis: Analyst:	<b>163762</b> BTEX JW	- MW-1 Analytical Method: Preparation Method:	S 8021B E 5030B	QC Batch: Prep Batch:	QC08615 PB07464	Date Analyzed: Date Prepared:	1/30/01 1/30/01
Param		Flag	Result	Units	Dilu	tion	$\mathbf{RDL}$
Benzene			<0.005	mg/L	Ę	5	0.001
Toluene			< 0.005	mg/L	Į	5	0.001
Ethylbenze	ne		< 0.005	mg/L	Ę	5	0.001
M,P,O-Xyle	ene		< 0.005	mg/L	Ę	5	0.001
Total BTE	x		< 0.005	mg/L	Ę	5	0.001
					·		

					Spike	Percent	Recovery
Surrogate	$\mathbf{Flag}$	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
TFT		0.481	mg/Kg	5	0.10	96	70 - 130
4-BFB		0.431	Mg	5	0.10	86	70 - 130

### Sample: 163763 - MW-3

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC08615	Date Analyzed:	1/30/01
Analyst:	JW	Preparation Method:	E 5030B	Prep Batch:	PB07464	Date Prepared:	1/30/01
Param		$\mathbf{Flag}$	Result	Units	Dilut	ion	RDL
Benzene			< 0.005	mg/L	5		0.001
Toluene		•	<0.005	mg/L	5		0.001
Ethylbenze	ene	•	<0.005	m mg/L	5		0.001
M,P,O-Xyl	ene	•	<0.005	m mg/L	5		0.001
Total BTE	X	•	<0.005	mg/L	5		0.001

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
$\mathbf{TFT}$		0.487	mg/Kg	5	0.10	97	70 - 130
4-BFB		0.436	mg/Kg	5	0.10	87	70 - 130

Sample: Analysis: Analyst:	<b>163763</b> Ion Chrom JS	- MW-3 atography (IC) Ana Pre	alytical Method: paration Method:	E 300.0 QC N/A Pr	C Batch: ep Batch:	QC08700 Date Analyze PB07526 Date Prepare	d: 1/30/01 d: 1/30/01
Param	Flag	Result	Units	Dilution			RDL
Sample: Analysis: Analyst:	<b>163764</b> BTEX JW	- MW-6 Analytical Method Preparation Meth	l: S 8021B od: E 5030B	QC Batch: Prep Batch:	QC0861 : PB07464	5 Date Analyzed: 4 Date Prepared:	1/30/01 1/30/01

Report Dat 279-512	e: July 1, 20	002	Order N Former	umber: A0101290 Hobbs Gas Plan	08 t	Page Number: 3 of 7 Hobbs, NM		
Param	aram Flag enzene		Result	Units	Dil	ution	RDL	
Benzene			0.02	mg/L		5	0.001	
Toluene			< 0.005	mg/L		5	0.001	
Ethylbenzer	ne		< 0.005	mg/L		5	0.001	
M.P.O-Xvle	ne		< 0.005			5	0.001	
Total BTEX	ζ		0.02	8/ mg/L		5	0.001	
	-							
					Spike	Percent	Recovery	
Surrogate	$\mathbf{F}$ lag	Result	Units	Dilution	Amount	Recovery	Limits	
TFT		0.476	mg/Kg	5	0.10	95	70 - 130	
<u>4-BFB</u>		0.426	mg/Kg	5	0.10	85	70 - 130	
Sample: Analysis: Analyst:	<b>163764</b> Ion Chron JS	- MW-6 hatography (IC) A P	nalytical Method reparation Metho	l: E 300.0 QC od: N/A Pre	Batch: Q( p Batch: PE	C08700 Date Analyz 307526 Date Prepar	ed: 1/30/01 ed: 1/30/01	
Param	Flag	Result	Units	Dilution			RDL	
Sample: Analysis: Analyst:	<b>163765</b> BTEX JW	- MW-7 Analytical Meth Preparation Met	od: S 8021B hod: E 5030B	QC Batch: Prep Batch:	QC08615 PB07464	Date Analyzed: Date Prepared:	1/30/01 1/30/01	
Param		Flag	Besult	Units	Dil	ution	RDI.	
Benzene			<0.005			5	0.001	
Toluene			<0.000	mg/L		5	0.001	
Ethylbenzer	ne		<0.000	mg/L		5	0.001	
M P O_Yvle			<0.000	mg/L		5	0.001	
Total BTE	х лс		<0.005	mg/L		5	0.001	
10tal B1122	<u>n</u>		<0.005	mg/L		J	0.001	
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
$\mathbf{TFT}$		0.471	m mg/Kg	5	0.10	94	70 - 130	
<u>4-BFB</u>		0.42	mg/Kg	5	0.10	84	70 - 130	
Sample: Analysis: Analyst: Param	<b>163765</b> Ion Chron JS Flag	- MW-7 hatography (IC) A P Result	nalytical Methor reparation Metho Units	l: E 300.0 QC od: N/A Pre Dilution	Batch: Q( p Batch: PI	C08700 Date Analyz 307526 Date Prepar	ed: 1/30/01 ed: 1/30/01 RDL	
Sample: Analysis: Analyst:	<b>163766</b> BTEX JW	- MW-9 Analytical Meth Preparation Met	od: S 8021B thod: E 5030B	QC Batch: Prep Batch:	QC08615 PB07464	Date Analyzed: Date Prepared:	1/30/01 1/30/01	

Report Date 279-512	: July 1, 20	002	Order Nu Former	Page Nu	Page Number: 4 of 7 Hobbs, NM		
Param		Flag	Result	Units	Dil	ution	RDL
Benzene			< 0.005	mg/L		5	0.001
Toluene			< 0.005	mg/L		5	0.001
Ethylbenzen	e		< 0.005	mg/L		5	0.001
M.P.O-Xvler	ne		< 0.005	mg/L		5	0.001
Total BTEX			<0.005	mg/L		5	0.001
					Spike	Percent	Recovery
Surrogate	$\mathbf{Flag}$	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
TFT		0.437	mg/Kg	5	0.10	87	70 - 130
4-BFB		0.384	mg/Kg	5	0.10	76	70 - 130
Sample: Analysis: Analyst:	<b>163766</b> Ion Chrom JS	- MW-9 hatography (IC) A P	nalytical Method reparation Metho	l: E 300.0 QC od: N/A Prej	Batch: QC p Batch: PE	C08700 Date Analyz 307526 Date Prepar	ed: 1/30/01 ed: 1/30/01
Param	Flag	Result	Units	Dilution			RDL
Param Benzene Toluene Ethylbenzen	e	Flag	Result <0.005 <0.005 <0.005	Units mg/L mg/L mg/L	Dil	ution 5 5 5 5	RDL 0.001 0.001 0.001
M,P,O-Xylei	ne		$<\!0.005$	$\mathrm{mg/L}$		5	0.001
Total BTEX			<0.005	mg/L		5	0.001
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent	Recovery Limits
TFT		0.445	mg/Kg	5	0.10	89	70 - 130
4-BFB		0.399	mg/Kg	5	0.10	79	70 - 130
Surrogate TFT 4-BFB Sample: Analysis: Analyst: Param	Flag 163767 Ion Chron JS Flag	Result 0.445 0.399 - MW-10 hatography (IC) A F Result	Units mg/Kg mg/Kg analytical Method reparation Method Units	Dilution 5 5 d: E 300.0 QC od: N/A Pre Dilution	Spike Amount 0.10 0.10 Batch: Q0 p Batch: PE	Percent Recovery 89 79 C08700 Date Analyz 307526 Date Prepar	F eed: ed:
le: s:	<b>163768</b> BTEX JW	- MW-6D Analytical Meth Preparation Me	od: S 8021B thod: E 5030B	QC Batch: Prep Batch:	QC08615 PB07464	Date Analyzed: Date Prepared:	1/30/01 1/30/01

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Report Date: July 1, 2002 279-512			Order Number: A01012908 Former Hobbs Gas Plant				Page Number: 5 of 7 Hobbs, NM	
Param Flag		Flag	Result	Units	Dil	Dilution		
Benzene	0.023 mg/L 5		5	0.001				
Toluene	oluene		< 0.005	mg/L		5	0.001	
Ethylbenzene			< 0.005	mg/L		5		
M,P,O-Xylene			< 0.005	mg/L		5	0.001	
Total BTEX			0.023	mg/L		5	0.001	
Surrogate	Flag	$\operatorname{Result}$	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
TFT		0.457	mg/Kg	5	0.10	91	70 - 130	
4-BFB		0.403	mg/Kg	. 5	0.10	80	70 - 130	

### Sample: 163768 - MW-6D

j

Analysis:	Ion Chromat	tography (IC	) Analytical Method:	E 300.	0 QC Batch:	QC08700 Date Analyzed: 1/30/01
Analyst:	$\mathbf{JS}$		Preparation Method:	N/A	Prep Batch:	PB07526 Date Prepared: 1/30/01
Param	Flag	Result	Units	Dilution		RDL

Report Date: July 1, 2002 279-512

70 - 130

# Quality Control Report Method Blank

Method H	Blank	QCBatch:	QC08615				
							Reporting
Param		Flag		Results	Units	3	Limit
Benzene				< 0.001	mg/I		0.001
Toluene				< 0.001	mg/I		0.001
Ethylbenzene				< 0.001	mg/I	ا	0.001
M,P,O-Xylene	9			< 0.001	mg/I	J	0.001
Total BTEX			· · ·	< 0.001	mg/I		0.001
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
TFT		0.102	mg/L	1	0.10	102	70 - 130

# Quality Control Report Lab Control Spikes and Duplicate Spikes

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0.10

91

Laboratory Control Spikes

4-BFB

0.091

QCBatch: QC08615

Param	LCS Result	$\begin{array}{c} \mathrm{LCSD} \\ \mathrm{Result} \end{array}$	Units	Dil.	Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.1	0.099	mg/L	1	0.10	< 0.001	100	1	70 - 130	20
Benzene	0.099	0.098	mg/L	1	0.10	< 0.001	99	1	70 - 130	20
Toluene	0.1	0.1	mg/L	1	0.10	< 0.001	100	0	70 - 130	20
Ethylbenzene	0.097	0.096	mg/L	1	0.10	< 0.001	97	1	70 - 130	20
M,P,O-Xylene	0.288	0.287	mg/L	1	0.30	< 0.001	96	0	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

mg/L

mg/L

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	$\begin{array}{c} \mathrm{LCS} \\ \mathrm{\% \ Rec} \end{array}$	$\begin{array}{c} { m LCSD} \\ { m \% \ Rec} \end{array}$	Recovery Limits
TFT	0.102	0.102	mg/L	1	0.10	102	102	70 - 130
4-BFB	0.092	0.092	mg/L	1	0.10	92	92	70 - 130

# Quality Control Report Continuing Calibration Verification Standards

							~ .
MTBE		mg/L	0.10	0.093	93	85 - 115	1/30/01
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
			True	Found	Percent	Recovery	Date
			CCVs	CCVs	CCVs	Percent	
CCV(1)	QCBa	tch: QC08	8615				

Continued ...

Report Date: July 1, 2002 279-512			Order N Former	umber: A0101 Hobbs Gas Pl	Page Number: 7 of 7 Hobbs, NM		
Continued						_	
			$\rm CCVs$	$\rm CCVs$	$\mathrm{CCVs}$	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/L	0.10	0.095	95	85 - 115	1/30/01
Toluene		mg/L	0.10	0.095	95	85 - 115	1/30/01
Ethylbenzene		mg/L	0.10	0.092	92	85 - 115	1/30/01
M,P,O-Xylene		mg/L	0.30	0.272	90	85 - 115	1/30/01

### CCV (2) QCBatch: QC08615

			CCVs	$\rm CCVs$	$\mathrm{CCVs}$	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	$\mathbf{Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
MTBE		mg/L	0.10	0.083	83	85 - 115	1/30/01
Benzene		m mg/L	0.10	0.095	95	85 - 115	1/30/01
Toluene		m mg/L	0.10	0.096	96	85 - 115	1/30/01
Ethylbenzene		mg/L	0.10	0.091	91	85 - 115	1/30/01
M,P,O-Xylene		mg/L	0.30	0.27	90	85 - 115	1/30/01

ICV (1) QCBatch:

 $\mathbf{CCVs}$  $\mathbf{CCVs}$ CCVs Percent True Found Percent Recovery Date Conc. Flag Param Units Conc. Recovery Limits Analyzed MTBE mg/L 0.10 0.101 101 85 - 115 1/30/01 1/30/01 1/30/01 1/30/01 Benzene mg/L 97 0.10 0.097 85 - 115 mg/L 98 Toluene 0.10 0.098 85 - 115 Ethylbenzene mg/L0.10 0.095 95 85 - 115 M,P,O-Xylene mg/L 0.30 0.286 95 85 - 115 1/30/01

QC08615

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TraceAnalysis, Inc.

6701 Aberdeen Ave., Suite 9

Lubbock, TX 79424-1515

Report Date: October 29, 2001Order Number: A01102207 Former Hobbs Gas Plant 279-512

Page Number: 1 of 1 Hobbs, NM

### **Summary Report**

Scott Springer Eco-Logical Environmental Services 2200 Market Street Midland, TX 79703

Report Date:

October 29, 2001

Order ID Number: A01102207

Project Number: 279-512 Project Name: Former Hobbs Gas Plant Project Location: Hobbs, NM

· · ·			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
182456	MW-3	Water	10/18/01	- •	10/20/01
182457	MW-7	Water	10/18/01	:	10/20/01
182458	MW-9	Water	10/18/01	:	10/20/01
182459	MW-10	Water	10/18/01	:	10/20/01

This report consists of a total of 1 page(s) and is intended only as a summary of results for the sample(s) listed above.

	BTEX								
	Benzene	Toluene	Ethylbenzene	M,P,O-Xylene	Total BTEX				
Sample - Field Code	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)				
182456 - MW-3	0.0059	< 0.001	< 0.001	<0.001	0.0059				
182457 - MW-7	0.0252	< 0.001	< 0.001	<0.001	0.0252				
182458 - MW-9	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001				
182459 - MW-10	< 0.001	<0.001	<0.001	<0.001	<0.001				

#### Sample: 182457 - MW-7

Param	Flag	Result	Units
CL		39.5	mg/L

#### Sample: 182458 - MW-9

Param	Flag	Result	Units
<u>CL</u>		166	mg/L

### Sample: 182459 - MW-10

Param	Flag	Result	Units
CL		119	mg/L

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Lubbock, Texas 79424 800•378•1296 888•588•3443 El Paso, Texas 79932

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E-Mail: lab@traceanalysis.com

### Analytical and Quality Control Report

Scott Springer Eco-Logical Environmental Services 2200 Market Street Midland, TX 79703

Report Date:

October 29, 2001

Order ID Number: A01102207

**Project Number:** 279-512 **Project Name:** Former Hobbs Gas Plant Project Location: Hobbs, NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
182456	MW-3	Water	10/18/01	;	10/20/01
182457	MW-7	Water	10/18/01	:	10/20/01
182458	MW-9	Water	10/18/01	:	10/20/01
182459	MW-10	Water	10/18/01	:	10/20/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 6 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

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### Analytical Report

### Sample: 182456 - MW-3

Analysis: Analyst:	BTEX	Analytical Method: Preparation Method:	S 8021B E 5030B	QC Batch: Prep Batch:	QC15070 Date Analyzed: PB12819 Date Prepared:	$\frac{10}{22}$
runny st.	Cu	i icparation method.	1 00001	i iop Daton.		10/22/01
Param		Flag	Result	Units	Dilution	RDL
Benzene			0.0059	mg/L	1	0.001
Toluene			<0.001	m mg/L	1	0.001
Ethylbenze	ne		< 0.001	mg/L	1	0.001
M,P,O-Xyle	ene		< 0.001	mg/L	1	0.001
Total BTE	X		0.0059	mg/L	1	0.001

					Spike	Percent	Recovery
Surrogate	Flag	$\operatorname{Result}$	$\mathbf{Units}$	Dilution	Amount	Recovery	Limits
TFT	and a second second second second second second second second second second second second second second second s	0.104	mg/L	1	0.10	104	72 - 128
4-BFB		0.0791	mg/L	1	0.10	79	72 - 128

### Sample: 182457 - MW-7

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC15070	Date Analyzed:	10/22/01
Analyst:	CG	Preparation Method:	E 5030B	Prep Batch:	PB12819	Date Prepared:	10/22/01
_							
Param		Flag	Result	Units	Di	lution	RDL
Benzene			0.0252	mg/L		1	0.001
Toluene			< 0.001	m mg/L		1	0.001
Ethylbenze	ne		< 0.001	m mg/L		1	0.001
M,P,O-Xyl	ene		< 0.001	mg/L		1	0.001
Total BTE	X		0.0252	mg/L		1	0.001

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
$\overline{\mathrm{TFT}}$		0.107	mg/L	1	0.10	107	72 - 128
4-BFB		0.0824	mg/L	1	0.10	82	72 - 128

Sample: Analysis: Analyst:	<b>182457 -</b> Ion Chroma JS	MW-7 tography (IC	Analytical Method: Preparation Method:	E 300.0QC Batch: N/A Prep Batch:	QC15218Date Analyzed:10/22/01 PB12924Date Prepared:10/22/01
Param	Flag	Result	Units	Dilution	RDL
CL		39.5	mg/L	5	0.50

Sample: Analysis: Analyst:	<b>18245</b> BTEX CG	8 - MW-9 Analytical Method: Preparation Method	S 8021B E 5030B	QC Batch: Prep Batch:	QC15070 PB12819	Date Analyzed: Date Prepared:	10/22/01 10/22/01
Param		Flag	Result	Units	Di	lution	RDL
Benzene			< 0.001	mg/L		1	0.001

Continued ...

Units mg/L mg/L mg/L Dilution 1 1 E 300.0QC d: N/A Pre	Dil Spike Amount 0.10 0.10	lution 1 1 1 1 Percent Recovery 107 82	RDL 0.001 0.001 0.001 0.001 Recovery Limits 72 - 128 72 - 128
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1 E 300.0QC d: N/A Pre	0.10	82	72 - 128
E 300.0QC d: N/A Pre			
	p Batch: QC	215218Date Analyze 212924Date Prepare	ed:10/22/01 ed:10/22/01
Dilution			RDI
5			0.50
QC Batch: Prep Batch:	QC15070 PB12819	Date Analyzed: Date Prepared:	10/22/01 10/22/01
Units	D1	ution	RDL
mg/L		1	0.001
mg/L mg/I		1	0.001
mg/L		1	0.001
		1	0.001
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mg/L		· · · · · · · · · · · · · · · · · · ·	0.001
Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dilution	Spike Amount 0.10	Percent Recovery 105	Recovery Limits 72 - 128
	Dilution 5 QC Batch: Prep Batch: Units mg/L mg/L mg/L	Dilution 5 QC Batch: QC15070 Prep Batch: PB12819 Units Dil mg/L mg/L mg/L mg/L	Dilution       5       QC Batch:     QC15070       Prep Batch:     PB12819       Date Prepared:       Units     Dilution       mg/L     1       mg/L     1       mg/L     1

Report Date: October 29, 2001 279-512

Order Number: A01102207 Former Hobbs Gas Plant

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### Quality Control Report Method Blank

Method Blank

QCBatch: QC15070

				Reporting
Param	Flag	Results	Units	Limit
Benzene	<u> </u>	<0.001	mg/L	0.001
Toluene		< 0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene		< 0.001	mg/L	0.001
Total BTEX	•	<0.001	m mg/L	0.001

					Spike	Percent	Recovery
Surrogate	$\mathbf{Flag}$	Result	Units	Dilution	Amount	Recovery	Limits
$\overline{\mathrm{TFT}}$		0.106	mg/L	1	0.10	106	72 - 128
4-BFB		0.0799	mg/L	1	0.10	80	72 - 128

Method Blank	QCBatch:	QC15218		
Param	Flag	Results	Units	Reporting Limit
CL	<u>_</u>	<2.0	mg/L	0.50

### Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC15070

					Spike					
	LCS	LCSD			Amount	Matrix			% Rec	RPD
Param	Result	Result	Units	Dil.	Added	Result	% Rec	RPD	Limit	Limit
MTBE	0.0921	0.0954	mg/L	1	0.10	< 0.001	92	4	80 - 120	20
Benzene	0.0979	0.102	mg/L	1	0.10	< 0.001	98	4	80 - 120	20
Toluene	0.0885	0.0929	mg/L	1	0.10	< 0.001	88	5	80 - 120	20
Ethylbenzene	0.0909	0.0953	mg/L	1	0.10	< 0.001	91	5	80 - 120	20
M,P,O-Xylene	0.276	0.287	mg/L	1	0.30	< 0.001	92	4	80 - 120	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	$\begin{array}{c} \mathrm{LCS} \\ \mathrm{Result} \end{array}$	$\begin{array}{c} { m LCSD} \\ { m Result} \end{array}$	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.105	0.110	mg/L	1	0.10	105	110	72 - 128
4-BFB	0.0961	0.0995	mg/L	1	0.10	96	100	72 - 128

Laboratory Control Spikes

QCBatch: QC15218

Report Date: October 29, 2001 279-512 Order Number: A01102207 Former Hobbs Gas Plant

	· · ·	dei a∵.	• •	,	Spike					
	LCS	LCSD			Amount	Matrix			% Rec	RPD
Param	Result	Result	Units	Dil.	Added	Result	% Rec	RPD	Limit	Limit
CL	11.73	11.78	mg/L	1	12.50	<2.0	93	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

### Quality Control Report Matrix Spikes and Duplicate Spikes

Matrix	c Spikes	QCBatch:		QC1521	8					
<u>.</u>	MS	MSD			Spike Amount	Matrix	~ ~		% Rec	RPD
Param	$\mathbf{Result}$	Result	Units	Dil.	Added	Result	% Rec	$\operatorname{RPD}$	Limit	Limit
CL	237.10	237.77	mg/L	1	125	119	94	0	52 - 131	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

### Quality Control Report Continuing Calibration Verification Standards

CCV (1)

QCBatch: QC15070

			$\mathrm{CCVs}$	CCVs	$\mathrm{CCVs}$	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	$\mathbf{Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
MTBE		mg/L	0.10	0.0883	88	85 - 115	10/22/01
Benzene		mg/L	0.10	0.0981	98	85 - 115	10/22/01
Toluene		$\mathrm{mg/L}$	0.10	0.0882	88	85 - 115	10/22/01
Ethylbenzene		m mg/L	0.10	0.0905	90	85 - 115	10/22/01
M,P,O-Xylene		mg/L	0.30	0.275	92	85 - 115	10/22/01

CCV(2)

QCBatch: QC15070

			$\mathrm{CCVs}$	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	$\mathbf{Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
MTBE		mg/L	0.10	0.086	86	85 - 115	10/22/01
Benzene		mg/L	0.10	0.096	96	85 - 115	10/22/01
Toluene		m mg/L	0.10	0.085	85	85 - 115	10/22/01
Ethylbenzene		mg/L	0.10	0.088	88	85 - 115	10/22/01
M,P,O-Xylene		mg/L	0.30	0.267	89	85 - 115	10/22/01

ICV (1)

QCBatch: QC15070

Report Date: 279-512	Octobe	er 29, 2001		Ord For	er Number: A0 rmer Hobbs Ga	91102207 s Plant	Page	Number: 6 of 6 Hobbs, NM
				CCVs	CCVs	CCVs	Percent	· .
				True	Found	Percent	Recovery	Date
Param		Flag	$\mathbf{Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
MTBE			mg/L	0.10	0.0974	97	85 - 115	10/22/01
Benzene			mg/L	0.10	0.104	104	85 - 115	10/22/01
Toluene			m mg/L	0.10	0.0965	96	85 - 115	10/22/01
Ethylbenzene			m mg/L	0.10	0.0984	98	85 - 115	10/22/01
M,P,O-Xylene			mg/L	0.30	0.295	98	85 - 115	10/22/01
CCV (1)		QCBatc	h: QC	15218				
				CCVs	CCVs	CCVs	Percent	
		,		True	Found	Percent	Recovery	Date
Param	Flag	Un	its	Conc.	Conc.	Recovery	Limits	Analyzed
CL		mg	/L	12.50	11.68	93	90 - 110	10/22/01

### ICV (1) QCBatch: QC15218

			$\mathrm{CCVs}$	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	$\mathbf{Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
CL		mg/L	12.50	11.76	94	90 - 110	10/22/01

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Mr. Wayne Price New Mexico Oil Conservation Division 2040 South Pacheo Santa Fe, NM 87505

HAR SEVATION DRUKSER

March 5, 2000 ECO # 279-512

Re.: Annual Groundwater Sampling Report Kinder/Morgan, Inc. Hobbs Gas Plant GW-191 Lea County, New Mexico

Dear Mr. Price:

Eco-logical Environmental Services, Inc. is submitting the Annual Groundwater Sampling Report for 2000.

If you have any questions or need additional information please do not hesitate to call me or Scott Springer at 800-375-0100.

Respectfully Submitted, Eco-logical Environmental Services, Inc.

Shane Estep, REM Project Manager

cc: Ms. Donna Williams, OCD - Hobbs, NM Mr. John Greer, Kinder/Morgan, Inc., Houston, TX. Eco-logicol Environmental Services Inc.

## 2000 ANNUAL GROUNDWATER MONITORING AND SAMPLING REPORT

## **Discharge Plan GW-191**

### FORMER HOBBS GAS PLANT LEA COUNTY, NEW MEXICO

KINDER MORGAN, INC. ONE ALLEN CENTER 500 DALLAS STREET SUITE 1000 HOUSTON, TEXAS 77002

2200 Market Street 79703 • (915) 520-7535 • FAX (915) 520-7737

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### 2000 ANNUAL GROUNDWATER MONITORING AND SAMPLING REPORT

### **DISCHARGE PLAN GW-191**

FORMER HOBBS NATURAL GAS PLANT HOBBS, LEA COUNTY, NEW MEXICO

> DATE PREPARED: FEBRUARY 28, 2001

ECO PROJECT NO.: 279-512

PREPARED FOR: New Mexico Oil Conservation Division

> **ON BEHALF OF:** Kinder Morgan, Inc.

**PREPARED BY:** ECO-LOGICAL ENVIRONMENTAL SERVICES, INC.

SCOTT SPRINGER, PROJECT GEOLOGIST

SHANE ESTEP, PROJECT MANAGER

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WQCC Guideline levels

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### I. Report Summary

The purpose of this report is to fulfill the requirements of the groundwater monitoring plan approved by the New Mexico Oil Conservation Division (OCD). On January 25, 2000, April 3, 2000, July 17, 2000, and October 24, 2000 Eco-logical Environmental Services, Inc. (Eco-logical) personnel were on-site to purge and sample ten (10) monitor wells (MW) at the Former Hobbs Gas Plant west of Hobbs, New Mexico (see Figure 1). The objective of this sampling event was to fulfill the Abatement Plan requirements approved by the OCD in April 1997 and as modified in December 1998. The modification removed MW-2, MW-4 and MW-8 from the requirements of quarterly sampling. This event involved the measurement of relative depths to water, purging of the monitoring wells, and sample collection and analyses. Figure 2 presents the site map with the locations of the monitor wells.

The plant has not been in operation for over three years. In addition to the plant closure, many compressors and skid mounted equipment have been removed. In the summer of 2000 the rest of the equipment belonging to Kinder Morgan, Inc. (KMI) was removed. The remaining equipment and structures have been sold to Transwestern Pipeline Company.

The initial task was to determine the static groundwater levels relative to the north side of the top of each well casing and to examine each well for the presence of phase separated hydrocarbons (PSH) using an interface probe with a calibrated tape (see Tables 1 - 10). Wells were measured from the least impacted to the most impacted as determined by previous sampling events. All equipment was properly decontaminated between gauging of wells. None of the wells exhibited free product.

The latest depth to groundwater at the site ranges from 57.4 to 65.1 feet below the ground surface. These depths represent an average drop in the water table of 4.65 feet since the sampling event in October of 1996 (see Figure 3). Monitor well 2 has had the same groundwater measurement (2 inches above the total well depth) since the January 2000 monitoring event indicated that water is trapped in the bottom cap and that the actual water level has dropped below the screened interval of the casing. The overall groundwater flow direction is stable to the southeast at an average gradient of 1:380 (see Figure 4 for a current gradient map).

After obtaining all measurements, the volume of water in each casing was calculated. The wells were then purged by hand bailing or by an electric submersible purge pump. Wells were purged until three well volumes of water were removed or until the well was dry. The bailers or pump were decontaminated between wells with a water and Alconox solution and rinsed in clean water. After allowing the wells to recover to at least 70 percent of the original water depth, samples were collected utilizing new, single use, one (1) liter bailers. Groundwater samples were then submitted to TraceAnalysis in Lubbock Texas for analyses. Based on previous analytical results and as approved by the OCD letter dated December 15, 1998, a minimized analyses schedule was performed. This included analysis for benzene, toluene, ethylbenzene, and xylene (BTEX) from monitor wells MW-1, MW-3, MW-5, MW-6, MW-7, MW-9, and MW-10 and chloride from monitor wells MW-6, MW-7, MW-9.

The latest analytical results showed that benzene levels in MW-6 continue to be present above the New Mexico Water Quality Control Commission (WQCC) Guideline level (see appendix) of 0.01 parts per million (ppm), at an average concentration of 0.105 ppm for the year. Data from MW-1 and MW-3 indicated that the guideline level was exceeded one out of four quarters for MW-1 and two of four quarters for MW-3. Prior to the last sampling event BTEX had not been detected in any significant levels since October of 1998 in MW-1 and since April 1997 in MW-3.

Only one well, MW-9, has historically contained chlorides above the established guidelines (located in 20 NMAC.6.2.3103) of 250 ppm. Chloride levels started at 300 ppm in January and have decreased to 40 ppm in the October sampling event. The last two quarterly sampling events indicated chloride levels to be below guidelines. The analytical results for the year are summarized as follows:

MVV-1	Benzene Toluene Ethylbenzene Xylene	<ul> <li>ranged from 0.001 ppm to 0.055 ppm</li> <li>ranged from less than 0.001 ppm to 0.036 ppm</li> <li>ranged from less than 0.001 ppm to 0.025 ppm</li> <li>ranged from less than 0.001 ppm to 0.09 ppm</li> </ul>
MW-2	Not Tested	
MW-3	Benzene Toluene Ethylbenzene Xylene	<ul> <li>ranged from less than 0.001 ppm to 0.02 ppm</li> <li>ranged from less than 0.001 ppm to 0.008 ppm</li> <li>all results were below detection levels</li> <li>ranged from less than 0.001 ppm to 0.014 ppm</li> </ul>
MW-4	Not Tested	
MW-5	BTEX	- all results were below detection levels

MW-6	Benzene Toluene Ethylbenzene Xylene Chloride	<ul> <li>ranged from 0.031 ppm to 0.157 ppm</li> <li>all results were below detection levels</li> <li>all results were below detection levels</li> <li>ranged from less than 0.001 ppm to 0.006 ppm</li> <li>ranged from 30 ppm to 35 ppm</li> </ul>
MW-7	BTEX Chloride	<ul> <li>remained less than 0.001 ppm</li> <li>ranged from 31 ppm to 33 ppm</li> </ul>
MW-8	Not Tested	
MW-9	Benzene Toluene Ethylbenzene Xylene Chloride	<ul> <li>all results were below detection levels</li> <li>all results were below detection levels</li> <li>ranged from less than 0.001 ppm to 0.012 ppm</li> <li>all results were below detection levels</li> <li>ranged from 40 ppm tp 300 ppm</li> </ul>
MW-10	BTEX Chloride	- remained less than 0.001 ppm - ranged from 120 ppm to 150 ppm

Results of the analyses of the water samples are presented in Tables 11 to 20. Figures 6 to 11 represent the estimated benzene isograds for the year 2000 quarterly sampling events. Figure 5 presents the estimated isograds for benzene for the latest quarterly sampling event (October 22, 1999). Section 6 contains the lab reports for all four quarterly events covered in this report.




# II. Chronology of Events

The Oil Conservation Division (OCD) of New Mexico inspected the plant on October 16, 1995, and noted several deficiencies. The deficiencies, and the related directives, were detailed in a letter issued by OCD on December 6, 1995. The letter was issued under OCD statutory authority and requires that KN Energy undertake and complete certain activities to fulfill OCD requirements. Previous activities undertaken by KN Energy, and the substance of activities reflected in this report, are to fulfill the requirements directed by OCD. The following chronology briefly summarizes the relevant activities conducted at the facility:

1994	KN Energy took possession of the plant in 1994 following a merger with American Oil and Gas.
Dec. 6, 1995	OCD directive issued to KN Energy on the initial items requiring action as a result of the Oct. 16, 1995 inspection.
Jan. 26, 1996	KN Energy initial response to OCD directive.
Jan. 30, 1996	Work Plan for soils delineation submitted with the inclusion that one monitor well would be installed if impacted soil was discovered within ten feet of the groundwater.
Mar. 27, 1996	Delineation Work Plan approved by OCD with report due July1, 1996.
June 6, 1996	Soils Delineation Investigation Report filed with scope of work for extended Groundwater Delineation included.
Sept. 26, 1996	Directive received from OCD requiring the full delineation work plan of all contamination at the site including groundwater be submitted for approval.
Oct. 9, 1996	Work Plan for groundwater delineation filed as per the Sept. 26, 1996 OCD directive.
Oct. 15, 1996	Approval of groundwater delineation work plan received from OCD.

- Dec. 11, 1996 KN announces impending closure of plant. Eco-logical submits requests for extension of time and change from Discharge Permit to Closure Plan, with the installation of additional monitor wells.
- Dec. 17, 1996 OCD approves request for extension of time and the additional monitor wells.
- Jan. 14, 1997 Additional groundwater monitoring well installed, and Abatement Plan and Closure Plan Report were submission to OCD as per Dec. 17, 1996 OCD directive.
- Feb. 7, 1997Phone conference held with OCD, Eco-logical and KN personnel<br/>to discuss results of report and proposed work plan.
- Feb. 25, 1997 After review of Abatement Plan and phone conference, OCD issued a directive stating that the existing monitor wells also be tested for the entire suite of 20 NMAC 6.2.3103 constituents excluding uranium, radioactivity and PCB's, and additional wells be installed to define the points of compliance in the groundwater. An update/amendment report to be submitted by May 25, 1997.
- March 13, 1997 Response to Feb. 1997 OCD letter submitted outlining the points to be followed in the extended delineation work plan.
- April 1997 Three additional monitor wells installed and a quarterly sampling and monitoring event occurs.
- May 10, 1997 Submission of updated Abatement Report filed with OCD as per the Feb. 25, 1997 directive.
- June 26, 1997 OCD approves the updated Abatement Report including reducing the testing to BTEX, Napthalene, and Chlorides, and that an annual report be submitted by June 1, 1998.
- July 1997 Quarterly Sampling and Monitoring Event.
- Oct. 1997 Quarterly Sampling and Monitoring Event.

- October 1997 Sump, Cryoskid, Flare Pit, and Compressor soils excavated and stock piled prior to remediation pursuant to the approved Stage 1 Abatement Plan and Site Closure Plan dated January 14, 1997.
- November 1997 Initial Treatment of excavated soils performed.
- January 1998 Quarterly Sampling and Monitoring Event.
- March 1998 Submission of Annual Groundwater Sampling Report to the OCD, with a recommendation to stop testing for Napthalene and discontinue sampling of MW-2, MW-4 and MW-8.
- April 3, 1998 Quarterly Sampling and Monitoring Event.
- June 25, 1998 Quarterly Sampling and Monitoring Event. Impacted stockpiled soil retreated.
- October 2, 1998 Quarterly Sampling and Monitoring Event. Stock piled soil tested below OCD levels.
- November 1998 Backfilling of excavations performed.
- December 1998 OCD contacted by Eco-logical regarding January 1998 Annual Groundwater Report and Reduced Analyses Plan. OCD approved reduced analyses in letter dated December 15, 1998.
- January 1999 Quarterly Sampling and Monitoring Event.
- April 1999 Quarterly Sampling and Monitoring Event.
- July 1999 Quarterly Sampling and Monitoring Event.
- October 1999 Quarterly Sampling and Monitoring Event.
- October 1999 K N Energy, Inc. changed name to Kinder Morgan, Inc. (Parent company of American Processing, L.P.)
- January 2000 Quarterly Sampling and Monitoring Event.
- April 2000 Quarterly Sampling and Monitoring Event.

June 2000	Removal of all KMI Equipment.
July 2000	Quarterly Sampling and Monitoring Event.
October 2000	Quarterly Sampling and Monitoring Event.
Dec. 4, 2000	KMI issued letter to OCD to renew Discharge Plan GW191 and proposes a reduction in groundwater sampling freqency for the year 2001. The selected monitor wells will be sampled the first and third quarters of the year.
March 2000	2000 Annual Report.

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III. Maps, Graphs, & Tables

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FORMER HOBBS GAS PLANT MW-1 HISTORIC ANALYTICAL RESULTS









**MW-3 HISTORIC ANALYTICAL RESULTS** FORMER HOBBS GAS PLANT



Nondetects Given Detection Limit Value



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FORMER HOBBS GAS PLANT MW-6 HISTORIC ANALYTICAL RESULTS







Page 25

Monitor Well 1										
Elevation of Screened Interval 436.7-456.7										
Date	TD	TOC	Depth to	Depth to GW	Product	GW Elev.				
		Elevation	PSH		Inickness	for PSH				
09/17/96	59.0	495.73		53.10	0.00	442.63				
10/23/96	59.0	495.73		53.34	0.00	442.39				
04/10/97	59.0	495.73		54.32	0.00	441.41				
07/07/97	59.0	495.73		54.64	0.00	441.09				
10/08/97	59.0	495.73		54.98	0.00	440.75				
01/06/98	59.0	495.73		55.28	0.00	440.45				
04/03/98	59.0	495.73		55.60	0.00	440.13				
06/25/98	59.0	495.73		55.87	0.00	439.86				
10/02/98	59.0	495.73		56.36	0.00	439.37				
01/05/99	59.0	495.73		54.98	0.00	440.75				
04/01/99	59.0	495.73		56.89	0.00	438.84				
07/14/99	59.0	495.73		57.39	0.00	438.34				
10/22/99	59.0	495.73		57.74	0.00	437.99				
01/25/00	59.0	495.73		59.00	0.00	437.57				
04/03/00	59.0	495.73		58.51	0.00	437.22				
07/17/00	59.0	495.73	•••	59.10	0.00	436.63				
10/24/00	59.0	495.73		59.45	0.00	436.28				

Table 1 Groundwater Table in Feet

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Elevation of Screened Interval 440.4-460.4									
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH			
09/17/96	annannann ann an ann ann ann ann ann an		Well No	ot Installed					
10/23/96	62.0	502.41		58.33	0.00	444.08			
04/10/97	62.0	502.41		59.54	0.00	442.87			
07/07/97	62.0	502.41		60.00	0.00	442.41			
10/08/97	62.0	502.41		60.39	0.00	442.02			
01/06/98	62.0	502.41		60.70	0.00	441.71			
04/03/98	62.0	502.41		61.06	0.00	441.35			
06/25/98	62.0	502.41		61.37	0.00	441.04			
10/02/98	62.0	502.41	-	61.91	0.00	440.50			
01/05/99	62.0	502.41	e	60.39	0.00	442.02			
04/01/99	62.0	502.41	••	62.28	0.00	440.13			
07/14/99	62.0	502.41		62.28	0.00	440.13			
10/22/99	62.0	502.41		62.31	0.00	440.10			
01/25/00	62.0	502.41		62.34	0.00	440.07			
04/03/00	62.0	502.41		62.34	0.00	440.07			
07/17/00	62.0	502.41		62.34	0.00	440.07			
10/24/00	62.0	502.41		62.36	0.00	440.05			

## Table 2 Groundwater Table in Feet Monitor Well 2 levation of Screened Interval 440.4-460.4

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Table 3 Groundwater Table in Feet Monitor Well 3 Elevation of Screened Interval 434.2-454.23									
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH			
09/17/96			Well No	ot installed					
10/23/96	64.9	499.13		56.28	0.00	442.85			
04/10/97	64.9	499.13		57.25	0.00	441.88			
07/07/97	64.9	499.13	**	57.59	0.00	441.54			
10/08/97	64.9	499.13		57.92	0.00	441.21			
01/06/98	64.9	499.13		58.24	0.00	440.89			
04/03/98	64.9	499.13		58.41	0.00	440.89			
06/25/98	64.9	499.13		58.84	0.00	440.29			
10/02/98	64.9	499.13		59.36	0.00	439.77			
01/05/99	64.9	499.13		57.92	0.00	441.21			
04/01/99	64.9	499.13		59.89	0.00	439.24			
07/14/99	64.9	499.13		60.40	0.00	438.73			
10/22/99	64.9	499.13		60.76	0.00	438.37			
01/25/00	64.9	499.13		61.21	0.00	437.92			
04/03/00	64.9	499.13		61.57	0.00	437.56			
07/17/00	64.9	499.13		62.11	0.00	437.02			
10/24/00	64.9	499.13		62.48	0.00	436.65			

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Monitor Well 4 Elevation of Screened Interval 436.8-456.8										
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH				
09/17/96	Well Not installed									
10/23/96	64.3	501.12		58.12	0.00	443.00				
04/10/97	64.3	501.12		58.83	0.00	442.29				
07/07/97	64.3	501.12		59.19	0.00	441.93				
10/08/97	64.3	501.12		59.56	0.00	441.56				
01/06/98	64.3	501.12		59.91	0.00	441.21				
04/03/98	64.3	501.12		60.21	0.00	440.91				
06/25/98	64.3	501.12		60.48	0.00	440.64				
10/02/98	64.3	501.12	_	60.97	0.00	440.15				
01/05/99	64.3	501.12		59.56	0.00	441.56				
04/01/99	64.3	501.12		61.57	0.00	439.55				
07/14/99	64.3	501.12		62.03	0.00	439.09				
10/22/99	64.3	501.12		62.37	0.00	438.75				
01/25/00	64.3	501.12		62.82	0.00	438.30				
04/03/00	64.3	501.12		63.14	0.00	437.98				
07/17/00	64.3	501.12		63.73	0.00	437.39				
10/24/00	64.3	501.12		64.10	0.00	437.02				

# Table 4 Groundwater Table in Feet

Table 5 Groundwater Table in Feet Monitor Well 5 Elevation of Screened Interval 436.3-456.3									
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH			
09/17/96			Well No	ot installed					
10/23/96	64.5	500.84	na na	58.96	0.00	441.88			
04/10/97	64.5	500.84		59.77	0.00	441.07			
07/07/97	64.5	500.84		60.10	0.00	440.74			
10/08/97	64.5	500.84		60.31	0.00 .	440.53			
01/06/98	64.5	500.84		60.76	0.00	440.08			
04/03/98	64.5	500.84		61.05	0.00	439.79			
06/25/98	64.5	500.84		61.05	0.00	439.79			
10/02/98	64.5	500.84	_	61.77	0.00	439.07			
01/05/99	64.5	500.84		60.31	0.00	440.53			
04/01/99	64.5	500.84		62.24	0.00	438.60			
07/14/99	64.5	500.84		62.76	0.00	438.08			
10/22/99	64.5	500.84		63.08	0.00	437.76			
01/25/00	64.5	500.84		63.51	0.00	437.33			
04/03/00	64.5	500.84		63.84	0.00	437.00			
07/17/00	64.5	500.84		64.35	0.00	436.49			
10/24/00	64.5	500.84		64.68	0.00	436.16			

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Elevation of Screened Interval 433.6-453.6										
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness •	GW Elev. Corrected for PSH				
09/17/96	09/17/96 Well Not Installed									
10/23/96	62.7	496.27		55.53	0.00	440.74				
04/10/97	62.7	496.27		56.28	0.00	439.99				
07/07/97	62.7	496.27		56.58	0.00	439.69				
10/08/97	62.7	496.27		56.88	0.00	439.39				
01/06/98	62.7	496.27		57.23	0.00	439.04				
04/03/98	62.7	496.27		57.49	0.00	438.78				
06/25/98	62.7	496.27		57.49	0.00	438.78				
10/02/98	62.7	496.27	_	57.17	0.00	438.10				
01/05/99	62.7	496.27		56.88	0.00	439.39				
04/01/99	62.7	496.27		58.52	0.00	437.75				
07/14/99	62.7	496.27		59.08	0.00	437.19				
10/22/99	62.7	496.27		59.36	0.00	436.91				
01/25/00	62.7	496.27		59.77	0.00	436.50				
04/03/00	62.7	496.27		60.08	0.00	436.19				
07/17/00	62.7	496.27		60.50	0.00	435.77				
10/24/00	62.7	496.27	==	60.86	0.00	435.41				

# Table 6 Groundwater Table in Feet Monitor Well 6 evation of Screened Interval 433.6-453.6

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Table 7 Groundwater Table in Feet Monitor Well 7 Elevation of Screened Interval 426.4-446.4									
Date	TD	Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev, Corrected for PSH			
10/23/96	<u> Alfandarin di kana da kana da kana da</u> k		Well No	ot Installed					
04/10/97	69.0	495.44		57.28	0.00	438.16			
07/07/97	69.0	495.44		57.54	0.00	437.90			
10/08/97	69.0	495.44		57.85	0.00	437.59			
01/06/98	69.0	495.44		58.17	0.00	437.27			
04/03/98	69.0	495.44		58.47	0.00	436.97			
06/25/98	69.0	495.44		58.70	0.00	436.74			
10/02/98	69.0	495.44	-	58.99	0.00	436.45			
01/05/99	69.0	495.44		57.85	0.00	437.59			
04/01/99	69.0	495.44		59.36	0.00	436.08			
07/14/99	69.0	495.44		59.84	0.00	435.60			
10/22/99	69.0	495.44		60.14	0.00	435.30			
01/25/00	69.0	495.44		60.58	0.00	434.86			
04/03/00	69.0	495.44		60.83	0.00	434.61			
07/17/00	69.0	495.44		61.10	0.00	434.34			
10/24/00	69.0	495.44		61.46	0.00	433.98			

Table 8 Groundwater Table in Feet Monitor Well 8 Elevation of Screened Interval 430.9-450.9								
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH		
10/23/96		and and a stand of the second standing of the second standing of the second standing of the second standing of	Well No	t installed		1		
04/10/97	70.9	501.81		60.32	0.00	441.49		
07/07/97	70.9	501.81		60.67	0.00	441.49		
10/08/97	70.9	501.81		61.00	0.00	440.81		
01/06/98	70.9	501.81		61.35	0.00	440.46		
04/03/98	70.9	501.81		61.61	0.00	440.20		
06/25/98	70.9	501.81		61.87	0.00	439.94		
10/02/98	70.9	501.81	-	62.27	0.00	439.54		
01/05/99	70.9	501.81		61.00	0.00	440.81		
04/01/99	70.9	501.81		62.79	0.00	439.02		
07/14/99	70.9	501.81		63.19	0.00	438.62		
10/22/99	70.9	501.81		63.51	0.00	438.30		
01/25/00	70.9	501.81		63.97	0.00	437.84		
04/03/00	70.9	501.81		64.26	0.00	437.55		
07/17/00	70.9	501.81		64.68	0.00	437.13		
10/24/00	70.9	501.81		65.04	0.00	436.77		

Table 9 Groundwater Table in Feet Monitor Well 9 Elevation of Screened Interval 429.5-449.5									
-Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH			
10/23/96	and the second second by the definition of the second second second second second second second second second s		Well No	ot Installed					
04/10/97	67.3	496.85		56.29	0.00	440.56			
07/07/97	67.3	496.85		56.66	0.00	440.19			
10/08/97	67.3	496.85		57.00	0.00	439.85			
01/06/98	67.3	496.85		57.38	0.00	439.47			
04/03/98	67.3	496.85		57.67	0.00	439.18			
06/25/98	67.3	496.85		57.95	0.00	438.90			
10/02/98	67.3	496.85	-	58.34	0.00	438.51			
01/05/99	67.3	496.85		57.00	0.00	439.85			
04/01/99	67.3	496.85		58.73	0.00	438.12			
07/14/99	67.3	496.85		59.31	0.00	437.54			
10/22/99	67.3	496.85		59.61	0.00	437.24			
01/25/00	67.3	496.85		60.07	0.00	436.78			
04/03/00	67.3	496.85		60.43	0.00	436.42			
07/17/00	67.3	496.85		60.92	0.00	435.93			
10/24/00	67.3	496.85		61.30	0.00	435.55			

Table 10 Groundwater Table in Feet Monitor Well 10 Elevation of Screened Interval 426.0-446.0									
Date	TD	TOC Elevation	Depth to PSH	Depth to GW 225	Product Thickness	GW Elev. Corrected for PSH			
10/23/96			Well No	ot Installed	•				
04/10/97	66.5	492.46		52.83	0.00	439.63			
07/07/97	66.5	492.46		53.09	0.00	439.37			
10/08/97	66.5	492.46		53.43	0.00	439.03			
01/06/98	66.5	492.46		53.86	0.00	438.60			
04/03/98	66.5	492.46		54.17	0.00	438.29			
06/25/98	66.5	492.46		54.35	0.00	438.11			
10/02/98	66.5	492.46	-	54.76	0.00	437.70			
01/05/99	66.5	492.46		53.43	0.00	439.03			
04/01/99	66.5	492.46		55.04	0.00	437.42			
07/14/99	66.5	492.46		55.59	0.00	436.87			
10/22/99	66.5	492.46		55.94	0.00	436.52			
01/25/00	66.5	492.46		56.35	0.00	436.11			
04/03/00	66.5	492.46		56.96	0.00	435.77			
07/17/00	66.5	492.46		57.02	0.00	435.44			
10/24/00	66.5	492.46		57.44	0.00	435.02			

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Table 11 - MW-1   Historic Groundwater Analytical Results (mg/l)							
Date	в	Т	E	Х	Phenol	Naphthalene	Chloride
02/14/96	0.083	<0.001	<0.001	0.008			
02/29/96	<0.001	<0.001	<0.001	<0.001		-	
04/20/96	0.305	<0.001	0.002	0.032	<0.001	0.017	
10/23/96	0.352	<0.001	0.026	0.081	0.025	0.01	
04/10/97	0.268	<0.001	0.012	0.034	<0.001	0.007	
07/07/97	0.243					0.005	
10/08/97	0.180	<0.001	0.012	<0.001		.003	<10
01/06/98	0.138	<0.001	0.008	<0.001		0.002	6.2
04/03/98	0.109	<0.001	0.004	0.006		0.003	51
06/25/98	0.071	<0.001	0.002	0.003		<0.001	7.3
10/02/98	0.078	<0.005	<0.005	<0.005		<0.001	14.0
01/05/99	0.005	<0.001	<0.001	<0.001			_
04/01/99	<0.005	<0.005	<0.005	<0.005			
07/14/99	<0.005	<0.005	<0.005	<0.005			
10/22/99	<0.001	<0.001	<0.001	<0.001			
01/25/00	0.001	<0.001	<0.001	<0.001			
04/03/00	<0.005	<0.005	<0.005	<0.005			
07/17/00	<0.005	<0.005	<0.005	<0.005			
10/24/00	0.055	0.036	0.025	0.090			

Shaded areas indicate over OCD Limits

Table 12 - MW-2   Historic Groundwater Analytical Results (mg/l)								
Date	В	T	E	X	Phenol	Naphthalene	Chloride	
10/23/96	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01		
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
07/07/97	<0.001							
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	19	
01/06/98	<0.001	<0.001	<0.001	<0.001		<0.001	27	
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	96	
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	25.0	
10/02/98	0.002	<0.001	<0.001	<0.001		<0.001		
01/05/99	Sampling discontinued as approved by OCD							

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Table 13 - MW-3   Historic Groundwater Analytical Results (mg/l)								
Date	B	7	Е	Х	Phenol	Naphthalene	Chloride	
10/23/96	0.001	<0.001	<0.001	<0.001	<0.001	<0.01		
04/10/97	0.016	<0.001	<0.001	0.005	<0.001	<0.001		
07/07/97	0.003	_						
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	64	
01/06/98	<0.001	<0.001	<0.001	<0.001		<0.001	58	
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	130	
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	12	
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	46	
01/05/99	<0.001	<0.001	<0.001	<0.001				
04/01/99	<0.001	<0.001	<0.001	<0.001				
07/14/99	<0.001	<0.001	<0.001	<0.001				
10/22/99	<0.001	<0.001	<0.001	<0.001				
01/25/00	<0.001	<0.001	<0.001	<0.001				
04/03/00	<0.005	<0.005	<0.005	<0.005				
07/17/00	0.010	<0.005	<0.005	<0.005				
10/24/00	0.020	0.008	<0.005	0.014				

Shaded areas indicate over OCD Limits
Table 14 - MW-4   Historic Groundwater Analytical Results (mg/l)										
Date	В	Т	E	X	Phenol	Naphthalene	Chloride			
10/23/96	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01				
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
07/07/97	<0.001									
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	<10			
01/06/98	<0.001	<0.001	<0.001	<0.001		<0.001	10			
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	58			
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	11			
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	18			
01/05/99			Sampling di	scontinued	as approve	d by OCD				

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Table 15 - MW-5   Historic Groundwater Analytical Results (mg/l)											
Date	В	T	E	X	Phenol	Naphthalene	Chloride				
10/23/96	0.135	<0.001	0.006	0.071	<0.001	<0.01					
04/10/97	0.043	<0.001	<0.001	0.063	<0.001	0.001					
07/07/97	0.015					<0.001					
10/08/97	0.050	<0.001	<0.001	<0.001		0.001	24				
01/06/98	0.031	<0.001	<0.001	0.010		<0.001	27				
04/03/98	0.037	<0.001	0.002	0.019		0.001	69				
06/25/98	0.017	<0.001	<0.001	0.006		<0.001	23				
10/02/98	0.011	<0.001	<0.001	<0.001		<0.001	87				
01/05/99	0.005	<0.001	<0.001	<0.001		•	-				
04/01/99	0.003	<0.001	<0.001	<0.001		••					
07/14/99	<0.001	<0.001	<0.001	<0.001							
10/22/99	<0.001	<0.001	<0.001	<0.001							
01/25/00	<0.001	<0.001	<0.001	<0.001							
04/03/00	<0.005	<0.005	<0.005	<0.005							
07/17/00	<0.005	<0.005	<0.005	<0.005							
10/24/00	<0.005	<0.005	<0.005	<0.005							

Shaded areas indicate over OCD Limits

	Table 16 - MW-6   Historic Groundwater Analytical Results (mg/l)											
Date	В	T	E	Х	Phenol	Naphthalene	Chloride					
10/23/96	0.192	<0.001	<0.001	0.013	<0.001	<0.01	= 14					
04/10/97	0.272	<0.001	<0.001	0.014	<0.001	<0.001						
07/07/97	0,106											
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	30					
01/06/98	0.132	<0.001	<0.001	0.004		<0.001	31					
04/03/98	0.165	<0.001	<0.001	0.008		<0.001 ·	98					
06/25/98	0.143	<0.001	<0.001	0.009		<0.001	28					
10/02/98	0.157	<0.005	<0.005	0.012		<0.001	31					
01/05/99	0.123	<0.001	<0.001	0.004			56					
04/01/99	0.120	<0.001	<0.001	<0.005			31					
07/14/99	0.093	<0.005	<0.005	<0.005			34					
10/22/99	0.090	<0.001	<0.001	<0.001			31.5					
01/25/00	0.105	<0.001	<0.001	<0.001			35					
04/03/00	0.157	<0.005	<0.005	<0.005			33					
07/17/00	0.126	<0.005	<0.005	<0.005			33					
10/24/00	0.031	<0.005	<0.005	0.006			30					

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Shaded areas indicate over OCD Limits

	Table 17 - MW-7   Historic Groundwater Analytical Results (mg/l)										
Date	В	T	E	X	Phenol	Naphthalene	Chloride				
01/09/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
07/07/97	<0.001					60 M					
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	33				
01/06/98	<0.001	<0.001	<0.001	<0.001		<0.001	37				
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	120				
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	33				
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	36				
01/05/99	<0.001	<0.001	<0.001	<0.001			74				
04/01/99	<0.001	<0.001	<0.001	<0.001			36				
07/14/99	<0.001	<0.001	<0.001	<0.001			35				
10/22/99	<0.001	<0.001	<0.001	<0.001			35.2				
01/25/00	<0.001	<0.001	<0.001	<0.001			32				
04/03/00	<0.001	<0.001	<0.001	<0.001			31				
07/17/00	<0.001	<0.001	<0.001	<0.001			32				
10/24/00	<0.001	<0.001	<0.001	<0.001			33				

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Table 18 - MW-8   Historic Groundwater Analytical Results (mg/l)												
Date	B	Т	E	- <b>X</b>	Phenol	Naphthalene	Chloride					
10/23/96		Well Not Installed										
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001						
07/07/97	<0.001											
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	15					
01/06/98	<0.001	<0.001	<0.001	<0.001		<0.001	27					
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	160					
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	26					
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	27					
01/05/99			Sampling di	scontinued	as approve	d by OCD						

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	Table 19 - MW-9Historic Groundwater Analytical Results (mg/l)										
Date	В		E	X	Phenol	Naphthalene	Chloride				
10/23/96		Well Not Installed									
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	320				
07/07/97	<0.001						41				
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	560				
01/06/98	<0.001	<0.001	<0.001	<0.001		<0.001 .	490				
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	460				
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	290				
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	200				
01/05/99	<0.001	<0.001	<0.001	<0.001			520				
04/01/99	<0.001	<0.001	<0.001	<0.001			260				
07/14/99	<0.001	<0.001	<0.001	<0.001			284				
10/22/99	<0.001	<0.001	<0.001	<0.001			278				
01/25/00	<0.005	<0.005	<0.005	<0.005			300				
04/03/00	<0.005	<0.005	0.012	<0.005			250				
07/17/00	<0.001	<0.001	<0.001	<0.001			95				
10/24/00	<0.001	<0.001	<0.001	<0.001			40				

Shaded areas indicate over OCD Limits

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	Table 20 - MW-10   Historic Groundwater Analytical Results (mg/l)										
Date	В	Г	E	X	Phenol	Naphthalene	Chloride				
10/23/96				Well Not I	nstalled						
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
07/07/97	<0.001						8.8				
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	110				
01/06/98	<0.001	<0.001	<0.001	<0.001		<0.001	101				
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	180				
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	140				
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	160				
01/05/99	<0.001	<0.001	<0.001	<0.001			140				
04/01/99	<0.001	<0.001	<0.001	<0.001			128				
07/14/99	<0.001	<0.001	<0.001	<0.001			124				
10/22/99	<0.001	<0.001	<0.001	<0.001		`	122				
01/25/00	<0.001	<0.001	<0.001	<0.001			120				
04/03/00	<0.001	<0.001	<0.001	<0.001			130				
07/17/00	<0.005	<0.005	<0.005	<0.005			130				
10/24/00	<0.001	<0.001	<0.001	<0.001			150				



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#### IV. Conclusions and Recommendations

The plant operations have ceased at the site and the sources that may have caused the impacts to the groundwater have been removed. In addition, the removed impacted soils have been remediated to meet WQCC Guideline levels and have been returned to the excavations per the Soils Work Plan approved in January 1996. Three of the ten monitor wells at the Former Hobbs Gas Plant have shown dissolved phase hydrocarbons (benzene) at levels above the OCD Guidelines at different times throughout the year.

Fifteen (15) full quarterly groundwater monitoring and sampling events have been conducted at this site.

Groundwater has dropped an average of 4.7 feet since the first sampling event of October 1996.

Dissolved phase hydrocarbons have periodically occurred above OCD Guidelines in three of the ten monitor wells at the site (MW-1, MW-3, and MW-6) however, no free-phase hydrocarbons have been observed at the site.

Only MW-6 has consistently contained concentrations of benzene above the WQCC Guideline level. The highest concentration down-gradient from the source is in monitor well MW-6 at an average concentration of 0.105 ppm.. The property line is 90 feet east of MW-6 and the groundwater flow direction is southeast. Concentrations in the next down-gradient monitor well (located off-site), a distance of 470 feet from MW-6, remains below detection limit.

Soil cleanup objectives of the January 1997 Abatement and Closure plan have been met.

The level of benzene in MW-6 has been above the WQCC Guideline level of 0.01 ppm, but has been consistently declining. Benzene levels in MW-5 have remained below action levels during all of the 1999 and 2000 sampling events. The general trend in the benzene levels shows a decrease in concentrations. The recent appearance of BTEX in MW-1 and MW-3 could be attributed to a sampling or lab error and will be compared to future analytical data. Chloride levels present in MW-9 have decreased to below WQCC levels in the last two sampling events. Based on interviews with American Processing personnel no source of the chloride is not known and is **not** believed to be from the plant.

Based on historical analytical results, a reduction to semi-annual sampling and monitoring is proposed. Benzene is proposed to be monitored in wells MW-1, MW-3, MW-5, MW-6, MW-7, MW-9, and MW-10. Chloride is proposed to be monitored in wells MW-6, MW-7, MW-9, and MW-10. No testing is proposed for MW-2, MW-4, and MW-8 except for water levels at this time as requested in the January 6, 1998 Annual Report and approved by the OCD letter dated December 15, 1998.

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### V. Quality Assurance / Quality Control Procedures

Field quality assurance/quality control (QA/QC) measures consisted of equipment decontamination, use of disposable sampling equipment, calibrations of field instruments, ensuring that the samples were analyzed within the EPA holding times, documentation of work activities in a bound logbook, and adherence to strict chain-of-custody protocol. The laboratory QA/QC measures were based on guidance published in the most current edition of the EPA Test Methods for Evaluating Solid Waste SW-846.

Quality Control samples were also obtained to evaluate the data. A trip blank was also analyzed with nondetectable results, suggesting that no cross-contamination occurred during shipment. Cross contamination during sampling was limited due to the use of disposable equipment between wells and gauging and purging of wells from least contaminated to most contaminated. A duplicate sample was obtained from MW-6. A comparison to the original sample of the contaminates that were present reveals results within 9.8% on total BTEX. On a per chemical basis, the total difference occurred on benzene which differed by 11.4%. This duplicate difference does not indicate any errors in the sample collection or testing. The following table presents the QA/QC results for comparison.

Quality Control Samples	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
Trip	<0.001	<0.001	<0.001	<0.001
MW-6	0.031	<0.005	<0.005	0.006
MW-6D (duplicate)	0.035	<0.005	<0.005	0.006

Reported laboratory quality control parameters do not appear to indicate suspect results. No damaged or compromised containers were noted. No unusual relative percent difference (RPD) results were noted.



6701 Aberdeen Avenue, Suite 9 4725 Ripley Avenue, Suite A 4725 Ripley Avenue, Suite A

## Analytical and Quality Control Report

E-Mail: lab@traceanalysis.com

Scott Springer Eco-Logical Environmental Services 2200 Market Street Midland, TX 79703

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Report Date: No

November 21, 2000

Order ID Number: A00102528

Project Number:279-512Project Name:Former Hobbs Gas PlantProject Location:Hobbs, NM

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Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
156980	MW-1	Water	10/24/00	11:40	10/25/00
156981	MW-3	Water	10/24/00	11:20	10/25/00
156982	MW-5	Water	10/24/00	12:00	10/25/00
156983	MW-6	Water	10/24/00	12:20	10/25/00
156984	MW-7	Water	10/24/00	10:30	10/25/00
156985	MW-9	Water	10/24/00	13:00	10/25/00
156986	MW-10	Water	10/24/00	12:40	10/25/00
156987	MW-6D	Water	10/24/00	11:00	10/25/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 10 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.  $\Box$ 

Dr. Blair Leftwich, Director

# Analytical and Quality Control Report

Sample:	156980	- MW-1					
Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC06059	Date Analyzed:	10/30/00
Analyst:	RC	Preparation Method	: 5035	Prep Batch:	PB05311	Date Prepared:	10/30/00
Param		$\mathbf{F}$ lag	Result	Units	Dil	ution	RDL
Benzene			0.055	mg/L	· · ·	5	0.001
Toluene			0.036	mg/L		5	0.001
Ethylbenzer	ne		0.025	mg/L		5	0.001
M,P,O-Xyle	ene		0.09	mg/L		5	0.001
Total BTE	X		0.207	mg/L	<u></u>	5	0.001
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
TFT		0.472	mg/L	1	0.10	94	72 - 128
4-BFB		0.469	mg/L	1	0.10	93	72 - 128

Sample: Analysis: Analyst:	<b>156981</b> BTEX RC	- MW-3 Analytical Method: Preparation Method:	S 8021B 5035	QC Batch: Prep Batch:	QC06059 PB05311	Date Analyzed: Date Prepared:	10/30/00 10/30/00
Param		Flag	Result	Units	Dil	ution	RDL
Benzene		·······	0.02	mg/L		5	0.001
Toluene			0.008	mg/L		5	0.001
Ethylbenzer	ne		< 0.005	mg/L		5	0.001
M,P,O-Xyle	ene		0.014	mg/L		5	0.001
Total BTE	Κ		0.042	mg/L		5	0.001

					Spike	Percent	Recovery
Surrogate	$\mathbf{Flag}$	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
TFT		0.517	mg/L	1	0.10	103	72 - 128
4-BFB		0.506	mg/L	1	0.10	101	72 - 128

Sample: Analysis: Analyst:	<b>156982</b> BTEX RC	- MW-5 Analytical Method: Preparation Method:	S 8021B 5035	QC Batch: Prep Batch:	QC06059 PB05311	Date Analyzed: Date Prepared:	10/30/00 10/30/00
Param	•	Flag	Result	Units	Di	lution	RDL
Benzene			< 0.005	mg/L		5	0.001
Toluene			< 0.005	mg/L		5	0.001
Ethylbenzer	ne		<0.005	mg/L		5	0.001
M,P,O-Xyle	ne		<0.005	mg/L		5	0.001
Total BTE	K		<0.005	mg/L		5	0.001

Report Date: November 21, 2000 279-512

Order Number: A00102528 Former Hobbs Gas Plant

Surrogate	Flag	Result	Units	Dilution	Spike Amount	· Percent Recovery	Recovery Limits
TFT		0.448	mg/L	1	0.10	89	72 - 128
4-BFB		0.585	mg/L	1	0.10	117	72 - 128

## Sample: 156983 - MW-6

Analysis: Analyst:	BTEX RC	Analytical Method: Preparation Method:	S 8021B 5035	QC Batch: Prep Batch:	QC06059 PB05311	Date Analyzed: Date Prepared:	10/30/00 10/30/00
Param		Flag	Result	Units	Dil	ution	RDL
Benzene			0.031	mg/L		5	0.001
Toluene			< 0.005	mg/L		5	0.001
Ethylbenze	ene		<0.005	mg/L		5	0.001
M,P,O-Xyl	ene		0.006	mg/L		5	0.001
Total BTE	Х		0.036	mg/L	-	5	0.001
				······································			

					Spike	Percent	Recovery
Surrogate	$\mathbf{Flag}$	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
TFT		0.43	mg/L	1	0.10	86	72 - 128
4-BFB		0.408	mg/L	1	0.10	81	72 - 128

#### Sample: 156983 - MW-6

Analysis:	Ion Chromatograp	ohy (IC	C) Analytical Method:	E 300.	0QC Batch:	QC06752Date Analyzed: 11/20/00
Analyst:	JS		Preparation Method:	N/A	Prep Batch:	PB05928 Date Prepared: 11/20/00
D			<b>TT 1</b> .	<b>D</b> .1 ()		

$\overline{CL}$ 30 mg/L 1	
	0.50

#### Sample: 156984 - MW-7

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC06059	Date Analyzed:	10/30/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB05311	Date Prepared:	10/30/00
						. <i>F</i>	
Param		Flag	$\mathbf{Result}$	Units	Di	lution	RDL
Benzene	,,,,,,, _		< 0.001	mg/L		1	0.001
Toluene			<0.001	mg/L		1	0.001
Ethylbenzer	ne		<0.001	mg/L		1	0.001
M,P,O-Xyle	ene		<0.001	mg/L		1	0.001
Total BTE	X		<0.001	mg/L		1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.094	mg/L	1	0.10	94	72 - 128
4-BFB	_	0.089	mg/L	1	0.10	89	72 - 128

Report Dat 279-512	te: Novembe	er 21, 2000	Order N Former	umber: A0010 Hobbs Gas P	Page Nur	Page Number: 4 of 10 Hobbs, NM	
Sample: Analysis: Analyst:	<b>156984</b> Ion Chrom JS	- <b>MW-7</b> hatography (IC)Analy Prepa	tical Method: ration Method	E 300.0QC : N/A Pre	Batch: p Batch:	QC06752Date Analyze PB05928Date Prepare	ed:11/20/00 ed:11/20/00
Param	Flag	Besult	Units	Dilution			RDL
CL		33	mg/L	1		······································	0.50
Sample:	156985 BTEX	- MW-9 Analytical Method:	S 8021B	OC Batch	0C06059	Date Analyzed	10/30/00
Analyst:	RC	Preparation Method:	: 5035	Prep Batch:	PB05311	Date Prepared:	10/30/00
Param		Flag	Result	Units		Dilution	RDI
Benzene			< 0.001	mg/L		1	0.00
Ioluene	-		<0.001	mg/L		1	0.00
Linyidenzei	ne		<0.001	mg/L		1	0.00
M,P,U-AVIE	ene V		< 0.001	mg/L		1	0.00
	A		<0.001	mg/ L		1	0.00
-					Spike	Percent	Recover
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
TFT		0.1	mg/L	1	0.10	100	72 - 128
Sample: Analysis: Analyst:	I 56985 Ion Chron JS	- I <b>VI W-9</b> natography (IC) Analy Prepa	rtical Method: tration Method	E 300.0QC : N/A Pre	Batch: p Batch:	QC06752Date Analyz PB05928 Date Prepare	ed: 11/20/00 ed: 11/20/00
Param	Flag	Result	Units	Dilution			RD
CL		40	mg/L	1			0.5
Sample: Analysis: Analyst:	<b>156986</b> BTEX RC	- <b>MW-10</b> Analytical Method: Preparation Method	S 8021B : 5035	QC Batch: Prep Batch:	QC06059 PB05311	Date Analyzed: Date Prepared:	10/30/0 10/30/0
Param		Flag	Result	Units		Dilution	RD
Benzene			<0.001	mg/L		1	0.00
Toluene			< 0.001	mg/L		1	0.00
Ethylbenze	ene		< 0.001	mg/L		1	0.00
M,P,O-Xyl	ene		< 0.001	mg/L		1	0.00
Total BTE	X		<0.001	mg/L	<u></u>	1	0.00
0	ורד	D H	Tinita	Dilution	Spike	Percent	Recover
Surrogate	Flag	Result			Amount	necovery	
		0.101	mg/L	1 1	0.10	101	12 - 12
4-BrB		0.106	nig/L	1	0.10	100	12 - 12

Report Date 279-512	e: Novembe	er 21, 2000	Order N Former	umber: A0010 Hobbs Gas P	Page Number: 5 of 10 Hobbs, NM		
Sample: Analysis: Analyst:	<b>156986</b> Ion Chrom JS	- MW-10 natography (IC)Analy Prepa	tical Method: ration Method	E 300.0QC : N/A Pre	Batch: p Batch:	QC06752Date Analyze PB05928Date Prepare	ed: 11/20/00 ed: 11/20/00
Param	Flag	Result	Units	Dilution			RDL
CL		150	mg/L	1			0.50
<b>Sample:</b> Analysis: Analyst:	<b>156987</b> BTEX RC	- MW-6D Analytical Method: Preparation Method	S 8021B : 5035	QC Batch: Prep Batch:	QC06297 PB05313	Date Analyzed: Date Prepared:	10/30/00 10/30/00
Param		Flag	Result	Units		Dilution	RDL
Param Benzene Toluene Ethylbenzen M,P,O-Xyler Total BTEX	ie ne	r lag	0.035     <0.005	mg/L mg/L mg/L mg/L mg/L		5 5 5 5 5 5 5 5	0.001 0.001 0.001 0.001 0.001
Surrogate TFT 4-BFB	Flag	Result 0.58 0.559	Units mg/L mg/L	Dilution 1 1	Spike Amount 0.10 0.10	Percent Recovery 116 111	Recovery Limits 72 - 128 72 - 128
<b>Sample:</b> Analysis: Analyst: Param	<b>156987</b> Ion Chron JS Flag	- <b>MW-6D</b> natography (IC) Analy Prepa Result	tical Method: ration Method Units	E 300.0QC : N/A Pre Dilution	Batch: p Batch:	QC06752Date Analyze PB05928Date Prepare	d:11/20/00 d:11/20/00 RDL
CL		32	mg/L	1			0.50

Sample: Method Blank

QCBatch: QC06059

Reporting Flag Units Results Param Limit Benzene mg/L < 0.001 0.001 mg/L mg/L mg/L mg/L 0.001 0.001 Toluene 0.001 Ethylbenzene 0.004 M,P,O-Xylene Total BTEX 0.001 0.013 0.018 0.001

Report Date: November 21, 2000 279-512			Order Numb Former Hol	er: A00102528 obs Gas Plant	Page Number: 6 of 10 Hobbs, NM		
Surrogate	Flag	Result	Units	Spike . Amount	Percent Recovery	Recovery Limit	
TFT		0.118	mg/L	0.10	118	72 - 128	
<u>4-BFB</u>		0.118	mg/L	0.10	118	72 - 128	

Sample: Method Blank QCBatch: QC06297

				Reporting
Param	Flag	Results	Units	Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		< 0.001	mg/L	0.001
M,P,O-Xylene		< 0.001	mg/L	0.001
Total BTEX		< 0.001	mg/L	0.001

				Spike	Percent	Recovery
Surrogate	Flag	$\operatorname{Result}$	Units	Amount	Recovery	Limit
TFT		0.121	mg/L	0.10	121	72 - 128
4-BFB		0.12	mg/L	0.10	120	72 - 128

Sample: Method Blank

QCBatch: QC06752

Param	Flag	Results	Units	Reporting Limit
CL		< 0.5	mg/L	0.50
Fluoride		< 0.2	mg/L	0.20
Nitrate-N		< 0.2	mg/L	0.20
Sulfate		< 0.5	mg/L	0.50

## Quality Control Report Lab Control Spikes and Duplicate Spikes

Sample: LCS

QC Batch: QC06059

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE	<u>~</u>	0.082	mg/L	1	0.10	0.001	82		80 - 120	20
Benzene		0.087	mg/L	1	0.10	< 0.001	87		80 - 120	20
Toluene		0.089	mg/L	1	0.10	0.001	89		80 - 120	20
Ethylbenzene		0.082	mg/L	1	0.10	0.004	82		80 - 120	20
M,P,O-Xylene		0.256	mg/L	1	0.30	0.013	85		80 - 120	20

Report Date: November 21, 2000 279-512			Order N Former	umber: A001 Hobbs Gas F	Page Number: 7 of 10 Hobbs, NM		
Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		0.081	mg/L	1	0.10	81	72 - 128
4-BFB		0.078	mg/L	1	0.10	78	72 - 128

Sample: LCSD

QC Batch: QC06059

		Spike									
		Sample	*		Amount	Matrix	%		% Rec.	RPD	
Param	Flag	$\mathbf{Result}$	Units	Dil.	$\mathbf{A}\mathbf{d}\mathbf{d}\mathbf{e}\mathbf{d}$	$\mathbf{Result}$	Rec.	RPD	Limit	Limit	
MTBE		0.09	mg/L	1	0.10	0.001	90	9	80 - 120	20	
Benzene		0.095	mg/L	1	0.10	< 0.001	95	9	80 - 120	20	
Toluene		0.096	mg/L	1	0.10	0.001	96	8	80 - 120	20	
Ethylbenzene		0.091	mg/L	1	0.10	0.004	91	10	80 - 120	20	
M,P,O-Xylene		0.279	mg/L	1	0.30	0.013	93	8	80 - 120	20	

					Spike	%	% Rec.
Surrogate	$\mathbf{Flag}$	Result	Units	Dil.	Amount	Rec.	Limit
TFT		0.094	mg/L	1	0.10	94	72 - 128
4-BFB		0.089	mg/L	1	0.10	89	72 - 128

Sample: LCS QC Batch: QC06297

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE	·	0.103	mg/L	1	0.10	< 0.001	103		80 - 120	20
Benzene		.0.111	mg/L	1	0.10	< 0.001	111		80 - 120	20
Toluene		0.114	mg/L	1	0.10	< 0.001	114		80 - 120	20
Ethylbenzene		0.114	mg/L	1	0.10	< 0.001	114		80 - 120	20
M,P,O-Xylene		0.349	mg/L	1	0.30	< 0.001	116		80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		0.11	mg/L	1	0.10	110	72 - 128
4-BFB		0.116	mg/L	1	0.10	116	72 - 128

Sample: LCSD QC Batch: QC06297

		~ · ·			Spike		~		CY D	DDD
Param	Flag	Sample Result	Units	Dil.	Amount Added	Matrıx Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		0.09	mg/L	1	0.10	< 0.001	90	13	80 - 120	20
Benzene		0.098	mg/L	1	0.10	< 0.001	98	12	80 - 120	20
Toluene		0.099	mg/L	1	0.10	< 0.001	99	14	80 - 120	20

Continued ...

Report Date: November 21, 2000 279-512

Order Number: A00102528 Former Hobbs Gas Plant

									(	Continued
Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Ethylbenzene		0.101	mg/L	1	0.10	< 0.001	101	12	80 - 120	20
M,P,O-Xylene		0.29	mg/L	1	0.30	< 0.001	96	18	80 - 120	20
Surrogate	Flag	Res	sult	Units	Dil.		Spike Amount	R	% .ec.	% Rec. Limit
$\mathrm{TFT}$		0.1	.01	mg/L	1		0.10	1	.01	72 - 128
4-BFB		0.1	.01	mg/L	1		0.10	1	.01	72 - 128

Sample: LCS QC Batch: QC06752

		Sample			Spike Amount	Matrix	%		% Rec.	RPD
Param	Flag	Result	Units	Dil.	Added	$\mathbf{Result}$	Rec.	RPD	Limit	Limit
CL		11.76	mg/L	1	12.50	<0.5	94		80 - 120	20

Sample: LCSD

QC Batch: QC06752

					Spike					
		Sample			Amount	Matrix	%		% Rec.	RPD
Param	Flag	Result	Units	Dil.	Added	Result	Rec.	RPD	Limit	Limit
CL		11.89	mg/L	1	12.50	< 0.5	95	1	80 - 120	20

## Quality Control Report Matrix Spikes and Duplicate Spikes

Sample: MS

QC Batch: QC06752

					Spike					
		Sample			Amount	Matrix	%		% Rec.	RPD
Param	Flag	$\mathbf{Result}$	Units	Dil.	Added	$\mathbf{Result}$	Rec.	RPD	Limit	Limit
CL		90.42	mg/L	1	62.50	32	93		80 - 120	20

Sample: MSD

QC Batch: QC06752

					Spike					
		Sample			Amount	Matrix	%		% Rec.	RPD
Param	Flag	Result	Units	Dil.	Added	$\mathbf{Result}$	Rec.	RPD	Limit	Limit
CL		89.74	mg/L	1	62.50	32	92	1	80 - 120	20

Report Date: November 21, 2000 279-512

Order Number: A00102528 Former Hobbs Gas Plant

# Quality Control Report Continuing Calibration Verification Standards

Sample: CCV (1)

QC Batch: QC06059

			CCVs	CCVs	$\mathrm{CCVs}$	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/L	0.10	0.092	92	80 - 120	10/30/00
Toluene		m mg/L	0.10	0.095	95	80 - 120	10/30/00
Ethylbenzene		mg/L	0.10	0.089	89	80 - 120	10/30/00
M,P,O-Xylene		mg/L	0.30	0.277	92	80 - 120	10/30/00

#### Sample: CCV (2) QC Batch: QC06059

			$\mathrm{CCVs}$	$\mathrm{CCVs}$	$\mathrm{CCVs}$	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/L	0.10	0.112	112	80 - 120	10/30/00
Toluene		mg/L	0.10	0.11	110	80 - 120	10/30/00
Ethylbenzene		mg/L	0.10	0.114	114	80 - 120	10/30/00
M,P,O-Xylene		mg/L	0.30	0.337	112	80 - 120	10/30/00

Sample: ICV (1)

QC Batch: QC06059

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	$\operatorname{Flag}$	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/L	0.10	0.102	102	80 - 120	10/30/00
Toluene		m mg/L	0.10	0.1	100	80 - 120	10/30/00
Ethylbenzene		mg/L	0.10	0.105	105	80 - 120	10/30/00
M,P,O-Xylene		mg/L	0.30	0.306	102	80 - 120	10/30/00

Sample: CCV (1) QC Batch: QC06297

			$\mathrm{CCVs}$	CCVs	$\mathrm{CCVs}$	Percent	
			True	Found	Percent	Recovery	Date
Param	$\mathbf{Flag}$	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/L	0.10	0.09	90	80 - 120	10/30/00
Toluene		mg/L	0.10	0.088	88	80 - 120	10/30/00
Ethylbenzene		mg/L	0.10	0.086	86	80 - 120	10/30/00
M,P,O-Xylene		mg/L	0.30	0.255	85	80 - 120	10/30/00

Sample: ICV (1)

QC Batch: QC06297

Report Date: No 279-512	vember 21, 2	000	Order Form	Number: A00 er Hobbs Gas	Page Number: 10 of 10 Hobbs, NM				
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed		
Benzene		mg/L	0.10	0.106	106	80 - 120	10/30/00		
Toluene		mg/L	0.10	0.106	106	80 - 120	10/30/00		
Ethylbenzene		mg/L	0.10	0.108	108	80 - 120	10/30/00		
M,P,O-Xylene		mg/L	0.30	0.333	111	80 - 120	10/30/00		
				· · · · · · · · · · · · · · · · · · ·			1999-1999 - Anno 2000 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 19		

Sample: CCV (1) QC Batch: QC06752

			CCVs	CCVs	$\mathrm{CCVs}$	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
CL		mg/L	12.50	11.85	· 94	80 - 120	11/20/00

Sample: ICV (1) QC Batch: QC06752

			CCVs	$\mathrm{CCVs}$	$\mathrm{CCVs}$	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
CL		mg/L	12.50	11.89	95	80 - 120	11/20/00

	4725 Ripley Dr., Ste A CHAIN-OF-CUSTODY AND ANALYSIS REQUEST El Paso, Texas 79922-1028	Tel (915) 585-343   LAB Order ID #   MODICA S & 343     1 (888) 588-3443   LAB Order ID #   MODICA S & 3	0-7535 ANALYSIS REQUEST		0B/200	ріврив		Thereast Therea	SERVATIVE SAMPLING 25 5 005 005 005 005 005 005 005 005 005	E E B B B B B B B B B B B B B	Ноід 1000/ 10				12:20 X X X X X		× × × × × × × × × × × × × × × × × × ×		× × × × × × × × × × × × × × × × × × ×			Time: 7.05 1.0 Intact Y / N	Time: Compared V / N	10-JS-00 10 DC Hog-in Review P	GINAL COPY
L8-086171	6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424	Tel (806) 794-1296 <b>LTACE A MALYSIS</b> 1 (800) 378-1296	ECD-Logical Environmental	Address: (Streed City, Zip) + S4.	Contact Person: SCO++ SDringer	Invoice to:	Project #: 279 - 512	Project Location: HODS	E H	FIELD CODE	( ONLY ) * CO VOIUT * CO	19,980 MW 1 2 WM	81 MW 3 2 VOA	83 M W 5 2 VOA	83 MW 6 3 V92	81 MW 7 3 1	85 MW 9 3 1	54 M W 10 3	87 MW GD 3 14		Relinquished by: Date: Time: Repeived by:	Relinquished by Date: Time: Received by:	Polinarichad hur Date: Time. Baceved at Taburat		Submittal of samples constitutes agreement to Terms and Conditions listed on re-

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	4725 Ripley Dr., Ste A El Paso, Taxas 79922-1028	<b>RALVSIS</b> , <b>INC.</b> Tel (915) 585-343 Fax (915) 585-4944 1 (888) 588-3443	1ental Phone # 520-7535			Project Name: HADDS	Sampler Signature: Kathu Mig Mothl.	C AMPLING SAMPLING SAMPLING	TIME Volume/Amo WATER SOIL BAR HUO3 ICE ICE ICE HUO3 ICE HUO3 ICE	2 0/2 1 1 1 1 0/2 1/3	2 VOA    / / // 2	2 VOA	3 102	2	2 1 1 1 1 20	3                         2 %	3 - 1 1 1 1 10		NOD ALOHAND COLDM	Received by: Date: Time:		Received at Laboratory by: Date: Time:		onditions listed on reverse side of C.O.C. ) ( (M. M. Alla -14 ) CHART COPY
	6701 Aberdaen Avenue, Ste. 9 Lubbocki Texas 79424	161 (806) 794-1296 <b>L L'ACEA</b> Fax (806) 794-1296 1 (800) 378-1296	Company Name: ECD - LOGICAL ENVIYON M Address: (Street, City, Zip)	2200 Market St. Contact Person:	Invoice to:	Project #: 279 - 517	Project Location:		LAB # FIELD CODE (LAB USE)	Mw/ 1	Z MM		M W K	M W J	ww g	N W IO	MW LOD			Relinquished by Date: Time: Time:		Relinquished by: Date: Time:		Submittal of samples constitutes agreement to Terms and Co



## Analytical and Quality Control Report

Scott Springer Eco-Logical Environmental Services 2200 Market Street Midland, TX 79703 Report Date:

July 27, 2000

Order ID Number: A00071909

Project Number:279-512Project Name:Former Hobbs Gas PlantProject Location:Hobbs, NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
149929	MW-1	Water	7/17/00	11:30	7/18/00
149930	MW-3	Water	7/17/00	11:20	7/18/00
149931	MW-5	Water	7/17/00	11:40	7/18/00
149932	MW-6	Water	7/17/00	11:45	7/18/00
149933	MW-7	Water	7/17/00	9:40	7/18/00
149934	MW-9	Water	7/17/00	11:25	7/18/00
149935	MW-10	Water	7/17/00	9:25	7/18/00
149936	MW-6D	Water	7/17/00	11:45	7/18/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 8 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Report Date: July 27, 2000 279-512

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# Analytical and Quality Control Report

Sample:	14992 BTEX	9 - MW-1 Analytical Method:	S 8021B	OC Batch	0003004	Data Analyzadi	7/25/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB03376	Date Prepared:	7/24/00
Param		Flag	Result	Units	Dilı	ition	RDL
Benzene		<	<0.005	mg/L		5	0.001
Toluene		<	<0.005	mg/L		5	0.001
Ethylbenzei	ne	<	<0.005	mg/L		5	0.001
M,P,O-Xyle	ene	<	<0.005	mg/L		5	0.001
Total BTE	<u>۲</u>	<	< 0.005	mg/L		5	0.001

					Spike	Percent	Recovery
Surrogate	$\mathbf{Flag}$	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
TFT		0.474	mg/L	1	0.10	94.	72 - 128
4-BFB		0.53	mg/L	1	0.10	106	72 - 128

#### Sample: 149930 - MW-3

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC03904	Date Analyzed:	7/25/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB03376	Date Prepared:	7/24/00
Param		Flag	Result	Units	Dilut	tion	RDL
Benzene			0.01	mg/L	5		0.001
Toluene			<0.005	mg/L	5		0.001
Ethylbenze	ne		< 0.005	mg/L	5		0.001
M,P,O-Xyl	ene	•	<0.005	mg/L	5		0.001
Total BTE	X		0.01	mg/L	5		0.001

					Spike	Percent	Recovery
Surrogate	$\mathbf{Flag}$	$\operatorname{Result}$	Units	Dilution	Amount	Recovery	Limits
$\overline{\mathrm{TFT}}$		0.577	mg/L	1	0.10	115	72 - 128
4-BFB		0.585	mg/L	1	0.10	117	72 - 128

Sample: Analysis: Analyst:	<b>149931</b> BTEX RC	- MW-5 Analytical Method: Preparation Metho	S 8021B d: 5035	QC Batch: Prep Batch:	QC03904 PB03376	Date Analyzed: Date Prepared:	7/25/00 7/24/00
Param		Flag	Result	Units	Dih	ution	RDL
Benzene		<u> </u>	< 0.005	mg/L		5	0.001
Toluene			< 0.005	mg/L		5	0.001
Ethylbenzer	ne		< 0.005	mg/L		5	0.001
M,P,O-Xyle	ene		< 0.005	mg/L		5	0.001
Total BTE	Κ		<0.005	mg/L		5	0.001

Report Dat 279-512	te: July 27, 2	2000	Order N Former	umber: A000719 Hobbs Gas Plar	09 it	Page Nu	mber: 3 of Hobbs, NN
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
I'F"I' 4-BFB		0.542 0.568	mg/L mg/L	1 1	0.10 0.10	108 113	72 - 128 72 - 128
Sample:	149932 ·	- MW-6					
Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC03904	Date Analyzed:	7/25/0
Analyst:	RC	Preparation Method	: 5035	Prep Batch:	PB03376	Date Prepared:	7/24/0
Param		Flag	Result	Units	Di	ilution	RD
Benzene			0.126	mg/L		5	0.00
Toluene			<0.005	mg/L		5	0.00
Ethylbenze	ne		< 0.005	mg/L		5	0.00
M,P,O-Xyle	ene		<0.005	mg/L		5	0.00
Total BTE	X		0.126	mg/L		5	0.00
					Spike	Percent	Recover
Surrogate	Flag	Besult	Units	Dilution	Amount	Recovery	Limits
TFT		0.516	mg/L	1	0.10	103	72 - 12
4-BFB		0.542	mg/L	1	0.10	108	72 - 12
Sample:	149932	- MW-6					
Sample: Analysis: Analyst:	<b>149932</b> Ion Chrom JS	<b>- MW-6</b> hatography (IC) Analy Prepa	rtical Metho aration Meth	l: E 300.0 QC od: N/A Pre	Batch: Q p Batch: P	2C03816 Date Analyz 2B03300 Date Prepar	ed: 7/20/0 ed: 7/20/0
Sample: Analysis: Analyst: Param	<b>149932</b> Ion Chrom JS Flag	<b>- MW-6</b> hatography (IC) Analy Prepa Result	rtical Method aration Meth Units	l: E 300.0 QC od: N/A Pre Dilution	Batch: Q p Batch: P	2C03816 Date Analyz 2B03300 Date Prepar	ed: 7/20/0 ed: 7/20/0 RD
Sample: Analysis: Analyst: Param CL	<b>149932</b> Ion Chrom JS Flag	<b>- MW-6</b> hatography (IC) Analy Prepa Result 33	vtical Method aration Meth Units mg/L	l: E 300.0 QC od: N/A Pre Dilution . 1	Batch: Q p Batch: P	2C03816 Date Analyz 2B03300 Date Prepar	ed: 7/20/ ed: 7/20/ <u>RI</u> 0.
Sample: Analysis: Analyst: Param CL Sample: Analysis: Analyst:	149932 Ion Chrom JS Flag 149933 BTEX RC	- MW-6 hatography (IC) Analy Prepa Result 33 - MW-7 Analytical Method: Preparation Method	tical Method aration Meth Units mg/L S 8021B S 5035	d: E 300.0 QC od: N/A Pre Dilution . 1 QC Batch: Prep Batch:	Batch: Q p Batch: P QC03904 PB03376	2C03816 Date Analyz 'B03300 Date Prepar Date Analyzed: Date Prepared:	ed: 7/20/0 ed: 7/20/0 <u>RE</u> 0. 7/25/ 7/24/
Sample: Analysis: Analyst: Param CL Sample: Analysis: Analysis: Param	149932 Ion Chrom JS Flag 149933 BTEX RC	- MW-6 hatography (IC) Analy Prepa Result 33 - MW-7 Analytical Method: Preparation Method Flag	vtical Method pration Meth Units mg/L S 8021B S 8021B S 8021B Result	l: E 300.0 QC od: N/A Pre Dilution . 1 QC Batch: Prep Batch: Units	Batch: Q p Batch: P QC03904 PB03376 D	2C03816 Date Analyz 2B03300 Date Prepar Date Analyzed: Date Prepared: ilution	ed: 7/20/ ed: 7/20/ <u>RI</u> 0. 7/25/ 7/24/ RI
Sample: Analysis: Analyst: Param CL Sample: Analysis: Analyst: Param Benzene	149932 Ion Chrom JS Flag 149933 BTEX RC	- MW-6 hatography (IC) Analy Prepa Result 33 - MW-7 Analytical Method: Preparation Method Flag	tical Method ration Meth Units mg/L S 8021B : 5035 Result <0.001	d: E 300.0 QC od: N/A Pre Dilution . 1 QC Batch: Prep Batch: Units mg/L	Batch: Q p Batch: P QC03904 PB03376 D	2C03816 Date Analyz 2B03300 Date Prepar Date Analyzed: Date Prepared: ilution 1	ed: 7/20/ ed: 7/20/ <u>RI</u> 0. 7/25/ 7/24/ <u>RI</u> 0.0
Sample: Analysis: Analyst: Param CL Sample: Analysis: Analyst: Param Benzene Toluene	149932 Ion Chrom JS Flag 149933 BTEX RC	- MW-6 hatography (IC) Analy Prepa Result 33 - MW-7 Analytical Method: Preparation Method Flag	S 8021B S 8021B	d: E 300.0 QC od: N/A Pre Dilution . 1 QC Batch: Prep Batch: Units mg/L mg/L	Batch: Q p Batch: P QC03904 PB03376 D	2C03816 Date Analyz PB03300 Date Prepar Date Analyzed: Date Prepared: ilution 1 1	ed: 7/20/ ed: 7/20/ RI 0. 7/25/ 7/24/ RI 0.0 0.0
Sample: Analysis: Analyst: Param CL Sample: Analysis: Analyst: Param Benzene Toluene Ethylbenze	149932 Ion Chrom JS Flag 149933 BTEX RC	- MW-6 hatography (IC) Analy Prepa Result 33 - MW-7 Analytical Method: Preparation Method Flag	S 8021B S 8021	l: E 300.0 QC od: N/A Pre Dilution . 1 QC Batch: Prep Batch: Units mg/L mg/L mg/L	Batch: Q p Batch: P QC03904 PB03376 D	2C03816 Date Analyz PB03300 Date Prepar Date Analyzed: Date Prepared: ilution 1 1 1	ed: 7/20/ ed: 7/20/ RI 0. 7/25/ 7/24/ RI 0.0 0.0 0.0 0.0
Sample: Analysis: Analyst: Param CL Sample: Analysis: Analysis: Analyst: Param Benzene Toluene Ethylbenze M,P,O-Xyl	149932 Ion Chrom JS Flag 149933 BTEX RC ene ene	- MW-6 hatography (IC) Analy Prepa Result 33 - MW-7 Analytical Method: Preparation Method Flag	vtical Method pration Meth Units mg/L S 8021B S 8021D S 8021D	l: E 300.0 QC od: N/A Pre Dilution 1 QC Batch: Prep Batch: Prep Batch: Units mg/L mg/L mg/L mg/L	Batch: Q p Batch: P QC03904 PB03376 D	2C03816 Date Analyz 2B03300 Date Prepar Date Analyzed: Date Prepared: ilution 1 1 1	ed: 7/20/ ed: 7/20/ RI 0. 7/25/ 7/24/ RI 0.0 0.0 0.0 0.0
Sample: Analysis: Analyst: Param CL Sample: Analysis: Analysis: Analyst: Param Benzene Toluene Ethylbenze M,P,O-Xyl Total BTE	149932 Ion Chrom JS Flag 149933 BTEX RC ene ene X	- MW-6 hatography (IC) Analy Prepa Result 33 - MW-7 Analytical Method: Preparation Method Flag	Contraction Method Contraction Method Units mg/L S 8021B S 8021B S 8021B S 8021B C 0035 Result <0.001 <0.001 <0.001 <0.001 <0.001 <0.001	l: E 300.0 QC od: N/A Pre Dilution 1 QC Batch: Prep Batch: Units mg/L mg/L mg/L mg/L mg/L	Batch: Q p Batch: P QC03904 PB03376 D	2C03816 Date Analyz PB03300 Date Prepar Date Analyzed: Date Prepared: ilution 1 1 1 1 1	ed: 7/20/ ed: 7/20/ <u>RI</u> 0. 7/25/ 7/24/ <u>RI</u> 0.0 0.0 0.0 0.0 0.0 0.0
Sample: Analysis: Analyst: Param CL Sample: Analysis: Analysis: Analyst: Param Benzene Toluene Ethylbenze M,P,O-Xyl Total BTE	149932 Ion Chrom JS Flag 149933 BTEX RC ene ene X	- MW-6 hatography (IC) Analy Prepa Result 33 - MW-7 Analytical Method: Preparation Method Flag	tical Method ration Meth Units mg/L S 8021B 5035 Result <0.001 <0.001 <0.001 <0.001 <0.001 <0.001	d: E 300.0 QC od: N/A Pre Dilution . 1 QC Batch: Prep Batch: Units mg/L mg/L mg/L mg/L mg/L	Batch: Q p Batch: P QC03904 PB03376 D	2C03816 Date Analyz PB03300 Date Prepar Date Analyzed: Date Prepared: ilution 1 1 1 1 1	ed: 7/20/4 ed: 7/20/4 RI 0. 7/25/ 7/24/ RI 0.0 0.0 0.0 0.0 0.0 0.0
Sample: Analysis: Analyst: Param CL Sample: Analysis: Analysis: Analyst: Param Benzene Toluene Ethylbenze M,P,O-Xyl Total BTE	149932 Ion Chrom JS Flag 149933 BTEX RC ene ene X	- MW-6 hatography (IC) Analy Prepa Result 33 - MW-7 Analytical Method: Preparation Method Flag	Viical Method Tration Meth Units mg/L S 8021B S 8025B S 8025B S 8025B S 8025	l: E 300.0 QC od: N/A Pre Dilution 1 QC Batch: Prep Batch: Units mg/L mg/L mg/L mg/L mg/L	Batch: Q p Batch: P QC03904 PB03376 D Spike	2C03816 Date Analyz PB03300 Date Prepar Date Analyzed: Date Prepared: ilution 1 1 1 1 1 1 Percent Becovery	ed: 7/20/4 ed: 7/20/4 RI 0. 7/25/ 7/24/ RI 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
Sample: Analysis: Analyst: Param CL Sample: Analysis: Analysis: Analyst: Param Benzene Toluene Ethylbenze M,P,O-Xyl Total BTE Surrogate	149932 Ion Chrom JS Flag 149933 BTEX RC ene ene X Flag	- MW-6 hatography (IC) Analy Prepa Result 33 - MW-7 Analytical Method: Preparation Method Flag Result	vtical Method aration Meth Units mg/L S 8021B S 8021B	d: E 300.0 QC od: N/A Pre Dilution 1 QC Batch: Prep Batch: Units mg/L mg/L mg/L mg/L mg/L mg/L	Batch: Q p Batch: P QC03904 PB03376 D Spike Amount	2C03816 Date Analyz 'B03300 Date Prepar Date Analyzed: Date Prepared: ilution 1 1 1 1 Percent Recovery 113	ed: 7/20/ ed: 7/20/ RI 0. 7/25/ 7/24/ RI 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.

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Report Dat 279-512	te: July 27, 2	2000	Order Nur Former H	nber: A000719 lobbs Gas Plar	09 nt	Page Nur	nber: 4 of Hobbs, NM
Sample:	149933 -	- MW-7					
Analysis:	Ion Chrom	atography (IC) Analy	tical Method	E 300.0 OC	Batch	OC03816 Date Analyze	ad · 7 / 20 / 00
Analyst:	JS	Prepa	ration Method	: N/A Pre	p Batch:	PB03300 Date Prepare	ed: 7/20/00
Param	Flag	Result	Units	Dilution			RDI
CL		32	mg/L	1			0.50
Sample:	149934 -	- MW-9					
Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC03904	Date Analyzed:	7/25/0
Analyst:	RC	Preparation Method	5035	Prep Batch:	PB03376	Date Prepared:	7/24/0
Param		Flag	Result	Units	]	Dilution	RD
Benzene			< 0.001	mg/L		1	0.00
Toluene			< 0.001	mg/L		1	0.00
Ethylbenzei	ne		<0.001	mg/L			0.00
M,P,O-Xyle	ene		<0.001	mg/L			0.00
Total BTE?	X		<0.001	mg/L		1	0.00
					Spike	Percent	Recover
			Tinita I	Dilution	Amount	Becovery	Limits
Surrogate	Flag	Result	Units	Dilution	Amount		
Surrogate TFT	Flag	0.127	mg/L	1	0.10	127	72 - 12
Surrogate TFT 4-BFB	Flag	0.127 0.126	mg/L mg/L	1	0.10 0.10	127 126	72 - 123 72 - 123
Surrogate TFT 4-BFB Sample: Analysis: Analyst:	Flag 149934 Ion Chrom JS	Result 0.127 0.126 - MW-9 hatography (IC) Analy Prepa	mg/L mg/L tical Method: tration Method	1 1 E 300.0 QC : N/A Pre	Batch: p Batch:	QC03816 Date Analyze PB03300 Date Prepare	72 - 12 72 - 12 72 - 12 ed: 7/20/0 ed: 7/20/0
Surrogate TFT 4-BFB Sample: Analysis: Analyst: Param	Flag 149934 Ion Chrom JS Flag	Result 0.127 0.126 - MW-9 hatography (IC) Analy Prepa Result	mg/L mg/L tical Method: tration Method Units	I E 300.0 QC : N/A Pre Dilution	0.10 0.10 Batch: p Batch:	127 126 QC03816 Date Analyze PB03300 Date Prepare	72 - 12 72 - 12 72 - 12 ed: 7/20/0 ed: 7/20/0 RD
Surrogate TFT 4-BFB Sample: Analysis: Analyst: Param CL	Flag 149934 Ion Chrom JS Flag	Result 0.127 0.126 - MW-9 natography (IC) Analy Prepa Result 95	mg/L mg/L tical Method: tration Method Units mg/L	E 300.0 QC E 300.0 QC N/A Pre Dilution	0.10 0.10 Batch: p Batch:	127 126 QC03816 Date Analyze PB03300 Date Prepare	72 - 123 72 - 123 72 - 123 ed: 7/20/0 ed: 7/20/0 RD 0.5
Surrogate TFT 4-BFB Analysis: Analyst: Param CL Sample: Analysis: Analysis:	Flag 149934 Ion Chrom JS Flag 149935 BTEX RC	Result 0.127 0.126 - MW-9 hatography (IC) Analy Prepa Result 95 - MW-10 Analytical Method: Preparation Method	mg/L mg/L tical Method: ration Method Units mg/L S 8021B : 5035	E 300.0 QC E 300.0 QC N/A Pre Dilution 1 QC Batch: Prep Batch:	0.10 0.10 Batch: p Batch: QC03904 PB03376	QC03816 Date Analyze PB03300 Date Prepare	72 - 12 72 - 12 72 - 12 ed: 7/20/0 ed: 7/20/0 RD 0.5 7/25/0 7/25/0 7/24/0
Surrogate TFT 4-BFB Sample: Analysis: Analyst: Param CL Sample: Analysis: Analysis: Analysis: Param	Flag 149934 Ion Chrom JS Flag 149935 BTEX RC	Result 0.127 0.126 - MW-9 hatography (IC) Analy Prepa Result 95 - MW-10 Analytical Method: Preparation Method Flag	mg/L mg/L tical Method: ration Method Units mg/L S 8021B : 5035 Result	E 300.0 QC E 300.0 QC N/A Pre Dilution 1 QC Batch: Prep Batch: Units	0.10 0.10 Batch: p Batch: QC03904 PB03376	127 126 QC03816 Date Analyze PB03300 Date Prepare Date Analyzed: Date Prepared: Dilution	72 - 12 72 - 12 72 - 12 ed: 7/20/0 ed: 7/20/0 RD 0.8 7/25/0 7/25/0 7/24/0 RD
Surrogate TFT 4-BFB Sample: Analysis: Analyst: Param CL Sample: Analysis: Analysis: Analyst: Param Benzene	Flag 149934 Ion Chrom JS Flag 149935 BTEX RC	Result 0.127 0.126 - MW-9 hatography (IC) Analy Prepa Result 95 - MW-10 Analytical Method: Preparation Method Flag	mg/L mg/L mg/L tical Method: tration Method Units mg/L S 8021B : 5035 Result <0.005	E 300.0 QC E 300.0 QC N/A Pre Dilution 1 QC Batch: Prep Batch: Prep Batch: Units mg/L	0.10 0.10 0.10 Batch: p Batch: QC03904 PB03376	QC03816 Date Analyze PB03300 Date Prepare Date Analyzed: Date Prepared: Dilution 5	72 - 12: 72 - 12: 72 - 12: ed: 7/20/0 ed: 7/20/0 RD 0.5 7/25/0 7/24/0 RD 0.00
Surrogate TFT 4-BFB Sample: Analysis: Analyst: Param CL Sample: Analysis: Analysis: Analyst: Param Benzene Toluene	Flag 149934 Ion Chrom JS Flag 149935 BTEX RC	Result 0.127 0.126 - MW-9 hatography (IC) Analy Prepa Result 95 - MW-10 Analytical Method: Preparation Method Flag	rtical Method: mg/L mg/L tical Method: ration Method Units mg/L S 8021B : 5035 Result <0.005 <0.005	E 300.0 QC E 300.0 QC N/A Pre Dilution 1 QC Batch: Prep Batch: Prep Batch: Units mg/L	0.10 0.10 0.10 Batch: p Batch: QC03904 PB03376	127 126 QC03816 Date Analyze PB03300 Date Prepare Date Analyzed: Date Prepared: Dilution 5 5	72 - 12: 72 - 12: 72 - 12: ed: 7/20/0 ed: 7/20/0 RD 0.: 7/25/0 7/24/0 RD 0.00 0.00
Surrogate TFT 4-BFB Sample: Analysis: Analyst: Param CL Sample: Analysis: Analyst: Param Benzene Toluene Ethylbenze	Flag 149934 Ion Chrom JS Flag 149935 BTEX RC ene	Result 0.127 0.126 - MW-9 hatography (IC) Analy Prepa Result 95 - MW-10 Analytical Method: Preparation Method Flag	rtical Method: mg/L mg/L tical Method: ration Method Units mg/L S 8021B : 5035 Result <0.005 <0.005 <0.005	E 300.0 QC E 300.0 QC N/A Pre Dilution 1 QC Batch: Prep Batch: Prep Batch: Units mg/L mg/L	0.10 0.10 0.10 Batch: p Batch: QC03904 PB03376	127 126 QC03816 Date Analyze PB03300 Date Prepare Date Analyzed: Date Prepared: Dilution 5 5 5	72 - 12 72 - 12 72 - 12 ed: 7/20/0 ed: 7/20/0 RD 0.5 7/25/0 7/24/0 RD 0.00 0.00 0.00
Surrogate TFT 4-BFB Sample: Analysis: Analysis: Param CL Sample: Analysis: Ana	Flag 149934 Ion Chrom JS Flag 149935 BTEX RC ene ene ene	Result 0.127 0.126 - MW-9 hatography (IC) Analy Prepa Result 95 - MW-10 Analytical Method: Preparation Method Flag	rtical Method: mg/L mg/L units mg/L S 8021B S 8025 S 8025 S 805 S 805	E 300.0 QC E 300.0 QC N/A Pre Dilution 1 QC Batch: Prep Batch: Prep Batch: Units mg/L mg/L mg/L	0.10 0.10 0.10 Batch: p Batch: QC03904 PB03376	127 127 126 QC03816 Date Analyzed PB03300 Date Prepared Date Analyzed: Date Prepared: Dilution 5 5 5 5 5	72 - 12 72 - 12 72 - 12 ed: 7/20/0 ed: 7/20/0 RD 0.8 7/25/0 7/24/0 RE 0.00 0.00 0.00 0.00
Surrogate TFT 4-BFB Sample: Analysis: Analysis: Param CL Sample: Analysis: Analysis: Analysis: Analysis: Param Benzene Toluene Ethylbenze M,P,O-Xyle Total BTE	Flag 149934 Ion Chrom JS Flag 149935 BTEX RC ene ene ene X	Result 0.127 0.126 - MW-9 hatography (IC) Analy Prepa Result 95 - MW-10 Analytical Method: Preparation Method Flag	Units Img/L   mg/L Img/L   tical Method: Img/L   units Img/L   S 8021B 5035   Result <0.005	E 300.0 QC E 300.0 QC N/A Pre Dilution 1 QC Batch: Prep Batch: Prep Batch: Units mg/L mg/L mg/L mg/L	QC03904 PB03376	127 127 126 QC03816 Date Analyze PB03300 Date Prepare Date Analyzed: Date Prepared: Dilution 5 5 5 5 5 5	72 - 12 72 - 12 72 - 12 ed: 7/20/0 ed: 7/20/0 RD 0.8 7/25/0 7/24/0 RD 0.00 0.00 0.00 0.00
Surrogate TFT 4-BFB Sample: Analysis: Analyst: Param CL Sample: Analysis: Analysis: Analyst: Param Benzene Toluene Ethylbenze M,P,O-Xyla Total BTE	Flag 149934 Ion Chrom JS Flag 149935 BTEX RC ene ene ene X	Result 0.127 0.126 - MW-9 hatography (IC) Analy Prepa Result 95 - MW-10 Analytical Method: Preparation Method Flag	Units Img/L   mg/L Img/L   tical Method: Img/L   units Img/L   S 8021B 5035   Result <0.005	E 300.0 QC E 300.0 QC N/A Pre Dilution 1 QC Batch: Prep Batch: Wnits mg/L mg/L mg/L mg/L mg/L	O.10 O.10 O.10 Batch: p Batch: QC03904 PB03376	QC03816 Date Analyzed PB03300 Date Prepared Date Analyzed: Date Prepared: Dilution 5 5 5 5 5 5 5 5 5 5 5 5 5 5	72 - 12: 72 - 12: 72 - 12: ed: 7/20/0 ed: 7/20/0 RD 0.5 7/25/0 7/24/0 RD 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Surrogate TFT 4-BFB Sample: Analysis: Analyst: Param CL Sample: Analysis: Analysis: Analyst: Param Benzene Toluene Ethylbenze M,P,O-Xyla Total BTE Surrogate	Flag 149934 Ion Chrom JS Flag 149935 BTEX RC ene ene ene X Flag	Result 0.127 0.126 - MW-9 hatography (IC) Analy Prepa Result 95 - MW-10 Analytical Method: Preparation Method Flag Result	Units Img/L   mg/L Img/L   tical Method: Img/L   units Img/L   S 8021B 5035   Result <0.005	E 300.0 QC E 300.0 QC N/A Pre Dilution 1 QC Batch: Prep Batch: Units mg/L mg/L mg/L mg/L Dilution	O.10 O.10 O.10 Batch: p Batch: QC03904 PB03376 Spike Amount	QC03816 Date Analyzed PB03300 Date Prepared Date Analyzed: Date Prepared: Dilution 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	72 - 12 72 - 12 72 - 12 ed: 7/20/0 ed: 7/20/0 RD 0.2 7/25/0 7/24/0 RD 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Surrogate TFT 4-BFB Sample: Analysis: Analysis: Analyst: Param CL Sample: Analysis: Analysis: Analyst: Param Benzene Toluene Ethylbenze M,P,O-Xyla Total BTE Surrogate TFT	Flag 149934 Ion Chrom JS Flag 149935 BTEX RC ene ene X Flag	Result 0.127 0.126 - MW-9 hatography (IC) Analy Prepa Result 95 - MW-10 Analytical Method: Preparation Method Flag Result 0.428	rtical Method: mg/L mg/L tical Method: ration Method Units mg/L S 8021B : 5035 Result <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005	E 300.0 QC E 300.0 QC N/A Pre Dilution 1 QC Batch: Prep Batch: Units mg/L mg/L mg/L mg/L mg/L Mg/L 1	Amount 0.10 0.10 0.10 Batch: p Batch: QC03904 PB03376 Spike Amount 0.10	QC03816 Date Analyzed PB03300 Date Prepare Date Analyzed: Date Prepared: Dilution 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	72 - 12 72 - 12 72 - 12 ed: 7/20/0 ed: 7/20/0 RD 0.2 7/25/0 7/24/0 RD 0.00 0.00 0.00 0.00 0.00 0.00 0.00

Report Dat 279-512	e: July 27,	2000	Order Ni Former	umber: A000719 Hobbs Gas Plar	05 nt	Page Nu	mber: 5 of Hobbs, NI
Sample:	149935	- MW-10					
Analysis: Analyst:	Ion Chron JS	atography (IC) Ana Prei	lytical Method paration Metho	: E 300.0 QC d: N/A Pre	Batch: p Batch:	QC03816 Date Analyz PB03300 Date Prepar	ed: 7/20/0 ed: 7/20/0
Param	Flag	Result	Units	Dilution			. RDI
CL		130	mg/L	1			0.5
Sample:	149936	- MW-6D					
Analysis: Analyst:	BTEX RC	Analytical Method Preparation Metho	: S 8021B od: 5035	QC Batch: Prep Batch:	QC03904 PB03376	Date Analyzed: Date Prepared:	7/25/00 7/24/00
Param		Flag	Result	Units	I	Dilution	RDI
Benzene			0.121	mg/L		5	0.00
Foluene			<0.005	mg/L		5	0.00
Ethylbenzer	ie		<0.005	mg/L		5	0.00
M,P,O-Xyle	ne		< 0.005	mg/L		5	0.00
Total BTEX	<u> </u>	. <u></u>	0.121	mg/L		5	0.00
					Spike	Percent	Recover
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
$\mathbf{TFT}$		0.491	mg/L	1	0.10	98	72 - 128
		$\mathbf{Qu}_{i}$	ality Co	ntrol Re	port		
			$1\sqrt{1}\Delta T n O$				
Sample: 1	Method	Blank Q	CBatch: Q	od Blank			
Sample: 1	Method	Blank Q	CBatch: QC	O Blank	·		Reportin
Sample: 1	Method	Blank Qu Flag	CBatch: QC Resu	O Blank C03816 lts	Un	its	Reportin Limit
Sample: Param OL	Method	<b>Blank</b> Qo Flag	CBatch: Q( Resu	d Blank C03816 Its D.5	Un mg	its /L	Reportin Limit 0.50
Sample: Param CL Sample: 1	Method	Blank Q4 Flag Blank Q9	CBatch: Q( Resultion of the control	CO3816 CO3816 D.5 CO3904	Un mg	its /L	Reporting Limit 0.50
Sample: Param CL Sample:	Method Method	Blank Q Flag Blank Q	CBatch: Q( <u>Resu</u> <u>&lt;(</u>	d Blank C03816 Its D.5 C03904	Un mg	its /L	Reportin Limit 0.50 Reportin
Sample: Param CL Sample: Param	Method	Blank Q Flag Blank Q Flag	CBatch: Q( <u>Resu</u> CBatch: Q( CBatch: Q( <u>F</u>	CO3816 CO3816 CO3904 Results	Un mg	its /L Inits	Reportin Limit 0.50 Reportin Limit
Sample: Param CL Sample: Param Benzene	Method	Blank Qu Flag Blank Qu Flag	CBatch: Q( <u>Resu</u> CBatch: Q( <u>F</u>	CO3816 CO3816 CO3904 CO3904 Results <0.001	Un mg U	its /L /nits ng/L	Reportin Limit 0.50 Reportin Limit 0.001
Sample: Param CL Sample: Param Benzene Toluene	Method	Blank Qu Flag Blank Qu Flag	CBatch: Q( <u>Resu</u> CBatch: Q( <u>CBatch: Q(</u> <u>F</u>	C03816 C03816 Lts D.5 C03904 C03904 C03904 C03904 C03904 C03904	Un mg U u n r	its /L /nits ng/L ng/L	Reportin Limit 0.50 Reportin Limit 0.001 0.001
Sample: Param CL Sample: Param Benzene Toluene Ethylbenzer	Method	Blank Q Flag Blank Q Flag	CBatch: Q( <u>Resu</u> CBatch: Q( <u>F</u>	C03816 C03816 C03904 C03904 C03904 C03904 C03904 C03904 C03904 C03904	Un mg U U n n n n	its /L /L ng/L ng/L ng/L	Reportin Limit 0.50 Reportin Limit 0.001 0.001 0.001
Sample: Param CL Sample: Param Benzene Toluene Ethylbenzer M.P.O-Xyle	Method	Blank Q Flag Blank Q Flag	CBatch: Q( <u>Resu</u> CBatch: Q( CBatch: Q( <u>F</u>	C03816 C03816 C03904	Un mg U u n n n n	its /L /nits ng/L ng/L ng/L ng/L	Reportin Limit 0.50 Reportin Limit 0.001 0.001 0.001 0.001

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Report Date: 3 279-512	July 27, 2000	ι	Order Number Former Hobbs	: A00071905 Gas Plant	: Page	Page Number: 6 of 8 Hobbs, NM		
Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit		
TFT 4-BFB		0.094 0.081	mg/L mg/L	0.10 0.10	94 81	72 - 128 72 - 128		

## Quality Control Report Lab Control Spikes and Duplicate Spikes

#### Sample: LCS

QC Batch: QC03904

					Spike					
		Sample			Amount	Matrix	%		% Rec.	RPD
Param	Flag	$\operatorname{Result}$	Units	Dil.	Added	Result	Rec.	RPD	Limit	Limit
MTBE		0.088	mg/L	1	0.10	< 0.001	88		80 - 120	20
Benzene		0.088	mg/L	1	0.10	< 0.001	88		80 - 120	20
Toluene		0.089	mg/L	1	0.10	< 0.001	89		80 - 120	20
Ethylbenzene		0.088	mg/L	1	0.10	<0.001	88		80 - 120	20
M,P,O-Xylene		0.259	mg/L	1	0.30	< 0.001	86		80 - 120	20

					Spike	%	% Rec.
Surrogate	Flag	$\operatorname{Result}$	Units	Dil.	Amount	Rec.	Limit
TFT		0.094	mg/L	1	0.10	94	72 - 128
4-BFB		0.08	mg/L	1	0.10	80	72 - 128

Sample: LCSD

QC Batch: QC03904

					Spike					
		Sample			Amount	Matrix	%		% Rec.	RPD
Param	Flag	Result	Units	Dil.	Added	Result	Rec.	RPD	Limit	Limit
MTBE		0.09	mg/L	1	0.10	< 0.001	90	2	80 - 120	20
Benzene		0.087	mg/L	1	0.10	< 0.001	87	1	80 - 120	20
Toluene		0.088	mg/L	1	0.10	< 0.001	88	1	80 - 120	20
Ethylbenzene		0.087	mg/L	1	0.10	< 0.001	87	1	80 - 120	20
M,P,O-Xylene		0.255	mg/L	1	0.30	< 0.001	85	2	80 - 120	20
							C-:1		07	07 D

					Spike	%	% Rec.
Surrogate	Flag	Result	Units	Dil.	Amount	Rec.	Limit
TFT		0.093	mg/L	1	0.10	93	72 - 128
4-BFB		0.079	mg/L	1	0.10	79	72 - 128

Quality Control Report Matrix Spikes and Duplicate Spikes

Report I 279-512	Date: July	27, 2000		O H	rder Number: Former Hobbs	A00071905 Gas Plant			Page Numb Ho	er: 7 of 8 bbs, NM
Sample	e: MS	QC E	Batch: QCO	3816						
Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		246.18	mg/L	1	125	130	92		80 - 120	20
Sample	e: MSD	QC	C Batch: Q	C03816						
		Sample			Spike Amount	Matrix	%		% Rec.	RPD
Param	Flag	Result	Units	Dil.	Added	Result	Rec.	RPD	Limit	Limit

# Quality Control Report Continuing Calibration Verification Standards

Sample:	CCV(1)	QC Bat	ch: QC03816				
Param CL	Flag	Units mg/L	CCVs True Conc. 12.50	CCVs Found Conc. 11.60	CCVs Percent Recovery 92	Percent Recovery Limits 80 - 120	Date Analyzed 7/20/00
Sample:	ICV (1)	QC Bate	h: QC03816				
			CCVs	CCVs	CCVs	Percent	
Daram	Flag	Unite	True	Found	Percent	Recovery	Date
$\frac{\Gamma a \Gamma a \Pi}{CL}$	1 145	mg/L	12.50	11.55	92	80 - 120	7/20/00
Sample:	CCV (1)	QC Bat	ch: QC03904				
			$\mathrm{CCVs}$	$\mathrm{CCVs}$	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/L	0.10	0.117	117	80 - 120	7/25/00
Toluene		mg/L	0.10	0.118	118	80 - 120	7/25/00
Ethylbenzer	ne	mg/L	0.10	0.116	116	80 - 120	7/25/00
M,P,O-Xyle	ene	mg/L	0.30	0.346	115	80 - 120	7/25/00

Report Date: Ju 279-512	ıly 27, 2000		Order N Former	umber: A000' Hobbs Gas F	71909 Plant	Page N	Number: 8 of 8 Hobbs, NM
Sample: CC	V (2)	QC Batch	: QC03904				
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed

	0			•		•
Benzene	mg/L	0.10	0.119	119	80 - 120	7/25/00
Toluene	mg/L	0.10	0.120	120	80 - 120	7/25/00
Ethylbenzene	mg/L	0.10	0.119	119	80 - 120	7/25/00
M.P.O-Xylene	mg/L	0.30	0.352	117	80 - 120	7/25/00

## Sample: ICV (1) QC Batch: QC03904

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			$\mathrm{CCVs}$	CCVs	$\mathrm{CCVs}$	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/L	0.10	0.092	92	80 - 120	7/25/00
Toluene		mg/L	0.10	0.093	93	80 - 120	7/25/00
Ethylbenzene		mg/L	0.10	0.092	92	80 - 120	7/25/00
M,P,O-Xylene		mg/L	0.30	0.27	90	. 80 - 120	7/25/00

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Lubbock, Texas 79424 800•378•1296 El Paso, Texas 79922 E-Mail: lab@traceanalysis.com

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## **Analytical and Quality Control Report**

Scott Springer **Eco-Logical Environmental Services** 2200 Market Street Midland, TX 79703

Report Date: 4/20/00

Project Number:	279-512
Project Name:	Former Hobbs Gas Plant
Project Location:	Hobbs, NM

Order ID Number: A00040508

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Taken	Taken	Received
143908	MW-1	Water	4/3/00	13:20	4/5/00
143909	MW-3	Water	4/3/00	13:00	4/5/00
143910	MW-5	Water	4/3/00	13:25	4/5/00
143911	MW-6	Water	4/3/00	13:30	4/5/00
143912	MW-7	Water	4/3/00	13:40	4/5/00
143913	MW-9	Water	4/3/00	13:10	4/5/00
143914	MW-10	Water	4/3/00	12:15	4/5/00
143915	MW-6D	Water	4/3/00	13:30	4/5/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 9 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director



Order ID Number: A00040508 Former Hobbs Gas Plant

## **Analytical Results Report**

Sample Number: 143908 Description: MW-1

4-BFB

				Analytical	Date	Date		Prep	QC	
Param		Result	Dilution	Method	Prepared	Analyzed	Analyst	Batch #	Batch #	RDL
BTEX (mg/L)										
Benzene		< 0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.001
Toluene		< 0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.001
Ethylbenzene		<0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.001
M,P,O-Xylene		< 0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.001
Total BTEX		<0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.001
* Test Comments	- Elevated reporting limits	due to sil	t in the sar	mple matrix.						
				Spike	%	% Rec.		Prep	QC	
Surrogate (mg/L)		Result	Dilution	Amount	Rec.	Limit	Analyst	Batch #	Batch #	
TFT		0.522	5	0.1	104	72 - 128	RC	PB01672	QC01999	
4-BFB		0.595	5	0.1	119	72 - 128	RC	PB01672	QC01999	
Sample Number:	143909									
Description:	MW-3					,				
L.				Analytical	Date	Date		Prep	QC	
Param		Result	Dilution	Method	Prepared	Analyzed	Analyst	Batch #	Batch #	RDL
BTEX (mg/L)										
Benzene		< 0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.001
Toluene		< 0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.001
Ethylbenzene		<0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.001
M,P,O-Xylene		<0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.001
Total BTEX		<0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.001
* Test Comments	- Elevated reporting limits	due to sil	t in the sar	mple matrix.						
				Spike	%	% Rec.		Prep	QC	
Surrogate (mg/L)		Result	Dilution	Amount	Rec.	Limit	Analyst	Batch #	Batch #	
TFT		0.542	5	0.1	108	72 - 128	RC	PB01672	QC01999	
4-BFB		0.6	5	0.1	120	72 - 128	RC	PB01672	QC01999	
Sample Number:	143910							, , , , , , , , , , , , , , , , , , ,		
Description:	MW-5	•								
				Analytical	Date	Date		Prep	QC	
Param	· · · · · · · · · · · · · · · · · · ·	Result	Dilution	Method	Prepared	Analyzed	Analyst	Batch #	Batch #	RDL
BTEX (mg/L)										
Benzene		< 0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.001
Toluene		<0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.001
Ethylbenzene		< 0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.001
M,P,O-Xylene		< 0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.001
Total BTEX		<0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.001
* Test Comments	- Elevated reporting limits	due to sil	t in the sar	nple matrix.						
				Spike	%	% Rec		Pren	00	
Surrogate (mg/L)		Result	Dilution	Amount	Rec.	Limit	Analyst	Batch #	Batch #	
TFT		0.542	5	0.1	108	72 - 128	RC	PB01672	QC01999	
									-	

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72 - 128

PB01672 QC01999

Report Date: 4/2 279-512	20/00	For	ier ID Nu rmer Hob	mber: A00 bs Gas Plar	1040508 nt			Page	Number: Hobbs	3 of 9 s, NM
Sample Number:	143911									
Description:	MW-6			4	Data	Dete		D	00	
Param		Result	Dilution	Method	Prepared	Analyzed	Analyst	Batch #	QC Batch #	RDI
BTEX (mg/L)										
Benzene		0.157	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.00
Toluene		< 0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	OC01999	0.00
Ethylbenzene		< 0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	OC01999	0.00
M.P.O-Xviene		< 0.005	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.00
Total BTEX		0.157	5	S 8021B	4/10/00	4/10/00	RC	PB01672	QC01999	0.00
* Test Comments	- Elevated reporting l	imits due to sil	t in the sar	nple matrix.		-				
					0/	0/ D		D	00	
Sumagata (ma/L)		Pecult	Dilution	Spike	% Dec	% Rec.	Apolyct	Prep Batab #	QC Botoh #	
Surrogate (mg/L)		0.504	Dilution	Amount	101	72 128	PC	DD01672		
		0.504	5	0.1	117	72 - 128	RC	PB01672	QC01999	
4-DFD		0.580	5	0.1	117	72 - 120	RC	1 001072	QUUIII	
Ion Chromatography	y (IC) (mg/L)				410100	A 10 100	10	DDALCAC	0001070	~
CL		33	1	E 300.0	4/6/00	4/6/00	18	PB01645	QC01969	0.5
Sample Number	143912									
Description:	MW-7									
Description				Analytical	Date	Date		Prep	QC	
Param		Result	Dilution	Method	Prepared	Analyzed	Analyst	Batch #	Batch #	RDL
BTEX (mg/L)										
Benzene		< 0.001	1	S 8021B	4/12/00	4/12/00	RC	PB01727	QC02069	0.001
Toluene		< 0.001	1	S 8021B	4/12/00	4/12/00	RC	PB01727	QC02069	0.001
Ethylbenzene		< 0.001	1	S 8021B	4/12/00	4/12/00	RC	PB01727	QC02069	0.001
M,P,O-Xylene		0.003	1	S 8021B	4/12/00	4/12/00	RC	PB01727	QC02069	0.001
Total BTEX		0.003	1	S 8021B	4/12/00	4/12/00	RC	PB01727	QC02069	0.001
-				Spike	%	% Rec.		Prep	OC	
Surrogate ()		Result	Dilution	Amount	Rec.	Limit	Analyst	Batch #	Batch #	
TFT		0.081	1	0.1	81	72 - 128	RC	PB01727	QC02069	
4-BFB		0.08	1	0.1	80	72 - 128	RC	PB01727	QC02069	
Ion Chromatography	(IC) (mg/L)									
CL		31	1	E 300.0	4/6/00	4/6/00	JS	PB01645	QC01969	0.5
								<u></u>		·
Sample Number:	143913 MW-0									
Description.	101 00 - 7			Analytical	Date	Date		Prep	OC	
Param		Result	Dilution	Method	Prepared	Analyzed	Analyst	Batch #	Batch #	RDL
BTEX (mg/L)	· · · · · · · · · · · · · · · · · · ·									
Benzene		< 0.005	5	S 8021B	4/11/00	4/11/00	RC	PB01707	QC02045	0.001
Toluene		< 0.005	5	S 8021B	4/11/00	4/11/00	RC	PB01707	QC02045	0.001
Ethylbenzene		0.012	5	S 8021B	4/11/00	4/11/00	RC	PB01707	QC02045	0.001
M,P,O-Xylene		<0.005	5	S 8021B	4/11/00	4/11/00	RC	PB01707	QC02045	0.001
Total BTEX		0.012	5	S 8021B	4/11/00	4/11/00	RC	PB01707	QC02045	0.001
* Test Comments	- Elevated reporting l	imits due to sil	t in the sar	nple matrix.						
				Spike	%	% Rec.		Prep	QC	
Surrogate (mg/L)		Result	Dilution	Amount	Rec.	Limit	Analyst	Batch #	Batch #	
TFT		0.507	5	0.1	101	72 - 128	RC	PB01707	QC02045	
4-BFB		0.522	5	0.1	104	72 - 128	RC	PB01707	QC02045	
Ion Chromatography	/(IC) (mg/L)									
CL	. , ,	250	1	E 300.0	4/6/00	4/6/00	JS	PB01645	QC01969	0.
Report Date: 4/20/00

279-512

Order ID Number: A00040508 Former Hobbs Gas Plant Page Number: 4 of 9

Hobbs, NM

## Sample Number: 143914

Description: MW-10

Param		Result	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
BTEX (mg/L)			······		·····		· · · · · · · · · · · · · · · · · · ·			
Benzene		< 0.001	1	S 8021B	4/11/00	4/11/00	RC	PB01707	QC02045	0.001
Toluene		< 0.001	1	S 8021B	4/11/00	4/11/00	RC	PB01707	QC02045	0.001
Ethylbenzene		< 0.001	1	S 8021B	4/11/00	4/11/00	RC	PB01707	QC02045	0.001
M,P,O-Xylene		<0.001	1	S 8021B	4/11/00	4/11/00	RC	PB01707	QC02045	0.001
Total BTEX		<0.001	1	S 8021B	4/11/00	4/11/00	RC	PB01707	QC02045	0.001
* Test Comments	- Elevated reporting limit	s due to sil	t in the sa	mple matrix.						
Surrogate (mg/L)		Result 0 104	Dilution 1	Spike Amount 0 1	% Rec. 104	% Rec. Limit 72 - 128	Analyst RC	Prep Batch # PB01707	QC Batch # OC02045	
11 1 4-BFB		0.104	1	0.1	103	72 - 128	RC	PB01707	0C02045	
Ion Chromatography CL	r(IC) (mg/L)	130	1	E 300.0	4/6/00	4/6/00	JS	PB01645	QC01969	0.5
Sample Number: Description:	143915 MW-6D									
Porem		Pesult	Dilution	Analytical Method	Date Prepared	Date	Analyst	Prep Batab #	QC Botch #	ורזק
		Result	Dilution	Methou	Перагец	Allalyzeu	Analyst	Batch #		
BIEX (mg/L) Benzene		0.1	5	S 8021B	4/11/00	4/11/00	RC	PB01707	0002045	0.001
Toluene		<0.005	5	S 8021B	4/11/00	4/11/00	RC	PB01707	0002045	0.001
Fthylbenzene		<0.005	5	S 8021B	4/11/00	4/11/00	RC	PB01707	0002045	0.001
$M P O_{\bullet} X vlene$		<0.005	5	S 8021B	4/11/00	4/11/00	RC	PB01707	0C02045	0.001
Total BTFX		-0.005	5	S 8021B	4/11/00	4/11/00	RC	PB01707	0C02045	0.001
* Test Comments	- Elevated reporting limit	s due to sil	t in the sa	nple matrix.		<i>n</i> 11/00	Re	1001707	2002045	0.001

Surrogate (mg/L)	Result	Dilution	Spike Amount	% Rec.	% Rec. Limit	Analyst	Prep Batch #	QC Batch #
TFT	0.374	5	0.1	75	72 - 128	RC	PB01707	QC02045
4-BFB	0.377	5	0.1	75	72 - 128	RC	PB01707	QC02045

## Report Date: 4/20/00 279-512

Order ID Number: A00040508 Former Hobbs Gas Plant Page Number: 5 of 9 Hobbs, NM

# Quality Control Report Method Blanks

	,	Blank	Reporting	Date	Prep	QC
Param	Flag	Result	Limit	Analyzed	Batch #	Batch #
Benzene (mg/L)		< 0.001	0.001	4/10/00	PB01672	QC01999
Toluene (mg/L)		<0.001	0.001	4/10/00	PB01672	QC01999
Ethylbenzene (mg/L)		< 0.001	0.001	4/10/00	PB01672	QC01999
M,P,O-Xylene (mg/L)		<0.001	0.001	4/10/00	PB01672	QC01999
Total BTEX (mg/L)		< 0.001	0.001	4/10/00	PB01672	QC01999
			Spike	%	% Rec.	QC
Surrogate		Result	Amount	Rec.	Limit	Batch #
TFT (mg/L)		0.086	0.1	86	72 - 128	QC01999
4-BFB (mg/L)		0.083	0.1	83	72 - 128	QC01999
Benzene (mg/L)		<0.001	0.001	4/11/00	PB01707	QC02045
Toluene (mg/L)		< 0.001	0.001	4/11/00	PB01707	QC02045
Ethylbenzene (mg/L)		< 0.001	0.001	4/11/00	PB01707	QC02045
M,P,O-Xylene $(mg/L)$		< 0.001	0.001	4/11/00	PB01707	QC02045
Total BTEX (mg/L)		<0.001	0.001	4/11/00	PB01707	QC02045
			Spike	%	% Rec.	QC
Surrogate		Result	Amount	Rec.	Limit	Batch #
TFT (mg/L)		0.092	0.1	92	72 - 128	QC02045
4-BFB (mg/L)		0.09	0.1	90	72 - 128	QC02045
Benzene (mg/L)		< 0.001	0.001	4/12/00	PB01727	QC02069
Toluene (mg/L)		<0.001	0.001	4/12/00	PB01727	QC02069
Ethylbenzene (mg/L)		< 0.001	0.001	4/12/00	PB01727	QC02069
M,P,O-Xylene (mg/L)		< 0.001	0.001	4/12/00	PB01727	QC02069
Total BTEX (mg/L)		< 0.001	0.001	4/12/00	PB01727	QC02069
			Spike	%	% Rec.	QC
Surrogate		Result	Amount	Rec.	Limit	Batch #
TFT (mg/L)		0.104	0.1	104	72 - 128	QC02069
4-BFB (mg/L)		0.101	0.1	101	72 - 128	QC02069
		Blank	Reporting	Date	Pren	00
Param	Flag	Result	Limit	Analyzed	Batch #	Batch #
CL (mg/L)	······	<0.5	0.5	4/6/00	PB01645	QC01969

# Quality Control Report Matrix Spike and Matrix Duplicate Spike

Standard	Param	Sample Result I	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
MS	CL (mg/L)		1	62.5	66.65	89		80 - 120	-	QC01969
MSD	CL (mg/L)		1	62.5	66.47	89	0	-	0 - 20	QC01969

## Report Date: 4/20/00 279-512

Order ID Number: A00040508 Former Hobbs Gas Plant

Page Number: 6 of 9 Hobbs, NM

# Quality Control Report Lab Control Spikes and Duplicate Spike

		Blank		Spike Amount	Matrix Spike	%		% Rec.	RPD	QC
	Param	Result	Dil.	Added	Result	Rec.	RPD	Limit	Limit	Batch #
LCS	MTBE (mg/L)	< 0.001	1	0.1	0.102	102		80 - 120	-	QC01999
LCS	Benzene (mg/L)	< 0.001	1	0.1	0.104	104		80 - 120	-	QC01999
LCS	Toluene (mg/L)	< 0.001	1	0.1	0.105	105		80 - 120	-	QC01999
LCS	Ethylbenzene (mg/L)	<0.001	1	0.1	0.105	105		80 - 120	-	QC01999
LCS	M,P,O-Xylene (mg/L)	< 0.001	1	0.3	0.316	105		80 - 120	-	QC01999
Standar LCS LCS	d Surrogate TFT (mg/L) 4-BFB (mg/L)		Dil. 1 1	Spike Amount 0.1 0.1	Result 0.086 0.09	% Rec. 86 90		% Rec. Limit 72 - 128 72 - 128		QC Batch # QC01999 QC01999
LCSD	MTBE (mg/L)	<0.001	1	0.1	0.106	106	4	-	0 - 20	QC01999
LCSD	Benzene (mg/L)	< 0.001	1	0.1	0.104	104	0	-	0 - 20	QC01999
LCSD	Toluene (mg/L)	< 0.001	1	0.1	0.104	104	1	-	0 - 20	QC01999
LCSD	Ethylbenzene (mg/L)	< 0.001	1	0.1	0.104	104	1	· _	0 - 20	QC01999
LCSD	M,P,O-Xylene (mg/L)	<0.001	1	0.3	0.311	104	2	-	0 - 20	QC01999
Standar LCSD LCSD	d Surrogate TFT (mg/L) 4-BFB (mg/L)		Dil. 1 1	Spike Amount 0.1 0.1	Result 0.08 0.084	% Rec. 80 84		% Rec. Limit 72 - 128 72 - 128		QC Batch # QC01999 QC01999

		Blank		Spike	Matrix Spike	0/,		% Dec	רוממ	00
	Param	Result	Dil.	Added	Result	Rec.	RPD	Limit	Limit	Batch #
LCS	MTBE (mg/L)	< 0.001	1	0.1	0.099	99		80 - 120	-	QC02045
LCS	Benzene (mg/L)	< 0.001	1	0.1	0.098	98		80 - 120	-	QC02045
LCS	Toluene (mg/L)	< 0.001	1	0.1	0.098	98		80 - 120	-	QC02045
LCS	Ethylbenzene (mg/L)	<0.001	1	0.1	0.099	99		80 - 120	-	QC02045
LCS	M,P,O-Xylene (mg/L)	< 0.001	1	0.3	0.29	97		80 - 120	-	QC02045
Standar LCS LCS	rd Surrogate TFT (mg/L) 4-BFB (mg/L)		Dil. 1 1	Spike Amount 0.1 0.1	Result 0.091 0.094	% Rec. 91 94		% Rec. Limit 72 - 128 72 - 128		QC Batch # QC02045 QC02045
LCSD	MTBE (mg/L)	<0.001	1	0.1	0.105	105	6	-	0 - 20	QC02045
LCSD	Benzene (mg/L)	<0.001	1	0.1	0.099	99	1	-	0 - 20	QC02045
LCSD	Toluene (mg/L)	< 0.001	1	0.1	0.101	101	3	-	0 - 20	QC02045
LCSD	Ethylbenzene (mg/L)	< 0.001	1	0.1	0.101	101	2	-	0 - 20	QC02045
LCSD	M,P,O-Xylene (mg/L)	< 0.001	1	0.3	0.295	98	2	-	0 - 20	QC02045
Standar LCSD LCSD	rd Surrogate TFT (mg/L) 4-BFB (mg/L)		Dil. 1 1	Spike Amount 0.1 0.1	Result 0.089 0.093	% Rec. 89 93		% Rec. Limit 72 - 128 72 - 128		QC Batch # QC02045 QC02045

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Report Date: 4/20/00	Order ID N	lumber	: A00040	508			Pa	ge Numt	ber: 7 of 9
279-512	Former Ho	bbs Ga	as Plant					F	lobbs, NM
Param	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS MTBE (mg/L)	<0.001	1	0.1	0.114	114		80 - 120	-	QC02069
LCS Benzene (mg/L)	< 0.001	1	0.1	0.115	115		80 - 120	-	QC02069
LCS Toluene (mg/L)	< 0.001	1	0.1	0.115	115		80 - 120	-	QC02069
LCS Ethylbenzene (mg/L)	< 0.001	1	0.1	0.111	111		80 - 120	-	QC02069
LCS M,P,O-Xylene (mg/L)	< 0.001	1	0.3	0.330	110		80 - 120	-	QC02069
Standard Surrogate LCS TFT (mg/L) LCS 4-BFB (mg/L)		Dil. 1 1	Spike Amount 0.1 0.1	Result 0.101 0.088	% Rec. 101 88		% Rec. Limit 72 - 128 72 - 128		QC Batch # QC02069 QC02069
LCSD MTBE (mg/L)	< 0.001	1	0.1	0.114	114	15	-	0 - 20	QC02069
LCSD Benzene (mg/L)	< 0.001	1	0.1	0.114	114	17	-	0 - 20	QC02069
LCSD Toluene (mg/L)	< 0.001	1	0.1	0.113	113	19	-	0 - 20	QC02069
LCSD Ethylbenzene (mg/L)	< 0.001	1	0.1	0.112	112	27	-	0 - 20	QC02069
LCSD M,P,O-Xylene (mg/L)	< 0.001	1	0.3	0.332	111	29	-	0 - 20	QC02069
Standard Surrogate LCSD TFT (mg/L) LCSD 4-BFB (mg/L)		Dil. 1 1	Spike Amount 0.1 0.1	Result 0.1 0.091	% Rec. 100 91		% Rec. Limit 72 - 128 72 - 128		QC Batch # QC02069 QC02069

## Report Date: 4/20/00 279-512

Order ID Number: A00040508 Former Hobbs Gas Plant Page Number: 8 of 9 Hobbs, NM

# Quality Control Report Continuing Calibration Verification Standard

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Benzene (mg/L)	· · · · · · · · · · · · · · · · · · ·	0.1	0.104	104	80 - 120	4/10/00	QC01999
ICV	Toluene (mg/L)		0.1	0.104	104	80 - 120	4/10/00	QC01999
ICV	Ethylbenzene (mg/L)		0.1	0.104	104	80 - 120	4/10/00	QC01999
ICV	M,P,O-Xylene (mg/L)		0.3	0.314	105	80 - 120	4/10/00	QC01999
CCV 1	Benzene (mg/L)		0.1	0.098	98	80 - 120	4/10/00	QC01999
CCV 1	Toluene (mg/L)		0.1	0.098	98	80 - 120	4/10/00	QC01999
CCV 1	Ethylbenzene (mg/L)		0.1	0.099	99	80 - 120	4/10/00	QC01999
CCV 1	M,P,O-Xylene (mg/L)		0.3	0.293	98	80 - 120	4/10/00	QC01999
CCV 2	Benzene (mg/L)		0.1	0.1	100	80 - 120	4/10/00	QC01999
CCV 2	Toluene (mg/L)		0.1	0.099	99	80 - 120	4/10/00	QC01999
CCV 2	Ethylbenzene (mg/L)		0.1	0.1	100	80 - 120	4/10/00	QC01999
CCV 2	M,P,O-Xylene (mg/L)		0.3	0.299	100	80 - 120	4/10/00	QC01999
Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Benzene (mg/L)		0.1	0.093	93	80 - 120	4/11/00	OC02045
ICV	Toluene (mg/L)		0.1	0.094	94	80 - 120	4/11/00	OC02045
ICV	Ethylbenzene (mg/L)		0.1	0.094	94	80 - 120	4/11/00	OC02045
ICV	M,P,O-Xylene (mg/L)	<b>`</b> *	0.3	0.277	92	80 - 120	4/11/00	QC02045
CCV 1	Benzene (mg/L)		0.1	0.086	86	80 - 120	4/11/00	QC02045
CCV 1	Toluene (mg/L)		0.1	0.086	86	80 - 120	4/11/00	QC02045
CCV 1	Ethylbenzene (mg/L)		0.1	0.086	86	80 - 120	4/11/00	QC02045
CCV 1	M,P,O-Xylene (mg/L)		0.3	0.251	84	80 - 120	4/11/00	QC02045
CCV 2	Benzene (mg/L)		0.1	0.091	91	80 - 120	4/11/00	QC02045
CCV 2	Toluene (mg/L)		0.1	0.09	90	80 - 120	4/11/00	QC02045
CCV 2	Ethylbenzene (mg/L)		0.1	0.091	91	80 - 120	4/11/00	QC02045
CCV 2	M,P,O-Xylene (mg/L)		0.3	0.266	89	80 - 120	4/11/00	QC02045
Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Benzene (mg/L)		0.1	0.098	98	80 - 120	4/12/00	QC02069
ICV	Toluene (mg/L)		0.1	0.098	98	80 - 120	4/12/00	QC02069
ICV	Ethylbenzene (mg/L)		0.1	0.103	103	80 - 120	4/12/00	QC02069
ICV	M,P,O-Xylene (mg/L)		0.3	0.313	104	80 - 120	4/12/00	QC02069
CCV I	Benzene (mg/L)		0.1	0.105	105	80 - 120	4/12/00	QC02069
CCV 1	Toluene (mg/L)		0.1	0.104	104	80 - 120	4/12/00	QC02069
CCV 1	Ethylbenzene (mg/L)		0.1	0.1	100	80 - 120	4/12/00	QC02069
CCV 1	M,P,O-Xylene (mg/L)		0.3	0.298	99	80 - 120	4/12/00	QC02069
CCV 2	Benzene (mg/L)		0.1	0.094	94	80 - 120	4/12/00	QC02069

Report Date: 4/20/00 279-512 Order ID Number: A00040508 Former Hobbs Gas Plant Page Number: 9 of 9 Hobbs, NM

# Quality Control Report Continuing Calibration Verification Standard

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
CCV 2	Toluene (mg/L)		0.1	0.094	94	80 - 120	4/12/00	QC02069
CCV 2	Ethylbenzene (mg/L)		0.1	0.095	95	80 - 120	4/12/00	QC02069
CCV 2	M,P,O-Xylene (mg/L)		0.3	0.287	96	80 - 120	4/12/00	QC02069
			CCVs	CCVs	CCVs	Percent		
Standard	Param	Flag	TRUE Conc.	Found Conc.	Percent Recovery	Recovery Limits	Date Analyzed	QC Batch #
Standard ICV	Param CL (mg/L)	Flag	TRUE Conc. 12.5	Found Conc. 11.36	Percent Recovery 91	Recovery Limits 80 - 120	Date Analyzed 4/6/00	QC Batch # QC01969

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6701 Aberdeen Avenue, Suite 9 4725 Ripley Avenue, Suite A Lubbock, Texas 79424 800•378•1296 El Paso, Texas 79922 888•588•3443 E-Mail: lab@traceanalysis.com

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## FAX 915•585•4944

## **Analytical and Quality Control Report**

Scott Springer Eco-Logical Environmental Services 2200 Market Street Midland, TX 79703

Report Date: 2/8/00

Project Number:279-512Project Name:Former Hobbs Gas PlantProject Location:Hobbs, NM

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Order ID Number: A00012606

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Taken	Taken	Received
139391	MW-1	Water	1/25/00	-	1/26/00
139392	MW-3	Water	1/25/00	-	1/26/00
139393	MW-5	Water	1/25/00	-	1/26/00
139394	MW-6	Water	1/25/00	-	1/26/00
139395	MW-7	Water	1/25/00	-	1/26/00
139396	MW-9	Water	1/25/00	-	1/26/00
139397	MW-10	Water	1/25/00	-	1/26/00
139398	MW-6D	Water	1/25/00	-	1/26/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 7 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

## **Analytical Results Report**

- 1- -- 1 -- -- 1

Sample Number: 139391 Description: MW-1

Result	Dilution	Method	Prepared	Analyzed	Analyst	Batch #	Batch #	RDL
0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
< 0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
< 0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
< 0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
_0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
Result	Dilution	Spike Amount	% Rec.	% Rec. Limit	Analyst	Prep Batch #	QC Batch #	
0.101	1	0.1	101	72 - 128	RC	PB00461	QC00603	
0.106	1	0.1	106	72 - 128	RC	PB00461	QC00603	
	Result 0.001 <0.001 <0.001 0.001 Result 0.101 0.106	Result         Dilution           0.001         1           <0.001	Result         Dilution         Method           0.001         1         S 8021B           <0.001	Analytical         Date           Result         Dilution         Method         Prepared           0.001         1         \$\$8021B         1/27/00           <0.001	Analytical         Date         Date         Date           Result Dilution         Method         Prepared         Analyzed           0.001         1         S 8021B         1/27/00         1/27/00           <0.001	Analytical         Date         Date         Date           Result Dilution         Method         Prepared         Analyzed         Analyst           0.001         1         S 8021B         1/27/00         1/27/00         RC           <0.001	Analytical         Date         Date         Date         Prep           Result         Dilution         Method         Prepared         Analyzed         Analyst         Batch #           0.001         1         S 8021B         1/27/00         1/27/00         RC         PB00461           <0.001	Analytical         Date         Date         Date         Prepared         Analyzed         Analyst         Batch #         Batch #           0.001         1         S 8021B         1/27/00         1/27/00         RC         PB00461         QC00603           <0.001

Sample Number: 139392 Description: MW-3

Param	Result	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
BTEX (mg/L)									
Benzene	< 0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
Toluene	<0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
Ethylbenzene	< 0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
M,P,O-Xylene	<0.001	1	S 8021B	1/27/00	1/27/00-	RC	PB00461	QC00603	0.001
Total BTEX	< 0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
Surrogate (mg/L) TFT 4-BFB	Result 0.105 0.104	Dilution 1 1	Spike Amount 0.1 0.1	% Rec. 105 104	% Rec. Limit 72 - 128 72 - 128	Analyst RC RC	Prep Batch # PB00461 PB00461	QC Batch # QC00603 QC00603	

Sample Number: 139393

Description: MW-5 Analytical Date Date Prep QC Param Result Dilution Method Prepared Analyzed Analyst Batch # RDL Batch # BTEX (mg/L) Benzene < 0.001 S 8021B 1/27/00 1/27/00 RC PB00461 QC00603 1 0.001 1/27/00 Toluene < 0.001 1 S 8021B 1/27/00 RC PB00461 QC00603 0.001 < 0.001 S 8021B 1/27/00 RC Ethylbenzene 1 1/27/00 PB00461 QC00603 0.001 M,P,O-Xylene < 0.001 1 S 8021B 1/27/00 1/27/00 RC PB00461 QC00603 0.001 Total BTEX < 0.001 1 S 8021B 1/27/00 1/27/00 RC PB00461 QC00603 0.001 Spike % % Rec. Prep QC Surrogate (mg/L) Result Dilution Amount Rec. Limit Analyst Batch # Batch # TFT 0.102 0.1102 PB00461 1 72 - 128 RC QC00603 4-BFB 0.101 1 0.1 101 72 - 128 RC PB00461 QC00603

Report Date: 2/8/	/00	Ord	ler ID Nu		Page Number: 3					
279-512		For	mer Hob	bs Gas Plan	lt				Hobb	s, NM
Sample Number: Description:	139394 MW-6			Analytical	Date	Date		Pren	00	
Param		Result	Dilution	Method	Prepared	Analyzed	Analyst	Batch #	Batch #	RDI
BTEX (mg/L)		0.105		0.00010	1/27/00	1/27/00	DC	DD004(1	000000	0.00
Benzene		0.105	1	S 8021B	1/27/00	1/27/00	RC	PB00401	QC00603	0.00
Toluene		< 0.001	1	S 8021D	1/27/00	1/27/00	RC	PB00401	QC00603	0.001
Ethylbenzene		< 0.001	1	S 8021D	1/27/00	1/27/00	RC	PD00401	QC00603	0.001
Total BTEX		<0.001 0.105	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
				Spike	%	% Rec.		Prep	QC	
Surrogate (mg/L)		Result	Dilution	Amount	Rec.	Limit	Analyst	Batch #	Batch #	
TFT		0.098	1	0.1	98	72 - 128	RC	PB00461	QC00603	
4-BFB		0.101	1	0.1	101	72 - 128	RC	PB00461	QC00603	
Ion Chromatography	(IC) (mg/L)									
CL		35	1	E 300.0	1/27/00	1/27/00	JS	PB00467	QC00609	0.5
Sample Number:	139395									
Description:	MW-7									
Param		Result	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
BTEX (mg/L)						<u></u>				
Benzene		< 0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
Toluene		< 0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
Ethylbenzene		< 0.001	1,	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
M,P,O-Xylene		< 0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
Total BTEX		< 0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
Sumo coto (mg/L)		Paquit	Dilation	Spike	%	% Rec.	<b>A B</b>	Prep	QC	
TET		0.091		Amount	Rec.	Limit	Analyst	Batch #	Batch #	
		0.081	1	0.1	81 7(	72 - 128	RC	PB00461	QC00603	
4-BFB		0.076	i	0.1	/6	72 - 128	RC	PB00461	QC00603	
Ion Chromatography	(IC) (mg/L)									
CL		32	1	E 300.0	1/27/00	1/27/00	JS	PB00467	QC00609	0.5
Sample Number:	139396									
Description:	MW-9			4 1 1		<b>D</b> .		5	0.0	
Param		Result	Dilution	Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
BTEX (mg/L)							· · · · · · · · · · · · · · · · · · ·			
Benzene		< 0.005	5	S 8021B	2/4/00	2/4/00	RC	PB00580	QC00736	0.001
Toluene		< 0.005	5	S 8021B	2/4/00	2/4/00	RC	PB00580	QC00736	0.001
Ethylbenzene		< 0.005	5	S 8021B	2/4/00	2/4/00	RC	PB00580	QC00736	0.001
M,P,O-Xylene		< 0.005	5	S 8021B	2/4/00	2/4/00	RC	PB00580	QC00736	0.001
Total BTEX		<0.005	5	S 8021B	2/4/00	2/4/00	RC	PB00580	QC00736	0.001
Surrogate (mg/L)		Result	Dilution	Spike	% Rec	% Rec.	Analyst	Prep Batch #	QC Batch #	
TFT		0 546	5	0.1	109	72 - 128	RC	PB00520	0000736	
4-BFB		0.551	5	0.1	110	72 - 128	RC	PB00580	QC00736	
Ion Chromatography	(IC) $(mg/L)$									
CL		300	1	E 300.0	1/27/00	1/27/00	JS	PB00467	QC00609	0.5

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Report Date: 2/8	8/00	Orc	ler ID Nu	mber: A00		Page	Number:	4 of 7			
279-512		Fo	rmer Hob	bs Gas Plan	t				Hobb	s, NM	
Sample Number: Description:	139397 MW-10	Desult	Dilution	Analytical	Date	Date	Analyst	Prep Batch #	QC Batch #	RDI	
Param		Kesuit	Dilution	Iviethou	Flepaleu	Analyzeu	Allalyst	Batch #	Batch #		
BTEX (mg/L)		~0.001	1	S 8021D	1/27/00	1/27/00	PC	0000461	000603	0.001	
Benzene		<0.001	1	S 8021B	1/27/00	1/27/00	RC PC	PB00401	000003	0.001	
Toluelle Ethylbanzana		<0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	000003	0.001	
M P O-Xylene		<0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00003	0.001	
Total BTEX		<0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001	
Surrogate (mg/L)		Result	Dilution	Spike Amount	% Rec.	% Rec. Limit	Analyst	Prep Batch #	QC Batch #		
TFT		0.078	1	0.1	78	72 - 128	RC	PB00461	QC00603		
4-BFB		0.073	1	0.1	73	72 - 128	RC	PB00461	QC00603		
Ion Chromatography	(IC) (mg/L)										
CL		120	1	E 300.0	1/27/00	1/27/00	JS	PB00467	QC00609	0.5	
Sample Number: Description:	139398 MW-6D										
Param		Result	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL	
BTEX (mg/L)		· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · · · · · ·					
Benzene		0.121	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001	
Toluene		< 0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001	
Ethylbenzene		< 0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001	
M,P,O-Xylene		< 0.001	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001	
Total BTEX		0.121	1	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001	
				0 1	0/	% Rec		Pren	00		
Surrogate (mg/L)		Result	Dilution	Spike Amount	Rec.	Limit	Analyst	Batch #	Batch #		
Surrogate (mg/L)	,	Result	Dilution 1	Spike Amount 0.1	Rec.	Limit 72 - 128	Analyst RC	Batch # PB00461	Batch # OC00603		

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Order ID Number: A00012606 Former Hobbs Gas Plant

## Quality Control Report Method Blanks

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Benzene (mg/L)		< 0.001	0.001	1/27/00	PB00461	QC00603
Toluene (mg/L)		<0.001	0.001	1/27/00	PB00461	QC00603
Ethylbenzene (mg/L)		< 0.001	0.001	1/27/00	PB00461	QC00603
M,P,O-Xylene (mg/L)		< 0.001	0.001	1/27/00	PB00461	QC00603
Total BTEX (mg/L)		< 0.001	0.001	1/27/00	PB00461	QC00603
Surrogate TFT (mg/L) 4-BFB (mg/L)		Result 0.097 0.094	Spike Amount 0.1 0.1	% Rec. 97 94	% Rec. Limit 72 - 128 72 - 128	QC Batch # QC00603 QC00603
Benzene (mg/L)		<0.001	0.001	2/4/00	PB00580	QC00736
Toluene (mg/L)		< 0.001	0.001	2/4/00	PB00580	QC00736
Ethylbenzene (mg/L)		< 0.001	0.001	2/4/00	PB00580	QC00736
M,P,O-Xylene (mg/L)		< 0.001	0.001	2/4/00	PB00580	QC00736
Total BTEX (mg/L)		<0.001	0.001	2/4/00	PB00580	QC00736
Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
CL (mg/L)		<0.5	0.5	1/27/00	PB00467	QC00609

# Quality Control Report Matrix Spike and Matrix Duplicate Spike

Standard	Param	Sample Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
MS	CL (mg/L)	120	1	62.5	186.44	106	-	80 - 120	0 - 20	QC00609
MSD	CL (mg/L)	120	1	62.5	186.32	106	0	80 - 120	0 - 20	QC00609

## Report Date: 2/8/00 279-512

Order ID Number: A00012606 Former Hobbs Gas Plant Page Number: 6 of 7 Hobbs, NM

# Quality Control Report Lab Control Spikes and Duplicate Spike

Param	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS MTBE (mg/L)	< 0.001	1	0.1	0.098	98		80 - 120	0 - 20	QC00603
LCS Benzene (mg/L)	< 0.001	1	0.1	0.098	98		80 - 120	0 - 20	QC00603
LCS Toluene (mg/L)	< 0.001	1	0.1	0.098	98		80 - 120	0 - 20	QC00603
LCS Ethylbenzene (mg/L)	< 0.001	1	0.1	0.096	96		80 - 120	0 - 20	QC00603
LCS M,P,O-Xylene (mg/L)	< 0.001	1	0.3	0.283	94		80 - 120	0 - 20	QC00603
Standard Surrogate LCS TFT (mg/L) LCS 4-BFB (mg/L)		Dil. 1 1	Spike Amount 0.1 0.1	Result 0.09 0.089	% Rec 90 89		% Rec. Limit 72 - 128 72 - 128		QC Batch # QC00603 QC00603
LCSD MTBE (mg/L)	<0.001	1	0.1	0.104	104	16	80 - 120	0 - 20	QC00603
LCSD Benzene (mg/L)	< 0.001	1	0.1	0.108	108	16	80 - 120	0 - 20	QC00603
LCSD Toluene (mg/L)	< 0.001	- 1	0.1	0.108	108	17	80 - 120	0 - 20	QC00603
LCSD Ethylbenzene (mg/L)	< 0.001	1	0.1	0.106	106	17	80 - 120	0 - 20	QC00603
LCSD M,P,O-Xylene (mg/L)	< 0.001	1	0.3	0.315	105	20	80 - 120	0 - 20	QC00603
Standard Surrogate LCSD TFT (mg/L) LCSD 4-BFB (mg/L)		Dil. 1 1	Spike Amount 0.1 0.1	Result 0.098 0.099	% Rec 98 99		% Rec. Limit 72 - 128 72 - 128		QC Batch # QC00603 QC00603
Param	Blank Result	Dil	Spike Amount Added	Matrix Spike Result	% Rec	RPD	% Rec.	RPD L imit	QC Batch #

Param	Result	Dil.	Added	Result	Rec. RPI	D Limit	Limit	Batch #
LCS MTBE (mg/L)	< 0.001	1	0.1	0.115	115	80 - 120	0 - 20	QC00736
LCS Benzene (mg/L)	< 0.001	1	0.1	0.114	114	80 - 120	0 - 20	QC00736
LCS Toluene (mg/L)	< 0.001	1	0.1	0.115	115	80 - 120	0 - 20	QC00736
LCS Ethylbenzene (mg/L)	< 0.001	1	0.1	0.114	114	80 - 120	0 - 20	QC00736
LCS M,P,O-Xylene (mg/L)	·<0.001	1	0.3	0.339	113	80 - 120	0 - 20	QC00736
Standard Surrogate LCS TFT (mg/L) LCS 4-BFB (mg/L)		Dil. 1 1	Spike Amount 0.1 0.1	Result 0.102 0.113	% Rec. 102 113	% Rec. Limit 72 - 128 72 - 128		QC Batch # QC00736 QC00736
LCSD MTBE (mg/L)	<0.001	1	0.1	0.115	115 0	80 - 120	0 - 20	QC00736
LCSD Benzene (mg/L)	< 0.001	1	0.1	0.114	114 0	80 - 120	0 - 20	QC00736
LCSD Toluene (mg/L)	< 0.001	1	0.1	0.113	113 2	80 - 120	0 - 20	QC00736
LCSD Ethylbenzene (mg/L)	< 0.001	1	0.1	0.112	112 2	80 - 120	0 - 20	QC00736
LCSD M,P,O-Xylene (mg/L)	< 0.001	1	0.3	0.332	111 2	80 - 120	0 - 20	QC00736
StandardSurrogateLCSDTFT (mg/L)LCSD4-BFB (mg/L)		Dil. 1 1	Spike Amount 0.1 0.1	Result 0.101 0.111	% Rec. 101 111	% Rec. Limit 72 - 128 72 - 128		QC Batch # QC00736 QC00736

## Report Date: 2/8/00 279-512

Order ID Number: A00012606 Former Hobbs Gas Plant Page Number: 7 of 7 Hobbs, NM

# Quality Control Report Continuing Calibration Verification Standard

			CCVs TRUE	CCVs Found	CCVs Percent	Percent Recovery	Date Analyzed	QC Batch
Standard	Param	Flag	Conc.	Conc.	Recovery	Limits	Analyzed	π
ICV	Benzene (mg/L)		0.1	0.098	98	80 - 120	1/2//00	QC00603
ICV	Toluene (mg/L)		0.1	0.098	98	80 - 120	1/27/00	QC00603
ICV	Ethylbenzene (mg/L)		0.1	0.096	96	80 - 120	1/27/00	QC00603
ICV	M,P,O-Xylene (mg/L)		0.3	0.283	94	80 - 120	1/27/00	QC00603
CCV 1	Benzene (mg/L)		0.1	0.106	106	80 - 120	1/27/00	QC00603
CCV 1	Toluene (mg/L)		0.1	0.105	105	80 - 120	1/27/00	QC00603
CCV 1	Ethylbenzene (mg/L)		0.1	0.104	104	80 - 120	1/27/00	QC00603
CCV 1	M,P,O-Xylene (mg/L)		0.3	0.311	104	80 - 120	1/27/00	QC00603
CCV 2	Benzene (mg/L)		0.1	0.104	104	80 - 120	1/27/00	QC00603
CCV 2	Toluene (mg/L)		0.1	0.103	103	80 - 120	1/27/00	QC00603
CCV 2	Ethylbenzene (mg/L)		0.1	0.102	102	80 - 120	1/27/00	QC00603
CCV 2	M,P,O-Xylene (mg/L)	,	0.3	0.302	101	80 - 120	1/27/00	QC00603
Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Benzene (mg/L)		0.1	0.112	112	80 - 120	2/4/00	QC00736
ICV	Toluene (mg/L)		0.1	0.112	112	80 - 120	2/4/00	QC00736
ICV	Ethylbenzene (mg/L)		0.1	0.112	112	80 - 120	2/4/00	QC00736
ICV	M,P,O-Xylene (mg/L)		0.3	0.332	111	80 - 120	2/4/00	QC00736
CCV 1	Benzene (mg/L)		0.1	0.11	110	80 - 120	2/4/00	QC00736
CCV 1	Toluene (mg/L)		0.1	0.11	110	80 - 120	2/4/00	QC00736
CCV 1	Ethylbenzene (mg/L)		0.1	0.108	108	80 - 120	2/4/00	QC00736
CCV 1	M,P,O-Xylene (mg/L)		0.3	0.321	107	80 - 120	2/4/00	QC00736
CCV 2	Benzene (mg/L)		0.1	0.114	114	80 - 120	2/4/00	QC00736
CCV 2	Toluene (mg/L)		0.1	0.114	114	80 - 120	2/4/00	QC00736
CCV 2	Ethylbenzene (mg/L)	٦	0.1	0.114	114	80 - 120	2/4/00	QC00736
CCV 2	M,P,O-Xylene (mg/L)		0.3	0.337	112	80 - 120	2/4/00	QC00736
Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	CL (mg/L)		12.5	11.47	92	80 - 120	1/27/00	QC00609
CCV 1	CL (mg/L)		12.5	11.53	92	80 - 120	1/27/00	QC00609

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#### GROUNDWATER LEVELS AND MEASUREMENTS K. N. ENERGY, INC. FORMER HOBBS GAS PLANT HOBBS, NEW MEXICO ECO JOB NO. 279-512

 East
 10493.85
 10046.36
 10308.93
 10104.83
 10483.21
 10835.61
 11147.27
 10228.42
 10892.89
 11068.41

 North
 9537.29
 9871.37
 9547.91
 9510.93
 9332.16
 9185.31
 8820.05
 9088.68
 9535.65
 9273.17

#### 09/17/96

#### Well MW-1

TOC	495.73
H2O Depth	53.10
Adjusted Prod Thick	0.00
H2O Elev Adjusted	442.63

#### 10/23/96

#### Well MW-1 MW-2 MW-3 MW-4 MW-5 MW-6

TOC	495.73	502.41	499.13	501.12	500.84	496.27
H2O Depth	53.34	58.33	56.28	58.12	58.96	55.53
Adjusted Prod Thick	0.00	0.00	0.00	0.00	0.00	0.00
H2O Elev Adjusted	53.34 442.39	58.33 444.08	56.28 442.85	58.12 443.00	58.96 441.88	55.53 440.74

#### 04/10/97

#### Well MW-1 MW-2 MW-3 MW-5 MW-6 MW-7 MW-8 MW-9 MW-10

TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46
H2O Depth	54.32	59.54	57.25	58.83	59.77	56.28	57.28	60.32	56.29	52.83
Adjusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adj. Depth to Liquid	54.32	59.54	57.25	58.83	59.77	56.28	57.28	60.32	56.29	52.83
H2O Elev Adjusted	441.41	442.87	441.88	442.29	441.07	439.99	438.16	441.49	440.56	439.63

#### 07/07/97

#### Well MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7 MW-8 MW-9 MW-10

TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46
H2O Depth	54.64	60.00	57.59	59.19	60.1	56.58	57.54	60.67	56.66	53.0 <del>9</del>
Adjusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adj. Depth to Liquid H2O Elev Adjusted	54.64 441.09	60.00 442.41	57.59 441.54	59.19 441.93	60.10 440.74	56.58 439.69	57.54 437.90	60.67 441.14	56.66 440.19	53.09 439.37

#### 10/08/97

#### Well MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7 MW-8 MW-9 MW-10

TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46
H2O Depth	54.98	60.39	57.92	59.56	60.31	56.88	57.85	61	57	53.43
Adjusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adj. Depth to Liquid	54.98	60.39	57.92	59.56	60.31	56.88	57.85	61.00	57.00	53.43
H2O Elev Adjusted	440.75	442.02	441.21	441.56	440.53	439.39	437.59	440.81	439.85	439.03

#### 01/06/98

Well	MW-1	MW-2	MW-3	. MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10
TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46
H2O Depth H2O Depth	55.28	60.70	58.24	59.91	60.76	57.23	58.17	61.35	57.38	53.86
Adjusted Prod. Thick.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H2O Elev Adjusted	440.45	441.71	440.89	441.21	440.08	439.04	437.27	440 46	439 47	438.60

#### 04/03/98

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Well	MVV-1	MW-2	S MW3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	
TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496,85	492.46	
H2O Depth	55.60	61.06	58.41	60.21	61.05	57.49	58.47	61.61	57.67	54.17	
Adjusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Adj. Depth to Liquid	55.60 440.13	61.06	58.41	60.21	61.05 439.79	57.49 438.78	58.47 436.97	61.61 440.20	57.67 439 18	54.17 438 29	
06/25/98		441.00	440.72	440.01	400.10	400,70	400.01	110.20	100.10	100.20	
Walt	TANAL 1	MAN 2	MAL 2	NAVAT A	ANA/S	MAV 6	MAK 7	MALS	MINEO	MW-10	
	and an Thomson	Carton VISADE				2862 1997 79 28 28	une de la		للرابية كمستعلم والمراجع والمراجع المراجع	100.10	
TOC Product Depth	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	
H2O Depth Product Thickness	55.87	61.37	58.84	60.48	61.33	57.76	58.7	61.87	57.95	54.35	
Adjusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
H2O Elev Adjusted	439.86	441.04	440.29	440.64	439.51	438.51	436.74	439.94	438.90	438.11	
10/02/98											
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		an 1 <b>998.9-5</b> 3493	a Caliny Staats			400 OT	iscentetario.		400.05 400.05	400.40	
Product Depth	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	
H2O Depth Product Thickness	56.36	61.91	59.36	60.97	61.77	58.17	58.99	62.27	58.34	54.76	
Adjusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 ·	0.00 54.76	
H2O Elev Adjusted	439.37	440.50	439.77	440.15	439.07	438.10	436.45	439.54	438.51	437.70	
01/05/99											
Well	. MW-1	MW-2	E-WM	MW-4	MW-5	MW-8	MW-7	MW-8	MW-9	MW-10	
TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	
Product Depth H2O Depth	56.43	62.19	59.46	61.15	61.84	58.05	58.88	62.42	58.18	54.51	
Product Thickness	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Ad; Depth to Liquid	56.43	62.19	59.46	61.15	61.84	58.05	58.88	62.42	58.18	54.51	
H2O Elev Adjusted	439.30	440.22	439.67	439.97	439.00	438.22	436.56	439.39	438.67	437.95	
04/01/99											
Well	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	
TOC	495.73	502.41	499.13	501,12	500.84	496.27	495.44	501.81	496.85	492.46	
H2O Depth Broduct Thickness	56.89	62.28	59.89	61.57	62.24	58.52	59.36	62.79	58.73	55.04	
Adjusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Adj. Depth to Liquid H2O Elev Adjusted	56.89 438 84	62.28 440 13	59.89 439 24	61.57 439 55	62.24 438 60	58.52 437 75	59.36 436.08	62.79 439.02	58.73 438 12	55.04 437 42	
07/14/99					,						
	MALE	MM22	MW-1	MALA	MW.5	MALE	MALT	MALR	MALO	MW-10	- One
	A05 72	502.44	100 49	501 40	500.94	ADE 27	ADE 44	601 94	100 95	402 AC	0.00
Product Depth	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	499.25 0.00
H2O Depth Product Thickness	57.39	62.28	60.40	62.03	62.76	59.08	59.84	63.19	59.31	55.59	60.66 0.00
Adjusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H2O Elev Adjusted	438.34	440.13	438.73	439.09	438.08	437.19	435.60	438.62	437.54	436.87	438.59
10/22/99											
Well	MW-1	MW-2		MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	Drop 🤇
TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	0.00 499.25
Product Depth H2O Depth	57.74	62.31	60.76	62.37	63.08	59.36	60.14	63.51	59.61	55.94	0.00 60.94
Product Thicknese	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adj Depth to Liquid	57.74	62.31	60.76	62.37	63.08	59.36	60.14	63.51	59.61	55.94	60.94
H2O Elev Adjusted	437.99	440.10	438.37	438.75	437.76	436.91	435.30	438.30	437.24	436.52	438.31

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TOC         495.73         502.41         499.13         501.12         500.84         496.27         495.44         501.81         496.85         492.46         493.76           Product Depth         58.16         62.34         61.21         62.82         63.51         59.77         60.58         63.97         60.07         56.35         63.00           Adjusted Prod. Theke         0.00	Well	MW-1	MW-2	MW-3	MW-4	MW-5	MW-8	MW-7	MW-8	MW-9	MW-10	Drop
Vac       Description       58.16       62.34       61.21       62.82       63.51       59.77       60.58       63.97       60.07       56.35       63.97         Alguides Prod       Therk       0.00	TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	499.25
Number Product         Number	H2O Depth	58.16	62.34	61.21	62.82	63.51	59.77	60.58	63.97	60.07	56.35	61.30
Hadi Depith is Liquid (22) Elex, Adjusted         58,16 437,57         62,24 440,07         61,21 439,20         62,24 438,30         63,37 436,50         63,86 437,84         63,78 436,78         436,17         443,77           Videl         MW-1         MW-2         MW-3         MW-4         MW-5         MW-7         MW-2         MW-9	Adjusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H20 Elex Adjusted         437.57         440.07         437.92         438.30         437.33         438.50         434.86         437.84         436.78         436.11         477.85           04/03/00         MW-1         MW-2         MW-3         MW-5         MW-5         MW-5         MW-6         MW-9         MW-9 <td>Adi Denth to Piquid</td> <td>58 16</td> <td>62.34</td> <td>61.21</td> <td>62.82</td> <td>63.51</td> <td>59.77</td> <td>60.58</td> <td>63.97</td> <td>60.07</td> <td>56.35</td> <td>61.30</td>	Adi Denth to Piquid	58 16	62.34	61.21	62.82	63.51	59.77	60.58	63.97	60.07	56.35	61.30
O400300         NMV-1         MMV-2         MMV-3         MMV-4         MMV-5         MMV-5         MMV-7         MMV-8         MMV-9         <	H2O Elev Adjusted	437.57	440.07	437.92	438.30	437.33	436.50	434.86	437.84	436.78	436.11	437.95
Wei         WW-1         WW-2         MW-3         MW-4         WW-5         WW-5         WW-7         WW-9	04/03/00											
TOC         495,73         502,41         499,13         501,12         500,84         496,27         495,44         501,81         496,85         492,45         600           Product Depth         58,51         62,34         61,57         63,14         63,84         60,08         60,83         64,26         60,43         56,69         61,36           Adjusted Front Thek         0.00	Well	MW-1	MW-2	MW-3	MW-4	MV-5	MW-6	MVV-7	MW-8	MVV-9	MW-10	Drop
View         58.51         62.34         61.57         63.14         63.84         60.08         60.83         64.26         60.43         56.69         61.30           Product Theorese         0.00         0	TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	499.25
Product Incomeses         0.00 <td>H2O Depth</td> <td>58.51</td> <td>62.34</td> <td>61.57</td> <td>63.14</td> <td>63.84</td> <td>60.08</td> <td>60.83</td> <td>64.26</td> <td>60.43</td> <td>56.69</td> <td>61.58</td>	H2O Depth	58.51	62.34	61.57	63.14	63.84	60.08	60.83	64.26	60.43	56.69	61.58
Augusta frag. file         Oron         Oron <td>Adjusted Case Thickness</td> <td>0.00</td>	Adjusted Case Thickness	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Doc. 1.         Doc. 1. <t< td=""><td>Adjusted Plog 1 flick</td><td>58.51</td><td>62 34</td><td>61 57</td><td>63 14</td><td>63.84</td><td>60.08</td><td>60.83</td><td>64.26</td><td>60.43</td><td>56 69</td><td>61.58</td></t<>	Adjusted Plog 1 flick	58.51	62 34	61 57	63 14	63.84	60.08	60.83	64.26	60.43	56 69	61.58
OP/17/00         Weil         MW-1         MW-2         MW-3         MW-4         MW-5         MW-6         MW-7         MW-8         MW-9         MW-10         Degr 0.0           TOC         495.73         502.41         499.13         501.12         500.84         496.27         495.44         501.81         496.85         492.46         492.26           Product Thickness         59.10         62.34         62.11         63.73         64.35         60.5         61.1         64.68         60.92         57.02         62.02           Adjusted Prof Thick         0.00 <td>H2O Elev Adjusted</td> <td>437 22</td> <td>440.07</td> <td>437.56</td> <td>437.98</td> <td>437.00</td> <td>436.19</td> <td>434.61</td> <td>437.55</td> <td>436.42</td> <td>435.77</td> <td>437.67</td>	H2O Elev Adjusted	437 22	440.07	437.56	437.98	437.00	436.19	434.61	437.55	436.42	435.77	437.67
Weil         MW-1         MW-2         MW-3         MW-4         MW-5         MW-6         MW-7         MW-8         MW-9         MW-10         Dres           TOC         495.73         502.41         499.13         501.12         500.84         496.27         495.44         501.81         496.85         492.46         499.25         .00           Product Perbit         59.10         62.34         62.11         63.73         64.35         60.5         61.1         64.68         60.92         57.02         82.02           Adjusted Prod. Trick         0.00	07/17/00	107.22										
TOC         495.73         502.41         499.13         501.12         500.84         496.27         495.44         501.81         496.85         492.46         495.25           Product Theorem         59.10         62.34         62.11         63.73         64.35         60.5         61.1         64.68         60.92         57.02         62.02           Adjusted Prod Theor         59.10         62.34         62.11         63.73         64.35         60.5         61.1         64.68         60.92         57.02         62.02         0.00 </td <td>Well</td> <td>MW-L</td> <td>MVV-2</td> <td>MW-3</td> <td>MW-4</td> <td>MW-5</td> <td>MW-6</td> <td>MV-7</td> <td>MW-8</td> <td>MVV-9</td> <td>MW-10</td> <td>Drop</td>	Well	MW-L	MVV-2	MW-3	MW-4	MW-5	MW-6	MV-7	MW-8	MVV-9	MW-10	Drop
H2C Depth       59.10       62.34       62.11       63.73       64.35       60.5       61.1       64.68       60.92       57.02       62.02         Product Thickness       0.00	TOC Product Dealth	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	499.25 0.00
Adjusted Prof Trick Adjusted Prof Trick Depth to kloud 436.63         0.00 62.34 440.07         0.00 62.11 437.02         0.00 63.73 437.39         0.00 64.35 60.50         0.00 61.10 64.68         0.00 64.68         0.00 60.92         0.00 57.02         0.00 62.72           10/24/00           Weit         MW-1         MW-2         MW-3         MW-4         MW-5         MW-7         MW-8         MW-9         MW-10         Drec 0.00           TOC         495.73         502.41         499.13         501.12         500.84         496.27         495.44         501.81         496.85         492.46         499.23         0.00           Product Depth H2O Depth         59.45         62.36         62.48         64.10         64.68         60.86         61.46         65.04         61.3         57.44         62.32           Product Depth H2O Depth         59.45         62.36         62.48         64.10         64.68         60.86         61.46         65.04         61.3         57.44         62.32           Adjusted Prod Thick         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         0.00         0.00         0.00	H2O Depth Product Thickness	59.10	62.34	62.11	63.73	64.35	60.5	61.1	64.68	60.92	57.02	62.02 0.00
Adj. Depth to Lkoud       59.10       62.34       62.11       63.73       64.35       60.50       61.10       64.68       60.92       57.02       4202         10/24/00       Weit       MW-1       MW-2       MW-3       MW-4       MW-5       MW-6       MW-7       MW-8       MW-9       MW-10       Dree         0.00       MW-1       MW-2       MW-3       MW-4       MW-5       MW-6       MW-7       MW-8       MW-9       0.00         10/24/00       495.73       502.41       499.13       501.12       500.84       496.27       495.44       501.81       496.85       492.46       499.25       0.00         1/2C pepth       59.45       62.36       62.48       64.10       64.68       60.86       61.46       65.04       61.3       57.44       62.36       0.00 <td>Adjusted Prod. Thick</td> <td>0.00</td>	Adjusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H2O Elev Adjusted:       436.63       440.07       437.02       437.39       436.49       435.77       434.34       437.13       435.93       435.44       437.23         10/24/00       Well       MW-1       MW-2       MW-3       MW-4       MW-6       MW-7       MW-8       MW-9       MW-10       Drop       0.00         TOC       495.73       502.41       499.13       501.12       500.84       496.27       495.44       501.81       496.85       492.46       499.25       0.00         Product Depth       59.45       62.36       62.48       64.10       64.68       60.86       61.46       65.04       61.3       57.44       62.32       0.00         Adjusted Prod. Thick       0.00       0.	Adi Depth to Liquid	59.10	62.34	62.11	63.73	64.35	60.50	61.10	64.68	60.92	57.02	62.02
10/24/00       MW-1       MW-2       MW-3       MW-4       MW-5       MW-6       MW-7       MW-8       MW-9       MW-10       Drop 0.00         TOC Product Depth H2O DEPth H2O DEPt	H2O Elev Adjusted	436.63	440.07	437.02	437.39	436.49	435.77	434.34	437.13	435.93	435.44	437.23
Weit         MW-1         MW-2         MW-3         MW-4         MW-5         MW-6         MW-7         MW-8         MW-9         MW-10         Drep           TOC         495.73         502.41         499.13         501.12         500.84         496.27         495.44         501.81         496.85         492.46         499.25         0.00           Product Depth         59.45         62.36         62.48         64.10         64.68         60.86         61.46         65.04         61.3         57.44         62.32           Product Depth         59.45         62.36         62.48         64.10         64.68         60.86         61.46         65.04         61.30         57.44         62.32           Adjusted Prod Thick         0.00         0	10/24/00											
TOC         495.73         502.41         499.13         501.12         500.84         496.27         495.44         501.81         496.85         492.46         499.25         0.00           Product Depth         59.45         62.36         62.48         64.10         64.68         60.86         61.46         65.04         61.3         57.44         62.32           Product Thickness         0.00	Well	<u>.</u> MW-1	MW-2	MW-3		MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	Drop
Product Depth H2O Depth H2O Depth         59.45         62.36         62.48         64.10         64.68         60.86         61.46         65.04         61.3         57.44         62.32           Product Thickness         0.00	TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	499.25
H2O Depth       59.45       62.36       62.48       64.10       64.68       60.86       61.46       65.04       61.3       57.44       62.32         Product Thickness       0.00 <td>Product Depth</td> <td></td> <td>0.00</td>	Product Depth											0.00
Adjusted Prod Thick       0.00	H2O Depth	59.45	62.36	62.48	64.10	64.68	60.86	61.46	65.04	61.3	57.44	62.32
Adj. Depth. to Liquid       59.45       62.36       62.48       64.10       64.68       60.36       61.46       65.04       61.30       57.44       62.32         H2O Elev Adjusted       436.28       440.05       436.65       437.02       436.16       435.41       433.98       436.77       435.55       435.02       436.93         Water Level Difference (+ number is a decrease in water level)         OM00078 end 0400398       1.28       1.21       1.19       1.29       1.38       1.34       1.30         0/07078 end 0400398       1.23       1.37       1.25       1.29       1.23       1.16       1.16       1.20       1.29       1.28       1.25         1000497 end 0400398       1.38       1.52       1.44       1.41       1.46       1.29       1.14       1.27       1.34       1.33       1.36         1000497 end 1002298       1.38       1.52       1.44       1.41       1.46       1.29       1.14       1.27       1.34       1.33       1.36         1000497 end 1002298       1.38       1.52       1.44       1.41       1.46       1.29       1.14       1.27       1.34       1.33       1.36         1002998 end 1002298 <td>Adjusted Prod. Thick</td> <td>0.00</td> <td>0.00</td> <td>0 00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td>	Adjusted Prod. Thick	0.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H2O Elev Adjusted       436.28       440.05       436.65       437.02       436.16       435.41       433.98       436.77       435.55       435.02       436.93         Water Level Difference (+ number is a decrease in water level)         04/097 on 04/098       1.28       1.52       1.16       1.38       1.28       1.21       1.19       1.29       1.38       1.34       1.30         07/07/51 op 0402/58       1.23       1.37       1.25       1.29       1.23       1.16       1.16       1.20       1.29       1.26       1.25         07/07/51 op 0402/586       1.38       1.52       1.44       1.41       1.46       1.29       1.14       1.27       1.34       1.33       1.36         1/002/67 or 01002/67       1.15       1.49       1.22       1.24       1.08       0.82       0.71       1.07       0.80       0.65       1.02         1/002/67       1.15       1.49       1.22       1.24       1.08       0.82       0.71       1.07       0.80       0.65       1.02         4/09/69 or 01/02/69       1.29       1.22       1.44       1.46       1.9       1.03       0.89       1.18       1.06       0.87       1.16 <td>Adi. Depth to Liquid</td> <td>59.45</td> <td>62.36</td> <td>62,48</td> <td>64,10</td> <td>64.68</td> <td>60.86</td> <td>61.46</td> <td>65.04</td> <td>61,30</td> <td>57.44</td> <td>62.32</td>	Adi. Depth to Liquid	59.45	62.36	62,48	64,10	64.68	60.86	61.46	65.04	61,30	57.44	62.32
Water Level Difference (+ number is a decrease in water level)           041097 and 0403/68         1.28         1.52         1.16         1.38         1.28         1.21         1.19         1.29         1.38         1.34         1.30           0/07/97 apd 0403/68         1.23         1.37         1.25         1.29         1.23         1.18         1.16         1.20         1.29         1.28         1.25           1006/07 and 10002/68         1.38         1.52         1.44         1.41         1.46         1.29         1.14         1.27         1.34         1.33         1.36           1005/07 and 10002/68         1.38         1.52         1.44         1.41         1.46         1.29         1.14         1.27         1.34         1.33         1.36           1005/07 and 10002/68         1.15         1.49         1.22         1.24         1.08         0.82         0.71         1.07         0.80         0.65         1.02           4608 and 47/89         1.29         1.21         1.72         1.73         1.60         1.50         1.32         1.53         1.69           467 to 10000         5.13         2.82         5.23         5.27         9.1         4.58         4.18	H2O Elev Adjusted	436.28	440.05	436.65	437.02	436.16	435.41	433.98	436.77	435.55	435.02	436.93
041097 or 0400783         1.28         1.52         1.16         1.38         1.28         1.21         1.19         1.29         1.38         1.34         1.30           0707/87 sp 0402783         1.23         1.37         1.25         1.29         1.23         1.16         1.20         1.29         1.28         1.25           1008/97 sp 0402783         1.38         1.52         1.44         1.41         1.46         1.29         1.14         1.27         1.34         1.33         1.36           1008/97 sp 0402783         1.38         1.52         1.44         1.41         1.46         1.29         1.14         1.27         1.34         1.33         1.36           1008/97 sp 0402783         1.38         1.52         1.44         1.41         1.46         1.29         1.14         1.27         1.34         1.33         1.36           1008/97 sp 0402783         1.15         1.49         1.22         1.24         1.08         0.82         0.71         1.07         0.80         0.65         1.02           4/098 send 4/1/99         1.29         1.29         1.21         1.09         0.80         0.87         1.16           10022/098 send 4/1/99         1.29	ران در با از بازیکار از از از از از از از از از از از از از		Water	Level Differen	ce (+ number i	s a decrease i	n water levei)					
07.07.87.87.891.092,2598         1.23         1.37         1.25         1.29         1.23         1.16         1.20         1.29         1.26         1.25           1008.97.87.891.002,785         1.38         1.52         1.44         1.41         1.46         1.29         1.14         1.27         1.34         1.33         1.36           1008.97.891.002,785         1.38         1.52         1.44         1.41         1.46         1.29         1.14         1.27         1.34         1.33         1.36           1005.95 and 15.092         1.15         1.49         1.22         1.24         1.08         0.82         0.71         1.07         0.80         0.65         1.02           4/098 and 4/199         1.29         1.22         1.46         1.9         1.03         0.89         1.18         1.06         0.87         1.16           10022/095 and 10/24/00         1.71         0.05         1.72         1.73         1.60         1.50         1.32         1.53         1.69           4/87 to 10000         5.13         2.82         5.23         5.27         4.91         4.58         4.18         4.72         5.01         4.61         4.65	04/10/97 and 04/03/98	1.28	1.52	1.16	1.38	1.28	1.21	1.19	1.29	1.38	1.34	1,30
1008/97.grd         1.38         1.52         1.44         1.41         1.46         1.29         1.14         1.27         1.34         1.33         1.36           1008/97.grd         1.55         1.49         1.22         1.24         1.08         0.82         0.71         1.07         0.80         0.65         1.02           10/02/98 and 15/99         1.29         1.22         1.24         1.08         0.82         0.71         1.07         0.80         0.65         1.02           4/088 and 4/990         1.29         1.22         1.46         1.36         1.19         1.03         0.89         1.18         1.06         0.87         1.16           10/02/98 and 10/24/00         1.71         0.05         1.72         1.73         1.60         1.50         1.32         1.53         1.69           4/87 to 10/00         5.13         2.82         5.23         5.27         4.91         4.58         4.18         4.72         5.01         4.61         4.65	07/07/97 904 06/25/98	1.23	1.37	1.25	1.29	1.23	1.18	1.16	1.20	1.29	1.26	1.25
10605 and 15088         1.15         1.49         1.22         1.24         1.08         0.82         0.71         1.07         0.80         0.65         1.02           240088 and 41/893         1.29         1.22         1.46         1.36         1.19         1.03         0.89         1.18         1.06         0.87         1.16           1002298 and 10/24000         1.71         0.05         1.72         1.73         1.60         1.50         1.32         1.53         1.69           4467 to 10000         5.13         2.82         5.23         5.27         4.91         4.58         4.18         4.72         5.01         4.61         4.65	10/08/97 end 10/02/98	1.38	1.52	1.44	1.41	1.46	1.29	1.14	1.27	1.34	1.33	1.36
Construint         Constru	1/6/98 and 1/5/99	1.15	1.49	1.22	1.24	1.08	0.82	0.71	1,07	0.80	0.65	1.02
<b>4.67</b> to 1000 1.52 1.53 1.69 1.69 1.69 1.69 1.69 1.69 1.69 1.69	4/3/00 8/10 4/1/99	1.29	1.22	1.40	1,30	1.19	1.03	0.89	1.18	1,00	0.87	1.10
	4/97 to 10/00	5.13	2.82	5.23	5.27	4.91	4.58	4.18	4.72	5.01	4.61	4.65

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 Iron (Fe)
 1.0 mg/l

 Manganese (Mn)
 0.2 mg/l

 Phenols
 0.005 mg/l

 Sulfate (SO4)
 600.0 mg/l

 Total Dissolved Solids (TDS)
 1000.0 mg/l

 Zinc (Zn)
 10.0 mg/l

 pH
 between 6 and 9

 [2-18-77]
 2

C. Standards for Irrigation Use - Ground water shall meet the standards of Subsection A, B, and C unless otherwise provided.

Aluminum (Al)	5.0 mg/l
Boron (B)	0.75 mg/1
Cobalt (Co)	0.05 mg/l
Molybaenum (Mo)	1.0 mg/l
Nickel (Ni)	0.2 mg/l
[2-18-77]	

#### 20 NMAC 6.2.III.3104 DISCHARGE PLAN REQUIRED

Unless otherwise provided by this Part, no person shall cause or allow effluent of leachate to discharge so that it may move directly of indirectly into ground water unless he is discharging pursuant to a discharge plan approved by the secretary. When a plan has been approved, discharges must be consistent with the terms and conditions of the plan. In the event of a transfer of the ownership, control, or possession of a facility for which an approved discharge plan is in effect, the transferee shall have authority to discharge under such plan, provided that the transferee has complied with Section 3111 of this Part, regarding transfers. [2-18-77, 12-24-87, 12-1-95]

#### 20 NMAC 6.2.III.3105 EXEMPTIONS FROM DISCHARGE PLAN REQUIREMENT

Sections 3104 and 3106 of this Part do not apply to the following: [2-18-77]

A. Effluent or leachate which conforms to all the listed numerical standards of Section 3103 and has a total nitrogen concentration of 10 mg/l or less, and does not contain any toxic pollutant. To determine conformance, samples may be taken by the agency before the effluent or leachate is discharged so that it may move directly or indirectly into ground water; provided that if the discharge is by seepage through non-natural or altered natural materials, the agency may take samples of the solution before or after seepage. If for any reason the agency does not have access to obtain the appropriate samples, this exemption shall not apply; [2-18-77, 6-20-80, 7-2-81]

B. Effluent which is discharged from a sewerage system used only for disposal of household and other domestic waste which is designed to receive and which receives 2,000 gallons or less of liquid waste per day; [2-18-77, 12-24-87]

C. Water used for irrigated agriculture, for watering of lawns, trees, gardens or shrubs, or for irrigation for a period not to exceed five years for the revegetation of any disturbed land area, unless that water is received directly from any sewerage system; [2-18-77]

D. Discharges resulting from the transport or storage of water diverted, provided that the water diverted has not had added to it after the point of diversion any effluent received from a sewerage system, that the source of the water diverted was not mine workings, and that the secretary has not determined that a hazard to public health may result; [2-18-77, 12-1-95]

E. Effluent which is discharged to a watercourse which is naturally perennial; discharges to dry

arroyos and ephemeral streams are not exempt from the discharge plan requirement, except as otherwise provided in this Section; [2-18-77]

F. Those constituents which are subject to effective and enforceable effluent limitations in a National Pollutant Discharge Elimination System (NPDES) permit, where discharge onto or below the surface of the ground so that water contaminants may move directly or indirectly into ground water occurs downstream from the outfall where NPDES effluent limitations are imposed, unless the secretary determines that a hazard to public health may result. For purposes of this Subsection, monitoring requirements alone do not constitute effluent limitations; [2-18-77, 12-1-95]

G. Discharges resulting from flood control systems; [2-18-77]

H. Leachate which results from the direct natural infiltration of precipitation through disturbed materials, unless the secretary determines that a hazard to public health may result; [2-18-77, 6-26-80, 12-1-95]

I. Leachate which results entirely from the direct natural infiltration of precipitation through undisturbed materials; [2-18-77, 6-26-80]

J. Leachate from materials disposed of in accordance with the Solid Waste Management Regulations (20 NMAC 9.1) adopted by the New Mexico Environmental Improvement Board; [2-18-77, 12-1-95]

K. Natural ground water seeping or flowing into conventional mine workings which re-enters the ground by natural gravity flow prior to pumping or transporting out of the mine and without being used in any mining process; this exemption does not apply to solution mining; [2-18-77]

L. Effluent or leachate discharges resulting from activities regulated by a mining plan approved and permit issued by the New Mexico Coal Surface Mining Commission, provided that this exemption shall not be construed as limiting the application of appropriate ground water protection requirements by the New Mexico Coal Surface Mining Commission; [2-18-77]

M. Effluent or leachate discharges which are regulated by the Oil Conservation Commission and the regulation of which by the Water Quality Control Commission would interfere with the exclusive authority granted under Section <u>70-2-12</u> NMSA 1978, or under other laws, to the Oil Conservation Commission. [2-18-77]

# 20 NMAC 6.2.III.3106 APPLICATION FOR DISCHARGE PLAN APPROVALS AND RENEWALS

A. Any person who, before or on June 18, 1977, is discharging any of the water contaminants listed in Section 3103 or any toxic pollutant so that they may move directly or indirectly into ground water shall, within 120 days of receipt of written notice from the secretary that a discharge plan is required, or such longer time as the secretary shall for good cause allow, submit a discharge plan to the secretary for approval; such person may discharge without an approved discharge plan until 240 days after written notification by the secretary that a discharge plan is required or such longer time as the secretary shall for good cause allow. [2-18-77, 6-26-80, 7-2-81, 12-1-95]

B. Any person who intends to begin, after June 18, 1977, discharging any of the water contaminants listed in Section 3103 or any toxic pollutant so that they may move directly or indirectly into ground water shall notify the secretary giving the information enumerated in Section 1201.B.; the secretary shall, within 60 days, notify such person if a discharge plan is required; upon submission, the secretary shall review the discharge plan pursuant to Sections 3108 and 3109; for good cause shown, the secretary may allow such person to discharge without an approved plan for a period not to extend beyond February 18, 1978; after February 18, 1978, for good cause shown the secretary may allow such person to discharge plan for a period not to exceed 120 days. [2-18-77, 6-26-80, 7-2-81, 12-1-95]

C. A proposed discharge plan shall set forth in detail the methods or techniques the discharger proposes to use or processes expected to naturally occur which will ensure compliance with this Part. At

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least the following information shall be included in the plan: [2-18-77]

1. Quantity, quality and flow characteristics of the discharge; [2-18-77]

2. Location of the discharge and of any bodies of water, watercourses and ground water discharge sites within one mile of the outside perimeter of the discharge site, and existing or proposed wells to be used for monitoring; [2-18-77]

3. Depth to and TDS concentration of the ground water most likely to be affected by the discharge; [2-18-77]

4. Flooding potential of the site; [2-18-77]

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5. Location and design of site(s) and method(s) to be available for sampling, and for measurement or calculation of flow; [2-18-77]

6. Depth to and lithological description of rock at base of alluvium below the discharge site if such information is available; [2-18-77]

7. Any additional information that may be necessary to demonstrate that approval of the discharge plan will not result in concentrations in excess of the standards of Section 3103 or the presence of any toxic pollutant at any place of withdrawal of water for present or reasonably foreseeable future use. Detailed information on site geologic and hydrologic conditions may be required for a technical evaluation of the applicant's proposed discharge plan; and [2-18-77, 6-26-80, 7-2-81]

8. Additional detailed information required for a technical evaluation of effluent disposal wells or in situ extraction wells as provided in Subpart V of this Part. [9-20-82]

D. An applicant for a discharge plan shall pay fees as specified in Section 3114. [8-17-91]

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### SUBPART IV -- PREVENTION AND ABATEMENT OF WATER POLLUTION

#### 20 NMAC 6.2.IV.4101 PURPOSE

A. The purposes of this Subpart are to:

1. Abate pollution of subsurface water so that all ground water of the State of New Mexico which has a background concentration of 10,000 mg/L or less TDS, is either remediated or protected for use as domestic and agricultural water supply, and to remediate or protect those segments of surface waters which are gaining because of subsurface-water inflow, for uses designated in the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20 NMAC 6.1); and [12-1-95]

2. Abate surface-water pollution so that all surface waters of the State of New Mexico are remediated or protected for designated or attainable uses as defined in the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20 NMAC 6.1). [12-1-95]

B. If the background concentration of any water contaminant exceeds the standard or requirement of Sections 4103.A, 4103.B or 4103.C of this Part, pollution shall be abated by the responsible person to the background concentration. [12-1-95]

C. The standards and requirements set forth in Section 4103 of this Part are not intended as maximum ranges and concentrations for use, and nothing herein contained shall be construed as limiting the use of waters containing higher ranges and concentrations. [12-1-95]

#### 20 NMAC 6.2.IV.4102 [RESERVED]

#### 20 NMAC 6.2.IV.4103 ABATEMENT STANDARDS AND REQUIREMENTS

A. The vadose zone shall be abated so that water contaminants in the vadose zone shall not be capable of contaminating ground water or surface water, in excess of the standards in Subsections B and C below, through leaching, percolation or as the water table elevation fluctuates. [12-1-95]

B. Ground-water pollution at any place of withdrawal for present or reasonably foreseeable future use, where the TDS concentration is 10,000 mg/L or less, shall be abated to conform to the following standards: [12-1-95]

1. toxic pollutant(s) as defined in Section 1101 of this Part shall not be present; and [12-1-95]

2. the standards of Section 3103 of this Part shall be met. [12-1-95]

C. Surface-water pollution shall be abated to conform to the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20 NMAC 6.1). [12-1-95]

D. Subsurface-water and surface-water abatement shall not be considered complete until a minimum of eight (8) consecutive quarterly samples from all compliance sampling stations approved by the secretary meet the abatement standards of Subsections A, B and C above. Abatement of water contaminants measured in solid-matrix samples of the vadose zone shall be considered complete after one-time sampling from compliance stations approved by the secretary. [12-1-95]

E. Technical Infeasibility.

1. If any responsible person is unable to fully meet the abatement standards set forth in Subsections A and B above using commercially accepted abatement technology pursuant to an approved abatement plan,

he may propose that abatement standards compliance is technically infeasible. Technical infeasibility proposals involving the use of experimental abatement technology shall be considered at the discretion of the secretary. Technical infeasibility may be demonstrated by a statistically valid extrapolation of the decrease in concentration(s) of any water contaminant(s) over the remainder of a twenty (20) year period, such that projected future reductions during that time would be less than 20% of the concentration(s) at the time technical infeasibility is proposed. A statistically valid decrease cannot be demonstrated by fewer than eight (8) consecutive quarters. The technical infeasibility proposal shall include a substitute abatement standard(s) for those contaminants that is/are technically feasible. Abatement standards for all other water contaminants not demonstrated to be technically infeasible shall be met. [12-1-95]

2. In no event shall a proposed technical infeasibility demonstration be approved by the secretary for any water contaminant if its concentration is greater than 200% of the abatement standard for that contaminant. [12-1-95]

3. If the secretary cannot approve any or all portions of a proposed technical infeasibility demonstration because the water contaminant concentration(s) is/are greater than 200% of the abatement standard(s) for each contaminant, the responsible person may further pursue the issue of technical infeasibility by filing a petition with the commission seeking:

a. approval of alternate abatement standard(s) pursuant to Section 4103.F below; or

b. granting of a variance pursuant to Section 1210 of this Part.

[12-1-95]

F. Alternative Abatement Standards.

1. At any time during or after the submission of a Stage 2 abatement plan, the responsible person may file a petition seeking approval of alternative abatement standard(s) for the standards set forth in Subsections A and B above. The commission may approve alternative abatement standard(s) if the petitioner demonstrates that:

a. (1) compliance with the abatement standard(s) is/are not feasible, by the maximum use of technology within the economic capability of the responsible person; or

(2) there is no reasonable relationship between the economic and social costs and benefits (including attainment of the standard(s) set forth in Section 4103) to be obtained;

b. the proposed alternative abatement standard(s) is/are technically achievable and cost-benefit justifiable; and

c. compliance with the proposed alternative abatement standard(s) will not create a present or future - hazard to public health or undue damage to property.

2. The petition shall be in writing, filed with the secretary. The petition shall specify, in addition to the information required by Section 1210.A of this Part, the water contaminant(s) for which alternative standard(s) is/are proposed, the alternative standard(s) proposed, the three-dimensional body of water pollution for which approval is sought, and the extent to which the abatement standard(s) set forth in Section 4103 is/are now, and will in the future be, violated. The petition may include a transport, fate and risk assessment in accordance with accepted methods, and other information as the petitioner deems necessary to support the petition.

3. The commission shall review a petition for alternative abatement standards in accordance with the procedures for review of a variance petition provided in the commissions adjudicatory procedures, 20 NMAC 1.3.

[12-1-95, 11-15-96]

#### 20 NMAC 6.2.IV.4104 ABATEMENT PLAN REQUIRED

A. Unless otherwise provided by this Part, all responsible persons who are abating, or who are required to abate, water pollution in excess of the standards and requirements set forth in Section 4103 of

this Part shall do so pursuant to an abatement plan approved by the secretary. When an abatement plan has been approved, all actions leading to and including abatement shall be consistent with the terms and conditions of the abatement plan. [12-1-95]

B. In the event of a transfer of the ownership, control or possession of a facility for which an abatement plan is required or approved, where the transferor is a responsible person, the transferee also shall be considered a responsible person for the duration of the abatement plan, and may jointly share the responsibility to conduct the actions required by this Part with other responsible persons. The transferror shall notify the transferee in writing, at least thirty (30) days prior to the transfer, that an abatement plan has been required or approved for the facility, and shall deliver or send by certified mail to the secretary a copy of such notification together with a certificate or other proof that such notification has in fact been received by the transferee. The transferror and transferee may agree to a designated responsible persons shall notify the secretary in writing if a designated responsible person is agreed upon. If the secretary determines that the designated responsible person has failed to conduct the actions required by this Part, the secretary shall notify all responsible persons of this failure in writing and allow them thirty (30) days, or longer for good cause shown, to conduct the required actions before issuing a compliance order pursuant to Section 1220 of this Part. [12-1-95]

C. If the source of the water pollution to be abated is a facility that operated under a discharge plan, the secretary may require the responsible person(s) to submit a financial assurance plan which covers the estimated costs to conduct the actions required by the abatement plan. Such a financial assurance plan shall be consistent with any financial assurance requirements adopted by the commission. [12-1-95]

#### 20 NMAC 6.2.IV.4105 EXEMPTIONS FROM ABATEMENT PLAN REQUIREMENT

A. Except as provided in Subsection B of this Section, Sections 4104 and 4106 of this Part do not apply to a person who is abating water pollution: [12-1-95]

1. from an underground storage tank, under the authority of the Underground Storage Tank Regulations (20 NMAC Part 5) adopted by the New Mexico Environmental Improvement Board, or in accordance with the New Mexico Ground Water Protection Act; [12-1-95]

2. under the authority of the U.S. Environmental Protection Agency pursuant to either the federal Comprehensive Environmental Response, Compensation and Liability Act, and amendments, or the Resource Conservation and Recovery Act; [12-1-95]

3. under the authority of the secretary pursuant to the Hazardous Waste Management Regulations (20 NMAC 4.1) adopted by the New Mexico Environmental Improvement Board; [12-1-95]

4. under the authority of the U.S. Nuclear Regulatory Commission or the U.S. Department of Energy pursuant to the Atomic Energy Act; [12-1-95]

5. from a solid waste landfill, under the authority of the secretary pursuant to the Solid Waste Management Regulations (20 NMAC 9.1) adopted by the N.M. Environmental Improvement Board; [12-1-95]

6. under the authority of a ground-water discharge plan approved by the secretary, provided that such abatement is consistent with the requirements and provisions of Sections 4101, 4103, 4106.C, 4106.E, 4107 and 4112 of this Part; [12-1-95]

7. under the authority of a Letter of Understanding, Settlement Agreement or Admin.strative Order on Consent signed by the secretary prior to December 1, 1995, provided that abatement is being performed in full compliance with the terms of the Letter of Understanding, Settlement Agreement or Administrative Order on Consent; and [12-1-95]

8. on an emergency basis, or while abatement plan approval is pending, or in a manner that will result in compliance with the standards and requirements set forth in Section 4103 of this Part within one

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hundred and eighty (180) days after notice is required to be given pursuant to Section 1203.A.1 of this Part, provided that the delegated agency does not object to the abatement action pursuant to Sections 1203.A.6 and 1203.A.7 of this Part. [12-1-95]

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B. If the secretary determines that abatement of water pollution subject to Subsection A of this Section will not meet the standards of Sections 4103.B and C of this Part, or that additional action is necessary to protect health, welfare, environment or property, the secretary may notify a responsible person, by certified mail, to submit an abatement plan pursuant to Sections 4104 and 4106.A of this Part. The notification shall state the reasons for the secretary's determination. In any appeal of the secretary's determination under this Section, the secretary shall have the burden of proof. [12-1-95]

C. Sections 4104 and 4106 of this Part do not apply to the following activities: [12-1-95]

1. Discharges subject to an effective and enforceable National Pollutant Discharge Elimination System (NPDES) permit; [12-1-95]

2. Land application of ground water contaminated with nitrogen originating from human or animal waste and not otherwise exceeding the standards of Section 3103. A of this Part and not containing a toxic pollutant as defined in Section 1101 of this Part, provided that it is done in compliance with a discharge plan approved by the secretary; [12-1-95]

3. Abatement of water pollution resulting from the withdrawal and decontamination or blending of polluted water for use as a public or private drinking-water supply, by any person other than a responsible person, unless the secretary determines that a hazard to public health may result; and [12-1-95]

4. Reasonable operation and maintenance of irrigation and flood control facilities. [12-1-95]

### 20 NMAC 6.2.IV.4106 ABATEMENT PLAN PROPOSAL

A. Except as provided for in Section 4105 of this Part, a responsible person shall, within sixty (60) days of receipt of written notice from the secretary that an abatement plan is required, submit an abatement plan proposal to the secretary for approval. For good cause shown, the secretary may allow for a total of one hundred and twenty (120) days to prepare and submit the abatement plan proposal. [12-1-95]

B. Voluntary Abatement.

1. Any person wishing to abate water pollution in excess of the standards and requirements set forth in Section 4103 of this Part may submit a Stage 1 abatement plan proposal to the secretary for approval. Following approval by the secretary of a final site investigation report prepared pursuant to Stage 1 of an abatement plan, any person may submit a Stage 2 abatement plan proposal to the secretary for approval. [12-1-95]

2. Following approval of a Stage 1 or Stage 2 abatement plan proposal under Subsection B.1 of this Section, the person submitting the approved plan shall be a responsible person under this Subpart for the purpose of performing the approved Stage 1 or Stage 2 abatement plan. Nothing in this Section shall preclude the secretary from applying Section 1203.A.9 of this Part to a responsible person if applicable. [12-1-95]

C. Stage 1 Abatement Plan.

The purpose of Stage 1 of the abatement plan shall be to design and conduct a site investigation that will adequately define site conditions, and provide the data necessary to select and design an effective abatement option. Stage 1 of the abatement plan may include, but not necessarily be limited to, the following information depending on the media affected, and as needed to select and implement an expeditious abatement option: [12-1-95]

1. Descriptions of the site, including a site map, and of site history including the nature of the discharge that caused the water pollution, and a summary of previous investigations; [12-1-95]

2. Site investigation workplan to define:

a. site geology and hydrogeology, the vertical and horizontal extent and magnitude of vadose-zone

and ground-water contamination, subsurface hydraulic parameters including hydraulic conductivity, transmissivity, storativity, and rate and direction of contaminant migration, inventory of water wells inside and within one (1) mile from the perimeter of the three-dimensional body where the standards set forth in Section 4103.B are exceeded, and location and number of such wells actually or potentially affected by the pollution; and

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b. surface-water hydrology, seasonal stream flow characteristics, ground-water/surface-water relationships, the vertical and horizontal extent and magnitude of contamination and impacts to surface water and stream sediments. The magnitude of contamination and impacts on surface water may be, in part, defined by conducting a biological assessment of fish, benthic macroinvertebrates and other wildlife populations. Seasonal variations should be accounted for when conducting these assessments. [12-1-95]

3. Monitoring program, including sampling stations and frequencies, for the duration of the abatement plan that may be modified, after approval by the secretary, as additional sampling stations are created; [12-1-95]

4. Quality assurance plan, consistent with the sampling and analytical techniques listed in Section 3107.B of this Part and with Section 1103 of the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20 NMAC 6.1), for all work to be conducted pursuant to the abatement plan; [12-1-95]

5. Site health and safety plan for all work to be performed pursuant to the abatement plan; [12-1-95]

6. A schedule for all Stage 1 abatement plan activities, including the submission of summary quarterly progress reports, and the submission, for approval by the secretary, of a detailed final site investigation report; and [12-1-95]

7. Any additional information that may be required to design and perform an adequate site investigation. [12-1-95]

D. Stage 2 Abatement Plan.

Any responsible person shall submit a Stage 2 abatement plan proposal to the secretary for approval within sixty (60) days, or up to one hundred and twenty (120) days for good cause shown, after approval by the secretary of the final site investigation report prepared pursuant to Stage 1 of the abatement plan. [12-1-95]

E. The purpose of Stage 2 of the abatement plan shall be to select and design, if necessary, an abatement option that, when implemented, will result in attainment of the abatement standards and requirements set forth in Section 4103 of this Part, including post-closure maintenance activities. Stage 2 - of the abatement plan should include, at a minimum, the following information: [12-1-95]

1. Brief description of the current situation at the site; [12-1-95]

2. Development and assessment of abatement options; [12-1-95]

3. Description, justification and design, if necessary, of preferred abatement option; [12-1-95]

4. Modification, if necessary, of the monitoring program approved pursuant to Stage 1 of the abatement plan, including the designation of pre and post abatement-completion sampling stations and sampling frequencies to be used to demonstrate compliance with the standards and requirements set forth in Section 4103 of this Part; [12-1-95]

5. Site maintenance activities, if needed, proposed to be performed after termination of abatement activities; [12-1-95]

6. A schedule for the duration of abatement activities, including the submission of summary quarterly progress reports; [12-1-95]

7. A public notification proposal designed to satisfy the requirements of Sections 4108.B and 4108.C of this Part; and [12-1-95]

8. Any additional information that may be reasonably required to select, describe, justify and design an effective abatement option. [12-1-95]

### 20 NMAC 6.2.IV.4107 OTHER REQUIREMENTS

A. Any responsible person shall allow any authorized representative of the secretary to: [12-1-95]

1. upon presentation of proper credentials, enter the facility at reasonable times; [12-1-95]

2. inspect and copy records required by an abatement plan; [12-1-95]

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3. inspect any treatment works, monitoring and analytical equipment; [12-1-95]

4. sample any wastes, ground water, surface water, stream sediment, plants, animals, or vadose-zone material including vadose-zone vapor; [12-1-95]

5. use monitoring systems and wells under such responsible person's control in order to collect samples of any media listed in Section 4107.A.4 above; and [12-1-95]

6. gain access to off-site property not owned or controlled by such responsible person, but accessible to such responsible person through a third-party access agreement, provided that it is allowed by the agreement. [12-1-95]

B. Any responsible person shall provide the secretary, or a representative of the secretary, with at least four (4) working days advance notice of any sampling to be performed pursuant to an abatement plan, or any well plugging, abandonment or destruction at any facility where an abatement plan has been required. [12-1-95]

C. Any responsible person wishing to plug, abandon or destroy a monitoring or water supply well within the perimeter of the 3-dimensional body where the standards set forth in Section 4103.B are exceeded, at any facility where an abatement plan has been required, shall propose such action by certified mail to the secretary for approval, unless such approval is required from the State Engineer. The proposed action shall be designed to prevent water pollution that could result from water contaminants migrating through the well or borehole. The proposed action shall not take place without written approval from the secretary, unless written approval or disapproval is not received by the responsible person within thirty (30) days of the date of receipt of the proposal. [12-1-95]

### 20 NMAC 6.2.IV.4108 PUBLIC NOTICE AND PARTICIPATION

A. Within thirty (30) days of filing of a Stage 1 abatement plan proposal, the secretary shall issue a news release summarizing: [12-1-95]

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1. the source, extent, magnitude and significance of water pollution, as known at that time; [12-1-95]

2. the proposed Stage 1 abatement plan investigation; and [12-1-95]

3. the name and telephone number of an agency contact who can provide additional information. [12-1-95]

B. Within thirty (30) days of filing of a Stage 2 abatement plan proposal, or proposed significant modification of Stage 2 of the abatement plan, any responsible person shall provide to the secretary proof of public notice of the abatement plan to the following persons: [12-1-95]

1. the public, who shall be notified through publication of a notice in newspapers of general circulation in this state and in the county where the abatement will occur and, in areas with large percentages of non-English speaking people, through the mailing of the public notice in English to a bilingual radio station serving the area where the abatement will occur with a request that it be aired as a public service announcement in the predominant non-English language of the area; [12-1-95]

2. those persons, as identified by the secretary, who have requested notification, who shall be notified by mail; [12-1-95]

3. the New Mexico Trustee for Natural Resources, and any other local, state or federal governmental agency affected, as identified by the secretary, which shall be notified by certified mail; [12-1-95]

4. owners and residents of surface property located inside, and within one (1) mile from, the perimeter of the geographic area where the standards and requirements set forth in Section 4103 are exceeded who shall be notified by a means approved by the secretary; and [12-1-95]

5. the Governor or President of each Indian Tribe, Pueblo or Nation within the state of New Mexico, as identified by the secretary, who shall be notified by mail. [12-1-95]

C. The public notice shall include, as approved in advance by the secretary: [12-1-95]

1. name and address of the responsible person; [12-1-95]

2. location of the proposed abatement; [12-1-95]

3. brief description of the nature of the water pollution and of the proposed abatement action; [12-1-95]

4. brief description of the procedures followed by the secretary in making a final determination; [12-1-95]

5. statement on the comment period; [12-1-95]

6. statement that a copy of the abatement plan can be viewed by the public at the department's main office or at the department field office for the area in which the discharge occurred; [12-1-95]

7. statement that written comments on the abatement plan, and requests for a public meeting or hearing that include the reasons why a meeting or hearing should be held, will be accepted for consideration if sent to the secretary within sixty (60) days after the determination of administrative completeness; and [12-1-95]

8. address and phone number at which interested persons may obtain further information. [12-1-95]

D. A public meeting or hearing may be held if the secretary determines there is significant public interest. Notice of the time and place of the meeting or hearing shall be given at least thirty (30) days prior to the meeting or hearing pursuant to Subsections A and B above. The secretary may appoint a meeting facilitator or hearing officer. The secretary may require the responsible person to prepare for approval by the secretary a fact sheet, to be distributed at the public meeting or hearing and afterwards upon request, written in English and Spanish, describing site history, the nature and extent of water pollution, and the proposed abatement. The record of the meeting or hearing, requested under this Section, consists of a tape recorded or transcribed session, provided that the cost of a court recorder shall be paid by the person requesting the transcript. If requested by the secretary, the responsible person will provide a translator approved by the secretary at a public meeting or hearing conducted in a locale where testimony from non-English speaking people can reasonably be expected. At the meeting or hearing, all interested persons

secretary within thirty (30) days after receiving notice of the secretary's action. The petition shall specify the portions of the action to which the petitioner objects, certify that a copy of the petition has been mailed or hand-delivered to the secretary, and to the applicant or permittee if the petitioner is not the applicant or permittee, and attach a copy of the action for which review is sought. Unless a timely petition for hearing is made, the secretary's action is final. [12-1-95]

D. The proceedings before the commission shall be conducted as provided in the commissions adjudicatory procedures, 20 NMAC 1.3. [12-1-95, 11-15-96]

E. The cost of the court reporter for the hearing shall be paid by the petitioner. [12-1-95]

F. The appeal provisions do not relieve the owner, operator or responsible person of their obligations to comply with any federal or state laws or regulations. [12-1-95]

#### 20 NMAC 6.2.IV.4115 COURT REVIEW OF COMMISSION DECISIONS

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Court review of commission decisions shall be as provided by law. [12-1-95]



# ANNUAL GROUNDWATER MONITORING AND SAMPLING REPORT

# AMERICAN PROCESSING, L.P., an affiliate of Kinder Morgan, Inc.

# HOBBS GAS PLANT LEA COUNTY, NEW MEXICO

AMERICAN PROCESSING, L.P., 370 Van Gordon Lakewood, Colorado 80228

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Ecological Environmental Services Inc.

ANNUAL GROUNDWATER MONITORING AND SAMPLING REPORT

OCTOBER 10, 1999

HOBBS NATURAL GAS PLANT HOBBS, LEA COUNTY, NEW MEXICO

> DATE PREPARED: MAY 25, 2000

ECO PROJECT NO.: 279-512

**PREPARED FOR:** NEW MEXICO OIL CONSERVATION DIVISION

**ON BEHALF OF:** AMERICAN PROCESSING, L.P., AN AFFILIATE OF KINDER MORGAN, INC.

**PREPARED BY:** ECO-LOGICAL ENVIRONMENTAL SERVICES, INC.

SCOTT SPRINGER, PROJECT GEOLOGIST

SHANE ESTEP, PRØJECT MANAGER

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Figure 11 -	Historical Chloride Analytical Results - MW-4, MW-6 MW-7, MW-8, MW-9, MW-10									

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### I. Report Summary

The purpose of this report is to fulfill the requirements of the groundwater monitoring plan approved by the New Mexico Oil Conservation Division (OCD). On January 5, 1999, April 1, 1999, July 14, 1999, and October 22, 1999 Eco-logical Environmental Services, Inc. (Eco-logical) personnel were on-site to purge and sample ten (10) monitor wells (MW) at the Former Hobbs Gas Plant west of Hobbs, New Mexico (see Figure 1). The objective of this sampling event was to fulfill the Abatement Plan requirements approved by the OCD in April 1997 and as modified in December 1998. The modification removed MW-2, MW-4 and MW-8 from the requirements of quarterly sampling. This event involved the measurement of relative depths to water, purging of the monitoring wells, and sample collection and analyses. Figure 2 presents the site map with the locations of the monitor wells.

The plant has not been in operation for nearly two years. In addition to the plant closure, many compressors and skid mounted equipment have been removed. Some additional equipment is also scheduled to be dismantled. The remaining equipment and structures have been sold to Transwestern Pipeline Company.

The initial task was to determine the static groundwater levels relative to the north side of the top of each well casing and to examine each well for the presence of phase separated hydrocarbons (PSH) using an interface probe with a calibrated tape (see Tables 1 - 10). Wells were measured from the least impacted to the most impacted as determined by previous sampling events. All equipment was properly decontaminated between gauging of wells. None of the wells exhibited free product.

The latest depth to groundwater at the site ranges from 54.5 to 63.5 feet below the ground surface. These depths represent an average drop in the water table of 4.2 feet since the sampling event in October of 1996 (see Figure 3). Depth to groundwater has been increasing in all wells since October 1996 with the exception of the last quarterly event in January 1999 which showed a slight decrease over the previous sampling event of October 1998. The overall groundwater flow direction is stable to the southeast at a gradient of 1:456 (see Figure 4 for a current gradient map).

After obtaining all measurements, the volume of water in each casing was calculated. The wells were then purged by hand bailing or by an electric submersible purge pump. Wells were purged until three well volumes of water were removed or until the well was dry. The bailers or pump were decontaminated between wells with a water and Alconox solution and rinsed in clean water. After allowing the wells to recover to at least 70 percent of the
original water depth, samples were collected utilizing new, single use, one (1) liter bailers. Groundwater samples were then submitted to TraceAnalysis and Southern Petroleum Laboratories for analyses. Based on previous analytical results and as approved by the OCD letter dated December 15, 1998, a minimized analyses schedule was performed. This included analysis for benzene, toluene, ethylbenzene, and xylene (BTEX) from monitor wells MW-1, MW-3, MW-5, MW-6, MW-7, MW-9, and MW-10 and chloride from monitor wells MW-6, MW-7, MW-9, and MW-10.

The latest analytical results showed that benzene levels continue to be present above the New Mexico Water Quality Control Commission (WQCC) Guideline level (see appendix) of 0.01 parts per million (ppm) in water from monitor well MW-6 at an average concentration of 0.107 ppm for the year. Chloride is currently present at 278 ppm in MW-9. The chloride concentration has varied in this monitor well slightly above the established guidelines (located in 20 NMAC.6.2.3103) of 250 ppm for the year. The analytical results for the year are summarized as follows:

MW-1	Benzene Toluene Ethylbenzene Xylene	<ul> <li>ranged from less than 0.001 ppm to 0.005 ppm</li> <li>ranged from less than 0.001 ppm to less than 0.005 ppm</li> <li>ranged from less than 0.001 ppm to less than 0.005 ppm</li> <li>ranged from less than 0.001 ppm to less than 0.005 ppm</li> </ul>
MW-2	Not Tested	
MW-3	BTEX	- remained less than 0.001 ppm
MW-4	Not Tested	
MW-5	Benzene Toluene Ethylbenzene Xylene	- ranged from less than 0.001 ppm to 0.005 ppm - remained less than 0.001 ppm - remained less than 0.001 ppm - remained less than 0.001 ppm
MW-6	Benzene Toluene Ethylbenzene Xylene Chloride	<ul> <li>ranged from 0.123 ppm to 0.090 ppm</li> <li>ranged from less than 0.001 ppm to less than 0.005 ppm</li> <li>ranged from less than 0.001 ppm to less than 0.005 ppm</li> <li>ranged from less than 0.001 ppm to less than 0.005 ppm</li> <li>ranged from less than 0.001 ppm to less than 0.005 ppm</li> <li>ranged from 31 ppm to 56 ppm</li> </ul>
MW-7	BTEX Chloride	- remained less than 0.001 ppm - ranged from 35 ppm to 74 ppm
MW-8	Not Tested	
MW-9	BTEX Chloride	- remained less than 0.001 ppm - ranged from 260 ppm to 520 ppm
MW-10	BTEX Chloride	- remained less than 0.001 ppm - ranged from 122 ppm to 140 ppm

Results of the analyses of the water samples are presented in Tables 11 to 21 and are presented on graphs in Figures 6 to 11. Figure 5 presents the estimated isograds for benzene for the latest quarterly sampling event (October 22, 1999). Section 6 contains the lab reports for all four quarterly events covered in this report.



## II. Chronology of Events

The Oil Conservation Division (OCD) of New Mexico inspected the plant on October 16, 1995, and noted several deficiencies. The deficiencies, and the related directives, were detailed in a letter issued by OCD on December 6, 1995. The letter was issued under OCD statutory authority and requires that KN Energy undertake and complete certain activities to fulfill OCD requirements. Previous activities undertaken by KN Energy, and the substance of activities reflected in this report, are to fulfill the requirements directed by OCD. The following chronology briefly summarizes the relevant activities conducted at the facility:

1994	KN Energy took possession of the plant in 1994 following a merger with American Oil and Gas.
Dec. 6, 1995	OCD directive issued to KN Energy on the initial items requiring action as a result of the Oct. 16, 1995 inspection.
Jan. 26, 1996	KN Energy initial response to OCD directive.
Jan. 30, 1996	Work Plan for soils delineation submitted with the inclusion that one monitor well would be installed if impacted soil was discovered within ten feet of the groundwater.
Mar. 27, 1996	Delineation Work Plan approved by OCD with report due July1, 1996.
June 6, 1996	Soils Delineation Investigation Report filed with scope of work for extended Groundwater Delineation included.
Sept. 26, 1996	Directive received from OCD requiring the full delineation work plan of all contamination at the site including groundwater be submitted for approval.
Oct. 9, 1996	Work Plan for groundwater delineation filed as per the Sept. 26, 1996 OCD directive.
Oct. 15, 1996	Approval of groundwater delineation work plan received from OCD.

- Dec. 11, 1996 KN announces impending closure of plant. Eco-logical submits requests for extension of time and change from Discharge Permit to Closure Plan, with the installation of additional monitor wells.
- Dec. 17, 1996 OCD approves request for extension of time and the additional monitor wells.
- Jan. 14, 1997 Additional groundwater monitoring well installed, and Abatement Plan and Closure Plan Report were submission to OCD as per Dec. 17, 1996 OCD directive.
- Feb. 7, 1997 Phone conference held with OCD, Eco-logical and KN personnel to discuss results of report and proposed work plan.
- Feb. 25, 1997 After review of Abatement Plan and phone conference, OCD issued a directive stating that the existing monitor wells also be tested for the entire suite of 20 NMAC 6.2.3103 constituents excluding uranium, radioactivity and PCB's, and additional wells be installed to define the points of compliance in the groundwater. An update/amendment report to be submitted by May 25, 1997.
- March 13, 1997 Response to Feb. 1997 OCD letter submitted outlining the points to be followed in the extended delineation work plan.
- April 1997 Three additional monitor wells installed and a quarterly sampling and monitoring event occurs.
- May 10, 1997 Submission of updated Abatement Report filed with OCD as per the Feb. 25, 1997 directive.
- June 26, 1997 OCD approves the updated Abatement Report including reducing the testing to BTEX, Napthalene, and Chlorides, and that an annual report be submitted by June 1, 1998.
- July 1997 Quarterly Sampling and Monitoring Event.
- Oct. 1997 Quarterly Sampling and Monitoring Event.

- October 1997 Sump, Cryoskid, Flare Pit, and Compressor soils excavated and stock piled prior to remediation pursuant to the approved Stage 1 Abatement Plan and Site Closure Plan dated January 14, 1997.
- November 1997 Initial Treatment of excavated soils performed.
- January 1998 Quarterly Sampling and Monitoring Event.
- March 1998 Submission of Annual Groundwater Sampling Report to the OCD, with a recommendation to stop testing for Napthalene and discontinue sampling of MW-2, MW-4 and MW-8.
- April 3, 1998 Quarterly Sampling and Monitoring Event.
- June 25, 1998 Quarterly Sampling and Monitoring Event. Impacted stockpiled soil retreated.
- October 2, 1998 Quarterly Sampling and Monitoring Event. Stock piled soil tested below OCD levels.
- November 1998 Backfilling of excavations performed.
- December 1998 OCD contacted by Eco-logical regarding January 1998 Annual Groundwater Report and Reduced Analyses Plan. OCD approved reduced analyses in letter dated December 15, 1998.
- January 1999 Quarterly Sampling and Monitoring Event.
- April 1999 Quarterly Sampling and Monitoring Event.
- July 1999 Quarterly Sampling and Monitoring Event.
- October 1999 Quarterly Sampling and Monitoring Event.
- October 1999 K N Energy, Inc. changed name to Kinder Morgan, Inc. (Parent company of American Processing, L.P.)

III. Maps, Graphs, & Tables











FORMER HOBBS GAS PLANT MW-1 HISTORIC ANALYTICAL RESULTS



## FORMER HOBBS GAS PLANT MW-2 HISTORIC ANALYTICAL RESULTS





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FORMER HOBBS GAS PLANT MW-3 HISTORIC ANALYTICAL RESULTS



FORMER HOBBS GAS PLANT MW-5 HISTORIC ANALYTICAL RESULTS





FORMER HOBBS GAS PLANT MW-6 HISTORIC ANALYTICAL RESULTS





	Table 1 Groundwater Table in Feet Monitor Well 1 Elevation of Screened Interval 436.7-456.7'										
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW/Elev Corrected for PSH					
09/17/96	59.0	495.73		53.10	0.00	442.63					
10/23/96	59.0	495.73		53.34	0.00	442.39					
04/10/97	59.0	495.73		54.32	0.00	441.41					
07/07/97	59.0	495.73		54.64	0.00	441.09					
10/08/97	59.0	495.73		54.98	0.00	440.75					
01/06/98	59.0	495.73		55.28	0.00	440.45					
04/03/98	59.0	495.73		55.60	0.00	440.13					
06/25/98	59.0	495.73		55.87	0.00	439.86					
10/02/98	59.0	495.73		56.36	0.00	439.37					
01/05/99	59.0	495.73		54.98	0.00	440.75					
04/01/99	59.0	495.73		56.89	0.00	438.84					
07/14/99	59.0	495.73		57.39	0.00	438.34					
10/22/99	59.0	495.73		57.74	0.00	437.99					

Table 2 Groundwater Table in Feet Monitor Well 2 Elevation of Screened Interval 440.4-460.4										
Date	TD	TOC Elevation	Depth to P <u>S</u> H	Depth to GW	Product Thickness	GW Elev. Corrected for PSH				
09/17/96			Well No	ot Installed						
10/23/96	62.0	502.41		58.33	0.00	444.08				
04/10/97	62.0	502.41		59.54	0.00	442.87				
07/07/97	62.0	502.41		60.00	0.00	442.41				
10/08/97	62.0	502.41		60.39	0.00	442.02				
01/06/98	62.0	502.41		60.70	0.00	441.71				
04/03/98	62.0	502.41		61.06	0.00	441.35				
06/25/98	62.0	502.41		61.37	0.00	441.04				
10/02/98	62.0	502.41	_	61.91	0.00	440.50				
01/05/99	62.0	502.41		60.39	0.00	442.02				
04/01/99	62.0	502.41		62.28	0.00	440.13				
07/14/99	62.0	502.41		62.28	0.00	440.13				
10/22/99	62.0	502.41		62.31	0.00	440.10				

	Table 3 Groundwater Table in Feet Monitor Well 3 Elevation of Screened Interval 434.2-454.23									
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for: PSH				
09/17/96			Well No	t Installed						
10/23/96	64.9	499.13		56.28	0.00	442.85				
04/10/97	64.9	499.13	-	57.25	0.00	441.88				
07/07/97	64.9	499.13		57.59	0.00	441.54				
10/08/97	64.9	499.13		57.92	0.00	441.21				
01/06/98	64.9	499.13		58.24	0.00	440.89				
04/03/98	64.9	499.13		58.41	0.00	440.89				
06/25/98	64.9	499.13		58.84	0.00	440.29				
10/02/98	64.9	499.13		59.36	0.00	439.77				
01/05/99	64.9	499.13		57.92	0.00	441.21				
04/01/99	64.9	499.13		59.89	0.00	439.24				
07/14/99	64.9	499.13		60.40	0.00	438.73				
10/22/99	64.9	499.13		60.76	0.00	438.37				

	Table 4 Groundwater Table in Feet Monitor Well 4 Elevation of Screened Interval 436.8-456.8										
Date	πD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW/Elev. Corrected for PSH					
09/17/96			Well No	ot installed							
10/23/96	64.3	501.12		58.12	0.00	443.00					
04/10/97	64.3	501.12		58.83	0.00	442.29					
07/07/97	64.3	501.12		59.19	0.00	441.93					
10/08/97	64.3	501.12	***	59.56	0.00	441.56					
01/06/98	64.3	501.12		59.91	0.00	441.21					
04/03/98	64.3	501.12		60.21	0.00	440.91					
06/25/98	64.3	501.12		60.48	0.00	440.64					
10/02/98	64.3	501.12	_	60.97	0.00	440.15					
01/05/99	64.3	501.12		59.56	0.00	441.56					
04/01/99	64.3	501.12		61.57	0.00	439.55					
07/14/99	64.3	501.12		62.03	0.00	439.09					
10/22/99	64.3	501.12		62.37	0.00	438.75					

	Table 5 Groundwater Table in Feet Monitor Well 5 Elevation of Screened Interval 436.3-456.3									
Date	TD.	TOC Elevation	··· Depth to . PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH				
09/17/96			Well No	t installed						
10/23/96	64.5	500.84		58.96	0.00	441.88				
04/10/97	64.5	500.84		59.77	0.00	441.07				
07/07/97	64.5	500.84		60.10	0.00	440.74				
10/08/97	64.5	500.84		60.31	0.00	440.53				
01/06/98	64.5	500.84		60.76	0.00	440.08				
04/03/98	64.5	500.84		61.05	0.00	439.79				
06/25/98	64.5	500.84		61.05	0.00	439.79				
10/02/98	64.5	500.84	-	61.77	0.00	439.07				
01/05/99	64.5	500.84		60.31	0.00	440.53				
04/01/99	64.5	500.84		62.24	0.00	438.60				
07/14/99	64.5	500.84		62.76	0.00	438.08				
10/22/99	64.5	500.84		63.08	0.00	437.76				

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	Table 6 Groundwater Table in Feet Monitor Well 6 Elevation of Screened Interval 433.6-453.6										
Date	TD State	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW/Elev Corrected for PSH					
09/17/96			Well No	ot Installed	25						
10/23/96	62.7	496.27	-	55.53	0.00	440.74					
04/10/97	62.7	496.27		56.28	0.00	439.99					
07/07/97	62.7	496.27		56.58	0.00	439.69					
10/08/97	62.7	496.27		56.88	0.00	439.39					
01/06/98	62.7	496.27		57.23	0.00	439.04					
04/03/98	62.7	496.27	-	57.49	0.00	438.78					
06/25/98	62.7	496.27	-	57.49	0.00	438.78					
10/02/98	62.7	496.27	-	57.17	0.00	438.10					
01/05/99	62.7	496.27		56.88	0.00	439.39					
04/01/99	62.7	496.27		58.52	0.00	437.75					
07/14/99	62.7	496.27		59.08	0.00	437.19					
10/22/99	62.7	496.27		59.36	0.00	436.91					

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	Table 7 Groundwater Table in Feet Monitor Well 7 Elevation of Screened Interval 426.4-446.4									
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH				
10/23/96			Well No	ot installed						
04/10/97	69.0	495.44		57.28	0.00	438.16				
07/07/97	69.0	495.44		57.54	0.00	437.90				
10/08/97	69.0	495.44	-	57.85	0.00	437.59				
01/06/98	69.0	495.44		58.17	0.00	437.27				
04/03/98	69.0	495.44		58.47	0.00	436.97				
06/25/98	69.0	495.44		58.70	0.00	436.74				
10/02/98	69.0	495.44	-	58.99	0.00	436.45				
01/05/99	69.0	495.44		57.85	0.00	437.59				
04/01/99	69.0	495.44		59.36	0.00	436.08				
07/14/99	69.0	495.44		59.84	0.00	435.60				
10/22/99	69.0	495.44		60.14	0.00	435.30				

	Table 8 Groundwater Table in Feet Monitor Well 8 Elevation of Screened Interval 430.9-450.9								
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH			
10/23/96			Well No	ot Installed					
04/10/97	70.9	501.81		60.32	0.00	441.49			
07/07/97	70.9	501.81		60.67	0.00	441.49			
10/08/97	70.9	501.81	-	61.00	0.00	440.81			
01/06/98	70.9	501.81	-	61.35	0.00	440.46			
04/03/98	70.9	501.81		61.61	0.00	440.20			
06/25/98	70.9	501.81		61.87	0.00	439.94			
10/02/98	70.9	501.81		62.27	0.00	439.54			
01/05/99	70.9	501.81		61.00	0.00	440.81			
04/01/99	70.9	501.81		62.79	0.00	439.02			
07/14/99	70.9	501.81		63.19	0.00	438.62			
10/22/99	70.9	501.81		63.51	0.00	438.30			

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	Table 9 Groundwater Table in Feet Monitor Well 9 Elevation of Screened Interval 429.5-449.5									
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH				
10/23/96			Well No	ot Installed						
04/10/97	67.3	496.85		56.29	0.00	440.56				
07/07/97	67.3	496.85		56.66	0.00	440.19				
10/08/97	67.3	496.85		57.00	0.00	439.85				
01/06/98	67.3	496.85		57.38	0.00	439.47				
04/03/98	67.3	496.85		57.67	0.00	439.18				
06/25/98	67.3	496.85		57.95	0.00	438.90				
10/02/98	67.3	496.85		58.34	0.00	438.51				
01/05/99	67.3	496.85		57.00	0.00	439.85				
04/01/99	67.3	496.85		58.73	0.00	438.12				
07/14/99	67.3	496.85		59.31	0.00	437.54				
10/22/99	67.3	496.85		59.61	0.00	437.24				

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	Table 10 Groundwater Table in Feet Monitor Well 10 Elevation of Screened Interval 426.0-446.0										
Date -	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH					
10/23/96			Well No	ot Installed							
04/10/97	66.5	492.46		52.83	0.00	439.63					
07/07/97	66.5	492.46		53.09	0.00	439.37					
10/08/97	66.5	492.46		53.43	0.00	439.03					
01/06/98	66.5	492.46		53.86	0.00	438.60					
04/03/98	66.5	492.46		54.17	0.00	438.29					
06/25/98	66.5	492.46		54.35	0.00	438.11					
10/02/98	66.5	492.46	_	54.76	0.00	437.70					
01/05/99	66.5	492.46		53.43	0.00	439.03					
04/01/99	66.5	492.46		55.04	0.00	437.42					
07/14/99	66.5	492.46		55.59	0.00	436.87					
10/22/99	66.5	492.46		55.94	0.00	436.52					

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Table 11 - MW-1         Historic Groundwater Analytical Results (mg/l)									
Date	B	т	E	X	Phenol	Naphthalene	Chloride		
02/14/96	0.083	<0.001	<0.001	0.008	-	-	_		
02/29/96	<0.001	<0.001	<0.001	<0.001	-				
04/20/96	0,305	<0.001	0.002	0.032	<0.001	0.017	-		
10/23/96	0.352	<0.001	0.026	0.081	0.025	0.01			
04/10/97	0.268	<0.001	0.012	0.034	<0.001	0.007			
07/07/97	0.243	-	1	-	-	0.005	-		
10/08/97	0,180	<0.001	0.012	<0.001	-	.003	<10		
01/06/98	0,138	<0.001	0.008	<0.001	-	0.002	6.2		
04/03/98	0.109	<0.001	0.004	0.006		0.003	51		
06/25/98	0,071	<0.001	0.002	0.003		<0.001	7.3		
10/02/98	0.078	<0.005	<0.005	<0.005		<0.001	14.0		
01/05/99	0.005	<0.001	<0.001	<0.001	-		-		
04/01/99	<0.005	<0.005	<0.005	<0.005	-	-			
07/14/99	<0.005	<0.005	<0.005	<0.005		-	-		
10/22/99	<0.001	<0.001	<0.001	<0.001	-				

Shaded areas indicate over OCD Limits

	Table 12 - MW-2         Historic Groundwater Analytical Results (mg/l)									
Date	В	Т	E	x	Phenol	Naphthalene	Chloride			
10/23/96	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01				
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-			
07/07/97	<0.001	-	-	-	-	-				
10/08/97	<0.001	<0.001	<0.001	<0.001	-	<0.001	19			
01/06/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	27			
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	96			
06/25/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	25.0			
10/02/98	0.002	<0.001	<0.001	<0.001	-	<0.001	-			
01/05/99			Sampling	discontinu	ed as appro	oved by OCD				

Table 13 - MW-3         Historic Groundwater Analytical Results (mg/l)									
Date	в	T.	E	x	Phenol	Naphthalene	Chloride		
10/23/96	0.001	<0.001	<0.001	<0.001	<0.001	<0.01			
04/10/97	0.016	<0.001	<0.001	0.005	<0.001	<0.001			
07/07/97	0.003	-			-		-		
10/08/97	<0.001	<0.001	<0.001	<0.001	-	<0.001	64		
01/06/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	58		
04/03/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	130		
06/25/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	12		
10/02/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	46		
01/05/99	<0.001	<0.001	<0.001	<0.001	-		-		
04/01/99	<0.001	<0.001	<0.001	<0.001	-	-	-		
07/14/99	<0.001	<0.001	<0.001	<0.001			-		
10/22/99	<0.001	<0.001	<0.001	<0.001	_				

Shaded areas indicate over OCD Limits

Table 14 - MW-4         Historic Groundwater Analytical Results (mg/l)									
Date	8	τ.	E	X	Phenol	Naphthalene	Chloride		
10/23/96	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	-		
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-		
07/07/97	<0.001	-	-	-					
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	<10		
01/06/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	10		
04/03/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	58		
06/25/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	11		
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	18		
01/05/99		S	Sampling o	discontinu	ed as appro	oved by OCD			

	Table 15 - MW-5         Historic Groundwater Analytical Results (mg/l)										
Date	В	Ť	E	X	Phenol	Naphthalene	Chloride				
10/23/96	0.135	<0.001	0.006	0.071	<0.001	<0.01	-				
04/10/97	0:043	<0.001	<0.001	0.063	<0.001	0.001					
07/07/97	0.015	-			-	<0.001					
10/08/97	0:050	<0.001	<0.001	<0.001	· <u></u>	0.001	24				
01/06/98	0.031	<0.001	<0.001	0.010		<0.001	27				
04/03/98	0.037	<0.001	0.002	0.019	-	0.001	69				
06/25/98	0.017	<0.001	<0.001	0.006	-	<0.001	23				
10/02/98	0.011	<0.001	<0.001	<0.001		<0.001	87				
01/05/99	0.005	<0.001	<0.001	<0.001			-				
04/01/99	0.003	<0.001	<0.001	<0.001	-						
07/14/99	<0.001	<0.001	<0.001	<0.001			-				
10/22/99	<0.001	<0.001	<0.001	<0.001		and .					

Shaded areas indicate over OCD Limits

Table 16 - MW-6         Historic Groundwater Analytical Results (mg/l)										
Date	B	T	с. ш ()	×	Phenol	Naphthalene	Chloride			
10/23/96	0.192	<0.001	<0.001	0.013	<0.001	<0.01				
04/10/97	0.272	<0.001	<0.001	0.014	<0.001	<0.001	-			
07/07/97	0.106	4		-						
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	30			
01/06/98	0.132	<0.001	<0.001	0.004		<0.001	31			
04/03/98	-0.165	<0.001	<0.001	0.008		<0.001	98			
06/25/98	0.143	<0.001	<0.001	0.009		<0.001	28			
10/02/98	0.157	<0.005	<0.005	0.012		<0.001	31			
01/05/99	0.123	<0.001	<0.001	0.004		-	56			
04/01/99	0.120	<0.001	<0.001	<0.005		-	31			
07/14/99	0.093	<0.005	<0.005	<0.005			34			
10/22/99	0.090	<0.001	<0.001	<0.001			31.5			

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Shaded areas indicate over OCD Limits

Table 17 - MW-7         Historic Groundwater Analytical Results (mg/l)									
Date	в	ана <b>Т</b>	E	×	Phenol	Naphthalene	Chloride		
01/09/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	~		
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-		
07/07/97	<0.001			-					
10/08/97	<0.001	<0.001	<0.001	<0.001	-	<0.001	33		
01/06/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	37		
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	120		
06/25/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	33		
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	36		
01/05/99	<0.001	<0.001	<0.001	<0.001			74		
04/01/99	<0.001	<0.001	<0.001	<0.001	-		36		
07/14/99	<0.001	<0.001	<0.001	<0.001		-	35		
10/22/99	<0.001	<0.001	<0.001	<0.001		-	35.2		

Table 18 - MW-8         Historic Groundwater Analytical Results (mg/l)									
Date	В	Ţ	E	×	Phenol	Naphthalene	Chioride,		
10/23/96				Well No	t Installed				
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
07/07/97	<0.001	-					-		
10/08/97	<0.001	<0.001	<0.001	<0.001	-	<0.001	15		
01/06/98	<0.001	<0.001	<0.001	<0.001		<0.001	27		
04/03/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	160		
06/25/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	26		
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	27		
01/05/99			Sampling (	discontinu	ed as appro	oved by OCD			

Table 19 - MW-9         Historic Groundwater Analytical Results (mg/l)									
Date	. В.	т	E. S	x	Phenol	Naphthalene	Chloride		
10/23/96				Well Not	Installed				
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	320		
07/07/97	<0.001	-	-			-	41		
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	560		
01/06/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	490		
04/03/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	460		
06/25/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	290		
10/02/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	200		
01/05/99	<0.001	<0.001	<0.001	<0.001	-				
04/01/99	<0.001	<0.001	<0.001	<0.001		-	260		
07/14/99	<0.001	<0.001	<0.001	<0.001			284		
10/22/99	<0.001	<0.001	<0.001	<0.001			278		

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Shaded areas indicate over OCD Limits

Table 20 - MW-10         Historic Groundwater Analytical Results (mg/l)									
Date	в	Ť.	E .	X	Phenol	Naphthalene	Chloride		
10/23/96				Well Not li	nstalled				
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
07/07/97	<0.001	-					8.8		
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	110		
01/06/98	<0.001	<0.001	<0.001	<0.001		<0.001	101		
04/03/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	180		
06/25/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	140		
10/02/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	160		
01/05/99	<0.001	<0.001	<0.001	<0.001	-	-	140		
04/01/99	<0.001	<0.001	<0.001	<0.001			128		
07/14/99	<0.001	<0.001	<0.001	<0.001			124		
10/22/99	<0.001	<0.001	<0.001	<0.001			122		

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## IV. Conclusions and Recommendations

The plant operations have ceased at the site and the sources that may have caused the impacts to the groundwater have been removed. In addition, the removed impacted soils have been remediated to meet WQCC Guideline levels and have been returned to the excavations per the Soils Work Plan approved in January 1996. One of the ten monitor wells at the Former Hobbs Gas Plant continues to show dissolved phase hydrocarbons (benzene) at levels above the OCD Guidelines.

- Eleven (11) full quarterly groundwater monitoring and sampling events have been conducted at this site.
- Groundwater has dropped an average of 4.2 feet since the first sampling event of October 1996.
- Dissolved phase hydrocarbons are present above OCD Guidelines in one of the ten monitor wells at the site (MW-6) however, no free-phase hydrocarbons have been observed at the site.
  - One monitor well contains concentrations of benzene above the WQCC Guideline level (MW-6). Benzene levels are generally declining with the highest concentration down-gradient from the source in monitor well MW-6. The property line is 90 feet east of MW-6 and the groundwater flow direction is southeast. Concentrations in the next down-gradient monitor well (located off-site), a distance of 470 feet from MW-6, remains nondetect.
- Xylene concentrations have been below detection limits for the last three sampling events.
  - Soil cleanup objectives of the January 1997 Abatement and Closure plan have been met.

The level of benzene in MW-6 has been above the WQCC Guideline level of 0.01 ppm, but has been declining. Benzene levels in MW-5 have decreased to below action levels during all of the 1999 sampling events. The general trend in the benzene levels over the past four sampling events shows a decrease in benzene concentrations. Elevated chloride levels continue to be present in MW-9 varying slightly above the WQCC Guideline levels and will continue to be monitored. Based on interviews with American Processing personnel no source of the chloride can be placed on former operations of the plant. The source of the chloride is not known and is **not** believed to be from the plant.

Based on historical analytical results, a reduction to semi-annual sampling and monitoring is proposed. Benzene is proposed to be monitored in wells MW-1, MW-3, MW-5 to MW-7, MW-9, and MW-10. Chloride is proposed to be monitored in wells MW-6, MW-7, MW-9, and MW-10. No testing is proposed for MW-2, MW-4, and MW-8 except for water levels at this time as requested in the January 6, 1998 Annual Report and approved by the OCD letter dated December 15, 1998.

## V. Quality Assurance / Quality Control Procedures

Field quality assurance/quality control (QA/QC) measures consisted of equipment decontamination, use of disposable sampling equipment, calibrations of field instruments, ensuring that the samples were analyzed within the EPA holding times, documentation of work activities in a bound logbook, and adherence to strict chain-of-custody protocol. The laboratory QA/QC measures were based on guidance published in the most current edition of the EPA Test Methods for Evaluating Solid Waste SW-846.

Quality Control samples were also obtained to evaluate the data. A trip blank was also analyzed with nondetectable results, suggesting that no cross-contamination occurred during shipment. Cross contamination during sampling was limited due to the use of disposable equipment between wells and gauging and purging of wells from least contaminated to most contaminated. A duplicate sample was obtained from MW-6. A comparison to the original sample of the contaminates that were present reveals results within 1.02% on total BTEX. On a per chemical basis, the total difference occurred on benzene which differed by 1.02%. This duplicate difference does not indicate any errors in the sample collection or testing. The following table presents the QA/QC results for comparison.

Quality Control Samples	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
Trip	<0.001	<0.001	<0.001	<0.001
MW-6	0.090	<0.001	<0.001	0.004
MW-6D (duplicate)	0.092	<0.001	<0.001	0.004

Reported laboratory quality control parameters do not appear to indicate suspect results. No damaged or compromised containers were noted. No unusual relative percent difference (RPD) results were noted.



HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

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November 8, 1999

Mr. Scott Springer ECO-LOGICAL ENVIRONMENT SVCS. 220 Market Street Midland, TX 79703

The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on October 23, 1999. The sample(s) was assigned to Certificate of Analysis No. (s) 9910731 and analyzed for all parameters as listed on the chain of custody.

Any data flags or quality control exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

If you have any questions or comments pertaining to this data report, please do not hesitate to contact me. Please reference the above Certificate of Analysis No. during any inquiries.

Again, SPL is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Southern Petroleum Laboratories

to be alla-

Scot Bramfitt Project Manager


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Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 99-10-731.

Approved for Release by:

Scot Bramfitt, Project Manager

11

Joel Grice Laboratory Director

Ted Yen Quality Assurance Officer

The attached analytical data package may not be reproduced except in full without the express written approval of this laboratory. The results relate only to the samples tested. Results reported on a Wet Weight Basis unless otherwise noted.



\*\*\*\*SUMMARY REPORT\*\*\*\*

11/05/99

HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

-

Company: Site: Project No: Project: Eco-logical Environment Svcs. Hobbs 279-512 KN Hobbs

### ANALYTICAL DATA NOTE: ND - Not Detected

SPL ID MATRIX	CLIENT ID DATE SAMPLED	BENZENE PQL	TOLUENE PQL	ETHYLBENZ. PQL	XYLENE PQL	TPH-IR	TPH-GC	LEAD	MTBE
9910731-01 WATER	MW-1 10/22/99	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L				
9910731-02 WATER	MW-3 10/22/99	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L				
9910731-03 WATER	MW-5 10/22/99	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L				
9910731-04 WATER	MW-6 10/22/99	90 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L				
9910731-05 WATER	MW-7 10/22/99	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L				
9910731-06 WATER	M₩-9 10/22/99	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L				_
9910731-07 Water	MW-10 10/22/99	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L				
9910731-08 WATER	MW-6D 10/22/99	92 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L				

BTEX - Method 8020A \*\*\*

of Brand-i-

SPL, Inc., - Project Manager

ertificate of Analysis No. H9-9910731-01 HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 11/05/99

HOUSTON LABORATORY 8880 INTERCHANGE DRIVE

PROJECT: KN Hobbs	PROJECT NO:	279-512
SITE: Hobbs	MATRIX:	WATER
SAMPLED BY: Eco-logical Environment Svc	s. DATE SAMPLED:	10/22/99
SAMPLE ID: MW-1	DATE RECEIVED:	10/23/99

ANALYTICAL	DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1.0 P	ug/L
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	107		
Method 8020A ***			
Analyzed by: DR			
Date: 11/04/99			

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

ertificate of Analysis No. H9-9910731-02

HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 11/05/99

PROJECT: KN Hobbs	PROJECT NO:	279-512
SITE: Hobbs	MATRIX:	WATER
SAMPLED BY: Eco-logical Environment Svcs.	DATE SAMPLED:	10/22/99
SAMPLE ID: MW-3	DATE RECEIVED:	10/23/99

ANALYTICAL	DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1.0 P	ug/L
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	93		
Method 8020A ***			
Analyzed by: DR			
Date: 11/04/99			

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed. © HOUSTON. TEXAS 77054 PHONE (713) 660-0901 PHONE (713) 660-0901

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 11/05/99

HOUSTON LABORATORY 8880 INTERCHANGE DRIVE

PROJECT: KN Hobbs	PROJECT NO:	279-512
SITE: Hobbs	MATRIX:	WATER
SAMPLED BY: Eco-logical Environment Svcs.	DATE SAMPLED:	10/22/99
SAMPLE ID: MW-5	DATE RECEIVED:	10/23/99

ANALYTICAL	DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1.0 P	ug/L
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	97		
Method 8020A ***			
Analyzed by: DR			
Date: 11/04/99		<u></u>	

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Certificate of Analysis No. H9-9910731-04

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 11/05/99

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PROJECT: KN Hobbs	PROJECT NO:	279-512
SITE: Hobbs	MATRIX:	WATER
SAMPLED BY: Eco-logical Environment Svc	s. DATE SAMPLED:	10/22/99
SAMPLE ID: MW-6	DATE RECEIVED:	10/23/99

	ANALYTICAL DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	90	1.0 P	ug/L
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC H	IYDROCARBONS 90		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	113		
4-Bromofluorobenzene	100		
Method 8020A ***	~		
Analyzed by: DR			
Date: 11/04/99			
Chloride	31.5	1.0	mg/L
Method 325.3 *			-
Analyzed by: CV			
Date: 11/02/99 15:	30:00		-

(P) - Practical Quantitation Limit ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

ertificate of Analysis No. H9-9910731-05

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 11/05/99

PROJECT: KN Hobbs	PROJECT NO:	279-512
SITE: Hobbs	MATRIX:	WATER
SAMPLED BY: Eco-logical Environment Svcs.	DATE SAMPLED:	10/22/99
SAMPLE ID: MW-7	DATE RECEIVED:	10/23/99

ANALYTICAL	DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE TOLUENE ETHYLBENZENE TOTAL XYLENE TOTAL VOLATILE AROMATIC HYDROCARBONS	ND ND ND ND	1.0 P 1.0 P 1.0 P 1.0 P 1.0 P	ug/L ug/L ug/L ug/L ug/L
Surrogate 1,4-Difluorobenzene 4-Bromofluorobenzene Method 8020A *** Analyzed by: DR Date: 11/04/99	<b>% Recovery</b> 97 97		
Chloride Method 325.3 * Analyzed by: CV Date: 11/02/99 15:30:00	35.2	1.0	mg/L
ND - Not detected.	(P) - Practical	Ouantitation	Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Practical Quantitation Limit



HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054

ertificate of Analysis No. H9-9910731-06

PHONE (713) 660-0901

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 11/05/99

PROJECT: KN Hobbs	PROJECT NO:	279-512
SITE: Hobbs	MATRIX:	WATER
SAMPLED BY: Eco-logical Environment Svcs.	DATE SAMPLED:	10/22/99
SAMPLE ID: MW-9	DATE RECEIVED:	10/23/99

ANALYTICA	L DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1.0 P	uq/I
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	uq/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBON	S ND		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	103		
4-Bromofluorobenzene	103		
Method 8020A ***			
Analyzed by: DR			
Date: 11/04/99	:		
Chloride	278	5	ma/L
Method 325.3 *		-	- J/ -
Analyzed by: CV			
Date: 11/02/99 15:30:00			•
ND - Not detected.	(P) - Practical	Ouantitation	Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA

\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

(P) - Practical Quantitation Limit



ertificate of Analysis No. H9-9910731-07

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 11/05/99

PROJECT: KN Hobbs	PROJECT NO:	279-512
SITE: Hobbs	MATRIX:	WATER
SAMPLED BY: Eco-logical Environment Svcs.	DATE SAMPLED:	10/22/99
SAMPLE ID: MW-10	DATE RECEIVED:	10/23/99

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1.0 P	ug/L
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	103		
4-Bromofluorobenzene	103		
Method 8020A ***			
Analyzed by: DR			
Date: 11/05/99			
Chloride	122	2	mq/L
Method 325.3 *			<u> </u>
Analyzed by: CV			-
Date: 11/02/99 15:30:00			·······

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.



ertificate of Analysis No. H9-9910731-08

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 11/05/99

PROJECT: KN	Hobbs			PROJECT NO:	279-512
SITE: Hobbs				MATRIX:	WATER
SAMPLED BY:	Eco-logical	Environment	Svcs.	DATE SAMPLED:	10/22/99
SAMPLE ID: M	IW-6D			DATE RECEIVED:	10/23/99

A	ALYTICAL DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	92	1.0 P	ug/L
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYD	OCARBONS 92		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	113		-
4-Bromofluorobenzene	100		
Method 8020A ***			
Analyzed by: DR			
Date: 11/05/99			

(P) - Practical Quantitation Limit ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.



#### HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Batch Id: VARE991103221900

Units: ug/L

LABORATORY CONTROL SAMPLE

SPIKE	Method	Spike	Blank	Spike	QC Limits(**)
COMPOUNDS	Blank Result	Added	Result	Recovery	(Mandatory)
	<2>	<3>	<1>	<b>%</b>	<pre>% Recovery Range</pre>
Benzene	ND	50	55	110	61 - 119
Toluene	ND	50	55	110	65 - 125
EthylBenzene	ND	50	54	108	70 - 118
O Xylene	ND	50	47	94.0	72 - 117
M & P Xylene	ND	100	100	100	72 - 116

### MATRIX SPIKES

Sample Results	Spike Added	Matrix	Spike	Matrix Duplic	Spike	MS/MSD Relative %	QC I	Limits(***) (Advisory)
		Result	Recovery	Result	Recovery	Difference	RPD	
<2>	<3>	<1>	<4>	<1>	<5>		Max.	Recovery Range
ND	20	22	110	16	80.0	31.6 *	21	32 - 164
ND	20	22	110	14	70.0	44.4 *	20	38 - 159
ND	20	19	95.0	13	65.0	37.5 *	19	.52 - 142
ND	20	19	95.0	13	65.0	37.5 *	18	53 - 143
ND	40	39	97.5	27	67.5	36.4 *	17	53 - 144
	Sample Results <2> ND ND ND ND	Sample Spike Results Added <2> <3> ND 200 ND 200 ND 200 ND 200 ND 200 ND 40	Sample ResultsSpike AddedMatrix Result<2><3><1>ND2022ND2022ND2019ND2019ND4039	Sample ResultsSpike AddedMatrixSpike spike<2><3>Result <1>Recovery <4>ND2022110ND2022110ND201995.0ND201995.0ND403997.5	Sample ResultsSpike AddedMatrixSpike SpikeMatrix Duplic Result<2><3>ResultRecovery <1>Result<2><3><1><1>ND202211016ND202211014ND201995.013ND201995.013ND403997.527	Sample ResultsSpike AddedMatrixSpike SpikeMatrixSpike Dublicate <2><3>Result <1>Recovery <4>Result <1>Recovery <5>ND20221101680.0ND20221101470.0ND201995.01365.0ND201995.01365.0ND403997.52767.5	Sample ResultsSpikeMatrixSpikeMatrixSpikeMs/MSD Relative % Dublicate<2><3>ResultRecoveryResultRecoveryResultRelative % Difference<2><3><1><4>><1><1><1><1>ND202211011680.031.6 *<1	Sample ResultsSpikeMatrixSpikeMatrixSpikeMS/MSDQC 1 Relative 3AddedAddedResultRecoveryResultRecoveryResultRecoveryReferenceRPD<2><3><1><4>101680.031.6 *21ND202211011680.031.6 *21ND202211011470.044.4 *20ND201995.011365.037.5 *19ND201997.52767.536.4 *17

\* = Values outside QC Range due to Matrix Interference (except RPD)

« = Data outside Method Specification limits.
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [( <1> - <2> ) / <3> ] x 100

LCS % Recovery = (<1> / <3> ) x 100

Relative Percent Difference = |(<4> - <5> | / [(<4> + <5> ) x 0.5] x 100

(\*\*) = Source: SPL-Houston Historical Data (1st Q '97)

(\*\*\*) = Source: SPL-Houston Historical Data (1st Q '97)

SAMPLES IN BATCH (SPL ID) :

Sequence Date: 11/03/99

Method Blank File ID:

Sample File ID: E\_K1120.TX0

Blank Spike File ID: E\_K1111.TX0

Matrix Spike File ID: E\_K1114.TX0

Matrix Spike Duplicate File ID: E K1115.TX0

SPL ID of sample spiked: 9910731-02A

Analyst: DR

9910731-03A 9910731-04A 9910731-06A 9910731-02A 9910731-05A 9910731-01A



Batch Id: VARE991105094600

Units: ug/L

LABORATORY CONTROL SAMPLE

SPIKE	Method	Spike	Blank Spike		QC Limits(**)		
СОМРОИМДS	Blank Result <2>	Added <3>	Result <1>	Recovery %	(Mandatory) % Recovery Range		
Benzene	ND	50	56	112	61 - 119		
Toluene	ND	50	54	108	65 - 125		
EthylBenzene	ND	50	52	104	70 - 118		
O Xylene	ND	50	46	92.0	72 - 117		
M & P Xylene	ND	100	100	100	72 - 116		

### MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results	Spike Added	Matrix	Spike	Matrix Duplic	Spike	MS/MSD Relative %	QC I	Limits(***) (Advisory)
	<2>	<3>	Result <1>	Recovery <4>	Result <l></l>	Recovery <5>	Difference	RPD Max.	Recovery Range
BENZENE	ND	50	52	104	52	104	0	21	32 - 164
TOLUENE	ND	50	51	. 102	51	102	0	20	. 38 - 159
ETHYLBENZENE	ND	50	46	92.0	48	96.0	4.26.	19	52 - 142
O XYLENE	ND	50	43	86.0	49	98.0	13.0	18	53 - 143
M & P XYLENE	ND	100	. 91	91.0	97	97.0	6.38	17	53 - 144

Analyst: DR Sequence Date: 11/05/99 SPL ID of sample spiked: 99110051-01 Sample File ID: E\_K1179.TX0 Method Blank File ID: E\_K1170.TX0 Matrix Spike File ID: E\_K1061A.TX0 Matrix Spike Duplicate File ID: E\_K1062A.TX0 \* = Values outside QC Range due to Matrix Interference (except RPD)

« = Data outside Method Specification limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = {( <1> - <2> ) / <3> ] x 100

LCS % Recovery = (<1> / <3> ) x 100

Relative Percent Difference = | (<4> - <5> | / [(<4> + <5> ) x 0.5] x 100

(\*\*) = Source: SPL-Houston Historical Data (1st Q '97)

(\*\*\*) = Source: SPL-Houston Historical Data (1st Q '97)

SAMPLES IN BATCH (SPL ID) :

9910809-15A 9910731-08A 9910731-07A 9910809-17A 9910809-16A



\*\* SPL QUALITY CONTROL REPORT \*\*

Matrix: Aqueous

Reported	on:	11/04/99
Analyzed	on:	11/02/99
Analyst:		CV

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Chloride Method 325.3 \*

SPL Sample ID Number	Sample Blank I Number Value Cor mg/L m		Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	128	125.8	98.3	94 - 106

-9911066

Samples in batch:

9910731-04B 9910731-05B 9910731-06B 9910731-07B

COMMENTS:

LCS-SPL ID#991136006-14 99100397-11A WAS USED FOR QA/QC ONLY



### \*\* SPL QUALITY CONTROL REPORT \*\*

Matrix: Aqueous

Reported on:11/04/99Analyzed on:11/02/99Analyst:CV

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

### Chloride Method 325.3 \*

SPL Sample	Method	Sample	Spike	Matrix Spike		Matrix Spike Duplicate		RPD	QC LIMITS (Advisory)	
ID Number	Blank mg/L	Result mg/L	Added mg/L	Result mg/L	Recovery %	Result mg/L	Recovery %	(%)	RPD Max	% REC
99100397-11E	ND	2221	2500	4719	99.9	4626	96.2	3.8	5	92 -109

-9911066

Samples in batch:

9910731-048 9910731-058 9910731-068 9910731-07B

COMMENTS:

LCS-SPL ID#991136006-14 99100397-11A WAS USED FOR QA/QC ONLY

## CHAIN OF CUSTODY

## AND

## SAMPLE RECEIPT CHECKLIST

# SPL Houston Environmental Laboratory

# Sample Login Checklist

Name:

Dat	te: Time: 10-73-99 /	000		
SPI	_ Sample ID:			
	9910731			
			Yes	<u>No</u>
1	Chain-of-Custody (COC) form is pro	esent.		
2	COC is properly completed.			
3	If no, Non-Conformance Worksheet	has been completed.		
4	Custody seals are present on the shi	pping container.		
5	If yes, custody seals are intact.			
6	All samples are tagged or labeled.			
7	If no, Non-Conformance Worksheet	has been completed.		
8	Sample containers arrived intact			-
9	Temperature of samples upon arriva	1:	3	С
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	8143720	15 8495
		Other:		
11	Method of sample disposal:	SPL Disposal		
		HOLD		
		Return to Client		

Date:

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Requested TAT       Special Reporting Requirements       Fax Results       Raw Data       Special Detection Limits (specify):       Temp:       C         Ihr       72hr       1       Standard & Level 3 & Level 3 & Level 3 & Level 4 & Level 4 & C       1       Level 4 & C       1       PM review (initial):         Ihr       3: Relinquished by       Sampler:       2       Level 4 & C       1       Level 4 & C       1       Secial Detection Limits (specify):       FM review (initial):         Ihr       3: Relinquished by:       2       Level 4 & C       1       Level 4 & C       1       Secial Detection Limits (specify):       FM review (initial):         Ihr       3: Relinquished by:       1       2       Received by:       1       2       Received by:       1       Secial Detection Limits (specify):       FM review (initial):       Secial Detection Limits (specify):       1       Secial Detection Limits (specify):       FM review (initial):       Secial Detection Limits (specify):       Secial Detection Limits (specify): <td>Requested TAT       Special Reporting Requirements       Fax Results       Raw Data       Special Detection Limits (specify):       Temp:       C         hr       1       72hr       1       I.Relinquished by Sampler:       1       2       Rocial Detection Limits (specify):       PM review (initial):         hr       1       72hr       1       I.Relinquished by Sampler:       2       2       Rocial Detection Limits (specify):       PM review (initial):         hr       2       2       0       0       1       6       2       8       5         hr       3       Relinquished by:       2       2       0       0       1       5       <t< td=""><td>Consultant Remarks:</td><td></td><td></td><td></td><td><b>[</b>]</td><td>boratory</td><td>remark</td><td>:5</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Int</td><td>ad? [</td><td></td><td>z</td></t<></td>	Requested TAT       Special Reporting Requirements       Fax Results       Raw Data       Special Detection Limits (specify):       Temp:       C         hr       1       72hr       1       I.Relinquished by Sampler:       1       2       Rocial Detection Limits (specify):       PM review (initial):         hr       1       72hr       1       I.Relinquished by Sampler:       2       2       Rocial Detection Limits (specify):       PM review (initial):         hr       2       2       0       0       1       6       2       8       5         hr       3       Relinquished by:       2       2       0       0       1       5 <t< td=""><td>Consultant Remarks:</td><td></td><td></td><td></td><td><b>[</b>]</td><td>boratory</td><td>remark</td><td>:5</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Int</td><td>ad? [</td><td></td><td>z</td></t<>	Consultant Remarks:				<b>[</b> ]	boratory	remark	:5							Int	ad? [		z
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hr $12hr$ $1$ Relinquished by Sampler: $1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -$	hr     72hr     1. Relinquished by Sampler.     Lovel 3 @C     Lovel 4 &C     Lovel 4 &C	Requested TAT	Special Keport	manula Kequireme	uts	Fax Resu	lts (		Raw Dat		Special	Detectik	n Limits	(specify)			ž V	view (initi	
Ihr     72hr     1. Reclinquished by Sampler:       And 2. Received by:     2. Received by:       And 3. Relinquished by:     3. Relinquished by:       And 1     3. Relinquished by:       And 1     4. Received by:	Ibr     72hr     1. Relinquished by Sampler:       Bhr     3. Relinquished by:     3. Relinquished by:       Arc     16.30     1. Received by:       Bhr     3. Relinquished by:     446       Arc     0. Received by:       Bhr     0. Received by	(	Sta	ndand QC		Level 3 (	- ×		Level 4 (								)	23	
hr Candard D 3. Relinquished by: / date date time 4. Received by: / S. Relinquished by: / date date date date 0. Repeated by Laborationy: / / / / / / / / / / / / / / / / / / /	hr     Standard     3. Relinquished by:     date     date     time     4. Received by:       her     .     .     .     .     .     .       her     .     .     .     .     .       10     .     .     .     .       8880 Interchange Drive, Houston, TX 77054 (713) 660-0901     .     .     .		1. Relinguishe	d by Sampler.		(			J J C J J J C	99499	ltime 16,	30	2. Rocci	red by:					
her	her     5. Relinquished by:     6. Received by Labordioy:       8880 Interchange Drive, Houston, TX 77054 (713) 660-0901     500 Ambassador Caffery Parkway, Scott, LA 70583 (318) 237.4775	Shr 🔲 Standard ຝ	3. Relinquishe	d by:					date		time		4. Rocci	in par					
	8880 Interchange Drive, Houston, TX 77054 (713) 660-0901 December 200 Ambassador Caffery Parkway, Scott, LA 70583 (318) 237-4775	her []	5. Relinquishe	d by:					date 10-0	3-99	time 100	2	6. Ripci		-		$\mathbb{R}$		

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July 28, 1999

Mr. Scott Springer ECO-LOGICAL ENVIRONMENT SVCS. 220 Market Street Midland, TX 79703

The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on July 15, 1999. The sample(s) was assigned to Certificate of Analysis No. (s) 9907506 and analyzed for all parameters as listed on the chain of custody.

Upon receiving your samples there was an extra sample received that was not on the chain of custody (MW-6D). Therefore we ran BTEX on that extra sample.

Any data flags or quality control exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

If you have any questions or comments pertaining to this data report, please do not hesitate to contact me. Please reference the above Certificate of Analysis No. during any inquiries.

Again, SPL is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Southern Petroleum Laboratories

Electa Brown Project Manager





Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 99-07-506

Approved for Release by:

Electa Brown, Project Manager

Joel Grice Laboratory Director

Ted Yen Corporate Quality Assurance Director

The attached analytical data package may not be reproduced except in full without the express written approval of this laboratory. The results relate only to the samples tested. Results reported on a Wet Weight Basis unless otherwise noted.



\*\*\*\*SUMMARY REPORT\*\*\*\*\*

07/28/99

HOUSTON LABORATORY 8860 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Company: I Site: I Project No: 2 Project: I

Eco-logical Environment Svcs. Hobbs 279-512 KN Hobbs

### ANALYTICAL DATA NOTE: ND - Not Detected

SPL ID MATRIX	CLIENT ID DATE SAMPLED	BENZENE PQL	TOLUENE PQL	ETHYLBENZ. PQL	XYLENE PQL	TPH-IR	TPH-GC	LEAD	MTBE
9907506-01 Water	MW-1 07/14/99 12:30:00	ND 5.0ug/L	ND 5.0ug/L	ND 5.0ug/L	ND 5.0ug/L				
9907506-02 WATER	MW-3 07/14/99 12:00:00	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L				
9907506-03 WATER	MW-5 07/14/99 12:45:00	ND 5.0ug/L	ND 5.0ug/L	ND 5.0ug/L	ND 5.0ug/L			1	
9907506-04 Water	MW-6 07/14/99 13:00:00	93 5.0ug/L	ND 5.0ug/L	ND 5.0ug/L	ND 5.0ug/L				
9907506-05 Water	MW-7 07/14/99 12:05:00	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L				
9907506-06 Water	MW-9 07/14/99 12:15:00	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L				-
9907506-07 Water	MW-10 07/14/99 10:10:00	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L				
9907506-08 Water	MW-6D 07/14/99	100 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L	ND 1.0ug/L				

BTEX - METHOD 5030/8020 \*\*\*

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SPL, Inc., - Project Manager



Certificate of Analysis No. H9-9907506-01

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 07/28/99

PROJECT: KN Hobbs
SITE: Hobbs
SAMPLED BY: Eco-logical Environmental
SAMPLE ID: MW-1

PROJECT NO:	279-512	
MATRIX:	WATER	
DATE SAMPLED:	07/14/99	12:30:00
DATE RECEIVED:	07/15/99	

	ANALYTICAL DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	5.0 P	ug/L
TOLUENE	ND	5.0 P	ug/L
ETHYLBENZENE	ND	5.0 P	ug/L
TOTAL XYLENE	ND	5.0 P	ug/L
TOTAL BTEX	ND		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	93		
METHOD 5030/8020 ***			
Analyzed by: WLR			•
Date: 07/17/99			

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.



Certificate of Analysis No. H9-9907506-02

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 07/28/99

<b>PROJECT:</b> KN	Hobbs	
SITE: Hobbs		
SAMPLED BY:	Eco-logical	Environmental
SAMPLE ID: 1	MM - 3	

PROJECT NO:	279-512	
MATRIX:	WATER	
DATE SAMPLED:	07/14/99	12:00:00
DATE RECEIVED:	07/15/99	

	ANALYTICAL DATA		
PARAMETER	RESU	ILTS DETE LIMI	CTION UNITS T
BENZENE		ND 1.0	P ug/L
TOLUENE		ND 1.0	P ug/L
ETHYLBENZENE		ND 1.0	P ug/L
TOTAL XYLENE		ND 1.0	P ug/L
TOTAL BTEX		ND	ug/L
Surrogate	% Recov	rery	
1,4-Difluorobenzene		100	
4-Bromofluorobenzene METHOD 5030/8020 *** Analyzed by: WLR		90	
Date: 07/17/99			

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.



Certificate of Analysis No. H9-9907506-03

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 07/28/99

**PROJECT:** KN Hobbs **SITE:** Hobbs **SAMPLED BY:** Eco-logical Environmental **SAMPLE ID:** MW-5

PROJECT NO:	279-512	
MATRIX:	WATER	
DATE SAMPLED:	07/14/99	12:45:00
DATE RECEIVED:	07/15/99	

	ANALYTICAL DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	5.0 P	ug/L
TOLUENE	ND	5.0 P	ug/L
ETHYLBENZENE	. ND	5.0 P	ug/L
TOTAL XYLENE	ND	5.0 P	ug/L
TOTAL BTEX	ND		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	93		
METHOD 5030/8020 ***			
Analyzed by: WLR			
Date: 07/17/99			

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.



Certificate of Analysis No. H9-9907506-04

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 07/28/99

PROJECT: KN Hobbs	PROJECT NO:	279-512	
SITE: Hobbs	MATRIX:	WATER	
SAMPLED BY: Eco-logical Environmental	DATE SAMPLED:	07/14/99	13:00:00
SAMPLE ID: MW-6	DATE RECEIVED:	07/15/99	

	ANALYTICAL DATA		
PARAMETER	RESULTS	5 DETECTION LIMIT	UNITS
BENZENE	93	3 5.0 P	ug/L
TOLUENE	NI	) 5.0 P	ug/L
ETHYLBENZENE	NI	D 5.0 P	ug/L
TOTAL XYLENE	· NI	D 5.0 P	ug/L
TOTAL BTEX	93	3	ug/L
Surrogate	% Recovery	7	_
1,4-Difluorobenzene	100	)	
4-Bromofluorobenzene	93	3	
METHOD 5030/8020 ***			
Analyzed by: WLR			
Date: 07/20/99			
Chloride	34	1	mg/L
Method 325.3 *			
Analyzed by: CV			-
Date: 07/27/99 17:	00:00		

(P) - Practical Quantitation Limit ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.



Certificate of Analysis No. H9-9907506-05

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 07/28/99

PROJECT: KN Hobbs
SITE: Hobbs
SAMPLED BY: Eco-logical Environmental
SAMPLE ID: MW-7

PROJECT NO:	279-512	
MATRIX:	WATER	
DATE SAMPLED:	07/14/99	12:05:00
DATE RECEIVED:	07/15/99	

	ANALYTICAL DATA			
PARAMETER	RE	SULTS	DETECTION	UNITS
		ND	LIMIT	
BENZENE		ND	1.0 P	ug/L
IOLUENE Emiliki denkerne		ND	1.0 P	ug/L
EIHILBENZENE Bombi wurding		ND	1.0 P	ug/L
TOTAL XYLENE		ND	1.0 P	ug/L
TOTAL BTEX		ND		ug/L
Surrogate	e Poo			
1 4 Difluorobonzono	5 REC			
1,4-Dilluorobenzene 4 Dromofluorobenzene		100		
		97		
MEIHOD 5030/8020				
Analyzed by: WLR				
Date: 07/20/99				
Chloride		35	1	ma /T.
Method $325 3 *$		55	Т.	шдуш
Analyzed by: CV				-
Date: $07/27/99$ 17.	00.00			
Date: 07/27/99 17:				

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.



Certificate of Analysis No. H9-9907506-06

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 07/28/99

PROJECT: KN	Hobbs	
SITE: Hobbs		
SAMPLED BY:	Eco-logical	Environmental
SAMPLE ID: 1	MW-9	

PROJECT NO:	279-512	
MATRIX:	WATER	
DATE SAMPLED:	07/14/99	12:15:00
DATE RECEIVED:	07/15/99	

	ANALYTICAL DA	TA		
PARAMETER		RESULTS	DETECTION LIMIT	UNITS
BENZENE		ND	1.0 P	ug/L
TOLUENE		ND	1.0 P	ug/L
ETHYLBENZENE		ND	1.0 P	ug/L
TOTAL XYLENE		ND	1.0 P	ug/L
TOTAL BTEX		ND		ug/L
Surrogate		% Recovery		
1,4-Difluorobenzene		100		
4-Bromofluorobenzene		93		
Applyzod by, MIR				
Date: 07/20/99				
Date: 07720755				
Chloride		284	5	mg/L
Method 325.3 *				-
Analyzed by: CV				-
Date: 07/27/99 17:	00:00			

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.



Certificate of Analysis No. H9-9907506-07

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 07/28/99

<b>PROJECT:</b> KN	Hobbs	
SITE: Hobbs		
SAMPLED BY:	Eco-logical	Environmental
SAMPLE ID: N	MW-10	

PROJECT NO:	279-512	
MATRIX:	WATER	
DATE SAMPLED:	07/14/99	10:10:00
DATE RECEIVED:	07/15/99	

	ANALYTICAL DAT.	A		
PARAMETER		RESULTS	DETECTION LIMIT	UNITS
BENZENE		ND	1.0 P	ug/L
TOLUENE		ND	1.0 P	ug/L
ETHYLBENZENE		ND	1.0 P	ug/L
TOTAL XYLENE		ND	1.0 P	ug/L
TOTAL BTEX		ND		ug/L
Surrogate	ጽ	Recoverv		
1,4-Difluorobenzene	•	100		
4-Bromofluorobenzene		93		
METHOD 5030/8020 ***				
Analyzed by: WLR				
Date: 07/21/99				
Chloride		124	2	mg/T
Method $325.3$ *		144	2	шg/ ц
Analyzed by: CV				
Date: 07/27/99 17:	00:00			

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.



Certificate of Analysis No. H9-9907506-08

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 07/28/99

PROJECT: KN Hobbs SITE: Hobbs SAMPLED BY: Eco-logical Environmental SAMPLE ID: MW-6D

PROJECT NO:	279-512
MATRIX:	WATER
DATE SAMPLED:	07/14/99
DATE RECEIVED:	07/15/99

	ANALYTICAL DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	100	1.0 P	ug/L
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL BTEX	100		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	110		
4-Bromofluorobenzene	97		
METHOD 5030/8020 ***			
Analyzed by: WLR			
Date: 07/21/99			

(P) - Practical Quantitation Limit ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

# QUALITY CONTROL

## DOCUMENTATION

E



HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

ug/L

Units:

Batch Id: HP\_U990716081201

ь	А	в	0	к	А	т	0	R	Y	C	υ	N	т	ĸ	υ	ь	S	А	M	Р	ь	ь
_																	_	_		_		-

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	100	97	97.0	72 - 128
Benzene	ND	100	99	99.0	61 - 119
Toluene	ND	100	97	97.0	65 - 125
EthylBenzene	ND	100	95	95.0	70 - 118
O Xylene	ND	100	100	100	72 - 117
M & P Xylene	ND	200	190	95.0	72 - 116

### MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results	Spike Added	Matrix	Spike	Matrix Spike Duplicate		MS/MSD Relative %	QC Limits(***) (Advisory)						
	<2>	<3>	Result <1>	Recovery <4>	Result <1>	Recovery <5>	Difference	RPD Max.	Recovery Range					
мтве	ND	100	99	99.0	98	98.0	1.02	20	39 - 150					
BENZENE	ND	100	100	100	98	98.0	2.02	21	32 - 164					
TOLUENE	ND	100	100	100	98	98.0	2.02	20	38 - 159					
ETHYLBENZENE	ND	100	99	99.0	98	98.0	1.02	19	52 - 142					
O XYLENE	ND	100	100	100	99	99.0	1.01	18	53 - 143					
M & P XYLENE	ND	200	200	100	200	100	0	17	53 - 144					

Analyst: WLR Sequence Date: 07/16/99 SPL ID of sample spiked: 9907473-05B Sample File ID: U\_G2181.TX0 Method Blank File ID: Blank Spike File ID: U\_G2166.TX0 Matrix Spike File ID: U\_G2177.TX0 Matrix Spike Duplicate File ID: U\_G2178.TX0

SAMPLES IN BATCH(SPL ID):

\* = Values outside QC Range due to Matrix Interference (except RPD) « = Data outside Method Specification limits. NC = Not Calculated (Sample exceeds spike by factor of 4 or more) ND = Not Detected/Below Detection Limit % Recovery = [( <1> - <2> ) / <3> ] x 100 LCS  $\text{Recovery} = (<1> / <3> ) \times 100$ Relative Percent Difference = | (<4> - <5> | / [(<4> + <5> ) x 0.5] x 100 (\*\*) = Source: SPL-Houston Historical Data (1st Q '97)

(\*\*\*) = Source: SPL-Houston Historical Data (1st Q '97)

9907506-01A 9907506-02A 9907506-03A 9907400-02A 9907400-01A 9907400-02A



HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Matrix: ug/L

Units:

Batch Id: HP\_U990720105601

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery %	_ QC Limits(**) (Mandatory) % Recovery Range							
Benzene	ND	100	96	96.0	61 - 119							
Toluene	ND	100	96	96.0	65 - 125							
EthylBenzene	ND	100	98	98.0	70 - 118							
O Xylene	ND	100	97	97.0	72 - 117							
M & P Xylene	ND	200	200	100	72 - 116							

### LABORATORY CONTROL SAMPLE

### MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results	Spike Added	Matrix	Spike	Matrix Dupli	Spike	MS/MSD Relative %	QC Limits(***) (Advisory)				
			Result	Recovery	Result	Recovery	Difference	RPD				
	<2>	<3>	<1>	<4>	<1>	<5>		Max.	Recovery Range			
BENZENE	ND	100	110	110	110	110	O	21	32 - 164			
TOLUENE	ND	100	110	110	110	110	0	_ 20	38 - 159			
ETHYLBENZENE	ND	100	120	120	110	110	8.70	19	52 - 142			
O XYLENE	ND	100	110	110	110	110	0	18	53 - 143			
M & P XYLENE	ND	200	230	115	220	110	4.44	17	53 - 144			

Analyst: WLR Sequence Date: 07/20/99 SPL ID of sample spiked: 9907585-01A Sample File ID: U\_G3040.TX0 Method Blank File ID: Blank Spike File ID: U\_G3033.TX0 Matrix Spike File ID: U\_G3035.TX0 Matrix Spike Duplicate File ID: U G3036.TX0 \* = Values outside QC Range due to Matrix Interference (except RPD)

« = Data outside Method Specification limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [( <1> - <2> ) / <3> ] x 100

LCS % Recovery = (<1> / <3> ) x 100

Relative Percent Difference = | (<4> - <5> | / [(<4> + <5> ) x 0.5] x 100

(\*\*) = Source: SPL-Houston Historical Data (1st Q '97)

(\*\*\*) = Source: SPL-Houston Historical Data (1st Q '97)

SAMPLES IN BATCH (SPL ID) :

9907506-06A 9907506-04A 9907506-05A



HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

ug/L

Units:

Batch Id: HP\_U990721084500

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	100	100	100	72 - 128
Benzene	ND	100	96	96.0	61 - 119
Toluene	ND	100	95	95.0	65 - 125
EthylBenzene	ND	100	96	96.0	70 - 118
O Xylene	ND	100	97	97.0	72 - 117
M & P Xylene	ND	200	190	95.0	72 - 116

### LABORATORY CONTROL SAMPLE

MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results	Spike Added	Matrix	Spike	Matrix Duplie	Spike	MS/MSD Relative %	QC Limits(***) (Advisory)					
	<2>	<3>	Result <1>	Recovery <4>	Result <1>	Recovery <5>	Difference	RPD Max.	Recovery Range				
МТВЕ	ND	100	130	130	130	130	0	20	39 - 150				
BENZENE	3.1	100	120	117	120	117	0	21	32 - 164				
TOLUENE	1.1	100	120	119	120	119	0	20	38 - 159				
ETHYLBENZENE	ND	100	120	120	120	120	0	19	52 - 142				
O XYLENE	2.7	100	120	117	· 120	117	0	18	53 - 143				
M & P XYLENE	1.3	200	250	124	240	119	4.12	17	53 - 144				

9907594-03A 9907594-04A 9907594-09A 9907589-05A

9907589-01A

Analyst: WLR Sequence Date: 07/21/99 SPL ID of sample spiked: 9907585-02A Sample File ID: U\_G3081.TX0 Method Blank File ID: Blank Spike File ID: U\_G3067.TX0 Matrix Spike File ID: U\_G3077.TX0 Matrix Spike Duplicate File ID: U\_G3078.TX0

SAMPLES IN BATCH (SPL ID) :

\* = Values outside QC Range due to Matrix Interference (except RPD) « = Data outside Method Specification limits. NC = Not Calculated (Sample exceeds spike by factor of 4 or more) ND = Not Detected/Below Detection Limit % Recovery = [( <1> - <2> ) / <3> ] x 100 LCS % Recovery =  $(<1> / <3>) \times 100$ Relative Percent Difference = | (<4> - <5> | / [(<4> + <5> ) x 0.5] x 100 (\*\*) = Source: SPL-Houston Historical Data (1st Q '97) (\*\*\*) = Source: SPL-Houston Historical Data (1st Q '97) 9907589-02A 9907589-03A 9907589-04A 9907506-07A 9907506-08A 9907594-01A 9907594-02A 9907594-05A 9907594-06A 9907594-07A 9907594-08A 9907594-09A 🕓



\*\* SPL QUALITY CONTROL REPORT \*\*

Matrix: Aqueous

Reported on: 07/28/99 Analyzed on: 07/27/99 Analyst: CV

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

### Chloride Method 325.3 \*

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	162	163.1	101	94 <del>-</del> 106

<sup>-9907442</sup> 

### Samples in batch:

9907506-04B	9907506 <b>-</b> 05B	9907506 <b>-</b> 06B	9907506-07B
9907510-01G	9907519-01G	9907520-01G	9907634-01D

COMMENTS:

LCS-SPL ID#94453228-23



### \*\* SPL QUALITY CONTROL REPORT \*\*

Matrix: Aqueous

Reported on: 07/28/99 Analyzed on: 07/27/99 Analyst: CV

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Chloride Method 325.3 \*

SPL Sample	Method	Sample	Spike	Matr	ix Spike	Matri Dupi	ix Spike Licate	RPD	QC LIMITS (Advisory)				
ID Number	Blank mg/L	Result mg/L	Added mg/L	Result mg/L	Recovery %	Result mg/L	Recovery %	(%)	RPD Max	% REC			
9907506-04B	ND	33.7	50.0	83.3	99.2	81.5	95.6	3.7	5	92 -109			

-9907442

Samples in batch:

9907506-04B	9907506-05B	9907506-06B	9907506-07B
9907510-01G	9907519-01G	9907520-01G	9907634-01D

COMMENTS:

LCS-SPL ID#94453228-23

## CHAIN OF CUSTODY

### AND

## SAMPLE RECEIPT CHECKLIST

<ul> <li>8880 Interchange Drive,</li> <li>459-Hughes Drive, Trav</li> </ul>	Other	48hr	24hr 🔲 72hr 🔲	]	<b>Requested TAT</b>		Client/Consultant Remarks:		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	P-WK	mw-7	~~~~6	9- MW	S - MW	MW-3	mw - 1	SAMPLE ID	Imaice To: KN GUE	Project Location: Hobbs	Project Number: 279 - 5/	Project Name: KN HOL	Client Contact: Scoll Spri	Address Phone: 2200 Mar	Client Name: 600-10910al		
Houston, T erse City, M	5. Relinquishe	3. Relinquishe	1. Relinquishe	Sta	Special Report				Ľ						/	7-14	DATE	10 54		121	665	raer (	Let ST	ENVIRO	A	N
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13) 660-09( 16) 947-577		9	ergo	Level 3	<sup>hts</sup> Fax Re				<i>f</i>							~×	comp grab				2. 	7535	л Х	./	quest &	SI
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# SPL Houston Environmental Laboratory

# Sample Login Checklist

Dat	Time: $7/15/99$ Time:	1000		
SPI	_ Sample ID:			
	9907506			•
-			Yes	No
]	Chain-of-Custody (COC) form is pre-	esent.	1	
2	COC is properly completed.			
3	If no, Non-Conformance Worksheet	has been completed.		
4	Custody seals are present on the shi	pping container.		
5	If yes, custody seals are intact.		./	
6	All samples are tagged or labeled.		/	
7	If no, Non-Conformance Worksheet	has been completed.		
8	Sample containers arrived intact		/	
9	Temperature of samples upon arriva	1:	5°	C
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	813477	667320
_		Other:		
11	Method of sample disposal:	SPL Disposal		
		HOLD		-
_		Return to Client		

Name: Date: 7/15/79



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April 14, 1999

Mr. Scott Springer ECO-LOGICAL ENVIRONMENTAL SVCS. 220 Market Street Midland, TX 79703

The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on April 2, 1999. The sample(s) was assigned to Certificate of Analysis No. (s) 9904093 and analyzed for all parameters as listed on the chain of custody.

Any data flags or quality control exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

If you have any questions or comments pertaining to this data report, please do not hesitate to contact me. Please reference the above Certificate of Analysis No. during any inquiries.

Again, SPL is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Southern Petroleum Laboratories

Electa Brown Project Manager



Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 99-04-093

Approved for Release by:

Electa Brown, Project Manager

> Joel Grice Laboratory Director

Idelis Williams Corporate Quality Assurance Director

The attached analytical data package may not be reproduced except in full without the express written approval of this laboratory. The results relate only to the samples tested. Results reported on a Wet Weight Basis unless otherwise noted.



Certificate of Analysis No. H9-9904093-01

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 04/13/99

PROJECT: Former Hobbs Gas Plant
SITE: Hobbs,NM
SAMPLED BY: Eco-Logical Environmental
SAMPLE ID: MW-1

PROJECT NO:	279-512	
MATRIX:	WATER	
DATE SAMPLED:	04/01/99 13:00:00	
DATE RECEIVED:	04/02/99	

ANALYTICAL	DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	5.0 P	ug/L
TOLUENE	ND	5.0 P	ug/L
ETHYLBENZENE	ND	5.0 P	ug/L
TOTAL XYLENE	ND	5.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	107		
4-Bromofluorobenzene	107		
Method 8021B ***			
Analyzed by: DR			
Date: 04/08/99			

ND - Not detected.

(P) - Practical Quantitation Limit



HOUSTON LABORATORY 8880 INTERCHANGE DRIVE

Certificate of Analysis No. H9-9904093-02

HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 04/13/99

PROJECT: Former Hobbs Gas Plant	PROJECT NO:	279-512
SITE: Hobbs, NM	MATRIX:	WATER
SAMPLED BY: Eco-Logical Environmental	DATE SAMPLED:	04/01/99
SAMPLE ID: MW-3	DATE RECEIVED:	04/02/99

ANALYTICAI	L DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1.0 P	ug/L
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	5 ND		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	103		
4-Bromofluorobenzene	103		
Method 8021B ***			
Analyzed by: DR			
Date: 04/08/99			

ND - Not detected.

(P) - Practical Quantitation Limit

**SAMPLED:** 04/01/99 11:40:00



Certificate of Analysis No. H9-9904093-03

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 04/13/99

**PROJECT:** Former Hobbs Gas Plant **SITE:** Hobbs,NM **SAMPLED BY:** Eco-Logical Environmental **SAMPLE ID:** MW-5

PROJECT NO:	279-512	
MATRIX:	WATER	
DATE SAMPLED:	04/01/99	13:20:00
DATE RECEIVED:	04/02/99	

ANALYTICAL	DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	3.0	1.0 P	ug/L
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	3		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	103		
4-Bromofluorobenzene	103		
Method 8021B ***			
Analyzed by: DR			
Date: 04/08/99			

(P) - Practical Quantitation Limit ND - Not detected.



Certificate of Analysis No. H9-9904093-04

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 04/13/99

<b>PROJECT:</b> Former Hobbs Gas Plant	
SITE: Hobbs, NM	
SAMPLED BY: Eco-Logical Environmental	
SAMPLE ID: MW-6	

PROJECT NO:	279-512	
MATRIX:	WATER	
DATE SAMPLED:	04/01/99	13:45:00
DATE RECEIVED:	04/02/99	

ANALYT	ICAL DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	120	5.0 P	ug/L
TOLUENE	ND	5.0 P	ug/L
ETHYLBENZENE	ND	5.0 P	ug/L
TOTAL XYLENE	ND	5.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCAR	BONS 120		ug/L
Surrogate 1,4-Difluorobenzene 4-Bromofluorobenzene Method 8021B *** Analyzed by: DR Date: 04/08/99	<b>% Recovery</b> 100 107		
Chloride Method 325.3 * Analyzed by: CV Date: 04/08/99 14:30:00	31	1	mg/L -

(P) - Practical Quantitation Limit ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



ND - Not detected.

HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Certificate of Analysis No. H9-9904093-05

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 04/13/99

**PROJECT:** Former Hobbs Gas Plant **SITE:** Hobbs,NM **SAMPLED BY:** Eco-Logical Environmental **SAMPLE ID:** MW-7

PROJECT NO:	279-512	
MATRIX:	WATER	
DATE SAMPLED:	04/01/99	12:00:00
DATE RECEIVED:	04/02/99	

(P) - Practical Quantitation Limit

ANALYTICAL	DATA		
PARAMETER	RESULTS	DETECTION	UNITS
BEN/2 ENE	רוזא	LIMIT 1 0 D	ug/T
TOLUENE		1 0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L ug/L
TOTAL XYLENE	ND	1.0 P	uq/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	103		
4-Bromofluorobenzene	103		
Method 8021B ***			
Analyzed by: DR			
Date: 04/08/99			
Chloride	36	1	mq/L
Method 325.3 *			2,
Analyzed by: CV			•
Date: 04/08/99 14:30:00			



Certificate of Analysis No. H9-9904093-06

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 04/13/99

PROJECT: Former Hobbs Gas Plant
SITE: Hobbs,NM
SAMPLED BY: Eco-Logical Environmental
SAMPLE ID: MW-9

PROJECT NO:	279-512	
MATRIX:	WATER	
DATE SAMPLED:	04/01/99	12:40:00
DATE RECEIVED:	04/02/99	

ANALYTICAL	DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1.0 P	uq/L
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	S ND		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	103		
4-Bromofluorobenzene	103		
Method 8021B ***			
Analyzed by: DR			
Date: 04/08/99			
Chloride	260	5	mq/L
Method 325.3 *			<u> </u>
Analyzed by: CV			•
Date: 04/08/99 14:30:00			
ND - Not detected.	(P) - Practical	Quantitation	Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

**QUALITY ASSURANCE:** These analyses are performed in accordance with EPA guidelines for quality assurance.



ND - Not detected.

HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Certificate of Analysis No. H9-9904093-07

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 04/13/99

PROJECT: Former Hobbs Gas Plant
SITE: Hobbs,NM
SAMPLED BY: Eco-Logical Environmental
SAMPLE ID: MW-10

PROJECT NO:	279-512	
MATRIX:	WATER	
DATE SAMPLED:	04/01/99	12:20:00
DATE RECEIVED:	04/02/99	

(P) - Practical Quantitation Limit

ANALYTICAL	DATA		
PARAMETER	RESULTS	DETECTION	UNITS
BENZENE	ND	1.0 P	uq/L
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L
Surrogate	% Recovery		
1.4-Difluorobenzene	103		
4-Bromofluorobenzene	103		
Method 8021B ***			
Analyzed by: DR			
Date: 04/08/99			
Chloride	128	1	ma /T.
Method $325.3 *$	120	1	шдуш
Analyzed by: CV			•
Date: 04/08/99 14:30:00			

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

**QUALITY ASSURANCE:** These analyses are performed in accordance with EPA guidelines for quality assurance.



Certificate of Analysis No. H9-9904093-08

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 04/13/99

PROJECT: Former Hobbs Gas Plant
SITE: Hobbs,NM
SAMPLED BY: Provided by SPL
SAMPLE ID: Trip Blank 03/16/99

**PROJECT NO:** 279-512 **MATRIX:** WATER **DATE SAMPLED:** 04/01/99 **DATE RECEIVED:** 04/02/99

	ANALYTICAL DA	ATA		
PARAMETER		RESULTS	DETECTION LIMIT	UNITS
BENZENE		ND	1.0 P	ug/L
TOLUENE		ND	1.0 P	ug/L
ETHYLBENZENE		ND	1.0 P	ug/L
TOTAL XYLENE		ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC	HYDROCARBONS	ND		ug/L
Surrogate		% Recovery		
1,4-Difluorobenzene		103		
4-Bromofluorobenzene		103		
Method 8021B ***				
Analyzed by: DR				
Date: 04/08/99				

ND - Not detected.

(P) - Practical Quantitation Limit



Certificate of Analysis No. H9-9904093-09

Eco-logical Environment Svcs. 220 Market Street Midland, TX 79703 ATTN: Scott Springer

DATE: 04/13/99

**PROJECT:** Former Hobbs Gas Plant **SITE:** Hobbs,NM **SAMPLED BY:** Eco-Logical Environmental **SAMPLE ID:** MW-6D

PROJECT NO:	279-512	
MATRIX:	WATER	
DATE SAMPLED:	04/01/99	13:45:00
DATE RECEIVED:	04/02/99	

ANALYTICAL	DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	110	5.0 P	ug/L
TOLUENE	ND	5.0 P	ug/L
ETHYLBENZENE	ND	5.0 P	ug/L
TOTAL XYLENE	ND	5.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	110		ug/L
Surrogate	% Recovery		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	107		
Method 8021B ***			
Analyzed by: DR			
Date: 04/12/99	<u></u>		

(P) - Practical Quantitation Limit ND - Not detected.

QUALITY CONTROL DOCUMENTATION



SPL BATCH QUALITY CONTROL REPORT \*\* Method 8021B \*\*\*

HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Matrix: ug/L

Units:

Batch Id: HP\_S990407145200

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Spike Result Recovery <1> %		QC Limits(**) (Mandatory) % Recovery Range
МТВЕ	ND	50	53	106	72 - 128
Benzene	ND	50	50	100	61 - 119
Toluene	ND	50	51	102	65 - 125
EthylBenzene	ND	50	51	102	70 - 118
0 Xylene	ND	50	51	102	72 - 117
M & P Xylene	ND	100	100	100	72 - 116

## LABORATORY CONTROL SAMPLE

М	Α	Т	R	Ι	Х	S	Ρ	Ι	Κ	Ē	S
_			_			_	_			_	_

S P I K E C O M P O U N D S	Sample Results	Spike Added	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative %	QC 1	Limits (***) (Advisory)
	<2>	<3>	Result <1>	Recovery <4>	Result <1>	Recovery <5>	Difference	RPD Max.	Recovery Range
МТВЕ	ND	20	22	110	22	110	0	20	39 - 150
BENZENE	ND	20	21	105	20	100	4.88	21	32 - 164
TOLUENE	1.2	20	22	104	21	99.0	4.93	20	38 - 159
ETHYLBENZENE	ND	20	21	105	20	100	4.88	19	52 - 142
O XYLENE	ND	20	21	105	20	100	4.88	18	53 - 143
M & P XYLENE	ND	40	41	102	40	100	1.98	17	53 - 144

9904093-02A 9904093-03A 9904093-04A 9904093-05A 9904093-06A 9904093-07A 9904069-03B 9903D13-03A

Analyst: DR Sequence Date: 04/07/99 SPL ID of sample spiked: 9904069-03B Sample File ID: S\_D1086.TX0 Method Blank File ID: Blank Spike File ID: S\_D1082.TX0 Matrix Spike File ID: S D1084.TX0 Matrix Spike Duplicate File ID: S\_D1085.TX0

SAMPLES IN BATCH (SPL ID) :

\* = Values outside QC Range due to Matrix Interference (except RPD) « = Data outside Method Specification limits. NC = Not Calculated (Sample exceeds spike by factor of 4 or more) ND = Not Detected/Below Detection Limit % Recovery = [( <1> - <2> ) / <3> ] x 100 LCS % Recovery =  $(<1> / <3> ) \times 100$ Relative Percent Difference = |(<4> - <5> | / [(<4> + <5> ) x 0.5] x 100(\*\*) = Source: SPL-Houston Historical Data (1st Q '97) (\*\*\*) = Source: SPL-Houston Historical Data (1st Q '97) 9904040-01A 9904029-02D 9904037-01A 9904037-02A 9904063-01B 9904063-02B 9904063-03B 9904069-01B 9904069-02B 9904079-02A 9904079-01A 9904093-01A



SPL BATCH QUALITY CONTROL REPORT \*\* Method 8021B \*\*\*

HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

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Matrix: Aqueous ug/L

Units:

Batch Id: HP\_S990408035310

LABORATORY CONTROL SAMPLE

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Spike Result Recovery <1> %		QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	50	56	112	
Benzene	ND	50	51	102	61 - 119
Toluene	ND	50	51	102	65 - 125
EthylBenzene	ND	50	51	102	70 - 118
O Xylene	ND	50	52	104	72 - 117
M & P Xylene	ND	100	100	100	<b>72 -</b> 116

#### MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results	Spike Added	Matrix	Spike	Matrix Dupli	Spike cate	MS/MSD Relative %	QC 1	Limits(***) (Advisory)
	<2>	<3>	Result <1>	Recovery <4>	Result <1>	Recovery <5>	Difference	RPD Max.	Recovery Range
MTBE	ND	20	24	120	23	115	4.26	20	39 - 150
BENZENE	4.1	20	24	99.5	24	99.5	0	21	32 - 164
TOLUENE	ND	20	21	105	20	100	4.88	20	38 - 159
ETHYLBENZENE	ND	20	20	100	20	100	0	19	52 - 142
O XYLENE	1.5	20	21	97.5	21	97.5	0	18	53 - 143
M & P XYLENE	ND	40	41	102	39	97.5	4.51	17	53 - 144

Analyst: DR Sequence Date: 04/08/99 SPL ID of sample spiked: 9904249-01A Sample File ID: S\_D1116.TX0 Method Blank File ID: Blank Spike File ID: S\_D1110.TX0 Matrix Spike File ID: S\_D1114.TX0 Matrix Spike Duplicate File ID: S\_D1115.TX0

\* = Values outside QC Range due to Matrix Interference (except RPD) « = Data outside Method Specification limits. NC = Not Calculated (Sample exceeds spike by factor of 4 or more) ND = Not Detected/Below Detection Limit % Recovery = [( <1> - <2> ) / <3> ] x 100 LCS  $\$  Recovery = (<1> / <3> ) x 100 Relative Percent Difference = |(<4> - <5>) | / [(<4> + <5>) x 0.5] x 100(\*\*) = Source: SPL-Houston Historical Data (1st Q '97) (\*\*\*) = Source: SPL-Houston Historical Data (1st Q '97)

SAMPLES IN BATCH (SPL ID) :

9904275-01B 9904275-02B 9904093-08A 9904093-09A

9904275-03B



SPL BATCH QUALITY CONTROL REPORT \*\* Method 8021B \*\*\*

HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Matrix: Aqueous ug/L

Units:

LABORATORY CONTROL SAMPLE

Batch Id: HP\_S990410025710

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Benzene	ND	50	50	100	61 - 119
Toluene	ND	50	50	100	65 - 125
EthylBenzene	ND	50	51	102	70 - 118
O Xylene	ND	50	51	102	72 - 117
M & P Xylene	ND	100	98	98.0	72 - 116

#### MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results	Spike Added	Matrix	Spike	Matrix Dupli	Spike	MS/MSD Relative %	QC 1	Limits(***) (Advisory)
			Result	Recovery	Result	Recovery	Difference	RPD	
	<2>	<3>	<1>	<4>	<1>	<5>		Max.	Recovery Range
BENZENE	ND	20	21	105	21	105	0	21	32 - 164
TOLUENE	ND	20	20	100	20	100	0	20	38 - 159
ETHYLBENZENE	ND	20	19	95.0	19	95.0	_ 0	19	52 - 142
O XYLENE	ND	20	22	110	22	110	0	18	53 - 143
M & P XYLENE	ND	40	39	97.5	39	97.5	0	17	53 - 144

Analyst: DR Sequence Date: 04/10/99 SPL ID of sample spiked: 9904271-07B Sample File ID: S D1153.TX0 Method Blank File ID: Blank Spike File ID: S D1150.TX0 Matrix Spike File ID: S\_D1151.TX0 Matrix Spike Duplicate File ID: S\_D1152.TX0

SAMPLES IN BATCH(SPL ID):

\* = Values outside QC Range due to Matrix Interference (except RPD)

« = Data outside Method Specification limits. NC = Not Calculated (Sample exceeds spike by factor of 4 or more) ND = Not Detected/Below Detection Limit % Recovery = {( <1> - <2> ) / <3> } x 100 LCS % Recovery =  $(<1> / <3> ) \times 100$ Relative Percent Difference = |(<4> - <5> | / [(<4> + <5> ) x 0.5] x 100(\*\*) = Source: SPL Historical LImits-1st Qtr.'97 (\*\*\*) = Source: SPL Historical LImits-1st Qtr.'97

9904374-01A 9904374-02A 9904374-03A 9904374-04A 9904374-05A 9904374-06A 9904374-07A 9904374-08A 9904093-09A



\*\* SPL QUALITY CONTROL REPORT \*\*

Matrix:	Aqueous	Reported on:	04/09/99
	-	Analyzed on:	04/08/99
		Analyst:	CV

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

### Chloride Method 325.2 \*

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	۶ Recovery	QC Limits Recovery
LCS	ND	105	104.3	99.3	90 - 110

-9904229

## Samples in batch:

9903C99-01E	9903D06-01E	9903D12-01E	9903D12-02E
9903D12-03E	9903D12-04E	9904087-01D	9904087-02D
9904087-05D	9904087-06D	9904093-04B	9904093-05B
9904093-06B	9904093-07B		

COMMENTS:

LCS-SPL ID#94453222-13



\*\* SPL QUALITY CONTROL REPORT \*\*

Matrix: Aqueous Report Analyza

Reported on: 04/09/99 Analyzed on: 04/08/99 Analyst: CV

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Chloride Method 325.2 \*

SPL Sample	Method	  Sample	Spike	Matr	ix Spike	Matri   Dup]	ix Spike licate	RPD	(1	QC LIMITS Advisory)
ID Number	Blank mg/L	  Result  mg/L	Added mg/L	Result mg/L	Recovery %	Result mg/L	Recovery %	(%)	RPD Max	% REC
9904093-07B	ND	127.7	50.0	177.5	99.6	175.5	95.6	4.1	20	76 -131

-9904230

Samples in batch:

9903D12-03E 9903D12-04E 9904093-04B 9904093-05B 9904093-06B 9904093-07B

COMMENTS :

LCS-SPL ID#94453222-13

## CHAIN OF CUSTODY

## AND

## SAMPLE RECEIPT CHECKLIST

								^															1	
<ul> <li>8880 Interc</li> <li>459-Hughe</li> </ul>	Other	48hr	24hr		Requeste	Client/Consultant Re Historic R. Keed I	el - MW	N W - 9	NW - 9	mw - 7	MW - 7	MW - 6	MW - 6	5 - M W	MW - 3	1 - MW	, wice To: HV SVWL	Project Location: 1	Project Number: 2	Project Name: For	Client Contact: Se	Address/Phone: 22	Client Name: Ec.	
hange Driv 15 Drive, Tra		Standard	72hr	]	d TAT	esults A 2. C. Lou											- John EID	tobby r	71-512	mer Hol	att Spi	Loo Mart	0-1053 641	
e, Houston, averse City,	5. Relinquist	3. Relinquist	1. Relinquist	S	Special Repo	t tacked										4/1/47	Greek DATE	3		tes bas	inser	et midlend	End	°N >
TX 77054 (7 MI 49684 (6	red by:	red by:	red by Sampleh:	undard QC	orting Requireme		12:20	e	12:40	جـ	60.51	4	13:45	13:2,0	0h:11	13:00	TIME			Plant		1. Tx 715/52		lnalysis Ro
13) 660-09( 16) 947-577				Level 3	ents Fax Re		¢								-	×	comp grab					5852.0		SP equest &
7 2				8	sults	Laboratory rem	セ マ く	P	5	9	<	9	<	<u>ح</u>	- <	к V	W=wa SL=slu P=plas	iter idge tic	S= O A= V	= soi = oti = am = via	l her: iber	glass	natrix bott	L, Inc. Chain of
	date	date	date	Level 4 Q	Raw Dati	arks:	40	-	40	(	40	-	40	40	40	ЧО	l = 1 lit 8 = 8oz	er 4	4=4 .6=	oz / 160	40= z	vial	le size	Custody
500 Amb	Ŀ	- Gi	Ę	κ Π	<del>چ</del>			-	-	1	-	-	1 3	1 3	~	1	1=HC 3=H25	1 504	2= O	=HN =otl	NO3 her:		pres.	y Record
assador (	8	7	8		ecial Detecti				<b>7</b> × 1		×	_	<ul><li>✓</li></ul>	X	×	\$ X	Numbe	er of —— r	: Co 	ntai 21(	ners			4
affery Pa	6. Received	1. Received	2. Received		on Limits (sp			×		×		×					Chlor	ides	٤	PA 3	w 3	6		SPL Works
ukway, Sc	Mond.	मि	Ч		ecify):																		Reques	A CHU
LA 70	ALL					Int																	ted Anal	X9.3
583 (318)	JCIN Y				PM revie																		lysis	07
237-4775	79 760 U				w (initial):																			3716 of 2

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Analysis Request & Clain of Custody Record       QQQQQ Integration of Custody Record         Request & Clain of Custody Record       Requested Analysis         matrix by the size pres.         DATE       TIME omp gab       Requested Analysis         DATE       TIME omp gab       W water S=soil       Requested Analysis         DATE       TIME omp gab       W W=water S=soil       Requested Analysis         DATE       TIME omp gab       W W=water S=soil       Requested Analysis         DATE       TIME omp gab       W W=water S=soil       Requested Analysis         UP =plastic A=amber glass W=vial         Support of Containers         W W=water S=soil       Support of Containers         M W       W W=water S=soil       Colspan="2">Inter 4=402 40=vial         Inter 1 Sc Inter 4=40 Class       Inter 4=402 40=vial         Inter 1 Sc Inter 4=40 Class       Inter 4=40 Class         Inter 1 Sc Inter 4=40 Class       Inter 4       Inter 7       Inter 7								047	149684 (616		ive Trave	Tahan Din	<b>J</b> 459-H
Analysis Request & Chain of Custody Record       Imatrix bottle         Matrix Distribution       Imatrix Distribution       Imatrix Distribution         Matrix Distributi	LA 70583 (	Caffery Parkway, Scott,	bassador (	500 Am			0901	\$) 660-	K 77054 (713	Houston, T	ge Drive, H	nterchang	3 8880 I
Analysis Request & Chain of Custody Record       Martin Second Sec	4/1/20	6. Reminest by Laboratory	ime		date				Ъ	. Relinquished			Other
Analysis Request & Chain of Custody Record       Mathematical by Sumptr:       Likelinguished by       Mathematical by       Mathematica		4. Received by:	ime	-	date				by:	. Relinquished		Standa	18hr
Analysis Request & Chain of Custody Record     matrix bottle     size $d_1$ $d_2$ $d_1$ $d_2$ $d_1$ $d_1$ $d_2$ $d_1$ $d_2$ $d_1$ $d_1$ $d_2$ $d_2$ $d_1$ $d_2$ $d_1$ $d_2$ $d_2$ $d_2$ $d_2$ $d_1$ $d_2$ $d_2$ $d_2$ $d_2$ $d_1$ $d_2$ $d_2$ $d_2$ $d_2$ $d_1$ $d_2$ $d_2$ $d_2$ $d_2$ $d_1$ $d_2$ $d_2$ $d_2$ $d_2$ $d_1$ $d_2$ $d_2$ $d_2$ $d_2$ $d_1$ $d_2$ $d_2$ $d_2$ $d_2$ $d_1$ $d_2$		2. Received by:	ine	5	date				by Samplér:	. Relinquished		72h	24hr
Analysis Request & Chain of Custody Record         Analysis Request & Chain of Custody Record         Mattice for the strength of the strengh of the strength of the strength of the s				8	Level 4	٥	vel 3 QC	ካ	dand QC	Stan			. 1
Analysis Request & Chain of Custody Record 4 + 1 + 4 + 1 + 1 + 1 + 1 + 1 + 1 + 1 +	PM	ion Limits (specify):	special Detecti		Raw Da	R	c Results	Fa	ng Requirement	special Reporti	AT	ested T	Requ
Analysis Request & Chain of Customer Second $4 + \frac{1}{2} + \frac{1}$	Intact?				ırks:	natory rema			ans.t		ins Brea	D Cortain	ient/Consulta ストット-6 ートシャー6
Analysis Analysis Request & Chain of Custody $\begin{array}{c}  & & \\  & $								<b> </b>					
Analysis Analysis Request & Chain $4 + \frac{1}{2} + 1$													
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Analysis Request & Analysis Request & Chain of Customer Sesoil SL=sludge O=other: 13:47500 $12:7900$ $12:11$ $11$ $12:11$							+-						
Analysis Request & Chain of Customer Second SL = sudge O = other: $ \begin{array}{c c} \hline & & & \\$													
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DATE TIME Output the second s		×	-	1	1	Ч Г	8	>	12:20	4-1-19			MW-12
Analysis Request & Chain of Custody Record ter S=soil matrix bottle tic A=amber glass bottle		C410	Numbe	1=HC 3=H2S	l = 1 lit 8=80z	SL=slu P=plas G=glas	ਲ W=wa	omp gr	TIME	DATE		MPLE ID	vice To: SA
Analysis Request & Chain of Custody Record S=soil O=other: A=amber glass bottle size V=vial =4oz 40=vial size 0=other: Containers Po 21 & S = Soil Pres. Containers Po 21 & S = Soil Containers Po 21 & Containers Po 21 & Containers Po 21 & Containers Containers Containers		B(D	er of	504	er 4	idge tic s	ter					12	vject Locatio
Analysis Request & Chain of Custody Record = soil = other: = amber glass ottle = other: = amber glass ottle = other: = amber glass ottle = other: = tainers 21 A CPA > w 300 Requested Analysis			Con	2= O=	4 = 40 6 = 1	0: A= V=	S=				- 512	* 279	roject Numbe
Analysis Request & Chain of Custody Record       QQ 04093       page         matrix bottle       size       pres.       QQ 04093       page         er:       pres.       pres.       Pres.       Requested Analysis         er:       pres.       pres.       pres.       Pres.       Pres.         er:       pres.       pres.       pres.       Pres.       Pres.       Pres.         er:       pres.       Pres. <t< td=""><td></td><td>۲) ۲</td><td>ntair 21 <b>A</b></td><td>=HN =oth</td><td>oz 4</td><td>=oth =aml =vial</td><td>soil=</td><td></td><td>Plan f</td><td>3 633</td><td>r Itoss</td><td>Form</td><td>roject Name:</td></t<>		۲) ۲	ntair 21 <b>A</b>	=HN =oth	oz 4	=oth =aml =vial	soil=		Plan f	3 633	r Itoss	Form	roject Name:
Analysis Request & Chain of Custody Record     9900000000000000000000000000000000000		PA w 3(	hers	IO3 Ier:	l0=1	her: ber g							lient Contact
Analysis Request & Chain of Custody Record 9904093 pa matrix bottle size pres. Requested Analysis		00			vial	glass					0		ddress/Phone
Analysis Request & Chain of Custody Record 9904043 pa	l Analysis	Requested		pres.	le size	trix bott	ma				ocical	5.0-	bent Name:
	93 Pag	99040	rd	ly Reco	Custoc	hain of	& CI	luest	alysis Rec	Aı			
SPL. Inc. SPL Workowder No:	2	SPL Workonder No:				Inc.	SPL			Y			

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# SPL Houston Environmental Laboratory

# Sample Login Checklist

Dat	e: 4-2-99 Time:	1000		
SPL	Sample ID: 990409	3		
(			Yes	<u>No</u>
1	Chain-of-Custody (COC) form is pre	esent.	V	, 
2	COC is properly completed.		V	
3	If no, Non-Conformance Worksheet	has been completed.	/	
4	Custody seals are present on the shi	pping container.		
5	If yes, custody seals are intact.			· · · · · · · · · · · · · · · · · · ·
6	All samples are tagged or labeled.			
7	If no, Non-Conformance Worksheet	has been completed.		
8	Sample containers arrived intact		$\checkmark$	
9	Temperature of samples upon arriva	1:	3	o C
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #) 8081	9848-	1258
		Other:	•	
11	Method of sample disposal:	SPL Disposal		
		HOLD		
		Return to Client		

Name:	1
	MURDON
	MUCACION

Date: 4-2-99

ALAUUUMAUUU ate: Jan 12,	1999	Renue, Suite 9 Lubb Le, Suite A EI P ANALYT ECO-LC Attenti	oock, Texas 79424 E aso, Texas 79922 E E.Mail: lab@itad I.CAL RESULT oqical Envi on Carrie Ei	000-378-1296 889-5880-3443 889-5880-3443 Sanajvsis.com Sanajvsis.com Sanajvsis.com Sanajvsis.com	806-794-1296 915-585-3443 al Servic	FAX 915-585-4 FAX 915-585-4 CeS Lab Receiv	298 944 ring # : 99	01000038	ואורואורואו
te Rec: 1/6/ oject: 279- oj Name: Form oj Loc: Hobb	99 512 er Hobbs Gas Plant s, NM	ZZUU Ma Midland	rket Street	TX 7	9703	Sampling L Sample Con Sample Rec	)ate: 1/5/ Idition: I seived By:	99 ntact and VW	Cool
\# Field C	oqe	MATRIX	~	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL- BENZENE (mg/L)	M, P, O XYLENE (mg/L)	TOTAL BTEX (mg/L)	
6218 MW-1 6219 MW-3 6220 MW-5 6221 MW-6 6223 MW-9 6223 MW-9 6224 MW-10 6225 MW-6D 6225 MW-6D thod Blank thod Blank		Water Water Water Water Water Water		0.005 < 0.001 0.005 0.123 < 0.123 < 0.001 < 0.011 0.112 0.011 0.093	<pre>&lt;0.001 &lt;0.001 </pre>	<pre>&lt;0.001 </pre> <pre>&lt;0.001 </pre> <pre>&lt;0.001 </pre> <pre>&lt;0.001 </pre> <pre><pre>&lt;0.001 </pre><pre><pre><pre><pre><pre><pre><pre>&lt;</pre></pre></pre></pre></pre></pre></pre></pre>	<pre>&lt;0.001 &lt;0.001 &lt;0.001 &lt;0.004 &lt;0.001 &lt;0.001 &lt;0.001 &lt;0.004 &lt;0.001 &lt;0.001 &lt;0.001 &lt;0.001 &lt;0.001 </pre>	0.001 (0.005 0.005 0.127 (0.127 (0.001 (0.116 0.116	
D Extraction Acc Instrument Acc	uracy uracy			96 93	1 96 33	9 9 2 9 4	2 92		
IST.	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANAL COMP	LETED	IEMIST	QC: (mg/L)	SPIKE: (mg/L)	[F
EX	EPA 5030 1	/10/99	EPA 8021B	/-/	12-55	RC	0.100 ea	0.1ea	
Dire	ctor, Dr. Blair I	leftwich	1	Da	te				

			RACEANA	LYSIS.	INC		JUUUUUUUUU		
	6701 Aber 4725 Riple	deen Avenue, Suite 9 y Avenue, Suite A ANAL ECO-	Lubbock, Texas 79424 El Paso, Texas 79922 .YTICAL RESUL -LOGICAL ENV	800•378•1295 888•588•3443 aceanalysis.com TS FOR	806•794•1296 915•585•3443 al Servi	FAX 806•794•1 FAX 915•585•4	298 944		
Date: Fek Date Rec: Project: Proj Name:	03, 1999 1/6/99 279-512 Former Hobbs Gas 1 Hobbs AM	Atte 2200 Midl Plant	ntion Carrie E Market Street and	lick TX 7	9703	Lab Receiv Sampling I Sample Cor Sample Rec	<pre>/ing # : 99 Date: 1/5/ Idition: 1 ceived By:</pre>	901000038 '99 Intact and VW	Cool
TA# Fi	eld Code	MAT	RIX	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL- BENZENE (mg/L)	M, P, O XYLENE (mg/L)	TOTAL BTEX (mg/L)	
116226 Tri	.p Blank	Wat	ter	<0.001	<0.001	<0.001	<0.001	<0.001	1
Method Blar Reporting I QC	ık Limit			<0.001 0.001 0.093	<0.001 0.001 0.093	<0.001 0.001 0.094	<0.001 0.001 0.276		
RPD				0	<del>اس</del> م	N	N		
<pre>% Extractic % Instrumer</pre>	on Accuracy ht Accuracy			96 93	96 93	99 94	92 92		
TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANAL COMP	LETED	CHEMIST	QC: QC:	SPIKE: (mg/L)	
BTEX	EPA 5030	1/10/99	EPA 8021B	1/1	0/99	RC	0.100 ea	0.1ea	
		L L	-		2-3-59	6			Γ
	Director, Dr. Bla	air Leftwich		Da	te				

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MUULIMUMUMUM	UM TRACEANALYSIS	, INC MULLING MULLING
6701 Aberdeen 4725 Ripley Ave	Avenue, Suite 9 El Paso, Texas 79424 800•378•1296 El Paso, Texas 79922 888•588•3443 E-Mail: lab@traceanalysis.com	806•794•1296 FAX 806•794•1298 915•585•3443 FAX 915•585•4944
	ANALYTICAL RESULTS FOR ECO -LOGICAL Attention: Carrie Eick 2200 Market Street	
January 12, 1999 Receiving Date: 01/06/99 Sample Type: Water Project No: 279-512 Project Location: Hobbs, NM	Midiand, TX 79703	Prep Date: 01/07/99 Analysis Date: 01/07/99 Sampling Date: 01/05/99 Sample Condition: Intact & Cool Sample Received by: VW Project Name: Former Hobbs Gas Plant
TA#	FIELD CODE	CHLORIDE (mg/L)
T116221 T116222	MW 6 MW 7	56 74
ICV CCV		12.91 11.85
REPORTING LIMIT		0.5 .
RPD % Extraction Accuracy % Instrument Accuracy		2 108 99
METHODS: EPA SW 300.0 CHEMIST: JS CHLORIDE SPIKE: 62.5 mg/L CHLORIDE CV: 12.5 mg/L C	CHLORIDE HLORIDE	

RS

Director, Dr. Blair Leftwich

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1-12-99

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DATE

FRACEANALYSIS	, INC MARKEN MARKEN
9 Lubbock, Texas 79424 800•378•1296 El Paso, Texas 79922 888•588•3443 E-Mail: lab@traceanalysis.com	806•794•1296 FAX 806•794•1298 915•585•3443 FAX 915•585•4944
ANALYTICAL RESULTS FOR ECO -LOGICAL Attention: Carrie Eick 2200 Market Street Midland, TX 79703	
	Prep Date: 01/07/99
	Analysis Date: 01/07/99
	Sampling Date: 01/05/99
	Sample Condition: Intact & Cool
	Sample Received by: VW
	Project Name: Former Hobbs Gas Plant
	CHLORIDE
FIELD CODE	(mg/L)
MW 9	520
MW 10	140
	11.85
	11.85
	0.5
	0
	94
	95
	P       Lubbock, Texas 79424       800 • 378 • 1296         B       Lubbock, Texas 79922       888 • 588 • 584 • 3443         E-Mail: lab@traceanalysis.com         ANALYTICAL RESULTS FOR         ECO - LOGICAL         Attention: Carrie Eick         2200 Market Street         Midland, TX 79703

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Director, Dr. Blair Leftwich

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1-12-99

DATE

(0) Approvance Stat	WLL UUL	ML MULINILIA	L. LULLTR	ACEANA	LYSIS,	INC			LLIMLILL	
Date:     Feb 03, 199     Evolution Carrie 313X     Evolution Carrie 313X     Evolution Carrie 313X       Date Rec:     1/6/99     Evolution Carrie 313X     Evolution Carrie 313X     Evolution Carrie 313X       Date Rec:     1/6/99     Evolution Carrie 313X     Evolution Carrie 313X     Evolution Carrie 313X       Projost:     279-512     Evolution Carrie 313X     Evolution Carrie 313X     Evolution Carrie 313X       Projost:     279-512     Evolution Carrie 313X     Evolution Carrie 313X     Evolution Carrie 313X       Projost:     279-512     Evolution Carrie 313X     Evolution Carrie 313X     Evolution Carrie 313X       Proj Jame     Evolution Carrie 313X     Evolution Carrie 313X     Evolution Carrie 313X     Evolution Carrie 313X       Proj Jame     Evolution Carrie 313X     MATRIX     EVNER     Projution Carrie 313X     Evolution Carrie 313X       Proj Jame     Evolution Carrie 313X     Mater     Co.001     Co.01     Co.01     Co.01       Propulation     Mater     Co.001     Co.01     Co.01     Co.01     Co.01     Co.01       Propulation     Evolution     Co.01     Co.01     Co.01     Co.01     Co.01     Co.01       Propulation     Evolution     Co.01     Co.01     Co.01     Co.01     Co.01       Reporting Li		6731 Aba 4725 Api	iceen Avenue, Suite 3 - 1 sy Avenue, Suite A - 1 anna - anna -	Lubbock, Texas 79424 El Faso, Texas 79922 Eranor Erven, Texas 79922	300•376•1296 386•589•3443 308•alysis com	8,5+6,85+3,443	FAX 806+734+7 FAX 915+585+4	26		
Display     Display     Midlaid     IX     TX     <	Date: Feb.	03, 1599	ECO- Stten 3200	Logical Env tion Carrie E	ironment dick	al Servic	es Lab Receiv	2 : # 5ui	90100038	
Proj Loc:     HODE, NOT     BENZENE     RTHVL-     M.2.0     TOTAL       TAB     Field Code     MATRIX     BENZENE     FOULOENE     BENZENE     M.2.0       TAB     Field Code     MATRIX     BENZENE     FOULOENE     BENZENE     M.2.0     Imp/L.1)     Imp/L.1)     Imp/L.1)       11622E     T-tip Elanix     Water:     C.0.001     C.0.01     C.0.01     C.0.01       Sethod Blank     Nater:     C.0.001     C.0.01     C.0.01     C.0.01     C.0.01       Sethod Blank     0.001     C.0.01     C.0.01     C.0.01     C.0.01     C.0.01       Control Elank     0.001     C.0.01     C.0.01     C.0.01     C.0.01     C.0.01       Control Elank     0.001     C.0.01     C.0.01     C.0.01     C.0.01       Control Elank     0.003     0.003     0.003     0.001     C.0.01       Control Elank     0.001     C.0.01     C.0.01     C.0.01     C.0.01       Control Elank     0.003     0.003     0.003     C.0.01     C.0.01       Control Elank     Control Elank     C.0.01     C.0.01     C.0.01     C.0.01       Control Elank     Control Elank     Control Elank     C.0.01     C.0.01     C.0.01	Jate Rec: Project: Proj Name:	1/6/99 279-512 Former Hobbs Gas	zzuu Midla Plart	karket Street Ind	TX 7	9703	Sampling D Sample Con Sample Rec	bate: 1/5 dition: seived By:	/99 Intect and VW	Cool
II6226     Trip Blank     Mater     <0.001     <0.001     <0.001     <0.001     <0.001     <0.001       Nethod Blank     0.001     0.01     0.001     0.001     0.001     0.001     <0.001	Proj Loc: TA# Fiel	Hobbs, NM Ld Code	MATR	١١X	BENZENE (19/1)	TOLUENE ("L')	ETHYL- BENZENE (mg/L)	M, 2, 0 XYLENE (1)gml)	TOTAL BTEX (mg/L)	
Method Blank     <0.001     <0.001     <0.001     <0.001     <0.001       Reporting Jainit     0.003     0.003     0.003     0.001     0.001       OC     0.001     0.001     0.001     0.001     0.001     0.001       OC     0.003     0.003     0.003     0.003     0.001     0.001       OC     0.001     0.001     0.001     0.001     0.001     0.001       OC     0.001     0.003     0.003     0.003     0.003     0.001       OC     0.001     0.001     0.001     0.001     0.001     0.001       RP     E     AMLYSIS     AMLYSIS     AMLYSIS     0.018.3       Instrument Accuracy     9     9     9     9       FEST     RBE     AMLYSIS     AMLYSIS     AMLYSIS       FIST     RBE     AMLYSIS     AMLYSIS     0.18.4	116226 Trip	Elank	Wat	61	<0.001	<0.001	<0.001	<0.001	<0.001	
Reporting Limit     0.001     0.001     0.001     0.001     0.001       000     0.003     0.003     0.003     0.004     0.276       000     0.003     0.003     0.004     0.276       000     0.004     0.003     0.004     0.276       000     0.004     0.003     0.004     0.276       000     0.004     0.001     0.001     0.001       000     0.004     0.004     0.004     0.014       000     0.004     0.003     0.003     0.004       000     0.004     0.004     0.004     0.004	Methcd Blank				<0.001	<0,001	<0.001	<0.301		
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	6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424	Fax (806) 794-1298 1 (800) 378-1298 1 (800) 378-1296	Company Name: Eco : 105:24 /	Address: (Street, City, Zip)	Contact Person: CARCIE EICH	Invoice to: (If different from above)	Project #279-512	Project Location: Hobbs NN		LAB # FIELD CODE	(LAB USE)	116225 MW- 6D	226 TRIPA				Relinquished hv: Date: Time:	Carry E Eurle 1/5/99 4:10PM Religquighed by: Date: Time:	Hellen Shelten 1/5/99 6:00PM	Relinquished by: Date: Time:	Submittal of samples constitutes agreement to Terms and

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Well	MW-1	MW-2	<b>MW-3</b>	🥂 MW-4 🖓	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	5
TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	
H20 Depth	56.43	62.19	59.46	61.15	61.84	58.05	58.88	62.42	58.18	54.51	
Adjusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Adj. Depth to Liquid	56.43	62.19	59.46	61.15	61.84	58.05	58.88	62.42	58.18	54.51	
H2O Elev Adjusted	439.30	440.22	439.67	439.97	439.00	438.22	436.56	439.39	438.67	437.95	
04/01/99											
Well,	MW-1		MW-3	MW-4 🖉	MW-5	MW-8	MW-7	MW-8	MW-9	MW-10	-
TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	
H2O Depth Product Thickness	56.89	62.28	59.89	61.57	62.24	58.52	59.36	62.79	58.73	55.04	
Adjusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Adi. Deoth to Liquid	56.89	62.28	59.89	61.57	62.24	58.52	59.36	62.79	58.73	55.04	
H2O Elev Adjusted	438.84	440.13	439.24	439.55	438.60	437.75	436.08	439.02	438.12	437.42	
07/14/99											
Weil	. MW-1 🥇	MW-2	- MW-3	MW-4	<b>MW-5</b>	2 MW-8	MW-7	. MW-8	S MW-9	MW-10	n Drop
TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	499.25
H2O Depth Product Thickness	57.39	62.28	60.40	62.03	62.76	59.08	59.84	63.19	59.31	55.59	60.66 0.00
Adjusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adi, Depth to Liquid	57.39	62.28	60.40	62.03	62.76	59.08	59.84	63.19	59.31	55.59	60.66
H2O Elev Adjusted	438.34	440.13	438.73	439.09	438.08	437.19	435.60	438.62	437.54	436.87	438.59
10/22/99											
Well	MW-1	3 MW-2	MW-3	MW-4 .	. MW-5	: (), <b>MW-8</b>	<b>MW-7</b> .	MW-8	<b>MW-9</b>	MW-10	n Drop
TOC Product Depth	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	499.25
H2O Depth Broduct Thickness	57.74	62.31	60.76	62.37	63.08	59.36	60.14	63.51	59.61	55.94	60.94 0.00
Adjusted Prod Thick	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adi. Depth to Liquid	57.74	62.31	60.76	62.37	63.08	59.36	60.14	63.51	59.61	55.94	60.94
LOO Eless Adjusted	427.00	440.40	420.27	400.75	407 76	426.04	425.20	400.00	407.04	420 60	429.24





# 20 NMAC 6.2.III.3103 STANDARDS FOR GROUND WATER OF 10,000 mg/l TDS CONCENTRATION OR LESS

The following standards are the allowable pH range and the maximum allowable concentration in ground water for the contaminants specified unless the existing condition exceeds the standard or unless otherwise provided in Section 3109.D. Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C, the existing pH or concentration shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foreseeable future use in excess of the standards of this Section.

These standards shall apply to the dissolved portion of the contaminants specified with a definition of dissolved being that given in the publication "Methods for Chemical Analysis of Water and Waste of the U.S. Environmental Protection Agency," with the exception that standards for mercury, organic compounds and non-aqueous phase liquids shall apply to the total unfiltered concentrations of the contaminants. [2-18-77, 11-17-83, 3-3-86, 12-1-95]

A. Human Health Standards-Ground water shall meet the standards of Subsection A and B unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 1101 for the combination of contaminants, or the Human Health Standard of Section 3103.A. for each contaminant shall apply, whichever is more stringent.

Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

0.1 mg/l Arsenic (As) Barium (Ba) 1.0 mg/l 0.01 mg/l Cadmium (Cd) 0.05 mg/1 Chromium (Cr) 0.2 mg/l Cyanide (CN) Fluoride (F) 1.6 mg/l Lead (Pb) 0.05 mg/l 0.002 mg/l Total Mercury (Hg) 10.0 mg/l Nitrate (NO3 as N) 0.05 mg/l Selenium (Se) 0.05 mg/l Silver (Ag) 5.0 mg/l Uranium (U) Radioactivity: Combined Radium-226 & Radium-2283 0.0 pCi/l 0.01 mg/lBenzene Polychlorinated 0.001 mg/l biphenyls (PCB's) 0.75 mg/l Toluene Carbon Tetrachloride 0.01 mg/l 0.01 mg/l 1,2-dichloroethane (EDC) 1,1-dichloroethylene (1,1-DCE) 0.005 mg/l 0.02 mg/l 1,1,2,2-tetrachloroethylene (PCE) 0.1 mg/l 1,1,2-trichloroethylene (TCE) 0.75 mg/l ethylbenzene 0.62 mg/l total xylenes 0.1 mg/l methylene chloride 0.1 mg/l chloroform 0.025 mg/l 1.1-dichloroethane ethylene dibromide (EDB) 0.0001 mg/l 0.06 mg/l 1,1,1-trichloroethane 0.01 mg/l 1,1,2-trichloroethane 0.01 ma/1 1,1,2,2-tetrachloroethane vinyl chloride 0.001 mg/l PAHs: total naphthalene plus 0.03 mg/l monomethylnaphthalenes

 benzo-a-pyrene
 0.0007 mg/l

 [2-13-77, 1-29-82, 3-3-86, 12-1-95]
 B. Other Standards for Domestic Water Supply

 Chloride (Cl)
 250.0 mg/l

 Copper (Cu)
 1.0 mg/l

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Iron (Fe)1.0 mg/lManganese (Mn)0.2 mg/lPhenols0.005 mg/lSulfate (SO4)600.0 mg/lTotal Dissolved Solids (TDS)1000.0 mg/lZinc (Zn)10.0 mg/lpHbetween 6 and 9[2-18-77]

C. Standards for Irrigation Use - Ground water shall meet the standards of Subsection A, B, and C unless otherwise provided.

4	
Aluminum (Al)	5.0 mg/l
Boron (B)	0.75 mg/l
Cobalt (Co)	0.05 mg/l
Molybdenum (Mo)	1.0 mg/1
Nickel (Ni)	0.2 mg/1
[2-18-77]	-

### 20 NMAC 6.2.III.3104 DISCHARGE PLAN REQUIRED

Unless otherwise provided by this Part, no person shall cause or allow effluent of leachate to discharge so that it may move directly of indirectly into ground water unless he is discharging pursuant to a discharge plan approved by the secretary. When a plan has been approved, discharges must be consistent with the terms and conditions of the plan. In the event of a transfer of the ownership, control, or possession of a facility for which an approved discharge plan is in effect, the transferee shall have authority to discharge under such plan, provided that the transferee has complied with Section 3111 of this Part, regarding transfers. [2-18-77, 12-24-87, 12-1-95]

#### 20 NMAC 6.2.III.3105 EXEMPTIONS FROM DISCHARGE PLAN REQUIREMENT

Sections 3104 and 3106 of this Part do not apply to the following: [2-18-77]

A. Effluent or leachate which conforms to all the listed numerical standards of Section 3103 and has a total nitrogen concentration of 10 mg/l or less, and does not contain any toxic pollutant. To determine conformance, samples may be taken by the agency before the effluent or leachate is discharged so that it may move directly or indirectly into ground water; provided that if the discharge is by seepage through non-natural or altered natural materials, the agency may take samples of the solution before or after seepage. If for any reason the agency does not have access to obtain the appropriate samples, this exemption shall not apply; [2-18-77, 6-20-80, 7-2-81]

B. Effluent which is discharged from a sewerage system used only for disposal of household and other domestic waste which is designed to receive and which receives 2,000 gallons or less of liquid waste per day; [2-18-77, 12-24-87]

C. Water used for irrigated agriculture, for watering of lawns, trees, gardens or shrubs, or for irrigation for a period not to exceed five years for the revegetation of any disturbed land area, unless that water is received directly from any sewerage system; [2-18-77]

D. Discharges resulting from the transport or storage of water diverted, provided that the water diverted has not had added to it after the point of diversion any effluent received from a sewerage system, that the source of the water diverted was not mine workings, and that the secretary has not determined that a hazard to public health may result; [2-18-77, 12-1-95]

E. Effluent which is discharged to a watercourse which is naturally perennial; discharges to dry
arroyos and ephemeral streams are not exempt from the discharge plan requirement, except as otherwise provided in this Section; [2-18-77]

F. Those constituents which are subject to effective and enforceable effluent limitations in a National Pollutant Discharge Elimination System (NPDES) permit, where discharge onto or below the surface of the ground so that water contaminants may move directly or indirectly into ground water occurs downstream from the outfall where NPDES effluent limitations are imposed, unless the secretary determines that a hazard to public health may result. For purposes of this Subsection, monitoring requirements alone do not constitute effluent limitations; [2-18-77, 12-1-95]

G. Discharges resulting from flood control systems; [2-18-77]

H. Leachate which results from the direct natural infiltration of precipitation through disturbed materials, unless the secretary determines that a hazard to public health may result; [2-18-77, 6-26-80, 12-1-95]

I. Leachate which results entirely from the direct natural infiltration of precipitation through undisturbed materials; [2-18-77, 6-26-80]

J. Leachate from materials disposed of in accordance with the Solid Waste Management Regulations (20 NMAC 9.1) adopted by the New Mexico Environmental Improvement Board; [2-18-77, 12-1-95]

K. Natural ground water seeping or flowing into conventional mine workings which re-enters the ground by natural gravity flow prior to pumping or transporting out of the mine and without being used in any mining process; this exemption does not apply to solution mining; [2-18-77]

L. Effluent or leachate discharges resulting from activities regulated by a mining plan approved and permit issued by the New Mexico Coal Surface Mining Commission, provided that this exemption shall not be construed as limiting the application of appropriate ground water protection requirements by the New Mexico Coal Surface Mining Commission; [2-18-77]

M. Effluent or leachate discharges which are regulated by the Oil Conservation Commission and the regulation of which by the Water Quality Control Commission would interfere with the exclusive authority granted under Section <u>70-2-12</u> NMSA 1978, or under other laws, to the Oil Conservation Commission. [2-18-77]

# 20 NMAC 6.2.III.3106 APPLICATION FOR DISCHARGE PLAN APPROVALS AND RENEWALS

A. Any person who, before or on June 18, 1977, is discharging any of the water contaminants listed in Section 3103 or any toxic pollutant so that they may move directly or indirectly into ground water shall, within 120 days of receipt of written notice from the secretary that a discharge plan is required, or such longer time as the secretary shall for good cause allow, submit a discharge plan to the secretary for approval; such person may discharge without an approved discharge plan until 240 days after written notification by the secretary that a discharge plan is required or such longer time as the secretary shall for good cause allow. [2-18-77, 6-26-80, 7-2-81, 12-1-95]

B. Any person who intends to begin, after June 18, 1977, discharging any of the water contaminants listed in Section 3103 or any toxic pollutant so that they may move directly or indirectly into ground water shall notify the secretary giving the information enumerated in Section 1201.B.; the secretary shall, within 60 days, notify such person if a discharge plan is required; upon submission, the secretary shall review the discharge plan pursuant to Sections 3108 and 3109; for good cause shown, the secretary may allow such person to discharge without an approved plan for a period not to extend beyond February 18, 1978; after February 18, 1978, for good cause shown the secretary may allow such person to discharge plan for a period not to exceed 120 days. [2-18-77, 6-26-80, 7-2-81, 12-1-95]

C. A proposed discharge plan shall set forth in detail the methods or techniques the discharger proposes to use or processes expected to naturally occur which will ensure compliance with this Part. At

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least the following information shall be included in the plan: [2-18-77]

1. Quantity, quality and flow characteristics of the discharge; [2-18-77]

2. Location of the discharge and of any bodies of water, watercourses and ground water discharge sites within one mile of the outside perimeter of the discharge site, and existing or proposed wells to be used for monitoring; [2-18-77]

3. Depth to and TDS concentration of the ground water most likely to be affected by the discharge; [2-18-77]

4. Flooding potential of the site; [2-18-77]

5. Location and design of site(s) and method(s) to be available for sampling, and for measurement or calculation of flow; [2-18-77]

6. Depth to and lithological description of rock at base of alluvium below the discharge site if such information is available; [2-18-77]

7. Any additional information that may be necessary to demonstrate that approval of the discharge plan will not result in concentrations in excess of the standards of Section 3103 or the presence of any toxic pollutant at any place of withdrawal of water for present or reasonably foreseeable future use. Detailed information on site geologic and hydrologic conditions may be required for a technical evaluation of the applicant's proposed discharge plan; and [2-18-77, 6-26-80, 7-2-81]

8. Additional detailed information required for a technical evaluation of effluent disposal wells or in situ extraction wells as provided in Subpart V of this Part. [9-20-82]

D. An applicant for a discharge plan shall pay fees as specified in Section 3114. [8-17-91]

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#### SUBPART IV -- PREVENTION AND ABATEMENT OF WATER POLLUTION

#### 20 NMAC 6.2.IV.4101 PURPOSE

A. The purposes of this Subpart are to:

1. Abate pollution of subsurface water so that all ground water of the State of New Mexico which has a background concentration of 10,000 mg/L or less TDS, is either remediated or protected for use as domestic and agricultural water supply, and to remediate or protect those segments of surface waters which are gaining because of subsurface-water inflow, for uses designated in the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20 NMAC 6.1); and [12-1-95]

2. Abate surface-water pollution so that all surface waters of the State of New Mexico are remediated or protected for designated or attainable uses as defined in the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20 NMAC 6.1). [12-1-95]

B. If the background concentration of any water contaminant exceeds the standard or requirement of Sections 4103.A, 4103.B or 4103.C of this Part, pollution shall be abated by the responsible person to the background concentration. [12-1-95]

C. The standards and requirements set forth in Section 4103 of this Part are not intended as maximum ranges and concentrations for use, and nothing herein contained shall be construed as limiting the use of waters containing higher ranges and concentrations. [12-1-95]

#### 20 NMAC 6.2.IV.4102 [RESERVED]

#### 20 NMAC 6.2.IV.4103 ABATEMENT STANDARDS AND REQUIREMENTS

A. The vadose zone shall be abated so that water contaminants in the vadose zone shall not be capable of contaminating ground water or surface water, in excess of the standards in Subsections B and C below, through leaching, percolation or as the water table elevation fluctuates. [12-1-95]

B. Ground-water pollution at any place of withdrawal for present or reasonably foreseeable future use, where the TDS concentration is 10,000 mg/L or less, shall be abated to conform to the following standards: [12-1-95]

1. toxic pollutant(s) as defined in Section 1101 of this Part shall not be present; and [12-1-95]

2. the standards of Section 3103 of this Part shall be met. [12-1-95]

C. Surface-water pollution shall be abated to conform to the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20 NMAC 6.1). [12-1-95]

D. Subsurface-water and surface-water abatement shall not be considered complete until a minimum of eight (8) consecutive quarterly samples from all compliance sampling stations approved by the secretary meet the abatement standards of Subsections A, B and C above. Abatement of water contaminants measured in solid-matrix samples of the vadose zone shall be considered complete after one-time sampling from compliance stations approved by the secretary. [12-1-95]

E. Technical Infeasibility.

1. If any responsible person is unable to fully meet the abatement standards set forth in Subsections A and B above using commercially accepted abatement technology pursuant to an approved abatement plan,

he may propose that abatement standards compliance is technically infeasible. Technical infeasibility proposals involving the use of experimental abatement technology shall be considered at the discretion of the secretary. Technical infeasibility may be demonstrated by a statistically valid extrapolation of the decrease in concentration(s) of any water contaminant(s) over the remainder of a twenty (20) year period, such that projected future reductions during that time would be less than 20% of the concentration(s) at the time technical infeasibility is proposed. A statistically valid decrease cannot be demonstrated by fewer than eight (8) consecutive quarters. The technical infeasibility proposal shall include a substitute abatement standard(s) for those contaminants that is/are technically feasible. Abatement standards for all other water contaminants not demonstrated to be technically infeasible shall be met. [12-1-95]

2. In no event shall a proposed technical infeasibility demonstration be approved by the secretary for any water contaminant if its concentration is greater than 200% of the abatement standard for that contaminant. [12-1-95]

3. If the secretary cannot approve any or all portions of a proposed technical infeasibility demonstration because the water contaminant concentration(s) is/are greater than 200% of the abatement standard(s) for each contaminant, the responsible person may further pursue the issue of technical infeasibility by filing a petition with the commission seeking:

a. approval of alternate abatement standard(s) pursuant to Section 4103.F below; or

b. granting of a variance pursuant to Section 1210 of this Part.

[12-1-95]

F. Alternative Abatement Standards.

1. At any time during or after the submission of a Stage 2 abatement plan, the responsible person may file a petition seeking approval of alternative abatement standard(s) for the standards set forth in Subsections A and B above. The commission may approve alternative abatement standard(s) if the petitioner demonstrates that:

a. (1) compliance with the abatement standard(s) is/are not feasible, by the maximum use of technology within the economic capability of the responsible person; or

(2) there is no reasonable relationship between the economic and social costs and benefits (including attainment of the standard(s) set forth in Section 4103) to be obtained;

b. the proposed alternative abatement standard(s) is/are technically achievable and cost-benefit justifiable; and

c. compliance with the proposed alternative abatement standard(s) will not create a present or future - hazard to public health or undue damage to property.

2. The petition shall be in writing, filed with the secretary. The petition shall specify, in addition to the information required by Section 1210.A of this Part, the water contaminant(s) for which alternative standard(s) is/are proposed, the alternative standard(s) proposed, the three-dimensional body of water pollution for which approval is sought, and the extent to which the abatement standard(s) set forth in Section 4103 is/are now, and will in the future be, violated. The petition may include a transport, fate and risk assessment in accordance with accepted methods, and other information as the petitioner deems necessary to support the petition.

3. The commission shall review a petition for alternative abatement standards in accordance with the procedures for review of a variance petition provided in the commissions adjudicatory procedures, 20 NMAC 1.3.

[12-1-95, 11-15-96]

#### 20 NMAC 6.2.IV.4104 ABATEMENT PLAN REQUIRED

A. Unless otherwise provided by this Part, all responsible persons who are abating, or who are required to abate, water pollution in excess of the standards and requirements set forth in Section 4103 of

this Part shall do so pursuant to an abatement plan approved by the secretary. When an abatement plan has been approved, all actions leading to and including abatement shall be consistent with the terms and conditions of the abatement plan. [12-1-95]

B. In the event of a transfer of the ownership, control or possession of a facility for which an abatement plan is required or approved, where the transferor is a responsible person, the transferee also shall be considered a responsible person for the duration of the abatement plan, and may jointly share the responsibility to conduct the actions required by this Part with other responsible persons. The transferror shall notify the transferee in writing, at least thirty (30) days prior to the transfer, that an abatement plan has been required or approved for the facility, and shall deliver or send by certified mail to the secretary a copy of such notification together with a certificate or other proof that such notification has in fact been received by the transferee. The transferror and transferee may agree to a designated responsible persons shall notify the secretary in writing if a designated responsible person is agreed upon. If the secretary determines that the designated responsible person has failed to conduct the actions required by this Part, the secretary shall notify all responsible persons of this failure in writing and allow them thirty (30) days, or longer for good cause shown, to conduct the required actions before issuing a compliance order pursuant to Section 1220 of this Part. [12-1-95]

C. If the source of the water pollution to be abated is a facility that operated under a discharge plan, the secretary may require the responsible person(s) to submit a financial assurance plan which covers the estimated costs to conduct the actions required by the abatement plan. Such a financial assurance plan shall be consistent with any financial assurance requirements adopted by the commission. [12-1-95]

#### 20 NMAC 6.2.IV.4105 EXEMPTIONS FROM ABATEMENT PLAN REQUIREMENT

A. Except as provided in Subsection B of this Section, Sections 4104 and 4106 of this Part do not apply to a person who is abating water pollution: [12-1-95]

1. from an underground storage tank, under the authority of the Underground Storage Tank Regulations (20 NMAC Part 5) adopted by the New Mexico Environmental Improvement Board, or in accordance with the New Mexico Ground Water Protection Act; [12-1-95]

2. under the authority of the U.S. Environmental Protection Agency pursuant to either the federal Comprehensive Environmental Response, Compensation and Liability Act, and amendments, or the Resource Conservation and Recovery Act; [12-1-95]

3. under the authority of the secretary pursuant to the Hazardous Waste Management Regulations (20 NMAC 4.1) adopted by the New Mexico Environmental Improvement Board; [12-1-95]

4. under the authority of the U.S. Nuclear Regulatory Commission or the U.S. Department of Energy pursuant to the Atomic Energy Act; [12-1-95]

5. from a solid waste landfill, under the authority of the secretary pursuant to the Solid Waste Management Regulations (20 NMAC 9.1) adopted by the N.M. Environmental Improvement Board; [12-1-95]

6. under the authority of a ground-water discharge plan approved by the secretary, provided that such abatement is consistent with the requirements and provisions of Sections 4101, 4103, 4106.C, 4106.E, 4107 and 4112 of this Part; [12-1-95]

7. under the authority of a Letter of Understanding, Settlement Agreement or Administrative Order on Consent signed by the secretary prior to December 1, 1995, provided that abatement is being performed in full compliance with the terms of the Letter of Understanding, Settlement Agreement or Administrative Order on Consent; and [12-1-95]

8. on an emergency basis, or while abatement plan approval is pending, or in a manner that will result in compliance with the standards and requirements set forth in Section 4103 of this Part within one

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hundred and eighty (180) days after notice is required to be given pursuant to Section 1203.A.1 of this Part, provided that the delegated agency does not object to the abatement action pursuant to Sections 1203.A.6 and 1203.A.7 of this Part. [12-1-95]



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B. If the secretary determines that abatement of water pollution subject to Subsection A of this Section will not meet the standards of Sections 4103.B and C of this Part, or that additional action is necessary to protect health, welfare, environment or property, the secretary may notify a responsible person, by certified mail, to submit an abatement plan pursuant to Sections 4104 and 4106.A of this Part. The notification shall state the reasons for the secretary's determination. In any appeal of the secretary's determination under this Section, the secretary shall have the burden of proof. [12-1-95]

C. Sections 4104 and 4106 of this Part do not apply to the following activities: [12-1-95]

1. Discharges subject to an effective and enforceable National Pollutant Discharge Elimination System (NPDES) permit; [12-1-95]

2. Land application of ground water contaminated with nitrogen originating from human or animal waste and not otherwise exceeding the standards of Section 3103. A of this Part and not containing a toxic pollutant as defined in Section 1101 of this Part, provided that it is done in compliance with a discharge plan approved by the secretary; [12-1-95]

3. Abatement of water pollution resulting from the withdrawal and decontamination or blending of polluted water for use as a public or private drinking-water supply, by any person other than a responsible person, unless the secretary determines that a hazard to public health may result; and [12-1-95]

4. Reasonable operation and maintenance of irrigation and flood control facilities. [12-1-95]

#### 20 NMAC 6.2.IV.4106 ABATEMENT PLAN PROPOSAL

A. Except as provided for in Section 4105 of this Part, a responsible person shall, within sixty (60) days of receipt of written notice from the secretary that an abatement plan is required, submit an abatement plan proposal to the secretary for approval. For good cause shown, the secretary may allow for a total of one hundred and twenty (120) days to prepare and submit the abatement plan proposal. [12-1-95]

B. Voluntary Abatement.

1. Any person wishing to abate water pollution in excess of the standards and requirements set forth in Section 4103 of this Part may submit a Stage 1 abatement plan proposal to the secretary for approval. Following approval by the secretary of a final site investigation report prepared pursuant to Stage 1 of an abatement plan, any person may submit a Stage 2 abatement plan proposal to the secretary for approval. [12-1-95]

2. Following approval of a Stage 1 or Stage 2 abatement plan proposal under Subsection B.1 of this Section, the person submitting the approved plan shall be a responsible person under this Subpart for the purpose of performing the approved Stage 1 or Stage 2 abatement plan. Nothing in this Section shall preclude the secretary from applying Section 1203.A.9 of this Part to a responsible person if applicable. [12-1-95]

C. Stage 1 Abatement Plan.

The purpose of Stage 1 of the abatement plan shall be to design and conduct a site investigation that will adequately define site conditions, and provide the data necessary to select and design an effective abatement option. Stage 1 of the abatement plan may include, but not necessarily be limited to, the following information depending on the media affected, and as needed to select and implement an expeditious abatement option: [12-1-95]

1. Descriptions of the site, including a site map, and of site history including the nature of the discharge that caused the water pollution, and a summary of previous investigations; [12-1-95]

2. Site investigation workplan to define:

a. site geology and hydrogeology, the vertical and horizontal extent and magnitude of vadose-zone

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and ground-water contamination, subsurface hydraulic parameters including hydraulic conductivity, transmissivity, storativity, and rate and direction of contaminant migration, inventory of water wells inside and within one (1) mile from the perimeter of the three-dimensional body where the standards set forth in Section 4103 B are exceeded, and location and number of such wells actually or potentially affected by the pollution; and

b. surface-water hydrology, seasonal stream flow characteristics, ground-water/surface-water relationships, the vertical and horizontal extent and magnitude of contamination and impacts to surface water and stream sediments. The magnitude of contamination and impacts on surface water may be, in part, defined by conducting a biological assessment of fish, benthic macroinvertebrates and other wildlife populations. Seasonal variations should be accounted for when conducting these assessments. [12-1-95]

3. Monitoring program, including sampling stations and frequencies, for the duration of the abatement plan that may be modified, after approval by the secretary, as additional sampling stations are created; [12-1-95]

4. Quality assurance plan, consistent with the sampling and analytical techniques listed in Section 3107.B of this Part and with Section 1103 of the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20 NMAC 6.1), for all work to be conducted pursuant to the abatement plan; [12-1-95]

5. Site health and safety plan for all work to be performed pursuant to the abatement plan; [12-1-95]

6. A schedule for all Stage 1 abatement plan activities, including the submission of summary quarterly progress reports, and the submission, for approval by the secretary, of a detailed final site investigation report; and [12-1-95]

7. Any additional information that may be required to design and perform an adequate site investigation. [12-1-95]

D. Stage 2 Abatement Plan.

Any responsible person shall submit a Stage 2 abatement plan proposal to the secretary for approval within sixty (60) days, or up to one hundred and twenty (120) days for good cause shown, after approval by the secretary of the final site investigation report prepared pursuant to Stage 1 of the abatement plan. [12-1-95]

E. The purpose of Stage 2 of the abatement plan shall be to select and design, if necessary, an abatement option that, when implemented, will result in attainment of the abatement standards and requirements set forth in Section 4103 of this Part, including post-closure maintenance activities. Stage 2 of the abatement plan should include, at a minimum, the following information: [12-1-95]

1. Brief description of the current situation at the site; [12-1-95]

2. Development and assessment of abatement options; [12-1-95]

3. Description, justification and design, if necessary, of preferred abatement option; [12-1-95]

4. Modification, if necessary, of the monitoring program approved pursuant to Stage 1 of the abatement plan, including the designation of pre and post abatement-completion sampling stations and sampling frequencies to be used to demonstrate compliance with the standards and requirements set forth in Section 4103 of this Part; [12-1-95]

5. Site maintenance activities, if needed, proposed to be performed after termination of abatement activities; [12-1-95]

6. A schedule for the duration of abatement activities, including the submission of summary quarterly progress reports; [12-1-95]

7. A public notification proposal designed to satisfy the requirements of Sections 4108.B and 4108.C of this Part; and [12-1-95]

8. Any additional information that may be reasonably required to select, describe, justify and design an effective abatement option. [12-1-95]

#### 20 NMAC 6.2.IV.4107 OTHER REQUIREMENTS

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A. Any responsible person shall allow any authorized representative of the secretary to: [12-1-95]

1. upon presentation of proper credentials, enter the facility at reasonable times; [12-1-95]

2. inspect and copy records required by an abatement plan; [12-1-95]

3. inspect any treatment works, monitoring and analytical equipment; [12-1-95]

4. sample any wastes, ground water, surface water, stream sediment, plants, animals, or vadose-zone material including vadose-zone vapor; [12-1-95]

5. use monitoring systems and wells under such responsible person's control in order to collect samples of any media listed in Section 4107.A.4 above; and [12-1-95]

6. gain access to off-site property not owned or controlled by such responsible person, but accessible to such responsible person through a third-party access agreement, provided that it is allowed by the agreement. [12-1-95]

B. Any responsible person shall provide the secretary, or a representative of the secretary, with at least four (4) working days advance notice of any sampling to be performed pursuant to an abatement plan, or any well plugging, abandonment or destruction at any facility where an abatement plan has been required. [12-1-95]

C. Any responsible person wishing to plug, abandon or destroy a monitoring or water supply well within the perimeter of the 3-dimensional body where the standards set forth in Section 4103.B are exceeded, at any facility where an abatement plan has been required, shall propose such action by certified mail to the secretary for approval, unless such approval is required from the State Engineer. The proposed action shall be designed to prevent water pollution that could result from water contaminants migrating through the well or borehole. The proposed action shall not take place without written approval from the secretary, unless written approval or disapproval is not received by the responsible person within thirty (30) days of the date of receipt of the proposal. [12-1-95]

#### 20 NMAC 6.2.IV.4108 PUBLIC NOTICE AND PARTICIPATION

A. Within thirty (30) days of filing of a Stage 1 abatement plan proposal, the secretary shall issue a news release summarizing: [12-1-95]

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1. the source, extent, magnitude and significance of water pollution, as known at that time; [12-1-95]

2. the proposed Stage 1 abatement plan investigation; and [12-1-95]

3. the name and telephone number of an agency contact who can provide additional information. [12-1-95]

B. Within thirty (30) days of filing of a Stage 2 abatement plan proposal, or proposed significant modification of Stage 2 of the abatement plan, any responsible person shall provide to the secretary proof of public notice of the abatement plan to the following persons: [12-1-95]

1. the public, who shall be notified through publication of a notice in newspapers of general circulation in this state and in the county where the abatement will occur and, in areas with large percentages of non-English speaking people, through the mailing of the public notice in English to a bilingual radio station serving the area where the abatement will occur with a request that it be aired as a public service announcement in the predominant non-English language of the area; [12-1-95]

2. those persons, as identified by the secretary, who have requested notification, who shall be notified by mail; [12-1-95]

3. the New Mexico Trustee for Natural Resources, and any other local, state or federal governmental agency affected, as identified by the secretary, which shall be notified by certified mail; [12-1-95]

4. owners and residents of surface property located inside, and within one (1) mile from, the perimeter of the geographic area where the standards and requirements set forth in Section 4103 are exceeded who shall be notified by a means approved by the secretary; and [12-1-95]

5. the Governor or President of each Indian Tribe, Pueblo or Nation within the state of New Mexico, as identified by the secretary, who shall be notified by mail. [12-1-95]

C. The public notice shall include, as approved in advance by the secretary: [12-1-95]

1. name and address of the responsible person; [12-1-95]

2. location of the proposed abatement; [12-1-95]

3. brief description of the nature of the water pollution and of the proposed abatement action; [12-1-95]

4. brief description of the procedures followed by the secretary in making a final determination; [12-1-95]

5. statement on the comment period; [12-1-95]

6. statement that a copy of the abatement plan can be viewed by the public at the department's main office or at the department field office for the area in which the discharge occurred; [12-1-95]

7. statement that written comments on the abatement plan, and requests for a public meeting or hearing that include the reasons why a meeting or hearing should be held, will be accepted for consideration if sent to the secretary within sixty (60) days after the determination of administrative completeness; and [12-1-95]

8. address and phone number at which interested persons may obtain further information. [12-1-95]

D. A public meeting or hearing may be held if the secretary determines there is significant public interest. Notice of the time and place of the meeting or hearing shall be given at least thirty (30) days prior to the meeting or hearing pursuant to Subsections A and B above. The secretary may appoint a meeting facilitator or hearing officer. The secretary may require the responsible person to prepare for approval by the secretary a fact sheet, to be distributed at the public meeting or hearing and afterwards upon request, written in English and Spanish, describing site history, the nature and extent of water pollution, and the proposed abatement. The record of the meeting or hearing, requested under this Section, consists of a tape recorded or transcribed session, provided that the cost of a court recorder shall be paid by the person requesting the transcript. If requested by the secretary, the responsible person will provide a translator approved by the secretary at a public meeting or hearing conducted in a locale where testimony from non-English speaking people can reasonably be expected. At the meeting or hearing, all interested persons

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secretary within thirty (30) days after receiving notice of the secretary's action. The petition shall specify the portions of the action to which the petitioner objects, certify that a copy of the petition has been mailed or hand-delivered to the secretary, and to the applicant or permittee if the petitioner is not the applicant or permittee, and attach a copy of the action for which review is sought. Unless a timely petition for hearing is made, the secretary's action is final. [12-1-95]

D. The proceedings before the commission shall be conducted as provided in the commissions adjudicatory procedures, 20 NMAC 1.3. [12-1-95, 11-15-96]

E. The cost of the court reporter for the hearing shall be paid by the petitioner. [12-1-95]

F. The appeal provisions do not relieve the owner, operator or responsible person of their obligations to comply with any federal or state laws or regulations. [12-1-95]

#### 20 NMAC 6.2.IV.4115 COURT REVIEW OF COMMISSION DECISIONS

Court review of commission decisions shall be as provided by law. [12-1-95]

L'OCUMONI



KN Energy, Inc. One Allen Center 500 Dallas Street, Suite 1000 P.O. Box 283 Houston, TX 77001-0283 (713) 369-9000 III E E E V E JUL I 6 1999 OIL CONSERVATION DIVISION

July 12, 1999

New Mexico Oil Conservation Division Atten: Mr. Jack Ford 2040 South Pacheco Santa Fe, New Mexico 87505

#### RE: KN Energy, Inc. – Former Hobbs Natural Gas Plant – GW-191 Annual Groundwater Sampling and Monitoring Report – 1998 Hobbs, New Mexico

Dear Mr. Ford:

Enclosed please find the 1998 Annual Groundwater Monitoring Report prepared by our consultant, Eco-logical Environmental Services, Inc., for the above referenced facility. The report summarizes the results of the monitoring data collected during 1998 and provides conclusions and recommendations for future activities.

Please do not hesitate to contact me at (713) 369-9193 or Mr. Shane Estep of Eco-logical at (915) 520-7535 if you have any questions or comments.

Sincerely,

John M. Greer Environmental Coordinator

Cc: Donna Williams – New Mexico OCD, Hobbs Office Paul Tourangeau – KN Shane Estep – Eco-logical (w/o attachment)



# ANNUAL GROUNDWATER MONITORING AND SAMPLING REPORT

## AMERICAN PROCESSING, L.P., an affiliate of K N ENERGY, INC.

## HOBBS GAS PLANT LEA COUNTY, NEW MEXICO

AMERICAN PROCESSING, L.P., 370 Van Gordon Lakewood, Colorado 80228

200



Quarterly Groundwater Monitoring and Sampling Annual Report June 10, 1999

Hobbs Natural Gas Plant Hobbs, Lea County, New Mexico

> Date Prepared: June 10, 1999

**ECO Project No.:** 279-512

**Prepared for:** New Mexico O:I Conservation Division

> On Behalf of: American Processing, L.P., an affiliate of K N Energy, Inc.

**Prepared by:** Eco-logical Environmental Services, Inc.

Scott Springer, Project Geologis

Shane Estep, Proj ct Manager

2200 Market

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#### I. Report Summary

The purpose of this report is to fulfill the requirements of the groundwater monitoring plan approved by the New Mexico Oil Conservation Division (OCD). This is the second annual report submitted to the OCD as required by the agency. On April 3, 1998, June 25, 1998, October 2, 1998, and January 5, 1999, Eco-logical Environmental Services, Inc. (Eco-logical) personnel were on-site to purge and sample ten (10) monitor wells (MW) at the Former Hobbs Gas Plant west of Hobbs, New Mexico (see Figure 1). The objective of this sampling event was to fulfill the Abatement Plan requirements approved by the OCD in April 1997 and as modified in December 1998. The modification removed MW-2, MW-4 and MW-8 from the requirements of quarterly sampling. This event involved the measurement of relative depths to water, purging of the monitoring wells, and sample collection and analyses. Figure 2 presents the site map with the locations of the monitor wells.

The plant has not been in operation for nearly two years. In addition to the plant closure, many compressors and skid mounted equipment have been removed. Some additional equipment is also scheduled to be dismantled. The remaining equipment and structures have been sold to Transwestern Pipeline Company.

The initial task was to determine the static groundwater levels relative to the north side of the top of each well casing and to examine each well for the presence of phase separated hydrocarbons (PSH) using an interface probe with a calibrated tape (see Tables 1 - 10). Wells were measured from the least impacted to the most impacted as determined by previous sampling events. All equipment was properly decontaminated between gauging of wells. None of the wells exhibited free product.

The latest depth to groundwater at the site ranges from 54.5 to 60.0 feet below the ground surface. These depths represent an average drop in the water table of 3.1 feet since the sampling event in October of 1996 (see Figure 3). Depth to groundwater has been increasing in all wells since October 1996 with the exception of the last quarterly event in January 1999 which showed a slight decrease over the previous sampling event of October 1998. The overall groundwater flow direction is stable to the southeast at a gradient of 1:379 (see Figure 4 for a current gradient map).

After obtaining all measurements, the volume of water in each casing was calculated. The wells were then purged by hand bailing or by an electric submersible purge pump. Wells were purged until three well volumes of water were removed or until the well was dry. The bailers or pump were decontaminated between wells with a water and Alconox solution and rinsed in clean water. After allowing the wells to recover to at least 70 percent of the original water depth, samples were collected utilizing new, single use, one (1) liter bailers. Groundwater samples were then submitted

to TraceAnalysis, Inc., in Lubbock, Texas, for analyses. Based on previous analytical results and as approved by the OCD letter dated December 15, 1998, a minimized analyses schedule was performed. This included analysis for benzene, toluene, ethylbenzene, and xylene (BTEX) from wells MW-1, MW-3, MW-5, MW-7, MW-9, and MW-10 and chloride from wells MW-6, MW-7, MW-9, and MW-10. MW-2, MW-4, and MW-8 were not tested because of the distance from the plume and the plume is thought to be moving away from these wells.

The latest analytical results showed that benzene levels continue to be present above the New Mexico Water Quality Control Commission (WQCC) Guideline level (see appendix) of 0.01 parts per million (ppm) in water from monitor well MW-6 at a concentration of 0.123 ppm. Chloride is currently present at 520 ppm in MW-9. The chloride concentration has varied in this well both above and below the established guidelines (located in 20 NMAC.6.2.3103) of 250 ppm. The analytical results as compared with the sampling event of October 2, 1998 are as follows:

MW-1	Benzene Toluene Ethylbenzene Xylene	<ul> <li>decreased to 0.005 ppm</li> <li>remained nondetect</li> <li>remained nondetect</li> <li>remained nondetect</li> </ul>
MW-2	Not Tested	
MW-3	BTEX	- remained less than 0.001 ppm
MW-4	Not Tested	
MW-5	Benzene Toluene Ethylbenzene Xylene	<ul> <li>decreased to 0.005 ppm</li> <li>remained less than 0.001 ppm</li> <li>remained less than 0.001 ppm</li> <li>remained less than 0.001 ppm</li> </ul>
MW-6	Benzene Toluene Ethylbenzene Xylene Chloride	<ul> <li>decreased to 0.123 ppm</li> <li>remained nondetect</li> <li>remained nondetect</li> <li>decreased to 0.004 ppm</li> <li>increased to 56 ppm</li> </ul>
MW-7	BTEX Chloride	<ul> <li>remained less than 0.001 ppm</li> <li>increased to 74 ppm</li> </ul>
MW-8	Not Tested	
MW-9	BTEX Chloride	- remained less than 0.001 ppm - increased to 520 ppm
<b>MW-10</b>	BTEX Chloride	<ul> <li>remained less than 0.001 ppm</li> <li>decreased to 140 ppm</li> </ul>

Results of the analyses of the water samples are presented in Tables 11 to 21 and are presented on graphs in Figures 6 to 11. Figure 5 presents the estimated isograds for benzene for the latest quarterly sampling event (Jan. 15, 1999). Section 6 contains the lab reports for all four quarterly events covered in this report.

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In addition to the sampling and monitoring of the groundwater at the site, soil work was performed and completed at the facility during the period of October 1997 to November 1998. Soil work was initially undertaken in October 1997 pursuant to the Soils Work Plan approved by the OCD in January of 1996. These soils had been excavated, stock piled, treated with bacteria and water, and shredded twice. Periodic treatments of bacteria and water were applied and then mixed with a backhoe. Samples collected in October 1998 indicated that the TPH levels in the treated soils were 774 ppm, which is below the WQCC Guideline level of 1,000 ppm (see appendix). Consistent with the work plan the soil was then returned to the excavations in November 1998. Section 6 contains the soil analytical results.



MW-10 ec.001

> MW-7 <0.001

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#### **II.** Chronology of Events

The Oil Conservation Division (OCD) of New Mexico inspected the plant on October 16, 1995, and noted several deficiencies. The deficiencies, and the related directives, were detailed in a letter issued by OCD on December 6, 1995. The letter was issued under OCD statutory authority and requires that KN Energy undertake and complete certain activities to fulfill OCD requirements. Previous activities undertaken by KN Energy, and the substance of activities reflected in this report, are to fulfill the requirements directed by OCD. The following chronology briefly summarizes the relevant activities conducted at the facility:

1994	K N Energy took possession of the plant in 1994 following a merger with American Oil and Gas.
Dec. 6, 1995	OCD directive issued to KN Energy on the initial items requiring action as a result of the Oct. 16, 1995 inspection.
Jan. 26, 1996	KNEnergy initial response to OCD directive.
Jan. 30, 1996	Work Plan for soils delineation submitted with the inclusion that one monitor well would be installed if impacted soil was discovered within ten feet of the groundwater.
Mar. 27, 1996	Delineation Work Plan approved by OCD with report due July1, 1996.
June 6, 1996	Soils Delineation Investigation Report filed with scope of work for extended Groundwater Delineation included.
Sept. 26, 1996	Directive received from OCD requiring the full delineation work plan of all contamination at the site including groundwater be submitted for approval.
Oct. 9, 1996	Work Plan for groundwater delineation filed as per the Sept. 26, 1996 OCD directive.
Oct. 15, 1996	Approval of groundwater delineation work plan received from OCD.
Dec. 11, 1996	KN announces impending closure of plant. Eco-logical submits requests for extension of time and change from Discharge Permit to Closure Plan, with the installation of additional monitor wells.

Dec. 17, 1996 OCD approves request for extension of time and the additional monitor wells.

Jan. 14, 1997 Additional groundwater monitoring well installed, and Abatement Plan and Closure Plan Report were submission to OCD as per Dec. 17, 1996 OCD directive.

Feb. 7, 1997 Phone conference held with OCD, Eco-logical and K N personnel to discuss results of report and proposed work plan.

Feb. 25, 1997 After review of Abatement Plan and phone conference, OCD issued a directive stating that the existing monitor wells also be tested for the entire suite of 20 NMAC 6.2.3103 constituents excluding uranium, radioactivity and PCB's, and additional wells be installed to define the points of compliance in the groundwater. An update/amendment report to be submitted by May 25, 1997.

March 13, 1997 Response to Feb. 1997 OCD letter submitted outlining the points to be followed in the extended delineation work plan.

April 1997 Three additional monitor wells installed and a quarterly sampling and monitoring event occurs.

May 10, 1997 Submission of updated Abatement Report filed with OCD as per the Feb. 25, 1997 directive.

June 26, 1997 OCD approves the updated Abatement Report including reducing the testing to BTEX, Napthalene, and Chlorides, and that an annual report be submitted by June 1, 1998.

July 1997 Quarterly Sampling and Monitoring Event.

Oct. 1997 Quarterly Sampling and Monitoring Event.

October 1997 Sump, Cryoskid, Flare Pit, and Compressor soils excavated and stock piled prior to remediation pursuant to the approved Stage 1 Abatement Plan and Site Closure Plan dated January 14, 1997.

November 1997 Initial Treatment of excavated soils performed.

January 1998	Quarterly Sampling and Monitoring Event.
March 1998	Submission of Annual Groundwater Sampling Report to the OCD, with a recommendation to stop testing for napthlene and discontinue sampling of MW-2, MW-4 and MW-8.
April 3, 1998	Quarterly Sampling and Monitoring Event.
June 25, 1998	Quarterly Sampling and Monitoring Event. Impacted stockpiled soil retreated.
October 2, 1998	Quarterly Sampling and Monitoring Event. Stock piled soil tested below OCD levels.
November 1998	Backfilling of excavations performed.
December 15, 1998	OCD contacted by Eco-logical regarding January 1998 Annual Groundwater Report and Reduced Analyses Plan. OCD approved reduced analyses in letter dated December 15, 1998.
5 January 1999	Quarterly Sampling and Monitoring Event.



#### III. Maps, Graphs, & Tables







Figure 3





FORMER HOBBS GAS PLANT MW-1 HISTORIC ANALYTICAL RESULTS



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Figure 6

FORMER HOBBS GAS PLANT MW-2 HISTORIC ANALYTICAL RESULTS





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FORMER HOBBS GAS PLANT MW-3 HISTORIC ANALYTICAL RESULTS





Figure 8

FORMER HOBBS GAS PLANT MW-5 HISTORIC ANALYTICAL RESULTS





Figure 9

FORMER HOBBS GAS PLANT MW-6 HISTORIC ANALYTICAL RESULTS



Figure 10

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Figure 11
	Table 1 Groundwater Table in Feet Monitor Well 1 Elevation of Screened Interval 436.7-456.7'									
Date         TD         TOC. Elevation         Depth to PSH         Depth to GW         Product         GW Elev:           Corrected for PSH         Depth to GW         Product         GW Elev:         Corrected for PSH										
09/17/96	59.0	495.73	-	53.10	0.00	442.63				
10/23/96	59.0	495.73	-	53.34	0.00	442.39				
04/10/97	59.0	495.73		54.32	0.00	441.41				
07/07/97	59.0	495.73	-	54.64	0.00	441.09				
10/08/97	59.0	495.73		54.98	0.00	440.75				
01/06/98	59.0	495.73	-	55.28	0.00	440.45				
04/03/98	59.0	495.73		55.60	0.00	440.13				
06/25/98	59.0	495.73	-	55.87	0.00	439.86				
10/02/98	59.0	495.73	-	56.36	0.00	439.37				
01/05/99	59.0	495.73		54.98	0.00	440.75				

Table 2 Groundwater Table in Feet Monitor Well 2 Elevation of Screened Interval 440.4-460.4									
Date	Date         TD         TOC Elevation         Depth to PSH         Depth to GW         Product         GW Elev.           Thickness         Corrected for PSH								
09/17/96	7/96 Well Not Installed								
10/23/96	62.0	502.41	-	58.33	0.00	444.08			
04/10/97	62.0	502.41		59.54	0.00	442.87			
07/07/97	62.0	502.41	-	60.00	0.00	442.41			
10/08/97	62.0	502.41		60.39	0.00	442.02			
01/06/98	62.0	502.41	-	60.70	0.00	441.71			
04/03/98	62.0	502.41		61.06	0.00	441.35			
06/25/98	62.0	502.41		61.37	0.00	441.04			
10/02/98	62.0	502.41	-	61.91	0.00	440.50			
01/05/99	62.0	<u>502.41</u>		60.39	0.00	442.02			

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	Table 3 Groundwater Table in Feet Monitor Well 3 Elevation of Screened Interval 434.2-454.23									
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH				
09/17/96			Well N	ot Installed						
10/23/96	64.9	499.13		56.28	0.00	442.85				
04/10/97	64.9	499.13		57.25	0.00	441.88				
07/07/97	64.9	499.13	-	57.59	0.00	441.54				
10/08/97	64.9	499.13		57.92	0.00	441.21				
01/06/98	64.9	499.13		58.24	0.00	440.89				
04/03/98	64.9	499.13		58.41	0.00	440.89				
06/25/98	64.9	499.13	-	58.84	0.00	440.29				
10/02/98	64.9	499.13		59.36	0.00	439.77				
01/05/99	64.9	499.13		57.92	0.00	441.21				

Table 4 Groundwater Table in Feet Monitor Well 4 Elevation of Screened Interval 436.8-456.8									
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH			
09/17/96	<u>) - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1</u>		Well N	ot installed					
10/23/96	64.3	501.12		58.12	0.00	443.00			
04/10/97	64.3	501.12	-	58.83	0.00	442.29			
07/07/97	64.3	501.12		59.19	0.00	441.93			
10/08/97	64.3	501.12	-	59.56	0.00	441.56			
01/06/98	64.3	501.12		59.91	0.00	441.21			
04/03/98	64,3	501.12		60.21	0.00	440.91			
06/25/98	64.3	501.12		60.48	0.00	440.64			
10/02/98	64.3	501.12	-	60.97	0.00	440.15			
01/05/99	64.3	501.12	_	59.56	0.00	441.56			

	Table 5 Groundwater Table in Feet Monitor Well 5 Elevation of Screened Interval 436.3-456.3										
Date	τ	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH					
09/17/96			Well No	ot installed							
10/23/96	64.5	500.84	-	58.96	0.00	441.88					
04/10/97	64.5	500.84	-	59.77	0.00	441.07					
07/07/97	64.5	500.84	-	60.10	0.00	440.74					
10/08/97	64.5	500.84		60.31	0.00	440.53					
01/06/98	64.5	500.84	-	60.76	0.00	440.08					
04/03/98	64.5	500.84		61.05	0.00	439.79					
06/25/98	64.5	500.84	_	61.05	0.00	439.79					
10/02/98	64.5	500.84	-100	61.77	0.00	439.07					
01/05/99	64.5	500.84		60.31	0.00	440.53					

	Table 6Groundwater Table in FeetMonitor Well 6Elevation of Screened Interval 433.6-453.6										
Date	τD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH					
09/17/96			Well N	ot Installed							
10/23/96	62.7	496.27	-	55.53	0.00	440.74					
04/10/97	62.7	496.27		56.28	0.00	439.99					
07/07/97	62.7	496.27	-	56.58	0.00	439.69					
10/08/97	62.7	496.27		56.88	0.00	439.39					
01/06/98	62.7	496.27	-	57.23	0.00	439.04					
04/03/98	62.7	496.27		57.49	0.00	438.78					
06/25/98	62.7	496.27	-	57.49	0.00	438.78					
10/02/98	62.7	496.27	-	57.17	0.00	438.10					
01/05/99	62.7	496.27		56.88	0.00	439.39					

	Table 7 Groundwater Table in Feet Monitor Well 7 Elevation of Screened Interval 426.4-446.4										
Date	TD: TOC Elevation Depth to PSH Depth to GW Product GW Elev. Thickness Corrected for PSI										
10/23/96			Well N	ot installed							
04/10/97	69.0	495.44		57.28	0.00	438.16					
07/07/97	69.0	495.44	-	57.54	0.00	437.90					
10/08/97	69.0	495.44		57.85	0.00	437.59					
01/06/98	69.0	495.44		58.17	0.00	437.27					
04/03/98	69.0	495.44	_ ·	58.47	0.00	436.97					
06/25/98	69.0	495.44	_	58.70	0.00	436.74					
10/02/98	69.0	495.44	-	58.99	0.00	436.45					
01/05/99	69.0	495.44		57.85	0.00	437.59					

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	Table 8 Groundwater Table in Feet Monitor Well 8 Elevation of Screened Interval 430.9-450.9									
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH				
10/23/96			Well N	ot Installed						
04/10/97	70.9	501.81		60.32	0.00	441.49				
07/07/97	70.9	501.81	-	60.67	0.00	441.49				
10/08/97	70.9	501.81	-	61.00	0.00	440.81				
01/06/98	70.9	501.81		61.35	0.00	440.46				
04/03/98	70.9	501.81	_	61.61	0.00	440.20				
06/25/98	70.9	501.81		61.87	0.00	439.94				
10/02/98	70.9	501.81	_	62.27	0.00	439.54				
01/05/99	70.9	501.81		61.00	0.00	440.81				

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	Table 9 Groundwater Table in Feet Monitor Well 9 Elevation of Screened Interval 429.5-449.5										
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev: Corrected for PSH					
10/23/96			Well N	ot Installed							
04/10/97	67.3	496.85		56.29	0.00	440.56					
07/07/97	67.3	496.85		56.66	0.00	440.19					
10/08/97	67.3	496.85		57.00	0.00	439.85					
01/06/98	67.3	496.85		57.38	0.00	439.47					
04/03/98	67.3	496.85	-	57.67	0.00	439.18					
06/25/98	67.3	496.85		57.95	0.00	438.90					
10/02/98	67.3	496.85	_	58.34	0.00	438.51					
01/05/99	67.3	496.85		57.00	0.00	439.85					

Table 10 Groundwater Table in Feet Monitor Well 10 Elevation of Screened Interval 426.0-446.0									
Date	TD	TOC Elevation	Depth to PSH	Depth to GW	Product Thickness	GW Elev. Corrected for PSH			
10/23/96			Well No	ot Installed					
04/10/97	66.5	492.46	1	52.83	0.00	439.63			
07/07/97	66.5	492.46	-	53.09	0.00	439.37			
10/08/97	66.5	492.46	-	53.43	0.00	439.03			
01/06/98	66.5	492.46	-	53.86	0.00	438.60			
04/03/98	66.5	492.46	-	54.17	0.00	438.29			
06/25/98	66.5	492.46		54.35	0.00	438.11			
10/02/98	66.5	492.46	-	54.76	0.00	437.70			
01/05/99	66.5	492.46		53.43	0.00	439.03			

	Table 11 Historic Groundwater Analytical Results in mg/l MW-1										
Date	B	T	E	X	Phenol	Naphthalene	Chloride				
02/14/96	0.083	<0.001	<0.001	0.008	-	-	_				
02/29/96	<0.001	<0.001	<0.001	<0.001	-						
04/20/96	0.305	<0.001	0.002	0.032	<0.001	0.017	-				
10/23/96	0.352	<0.001	0.026	0.081	0.025	0.01	-				
04/10/97	0.268	<0.001	0.012	0.034	<0.001	0.007	-				
07/07/97	0.243		-	-	-	0.005	-				
10/08/97	0.180	<0.001	0.012	<0.001	_	.003	<10				
01/06/98	0.138	<0.001	0.008	<0.001	-	0.002	6.2				
04/03/98	0.109	<0.001	0.004	0.006	-	0.003	51				
06/25/98	0.071	<0.001	0.002	0.003	-	<0.001	7.3				
10/02/98	0.078	<0.005	<0.005	<0.005	-	<0.001	14.0				
01/05/99	0.005	<0.001	<0.001	<0.001	_		-				

Shaded areas indicate over OCD Limits

Table 12 Historic Groundwater Analytical Results in mg/l MW-2										
Date	Date B T E X Phenol Naphthalene Chloride									
10/23/96	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	_			
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-			
07/07/97	<0.001	-	-	-	4	-	_			
10/08/97	<0.001	<0.001	<0.001	<0.001	-	<0.001	19			
01/06/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	27			
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	96			
06/25/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	25.0			
10/02/98	0.002	<0.001	<0.001	<0.001		<0.001	-			
01/05/99			Sampling	discontinu	ed as appro	oved by OCD				

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	His	toric Gr	Tal oundwa in M	ole 13 ter Analy mg/l W-3	ytical Res	sults	
Date	<b>B</b>	<b>F</b>	E	<b>x</b>	Phenol	Naphthalene	Chloride
10/23/96	0.001	<0.001	<0.001	<0.001	<0.001	<0.01	
04/10/97	0.016	<0.001	<0.001	0.005	<0.001	<0.001	
07/07/97	0.003	_		-	-		
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	64
01/06/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	58
04/03/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	130
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	12
10/02/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	46
01/05/99	<0.001	<0.001	<0.001	<0.001	_	_	

Shaded areas indicate over OCD Limits

	His	toric Gr	Tak oundwa in M	ble 14 ter Analy mg/l W-4	ytical Res	sults		
Date	B	T	E	<b>X</b> -	Phenol	Naphthalene	Chloride	
10/23/96	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	-	
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
07/07/97	<0.001							
10/08/97	<0.001	<0.001	<0.001	<0.001	-	<0.001	<10	
01/06/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	10	
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	58	
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	11	
10/02/98	<0.001	<0.001	<0.001	<0.001		<0.001	18	
01/05/99			Sampling of	discontinu	ed as appro	oved by OCD		

	His	toric Gr	Tal oundwa in M	ole 15 ter Anal <u>y</u> mg/l W-5	ytical Res	sults	
Date	· B	<b>T</b> . 1	Sig <b>E</b> S <sup>P</sup>	X	Phenol	Naphthalene	Chloride
10/23/96	0.135	<0.001	0.006	0.071	<0.001	<0.01	-
04/10/97	0.043	<0.001	<0.001	0.063	<0.001	0.001	
07/07/97	0.015		-		-	<0.001	
10/08/97	0.05	<0.001	<0.001	<0.001	-	0.001	24
01/06/98	0.031	<0.001	<0.001	0.010	-	<0.001	27
04/03/98	0.037	<0.001	0.002	0.019		0.001	69
06/25/98	0.017	<0.001	<0.001	0.006	-	<0.001	23
10/02/98	0.011	<0.001	<0.001	<0.001	-	<0.001	87
01/05/99	0.005	<0.001	<0.001	<0.001			_

Shaded areas indicate over OCD Limits

	His	toric Gr	Tat oundwa in M	ole 16 ter Anal <u>y</u> mg/l W-6	ytical Res	sults	
Date	B	T T	E	X	Phenol	Naphthalene	Chloride
10/23/96	0.192	<0.001	<0.001	0.013	<0.001	<0.01	-
04/10/97	0.272	<0.001	<0.001	0.014	<0.001	<0.001	_
07/07/97	0.106	-		-	-		
10/08/97	<0.001	<0.001	<0.001	<0.001	-	<0.001	30
01/06/98	0.132	<0.001	<0.001	0.004	-	<0.001	31
04/03/98	0:165	<0.001	<0.001	0.008	-	<0.001	98
06/25/98	0.143	<0.001	<0.001	0.009	-	<0.001	28
10/02/98	0.157	<0.005	<0.005	0.012	_	<0.001	31
01/05/99	0.123	<0.001	<0.001	0.004			56

Shaded areas indicate over OCD Limits

	Hi	storic Gi	Ta roundwa in N	ble 17 ater Ana 1 mg/l /W-7	lytical Re	sults	
Date	S. <b>B</b> ≊	T	E	x	Phenol	Naphthalene	Chloride
01/09/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
07/07/97	<0.001		-	-	_	_	_
10/08/97	<0.001	<0.001	<0.001	<0.001	-	<0.001	33
01/06/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	37
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	120
06/25/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	33
10/02/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	36
01/05/99	<0.001	<0.001	<0.001	<0.001	-		74

	His	toric Gr	Tal oundwa in M	ole 18 ter Analy mg/l W-8	ytical Res	sults		
Date	<b>B</b> .	<b>A</b> F	E	X	Phenol	Naphthalene .	Chloride	
10/23/96				Well No	ot Installed			
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	_	
07/07/97	<0.001							
10/08/97	<0.001	<0.001	<0.001	<0.001	-	<0.001	15	
01/06/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	27	
04/03/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	160	
06/25/98	<0.001	<0.001	<0.001	<0.001		<0.001	26	
10/02/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	27	
01/05/99		-		_			_	

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	His	toric Gro	Tabl oundwate in n MV	e 19 er Analyt ng/l /-9	ical Res	ults	
Date	В	T	Ē	X	Phenol	Naphthalene	Chioride
10/23/96				Well Not	Installed		
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-320
07/07/97	<0.001	-	-		-	-	41
10/08/97	<0.001	<0.001	<0.001	<0.001		<0.001	560
01/06/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	490
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	460
06/25/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	290
10/02/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	200
01/05/99	<0.001	<0.001	<0.001	<0.001		·	520

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Shaded areas indicate over OCD Limits

	His	toric Gro	Table undwate in m MW	e 20 er Analyti ig/l -10	cal Resu	lts	
Date	B	T.	E	X	Phenol	Naphthalene	Chloride
10/23/96				Well Not I	nstalled		
04/10/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-
07/07/97	<0.001	-		-	-	-	8.8
10/08/97	<0.001	<0.001	<0.001	<0.001	wa	<0.001	110
01/06/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	101
04/03/98	<0.001	<0.001	<0.001	<0.001		<0.001	180
06/25/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	140
10/02/98	<0.001	<0.001	<0.001	<0.001	-	<0.001	160
01/05/99	<0.001	<0.001	<0.001	<0.001			140

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### **IV.** Conclusions and Recommendations

The plant operations have ceased at the site and the sources that have caused the impacts to the groundwater have been removed. In addition, the removed impacted soils have been remediated to meet WQCC Guideline levels and have been returned to the excavations per the Soils Work Plan approved in January 1996. One of the ten wells at the Former Hobbs Gas Plant continues to show dissolved phase hydrocarbons (benzene) at levels above the OCD Guidelines.

- Eight (8) full quarterly groundwater monitoring and sampling events have been conducted at this site.
- Groundwater has dropped an average of 3.1 feet since the first sampling event of October 1996.
- Dissolved phase hydrocarbons are present in three of the ten monitor wells at the site (MW-1, MW-5, and MW-6) however, no free-phase hydrocarbons have been observed at the site.
- One monitor well contains concentrations of benzene above the WQCC Guideline level (MW-6). Benzene levels are generally declining with the highest concentration down-gradient from the source in well MW-6. The property line is within 130 feet parallel to groundwater flow. Concentrations in the next down-gradient well (located off-site), a distance of 470 feet from MW-6, remains nondetect.
- Xylene concentrations continue to be present in select wells but at levels below the WQCC Guideline levels.
- Soil cleanup objectives of the January 1997 Abatement and Closure plan have been met.

The level of benzene in MW-6 is above the WQCC Guideline level of 0.01 ppm. The general trend in the benzene levels over the past four sampling events shows a decrease in benzene concentrations. Elevated chloride levels continue to be present in MW-9 and vary both above and below the WQCC Guideline levels and will continue to be monitored. Based on interviews with KN personnel no source of the chloride can be placed on former operations of the plant. The source of the chloride is not known and is **not** believed to be from the plant.

Based on historical analytical results, a reduction to semi-annual sampling and monitoring is proposed. Benzene is proposed to be monitored in wells MW-1, MW-3, MW-5 to MW-7, MW-9, and MW-10. Chloride is proposed to be monitored in wells MW-6, MW-7, MW-9, and MW-10. No testing is proposed for MW-2, MW-4, and MW-8 except for water levels at this time as requested in the January 6, 1998 Annual Report and approved by the OCD letter dated December 15, 1998.



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### V. Quality Assurance / Quality Control Procedures

Field quality assurance/quality control (QA/QC) measures consisted of equipment decontamination, use of disposable sampling equipment, calibrations of field instruments, ensuring that the samples were analyzed within the EPA holding times, documentation of work activities in a bound logbook, and adherence to strict chain-of-custody protocol. The laboratory QA/QC measures were based on guidance published in the most current edition of the EPA Test Methods for Evaluating Solid Waste SW-846.

Quality Control samples were also obtained to evaluate the data. A trip blank was also analyzed with nondetectable results, suggesting that no cross-contamination occurred during shipment. Cross contamination during sampling was limited due to the use of disposable equipment between wells and gauging and purging of wells from least contaminated to most contaminated. A duplicate sample was obtained from MW-6. A comparison to the original sample of the contaminates that were present reveals results within 8.7% on total BTEX. On a per chemical basis, the total difference occurred on benzene which differed by 8.9%. This duplicate difference does not indicate any errors in the sample collection or testing. The following table presents the QA/QC results for comparison.

Quality Control Samples	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
Trip	<0.001	<0.001	<0.001	<0.001
MW-6	0.123	<0.001	<0.001	0.004
MW-6D (duplicate)	0.112	<0.001	<0.001	0.004

Reported laboratory quality control parameters do not appear to indicate suspect results. No damaged or compromised containers were noted. No unusual relative percent difference (RPD) results were noted.

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	6701 Aberdeen Avenu 4725 Ripley Avenue, '	ue, Suite 9 Lubbo Suite A El Pas	:k. Texas 79424 8 0, Texas 79922 8 E-Mail: Jab@trac	00 • 378 • 1296 88 • 588 • 3443 2ean <u>al Vsis</u> .com	806 • 794 • 1296 915 • 585 • 3443	FAX 806 • 794 • 13 FAX 915 • 585 • 49	298 344		
Date: Jan 12	1999	ANALYTI( ECO-LOC Attentio	CAL RESULT ical Envi n Carrie Ei	s FUR ronmenta .ck	al Servi	ces Lab Receiv	ing # : 99	901000038 00	
Project: 279 Project: 279 Proj Name: Fou	5/99 9-512 rmer Hobbs Gas Plant	2200 Mar Midland	ket street	ТХ 7	9703	sampiing u Sample Con Sample Rec	dition: 1/3/ dition: ] eived By:	رمع Intact and VW	Cool
Proj Loc: Hol TA# Field	obs, NM Code	MATRIX	-	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL- BENZENE (mg/L)	M, P, O XYLENE (mg/L)	TOTAL BTEX (mg/L)	•
116218 MW-1		Water		0.005	<0.001	<0.001	<0.001	0.005	
116219 MW-3		Water		<0.001	<0.001	<0.001	<0.001	<0.001	
116220 MW-5		Water		0.005	<0.001	<0.001	<0.001	0.005	
116221 MW-6		Water		0.123	<0.001	<0.001	0.004	0.127 20 001	
116222 MW-7		Water Water		<0.001	100.0>	<0.001	<0.001	<0.001	
116223 MW-10		Water		<0.001	<0.001	<0.001	<0.001	<0.001	
116225 MW-6D		Water		0.112	<0.001	<0.001	0.004	0.116	
Method Blank				<0.001	<0.001	<0.001	<0.001		
Reporting Limi	ţ			0.001	0.001	0.001	0.001		
δc				0.093	0.093	0.094	0.276		
			÷	2	<b>1</b>	2	2		
8 Extraction A	ccuracy			96	96	66	97		
% Instrument A	ccuracy		•	63	93	94	92		
TEST	PREP H METHOD I	PREP DATE	ANALYSIS METHOD	ANA	LYSIS ( PLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/L)	[]
BTEX	EPA 5030 1/	10/99	EPA 8021B	1/1	66/0	RC	0.100 ea	0.1ea	
	Ľ			-	12-55				
Di	rector, Dr. Blair Le	eftwich	1	Da	ate				

ALLALUUL ALLALUUL	Cool								<b>-</b>	1	T	
	01000038 99 ntact and VW	TUTAL BTEX (mg/L)	<0.001						SPIKE: (mg/L)	0.1 ea		
	944 ing # : 99 ate: 1/5/9 dition: I :eived By:	M, F, O XYLENE (mg/L)	<0.001	<0.001	0.001 0.276		5	97 92	QC: (mg/L)	0.100 ea		
FAX 806 - 794 - 1	FAX 915•585•4 FAX 915•585•4 Ces Lab Receiv Sampling C Sample Con Sample Rec	ETHYL- BENZENE (mg/L)	<0.001	<0.001	0.001 0.094		5	99 94	HEMIST	RC		
, INC.	915•585•3443 cal Servic 79703	TOLUENE (mg/L)	<0.001	<0.001	0.001		1	96 93	LYSIS CI IPLETED	10/99	2-3-55	
ALYSIS B00-378-1286	888-588-3433 LTS FOR com LTS ronment Eick t TX	BENZENE (mg/L)	<0.001	<0.001	0.003 0.093		2	96 6	ANA COM	1/		
ACEAN/	aso, Texas 79922 F-Mail: lah@ oqical En ion Carrie arket Stree d	×							ANALYSIS METHOD	EPA 8021B		1
deen Avenue, Suite 9 Lut	y Avenue, Suite A El F ANALYT ECO-Lo Attent 2200 M Midlan Plant	MATRI	Water				·		PREP DATE	1/10/99	L.	-
MALUUULANUU VIII AA	4725 Riple eb 03, 1999 11/6/99 279-512 Former Hobbs Gas Hobbs, NM	Field Code	rip Blank	lank	g Limit			cion Accuracy nent Accuracy	PREP METHOD	EPA 5030		
	Date: F Date Rec: Project: Proj Name Proj Loc:	TA# I	116226 T	Method Bl	Reporting QC		RPD	% Extract % Instrum	TEST	BTEX		

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Director, Dr. Blair Leftwich

1-12-99

DATE

6701 Aberdeen Avenue, Suite A 4725 Ripley Avenue, Suite A	P Lubbock, Texas 79424 El Paso, Texas 79922 E-Mail: lab@traceanalysis.com	<b>INC</b> 806•794•1296 915•585•3443 FAX 806•794•1298 FAX 915•585•4944
	ANALYTICAL RESULTS FOR ECO -LOGICAL Attention: Carrie Eick 2200 Market Street Midland, TX 79703	
January 12, 1999 Receiving Date: 01/06/99 Sample Type: Water Project No: 279-512 Project Location: Hobbs, NM	· .	Prep Date: 01/07/99 Analysis Date: 01/07/99 Sampling Date: 01/05/99 Sample Condition: Intact & Cool Sample Received by: VW Project Name: Former Hobbs Gas Plant
TA#	FIELD CODE	CHLORIDE (mg/L)
T116223	MW 9	520
T116224	MW 10	140
ICV CCV		11.85 11.85
REPORTING LIMIT		0.5
RPD		0
% Extraction Accuracy % Instrument Accuracy		94 95

METHODS: EPA SW 300.0 CHEMIST: JS CHLORIDE SPIKE: 62.5 mg/L CHLORIDE CHLORIDE CV: 12.5 mg/L CHLORIDE

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Director, Dr. Blair Leftwich

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Date: Feb 03 Date: Feb 03 Project: 27 Proj Name: Fo	3, 1999 /6/99 79-512 orner Hobbs Gas P	ANALY ECO-1 Atten 2200 1 Midlau Lart	TICAL RESULT Logical Env. tion Carrie E. Market Street nd	ironment ick TX 7	al Servi 19733	.Ces Lab Receiv Sampling I Sample Cor Sample Rec	ving # : 9 Date: 1/3/ ndition: 1 seived By:	9010C0038 '99 Litect and C VW	Cool
Proj Loc: Hu TA# Field	obbs, XM 1 Code	MATR	IX	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL- BENZENE (mg/L)	M, 2, 0 ХУLENE (шg/L)	TOTAL BTEX (mg/L)	
116226 Trip 1	elanis	Wate		<0.001	<0.001	<0.001	<0.001	<0.001	
4ethcd Blank				<0.001	-0,00	<0.001	<0.001		
Reporting Lim	it			0.001	0.001	0.001	0.001		
50			·	C.093	660.0	3.09£	0.276		
								• •	
3 P C			·	2		2	67		
8 Extraction	Accuracy			96	ν U	66	16		
Instrument	Accuracy			6.6	£5	<b>9</b> 4	32		
rest	PREP M32HOC	EREP CATE	ANALYSIS Method	PUAL	CELETA D CELETA	CHEMEST	ູດ: (ແຊ/ລິ)	SPIKE: (Ing/L)	r
BTEX	EPA 5030	1/10/99	E2A 86233	1/1	10/99	RC	0.100 es	0.1 ca	r
		L2			2-2-55	5-			T

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3 Feb'99 10:57AM; Job 887;Page 1/1

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6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424 CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST	S, LMC. Tel (806) 794 1296 Fax (806) 794 1298	Phone #: ダレデノシスローフション Mited No 20	4ml 7x Fax #: 915/520:-7737			For $M_{eff}$ Project Name: $F_{o}$ $M_{eff}$ $f_{a}$ $f_{a}$ $f_{a}$ $f_{c}$ $f_{a}$ $f_{c}$ $f_{c}$ $f_{c}$ $f_{c}$ $f_{c}$	Sampler Signature:	HSERVATIVE         SAMPLING         Olatilie           Ag As         Ag As         Ag As           Ag Branch         SAMPLING         SAMPLING	ATAINE PGE 2000	ноіс ноіс	4 ML V V V 11549 12:20 Y	4 111 × 1 × 1 × 1 × 1 × 1 × 1 × 1 × 1 ×	cl .16L <	4 1.11 / 13:00	1 35r V 1 13:00	4 101 1	1 vr v = 4:35	4 .1.1 > 11:00 ?		4 1.62 / 10.30 /		ne: Received by: Date: Time: LAB USE REMARKS: LAB USE	in Weller akelter 15/49 4:10 pm = ONLY = 1200 01.	ne: Received by: Date: Time: Intact $(Y)$ N Heceived by: Date: Attack $(Y)$ N Heceived by: $(Y)$	ne: Received at Laboratory by: Date: Time: Temp 4	Terms and Conditions listed on reverse side of C.O.C. 32 AUMALA-HCarrier # AULARAWAR 1557589934
6701 Aberdeen Av	<b>C</b> • Tel (806) 75	Phone #:	Fax #: 9			Former Hubbs	Count P. Eux	RS Int MATRIX		# COI Volum SOIL AIR	H N N	4 1161 /	et .16L V	4 111 1	1 255 1	4 106 1	1 '121 1	4 /	1 .00 1	4 1.64 1	1 , 254 1	Received by:	MULLA akelte	Received by:	Received at Laboratory by:	onditions listed on reverse side
	I raceAnalysis, In	Company Name: とてひ - し のー」(オレ	Address: 2200 Market Michaul TX	Contact Person: CAPCIE EICIT	Invoice to: (If different from above)	Project #: 279-512	Project Location: H. bbs tre NM		FIELD CODE	(LAB USE)	116218 MW-1	219 MW-3	220 MW- S	gar 10- 6	MW-6	222 MW-7	くうろ	253 Mw - 9	A MM-9	034 mw-10	01-MW	Relinquished by: Date: Time:	Carri F. E.A. 1/5/99 4:12 m	Relinquished by: Date: Time: $M_{0} \int_{0$	Relinquished by: Date: Time:	L Submittal of samples constitutes agreement to Terms and C

Page 2 of 2	16 A CHAIN-OF-CUSTODY AND ANALYSIS REQUEST	43 44 13 13 13	ANALYSIS REQUEST	Circle or Specify Method No.)		3ndard	+ ∋S d <sup>c</sup>	***rent	PLNG 502 508/620	TIME MTBE 80218/6 Pesticides 8081 ACLP Metals Ag TCLP Metals Ag TCLP Metals Ag TCLP Metals Ag TCLP Semi Vol TCLP 9082/606 AGC/MS Semi. Vol RCI GC/MS Semi. Vol RCI GC/MS Semi. Vol RCI AGC/MS Semi. Vol TCLP 9082/606 AGC/MS Semi. Vol TCLP 9082/606 AGC/MS Semi. Vol RCI AGC/MS Semi. Vol TCLP 9082/606 AGC/MS Semi. Vol RCI AGC/MS SEMI. VOL AGC/MS SEMI.	13:00							Intect V N Need Ly 1/25 /99	Temp	2-Its Carrier # 2004 Jawed 1557589924
	4725 Ripley C	<b>nalySIS</b> , <b>Inc.</b> <sup>Tel (915) 58</sup> <sup>Fax (915) 58</sup>	Phone #:	Fax #:			Project Name: Former Hubby 6-4, PLAN	Sampler Signature: Consin 8. Link	S SEERVATIVE S MATRIX PRESERVATIVE S	PATE NONE ICE HUO3 SOIL AIR SOIL MONE HUO3 SOIL MONE HUO3 SOIL MONE HUO3 SOIL MONE HUO3 SOIL MONE	4 1.16 ~ 11/5/	2 1031 C					Received by: Date: Time: Date: Time:	Received by: Date: Time:	Redeived at Laboratory by: Date: Time:	Conditions listed on reverse side of C.O.C.
	6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424	I (800) 794-1296 Fax (806) 794-1298 1 (800) 378-1296	Company Name: בנסיי / כסיי ליסי	Address: (Street, City, Zip)	Contact Person: CARRIE EICH	Invoice to: (If different from above)	Project #79-512	Project Location: Hobbs NM		LAB # FIELD CODE (LAB USE)	116225 MW- 6D	226 TRIPA		·			Relinquished by: Date: Time:	Relinquished by: Date: Time: Time:	Relinquished by: Date: Time:	Submittal of samples constitutes agreement to Terms and C

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#### GROUNDWATER LEVELS AND MEASUREMENTS K N ENERGY, INC. FORMER HOBBS GAS PLANT HOBBS, NEW MEXICO ECO JOB NO. 279-512

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### East 10493.85 10048.39 10308.93 10104.83 10483.21 10835.81 11147.27 10228.42 10892.89 11068.41 North 9537.29 9871.37 9547.91 9610.93 9332.16 9185.31 8820.05 9098.68 9535.65 9273.17

09/17/96

Well

TOC	495.73
Product Depth 7	
H2O Depth	53.10
Product Thickness	
Adjusted Prod. Thick	0.00
Adj. Depth to Liquid	53.10
H2O Elev Adjusted	442.63

10/23/96

Well	MW-1	,MW-2		- MW-4	MW-5	. MW-6
TOC	495.73	502.41	499.13	501.12	500.84	496.27
Product Depth	53.34	58.33	56.28	58.12	58.96	55.53
Adjusted ProdeThick	0.00	0.00	0.00	0.00	0.00	0.00
Adj-Depth to Liquid	53.34	58.33	56.28	58.12	58.96	55.53
H2O Elev Adjusted	442.39	444.08	442.85	443.00	441.88	440.74

04/10/97

#### Well MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7 MW-8 MW-9 MW-10

TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46
H2O Depth	54.32	59.54	57.25	58.83	59.77	56.28	57.28	60.32	- 56.29	52.83
Adjusted Prod. Thick:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adj. Depth to Liquid	54.32	59.54	57.25	58.83	59.77	56.28	57.28	60.32	56.29	52.83
H2O Elev Adjusted	441.41	442.87	441.88	442.29	441.07	439.99	438.16	441.49	440.56	439.63

07/07/97

Well	1 MW-1	, MW-2 - ,	≓ MW-3	. MW-4	MW-5	- MW-6	MW-7			MW-10
TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46
H2O Depth	54.64	60.00	57.59	59.19	60.1	56.58	57.54	60.67	56.66	53.09
Adjusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adj: Depth to Liquid -	54.64	60.00	57.59	59.19	60.10	56.58	57.54	60.67	56.66	53.09
H2O Elev Adjusted	441.09	442.41	441.54	441.93	440.74	439.69	437.90	441.14	440.19	439.37

10/08/97

Well	<u>∼</u> ,,MW-1	MW-2	MW-3	MW-4	_MW-5	MW-6	MW-7	- MW-8	MW-9	<u>MW-10</u>
TOC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46
Product Depth	54.98	60.39	57.92	59.56	60.31	56.88	57.85	61	57	53.43
Adjusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adj: Depth to Liquid:	54.98 440 75	60.39 442 02	57.92 441 21	59.56 441 56	60.31 440 53	56.88 439.39	57.85 437.59	61.00 440.81	57.00 439.85	53.43 439.03

#### 01/06/98

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197/32

Well	MW-1	7 MW-2:2	MW-3	MW-47	MW-5	MW-6	CEMW-7-51	12 MW-8	MW-9	MW-10	
OC.	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	
20 Depth	55.28	60.70	58.24	59.91	60.76	57.23	58.17	61.35	57.38	53.86	
iusted Prod Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Denth to Liquid	55 28	60.70	58 24	59.00	60.76	57 23	58 17	61 35	57 38	53.86	
O Elev Adjusted	440.45	441 71	440.89	441 21	440.08	439 04	437 27	440.46	439 47	438.60	
102109			110.00		440.00	400.04	-01.27	-10.10	400.41	400.00	
4/U3/98											
	station MVY-1.2	<u>,</u> ₩₩-2		ند. MW- <b>4</b>	:	MW-6	MVV-7	WV-8	MW-9	MVV-10	
DC oduct Depth	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	
20 Depth roduct Thickness	55.60	61.06	58.41	60.21	61.05	57.49	58.47	61.61	57.67	54.17	
djusted Prod. Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
dj. Depth to Liquid	55.60	61.06	58.41	60.21	61.05	57.49	58.47	61.61	57.67	54.17	
20 Elev Adjusted	440.13	441.35	440.72	440.91	439.79	438.78	436.97	440.20	439.18	438.29	
6/25/98											
/ell			MW-3	MW-4	MW-5	MW-6	MW-7-2	MW-8	MW-9	MW-10	
OC roduct Depth	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	
20 Depth.	55.87	61.37	58.84	60.48	61.33	57.76	58.7	61.87	57.95	54.35	
djusted ProduThick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
di. Depth to Liquid	55.87	61.37	58.84	60.48	61.33	57.76	58.70	61.87	57.95	54.35	
20 Elev Adjusted	439.86	441.04	440.29	440.64	439.51	438.51	436.74	439.94	438.90	438.11	
0/02/98											
Vell	MW-1	MW-2 1	; MW-3	MW-4	MW-5	, MW-6	MW-7	MW-8	MW-9	MW-10	
OC	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	
I2O Depth	56.36	61.91	59.36	60.97	61.77	58.17	58.99	62.27	58.34	54.76	•
diusted Prod Thick	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
di Depth to Liquid	56.36	61.91	59.36	60.97	61.77	58 17	58.99	62.27	58.34	54.76	
20.Elev.Adjusted	439.37	440.50	439.77	440.15	439.07	438.10	436.45	439.54	438.51	437.70	
1/05/99											
Vell	MW-1	MW-2	MW-3	MW-4	MW-5	. MW-6		⊊		MW-10	
OC.	495.73	502.41	499.13	501.12	500.84	496.27	495.44	501.81	496.85	492.46	
roduct Depth i20 Depth	56.43	62.19	59.46	61.15	61.84	58.05	58.88	62.42	58.18	54.51	
roduct Thickness	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
dj. Depth to Liquid	56.43	62.19	59.46	61.15	61.84	58.05	58.88	62.42	58.18	54.51	
20 Elev Adjusted	439.30	440.22	439.67	439.97	439.00	438.22	436.56	439.39	438.67	437.95	
Vell Elevation Dron	MW-1	MW-2	MW-3:	MW-4		MW-6			( <u></u>		-Ele
0/23/96 and 04/10/97	0.98	1.21	0.97	0.71	0.81	0.75	<u>ى المك</u> املية فرينيون			and in the state of the second state of the se	الاحيد. (
0/23/96 and 07/07/97	1.30	1.67	1.31	1.07	1.14	1.05					
0/23/96 and 10/08/97	1.64	2.06	1.64	1.44	1.35	1.35					
0/23/96 and 01/06/98	1.94	2.37	1.96	1.79	1.80	1.70					
0/23/96 and 04/03/98	2.26	2.73	2.13	2.09	2.09	1.96					
0/23/96 and 06/25/98	2.53	3.04	2.56	2.36	2.37	2.23					
0/23/96 and 10/02/98	3.02	3.58	3.08	2.85	2.81	2.64					
1/23/96 and 1/5/99	3.09	3.86	3.18	3.03	2.88	2.52					
V10/97 and 04/03/98 == 23	1.28	1.52	1.16	1.38	1.28	1.21	1.19	1.29	1.38	1.34	
/07/97 and 06/25/98	1.23	1.37	1.25	1.29	1.23	1.18	1.16	1.20	1.29	1.26	
1/08/97 and 10/02/98	1.38	1.52	1.44	1.41	1.46	1.29	1.14	1.27	1.34	1.33	
/6/98 and 1/5/99	1.15	1.49	1.22	1.24	1.08	0.82	0.71	1.07	0.80	0.65	

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# 20 NMAC 6.2.III.3103 STANDARDS FOR GROUND WATER OF 10,000 mg/l TDS CONCENTRATION OR LESS

The following standards are the allowable pH range and the maximum allowable concentration in ground water for the contaminants specified unless the existing condition exceeds the standard or unless otherwise provided in Section 3109.D. Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C, the existing pH or concentration shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foreseeable future use in excess of the standards of this Section.

These standards shall apply to the dissolved portion of the contaminants specified with a definition of dissolved being that given in the publication "Methods for Chemical Analysis of Water and Waste of the U.S. Environmental Protection Agency," with the exception that standards for mercury, organic compounds and non-aqueous phase liquids shall apply to the total unfiltered concentrations of the contaminants. [2-18-77, 11-17-83, 3-3-86,12-1-95]

A. Human Health Standards-Ground water shall meet the standards of Subsection A and B unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 1101 for the combination of contaminants, or the Human Health Standard of Section 3103.A. for each contaminant shall apply, whichever is more stringent.

Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

Arsenic (As) 0.1 ma/1Barium (Ba) 1.0 mg/l 0.01 mg/l Cadmium (Cd) Chromium (Cr) 0.05 mg/l0.2 mg/l Cyanide (CN) Fluoride (F) 1.6 mg/l Lead (Pb) 0.05 mg/l Total Mercury (Hg) 0.002 mg/l Nitrate (NO3 as N) 10.0 mg/l0.05 mg/l Selenium (Se) Silver (Ag) 0.05 mg/1 Uranium (U) 5.0 mg/l Radioactivity: Combined Radium-226 & Radium-2283 0.0 pCi/1 Benzene 0.01 mg/l Polychlorinated 0.001 mg/l biphenyls (PCB's) Toluene 0.75 mg/l Carbon Tetrachloride 0.01 mg/1 1,2-dichloroethane (EDC) 0.01 mg/l 1,1-dichloroethylene (1,1-DCE) 0.005 mg/1 1,1,2,2-tetrachloroethylene (PCE) 0.02 mg/1 1,1,2-trichloroethylene (TCE) 0.1 mg/l 0.75 mg/l ethylbenzene total xylenes 0.62 mg/l methylene chloride 0.1 mg/l chloroform 0.1 mg/l 0.025 mg/1 1,1-dichloroethane ethylene dibromide (EDB) 0.0001 mg/l 1,1,1-trichloroethane 0.06 mg/l 1,1,2-trichloroethane 0.01 mg/l 1,1,2,2-tetrachloroethane 0.01 mg/l vinyl chloride 0.001 mg/l PAHs: total naphthalene plus 0.03 mg/1 monomethylnaphthalenes

i Civi

 benzo-a-pyrene
 0.0007 mg/l

 [2-18-77, 1-29-82, 3-3-86, 12-1-95]
 B. Other Standards for Domestic Water Supply

 Chloride (Cl)
 250.0 mg/l

 Copper (Cu)
 1.0 mg/l

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C. Standards for Irrigation Use - Ground water shall meet the standards of Subsection A, B, and C unless otherwise provided.

Aluminum (Al)	5.0 mg/l
Boron (B)	0.75 mg/l
Cobalt (Co)	0.05 mg/l
Molybdenum (Mo)	1.0 mg/l
Nickel (Ni)	0.2 mg/1
[2-18-77]	

#### 20 NMAC 6.2.III.3104 DISCHARGE PLAN REQUIRED

Unless otherwise provided by this Part, no person shall cause or allow effluent of leachate to discharge so that it may move directly of indirectly into ground water unless he is discharging pursuant to a discharge plan approved by the secretary. When a plan has been approved, discharges must be consistent with the terms and conditions of the plan. In the event of a transfer of the ownership, control, or possession of a facility for which an approved discharge plan is in effect, the transferee shall have authority to discharge under such plan, provided that the transferee has complied with Section 3111 of this Part, regarding transfers. [2-18-77, 12-24-87, 12-195]

#### 20 NMAC 6.2.III.3105 EXEMPTIONS FROM DISCHARGE PLAN REQUIREMENT

Sections 3104 and 3106 of this Part do not apply to the following: [2-18-77]

A. Effluent or leachate which conforms to all the listed numerical standards of Section 3103 and has a total nitrogen concentration of 10 mg/l or less, and does not contain any toxic pollutant. To determine conformance, samples may be taken by the agency before the effluent or leachate is discharged so that it may move directly or indirectly into ground water; provided that if the discharge is by seepage through non-natural or altered natural materials, the agency may take samples of the solution before or after seepage. If for any reason the agency does not have access to obtain the appropriate samples, this exemption shall not apply; [2-18-77, 6-20-80, 7-2-81]

B. Effluent which is discharged from a sewerage system used only for disposal of household and other domestic waste which is designed to receive and which receives 2,000 gallons or less of liquid waste per day; [2-18-77, 12-24-87]

C. Water used for irrigated agriculture, for watering of lawns, trees, gardens or shrubs, or for irrigation for a period not to exceed five years for the revegetation of any disturbed land area, unless that water is received directly from any sewerage system; [2-18-77]

D. Discharges resulting from the transport or storage of water diverted, provided that the water diverted has not had added to it after the point of diversion any effluent received from a sewerage system, that the source of the water diverted was not mine workings, and that the secretary has not determined that a hazard to public health may result; [2-18-77, 12-1-95]

E. Effluent which is discharged to a watercourse which is naturally perennial; discharges to dry

arroyos and ephemeral streams are not exempt from the discharge plan requirement, except as otherwise provided in this Section; [2-18-77]

F. Those constituents which are subject to effective and enforceable effluent limitations in a National Pollutant Discharge Elimination System (NPDES) permit, where discharge onto or below the surface of the ground so that water contaminants may move directly or indirectly into ground water occurs downstream from the outfall where NPDES effluent limitations are imposed, unless the secretary determines that a hazard to public health may result. For purposes of this Subsection, monitoring requirements alone do not constitute effluent limitations; [2-18-77, 12-1-95]

G. Discharges resulting from flood control systems; [2-18-77]

H. Leachate which results from the direct natural infiltration of precipitation through disturbed materials, unless the secretary determines that a hazard to public health may result; [2-18-77, 6-26-80, 12-1-95]

I. Leachate which results entirely from the direct natural infiltration of precipitation through undisturbed materials; [2-18-77, 6-26-80]

J. Leachate from materials disposed of in accordance with the Solid Waste Management Regulations (20 NMAC 9.1) adopted by the New Mexico Environmental Improvement Board; [2-18-77, 12-1-95]

K. Natural ground water seeping or flowing into conventional mine workings which re-enters the ground by natural gravity flow prior to pumping or transporting out of the mine and without being used in any mining process; this exemption does not apply to solution mining; [2-18-77]

L. Effluent or leachate discharges resulting from activities regulated by a mining plan approved and permit issued by the New Mexico Coal Surface Mining Commission, provided that this exemption shall not be construed as limiting the application of appropriate ground water protection requirements by the New Mexico Coal Surface Mining Commission; [2-18-77]

M. Effluent or leachate discharges which are regulated by the Oil Conservation Commission and the regulation of which by the Water Quality Control Commission would interfere with the exclusive authority granted under Section <u>70-2-12</u> NMSA 1978, or under other laws, to the Oil Conservation Commission. [2-18-77]

# 20 NMAC 6.2.III.3106 APPLICATION FOR DISCHARGE PLAN APPROVALS AND RENEWALS

A. Any person who, before or on June 18, 1977, is discharging any of the water contaminants listed in Section 3103 or any toxic pollutant so that they may move directly or indirectly into ground water shall, within 120 days of receipt of written notice from the secretary that a discharge plan is required, or such longer time as the secretary shall for good cause allow, submit a discharge plan to the secretary for approval; such person may discharge without an approved discharge plan until 240 days after written notification by the secretary that a discharge plan is required or such longer time as the secretary shall for good cause allow. [2-18-77, 6-26-80, 7-2-81, 12-1-95]

B. Any person who intends to begin, after June 18, 1977, discharging any of the water contaminants listed in Section 3103 or any toxic pollutant so that they may move directly or indirectly into ground water shall notify the secretary giving the information enumerated in Section 1201.B.; the secretary shall, within 60 days, notify such person if a discharge plan is required; upon submission, the secretary shall review the discharge plan pursuant to Sections 3108 and 3109; for good cause shown, the secretary may allow such person to discharge without an approved plan for a period not to extend beyond February 18, 1978; after February 18, 1978, for good cause shown the secretary may allow such person to discharge plan for a period not to exceed 120 days. [2-18-77, 6-26-80, 7-2-81, 12-1-95]

C. A proposed discharge plan shall set forth in detail the methods or techniques the discharger proposes to use or processes expected to naturally occur which will ensure compliance with this Part. At

least the following information shall be included in the plan: [2-18-77]

1. Quantity, quality and flow characteristics of the discharge; [2-18-77]

2. Location of the discharge and of any bodies of water, watercourses and ground water discharge sites within one mile of the outside perimeter of the discharge site, and existing or proposed wells to be used for monitoring; [2-18-77]

3. Depth to and TDS concentration of the ground water most likely to be affected by the discharge; [2-18-77]

4. Flooding potential of the site; [2-18-77]

5. Location and design of site(s) and method(s) to be available for sampling, and for measurement or calculation of flow; [2-18-77]

6. Depth to and lithological description of rock at base of alluvium below the discharge site if such information is available; [2-18-77]

7. Any additional information that may be necessary to demonstrate that approval of the discharge plan will not result in concentrations in excess of the standards of Section 3103 or the presence of any toxic pollutant at any place of withdrawal of water for present or reasonably foreseeable future use. Detailed information on site geologic and hydrologic conditions may be required for a technical evaluation of the applicant's proposed discharge plan; and [2-18-77, 6-26-80, 7-2-81]

8. Additional detailed information required for a technical evaluation of effluent disposal wells or in situ extraction wells as provided in Subpart V of this Part. [9-20-82]

D. An applicant for a discharge plan shall pay fees as specified in Section 3114. [8-17-91]

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### SUBPART IV -- PREVENTION AND ABATEMENT OF WATER POLLUTION

#### 20 NMAC 6.2.IV.4101 PURPOSE

A. The purposes of this Subpart are to:

1. Abate pollution of subsurface water so that all ground water of the State of New Mexico which has a background concentration of 10,000 mg/L or less TDS, is either remediated or protected for use as domestic and agricultural water supply, and to remediate or protect those segments of surface waters which are gaining because of subsurface-water inflow, for uses designated in the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20 NMAC 6.1); and [12-1-95]

2. Abate surface-water pollution so that all surface waters of the State of New Mexico are remediated or protected for designated or attainable uses as defined in the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20 NMAC 6.1). [12-1-95]

B. If the background concentration of any water contaminant exceeds the standard or requirement of Sections 4103.A, 4103.B or 4103.C of this Part, pollution shall be abated by the responsible person to the background concentration. [12-1-95]

C. The standards and requirements set forth in Section 4103 of this Part are not intended as maximum ranges and concentrations for use, and nothing herein contained shall be construed as limiting the use of waters containing higher ranges and concentrations. [12-1-95]

#### 20 NMAC 6.2.IV.4102 [RESERVED]

#### 20 NMAC 6.2.IV.4103 ABATEMENT STANDARDS AND REQUIREMENTS

A. The vadose zone shall be abated so that water contaminants in the vadose zone shall not be capable of contaminating ground water or surface water, in excess of the standards in Subsections B and C below, through leaching, percolation or as the water table elevation fluctuates. [12-1-95]

B. Ground-water pollution at any place of withdrawal for present or reasonably foreseeable future use, where the TDS concentration is 10,000 mg/L or less, shall be abated to conform to the following standards: [12-1-95]

1. toxic pollutant(s) as defined in Section 1101 of this Part shall not be present; and [12-1-95]

2. the standards of Section 3103 of this Part shall be met. [12-1-95]

C. Surface-water pollution shall be abated to conform to the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20 NMAC 6.1). [12-1-95]

D. Subsurface-water and surface-water abatement shall not be considered complete until a minimum of eight (8) consecutive quarterly samples from all compliance sampling stations approved by the secretary meet the abatement standards of Subsections A, B and C above. Abatement of water contaminants measured in solid-matrix samples of the vadose zone shall be considered complete after one-time sampling from compliance stations approved by the secretary. [12-1-95]

E. Technical Infeasibility.

1. If any responsible person is unable to fully meet the abatement standards set forth in Subsections A and B above using commercially accepted abatement technology pursuant to an approved abatement plan,

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he may propose that abatement standards compliance is technically infeasible. Technical infeasibility proposals involving the use of experimental abatement technology shall be considered at the discretion of the secretary. Technical infeasibility may be demonstrated by a statistically valid extrapolation of the decrease in concentration(s) of any water contaminant(s) over the remainder of a twenty (20) year period, such that projected future reductions during that time would be less than 20% of the concentration(s) at the time technical infeasibility is proposed. A statistically valid decrease cannot be demonstrated by fewer than eight (8) consecutive quarters. The technical infeasibility proposal shall include a substitute abatement standard(s) for those contaminants that is/are technically feasible. Abatement standards for all other water contaminants not demonstrated to be technically infeasible shall be met. [12-1-95]

2. In no event shall a proposed technical infeasibility demonstration be approved by the secretary for any water contaminant if its concentration is greater than 200% of the abatement standard for that contaminant. [12-1-95]

3. If the secretary cannot approve any or all portions of a proposed technical infeasibility demonstration because the water contaminant concentration(s) is/are greater than 200% of the abatement standard(s) for each contaminant, the responsible person may further pursue the issue of technical infeasibility by filing a petition with the commission seeking:

a. approval of alternate abatement standard(s) pursuant to Section 4103.F below; or

b. granting of a variance pursuant to Section 1210 of this Part.

[12-1-95]

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F. Alternative Abatement Standards.

1. At any time during or after the submission of a Stage 2 abatement plan, the responsible person may file a petition seeking approval of alternative abatement standard(s) for the standards set forth in Subsections A and B above. The commission may approve alternative abatement standard(s) if the petitioner demonstrates that:

a. (1) compliance with the abatement standard(s) is/are not feasible, by the maximum use of technology within the economic capability of the responsible person; or

(2) there is no reasonable relationship between the economic and social costs and benefits (including attainment of the standard(s) set forth in Section 4103) to be obtained;

b. the proposed alternative abatement standard(s) is/are technically achievable and cost-benefit justifiable; and

c. compliance with the proposed alternative abatement standard(s) will not create a present or future hazard to public health or undue damage to property.

2. The petition shall be in writing, filed with the secretary. The petition shall specify, in addition to the information required by Section 1210.A of this Part, the water contaminant(s) for which alternative standard(s) is/are proposed, the alternative standard(s) proposed, the three-dimensional body of water pollution for which approval is sought, and the extent to which the abatement standard(s) set forth in Section 4103 is/are now, and will in the future be, violated. The petition may include a transport, fate and risk assessment in accordance with accepted methods, and other information as the petitioner deems necessary to support the petition.

3. The commission shall review a petition for alternative abatement standards in accordance with the procedures for review of a variance petition provided in the commissions adjudicatory procedures, 20 NMAC 1.3.

[12-1-95, 11-15-96]

#### 20 NMAC 6.2.IV.4104 ABATEMENT PLAN REQUIRED

A. Unless otherwise provided by this Part, all responsible persons who are abating, or who are required to abate, water pollution in excess of the standards and requirements set forth in Section 4103 of

this Part shall do so pursuant to an abatement plan approved by the secretary. When an abatement plan has been approved, all actions leading to and including abatement shall be consistent with the terms and conditions of the abatement plan. [12-1-95]

B. In the event of a transfer of the ownership, control or possession of a facility for which an abatement plan is required or approved, where the transferor is a responsible person, the transferee also shall be considered a responsible person for the duration of the abatement plan, and may jointly share the responsibility to conduct the actions required by this Part with other responsible persons. The transferror shall notify the transferee in writing, at least thirty (30) days prior to the transfer, that an abatement plan has been required or approved for the facility, and shall deliver or send by certified mail to the secretary a copy of such notification together with a certificate or other proof that such notification has in fact been received by the transferee. The transferror and transferee may agree to a designated responsible persons who shall assume the responsibility to conduct the actions required by this Part. The responsible persons shall notify the secretary in writing if a designated responsible person is agreed upon. If the secretary determines that the designated responsible person has failed to conduct the actions required by this Part, the secretary shall notify all responsible persons of this failure in writing and allow them thirty (30) days, or longer for good cause shown, to conduct the required actions before issuing a compliance order pursuant to Section 1220 of this Part. [12-1-95]

C. If the source of the water pollution to be abated is a facility that operated under a discharge plan, the secretary may require the responsible person(s) to submit a financial assurance plan which covers the estimated costs to conduct the actions required by the abatement plan. Such a financial assurance plan shall be consistent with any financial assurance requirements adopted by the commission. [12-1-95]

#### 20 NMAC 6.2.IV.4105 EXEMPTIONS FROM ABATEMENT PLAN REQUIREMENT

A. Except as provided in Subsection B of this Section, Sections 4104 and 4106 of this Part do not apply to a person who is abating water pollution: [12-1-95]

1. from an underground storage tank, under the authority of the Underground Storage Tank Regulations (20 NMAC Part 5) adopted by the New Mexico Environmental Improvement Board, or in accordance with the New Mexico Ground Water Protection Act; [12-1-95]

2. under the authority of the U.S. Environmental Protection Agency pursuant to either the federal Comprehensive Environmental Response, Compensation and Liability Act, and amendments, or the Resource Conservation and Recovery Act; [12-1-95]

3. under the authority of the secretary pursuant to the Hazardous Waste Management Regulations (20 NMAC 4.1) adopted by the New Mexico Environmental Improvement Board; [12-1-95]

4. under the authority of the U.S. Nuclear Regulatory Commission or the U.S. Department of Energy pursuant to the Atomic Energy Act; [12-1-95]

5. from a solid waste landfill, under the authority of the secretary pursuant to the Solid Waste Management Regulations (20 NMAC 9.1) adopted by the N.M. Environmental Improvement Board; [12-1-95]

6. under the authority of a ground-water discharge plan approved by the secretary, provided that such abatement is consistent with the requirements and provisions of Sections 4101, 4103, 4106.C, 4106.E, 4107 and 4112 of this Part; [12-1-95]

7. under the authority of a Letter of Understanding, Settlement Agreement or Administrative Order on Consent signed by the secretary prior to December 1, 1995, provided that abatement is being performed in full compliance with the terms of the Letter of Understanding, Settlement Agreement or Administrative Order on Consent; and [12-1-95]

8. on an emergency basis, or while abatement plan approval is pending, or in a manner that will result in compliance with the standards and requirements set forth in Section 4103 of this Part within one

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hundred and eighty (180) days after notice is required to be given pursuant to Section 1203.A.1 of this Part, provided that the delegated agency does not object to the abatement action pursuant to Sections 1203.A.6 and 1203.A.7 of this Part. [12-1-95]



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B. If the secretary determines that abatement of water pollution subject to Subsection A of this Section will not meet the standards of Sections 4103.B and C of this Part, or that additional action is necessary to protect health, welfare, environment or property, the secretary may notify a responsible person, by certified mail, to submit an abatement plan pursuant to Sections 4104 and 4106.A of this Part. The notification shall state the reasons for the secretary's determination. In any appeal of the secretary's determination under this Section, the secretary shall have the burden of proof. [12-1-95]

C. Sections 4104 and 4106 of this Part do not apply to the following activities: [12-1-95]

1. Discharges subject to an effective and enforceable National Pollutant Discharge Elimination System (NPDES) permit; [12-1-95]

2. Land application of ground water contaminated with nitrogen originating from human or animal waste and not otherwise exceeding the standards of Section 3103. A of this Part and not containing a toxic pollutant as defined in Section 1101 of this Part, provided that it is done in compliance with a discharge plan approved by the secretary; [12-1-95]

3. Abatement of water pollution resulting from the withdrawal and decontamination or blending of polluted water for use as a public or private drinking-water supply, by any person other than a responsible person, unless the secretary determines that a hazard to public health may result; and [12-1-95]

4. Reasonable operation and maintenance of irrigation and flood control facilities. [12-1-95]

#### 20 NMAC 6.2.IV.4106 ABATEMENT PLAN PROPOSAL

A. Except as provided for in Section 4105 of this Part, a responsible person shall, within sixty (60) days of receipt of written notice from the secretary that an abatement plan is required, submit an abatement plan proposal to the secretary for approval. For good cause shown, the secretary may allow for a total of one hundred and twenty (120) days to prepare and submit the abatement plan proposal. [12-1-95]

B. Voluntary Abatement.

1. Any person wishing to abate water pollution in excess of the standards and requirements set forth in Section 4103 of this Part may submit a Stage 1 abatement plan proposal to the secretary for approval. Following approval by the secretary of a final site investigation report prepared pursuant to Stage 1 of an abatement plan, any person may submit a Stage 2 abatement plan proposal to the secretary for approval. [12-1-95]

2. Following approval of a Stage 1 or Stage 2 abatement plan proposal under Subsection B.1 of this Section, the person submitting the approved plan shall be a responsible person under this Subpart for the purpose of performing the approved Stage 1 or Stage 2 abatement plan. Nothing in this Section shall preclude the secretary from applying Section 1203.A.9 of this Part to a responsible person if applicable. [12-1-95]

C. Stage 1 Abatement Plan.

The purpose of Stage 1 of the abatement plan shall be to design and conduct a site investigation that will adequately define site conditions, and provide the data necessary to select and design an effective abatement option. Stage 1 of the abatement plan may include, but not necessarily be limited to, the following information depending on the media affected, and as needed to select and implement an expeditious abatement option: [12-1-95]

1. Descriptions of the site, including a site map, and of site history including the nature of the discharge that caused the water pollution, and a summary of previous investigations; [12-1-95]

2. Site investigation workplan to define:

a. site geology and hydrogeology, the vertical and horizontal extent and magnitude of vadose-zone
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and ground-water contamination, subsurface hydraulic parameters including hydraulic conductivity, transmissivity, storativity, and rate and direction of contaminant migration, inventory of water wells inside and within one (1) mile from the perimeter of the three-dimensional body where the standards set forth in Section 4103 B are exceeded, and location and number of such wells actually or potentially affected by the pollution; and

b. surface-water hydrology, seasonal stream flow characteristics, ground-water/surface-water relationships, the vertical and horizontal extent and magnitude of contamination and impacts to surface water and stream sediments. The magnitude of contamination and impacts on surface water may be, in part, defined by conducting a biological assessment of fish, benthic macroinvertebrates and other wildlife populations. Seasonal variations should be accounted for when conducting these assessments. [12-1-95]

3. Monitoring program, including sampling stations and frequencies, for the duration of the abatement plan that may be modified, after approval by the secretary, as additional sampling stations are created; [12-1-95]

4. Quality assurance plan, consistent with the sampling and analytical techniques listed in Section 3107.B of this Part and with Section 1103 of the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20 NMAC 6.1), for all work to be conducted pursuant to the abatement plan; [12-1-95]

5. Site health and safety plan for all work to be performed pursuant to the abatement plan; [12-1-95]

6. A schedule for all Stage 1 abatement plan activities, including the submission of summary quarterly progress reports, and the submission, for approval by the secretary, of a detailed final site investigation report; and [12-1-95]

7. Any additional information that may be required to design and perform an adequate site investigation. [12-1-95]

D. Stage 2 Abatement Plan.

Any responsible person shall submit a Stage 2 abatement plan proposal to the secretary for approval within sixty (60) days, or up to one hundred and twenty (120) days for good cause shown, after approval by the secretary of the final site investigation report prepared pursuant to Stage 1 of the abatement plan. [12-1-95]

E. The purpose of Stage 2 of the abatement plan shall be to select and design, if necessary, an abatement option that, when implemented, will result in attainment of the abatement standards and requirements set forth in Section 4103 of this Part, including post-closure maintenance activities. Stage 2 of the abatement plan should include, at a minimum, the following information: [12-1-95]

1. Brief description of the current situation at the site; [12-1-95]

2. Development and assessment of abatement options; [12-1-95]

3. Description, justification and design, if necessary, of preferred abatement option; [12-1-95]

4. Modification, if necessary, of the monitoring program approved pursuant to Stage 1 of the abatement plan, including the designation of pre and post abatement-completion sampling stations and sampling frequencies to be used to demonstrate compliance with the standards and requirements set forth in Section 4103 of this Part; [12-1-95]

5. Site maintenance activities, if needed, proposed to be performed after termination of abatement activities; [12-1-95]

6. A schedule for the duration of abatement activities, including the submission of summary quarterly progress reports; [12-1-95]

7. A public notification proposal designed to satisfy the requirements of Sections 4108.B and 4108.C of this Part; and [12-1-95]

8. Any additional information that may be reasonably required to select, describe, justify and design an effective abatement option. [12-1-95]

## 20 NMAC 6.2.IV.4107 OTHER REQUIREMENTS

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A. Any responsible person shall allow any authorized representative of the secretary to: [12-1-95] 1. upon presentation of proper credentials, enter the facility at reasonable times; [12-1-95]

2. inspect and copy records required by an abatement plan; [12-1-95]

3. inspect any treatment works, monitoring and analytical equipment; [12-1-95]

4. sample any wastes, ground water, surface water, stream sediment, plants, animals, or vadose-zone material including vadose-zone vapor; [12-1-95]

5. use monitoring systems and wells under such responsible person's control in order to collect samples of any media listed in Section 4107.A.4 above; and [12-1-95]

6. gain access to off-site property not owned or controlled by such responsible person, but accessible to such responsible person through a third-party access agreement, provided that it is allowed by the agreement. [12-1-95]

B. Any responsible person shall provide the secretary, or a representative of the secretary, with at least four (4) working days advance notice of any sampling to be performed pursuant to an abatement plan, or any well plugging, abandonment or destruction at any facility where an abatement plan has been required. [12-1-95]

C. Any responsible person wishing to plug, abandon or destroy a monitoring or water supply well within the perimeter of the 3-dimensional body where the standards set forth in Section 4103.B are exceeded, at any facility where an abatement plan has been required, shall propose such action by certified mail to the secretary for approval, unless such approval is required from the State Engineer. The proposed action shall be designed to prevent water pollution that could result from water contaminants migrating through the well or borehole. The proposed action shall not take place without written approval from the secretary, unless written approval or disapproval is not received by the responsible person within thirty (30) days of the date of receipt of the proposal. [12-1-95]

## 20 NMAC 6.2.IV.4108 PUBLIC NOTICE AND PARTICIPATION

A. Within thirty (30) days of filing of a Stage 1 abatement plan proposal, the secretary shall issue a news release summarizing: [12-1-95]

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1. the source, extent, magnitude and significance of water pollution, as known at that time; [12-1-95]

2. the proposed Stage 1 abatement plan investigation; and [12-1-95]

3. the name and telephone number of an agency contact who can provide additional information. [12-1-95]

B. Within thirty (30) days of filing of a Stage 2 abatement plan proposal, or proposed significant modification of Stage 2 of the abatement plan, any responsible person shall provide to the secretary proof of public notice of the abatement plan to the following persons: [12-1-95]

1. the public, who shall be notified through publication of a notice in newspapers of general circulation in this state and in the county where the abatement will occur and, in areas with large percentages of non-English speaking people, through the mailing of the public notice in English to a bilingual radio station serving the area where the abatement will occur with a request that it be aired as a public service announcement in the predominant non-English language of the area; [12-1-95]

2. those persons, as identified by the secretary, who have requested notification, who shall be notified by mail; [12-1-95]

3. the New Mexico Trustee for Natural Resources, and any other local, state or federal governmental agency affected, as identified by the secretary, which shall be notified by certified mail; [12-1-95]

4. owners and residents of surface property located inside, and within one (1) mile from, the perimeter of the geographic area where the standards and requirements set forth in Section 4103 are exceeded who shall be notified by a means approved by the secretary; and [12-1-95]

5. the Governor or President of each Indian Tribe, Pueblo or Nation within the state of New Mexico, as identified by the secretary, who shall be notified by mail. [12-1-95]

C. The public notice shall include, as approved in advance by the secretary: [12-1-95]

1. name and address of the responsible person; [12-1-95]

2. location of the proposed abatement; [12-1-95]

3. brief description of the nature of the water pollution and of the proposed abatement action; [12-1-95]

4. brief description of the procedures followed by the secretary in making a final determination; [12-1-95]

5. statement on the comment period; [12-1-95]

6. statement that a copy of the abatement plan can be viewed by the public at the department's main office or at the department field office for the area in which the discharge occurred; [12-1-95]

7. statement that written comments on the abatement plan, and requests for a public meeting or hearing that include the reasons why a meeting or hearing should be held, will be accepted for consideration if sent to the secretary within sixty (60) days after the determination of administrative completeness; and [12-1-95]

8. address and phone number at which interested persons may obtain further information. [12-1-95]

D. A public meeting or hearing may be held if the secretary determines there is significant public interest. Notice of the time and place of the meeting or hearing shall be given at least thirty (30) days prior to the meeting or hearing pursuant to Subsections A and B above. The secretary may appoint a meeting facilitator or hearing officer. The secretary may require the responsible person to prepare for approval by the secretary a fact sheet, to be distributed at the public meeting or hearing and afterwards upon request, written in English and Spanish, describing site history, the nature and extent of water pollution, and the proposed abatement. The record of the meeting or hearing, requested under this Section, consists of a tape recorded or transcribed session, provided that the cost of a court recorder shall be paid by the person requesting the transcript. If requested by the secretary, the responsible person will provide a translator approved by the secretary at a public meeting or hearing conducted in a locale where testimony from non-English speaking people can reasonably be expected. At the meeting or hearing, all interested persons

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secretary within thirty (30) days after receiving notice of the secretary's action. The petition shall specify the portions of the action to which the petitioner objects, certify that a copy of the petition has been mailed or hand-delivered to the secretary, and to the applicant or permittee if the petitioner is not the applicant or permittee, and attach a copy of the action for which review is sought. Unless a timely petition for hearing is made, the secretary's action is final. [12-1-95]

D. The proceedings before the commission shall be conducted as provided in the commissions adjudicatory procedures, 20 NMAC 1.3. [12-1-95, 11-15-96]

E. The cost of the court reporter for the hearing shall be paid by the petitioner. [12-1-95]

F. The appeal provisions do not relieve the owner, operator or responsible person of their obligations to comply with any federal or state laws or regulations. [12-1-95]

## 20 NMAC 6.2.IV.4115 COURT REVIEW OF COMMISSION DECISIONS

Court review of commission decisions shall be as provided by law. [12-1-95]