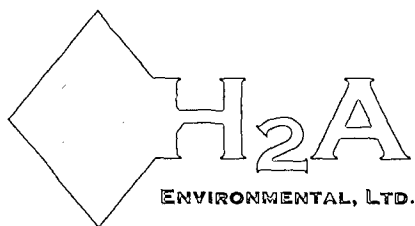


GW - 350

**MONITORING
REPORTS**

DATE:

3/28/2003



RECEIVED

MAR 31 2003

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

ANNUAL 2002 GROUNDWATER MONITORING REPORT

JAL BASIN STATION JAL, LEA COUNTY, NEW MEXICO

H₂A JOB NO. 106.001

Prepared for:

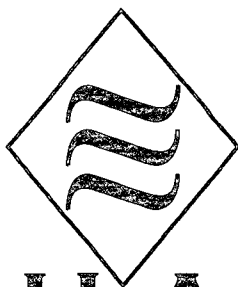
**Shell Oil Products US
Shell Pipeline Company LP**

Approved by:

**Theresa Nix
Senior Project Manager**

March 2003

~~AP004~~ → GW0350



H₂A
ENVIRONMENTAL, LTD.

www.h2altd.com

430 N. CARROLL AVE.

SUITE 120

SOUTHLAKE, TX

76092

817.251.9466

817.251.9224 FAX

March 28, 2003

Mr. William C. Olson
Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 St. Francis Drive
Santa Fe, New Mexico 87505

Re: 2002 Annual Report
Shell Pipeline Company LP
Jal Basin Station (GW-350)
Jal, New Mexico

H₂A Job No. 106.001

RECEIVED

MAR 31 2003

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Dear Mr. Olson:

Transmitted with this letter is the annual report for 2002, as required by the OCD letter dated December 18, 2001, for the above referenced site. The attached report presents the results of all remediation and monitoring activities conducted during 2002 at Jal Basin Station.

If you have any questions concerning this information please feel free to contact me at (361) 777-0860 or email at tnix@h2altd.com.

Respectfully,

Tracie Kennedy for Theresa Nix

Theresa Nix
Senior Project Manager

Attachment

cc: Mr. Kenneth Springer, Shell Oil Products US
Chris Williams, OCD Hobbs

C:\Theresa\H2A\Jal - 106.001\GW Reports\2002\2002 Annual Report.doc

TABLE OF CONTENTS

INTRODUCTION	1
SUBSURFACE INVESTIGATION	1
FIELD ACTIVITIES	
ANALYTICAL RESULTS	
SOIL CUTTINGS DISPOSAL	
GROUNDWATER MONITORING ACTIVITIES	4
GROUNDWATER MEASUREMENTS	5
GROUNDWATER MONITORING RESULTS	5
PRODUCT RECOVERY ACTIVITIES	6
EFFLUENT SAMPLING AND RESULTS	6

FIGURES

- FIG. 1 - SITE PLAN
- FIG. 2 - LOG AND DETAILS OF MONITORING WELL MW-21
- FIG. 3 - LOG AND DETAILS OF MONITORING WELL MW-22
- FIG. 4 - LOG AND DETAILS OF VAPOR MONITORING POINT VMP-1
- FIG. 5 - LOG AND DETAILS OF VAPOR MONITORING POINT VMP-2
- FIG. 6 - LOG AND DETAILS OF VAPOR MONITORING POINT VMP-3
- FIG. 7 - SOIL CONCENTRATION MAP – DECEMBER 2002
- FIG. 8 - GROUNDWATER CONTOURS/ANALYTICAL RESULTS – MARCH 2002
- FIG. 9 - GROUNDWATER CONTOURS/ANALYTICAL RESULTS – JUNE 2002
- FIG. 10 - GROUNDWATER CONTOURS/ANALYTICAL RESULTS – SEPTEMBER 2002
- FIG. 11 - GROUNDWATER CONTOURS/ANALYTICAL RESULTS – DECEMBER 2002
- FIG. 12 - LNAPL THICKNESS MAP – MARCH 2002
- FIG. 13 - LNAPL THICKNESS MAP – JUNE 2002
- FIG. 14 - LNAPL THICKNESS MAP – SEPTEMBER 2002
- FIG. 15 - LNAPL THICKNESS MAP – DECEMBER 2002

TABLES

- TABLE I - SUMMARY OF SOIL RESULTS – BTEX AND TPH
- TABLE II - SUMMARY OF SOIL RESULTS – GEOTECHNICAL PARAMETERS
- TABLE III - SUMMARY OF SOIL RESULTS – OTHER
- TABLE IV - SUMMARY OF GROUNDWATER MONITORING
- TABLE V - SUMMARY OF GROUNDWATER RESULTS – BTEX AND TPH
- TABLE VI - SUMMARY OF GROUNDWATER RESULTS - OTHER
- TABLE VII - SUMMARY OF PRODUCT RECOVERY
- TABLE VIII - SUMMARY OF EFFLUENT RESULTS – BTEX
- TABLE IX - SUMMARY OF EFFLUENT RESULTS – METALS
- TABLE X - SUMMARY OF EFFLUENT RESULTS – PAH
- TABLE XI - SUMMARY OF EFFLUENT RESULTS - OTHER

TABLE OF CONTENTS

(continued)

APPENDICES

- APPENDIX A – SOIL ANALYTICAL RESULTS
 - CERTIFIED LABORATORY REPORTS
 - CHAIN-OF-CUSTODY DOCUMENTATION
- APPENDIX B – GROUNDWATER ANALYTICAL RESULTS
 - CERTIFIED LABORATORY REPORTS
 - CHAIN-OF-CUSTODY DOCUMENTATION
- APPENDIX C – EFFLUENT ANALYTICAL RESULTS
 - CERTIFIED LABORATORY REPORTS
 - CHAIN-OF-CUSTODY DOCUMENTATION
- APPENDIX D – GROUNDWATER DATA SHEETS
- APPENDIX E – DISPOSAL INFORMATION



INTRODUCTION

H₂A Environmental, Ltd. (H₂A) has completed the annual groundwater monitoring for the Jal Basin Station site located south of Jal, New Mexico. Monitoring events were conducted at the site in March, June, September, and December 2002.

Additional soil and groundwater investigation activities were conducted in December 2002, to further define the extent of subsurface impact at the Jal Basin Station. During the investigation, representatives from H₂A Environmental, Ltd. (H₂A) installed two groundwater monitoring wells (designated MW-21 and MW-22), and three soil vapor monitoring points (designated VMP-1, VMP-2, and VMP-3). Results of monitoring and investigation activities are summarized in the following text.

SUBSURFACE INVESTIGATION

FIELD ACTIVITIES

Field activities included the advancement of two soil borings to an approximate depth of 100 feet below ground surface using air rotary drilling. Soil samples were collected at 10 foot intervals for the first 80 feet and then continuously to groundwater using split-spoon samplers.

The soil borings were then completed as groundwater monitoring wells (MW-21 and MW-22) consisting of 20 feet of slotted 4-inch PVC screen and a blank PVC riser. The annulus was filled with clean sand to two to three feet above the screened interval. An annular bentonite seal was placed above the sand pack and extended to the ground surface. The wells were each completed at the surface with a three foot blank PVC riser with locking steel cover and a two foot by two foot concrete pad.

Three additional soil borings were advanced to an approximate depth of 80 feet below ground surface. Soil samples were collected at 10 foot intervals. These soil borings were then completed as vapor monitoring points, each consisting of three lengths of 1-inch PVC screen and riser. Screened intervals, 6-inch in length, were set at approximately 15, 50, and 80 feet below ground surface in each vapor monitoring point. The annulus was filled with clean sand to



approximately two feet above each screened interval. An annular bentonite seal was placed between the screened intervals. An annular bentonite seal was also placed between the uppermost screened interval and the ground surface. Each vapor monitoring point was completed flush with the ground surface, and protected by a steel manway and two foot by two foot concrete pad.

The vapor monitoring points were designated VMP-1, VMP-2, and VMP-3. Monitoring well and vapor monitoring point locations were determined by a professional surveyor licensed in the state of New Mexico, and are depicted on FIG. 1. Monitoring well and vapor monitoring point logs are included as FIG. 2 through 6.

ANALYTICAL RESULTS

A photo-ionization detector (PID) was used to screen the soil samples collected. PID readings ranged from 0 to 40.0 parts per million (ppm). Samples were selected for laboratory analysis based on the following parameters:

- The sample with the highest PID reading between the ground surface and 20 feet below ground surface (BGS).
- The sample with the highest PID reading between 50 and 80 feet BGS.
- The sample directly above and/or near the groundwater level observed at the time of drilling. This applies to the monitoring wells only.
- The remaining 2 samples with the highest PID readings in the borehole.

Samples were obtained by field personnel using disposable nitrile gloves and clean sampling equipment. Sampling equipment was decontaminated with an alconox wash and distilled water rinse between sampling depths and locations. Soil samples were collected in sterile 4-ounce glass containers with Teflon-lined caps and placed on ice in a cooler for delivery to the analytical lab.

Selected soil samples were submitted to a certified laboratory for determination of benzene, toluene, ethylbenzene, and xylenes (BTEX), and total petroleum hydrocarbons (TPH)



concentrations. Samples were analyzed using EPA Method SW846-8021B and 8015B (DRO and GRO), respectively. Analytical results exhibited the following ranges:

PARAMETER	CONCENTRATION RANGE (mg/kg)
Benzene	<0.0104 to <0.214
BTEX	<0.0312 to 4.82
TPH DRO	<51.9 to 7,360
TPH GRO	<1.04 to 276

The samples collected from MW-22 and VMP-2 with the highest TPH results were also analyzed for polycyclic aromatic hydrocarbons (PAH), and SPLP semi-volatile organics (SVOC), using EPA method 8270C as well as SPLP volatile organic compounds (VOC) via EPA method 8260B, and SPLP TPH via modified method 8015B. Concentration ranges are presented below:

PARAMETER	CONCENTRATION RANGE
PAH	0.00 to 2.07 mg/kg
SPLP SVOC	<0.005 to <0.05 µg/l
SPLP VOC	<1.00 to 31.9 µg/l
SPLP TPH - DRO	54.8 and 143 mg/l
SPLP TPH – GRO (MW-22 only)	<0.5 mg/l

Undisturbed soil samples were also collected during drilling and submitted to the analytical lab for determination of geotechnical parameters. Soil analytical results are summarized in TABLES I through III and graphically presented on FIG. 7. The soil laboratory report and chain-of-custody documentation are presented in APPENDIX A.



SOIL CUTTINGS DISPOSAL

Soil cuttings generated during the December drilling event were temporarily stored on-site in 55-gallon drums pending disposal. Composite samples were collected from the drums and submitted for TCLP and RCI analysis. Analytical results are included in Appendix A. A licensed contractor, approved for such services by Shell Pipeline Company's Residual Disposal Coordinator, transported the drums to their final disposition at an OCD approved facility. A copy of the manifest is presented in APPENDIX E.

GROUNDWATER MONITORING ACTIVITIES

Groundwater monitoring activities consisted of gauging the water levels in all the monitoring wells, then purging three well volumes from all wells not exhibiting measurable light non-aqueous phase liquid (LNAPL). After the monitoring wells had been purged, groundwater samples were collected and submitted to a certified laboratory. Samples were collected on a quarterly basis during 2002 and analyzed for determination of BTEX concentrations. During the fourth quarter monitoring event, samples were also analyzed for determination of metals and PAH concentrations.

Groundwater samples collected for BTEX (Method SW846-8021B) analysis were placed in sterile, 40 ml glass VOA vials equipped with Teflon-lined caps and HCl preservative, as provided by the analytical laboratory. The vials were filled to a positive meniscus, sealed, and visually checked for the absence of air bubbles.

Groundwater samples collected for metals analysis (Methods 6010B and 7470A) were placed in 500 ml sterile plastic containers equipped with Teflon-lined caps and HNO₃ preservative, as provided by the analytical laboratory.

Groundwater samples collected for PAH analysis were collected in unpreserved sterile one liter glass containers equipped with Teflon-lined caps.



H₂A ENVIRONMENTAL, LTD.

Filled sample containers were labeled, placed on ice in an insulated cooler, and chilled to an approximate temperature of 40°F (4°C). The cooler was sealed for transportation to the analytical laboratory. Proper chain of custody documentation was maintained throughout the sampling process.

GROUNDWATER MEASUREMENTS

Groundwater measurements were obtained on March 27, June 26, September 25, and December 28, 2002. Groundwater contour maps illustrating groundwater elevations measured during each quarterly event are presented as FIG. 8 through 11. Groundwater measurements are summarized in TABLE IV.

LNAPL thicknesses varied from ND to 7.50 feet during the annual period. LNAPL thicknesses measured in December 2002 ranged from ND to 4.35 feet. Quarterly LNAPL thickness maps are presented as FIGs 12 through 15.

Groundwater monitoring data sheets completed in 2002 are presented in APPENDIX D.

GROUNDWATER MONITORING RESULTS

Laboratory results for groundwater samples obtained during the four quarterly monitoring events were determined to have the following range of concentrations:

PARAMETER	CONCENTRATION RANGE (mg/l)
Benzene	<0.001 to 0.0219
BTEX	<0.001 to 0.0325
PAH	<0.000200
Metals	<0.000200 to 4.30



H₂A ENVIRONMENTAL, LTD.

Hydrocarbon constituent concentrations for each quarterly event are presented on FIGs. 8 through 11. Groundwater analytical results are summarized in TABLES V and VI. Copies of the certified laboratory reports and chain of custody documentation are presented in APPENDIX B.

PRODUCT RECOVERY ACTIVITIES

The HVR system startup was initiated on January 4, 2001. The system was enhanced by adding a second liquid ring pump (LRP) in July, 2002. The following table presents the volume and rate of groundwater and LNAPL recovered through December 30, 2002.

Parameter	Volume Recovered (gallons)	Rate of Recovery (gallons / day)
Groundwater	878,679	2,799
LNAPL (diesel)	41,299	54.8

All water recovered and treated during remediation is injected back into the formation via on-site infiltration wells, designated IW-1 and IW-2. A summary of product recovery data is presented in TABLE VII.

As the diesel storage tank reaches capacity, E&E Environmental located in Odessa, Texas, transports the recovered diesel off-site to their Brownfield, Texas facility. Approximately 23,550 gallons of diesel were transported off-site during 2002. Copies of the disposal tickets are presented in APPENDIX E.

EFFLUENT SAMPLING AND RESULTS

Effluent samples are obtained, preserved, and analyzed using the same procedures outlined above for groundwater sampling. The effluent laboratory results are summarized in TABLES VIII through XI. Copies of the certified laboratory reports and chain of custody documentation are presented in APPENDIX C.

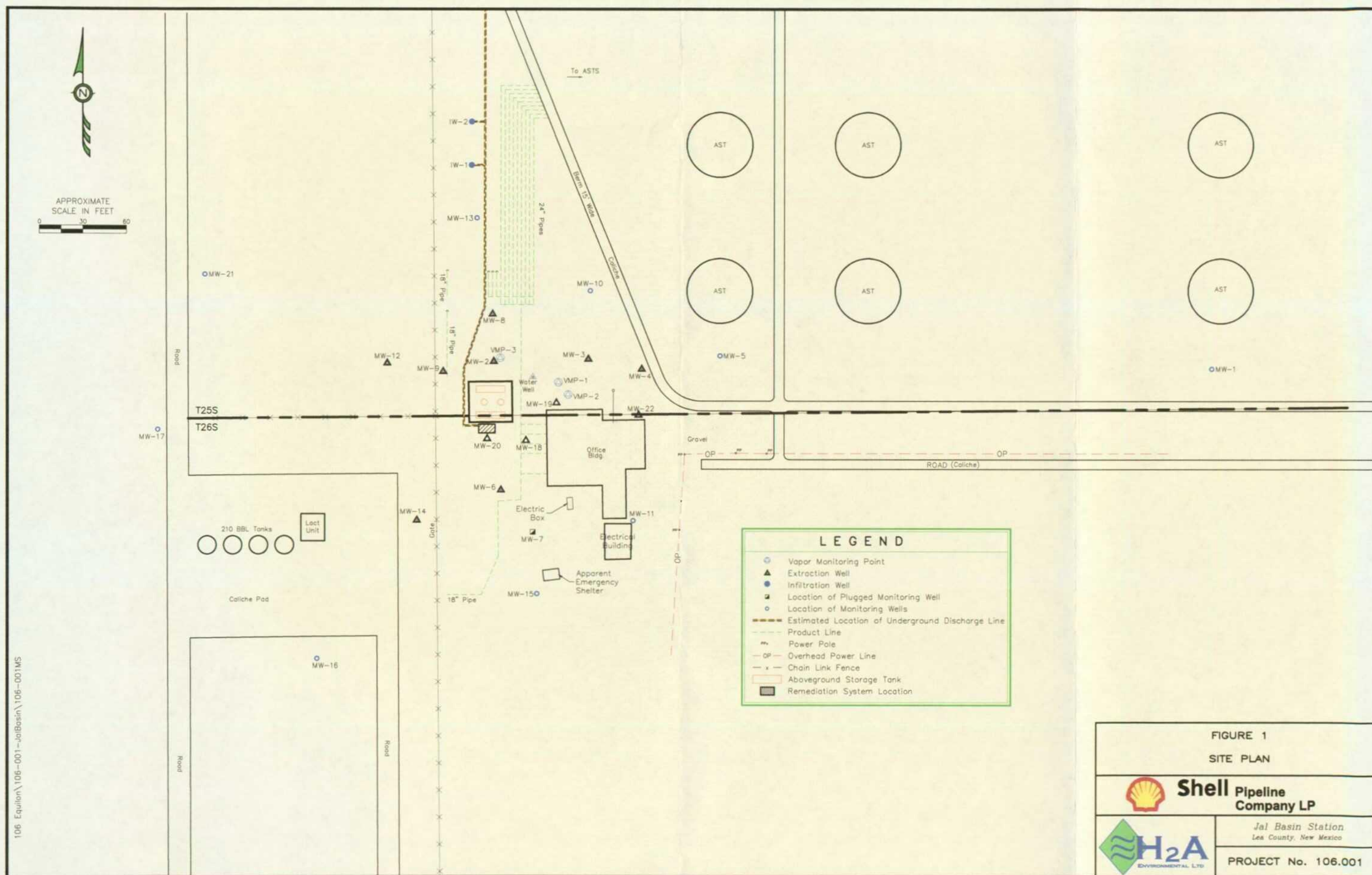


FIGURE 1	
SITE PLAN	
	Shell Pipeline Company LP
	Jal Basin Station Lea County, New Mexico
PROJECT No. 106.001	

106 Equilon\106-001-JalBasin\106-001MS

MONITORING WELL MW-21

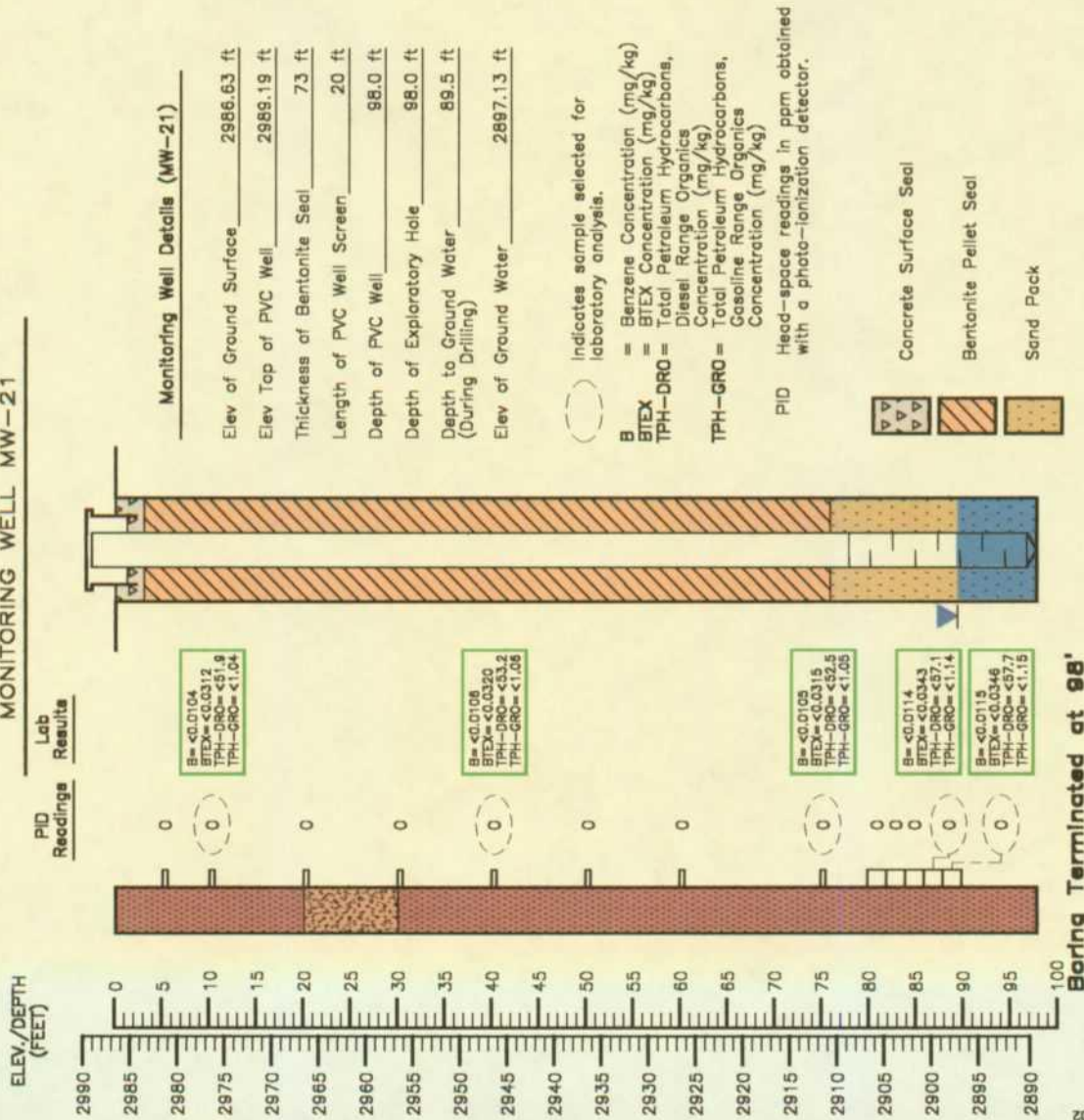


FIGURE 2

LOG AND DETAILS OF MONITORING WELL MW-21



Shell Pipeline Company LP



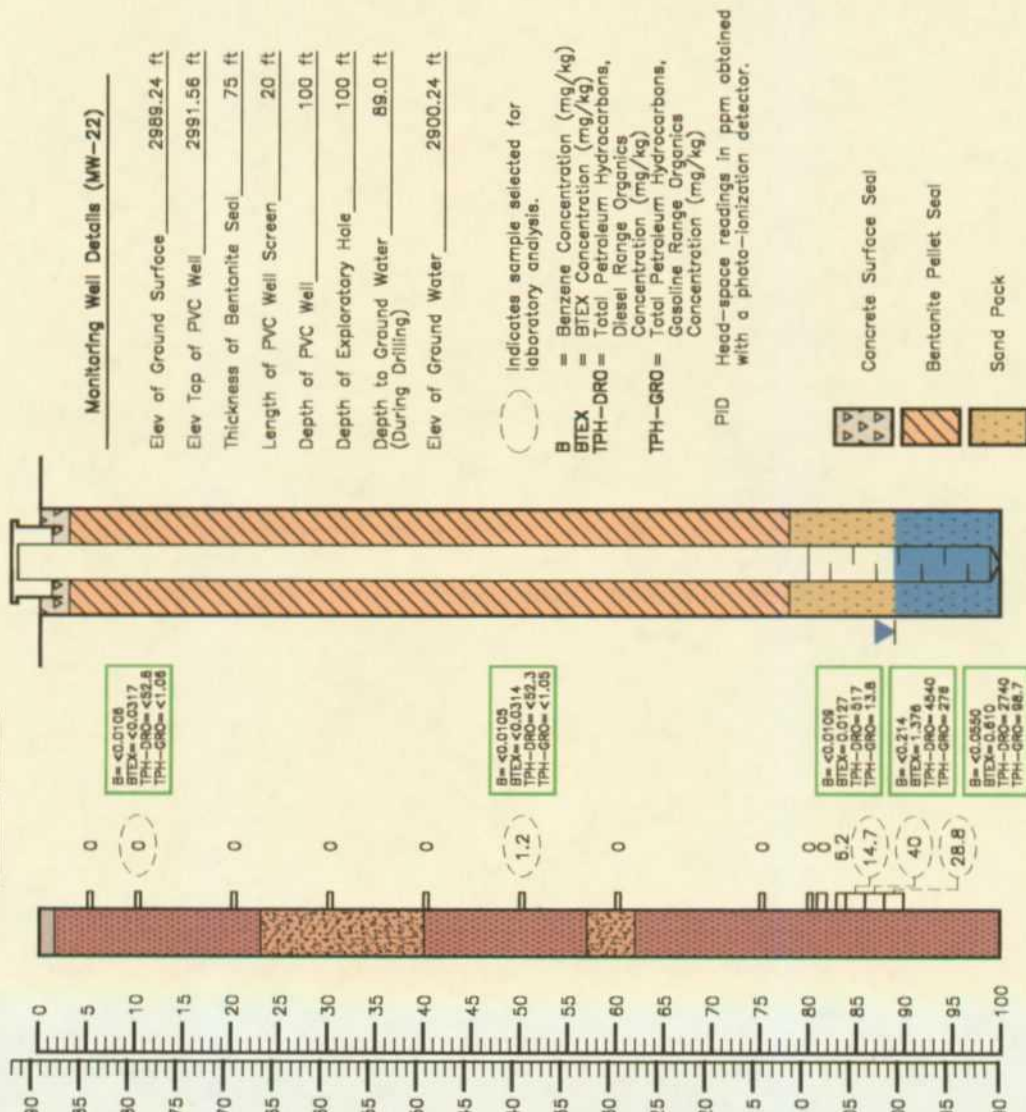
Jal Basin Station
Lea County, New Mexico

PROJECT No. 108.001

MONITORING WELL MW-22

ELEV./DEPTH
(FEET)

PID
Readings
Results



Boring Terminated at 100'

LEGEND

Sand (SW/SM) - Fine to coarse grained, loose, sparse gravel, red to brown, dry to saturated.

Sand (SM) - Fine to medium grained, medium to very dense, calcareous, tan to brown, dry to moist.

Indicates the depth from which a soil sample was selected and prepared for field head space and/or laboratory analysis.

Indicates the groundwater level measured during drilling.

NOTES

1. The monitoring well was installed on December 13, 2002 using air rotary drilling techniques.
2. The well was constructed with 4-inch ID, 0.010-inch factory slotted, threaded joint, Schedule 40 PVC pipe.
3. The well is protected with a locking steel cover and a compression cap.
4. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
5. The depths indicated are referenced from the ground surface.

FIGURE 3
LOG AND DETAILS OF
MONITORING WELL MW-22



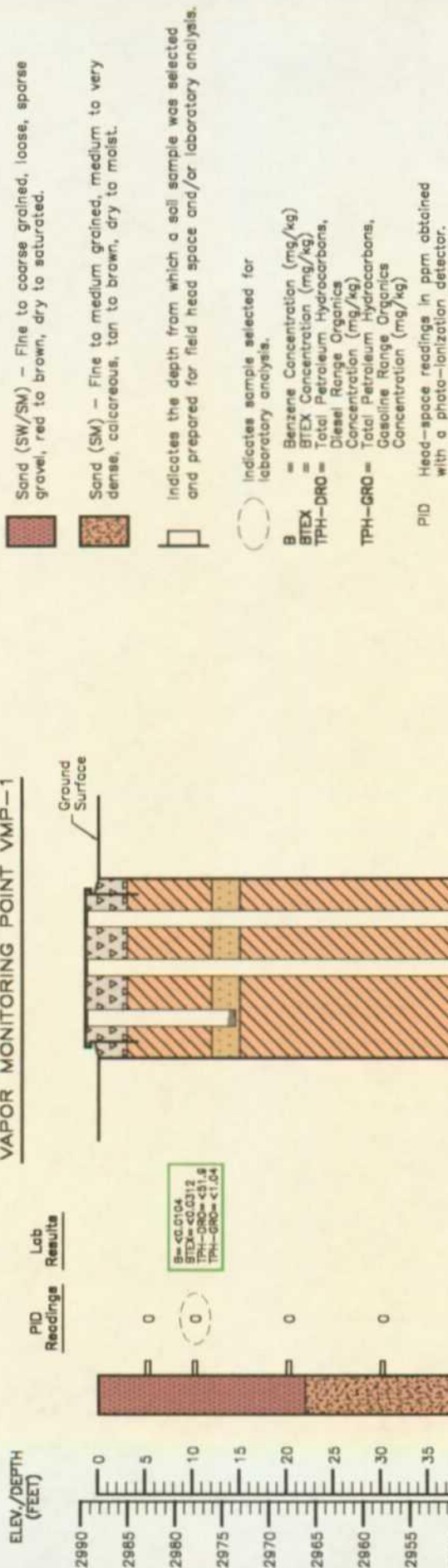
Shell Pipeline
Company LP



Jal Basin Station
Lea County, New Mexico

PROJECT No. 106.001

VAPOR MONITORING POINT VMP-1



Boring Terminated at 82'

Concrete Surface Seal
Bentonite Pellet Seal
Sand Pack



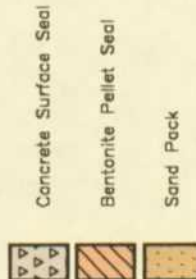
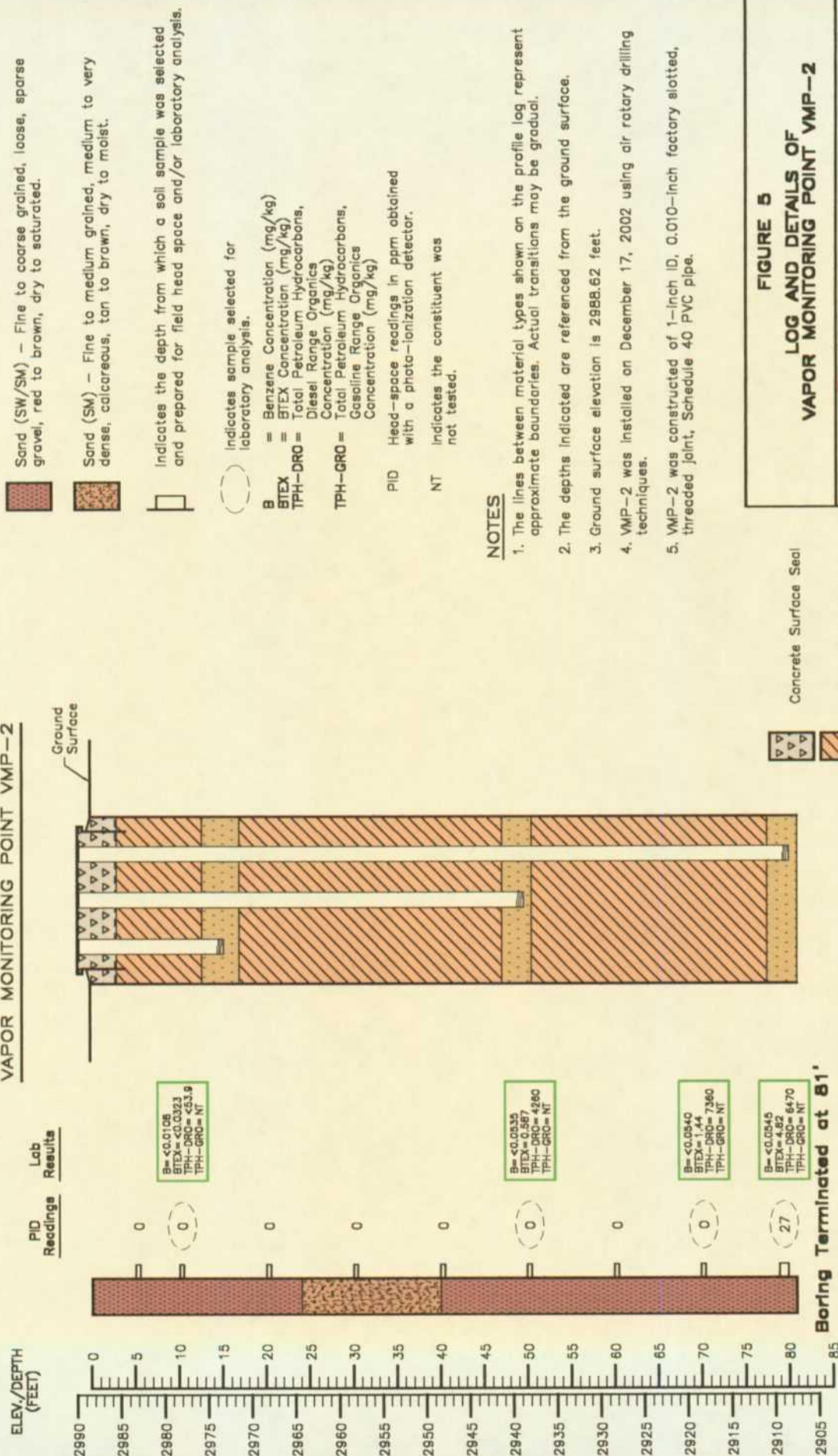
Shell Pipeline
Company LP



Jal Basin Station
Lea County, New Mexico

PROJECT No. 106.001

VAPOR MONITORING POINT VMP-2



LEGEND

Sand (SW/SW) - Fine to coarse grained, loose, sparse gravel, red to brown, dry to saturated.

Sand (SM) - Fine to medium grained, medium to very dense, calcareous, tan to brown, dry to moist.

Indicates the depth from which a soil sample was selected and prepared for field head space and/or laboratory analysis.

Indicates sample selected for laboratory analysis.

B = Benzene Concentration (mg/kg)
BTX = BTX Concentration (mg/kg)
TPH-DRG = Total Petroleum Hydrocarbons, Diesel Range Organics Concentration (mg/kg)

TPH-GRG = Total Petroleum Hydrocarbons, Gasoline Range Organics Concentration (mg/kg)

PID Head-space readings in ppm obtained with a photo-ionization detector.

NT Indicates the constituent was not tested.

NOTES

- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- The depths indicated are referenced from the ground surface.
- Ground surface elevation is 2988.62 feet.
- VMP-2 was installed on December 17, 2002 using air rotary drilling techniques.
- VMP-2 was constructed of 1-inch ID, 0.010-inch factory slotted, threaded joint, Schedule 40 PVC pipe.

FIGURE 5
LOG AND DETAILS OF
VAPOR MONITORING POINT VMP-2



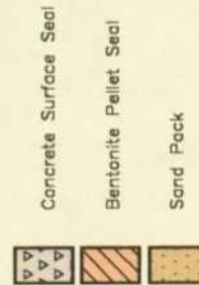
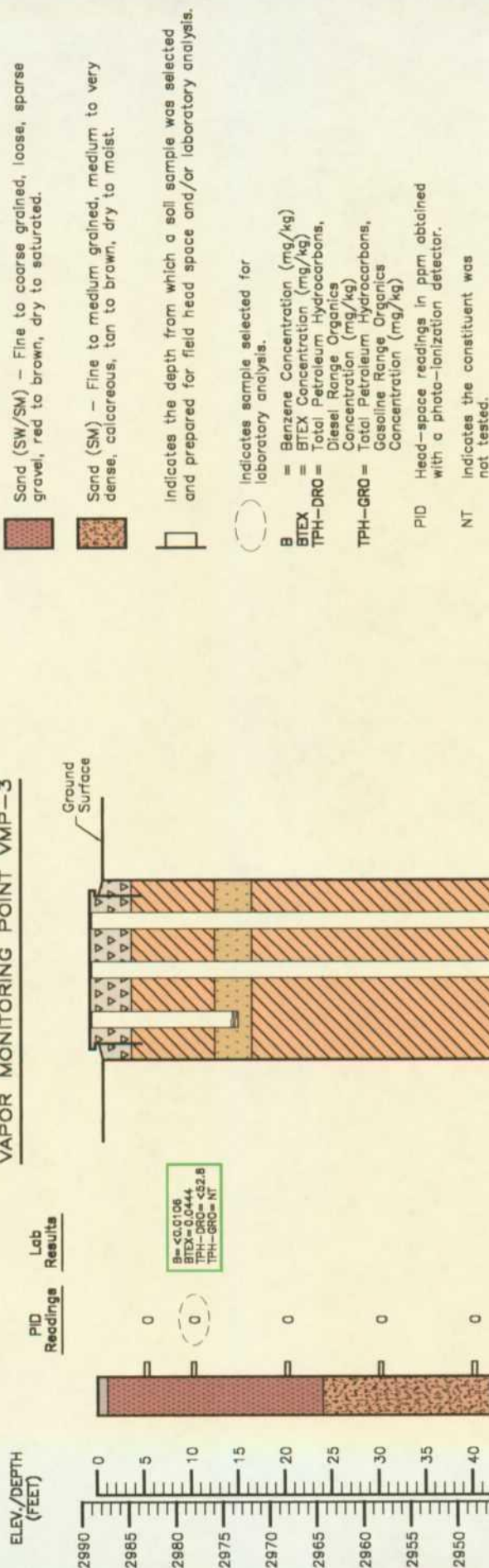
Shell Pipeline
Company LP



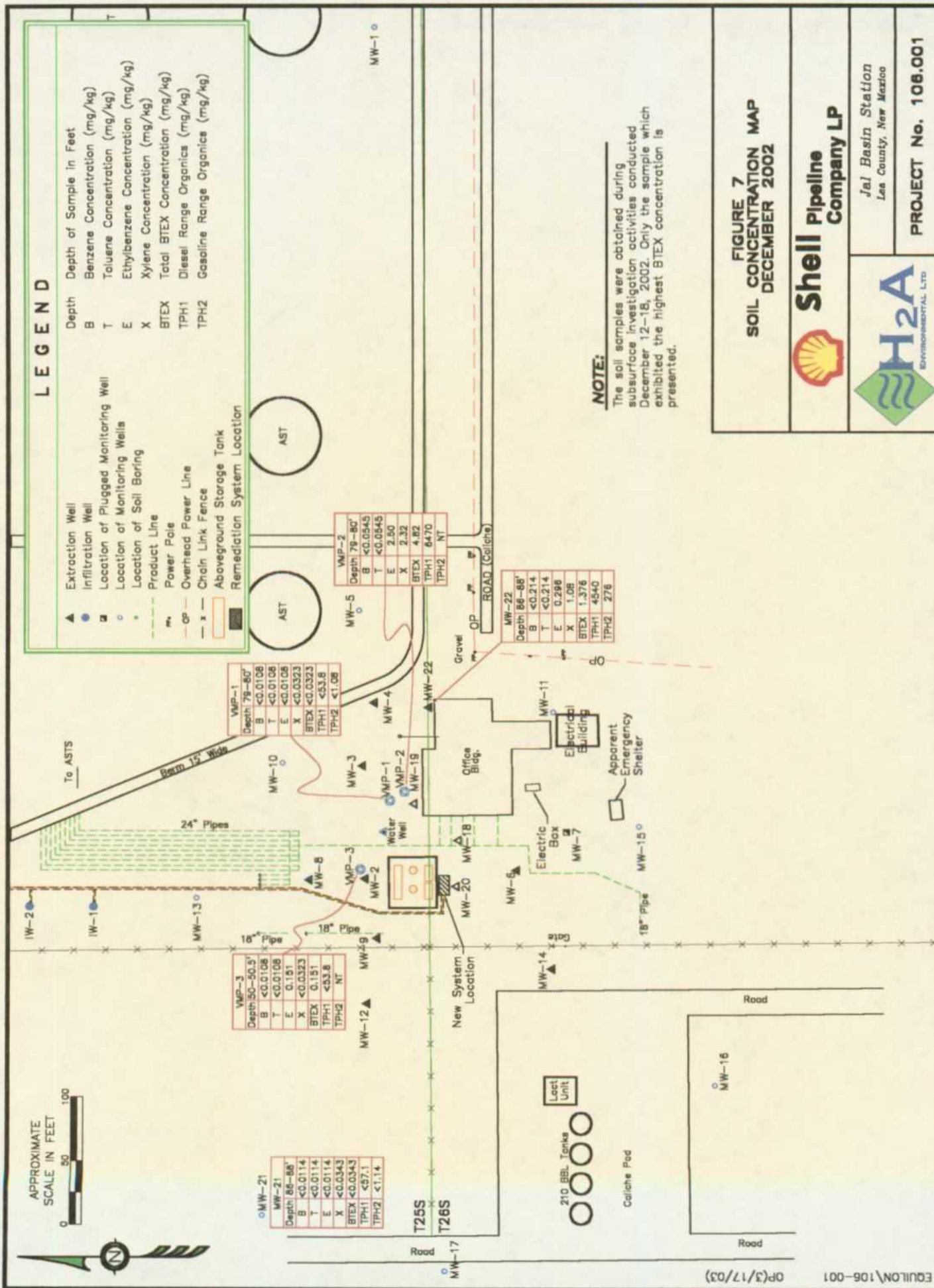
Jal Basin Station
Lea County, New Mexico

PROJECT No. 106.001

VAPOR MONITORING POINT VMP-3



Boring Terminated at 81'



APPROXIMATE
SCALE IN FEET



- NOTES:**
1. Groundwater samples were obtained on March 27 & 28, 2002.
 2. Groundwater samples were not obtained from wells containing LNAPL.
 3. HVR system was extracting from MW-2, MW-3, MW-6 and MW-9.
 4. Groundwater elevations in monitoring wells containing LNAPL have been corrected by a factor of 0.86 to account for the specific gravity of the LNAPL.

LEGEND

- ▲ Extraction Well
- Infiltration Well
- Location of Plugged Monitoring Well
- Location of Monitoring Wells
- Estimated Location of Underground Discharge Line
- Product Line
- Power Pole
- OP Overhead Power Line
- Chain Link Fence
- Aboveground Storage Tank
- Groundwater Flow Direction
- ~ Groundwater Elevation Contour (Interval = 0.5 ft)
- 2900.42 Elevation of Groundwater (ft)
- B Benzene Concentration (mg/l)
- T Toluene Concentration (mg/l)
- E Ethylbenzene Concentration (mg/l)
- X Xylenes Concentration (mg/l)
- BTEX Total BTEX Concentration (mg/l)
- LNAPL Light Non-Aqueous Phase Liquids

FIGURE B
GROUNDWATER CONTOURS/
ANALYTICAL RESULTS - MARCH 2002

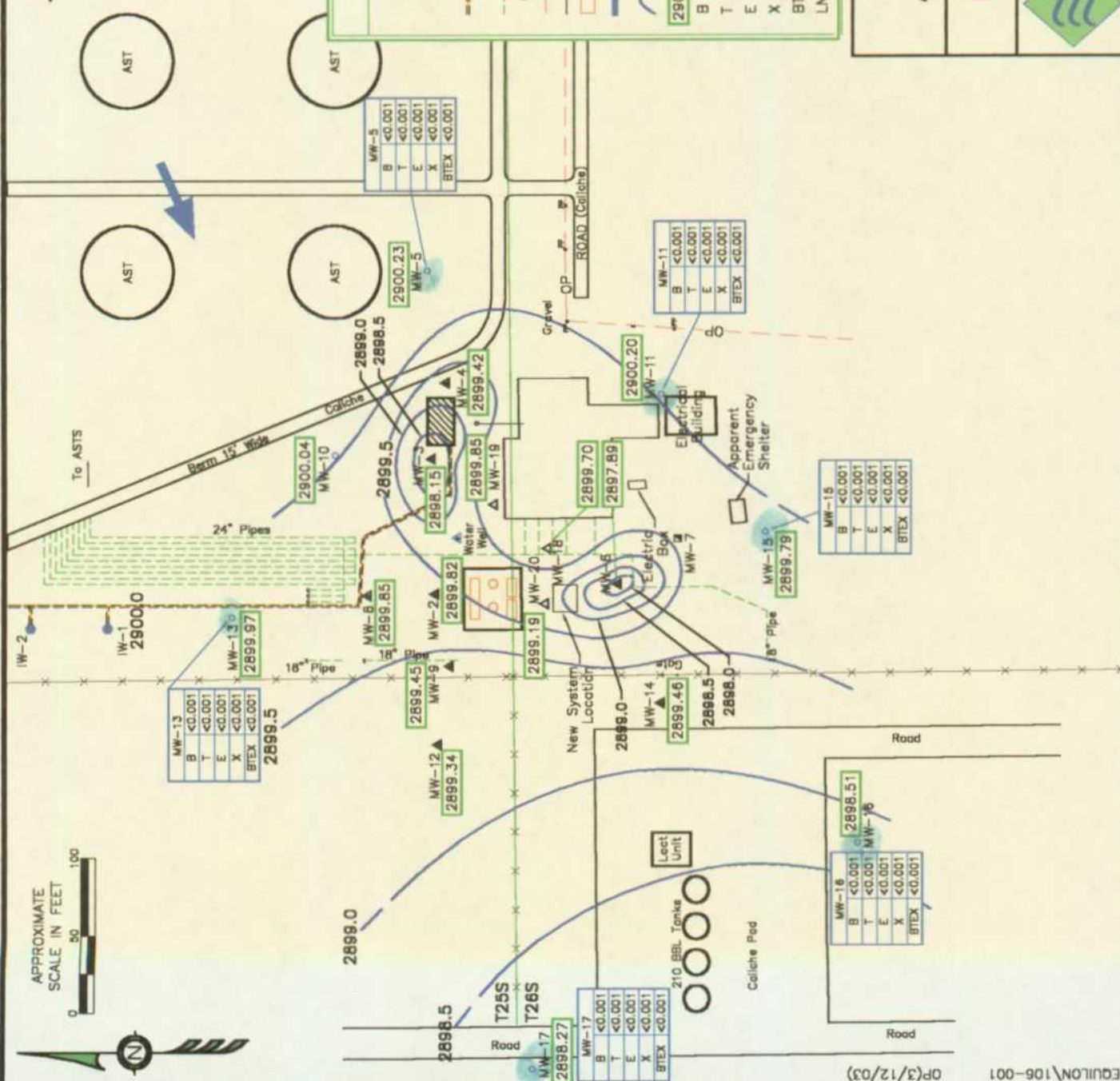


Shell Pipeline
Company LP



Jal Basin Station
Lea County, New Mexico

PROJECT No. 106.001



OP(3/12/03)

EQUILON\106-001

APPROXIMATE
SCALE IN FEET



- NOTES:**
1. Groundwater samples were obtained on June 26, 2002.
 2. Groundwater samples were not obtained from wells containing LNAPL.
 3. MW-14 was not gauged during this quartering event.
 4. HVR system was extracting from monitoring wells MW-3, MW-4, MW-6 and MW-9.
 5. Groundwater elevations in monitoring wells contains LNAPL have been corrected by a factor of 0.86 to account for the specific gravity of the LNAPL.

LEGEND

- ▲ Extraction Well
- Infiltration Well
- Location of Plugged Monitoring Well
- Location of Monitoring Wells
- Estimated Location of Underground Discharge Line
- Product Line
- Power Pole
- Overhead Power Line
- Chain Link Fence
- Aboveground Storage Tank
- Groundwater Flow Direction
- ~ Groundwater Elevation Contour (Interval = 0.5 ft)
- 2901.42 Elevation of Groundwater (ft)
- B Benzene Concentration (mg/l)
- T Toluene Concentration (mg/l)
- E Ethylbenzene Concentration (mg/l)
- X Xylenes Concentration (mg/l)
- BTEX Total BTEX Concentration (mg/l)
- LNAPL Light Non-Aqueous Phase Liquid

FIGURE 9
GROUNDWATER CONTOURS/
ANALYTICAL RESULTS - JUNE 2002

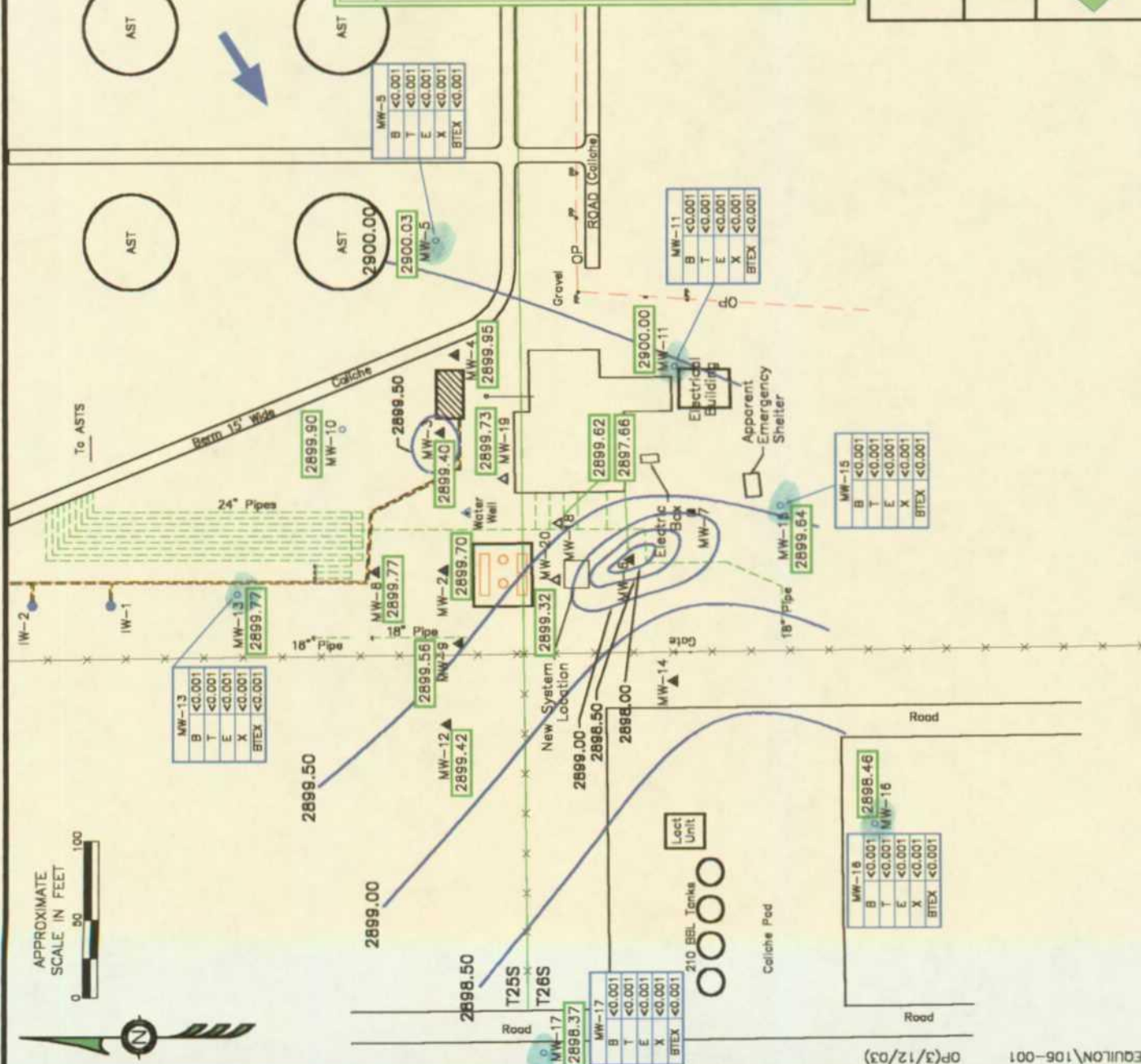


Shell Pipeline
Company LP



Jal Basin Station
Lea County, New Mexico

PROJECT No. 108.001



OP(3/12/03)

EQUILON\108-001

NOTES:

1. Groundwater samples were obtained on September 25, 2002.
2. Groundwater samples were not obtained from wells containing LNAPL.
3. HVR system was extracting from MW-2, MW-3, MW-4, MW-6, MW-9, MW-10 and MW-14.
4. The depth to groundwater was not measured in the extraction wells.
5. Groundwater elevations in monitoring wells containing LNAPL have been corrected by a factor of 0.86 to account for the specific gravity of the LNAPL.

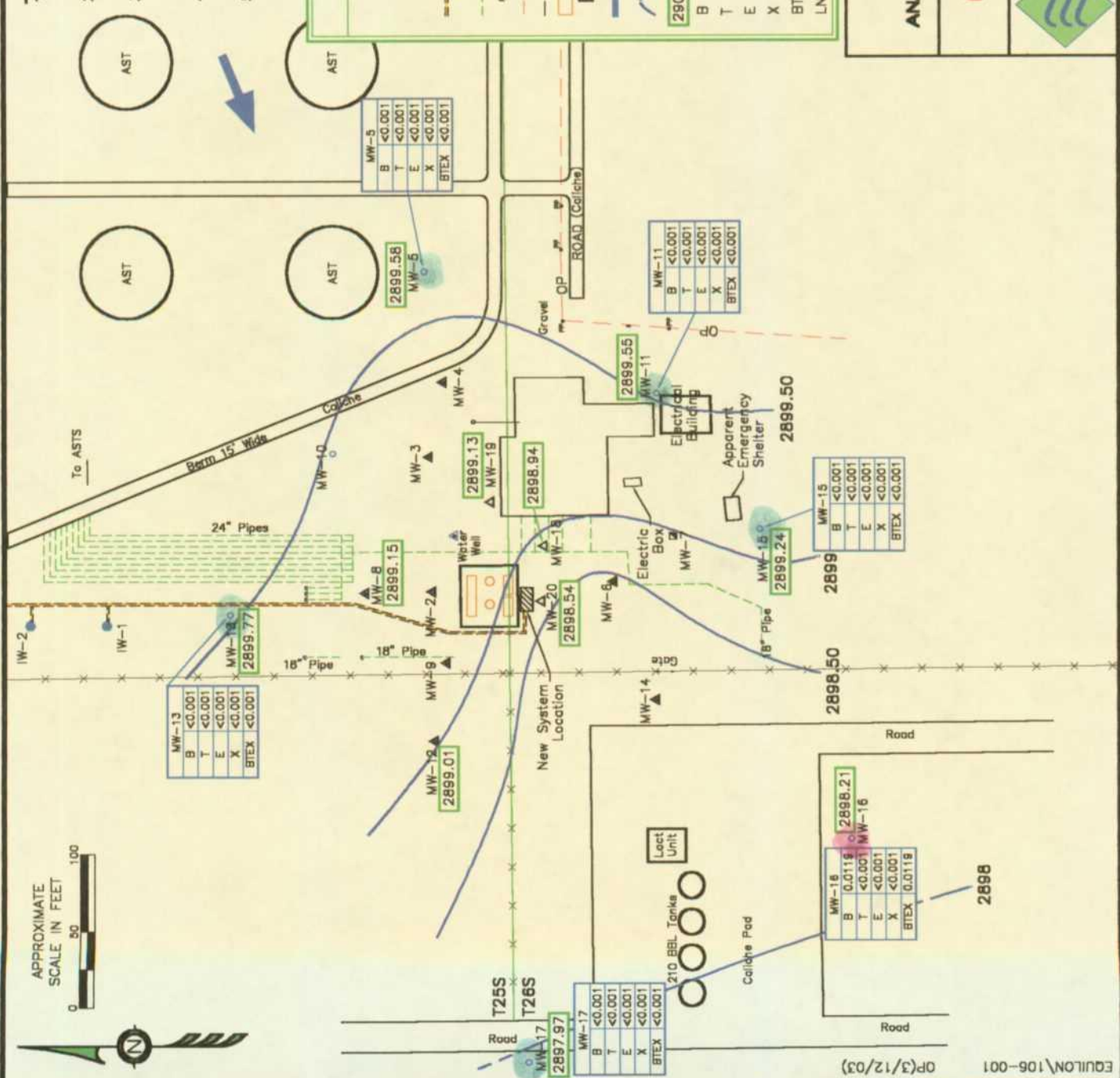


FIGURE 10
GROUNDWATER CONTOURS/
ANALYTICAL RESULTS - SEPTEMBER 2002

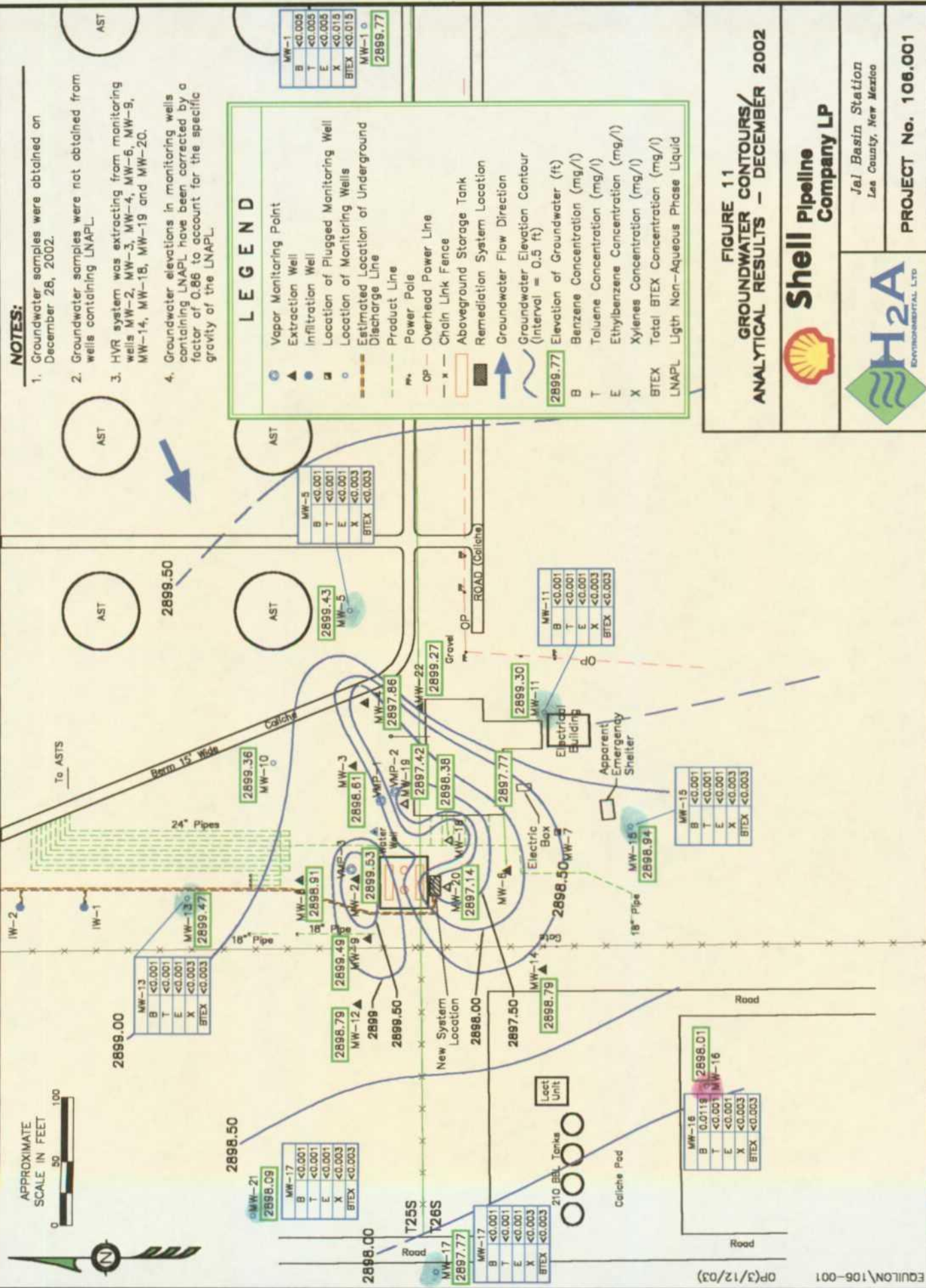
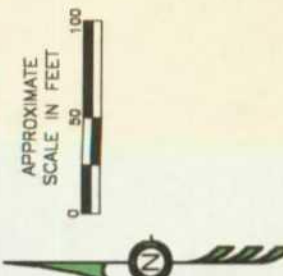


Shell Pipeline
Company LP



Jal Basin Station
Lea County, New Mexico

PROJECT No. 108.001



NOTES:

1. Groundwater samples were obtained on December 28, 2002.
2. Groundwater samples were not obtained from wells containing LNAPL.
3. HVR system was extracting from monitoring wells MW-2, MW-3, MW-4, MW-6, MW-9, MW-14, MW-18, MW-19 and MW-20.
4. Groundwater elevations in monitoring wells containing LNAPL have been corrected by a factor of 0.86 to account for the specific gravity of the LNAPL.

FIGURE 11
GROUNDWATER CONTOURS/
ANALYTICAL RESULTS - DECEMBER 2002

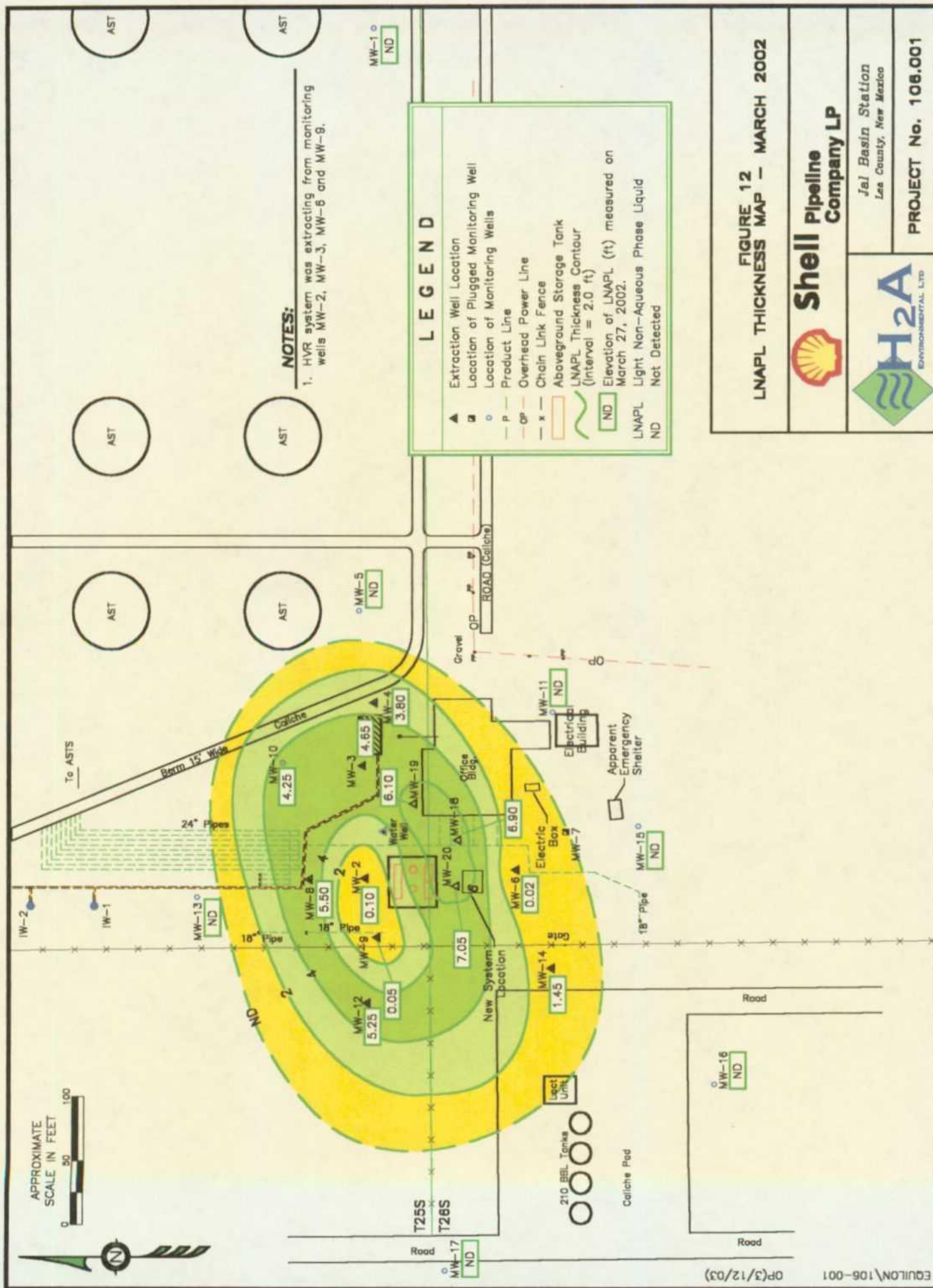


Shell Pipeline
Company LP

Jal Basin Station
Lee County, New Mexico



PROJECT No. 106.001



OP(3/12/03)

EQUILON\106-001

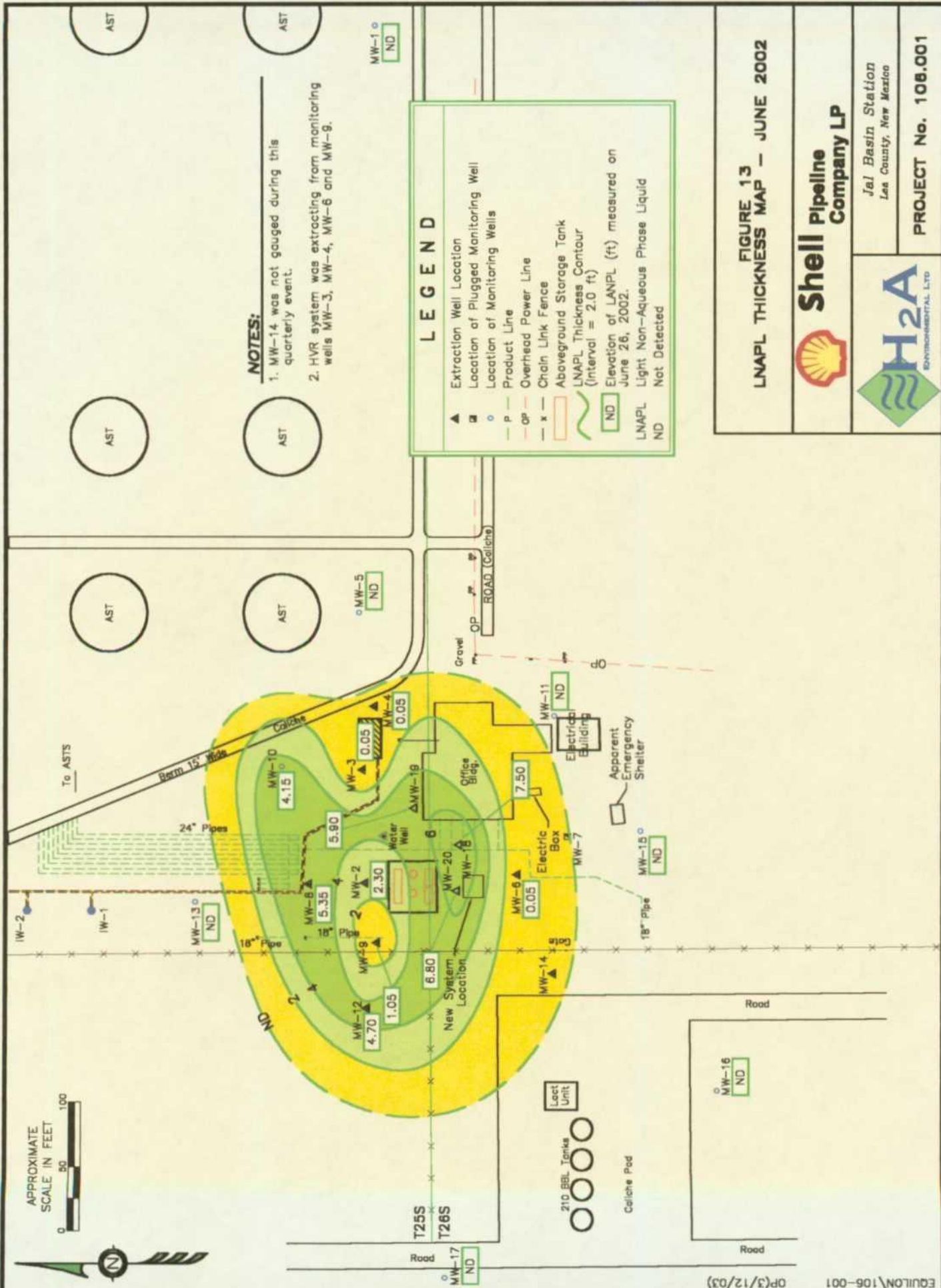


FIGURE 13
LNAPL THICKNESS MAP - JUNE 2002

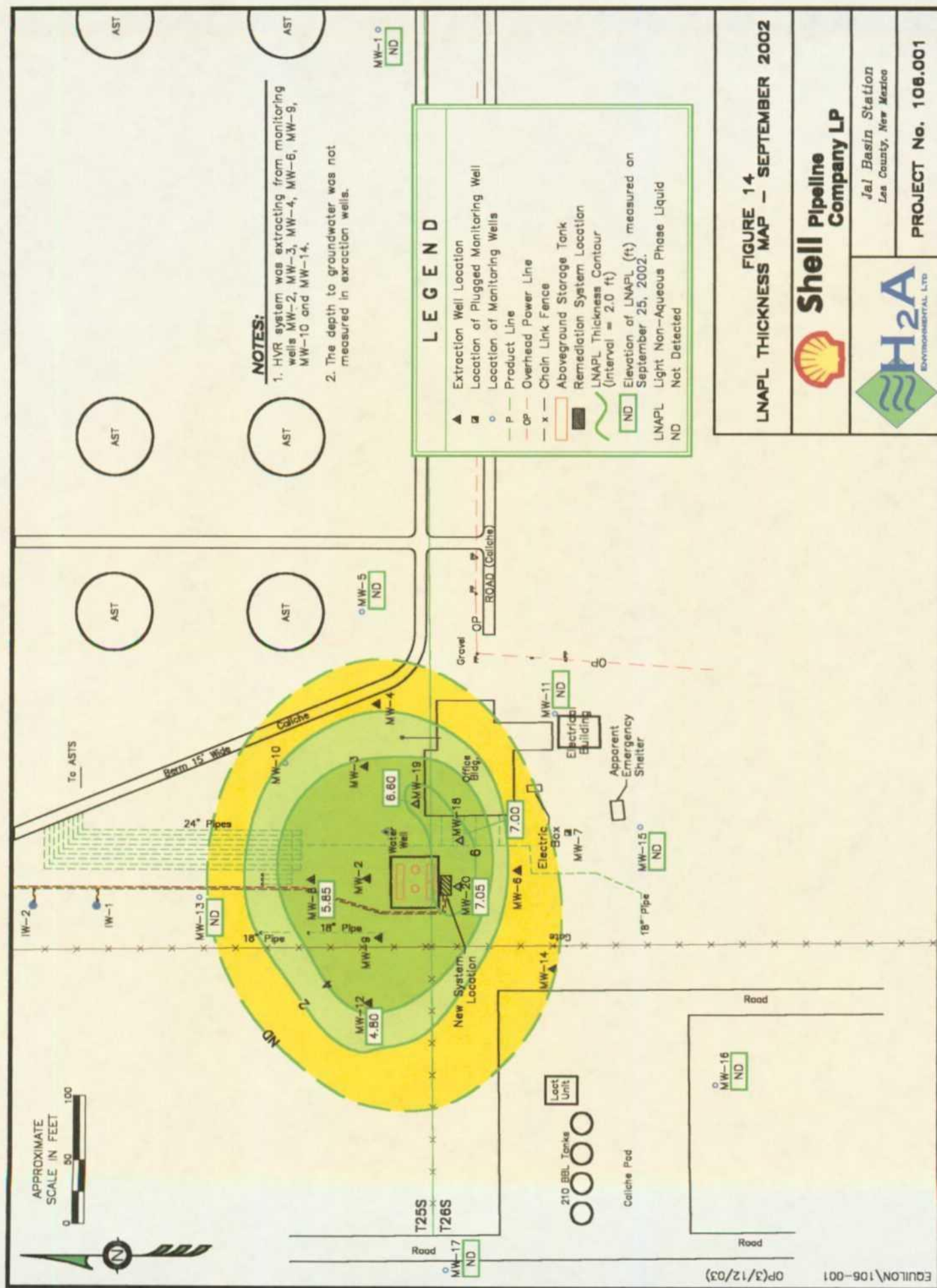


**Shell Pipeline
Company LP**

Jal Basin Station
Lea County, New Mexico



PROJECT No. 106.001



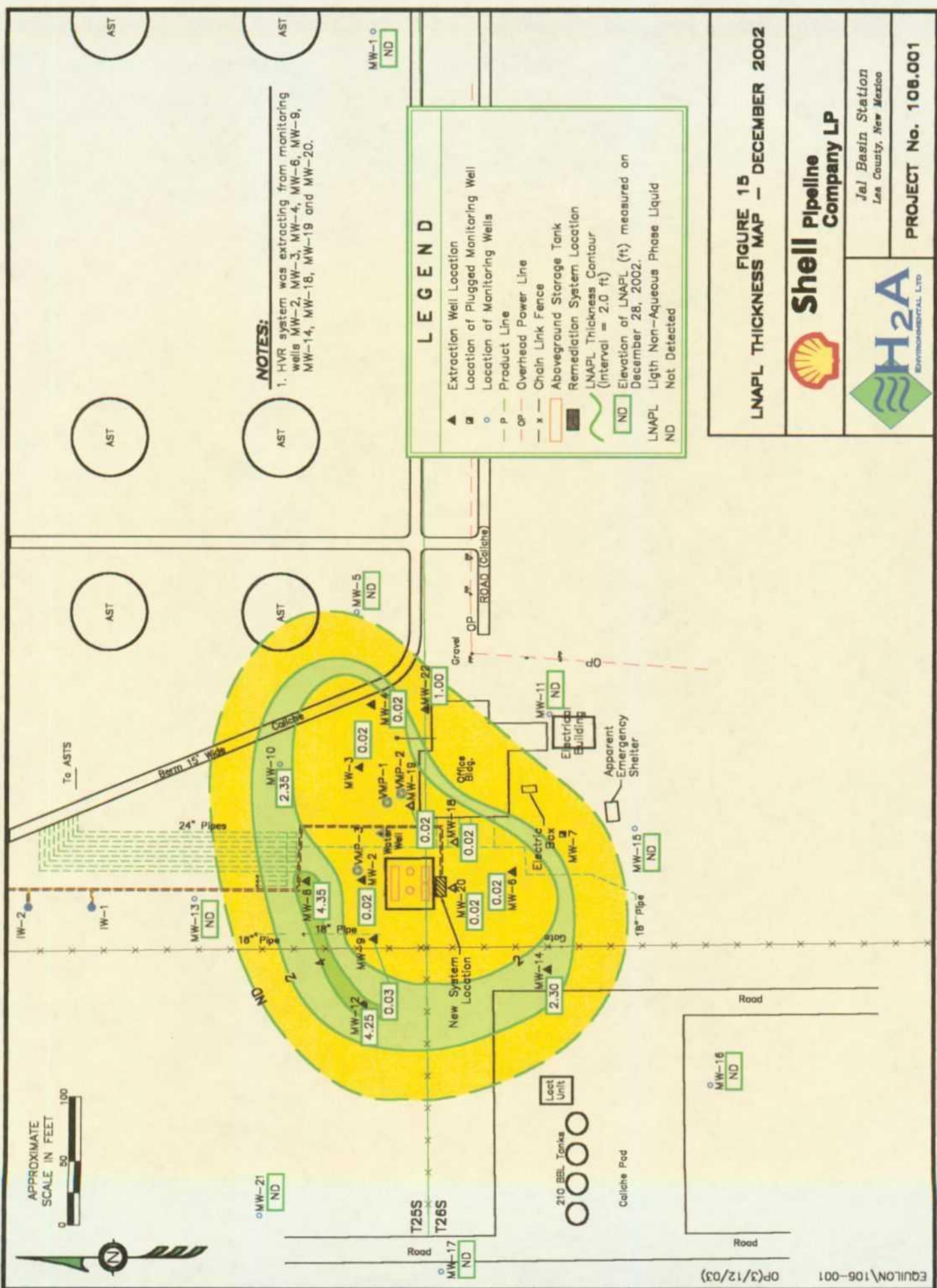


FIGURE 15
LNAPL THICKNESS MAP — DECEMBER 2002



Shell Pipeline Company LP

Jal Basin Station
Lea County, New Mexico



PROJECT No. 106.001

TABLE I

SUMMARY OF SOIL RESULTS - BTEX AND TPH
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	DATE	DEPTH (feet)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENES (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)
MW-21	12/12/2002	10-10.5	<0.0104	<0.0104	<0.0104	<0.0312	<0.0312	<51.9	<1.04
	12/12/2002	40-40.5	<0.0106	<0.0106	<0.0106	<0.0320	<0.0320	<53.2	<1.06
	12/12/2002	75-75.5	<0.0105	<0.0105	<0.0105	<0.0315	<0.0315	<52.5	<1.05
	12/12/2002	86-88	<0.0114	<0.0114	<0.0114	<0.0343	<0.0343	<57.1	<1.14
	12/12/2002	88-90	<0.0115	<0.0115	<0.0115	<0.0346	<0.0346	<57.7	<1.15
MW-22	12/13/2002	10-10.5	<0.0106	<0.0106	<0.0106	<0.0317	<0.0317	<52.8	<1.06
	12/13/2002	50-50.5	<0.0105	<0.0105	<0.0105	<0.0314	<0.0314	<52.3	<1.05
	12/13/2002	84-86	<0.0109	<0.0109	0.0127	<0.0328	0.0127	517	13.8
	12/13/2002	86-88	<0.214	<0.214	0.296	1.08	1.376	4540	276
	12/13/2002	88-90	<0.0550	<0.0550	0.163	0.447	0.610	2740	98.7
VMP-1	12/16/2002	10-10.5	<0.0104	<0.0104	<0.0104	<0.0312	<0.0312	<51.9	<1.04
	12/16/2002	50-50.5	<0.0107	<0.0107	<0.0107	<0.0321	<0.0321	<53.6	<1.07
	12/16/2002	70-70.5	<0.0106	<0.0106	<0.0106	<0.0318	<0.0318	<52.9	<1.06
	12/16/2002	79-80	<0.0108	<0.0108	<0.0108	<0.0323	<0.0323	<53.8	<1.08
VMP-2	12/17/2002	10-10.5	<0.0108	<0.0108	<0.0108	<0.0323	<0.0323	<53.9	NT
	12/17/2002	50-50.5	<0.0535	<0.0535	0.258	0.329	0.587	4260	NT
	12/17/2002	70-70.5	<0.0540	<0.0540	1.44	<0.162	1.44	7360	NT
	12/17/2002	79-80	<0.0545	<0.0545	2.50	2.32	4.82	6470	NT
VMP-3	12/18/2002	10-10.5	<0.0106	<0.0106	0.0444	<0.0317	0.0444	<52.8	NT
	12/18/2002	50-50.5	<0.0108	<0.0108	0.151	<0.0323	0.151	<53.8	NT
	12/18/2002	70-70.5	<0.0107	<0.0107	<0.0107	<0.0322	<0.0322	<53.6	NT
	12/18/2002	79-80	<0.0106	<0.0106	<0.0106	<0.0319	<0.0319	<53.2	NT

NOTE: NT indicates the sample was not tested for the given constituent.

TABLE II

SUMMARY OF SOIL RESULTS - GEOTECHNICAL PARAMETERS
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	DATE	DEPTH (feet)	FOC (%)	pH	INITIAL MOISTURE CONTENT (% g/g)	DRY BULK DENSITY (g/cm ³)	WET BULK DENSITY (g/cm ³)	K _{INTRINSIC} (cm ²)	K _{SAT} (cm/sec)	Φ _{CALC} (%)	Φ _{EFFECTIVE} (% cm ³ /cm ³)
MW-21	12/12/2002	82	0.86	8.8	10.9	1.57	1.75	3.71E-09	3.6E-04	40.6	29.8
MW-22	12/13/2002	84	0.92	8.3	8.3	1.76	1.91	5.91E-11	5.8E-06	33.5	22.0
VMP-1	12/16/2002	80	0.47	8.8	7.5	1.57	1.69	2.24E-10	2.2E-05	40.6	32.3
VMP-2	12/17/2002	80	NT	8.8	8.3	1.61	1.75	3.3E-10	3.3E-05	39.1	28.2
VMP-3	12/18/2002	80	NT	8.8	8.7	1.59	1.73	8.6E-10	8.4E-05	40.0	28.0

NOTE: NT indicates this parameter was not tested.

TABLE III

**SUMMARY OF SOIL RESULTS - OTHER
SHELL PIPELINE COMPANY LP
LEA COUNTY, NEW MEXICO**

SAMPLE LOCATION	MW-22	VMP-2
DATE SAMPLED	12/13/2002	12/17/2002
DEPTH (feet)	86-88	70-70.5
SPLP VOC	CONCENTRATION (µg/l)	CONCENTRATION (µg/l)
Ethylbenzene	<1.00	8.21
m,p-Xylene	9.50	<5.00
o-Xylene	6.71	<5.00
Isopropylbenzene	6.64	7.09
p-Isopropyltoluene	5.71	<5.00
n-Butylbenzene	5.51	<5.00
n-Propylbenzene	8.83	10.8
1,3,5-Trimethylbenzene	7.26	6.81
1,2,4-Trimethylbenzene	31.9	<5.00
sec-Butylbenzene	12.6	8.12
Naphthalene	11.9	<25.0
SPLP SVOC	Sample was ND for all constituents.	Sample was ND for all constituents.
PAH	CONCENTRATION (mg/kg)	CONCENTRATION (mg/kg)
Phenanthrene	2.07	Sample was ND for all constituents.
Anthracene	0.442	
SPLP TPH DRO	143	54.8
SPLP TPH GRO	<0.5	NT

NOTE: NT indicates the sample was not tested for the given constituent.

TABLE IV

**SUMMARY OF GROUNDWATER MONITORING
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO**

WELL	DATE	SURFACE ELEV. (feet)	DEPTH TO WATER (feet)	ELEV. OF WATER (feet)	DEPTH TO LNAPL (feet)	ELEV. OF LNAPL (feet)	LNAPL THICKNESS (feet)
MW-01	02/04/99	2992.30	90.27	2902.03	---	---	---
	02/22/99	2992.30	90.19	2902.11	---	---	---
	03/11/99	2992.30	90.31	2901.99	---	---	---
	04/07/99	2992.30	90.63	2901.67	---	---	---
	05/03/99	2992.30	90.22	2902.08	---	---	---
	06/08/99	2992.30	90.40	2901.90	---	---	---
	06/22/99	2992.30	90.43	2901.87	---	---	---
	07/06/99	2992.30	90.41	2901.89	---	---	---
	08/14/99	2992.30	90.48	2901.82	---	---	---
	09/16/99	2992.30	90.44	2901.86	---	---	---
	10/19/99	2992.30	90.43	2901.87	---	---	---
	02/07/00	2992.30	90.48	2901.82	---	---	---
	08/02/00	2992.30	90.58	2901.72	---	---	---
	11/24/00	2992.30	90.68	2901.62	---	---	---
	02/14/01	2992.30	90.88	2901.42	---	---	---
	03/16/01	2992.30	93.35	2898.95	---	---	---
	04/19/01	2992.30	93.30	2899.00	---	---	---
	05/23/01	2992.30	91.13	2901.17	---	---	---
	09/29/01	2992.30	90.83	2901.47	---	---	---
	12/20/01	2992.30	93.95	2898.35	---	---	---
	03/27/02	2992.30	91.88	2900.42	---	---	---
	06/26/02	2992.30	92.08	2900.22	---	---	---
	09/25/02	2992.30	92.28	2900.02	---	---	---
	12/28/02	2992.30	92.53	2899.77	---	---	---
MW-02	02/04/99	2987.02	92.17	2901.95	83.89	2903.13	8.28
	02/22/99	2987.02	92.15	2901.85	84.02	2903.00	8.13
	03/11/99	2987.02	92.14	2901.88	83.98	2903.04	8.16
	03/24/99	2987.02	92.13	2901.64	84.26	2902.76	7.87
	03/31/99	2987.02	91.86	2902.05	83.83	2903.19	8.03
	04/02/99	2987.02	92.11	2901.85	84.02	2903.00	8.09
	04/07/99	2987.02	92.18	2902.02	83.81	2903.21	8.37
	07/15/99	2987.02	91.99	2901.65	84.28	2902.74	7.71
	10/26/99	2987.02	91.99	2901.44	84.52	2902.50	7.47
	08/02/00	2987.02	92.48	2901.10	84.84	2902.18	7.64
	11/24/00	2987.02	92.44	2900.50	85.54	2901.48	6.90
	02/14/01	2987.02	93.44	2899.97	85.99	2901.03	7.45
	05/23/01	2987.02	92.49	2900.54	85.49	2901.53	7.00
	09/29/01	2987.02	87.09	2899.97	87.04	2899.98	0.05
	12/20/01	2987.02	89.30	2897.76	89.25	2897.77	0.05
	03/27/02	2987.02	87.29	2899.82	87.19	2899.83	0.10
	06/26/02	2987.02	89.29	2899.70	86.99	2900.03	2.30
	12/28/02	2987.02	87.51	2899.53	87.49	2899.53	0.02

TABLE IV

**SUMMARY OF GROUNDWATER MONITORING
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO**

WELL	DATE	SURFACE ELEV. (feet)	DEPTH TO WATER (feet)	ELEV. OF WATER (feet)	DEPTH TO LNAPL (feet)	ELEV. OF LNAPL (feet)	LNAPL THICKNESS (feet)
MW-03	02/04/99	2987.91	92.55	2902.25	84.52	2903.39	8.03
	02/22/99	2987.91	92.53	2902.24	84.53	2903.38	8.00
	03/11/99	2987.91	92.49	2902.16	84.64	2903.27	7.85
	03/24/99	2987.91	92.45	2902.21	84.58	2903.33	7.87
	03/31/99	2987.91	92.42	2902.11	84.71	2903.20	7.71
	04/02/99	2987.91	92.45	2902.08	84.74	2903.17	7.71
	07/15/99	2987.91	95.20	2899.45	87.34	2900.57	7.86
	08/07/99	2987.91	92.44	2901.95	84.89	2903.02	7.55
	08/14/99	2987.91	92.50	2901.83	85.02	2902.89	7.48
	08/22/99	2987.91	95.25	2898.37	88.60	2899.31	6.65
	09/01/99	2987.91	92.50	2901.80	85.05	2902.86	7.45
	09/11/99	2987.91	95.31	2898.99	87.86	2900.05	7.45
	09/16/99	2987.91	92.35	2901.93	84.92	2902.99	7.43
	09/25/99	2987.91	92.45	2901.68	85.20	2902.71	7.25
	10/02/99	2987.91	92.35	2901.05	85.95	2901.96	6.40
	10/09/99	2987.91	94.93	2899.24	87.63	2900.28	7.30
	10/15/99	2987.91	95.10	2899.12	87.75	2900.16	7.35
	10/21/99	2987.91	92.35	2901.82	85.05	2902.86	7.30
	10/26/99	2987.91	92.35	2901.78	85.10	2902.81	7.25
	08/02/00	2987.91	92.50	2901.99	84.83	2903.08	7.67
	11/24/00	2987.91	92.31	2900.07	87.10	2900.81	5.21
	02/14/01	2987.91	88.82	2899.11	88.80	2899.11	0.02
	03/16/01	2987.91	96.90	2895.99	91.10	2896.81	5.80
	04/19/01	2987.91	96.40	2896.14	91.00	2896.91	5.40
	05/23/01	2987.91	93.70	2899.01	88.10	2899.81	5.60
	09/29/01	2987.91	94.20	2898.64	88.45	2899.46	5.75
	12/20/01	2987.91	97.20	2895.73	91.35	2896.56	5.85
	03/27/02	2987.91	93.75	2898.15	89.10	2898.81	4.65
	06/26/02	2987.91	88.55	2899.40	88.50	2899.41	0.05
	12/28/02	2987.91	89.32	2898.61	89.30	2898.61	0.02
MW-04	02/04/99	2988.22	85.83	2902.39	---	---	---
	02/22/99	2988.22	85.90	2902.32	---	---	---
	03/11/99	2988.22	85.94	2902.28	---	---	---
	04/07/99	2988.22	86.11	2902.11	---	---	---
	05/03/99	2988.22	86.00	2902.27	85.94	2902.28	0.06
	05/10/99	2988.22	86.18	2902.14	86.06	2902.16	0.12
	05/18/99	2988.22	86.31	2902.04	86.16	2902.06	0.15
	05/24/99	2988.22	86.30	2902.06	86.14	2902.08	0.16
	06/01/99	2988.22	86.14	2902.19	86.01	2902.21	0.13
	06/08/99	2988.22	86.28	2902.10	86.09	2902.13	0.19
	06/14/99	2988.22	86.20	2902.20	85.99	2902.23	0.21
	06/22/99	2988.22	86.08	2902.32	85.87	2902.35	0.21

TABLE IV

**SUMMARY OF GROUNDWATER MONITORING
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO**

WELL	DATE	SURFACE ELEV. (feet)	DEPTH TO WATER (feet)	ELEV. OF WATER (feet)	DEPTH TO LNAPL (feet)	ELEV. OF LNAPL (feet)	LNAPL THICKNESS (feet)
MW-04 cont.	07/02/99	2988.22	86.14	2902.31	85.87	2902.35	0.27
	07/06/99	2988.22	86.50	2902.01	86.16	2902.06	0.34
	07/13/99	2988.22	86.56	2901.97	86.20	2902.02	0.36
	07/20/99	2988.22	86.54	2902.01	86.16	2902.06	0.38
	07/26/99	2988.22	86.56	2902.00	86.16	2902.06	0.40
	08/07/99	2988.22	86.77	2901.85	86.30	2901.92	0.47
	08/14/99	2988.22	86.89	2901.83	86.31	2901.91	0.58
	08/22/99	2988.22	86.91	2901.87	86.26	2901.96	0.65
	09/01/99	2988.22	86.86	2901.92	86.21	2902.01	0.65
	09/11/99	2988.22	87.08	2901.82	86.29	2901.93	0.79
	09/16/99	2988.22	87.06	2901.85	86.26	2901.96	0.80
	09/25/99	2988.22	87.11	2901.89	86.20	2902.02	0.91
	10/02/99	2988.22	87.16	2901.88	86.20	2902.02	0.96
	10/09/99	2988.22	87.18	2901.94	86.13	2902.09	1.05
	10/15/99	2988.22	87.16	2901.96	86.11	2902.11	1.05
	10/21/99	2988.22	87.41	2901.84	86.21	2902.01	1.20
	10/26/99	2988.22	87.43	2901.85	86.19	2902.03	1.24
	08/02/00	2988.22	89.21	2901.49	86.32	2901.90	2.89
	11/24/00	2988.22	90.46	2899.65	88.26	2899.96	2.20
	02/14/01	2988.22	89.46	2899.40	88.71	2899.51	0.75
	03/16/01	2988.22	92.70	2896.42	91.65	2896.57	1.05
	04/19/01	2988.22	93.30	2896.46	91.50	2896.72	1.80
	05/23/01	2988.22	90.26	2899.33	88.66	2899.56	1.60
	09/29/01	2988.22	92.66	2899.03	88.61	2899.61	4.05
	12/20/01	2988.22	94.80	2896.85	90.80	2897.42	4.00
	03/27/02	2988.22	92.06	2899.42	88.26	2899.96	3.80
	06/26/02	2988.22	88.31	2899.95	88.26	2899.96	0.05
	12/28/02	2988.22	90.38	2897.86	90.36	2897.86	0.02
MW-05	02/04/99	2988.47	86.03	2902.44	---	---	---
	02/22/99	2988.47	86.07	2902.40	---	---	---
	03/11/99	2988.47	86.21	2902.26	---	---	---
	04/07/99	2988.47	86.25	2902.22	---	---	---
	05/03/99	2988.47	86.14	2902.33	---	---	---
	06/08/99	2988.47	86.49	2901.98	---	---	---
	06/22/99	2988.47	86.35	2902.12	---	---	---
	07/06/99	2988.47	86.43	2902.04	---	---	---
	08/14/99	2988.47	86.54	2901.93	---	---	---
	09/16/99	2988.47	86.54	2901.93	---	---	---
	10/19/99	2988.47	86.46	2902.01	---	---	---
	02/07/00	2988.47	86.69	2901.78	---	---	---
	08/02/00	2988.47	86.90	2901.57	---	---	---
	11/24/00	2988.47	87.04	2901.43	---	---	---

TABLE IV

**SUMMARY OF GROUNDWATER MONITORING
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO**

WELL	DATE	SURFACE ELEV. (feet)	DEPTH TO WATER (feet)	ELEV. OF WATER (feet)	DEPTH TO LNAPL (feet)	ELEV. OF LNAPL (feet)	LNAPL THICKNESS (feet)
MW-05 cont.	02/21/01	2988.47	87.49	2900.98	---	---	---
	03/16/01	2988.47	90.35	2898.12	---	---	---
	04/19/01	2988.47	90.30	2898.17	---	---	---
	05/23/01	2988.47	87.49	2900.98	---	---	---
	09/29/01	2988.47	87.79	2900.68	---	---	---
	12/20/01	2988.47	90.90	2897.57	---	---	---
	03/27/02	2988.47	88.24	2900.23	---	---	---
	06/26/02	2988.47	88.44	2900.03	---	---	---
	09/25/02	2988.47	88.89	2899.58	---	---	---
	12/28/02	2988.47	89.04	2899.43	---	---	---
MW-06	02/04/99	2987.40	87.01	2902.35	84.72	2902.68	2.29
	02/22/99	2987.40	88.75	2902.20	84.61	2902.79	4.14
	03/03/99	2987.40	89.16	2902.13	84.63	2902.77	4.53
	07/15/99	2987.40	88.48	2901.77	85.16	2902.24	3.32
	08/07/99	2987.40	90.69	2900.94	85.76	2901.64	4.93
	08/14/99	2987.40	90.98	2901.57	84.98	2902.42	6.00
	08/22/99	2987.40	90.98	2901.64	84.90	2902.50	6.08
	09/01/99	2987.40	90.93	2901.67	84.87	2902.53	6.06
	09/11/99	2987.40	91.11	2901.58	84.95	2902.45	6.16
	09/16/99	2987.40	91.00	2901.65	84.88	2902.52	6.12
	09/25/99	2987.40	90.85	2901.72	84.83	2902.57	6.02
	10/02/99	2987.40	90.88	2901.70	84.84	2902.56	6.04
	10/09/99	2987.40	90.86	2901.72	84.82	2902.58	6.04
	10/15/99	2987.40	90.88	2901.74	84.80	2902.60	6.08
	10/21/99	2987.40	91.05	2901.64	84.88	2902.52	6.17
	10/26/99	2987.40	91.03	2901.65	84.88	2902.52	6.15
	08/02/00	2987.40	92.03	2901.20	85.23	2902.17	6.80
	11/24/00	2987.40	92.33	2900.65	85.83	2901.57	6.50
	02/14/01	2987.40	89.83	2897.66	89.73	2897.67	0.10
	03/16/01	2987.40	92.60	2894.89	92.50	2894.90	0.10
	04/19/01	2987.40	92.55	2894.94	92.45	2894.95	0.10
	05/23/01	2987.40	89.83	2897.61	89.78	2897.62	0.05
	09/29/01	2987.40	89.73	2897.67	---	---	Sheen
	12/20/01	2987.40	92.15	2895.29	92.10	2895.30	0.05
	03/27/02	2987.40	89.53	2897.89	89.51	2897.89	0.02
	06/26/02	2987.40	89.78	2897.66	89.73	2897.67	0.05
	12/28/02	2987.40	89.65	2897.77	89.63	2897.77	0.02
MW-07	02/04/99	2986.31	84.03	2902.28	---	---	---
	02/22/99	2986.31	84.13	2902.18	---	---	---
	03/11/99	2986.31	84.26	2902.05	---	---	---
	04/07/99	2986.31	84.35	2901.96	---	---	---

TABLE IV

**SUMMARY OF GROUNDWATER MONITORING
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO**

WELL	DATE	SURFACE ELEV. (feet)	DEPTH TO WATER (feet)	ELEV. OF WATER (feet)	DEPTH TO LNAPL (feet)	ELEV. OF LNAPL (feet)	LNAPL THICKNESS (feet)
MW-07 cont.	05/03/99	2986.31	84.36	2902.10	84.18	2902.13	0.18
	05/10/99	2986.31	84.58	2902.02	84.24	2902.07	0.34
	05/18/99	2986.31	84.88	2901.92	84.31	2902.00	0.57
	05/24/99	2986.31	84.89	2901.93	84.29	2902.02	0.60
	06/01/99	2986.31	84.77	2901.99	84.25	2902.06	0.52
	06/08/99	2986.31	84.99	2901.92	84.29	2902.02	0.70
	06/14/99	2986.31	84.31	2902.76	83.43	2902.88	0.88
	06/22/99	2986.31	84.27	2902.83	83.35	2902.96	0.92
	07/02/99	2986.31	85.32	2901.92	84.24	2902.07	1.08
	07/06/99	2986.31	85.49	2901.81	84.34	2901.97	1.15
	07/13/99	2986.31	85.72	2901.77	84.34	2901.97	1.38
	07/20/99	2986.31	85.87	2901.80	84.28	2902.03	1.59
	07/26/99	2986.31	86.14	2901.76	84.29	2902.02	1.85
	08/07/99	2986.31	86.54	2901.64	84.36	2901.95	2.18
	08/14/99	2986.31	86.94	2901.63	84.31	2902.00	2.63
	08/22/99	2986.31	87.49	2901.65	84.19	2902.12	3.30
	09/01/99	2986.31	87.74	2901.68	84.11	2902.20	3.63
	09/11/99	2986.31	88.14	2901.69	84.04	2902.27	4.10
	09/16/99	2986.31	88.24	2901.72	83.99	2902.32	4.25
	09/25/99	2986.31	88.34	2900.14	85.81	2900.50	2.53
PLUGGED AND ABANDONED	10/02/99	2986.31	88.49	2901.81	83.84	2902.47	4.65
	10/09/99	2986.31	88.64	2901.79	83.84	2902.47	4.80
	10/15/99	2986.31	88.69	2901.82	83.79	2902.52	4.90
	10/19/99	PLUGGED AND ABANDONED					
MW-08	02/04/99	2987.97	86.00	2901.98	85.99	2901.98	0.01
	02/22/99	2987.97	86.06	2901.93	86.04	2901.93	0.02
	03/11/99	2987.97	86.18	2901.86	86.10	2901.87	0.08
	03/24/99	2987.97	86.42	2901.88	86.04	2901.93	0.38
	03/31/99	2987.97	86.47	2901.88	86.03	2901.94	0.44
	04/02/99	2987.97	86.39	2901.79	86.14	2901.83	0.25
	04/07/99	2987.97	86.94	2901.77	86.08	2901.89	0.86
	04/13/99	2987.97	86.83	2901.90	85.94	2902.03	0.89
	04/19/99	2987.97	87.01	2901.87	85.95	2902.02	1.06
	04/26/99	2987.97	87.30	2901.81	85.97	2902.00	1.33
	05/03/99	2987.97	87.47	2901.85	85.90	2902.07	1.57
	05/10/99	2987.97	87.89	2901.75	85.94	2902.03	1.95
	05/18/99	2987.97	88.39	2901.66	85.96	2902.01	2.43
	05/24/99	2987.97	88.60	2901.68	85.91	2902.06	2.69
	06/01/99	2987.97	89.04	2901.74	85.76	2902.21	3.28
	06/08/99	2987.97	88.51	2901.79	85.80	2902.17	2.71
	06/14/99	2987.97	86.14	2904.58	82.94	2905.03	3.20
	06/22/99	2987.97	85.74	2905.36	82.09	2905.88	3.65
	07/02/99	2987.97	89.62	2901.64	85.78	2902.19	3.84

TABLE IV

**SUMMARY OF GROUNDWATER MONITORING
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO**

WELL	DATE	SURFACE ELEV. (feet)	DEPTH TO WATER (feet)	ELEV. OF WATER (feet)	DEPTH TO LNAPL (feet)	ELEV. OF LNAPL (feet)	LNAPL THICKNESS (feet)
MW-08 cont.	07/06/99	2987.97	89.76	2901.64	85.76	2902.21	4.00
	07/13/99	2987.97	89.92	2901.55	85.84	2902.13	4.08
	07/20/99	2987.97	89.94	2901.63	85.74	2902.23	4.20
	07/26/99	2987.97	90.09	2901.63	85.72	2902.25	4.37
	08/07/99	2987.97	90.20	2901.57	85.77	2902.20	4.43
	08/14/99	2987.97	90.44	2901.65	85.64	2902.33	4.80
	08/22/99	2987.97	90.49	2901.51	85.79	2902.18	4.70
	09/01/99	2987.97	90.40	2901.52	85.80	2902.17	4.60
	09/11/99	2987.97	90.74	2901.48	85.79	2902.18	4.95
	09/16/99	2987.97	90.74	2901.44	85.83	2902.14	4.91
	09/25/99	2987.97	90.74	2901.52	85.74	2902.23	5.00
	10/02/99	2987.97	90.79	2901.48	85.78	2902.19	5.01
	10/09/99	2987.97	90.74	2901.51	85.75	2902.22	4.99
	10/15/99	2987.97	90.89	2901.50	85.74	2902.23	5.15
	10/21/99	2987.97	91.04	2900.59	86.77	2901.20	4.27
	10/26/99	2987.97	91.09	2901.44	85.77	2902.20	5.32
	08/02/00	2987.97	90.92	2901.06	86.25	2901.72	4.67
	11/24/00	2987.97	91.44	2900.56	86.74	2901.23	4.70
	02/14/01	2987.97	91.44	2899.92	87.49	2900.48	3.95
	03/16/01	2987.97	91.55	2897.79	89.95	2898.02	1.60
	04/19/01	2987.97	93.60	2897.84	89.55	2898.42	4.05
	05/23/01	2987.97	92.09	2900.56	86.64	2901.33	5.45
	09/29/01	2987.97	93.09	2900.03	87.09	2900.88	6.00
	12/20/01	2987.97	95.75	2897.20	89.95	2898.02	5.80
	03/27/02	2987.97	92.84	2899.85	87.34	2900.63	5.50
	06/26/02	2987.97	92.79	2899.77	87.44	2900.53	5.35
	09/25/02	2987.97	93.84	2899.15	87.99	2899.98	5.85
	12/28/02	2987.97	92.79	2898.91	88.44	2899.53	4.35
MW-09	02/04/99	2987.39	86.06	2901.83	85.48	2901.91	0.58
	02/22/99	2987.39	88.60	2902.34	84.46	2902.93	4.14
	03/11/99	2987.39	91.48	2901.67	84.77	2902.62	6.71
	03/24/99	2987.39	91.43	2901.67	84.78	2902.61	6.65
	03/31/99	2987.39	91.40	2901.72	84.72	2902.67	6.68
	04/02/99	2987.39	91.52	2901.60	84.84	2902.55	6.68
	04/07/99	2987.39	91.58	2901.57	84.87	2902.52	6.71
	07/15/99	2987.39	91.13	2901.43	85.11	2902.28	6.02
	10/26/99	2987.39	90.63	2901.22	85.43	2901.96	5.20
	08/02/00	2987.39	92.73	2900.81	85.56	2901.83	7.17
	11/24/00	2987.39	92.63	2900.38	86.08	2901.31	6.55
	02/14/01	2987.39	93.58	2899.99	86.38	2901.01	7.20
	05/23/01	2987.39	93.08	2900.36	86.03	2901.36	7.05
	09/29/01	2987.39	93.73	2899.75	86.63	2900.76	7.10
	12/20/01	2987.39	91.05	2896.51	90.85	2896.54	0.20

TABLE IV

**SUMMARY OF GROUNDWATER MONITORING
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO**

WELL	DATE	SURFACE ELEV. (feet)	DEPTH TO WATER (feet)	ELEV. OF WATER (feet)	DEPTH TO LNAPL (feet)	ELEV. OF LNAPL (feet)	LNAPL THICKNESS (feet)
MW-09 cont.	03/27/02	2987.39	87.98	2899.45	87.93	2899.46	0.05
	06/26/02	2987.39	88.73	2899.56	87.68	2899.71	1.05
	12/28/02	2987.39	87.93	2899.49	87.90	2899.49	0.03
MW-10	02/04/99	2987.96	85.73	2902.23	---	---	---
	02/22/99	2987.96	85.76	2902.20	---	---	---
	03/11/99	2987.96	85.87	2902.09	---	---	---
	04/07/99	2987.96	85.93	2902.03	---	---	---
	05/03/99	2987.96	85.81	2902.15	---	---	---
	06/08/99	2987.96	86.02	2901.94	---	---	---
	06/22/99	2987.96	87.07	2900.89	---	---	---
	07/06/99	2987.96	87.07	2900.89	---	---	---
	08/14/99	2987.96	86.19	2901.77	---	---	---
	09/16/99	2987.96	86.22	2901.74	---	---	---
	10/19/99	2987.96	86.17	2901.79	---	---	---
	02/07/00	2987.96	86.32	2901.64	---	---	---
	08/02/00	2987.96	86.57	2901.39	---	---	---
	11/24/00	2987.96	86.72	2901.24	---	---	---
	02/14/01	2987.96	87.02	2900.94	---	---	---
	03/16/01	2987.96	89.95	2898.01	---	---	---
	04/19/01	2987.96	89.55	2898.41	---	---	---
	05/23/01	2987.96	87.57	2900.82	87.07	2900.89	0.50
	09/29/01	2987.96	91.37	2900.45	86.87	2901.09	4.50
	12/20/01	2987.96	94.25	2897.49	89.85	2898.11	4.40
	03/27/02	2987.96	91.57	2900.04	87.32	2900.64	4.25
MW-11	06/26/02	2987.96	91.62	2899.90	87.47	2900.49	4.15
	12/28/02	2987.96	90.62	2899.36	88.27	2899.69	2.35
MW-11	02/04/99	2989.37	87.54	2901.83	---	---	---
	02/22/99	2989.37	87.50	2901.87	---	---	---
	03/11/99	2989.37	87.60	2901.77	---	---	---
	04/07/99	2989.37	87.56	2901.81	---	---	---
	05/03/99	2989.37	87.38	2901.99	---	---	---
	06/08/99	2989.37	87.72	2901.65	---	---	---
	06/22/99	2989.37	87.76	2901.61	---	---	---
	07/06/99	2989.37	87.84	2901.53	---	---	---
	08/14/99	2989.37	87.98	2901.39	---	---	---
	09/16/99	2989.37	87.61	2901.76	---	---	---
	10/19/99	2989.37	87.66	2901.71	---	---	---
	02/07/00	2989.37	87.52	2901.85	---	---	---
	08/02/00	2989.37	87.65	2901.72	---	---	---
	11/24/00	2989.37	87.87	2901.50	---	---	---

TABLE IV

**SUMMARY OF GROUNDWATER MONITORING
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO**

WELL	DATE	SURFACE ELEV. (feet)	DEPTH TO WATER (feet)	ELEV. OF WATER (feet)	DEPTH TO LNAPL (feet)	ELEV. OF LNAPL (feet)	LNAPL THICKNESS (feet)
MW-11 cont.	02/14/01	2989.37	88.32	2901.05	---	---	---
	03/16/01	2989.37	91.40	2897.97	---	---	---
	04/19/01	2989.37	91.35	2898.02	---	---	---
	05/23/01	2989.37	88.52	2900.85	---	---	---
	09/29/01	2989.37	88.57	2900.80	---	---	---
	12/20/01	2989.37	91.80	2897.57	---	---	---
	03/27/02	2989.37	89.17	2900.20	---	---	---
	06/26/02	2989.37	89.37	2900.00	---	---	---
	09/25/02	2989.37	89.82	2899.55	---	---	---
	12/28/02	2989.37	90.07	2899.30	---	---	---
MW-12	02/04/99	2987.79	86.52	2901.27	---	---	---
	02/22/99	2987.79	86.26	2901.53	---	---	---
	03/11/99	2987.79	86.38	2901.41	---	---	---
	04/07/99	2987.79	86.46	2901.33	---	---	---
	05/03/99	2987.79	86.36	2901.43	---	---	---
	06/08/99	2987.79	86.55	2901.24	---	---	---
	06/22/99	2987.79	86.55	2901.24	---	---	---
	07/06/99	2987.79	86.60	2901.19	---	---	---
	08/14/99	2987.79	86.70	2901.09	---	---	---
	09/16/99	2987.79	86.71	2901.08	---	---	---
	10/19/99	2987.79	86.72	2901.07	---	---	---
	02/07/00	2987.79	86.80	2900.99	---	---	---
	08/02/00	2987.79	87.08	2900.71	---	---	---
	11/24/00	2987.79	88.45	2900.67	86.90	2900.89	1.55
	02/14/01	2987.79	90.80	2900.34	86.90	2900.89	3.90
	03/16/01	2987.79	94.35	2896.96	90.25	2897.54	4.10
	04/19/01	2987.79	94.45	2897.07	90.10	2897.69	4.35
	05/23/01	2987.79	91.65	2900.17	86.95	2900.84	4.70
	09/29/01	2987.79	93.00	2899.77	87.20	2900.59	5.80
	12/20/01	2987.79	96.30	2896.42	90.55	2897.24	5.75
	03/27/02	2987.79	92.95	2899.34	87.70	2900.09	5.25
	06/26/02	2987.79	92.40	2899.42	87.70	2900.09	4.70
	09/25/02	2987.79	92.90	2899.01	88.10	2899.69	4.80
	12/28/02	2987.79	92.65	2898.79	88.40	2899.39	4.25
MW-13	10/19/99	2989.79	88.28	2901.51	---	---	---
	02/07/00	2989.79	88.42	2901.37	---	---	---
	08/02/00	2989.79	88.62	2901.17	---	---	---
	11/24/00	2989.79	88.67	2901.12	---	---	---
	02/14/01	2989.79	88.92	2900.87	---	---	---
	03/16/01	2989.79	92.25	2897.54	---	---	---
	04/19/01	2989.79	92.20	2897.59	---	---	---
	05/23/01	2989.79	89.17	2900.62	---	---	---

TABLE IV

**SUMMARY OF GROUNDWATER MONITORING
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO**

WELL	DATE	SURFACE ELEV. (feet)	DEPTH TO WATER (feet)	ELEV. OF WATER (feet)	DEPTH TO LNAPL (feet)	ELEV. OF LNAPL (feet)	LNAPL THICKNESS (feet)
MW-13 cont.	09/29/01	2989.79	89.52	2900.27	---	---	---
	12/20/01	2989.79	92.80	2896.99	---	---	---
	03/27/02	2989.79	89.82	2899.97	---	---	---
	06/26/02	2989.79	90.02	2899.77	---	---	---
	09/25/02	2989.79	90.02	2899.77	---	---	---
	12/28/02	2989.79	90.32	2899.47	---	---	---
MW-14	10/19/99	2986.02	85.04	2900.98	---	---	---
	02/07/00	2986.02	85.25	2900.77	---	---	---
	08/02/00	2986.02	86.95	2900.53	85.25	2900.77	1.70
	11/24/00	2986.02	88.60	2900.51	85.00	2901.02	3.60
	02/14/01	2986.02	89.95	2900.10	85.25	2900.77	4.70
	03/29/01	2986.02	88.76	2897.27	88.75	2897.27	0.01
	05/23/01	2986.02	86.30	2900.02	85.95	2900.07	0.35
	09/29/01	2986.02	87.45	2899.77	86.05	2899.97	1.40
	12/20/01	2986.02	89.08	2896.97	89.05	2896.97	0.03
	03/27/02	2986.02	87.80	2899.46	86.35	2899.67	1.45
	12/28/02	2986.02	89.20	2898.79	86.90	2899.12	2.30
MW-15	10/19/99	2986.45	85.32	2901.13	---	---	---
	02/07/00	2986.45	85.01	2901.44	---	---	---
	08/02/00	2986.45	85.30	2901.15	---	---	---
	11/24/00	2986.45	85.36	2901.09	---	---	---
	02/14/01	2986.45	85.81	2900.64	---	---	---
	03/16/01	2986.45	89.15	2897.30	---	---	---
	04/19/01	2986.45	89.05	2897.40	---	---	---
	05/23/01	2986.45	85.91	2900.54	---	---	---
	09/29/01	2986.45	86.21	2900.24	---	---	---
	12/20/01	2986.45	89.50	2896.95	---	---	---
	03/27/02	2986.45	86.66	2899.79	---	---	---
	06/26/02	2986.45	86.81	2899.64	---	---	---
	09/25/02	2986.45	87.21	2899.24	---	---	---
	12/28/02	2986.45	87.51	2898.94	---	---	---
MW-16	03/27/02	2985.80	87.29	2898.51	---	---	---
	06/26/02	2985.80	87.34	2898.46	---	---	---
	09/25/02	2985.80	87.59	2898.21	---	---	---
	12/28/02	2985.80	87.79	2898.01	---	---	---
MW-17	03/27/02	2985.09	86.82	2898.27	---	---	---
	06/26/02	2985.09	86.72	2898.37	---	---	---
	09/25/02	2985.09	87.12	2897.97	---	---	---
	12/28/02	2985.09	87.32	2897.77	---	---	---

TABLE IV

**SUMMARY OF GROUNDWATER MONITORING
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO**

WELL	DATE	SURFACE ELEV. (feet)	DEPTH TO WATER (feet)	ELEV. OF WATER (feet)	DEPTH TO LNAPL (feet)	ELEV. OF LNAPL (feet)	LNAPL THICKNESS (feet)
MW-18	03/27/02	2987.16	93.38	2899.70	86.48	2900.68	6.90
	06/26/02	2987.16	93.98	2899.62	86.48	2900.68	7.50
	09/25/02	2987.16	94.23	2898.94	87.23	2899.93	7.00
	12/28/02	2987.16	88.80	2898.38	88.78	2898.38	0.02
MW-19	03/27/02	2988.86	94.24	2899.85	88.14	2900.72	6.10
	06/26/02	2988.86	94.19	2899.73	88.29	2900.57	5.90
	09/25/02	2988.86	95.39	2899.13	88.79	2900.07	6.60
	12/28/02	2988.86	91.46	2897.42	91.44	2897.42	0.02
MW-20	03/27/02	2987.22	94.08	2899.19	87.03	2900.19	7.05
	06/26/02	2987.22	93.73	2899.32	86.93	2900.29	6.80
	09/25/02	2987.22	94.73	2898.54	87.68	2899.54	7.05
	12/28/02	2987.22	90.10	2897.14	90.08	2897.14	0.02
MW-21	12/28/02	2986.63	88.54	2898.09	---	---	---
MW-22	12/28/02	2989.24	90.83	2899.27	89.83	2899.41	1.00

NOTE: Groundwater elevations in monitoring wells containing LNAPL have been corrected by a factor of 0.86 to account for the specific gravity of the LNAPL.

TABLE V

SUMMARY OF GROUNDWATER RESULTS - BTEX AND TPH
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	DATE	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL-BENZENE (mg/l)	XYLENES (mg/l)	BTEX (mg/l)	TPH-DRO (mg/l)
MW-1	02/23/99	ND	ND	ND	ND	ND	---
	08/22/99	ND	ND	ND	ND	ND	ND
	10/19/99	ND	ND	ND	ND	ND	0.135
	02/07/00	ND	ND	ND	ND	ND	ND
	08/02/00	ND	ND	ND	ND	ND	---
	11/24/00	ND	ND	ND	ND	ND	---
	02/14/01	<0.001	<0.001	<0.001	<0.003	0	---
	05/23/01	<0.001	<0.001	<0.001	<0.001	<0.001	---
	09/29/01	<0.001	<0.001	<0.001	<0.001	<0.001	---
	12/20/01	<0.001	<0.001	<0.001	<0.001	<0.001	---
	03/27/02	<0.005	<0.005	<0.005	<0.005	<0.005	---
	06/26/02	0.0219	0.0018	0.0046	0.0042	0.0325	---
	09/25/02	<0.005	<0.005	<0.005	<0.005	<0.005	---
	12/28/02	<0.005	<0.005	<0.005	<0.015	<0.015	---
MW-2	02/23/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (8.28')					
	08/22/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.71')					
	10/19/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.47')					
	02/07/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL					
	08/02/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.64')					
	11/24/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (6.90')					
	02/14/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.45')					
	05/23/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.00')					
	09/29/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.05')					
	12/20/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.05')					
	03/27/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.10')					
MW-3	02/23/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (8.00')					
	08/22/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.45')					
	10/19/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.30')					
	02/07/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL					
	08/02/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.67')					
	11/24/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (5.21')					
	02/14/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.02')					
	05/23/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (5.60')					
	09/29/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (5.75')					
	12/20/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (5.85')					
	03/27/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.65')					
MW-4	02/23/99	ND	ND	ND	0.005	0.005	---
	08/22/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.65')					
	10/19/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (1.05')					
	02/07/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL					
	08/02/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (2.89')					

TABLE V

SUMMARY OF GROUNDWATER RESULTS - BTEX AND TPH
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	DATE	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL-BENZENE (mg/l)	XYLENES (mg/l)	BTEX (mg/l)	TPH-DRO (mg/l)
MW-4 cont.	11/24/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (2.20')					
	02/14/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.75')					
	05/23/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (1.60')					
	09/29/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.05')					
	12/20/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.00')					
	03/27/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (3.80')					
	06/26/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.05')					
	12/28/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.02')					
MW-5	02/23/99	ND	ND	ND	ND	ND	---
	08/22/99	ND	ND	ND	ND	ND	ND
	10/19/99	ND	ND	ND	ND	ND	0.156
	02/07/00	ND	ND	ND	ND	ND	ND
	08/02/00	ND	ND	ND	ND	ND	---
	11/24/00	ND	ND	ND	ND	ND	---
	02/21/01	<0.001	<0.001	<0.001	<0.003	0	---
	05/23/01	<0.001	<0.001	<0.001	<0.001	<0.001	---
	09/29/01	<0.001	<0.001	<0.001	<0.001	<0.001	---
	12/20/01	<0.001	<0.001	<0.001	<0.001	<0.001	---
	03/28/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	06/26/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	09/25/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	12/28/02	<0.001	<0.001	<0.001	<0.003	<0.003	---
MW-6	02/23/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.14')					
	08/22/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (6.08')					
	10/19/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (6.08')					
	02/07/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL					
	08/02/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (6.80')					
	11/24/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (6.50')					
	02/14/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.10')					
	05/23/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.05')					
	09/29/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (SHEEN)					
	12/20/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.05')					
	03/27/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.02')					
	06/26/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.05')					
	12/28/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.02')					
MW-7	02/23/99	ND	ND	ND	0.004	0.004	---
	08/22/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (3.30')					
	10/19/99	PLUGGED AND ABANDONED					
MW-8	02/23/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.02')					
	08/22/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.70')					
	10/19/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (5.15')					
	02/07/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL					
	08/02/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.67')					

TABLE V

SUMMARY OF GROUNDWATER RESULTS - BTEX AND TPH
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	DATE	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL-BENZENE (mg/l)	XYLENES (mg/l)	BTEX (mg/l)	TPH-DRO (mg/l)
MW-8 cont.	11/24/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.70')					
	02/14/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (3.95')					
	05/23/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (5.45')					
	09/29/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (6.00')					
	12/20/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (5.80')					
	03/27/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (5.50')					
	06/26/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (5.35')					
	09/25/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (5.85')					
	12/28/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.35')					
MW-9	02/23/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.14')					
	08/22/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (6.02')					
	10/19/99	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (5.20')					
	02/07/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL					
	08/02/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.17')					
	11/24/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (6.55')					
	02/14/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.20')					
	05/23/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.05')					
	09/29/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.10')					
	12/20/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.20')					
	03/27/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.05')					
	06/26/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (1.05')					
	12/28/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.03')					
MW-10	02/23/99	ND	ND	ND	ND	ND	---
	08/22/99	ND	ND	ND	ND	ND	ND
	10/19/99	ND	ND	ND	ND	ND	0.124
	02/07/00	ND	ND	ND	ND	ND	ND
	08/02/00	ND	ND	ND	ND	ND	---
	11/24/00	ND	ND	ND	ND	ND	---
	02/14/01	<0.001	<0.001	<0.001	<0.001	<0.001	---
	05/23/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.50')					
	09/29/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.50')					
	12/20/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.40')					
	03/27/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.25')					
	06/26/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.15')					
	12/28/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (2.35')					
MW-11	02/23/99	ND	ND	ND	ND	ND	---
	08/22/99	ND	ND	ND	ND	ND	3.2
	10/19/99	ND	ND	ND	ND	ND	0.077
	02/07/00	ND	ND	ND	ND	ND	ND
	08/02/00	ND	ND	ND	ND	ND	---
	11/24/00	ND	ND	ND	ND	ND	---
	02/14/01	<0.001	<0.001	<0.001	<0.003	0	---
	05/23/01	<0.001	<0.001	<0.001	<0.001	<0.001	---
	09/29/01	<0.001	<0.001	<0.001	<0.001	<0.001	---
	12/20/01	<0.001	<0.001	<0.001	<0.001	<0.001	---

TABLE V

SUMMARY OF GROUNDWATER RESULTS - BTEX AND TPH
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	DATE	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL- BENZENE (mg/l)	XYLENES (mg/l)	BTEX (mg/l)	TPH-DRO (mg/l)
MW-11 cont.	03/28/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	06/26/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	09/25/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	12/28/02	<0.001	<0.001	<0.001	<0.003	<0.003	---
MW-12	02/23/99	ND	ND	ND	ND	ND	---
	08/22/99	ND	ND	ND	ND	ND	2.5
	10/19/99	ND	ND	ND	ND	ND	0.306
	02/07/00	0.004	ND	ND	0.007	0.011	ND
	08/02/00	ND	ND	ND	ND	ND	---
	11/24/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (1.55')					
	02/14/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (3.90')					
	05/23/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.70')					
	09/29/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (5.80')					
	12/20/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (5.75')					
	03/27/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (5.25')					
	06/26/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.70')					
	09/25/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.80')					
	12/28/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.25')					
MW-13	10/19/99	ND	ND	ND	ND	ND	0.127
	02/07/00	ND	ND	ND	ND	ND	ND
	08/02/00	ND	ND	ND	ND	ND	---
	11/24/00	ND	ND	ND	ND	ND	---
	02/14/01	<0.001	<0.001	<0.001	<0.003	0	---
	05/23/01	<0.001	<0.001	<0.001	<0.001	<0.001	---
	09/29/01	<0.001	<0.001	<0.001	<0.001	<0.001	---
	12/20/01	<0.001	<0.001	<0.001	<0.001	<0.001	---
	03/28/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	06/26/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	09/25/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	12/28/02	<0.001	<0.001	<0.001	<0.003	<0.003	---
MW-14	10/19/99	0.007	ND	ND	0.010	0.017	0.481
	02/07/00	0.024	ND	ND	0.023	0.047	1.384
	08/02/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (1.70')					
	11/24/00	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (3.60')					
	02/14/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (4.70')					
	05/23/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.35')					
	09/29/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (1.40')					
	12/20/01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.03')					
	03/27/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (1.45')					
	12/28/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (2.30')					
MW-15	10/19/99	ND	ND	ND	ND	ND	0.132
	02/07/00	ND	ND	ND	ND	ND	ND
	08/02/00	ND	ND	ND	ND	ND	---
	11/24/00	ND	ND	ND	ND	ND	---
MW-15	02/14/01	<0.001	<0.001	<0.001	<0.003	0	---

TABLE V

SUMMARY OF GROUNDWATER RESULTS - BTEX AND TPH
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	DATE	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL-BENZENE (mg/l)	XYLENES (mg/l)	BTEX (mg/l)	TPH-DRO (mg/l)
cont.	05/23/01	<0.001	<0.001	<0.001	<0.001	<0.001	---
	09/29/01	<0.001	<0.001	<0.001	<0.001	<0.001	---
	12/20/01	<0.001	<0.001	<0.001	<0.001	<0.001	---
	03/28/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	06/26/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	09/25/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	12/28/02	<0.001	<0.001	<0.001	<0.003	<0.003	---
MW-16	03/27/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	06/26/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	09/25/02	0.0119	<0.001	<0.001	<0.001	0.0119	---
	12/28/02	<0.001	<0.001	<0.001	<0.003	<0.003	---
MW-17	03/27/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	06/26/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	09/25/02	<0.001	<0.001	<0.001	<0.001	<0.001	---
	12/28/02	<0.001	<0.001	<0.001	<0.003	<0.003	---
MW-18	03/27/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (6.90')					
	06/26/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.50')					
	09/25/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.00')					
	12/28/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.02')					
MW-19	03/27/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (6.10')					
	06/26/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (5.90')					
	09/25/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (6.60')					
	12/28/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.02')					
MW-20	03/27/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.05')					
	06/26/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (6.80')					
	09/25/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (7.05')					
	12/28/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (0.02')					
MW-21	12/28/02	<0.001	<0.001	<0.001	<0.003	<0.003	---
MW-22	12/28/02	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL (1.00')					

p:\projects\shell\106.001\2002 Annual Report.xls

SUMMARY OF GROUNDWATER RESULTS - OTHER
SHELL PIPELINE COMPANY LP
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION DATE SAMPLED PARAMETER	MW-11			MW-12			MW-13				
	02/23/99	10/19/99	02/07/00	12/20/01	12/28/02	02/23/99	10/19/99	10/19/99	02/07/00	12/20/01	12/28/02
	CONCENTRATION (mg/l)										
PAH											
	ND	ND	ND	<0.005	<0.000200	ND	ND	ND	ND	<0.005	<0.000200
	ND	ND	ND	<0.005	<0.000200	ND	ND	ND	ND	<0.005	<0.000200
	ND	ND	ND	<0.005	<0.000200	ND	ND	ND	ND	<0.005	<0.000200
	ND	ND	ND	<0.005	<0.000200	ND	ND	ND	ND	<0.005	<0.000200
	ND	ND	ND	<0.005	<0.000200	ND	ND	ND	ND	<0.005	<0.000200
TOTAL											
Metals											
	ND	0.528	---	---	3.25	5.78	0.696	4.56	---	---	0.331
	---	---	---	0.0195	<0.0500	---	---	---	---	0.0159	<0.0500
	ND	ND	---	<0.100	<0.100	0.59	ND	0.451	---	0.206	0.138
	ND	0.572	---	---	1.72	ND	0.636	ND	---	---	0.194
	---	---	---	<0.005	<0.00500	---	---	---	---	<0.005	<0.00500
	387	110	---	---	---	524	128	807	---	---	---
	ND	ND	---	<0.010	<0.0100	ND	ND	ND	---	<0.010	<0.0100
	---	---	---	---	<0.0250	---	---	---	---	---	<0.0250
	ND	ND	---	---	<0.0250	0.04	ND	ND	---	---	<0.0250
	2.56	0.556	---	---	2.05	3.33	0.072	5.89	---	---	0.236
	0.019	ND	---	<0.010	<0.0100	0.031	ND	ND	---	<0.010	<0.0100
	49.6	41.9	---	---	---	48.1	51.5	41.6	---	---	---
	0.23	ND	---	---	0.0325	0.26	ND	0.581	---	---	0.0272
	---	---	---	<0.0002	<0.000200	---	---	---	---	<0.0002	<0.000200
	---	---	---	---	<0.0500	---	---	---	---	---	<0.0500
	---	---	---	---	<0.0250	---	---	---	---	---	<0.0250
	Potassium	9.389	6.76	---	---	---	9.67	6.08	10.9	---	---
Selenium	ND	ND	---	<0.050	<0.0500	ND	ND	ND	---	<0.050	<0.0500
Silver	---	---	---	<0.0125	<0.0125	---	---	---	---	<0.0125	<0.0125
Sodium	---	---	---	---	---	---	---	---	---	---	---
Zinc	---	---	---	---	0.0615	---	---	---	---	---	0.0301
Cations/Anions											
	272	276	---	---	---	382	498	284	---	---	---
	69	67.3	---	---	---	8	14.7	4.90	---	---	---
	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---
	369	350	---	---	---	31	38	10.9	---	---	---
TDS	2060	1060	---	---	---	600	710	454	---	---	

NOTE: The TDS sample for MW-21 was obtained on January 9, 2003.

TABLE VII

**SUMMARY OF PRODUCT RECOVERY
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO**

DATE	Flow Meter (gal)	PSH in Product Tank (gal)	Product Removed (gal)	Total Removed (gal)
1/2/2002	245,323	20,017	20,017	20,513
1/10/2002	259,063	21,223	21,223	21,731
1/18/2002	272,805	21,836	21,836	22,348
1/28/2002	288,976	22,495	22,495	23,024
2/6/2002	302,098	23,079	23,079	23,612
2/14/2002	311,095	24,255	24,255	24,801
4/4/2002	362,484	26,779	26,779	27,376
4/16/2002	376,585	28,421	28,421	29,030
4/27/2002	393,880	29,698	29,698	30,320
5/8/2002	410,056	30,408	30,408	31,042
7/18/2002	435,233	31,605	31,605	32,264
7/26/2002	457,029	32,105	32,105	32,773
8/10/2002	508,606	33,835	33,835	34,524
8/16/2002	528,480	34,188	34,188	34,881
8/23/2002	549,430	34,633	34,633	35,335
8/30/2002	570,664	35,003	35,003	35,708
9/10/2002	604,429	35,696	35,696	36,414
9/17/2002	619,336	36,032	36,032	36,758
9/24/2002	638,007	36,372	36,372	37,107
10/3/2002	670,403	36,926	36,926	37,670
11/3/2002	788,699	38,510	38,510	39,291
11/15/2002	807,249	38,934	38,934	39,732
11/20/2002	811,949	39,098	39,098	39,900
11/30/2002	840,029	39,602	39,602	40,417
12/23/2002	859,080	40,912	40,912	41,857
12/30/2002	878,679	41,299	41,299	42,286

TABLE VIII

**SUMMARY OF EFFLUENT RESULTS - BTEX
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO**

Constituent	Acceptable Concentration (mg/L)	Concentration (mg/L)									
		8/29/2001	8/30/2001	8/31/2001	9/1/2001	9/2/2001	9/3/2001	9/4/2001	9/5/2001	9/6/2001	
Benzene	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Toluene	0.75	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Ethylbenzene	0.75	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Total Xylenes	0.62	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Total BTEX	---	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	

NOTE:

The system was shut down in May, 2002
& brought back online in late July, 2002.

TABLE VIII

SUMMARY OF EFFLUENT RESULTS - BTEX
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO

Constituent	Acceptable Concentration (mg/L)	Concentration (mg/L)									
		9/7/2001	9/15/2001	9/22/2001	10/6/2001	12/22/2001	2/25/2002	3/27/2002	4/30/2002	7/9/2002	
Benzene	0.01	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	
Toluene	0.75	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	
Ethylbenzene	0.75	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	
Total Xylenes	0.62	<0.001	<0.001	<0.001	<0.001	<0.005	0.005	<0.001	0.0053	<0.005	
Total BTEX	---	<0.001	<0.001	<0.001	<0.001	<0.005	0.005	<0.001	0.0053	<0.005	

NOTE:

The system was shut down in May, 2002
 & brought back online in late July, 2002.

TABLE VIII

**SUMMARY OF EFFLUENT RESULTS - BTEX
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO**

Constituent	Acceptable Concentration (mg/L)	Concentration (mg/L)			
		8/21/2002	10/31/2002	11/30/2002	12/28/2002
Benzene	0.01	<0.005	<0.005	<0.005	<0.00500
Toluene	0.75	<0.005	<0.005	<0.005	<0.00500
Ethylbenzene	0.75	<0.005	<0.005	<0.005	<0.00500
Total Xylenes	0.62	<0.005	<0.005	0.0127	0.019
Total BTEX	---	<0.005	0.008	0.0127	0.019

NOTE:

The system was shut down in May, 2002
& brought back online in late July, 2002.

TABLE IX

SUMMARY OF EFFLUENT RESULTS - METALS
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO

Constituent	Acceptable Concentration (mg/L)	Concentration (mg/L)		
		8/29/2001	9/15/2001	1/9/2003
Arsenic	0.1	0.11	<0.050	
Barium	1	<0.100	---	
Cadmium	0.01	<0.025	<0.01	
Chromium	0.05	<0.010	---	
Lead	0.05	<0.010	---	
Total Mercury	0.002	<0.0002	---	---
Selenium	0.05	<0.050	---	---
Silver	0.05	<0.013	---	---
Copper	1	<0.013	---	<0.0250
Iron	1	<0.050	---	<0.0500
Manganese	0.2	0.410	<0.025	0.0578
Aluminum	5	0.634	---	<0.100
Boron	0.75	0.314	---	1.15
Cobalt	0.05	<0.025	---	<0.0200
Molybdenum	1	<0.050	---	<0.0500
Nickel	0.2	<0.025	---	<0.0250

NOTE:

Sock filters were added to the treatment process and the effluent was resampled for the constituents which previously exceeded the re-injection requirements.

TABLE X

**SUMMARY OF EFFLUENT RESULTS - PAH
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO**

Constituent	Acceptable Concentration (mg/L)	Concentration (mg/L)		
		8/29/2001	9/15/2001	1/9/2003
Carbon Tetrachloride	0.01	<0.001	---	---
1,2-Dichloroethane	0.01	<0.001	---	---
1,1-Dichloroethylene	0.005	<0.001	---	---
1,1,2,2-Tetrachloroethylene	0.02	---	<0.001	---
1,1,2-Trichloroethylene	0.1	<0.001	---	---
Methylene Chloride	0.1	0.00112	---	---
Chloroform	0.1	<0.001	---	---
1,1-Dichloroethane	0.025	<0.001	---	---
Ethylene Dibromide	0.0001	---	<0.001	---
1,1,1-Trichloroethane	0.06	<0.001	---	---
1,1,2-Trichloroethane	0.01	<0.001	---	---
1,1,2,2-Tetrachloroethane	0.01	<0.001	---	---
Vinyl Chloride	0.001	<0.001	---	---
PAHs: Total Naphthalene plus monomethyl- naphthalenes	0.03	<0.005	---	0.00191
Benzo-a-pyrene	0.0007	<0.005	---	<0.000200
Phenols	0.005	<0.005	---	---

NOTE:

All PAH concentrations for the sample obtained on 01/09/03 were below <0.000200 except for pyrene, which was 0.00191.

TABLE XI

**SUMMARY OF EFFLUENT RESULTS - OTHER
SHELL PIPELINE COMPANY LP
JAL BASIN STATION
LEA COUNTY, NEW MEXICO**

Constituent	Acceptable Concentration (mg/L)	Concentration (mg/L)	
		8/29/2001	1/9/2003
Cyanide	0.2	<0.01	---
Fluoride	1.6	3.12	---
Nitrate (NO ₃ as N)	10	2.90	2.21
Chloride	250	168	37.1
Sulfate	600	366	162
Total Dissolved Solids (TDS)	1000	1160	887
pH	between 6 and 9	7.9	8.10

NOTE:

The fluoride and total dissolved solids concentrations are within background concentrations within groundwater.

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424
El Paso, Texas 79932

800•378•1296

888•588•3443

806•794•1296

915•585•3443

FAX 806•794•1298

FAX 915•585•4944

E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Thresa Nix
H2A Environmental
418 San Saba
Portland, TX 78374

Report Date: January 22, 2003

Work Order: 2123107

Project Location: 2 miles south of Jal, NM on Hwy 18
Project Name: Jal Basin Station
Project Number: 106.001

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
1554	MW-21 10-10.5	soil	2002-12-12	11:00	2002-12-18
1555	MW-21 40-40.5	soil	2002-12-12	11:30	2002-12-18
1556	MW-21 75-75.5	soil	2002-12-12	12:00	2002-12-18
1557	MW-21 86-88	soil	2002-12-12	14:50	2002-12-18
1558	MW-21 88-90	soil	2002-12-12	15:00	2002-12-18
1559	MW-22 10-10.5	soil	2002-12-13	10:00	2002-12-18
1560	MW-22 50-50.5	soil	2002-12-13	11:00	2002-12-18
1561	MW-22 84-86	soil	2002-12-13	15:00	2002-12-18
1562	MW-22 86-88	soil	2002-12-13	15:30	2002-12-18
1563	MW-22 88-90	soil	2002-12-13	16:00	2002-12-18
1564	VMP-1 10-10.5	soil	2002-12-16	10:30	2002-12-18
1565	VMP-1 50-50.5	soil	2002-12-16	11:00	2002-12-18
1566	VMP-1 70-70.5	soil	2002-12-16	11:20	2002-12-18
1567	VMP-1 79-80	soil	2002-12-16	11:30	2002-12-18

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 24 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Notes:

All sample results are reported on a dry weight basis.

For inorganic analyses, the term MQL should actually read PQL.

Standard Flags

U - Not detected. The analyte is not detected above the SQL.

J - Estimated. The analyte is positively identified and the value is approximated between the SQL and MQL.

B - The sample contains less than ten times the concentration found in the method blank.

JB - The analyte is positively identified and the value is approximated between the SQL and MQL.

The sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SQL.



Dr. Blair Leftwich, Director

Analytical Report

Note: All sample results are reported on a dry weight basis.

Sample: 1554 - MW-21 10-10.5

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 225 Date Analyzed: 2002-12-20 Analyzed By: CG
Prep Batch: 206 Date Prepared: 2002-12-20 Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE		0.0249	0.0249	<0.00372	mg/Kg	1	0.00372	0.0104	0.003583
Benzene	U	<0.00283	<0.0104	<0.00283	mg/Kg	1	0.00283	0.0104	0.002726
Toluene	U	<0.00446	<0.0104	<0.00446	mg/Kg	1	0.00446	0.0104	0.00429
Ethylbenzene	U	<0.00666	<0.0104	<0.00666	mg/Kg	1	0.00666	0.0104	0.006412
Xylene (isomers)	U	<0.0174	<0.0312	<0.0174	mg/Kg	1	0.0174	0.0312	0.016726

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.902	mg/Kg	1	1.00	90	72 - 115
4-Bromofluorobenzene (4-BFB)		1	mg/Kg	1	1.00	100	72 - 113

Sample: 1554 - MW-21 10-10.5

Analysis: Moisture Content Analytical Method: SM D2974-87 Prep Method: N/A
QC Batch: 266 Date Analyzed: 2002-12-20 Analyzed By: RS
Prep Batch: 241 Date Prepared: 2002-12-20 Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		3.72	3.72	0.00	%	1	0.00	0.00	

Sample: 1554 - MW-21 10-10.5

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 219 Date Analyzed: 2002-12-23 Analyzed By: BP
Prep Batch: 200 Date Prepared: 2002-12-23 Prepared By: MA

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<21.9	<51.9	<21.9	mg/Kg	1	21.9	51.9	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		116	mg/Kg	1	150	77	45 - 152

Sample: 1554 - MW-21 10-10.5

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 231 Date Analyzed: 2002-12-31 Analyzed By: CG
Prep Batch: 212 Date Prepared: 2002-12-31 Prepared By: WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	<0.245	<1.04	<0.245	mg/Kg	1	0.245	1.04	0.236328

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.0734	mg/Kg	1	0.100	73	73 - 120
4-Bromofluorobenzene (4-BFB)		0.0852	mg/Kg	1	0.100	85	78 - 120

Sample: 1555 - MW-21 40-40.5

Analysis: BTEX (TRRP)
QC Batch: 228
Prep Batch: 209

Analytical Method: S 8021B
Date Analyzed: 2002-12-19
Date Prepared: 2002-12-19

Prep Method: S 5035
Analyzed By: CG
Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE		0.0149	0.0149	<0.00744	mg/Kg	1	0.00744	0.0106	0.006981
Benzene	U	<0.00252	<0.0106	<0.00252	mg/Kg	1	0.00252	0.0106	0.002366
Toluene	U	<0.00409	<0.0106	<0.00409	mg/Kg	1	0.00409	0.0106	0.003841
Ethylbenzene	U	<0.00483	<0.0106	<0.00483	mg/Kg	1	0.00483	0.0106	0.004535
Xylene (isomers)	U	<0.0136	<0.0320	<0.0136	mg/Kg	1	0.0136	0.0320	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.765	mg/Kg	1	1.00	76	52 - 148
4-Bromofluorobenzene (4-BFB)		0.82	mg/Kg	1	1.00	82	41 - 148

Sample: 1555 - MW-21 40-40.5

Analysis: Moisture Content
QC Batch: 266
Prep Batch: 241

Analytical Method: SM D2974-87
Date Analyzed: 2002-12-20
Date Prepared: 2002-12-20

Prep Method: N/A
Analyzed By: RS
Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		6.12	6.12	0.00	%	1	0.00	0.00	

Sample: 1555 - MW-21 40-40.5

Analysis: TPH DRO
QC Batch: 219
Prep Batch: 200

Analytical Method: Mod. 8015B
Date Analyzed: 2002-12-23
Date Prepared: 2002-12-23

Prep Method: N/A
Analyzed By: BP
Prepared By: MA

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<22.5	<53.2	<22.5	mg/Kg	1	22.5	53.2	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		102	mg/Kg	1	150	68	45 - 152

Sample: 1555 - MW-21 40-40.5

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 231 Date Analyzed: 2002-12-31 Analyzed By: CG
Prep Batch: 212 Date Prepared: 2002-12-31 Prepared By: WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	<0.252	<1.06	<0.252	mg/Kg	1	0.252	1.06	0.236328

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.103	mg/Kg	1	0.100	103	73 - 120
4-Bromofluorobenzene (4-BFB)		0.0835	mg/Kg	1	0.100	84	78 - 120

Sample: 1556 - MW-21 75-75.5

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 228 Date Analyzed: 2002-12-19 Analyzed By: CG
Prep Batch: 209 Date Prepared: 2002-12-19 Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE		0.0158	0.0158	<0.00733	mg/Kg	1	0.00733	0.0105	0.006981
Benzene	U	<0.00248	<0.0105	<0.00248	mg/Kg	1	0.00248	0.0105	0.002366
Toluene	U	<0.00403	<0.0105	<0.00403	mg/Kg	1	0.00403	0.0105	0.003841
Ethylbenzene	U	<0.00476	<0.0105	<0.00476	mg/Kg	1	0.00476	0.0105	0.004535
Xylene (isomers)	U	<0.0134	<0.0315	<0.0134	mg/Kg	1	0.0134	0.0315	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.843	mg/Kg	1	1.00	84	52 - 148
4-Bromofluorobenzene (4-BFB)		0.905	mg/Kg	1	1.00	90	41 - 148

Sample: 1556 - MW-21 75-75.5

Analysis: Moisture Content Analytical Method: SM D2974-87 Prep Method: N/A
QC Batch: 266 Date Analyzed: 2002-12-20 Analyzed By: RS
Prep Batch: 241 Date Prepared: 2002-12-20 Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		4.78	4.78	0.00	%	1	0.00	0.00	

Sample: 1556 - MW-21 75-75.5

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 219 Date Analyzed: 2002-12-23 Analyzed By: BP
Prep Batch: 200 Date Prepared: 2002-12-23 Prepared By: MA

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<22.2	<52.5	<22.2	mg/Kg	1	22.2	52.5	21.1

Report Date: January 22, 2003
106.001

Work Order: 2123107
Jal Basin Station

Page Number: 5 of 24
2 miles south of Jal, NM on Hwy 18

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		100	mg/Kg	1	150	67	45 - 152

Sample: 1556 - MW-21 75-75.5

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 231 Date Analyzed: 2002-12-31 Analyzed By: CG
Prep Batch: 212 Date Prepared: 2002-12-31 Prepared By: WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	<0.248	<1.05	<0.248	mg/Kg	1	0.248	1.05	0.236328

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.119	mg/Kg	1	0.100	119	73 - 120
4-Bromofluorobenzene (4-BFB)		0.0911	mg/Kg	1	0.100	91	78 - 120

Sample: 1557 - MW-21 86-88

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 228 Date Analyzed: 2002-12-19 Analyzed By: CG
Prep Batch: 209 Date Prepared: 2002-12-19 Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE		0.0146	0.0146	<0.00798	mg/Kg	1	0.00798	0.0114	0.006981
Benzene	U	<0.00270	<0.0114	<0.00270	mg/Kg	1	0.00270	0.0114	0.002366
Toluene	U	<0.00439	<0.0114	<0.00439	mg/Kg	1	0.00439	0.0114	0.003841
Ethylbenzene	U	<0.00518	<0.0114	<0.00518	mg/Kg	1	0.00518	0.0114	0.004535
Xylene (isomers)	U	<0.0146	<0.0343	<0.0146	mg/Kg	1	0.0146	0.0343	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.815	mg/Kg	1	1.00	82	52 - 148
4-Bromofluorobenzene (4-BFB)		0.883	mg/Kg	1	1.00	88	41 - 148

Sample: 1557 - MW-21 86-88

Analysis: Moisture Content Analytical Method: SM D2974-87 Prep Method: N/A
QC Batch: 266 Date Analyzed: 2002-12-20 Analyzed By: RS
Prep Batch: 241 Date Prepared: 2002-12-20 Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		12.5	12.5	0.00	%	1	0.00	0.00	

Sample: 1557 - MW-21 86-88

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 219 Date Analyzed: 2002-12-23 Analyzed By: BP
Prep Batch: 200 Date Prepared: 2002-12-23 Prepared By: MA

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<24.1	<57.1	<24.1	mg/Kg	1	24.1	57.1	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		114	mg/Kg	1	150	76	45 - 152

Sample: 1557 - MW-21 86-88

Analysis: TPH GRO
QC Batch: 231
Prep Batch: 212

Analytical Method: S 8015B
Date Analyzed: 2002-12-31
Date Prepared: 2002-12-31

Prep Method: S 5035
Analyzed By: CG
Prepared By: WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	<0.270	<1.14	<0.270	mg/Kg	1	0.270	1.14	0.236328

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.118	mg/Kg	1	0.100	118	73 - 120
4-Bromofluorobenzene (4-BFB)		0.0892	mg/Kg	1	0.100	89	78 - 120

Sample: 1558 - MW-21 88-90

Analysis: BTEX (TRRP)
QC Batch: 228
Prep Batch: 209

Analytical Method: S 8021B
Date Analyzed: 2002-12-19
Date Prepared: 2002-12-19

Prep Method: S 5035
Analyzed By: CG
Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE		0.0165	0.0165	<0.00806	mg/Kg	1	0.00806	0.0115	0.006981
Benzene	U	<0.00273	<0.0115	<0.00273	mg/Kg	1	0.00273	0.0115	0.002366
Toluene	U	<0.00444	<0.0115	<0.00444	mg/Kg	1	0.00444	0.0115	0.003841
Ethylbenzene	U	<0.00524	<0.0115	<0.00524	mg/Kg	1	0.00524	0.0115	0.004535
Xylene (isomers)	U	<0.0148	<0.0346	<0.0148	mg/Kg	1	0.0148	0.0346	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.851	mg/Kg	1	1.00	85	52 - 148
4-Bromofluorobenzene (4-BFB)		0.902	mg/Kg	1	1.00	90	41 - 148

Sample: 1558 - MW-21 88-90

Analysis: Moisture Content
QC Batch: 266
Prep Batch: 241

Analytical Method: SM D2974-87
Date Analyzed: 2002-12-20
Date Prepared: 2002-12-20

Prep Method: N/A
Analyzed By: RS
Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		13.4	13.4	0.00	%	1	0.00	0.00	

Report Date: January 22, 2003
106.001

Work Order: 2123107
Jal Basin Station

Page Number: 7 of 24
2 miles south of Jal, NM on Hwy 18

Sample: 1558 - MW-21 88-90

Analysis: TPH DRO
QC Batch: 219
Prep Batch: 200

Analytical Method: Mod. 8015B
Date Analyzed: 2002-12-23
Date Prepared: 2002-12-23

Prep Method: N/A
Analyzed By: BP
Prepared By: MA

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<24.4	<57.7	<24.4	mg/Kg	1	24.4	57.7	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		104	mg/Kg	1	150	69	45 - 152

Sample: 1558 - MW-21 88-90

Analysis: TPH GRO
QC Batch: 231
Prep Batch: 212

Analytical Method: S 8015B
Date Analyzed: 2002-12-31
Date Prepared: 2002-12-31

Prep Method: S 5035
Analyzed By: CG
Prepared By: WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	<0.273	<1.15	<0.273	mg/Kg	1	0.273	1.15	0.236328

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.0833	mg/Kg	1	0.100	83	73 - 120
4-Bromofluorobenzene (4-BFB)		0.0908	mg/Kg	1	0.100	91	78 - 120

Sample: 1559 - MW-22 10-10.5

Analysis: BTEX (TRRP)
QC Batch: 228
Prep Batch: 209

Analytical Method: S 8021B
Date Analyzed: 2002-12-19
Date Prepared: 2002-12-19

Prep Method: S 5035
Analyzed By: CG
Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE	U	<0.00738	<0.0106	<0.00738	mg/Kg	1	0.00738	0.0106	0.006981
Benzene	U	<0.00250	<0.0106	<0.00250	mg/Kg	1	0.00250	0.0106	0.002366
Toluene	U	<0.00406	<0.0106	<0.00406	mg/Kg	1	0.00406	0.0106	0.003841
Ethylbenzene	U	<0.00479	<0.0106	<0.00479	mg/Kg	1	0.00479	0.0106	0.004535
Xylene (isomers)	U	<0.0135	<0.0317	<0.0135	mg/Kg	1	0.0135	0.0317	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.856	mg/Kg	1	1.00	86	52 - 148
4-Bromofluorobenzene (4-BFB)		0.939	mg/Kg	1	1.00	94	41 - 148

Sample: 1559 - MW-22 10-10.5

Analysis: Moisture Content
QC Batch: 266
Prep Batch: 241

Analytical Method: SM D2974-87
Date Analyzed: 2002-12-20
Date Prepared: 2002-12-20

Prep Method: N/A
Analyzed By: RS
Prepared By: RS

Report Date: January 22, 2003
106.001

Work Order: 2123107
Jal Basin Station

Page Number: 8 of 24
2 miles south of Jal, NM on Hwy 18

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		5.39	5.39	0.00	%	1	0.00	0.00	

Sample: 1559 - MW-22 10-10.5

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 219 Date Analyzed: 2002-12-23 Analyzed By: BP
Prep Batch: 200 Date Prepared: 2002-12-23 Prepared By: MA

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<22.3	<52.8	<22.3	mg/Kg	1	22.3	52.8	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		104	mg/Kg	1	150	69	45 - 152

Sample: 1559 - MW-22 10-10.5

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 231 Date Analyzed: 2002-12-31 Analyzed By: CG
Prep Batch: 212 Date Prepared: 2002-12-31 Prepared By: WG

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	<0.250	<1.06	<0.250	mg/Kg	1	0.250	1.06	0.236328

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.0846	mg/Kg	1	0.100	85	73 - 120
4-Bromofluorobenzene (4-BFB)		0.0941	mg/Kg	1	0.100	94	78 - 120

Sample: 1560 - MW-22 50-50.5

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 228 Date Analyzed: 2002-12-19 Analyzed By: CG
Prep Batch: 209 Date Prepared: 2002-12-19 Prepared By: DN

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE		0.0158	0.0158	<0.00731	mg/Kg	1	0.00731	0.0105	0.006981
Benzene	U	<0.00248	<0.0105	<0.00248	mg/Kg	1	0.00248	0.0105	0.002366
Toluene	U	<0.00402	<0.0105	<0.00402	mg/Kg	1	0.00402	0.0105	0.003841
Ethylbenzene	U	<0.00475	<0.0105	<0.00475	mg/Kg	1	0.00475	0.0105	0.004535
Xylene (isomers)	U	<0.0134	<0.0314	<0.0134	mg/Kg	1	0.0134	0.0314	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.867	mg/Kg	1	1.00	87	52 - 148
4-Bromofluorobenzene (4-BFB)		0.92	mg/Kg	1	1.00	92	41 - 148

Report Date: January 22, 2003
106.001

Work Order: 2123107
Jal Basin Station

Page Number: 9 of 24
2 miles south of Jal, NM on Hwy 18

Sample: 1560 - MW-22 50-50.5

Analysis: Moisture Content
QC Batch: 266
Prep Batch: 241

Analytical Method: SM D2974-87
Date Analyzed: 2002-12-20
Date Prepared: 2002-12-20

Prep Method: N/A
Analyzed By: RS
Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		4.48	4.48	0.00	%	1	0.00	0.00	

Sample: 1560 - MW-22 50-50.5

Analysis: TPH DRO
QC Batch: 219
Prep Batch: 200

Analytical Method: Mod. 8015B
Date Analyzed: 2002-12-23
Date Prepared: 2002-12-23

Prep Method: N/A
Analyzed By: BP
Prepared By: MA

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<22.1	<52.3	<22.1	mg/Kg	1	22.1	52.3	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		106	mg/Kg	1	150	71	45 - 152

Sample: 1560 - MW-22 50-50.5

Analysis: TPH GRO
QC Batch: 231
Prep Batch: 212

Analytical Method: S 8015B
Date Analyzed: 2002-12-31
Date Prepared: 2002-12-31

Prep Method: S 5035
Analyzed By: CG
Prepared By: WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	<0.247	<1.05	<0.247	mg/Kg	1	0.247	1.05	0.236328

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.0862	mg/Kg	1	0.100	86	73 - 120
4-Bromofluorobenzene (4-BFB)		0.0928	mg/Kg	1	0.100	93	78 - 120

Sample: 1561 - MW-22 84-86

Analysis: BTEX (TRRP)
QC Batch: 228
Prep Batch: 209

Analytical Method: S 8021B
Date Analyzed: 2002-12-19
Date Prepared: 2002-12-19

Prep Method: S 5035
Analyzed By: CG
Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE		0.0177	0.0177	<0.00764	mg/Kg	1	0.00764	0.0109	0.006981
Benzene	U	<0.00259	<0.0109	<0.00259	mg/Kg	1	0.00259	0.0109	0.002366
Toluene	U	<0.00420	<0.0109	<0.00420	mg/Kg	1	0.00420	0.0109	0.003841
Ethylbenzene		0.0127	0.0127	<0.00496	mg/Kg	1	0.00496	0.0109	0.004535
Xylene (isomers)	U	<0.0140	<0.0328	<0.0140	mg/Kg	1	0.0140	0.0328	0.012793

Report Date: January 22, 2003
106.001

Work Order: 2123107
Jal Basin Station

Page Number: 10 of 24
2 miles south of Jal, NM on Hwy 18

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.84	mg/Kg	1	1.00	84	52 - 148
4-Bromofluorobenzene (4-BFB)		1.01	mg/Kg	1	1.00	101	41 - 148

Sample: 1561 - MW-22 84-86

Analysis: Moisture Content Analytical Method: SM D2974-87 Prep Method: N/A
QC Batch: 266 Date Analyzed: 2002-12-20 Analyzed By: RS
Prep Batch: 241 Date Prepared: 2002-12-20 Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		8.57	8.57	0.00	%	1	0.00	0.00	

Sample: 1561 - MW-22 84-86

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 219 Date Analyzed: 2002-12-23 Analyzed By: BP
Prep Batch: 200 Date Prepared: 2002-12-23 Prepared By: MA

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO		517	517	<23.1	mg/Kg	1	23.1	54.7	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		106	mg/Kg	1	150	71	45 - 152

Sample: 1561 - MW-22 84-86

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 231 Date Analyzed: 2002-12-31 Analyzed By: CG
Prep Batch: 212 Date Prepared: 2002-12-31 Prepared By: WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
GRO		13.8	13.8	<0.258	mg/Kg	1	0.258	1.09	0.236328

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.0818	mg/Kg	1	0.100	82	73 - 120
4-Bromofluorobenzene (4-BFB)	¹	0.175	mg/Kg	1	0.100	175	78 - 120

Sample: 1562 - MW-22 86-88

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 228 Date Analyzed: 2002-12-19 Analyzed By: CG
Prep Batch: 209 Date Prepared: 2002-12-19 Prepared By: DN

¹ Elevated surrogate due to peak interference.

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE	U	<0.150	<0.214	<0.00750	mg/Kg	20	0.00750	0.0107	0.006981
Benzene	U	<0.0508	<0.214	<0.00254	mg/Kg	20	0.00254	0.0107	0.002366
Toluene	U	<0.0826	<0.214	<0.00413	mg/Kg	20	0.00413	0.0107	0.003841
Ethylbenzene		0.296	0.296	<0.00487	mg/Kg	20	0.00487	0.0107	0.004535
Xylene (isomers)		1.08	1.08	<0.0137	mg/Kg	20	0.0137	0.0322	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		1.29	mg/Kg	1	1.00	129	52 - 148
4-Bromofluorobenzene (4-BFB)	2	2.49	mg/Kg	1	1.00	249	41 - 148

Sample: 1562 - MW-22 86-88

Analysis: Moisture Content Analytical Method: SM D2974-87 Prep Method: N/A
QC Batch: 266 Date Analyzed: 2002-12-20 Analyzed By: RS
Prep Batch: 241 Date Prepared: 2002-12-20 Prepared By: RS

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		6.95	6.95	0.00	%	1	0.00	0.00	

Sample: 1562 - MW-22 86-88

Analysis: PAH Analytical Method: S 8270C Prep Method: S 3510C
QC Batch: 268 Date Analyzed: 2003-01-07 Analyzed By: RC
Prep Batch: 242 Date Prepared: 2002-12-24 Prepared By: RC

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Naphthalene	U	<0.00236	0.00	<0.00236	mg/Kg	1	0.00236	0.00	0.0022
Acenaphthylene	U	<0.00266	0.00	<0.00266	mg/Kg	1	0.00266	0.00	0.00248
Acenaphthene	U	<0.00283	0.00	<0.00283	mg/Kg	1	0.00283	0.00	0.00263
Fluorene	U	<0.00249	0.00	<0.00249	mg/Kg	1	0.00249	0.00	0.00232
Phenanthrene		2.07	2.07	<0.00245	mg/Kg	1	0.00245	0.00	0.00228
Anthracene		0.442	0.442	<0.00241	mg/Kg	1	0.00241	0.00	0.00224
Fluoranthene	U	<0.00462	0.00	<0.00462	mg/Kg	1	0.00462	0.00	0.0043
Pyrene	U	<0.00345	0.00	<0.00345	mg/Kg	1	0.00345	0.00	0.00321
Benzo(a)anthracene	U	<0.00227	0.00	<0.00227	mg/Kg	1	0.00227	0.00	0.00211
Chrysene	U	<0.00227	0.00	<0.00227	mg/Kg	1	0.00227	0.00	0.00211
Benzo(b)fluoranthene	U	<0.00593	0.00	<0.00593	mg/Kg	1	0.00593	0.00	0.00552
Benzo(k)fluoranthene	U	<0.00626	0.00	<0.00626	mg/Kg	1	0.00626	0.00	0.00583
Benzo(a)pyrene	U	<0.00357	0.00	<0.00357	mg/Kg	1	0.00357	0.00	0.00332
Indeno(1,2,3-cd)pyrene	U	<0.00787	0.00	<0.00787	mg/Kg	1	0.00787	0.00	0.00732
Dibenzo(a,h)anthracene	U	<0.00518	0.00	<0.00518	mg/Kg	1	0.00518	0.00	0.00482
Benzo(g,h,i)perylene	U	<0.00577	0.00	<0.00577	mg/Kg	1	0.00577	0.00	0.00537

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		68	mg/Kg	1	80.0	85	30 - 115
Nitrobenzene-d5		34.1	mg/Kg	1	80.0	43	23 - 120
Terphenyl-d14		28.4	mg/Kg	1	80.0	36	28 - 137

²Elevated surrogate recovery due to coelution with unidentified peaks.

Sample: 1562 - MW-22 86-88

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 220 Date Analyzed: 2002-12-23 Analyzed By: BP
Prep Batch: 201 Date Prepared: 2003-01-13 Prepared By: MA

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO		4540	4540	<22.7	mg/Kg	1	22.7	53.7	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		85.6	mg/Kg	1	150	57	45 - 152

Sample: 1562 - MW-22 86-88

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 231 Date Analyzed: 2002-12-31 Analyzed By: CG
Prep Batch: 212 Date Prepared: 2002-12-31 Prepared By: WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
GRO		276	276	<0.254	mg/Kg	20	0.254	1.07	0.236328

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.0801	mg/Kg	1	0.100	80	73 - 120
4-Bromofluorobenzene (4-BFB)	³	0.8	mg/Kg	1	0.100	800	78 - 120

Sample: 1563 - MW-22 88-90

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 228 Date Analyzed: 2002-12-19 Analyzed By: CG
Prep Batch: 209 Date Prepared: 2002-12-19 Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE	^U	<0.0386	<0.0550	<0.00771	mg/Kg	5	0.00771	0.0110	0.006981
Benzene	^U	<0.0130	<0.0550	<0.00261	mg/Kg	5	0.00261	0.0110	0.002366
Toluene	^J	0.0451	<0.0550	<0.00424	mg/Kg	5	0.00424	0.0110	0.003841
Ethylbenzene		0.163	0.163	<0.00501	mg/Kg	5	0.00501	0.0110	0.004535
Xylene (isomers)		0.447	0.447	<0.0141	mg/Kg	5	0.0141	0.0331	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.832	mg/Kg	1	1.00	83	52 - 148
4-Bromofluorobenzene (4-BFB)	⁴	2.17	mg/Kg	1	1.00	217	41 - 148

Sample: 1563 - MW-22 88-90

Analysis: Moisture Content Analytical Method: SM D2974-87 Prep Method: N/A
QC Batch: 266 Date Analyzed: 2002-12-20 Analyzed By: RS
Prep Batch: 241 Date Prepared: 2002-12-20 Prepared By: RS

³Elevated surrogate due to peak interference.

⁴Elevated surrogate recovery due to coelution with unidentified peaks.

Report Date: January 22, 2003
106.001

Work Order: 2123107
Jal Basin Station

Page Number: 13 of 24
2 miles south of Jal, NM on Hwy 18

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		9.41	9.41	0.00	%	1	0.00	0.00	

Sample: 1563 - MW-22 88-90

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 219 Date Analyzed: 2002-12-23 Analyzed By: BP
Prep Batch: 200 Date Prepared: 2002-12-23 Prepared By: MA

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO		2740	2740	<23.3	mg/Kg	1	23.3	55.2	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		122	mg/Kg	1	150	81	45 - 152

Sample: 1563 - MW-22 88-90

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 231 Date Analyzed: 2002-12-31 Analyzed By: CG
Prep Batch: 212 Date Prepared: 2002-12-31 Prepared By: WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
GRO		98.7	98.7	<0.261	mg/Kg	5	0.261	1.10	0.236328

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.0799	mg/Kg	1	0.100	80	73 - 120
4-Bromofluorobenzene (4-BFB)	⁵	0.326	mg/Kg	1	0.100	326	78 - 120

Sample: 1564 - VMP-1 10-10.5

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 228 Date Analyzed: 2002-12-19 Analyzed By: CG
Prep Batch: 209 Date Prepared: 2002-12-19 Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE		0.0172	0.0172	<0.00725	mg/Kg	1	0.00725	0.0104	0.006981
Benzene	U	<0.00246	<0.0104	<0.00246	mg/Kg	1	0.00246	0.0104	0.002366
Toluene	U	<0.00399	<0.0104	<0.00399	mg/Kg	1	0.00399	0.0104	0.003841
Ethylbenzene	U	<0.00471	<0.0104	<0.00471	mg/Kg	1	0.00471	0.0104	0.004535
Xylene (isomers)	U	<0.0133	<0.0312	<0.0133	mg/Kg	1	0.0133	0.0312	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.84	mg/Kg	1	1.00	84	52 - 148
4-Bromofluorobenzene (4-BFB)		0.932	mg/Kg	1	1.00	93	41 - 148

⁵Elevated surrogate due to peak interference.

Report Date: January 22, 2003
106.001

Work Order: 2123107
Jal Basin Station

Page Number: 14 of 24
2 miles south of Jal, NM on Hwy 18

Sample: 1564 - VMP-1 10-10.5

Analysis: Moisture Content
QC Batch: 267
Prep Batch: 241

Analytical Method: SM D2974-87
Date Analyzed: 2002-12-20
Date Prepared: 2002-12-20

Prep Method: N/A
Analyzed By: RS
Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		3.73	3.73	0.00	%	1	0.00	0.00	

Sample: 1564 - VMP-1 10-10.5

Analysis: TPH DRO
QC Batch: 219
Prep Batch: 200

Analytical Method: Mod. 8015B
Date Analyzed: 2002-12-23
Date Prepared: 2002-12-23

Prep Method: N/A
Analyzed By: BP
Prepared By: MA

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<21.9	<51.9	<21.9	mg/Kg	1	21.9	51.9	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		105	mg/Kg	1	150	70	45 - 152

Sample: 1564 - VMP-1 10-10.5

Analysis: TPH GRO
QC Batch: 231
Prep Batch: 212

Analytical Method: S 8015B
Date Analyzed: 2002-12-31
Date Prepared: 2002-12-31

Prep Method: S 5035
Analyzed By: CG
Prepared By: WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	<0.245	<1.04	<0.245	mg/Kg	1	0.245	1.04	0.236328

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.112	mg/Kg	1	0.100	112	73 - 120
4-Bromofluorobenzene (4-BFB)		0.0918	mg/Kg	1	0.100	92	78 - 120

Sample: 1565 - VMP-1 50-50.5

Analysis: BTEX (TRRP)
QC Batch: 228
Prep Batch: 209

Analytical Method: S 8021B
Date Analyzed: 2002-12-19
Date Prepared: 2002-12-19

Prep Method: S 5035
Analyzed By: CG
Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE		0.0152	0.0152	<0.00748	mg/Kg	1	0.00748	0.0107	0.006981
Benzene	U	<0.00253	<0.0107	<0.00253	mg/Kg	1	0.00253	0.0107	0.002366
Toluene	U	<0.00412	<0.0107	<0.00412	mg/Kg	1	0.00412	0.0107	0.003841
Ethylbenzene	U	<0.00486	<0.0107	<0.00486	mg/Kg	1	0.00486	0.0107	0.004535
Xylene (isomers)	U	<0.0137	<0.0321	<0.0137	mg/Kg	1	0.0137	0.0321	0.012793

Report Date: January 22, 2003
106.001

Work Order: 2123107
Jal Basin Station

Page Number: 15 of 24
2 miles south of Jal, NM on Hwy 18

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.805	mg/Kg	1	1.00	80	52 - 148
4-Bromofluorobenzene (4-BFB)		0.858	mg/Kg	1	1.00	86	41 - 148

Sample: 1565 - VMP-1 50-50.5

Analysis: Moisture Content Analytical Method: SM D2974-87 Prep Method: N/A
QC Batch: 267 Date Analyzed: 2002-12-20 Analyzed By: RS
Prep Batch: 241 Date Prepared: 2002-12-20 Prepared By: RS

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		6.66	6.66	0.00	%	1	0.00	0.00	

Sample: 1565 - VMP-1 50-50.5

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 219 Date Analyzed: 2002-12-23 Analyzed By: BP
Prep Batch: 200 Date Prepared: 2002-12-23 Prepared By: MA

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<22.6	<53.6	<22.6	mg/Kg	1	22.6	53.6	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		104	mg/Kg	1	150	69	45 - 152

Sample: 1565 - VMP-1 50-50.5

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 231 Date Analyzed: 2002-12-31 Analyzed By: CG
Prep Batch: 212 Date Prepared: 2002-12-31 Prepared By: WG

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	<0.253	<1.07	<0.253	mg/Kg	1	0.253	1.07	0.236328

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.0787	mg/Kg	1	0.100	79	73 - 120
4-Bromofluorobenzene (4-BFB)		0.0878	mg/Kg	1	0.100	88	78 - 120

Sample: 1566 - VMP-1 70-70.5

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 228 Date Analyzed: 2002-12-19 Analyzed By: CG
Prep Batch: 209 Date Prepared: 2002-12-19 Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE	U	<0.00739	<0.0106	<0.00739	mg/Kg	1	0.00739	0.0106	0.006981
Benzene	U	<0.00250	<0.0106	<0.00250	mg/Kg	1	0.00250	0.0106	0.002366
Toluene	U	<0.00407	<0.0106	<0.00407	mg/Kg	1	0.00407	0.0106	0.003841
Ethylbenzene	U	<0.00480	<0.0106	<0.00480	mg/Kg	1	0.00480	0.0106	0.004535
Xylene (isomers)	U	<0.0135	<0.0318	<0.0135	mg/Kg	1	0.0135	0.0318	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.855	mg/Kg	1	1.00	86	52 - 148
4-Bromofluorobenzene (4-BFB)		0.911	mg/Kg	1	1.00	91	41 - 148

Sample: 1566 - VMP-1 70-70.5

Analysis: Moisture Content Analytical Method: SM D2974-87 Prep Method: N/A
QC Batch: 267 Date Analyzed: 2002-12-20 Analyzed By: RS
Prep Batch: 241 Date Prepared: 2002-12-20 Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		5.56	5.56	0.00	%	1	0.00	0.00	

Sample: 1566 - VMP-1 70-70.5

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 219 Date Analyzed: 2002-12-23 Analyzed By: BP
Prep Batch: 200 Date Prepared: 2002-12-23 Prepared By: MA

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<22.3	<52.9	<22.3	mg/Kg	1	22.3	52.9	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		105	mg/Kg	1	150	70	45 - 152

Sample: 1566 - VMP-1 70-70.5

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 231 Date Analyzed: 2002-12-31 Analyzed By: CG
Prep Batch: 212 Date Prepared: 2002-12-31 Prepared By: WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	<0.250	<1.06	<0.250	mg/Kg	1	0.250	1.06	0.236328

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.084	mg/Kg	1	0.100	84	73 - 120
4-Bromofluorobenzene (4-BFB)		0.0928	mg/Kg	1	0.100	93	78 - 120

Report Date: January 22, 2003
106.001

Work Order: 2123107
Jal Basin Station

Page Number: 17 of 24
2 miles south of Jal, NM on Hwy 18

Sample: 1567 - VMP-1 79-80

Analysis: BTEX (TRRP)
QC Batch: 228
Prep Batch: 209

Analytical Method: S 8021B
Date Analyzed: 2002-12-19
Date Prepared: 2002-12-19

Prep Method: S 5035
Analyzed By: CG
Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE	U	<0.00751	<0.0108	<0.00751	mg/Kg	1	0.00751	0.0108	0.006981
Benzene	U	<0.00255	<0.0108	<0.00255	mg/Kg	1	0.00255	0.0108	0.002366
Toluene	U	<0.00413	<0.0108	<0.00413	mg/Kg	1	0.00413	0.0108	0.003841
Ethylbenzene	U	<0.00488	<0.0108	<0.00488	mg/Kg	1	0.00488	0.0108	0.004535
Xylene (isomers)	U	<0.0138	<0.0323	<0.0138	mg/Kg	1	0.0138	0.0323	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.821	mg/Kg	1	1.00	82	52 - 148
4-Bromofluorobenzene (4-BFB)		0.874	mg/Kg	1	1.00	87	41 - 148

Sample: 1567 - VMP-1 79-80

Analysis: Moisture Content
QC Batch: 267
Prep Batch: 241

Analytical Method: SM D2974-87
Date Analyzed: 2002-12-20
Date Prepared: 2002-12-20

Prep Method: N/A
Analyzed By: RS
Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		7.10	7.10	0.00	%	1	0.00	0.00	

Sample: 1567 - VMP-1 79-80

Analysis: TPH DRO
QC Batch: 220
Prep Batch: 201

Analytical Method: Mod. 8015B
Date Analyzed: 2002-12-23
Date Prepared: 2003-01-13

Prep Method: N/A
Analyzed By: BP
Prepared By: MA

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<22.7	<53.8	<22.7	mg/Kg	1	22.7	53.8	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		108	mg/Kg	1	150	72	45 - 152

Sample: 1567 - VMP-1 79-80

Analysis: TPH GRO
QC Batch: 231
Prep Batch: 212

Analytical Method: S 8015B
Date Analyzed: 2002-12-31
Date Prepared: 2002-12-31

Prep Method: S 5035
Analyzed By: CG
Prepared By: WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	<0.254	<1.08	<0.254	mg/Kg	1	0.254	1.08	0.236328

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.0814	mg/Kg	1	0.100	81	73 - 120
4-Bromofluorobenzene (4-BFB)		0.0893	mg/Kg	1	0.100	89	78 - 120

Method Blank (1) QC Batch: 219

Parameter	Flag	Result	Units	Reporting Limits
DRO		<21.1	mg/Kg	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		118	mg/Kg	1	150	79	45 - 152

Method Blank (1) QC Batch: 220

Parameter	Flag	Result	Units	Reporting Limits
DRO		<21.1	mg/Kg	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		119	mg/Kg	1	150	79	45 - 152

Method Blank (1) QC Batch: 225

Parameter	Flag	Result	Units	Reporting Limits
MTBE		<0.00358	mg/Kg	0.003583
Benzene		<0.00273	mg/Kg	0.002726
Toluene		<0.00429	mg/Kg	0.00429
Ethylbenzene		<0.00641	mg/Kg	0.006412
Xylene (isomers)		<0.0167	mg/Kg	0.016726

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.94	mg/Kg	1	1.00	94	72 - 115
4-Bromofluorobenzene (4-BFB)		0.972	mg/Kg	1	1.00	97	72 - 113

Method Blank (1) QC Batch: 228

Parameter	Flag	Result	Units	Reporting Limits
MTBE		<0.00698	mg/Kg	0.006981
Benzene		<0.00237	mg/Kg	0.002366
Toluene		<0.00384	mg/Kg	0.003841
Ethylbenzene		<0.00454	mg/Kg	0.004535
Xylene (isomers)		<0.0128	mg/Kg	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		1.02	mg/Kg	1	1.00	102	52 - 148
4-Bromofluorobenzene (4-BFB)		0.952	mg/Kg	1	1.00	95	41 - 148

Method Blank (1) QC Batch: 231

Parameter	Flag	Result	Units	Reporting Limits
GRO		<0.236	mg/Kg	0.236328

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.089	mg/Kg	1	0.100	89	73 - 120
4-Bromofluorobenzene (4-BFB)		0.089	mg/Kg	1	0.100	89	78 - 120

Method Blank (1) QC Batch: 268

Parameter	Flag	Result	Units	Reporting Limits
Naphthalene		<0.0450	mg/Kg	0.0022
Acenaphthylene		<0.0380	mg/Kg	0.00248
Acenaphthene		<0.0380	mg/Kg	0.00263
Fluorene		<0.0400	mg/Kg	0.00232
Phenanthrene		<0.0200	mg/Kg	0.00228
Anthracene		<0.0240	mg/Kg	0.00224
Fluoranthene		<0.0350	mg/Kg	0.0043
Pyrene		<0.114	mg/Kg	0.00321
Benzo(a)anthracene		<0.0270	mg/Kg	0.00211
Chrysene		<0.0260	mg/Kg	0.00211
Benzo(b)fluoranthene		<0.0230	mg/Kg	0.00552
Benzo(k)fluoranthene		<0.0280	mg/Kg	0.00583
Benzo(a)pyrene		<0.0280	mg/Kg	0.00332
Indeno(1,2,3-cd)pyrene		<0.0480	mg/Kg	0.00732
Dibenzo(a,h)anthracene		<0.0500	mg/Kg	0.00482
Benzo(g,h,i)perylene		<0.0830	mg/Kg	0.00537

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		53.6	mg/Kg	1	80.0	67	30 - 115
Nitrobenzene-d5		53.9	mg/Kg	1	80.0	67	23 - 120
Terphenyl-d14		61.3	mg/Kg	1	80.0	77	28 - 137

Duplicate (1) QC Batch: 266

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Moisture	9.54	9.41	%	1	1	11.6

Duplicate (1) QC Batch: 267

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Moisture	7.20	7.10	%	1	1	11.6

Laboratory Control Spike (LCS-1) QC Batch: 219

Param	LCS Result	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	227	227	mg/Kg	1	250	<21.1	91	0	46 - 148	20

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

Report Date: January 22, 2003
106.001

Work Order: 2123107
Jal Basin Station

Page Number: 20 of 24
2 miles south of Jal, NM on Hwy 18

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	106	107	mg/Kg	1	150	71	71	45 - 152

Laboratory Control Spike (LCS-1) QC Batch: 220

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	244	242	mg/Kg	1	250	<21.1	98	0	46 - 148	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	109	111	mg/Kg	1	150	73	74	45 - 152

Laboratory Control Spike (LCS-1) QC Batch: 225

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
MTBE	1.05	1.08	mg/Kg	1	1.00	<0.00358	105	1	71 - 130	20
Benzene	0.948	0.992	mg/Kg	1	1.00	<0.00273	95	2	82 - 119	20
Toluene	0.989	1.04	mg/Kg	1	1.00	<0.00429	99	2	78 - 121	20
Ethylbenzene	0.981	1.03	mg/Kg	1	1.00	<0.00641	98	2	76 - 123	20
Xylene (isomers)	2.95	3.11	mg/Kg	1	3.00	<0.0167	98	3	76 - 120	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorothymidine (TFT)	0.886	0.941	mg/Kg	1	1.00	89	94	72 - 115
4-Bromofluorobenzene (4-BFB)	0.989	1.03	mg/Kg	1	1.00	99	103	72 - 113

Laboratory Control Spike (LCS-1) QC Batch: 228

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
MTBE	1.07	1.05	mg/Kg	1	1.00	<0.00698	107	1	79 - 113	20
Benzene	1.06	1.06	mg/Kg	1	1.00	<0.00237	106	0	88 - 107	20
Toluene	1.06	1.06	mg/Kg	1	1.00	<0.00384	106	0	86 - 110	20
Ethylbenzene	1.07	1.07	mg/Kg	1	1.00	<0.00454	107	0	85 - 110	20
Xylene (isomers)	3.21	3.24	mg/Kg	1	3.00	<0.0128	107	0	86 - 112	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorothymidine (TFT)	1.01	1.03	mg/Kg	1	1.00	101	103	41 - 148
4-Bromofluorobenzene (4-BFB)	1.04	1.04	mg/Kg	1	1.00	104	104	52 - 148

Laboratory Control Spike (LCS-1) QC Batch: 231

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	0.928	0.958	mg/Kg	1	1.00	<0.236	93	2	82 - 115	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorothymidine (TFT)	0.0894	0.101	mg/Kg	1	0.100	89	101	73 - 120
4-Bromofluorobenzene (4-BFB)	0.0958	0.102	mg/Kg	1	0.100	96	102	78 - 120

Laboratory Control Spike (LCS-1) QC Batch: 268

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Naphthalene	62.6	61.6	mg/Kg	1	80.0	<0.00220	78	1	20.1 - 110	20
Acenaphthylene	71.3	69.9	mg/Kg	1	80.0	<0.00248	89	1	24.6 - 117	20
Acenaphthene	67.2	64.2	mg/Kg	1	80.0	<0.00263	84	2	24.3 - 117	20
Fluorene	68.0	66.5	mg/Kg	1	80.0	<0.00232	85	1	22.4 - 124	20
Phenanthrene	64.6	61.3	mg/Kg	1	80.0	<0.00228	81	3	37.5 - 97	20
Anthracene	65.9	63.1	mg/Kg	1	80.0	<0.00224	82	2	28.3 - 109	20
Fluoranthene	65.4	63.6	mg/Kg	1	80.0	<0.00430	82	1	15.1 - 135	20
Pyrene	67.6	67.3	mg/Kg	1	80.0	<0.00321	84	0	32.1 - 113	20
Benzo(a)anthracene	67.8	66.4	mg/Kg	1	80.0	<0.00211	85	1	40.7 - 108	20
Chrysene	59.1	57.6	mg/Kg	1	80.0	<0.00211	74	1	29.2 - 94.6	20
Benzo(b)fluoranthene	56.0	58.4	mg/Kg	1	80.0	<0.00552	70	2	17 - 130	20
Benzo(k)fluoranthene	71.5	71.1	mg/Kg	1	80.0	<0.00583	89	0	0 - 149	20
Benzo(a)pyrene	67.7	65.1	mg/Kg	1	80.0	<0.00332	85	2	37 - 114	20
Indeno(1,2,3-cd)pyrene	74.0	73.4	mg/Kg	1	80.0	<0.00732	92	0	29.4 - 125	20
Dibenzo(a,h)anthracene	56.0	55.5	mg/Kg	1	80.0	<0.00482	70	0	24.4 - 100	20
Benzo(g,h,i)perylene	75.8	77.8	mg/Kg	1	80.0	<0.00537	95	1	23.9 - 130	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2-Fluorobiphenyl	71.6	70.5	mg/Kg	1	80.0	90	88	30 - 115
Nitrobenzene-d5	69.5	66.8	mg/Kg	1	80.0	87	84	23 - 120
Terphenyl-d14	66.3	65.7	mg/Kg	1	80.0	83	82	28 - 137

Matrix Spike (MS-1) QC Batch: 219

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	218	216	mg/Kg	1	250	<21.1	87	0	4.4 - 195	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	103	101	mg/Kg	1	150	69	67	45 - 152

Matrix Spike (MS-1) QC Batch: 220

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	237	223	mg/Kg	1	250	<21.1	95	3	4.4 - 195	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	101	100	mg/Kg	1	150	67	67	45 - 152

Standard (ICV-1) QC Batch: 219

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	232	93	75 - 125	2002-12-23

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
n-Triacontane		109	mg/Kg	1	150	73	45 - 152

Standard (CCV-1) QC Batch: 219

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	235	94	75 - 125	2002-12-23

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
n-Triacontane		104	mg/Kg	1	150	69	45 - 152

Standard (CCV-2) QC Batch: 219

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	250	100	75 - 125	2002-12-23

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
n-Triacontane		109	mg/Kg	1	150	73	45 - 152

Standard (ICV-1) QC Batch: 220

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	241	96	75 - 125	2002-12-23

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
n-Triacontane		105	mg/Kg	1	150	70	45 - 152

Standard (CCV-1) QC Batch: 220

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	248	99	75 - 125	2002-12-23

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
n-Triacontane		107	mg/Kg	1	150	71	45 - 152

Standard (CCV-1) QC Batch: 225

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.112	112	85 - 115	2002-12-20
Benzene		mg/Kg	0.100	0.0990	99	85 - 115	2002-12-20
Toluene		mg/Kg	0.100	0.104	104	85 - 115	2002-12-20
Ethylbenzene		mg/Kg	0.100	0.102	102	85 - 115	2002-12-20
Xylene (isomers)		mg/Kg	0.300	0.303	101	85 - 115	2002-12-20

Standard (CCV-2) QC Batch: 225

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.110	110	85 - 115	2002-12-20
Benzene		mg/Kg	0.100	0.101	101	85 - 115	2002-12-20
Toluene		mg/Kg	0.100	0.104	104	85 - 115	2002-12-20
Ethylbenzene		mg/Kg	0.100	0.101	101	85 - 115	2002-12-20
Xylene (isomers)		mg/Kg	0.300	0.301	100	85 - 115	2002-12-20

Standard (ICV-1) QC Batch: 228

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.107	107	85 - 115	2002-12-19
Benzene		mg/Kg	0.100	0.107	107	85 - 115	2002-12-19
Toluene		mg/Kg	0.100	0.107	107	85 - 115	2002-12-19
Ethylbenzene		mg/Kg	0.100	0.109	109	85 - 115	2002-12-19
Xylene (isomers)		mg/Kg	0.300	0.329	110	85 - 115	2002-12-19

Standard (CCV-1) QC Batch: 228

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.0980	98	85 - 115	2002-12-19
Benzene		mg/Kg	0.100	0.100	100	85 - 115	2002-12-19
Toluene		mg/Kg	0.100	0.102	102	85 - 115	2002-12-19
Ethylbenzene		mg/Kg	0.100	0.103	103	85 - 115	2002-12-19
Xylene (isomers)		mg/Kg	0.300	0.307	102	85 - 115	2002-12-19

Standard (CCV-2) QC Batch: 228

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.102	102	85 - 115	2002-12-19
Benzene		mg/Kg	0.100	0.101	101	85 - 115	2002-12-19
Toluene		mg/Kg	0.100	0.102	102	85 - 115	2002-12-19
Ethylbenzene		mg/Kg	0.100	0.103	103	85 - 115	2002-12-19
Xylene (isomers)		mg/Kg	0.300	0.311	104	85 - 115	2002-12-19

Standard (ICV-1) QC Batch: 231

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.889	89	85 - 115	2002-12-31

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Trifluorothymidine (TFT)		0.088	mg/Kg	1	0.100	88	73 - 120
4-Bromofluorobenzene (4-BFB)		0.1	mg/Kg	1	0.100	100	78 - 120

Standard (CCV-1) QC Batch: 231

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.15	115	85 - 115	2002-12-31

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Trifluorothymidine (TFT)		0.065	mg/Kg	1	0.100	65	73 - 120
4-Bromofluorobenzene (4-BFB)		0.097	mg/Kg	1	0.100	97	78 - 120

Standard (CCV-1) QC Batch: 268

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/Kg	60.0	49.4	82	80 - 120	2003-01-07
Acenaphthylene		mg/Kg	60.0	52.8	88	80 - 120	2003-01-07
Acenaphthene		mg/Kg	60.0	53.6	89	80 - 120	2003-01-07
Fluorene		mg/Kg	60.0	53.0	88	80 - 120	2003-01-07
Phenanthrene		mg/Kg	60.0	60.1	100	80 - 120	2003-01-07
Anthracene		mg/Kg	60.0	50.0	83	80 - 120	2003-01-07
Fluoranthene		mg/Kg	60.0	56.2	94	80 - 120	2003-01-07
Pyrene		mg/Kg	60.0	56.6	94	80 - 120	2003-01-07
Benzo(a)anthracene		mg/Kg	60.0	58.4	97	80 - 120	2003-01-07
Chrysene		mg/Kg	60.0	49.1	82	80 - 120	2003-01-07
Benzo(b)fluoranthene		mg/Kg	60.0	63.6	106	80 - 120	2003-01-07
Benzo(k)fluoranthene		mg/Kg	60.0	58.6	98	80 - 120	2003-01-07
Benzo(a)pyrene		mg/Kg	60.0	65.8	110	80 - 120	2003-01-07
Indeno(1,2,3-cd)pyrene		mg/Kg	60.0	63.6	106	80 - 120	2003-01-07
Dibenzo(a,h)anthracene		mg/Kg	60.0	63.0	105	80 - 120	2003-01-07
Benzo(g,h,i)perylene		mg/Kg	60.0	59.2	99	80 - 120	2003-01-07

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorobiphenyl		68	mg/Kg	1	60.0	113	80 - 120
Nitrobenzene-d5		56.9	mg/Kg	1	60.0	95	80 - 120
Terphenyl-d14		54.5	mg/Kg	1	60.0	91	80 - 120

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424 800•378•1296
El Paso, Texas 79932 888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1296 FAX 806•794•1298
915•585•3443 FAX 915•585•4944

Analytical and Quality Control Report

Jena Henry
Equiva-Jena Henry
P.O. Box 2648
Houston, Tx. 77252

Report Date: January 21, 2003

Order ID Number: A02121815

Project: 106.001
TA Job Code: Jal Station
Casualty Code: 106.001
Project Location: Jal,NM
H2A Environmental LTD / Portland / Theresa Nix

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
216420	MW-22 86-88'	Soil	12/13/02	15:30	12/18/02
216426	MW-21 Geotech	Soil	12/12/02	15:20	12/18/02
216427	MW-22 Geotech	Soil	12/13/02	15:10	12/18/02
216428	VMP-1 Geotech	Soil	12/16/02	11:35	12/18/02

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 10 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Note: Samples will be disposed of 30 days from the report date unless the lab is contacted before the 30 days has past.


Dr. Blair Leftwich, Director

Report Date: January 21, 2003
106.001

Order Number: A02121815
Jal Station

Page Number: 2 of 10
Jal,NM

Analytical Report

Sample: 216420 - MW-22 86-88'

Analysis: SPLP DRO Analytical Method: Mod. 8015B QC Batch: QC25884 Date Analyzed: 12/29/02
Analyst: BP Preparation Method: 1312 Prep Batch: PB23972 Date Prepared: 12/26/02

Param	Flag	Result	Units	Dilution	RDL
SPLP DRO		143	mg/L	1	50

Sample: 216420 - MW-22 86-88'

Analysis: SPLP GRO Analytical Method: Mod. 602 QC Batch: QC26038 Date Analyzed: 1/7/03
Analyst: CG Preparation Method: 1312 Prep Batch: PB24093 Date Prepared: 1/6/03

Param	Flag	Result	Units	Dilution	RDL
SPLP GRO		<0.5	mg/L	5	0.10

Sample: 216420 - MW-22 86-88'

Analysis: SPLP Semivolatiles Analytical Method: E 8270C QC Batch: QC26044 Date Analyzed: 1/2/03
Analyst: RC Preparation Method: 1312 Prep Batch: PB24049 Date Prepared: 12/27/02

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.05	ppb	1	0.25
1,4-Dichlorobenzene		<0.05	ppb	1	0.25
o-Cresol		<0.05	ppb	1	0.25
m,p-Cresol		<0.05	ppb	1	0.25
Hexachloroethane		<0.05	ppb	1	0.25
Nitrobenzene		<0.05	ppb	1	0.25
Hexachlorobutadiene		<0.05	ppb	1	0.25
2,4,6-Trichlorophenol		<0.05	ppb	1	0.25
2,4,5-Trichlorophenol		<0.05	ppb	1	0.25
2,4-Dinitrotoluene		<0.05	ppb	1	0.25
2,4-D		<0.05	ppb	1	0.25
Hexachlorobenzene		<0.05	ppb	1	0.25
2,4,5-TP		<0.05	ppb	1	0.25
Pentachlorophenol		<0.05	ppb	1	0.25

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol	1	7.88	mg/L	1	80	9	21 - 100
Nitrobenzene-d5		40.67	mg/L	1	80	50	35 - 114
2-Fluorobiphenyl		38.51	mg/L	1	80	48	43 - 116
2,4,6-Tribromophenol		15.04	mg/L	1	80	18	10 - 123
Terphenyl-d14		33.14	mg/L	1	80	41	33 - 141

¹Sample surrogate recovery out of limits due to sample matrix.

Report Date: January 21, 2003
106.001

Order Number: A02121815
Jal Station

Page Number: 3 of 10
Jal,NM

Sample: 216420 - MW-22 86-88'

Analysis: SPLP Volatiles Analytical Method: S 8260B QC Batch: QC25963 Date Analyzed: 12/27/02
Analyst: JG Preparation Method: 1312 Prep Batch: PB24038 Date Prepared: 12/27/02

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1
Acetone		<10.0	µg/L	1	10
Iodomethane (methyl iodide)		<5.00	µg/L	1	5
Carbon Disulfide		<1.00	µg/L	1	1
Acrylonitrile		<1.00	µg/L	1	1
2-Butanone (MEK)		<5.00	µg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5
2-hexanone		<5.00	µg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10
1,1-Dichloroethene		<1.00	µg/L	1	1
Methylene chloride		<5.00	µg/L	1	5
MTBE		<1.00	µg/L	1	1
trans-1,2-Dichloroethene		<1.00	µg/L	1	1
1,1-Dichloroethane		<1.00	µg/L	1	1
cis-1,2-Dichloroethene		<1.00	µg/L	1	1
2,2-Dichloropropane		<1.00	µg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1
Chloroform		<1.00	µg/L	1	1
1,1,1-Trichloroethane		<1.00	µg/L	1	1
1,1-Dichloropropene		<1.00	µg/L	1	1
Benzene		<1.00	µg/L	1	1
Carbon Tetrachloride		<1.00	µg/L	1	1
1,2-Dichloropropane		<1.00	µg/L	1	1
Trichloroethene (TCE)		<1.00	µg/L	1	1
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1
Bromodichloromethane		<1.00	µg/L	1	1
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5
cis-1,3-Dichloropropene		<1.00	µg/L	1	1
trans-1,3-Dichloropropene		<1.00	µg/L	1	1
Toluene		<1.00	µg/L	1	1
1,1,2-Trichloroethane		<1.00	µg/L	1	1
1,3-Dichloropropane		<1.00	µg/L	1	1
Dibromochloromethane		<1.00	µg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1
Tetrachloroethene (PCE)		<1.00	µg/L	1	1
Chlorobenzene		<1.00	µg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1
Ethylbenzene		<1.00	µg/L	1	1
m,p-Xylene		9.50	µg/L	1	1
Bromoform		<1.00	µg/L	1	1
Styrene		<1.00	µg/L	1	1
o-Xylene		6.71	µg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1
2-Chlorotoluene		<1.00	µg/L	1	1

Continued ...

Report Date: January 21, 2003
106.001

Order Number: A02121815
Jal Station

Page Number: 4 of 10
Jal,NM

... Continued Sample: 216420 Analysis: SPLP Volatiles

Param	Flag	Result	Units	Dilution	RDL
1,2,3-Trichloropropane		<1.00	µg/L	1	1
Isopropylbenzene		6.64	µg/L	1	1
Bromobenzene		<1.00	µg/L	1	1
n-Propylbenzene		8.83	µg/L	1	1
1,3,5-Trimethylbenzene		7.26	µg/L	1	1
tert-Butylbenzene		<1.00	µg/L	1	1
1,2,4-Trimethylbenzene		31.9	µg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1
sec-Butylbenzene		12.6	µg/L	1	1
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1	1
p-Isopropyltoluene		5.71	µg/L	1	1
4-Chlorotoluene		<1.00	µg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1
n-Butylbenzene		5.51	µg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5
Naphthalene		11.9	µg/L	1	5
Hexachlorobutadiene		<5.00	µg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		40.4	µg/L	1	50	80	70 - 130
Toluene-d8		51.5	µg/L	1	50	103	70 - 130
4-Bromofluorobenzene		52.8	µg/L	1	50	105	70 - 130

Sample: 216426 - MW-21 Geotech

Analysis: FOC Analytical Method: D2974-87 QC Batch: QC26377 Date Analyzed: 1/9/03
Analyst: JSW Preparation Method: N/A Prep Batch: PB24357 Date Prepared: 1/9/03

Param	Flag	Result	Units	Dilution	RDL
FOC		0.86	%	1	0.10

Sample: 216426 - MW-21 Geotech

Analysis: pH Analytical Method: E 150.1 QC Batch: QC25937 Date Analyzed: 12/27/02
Analyst: RS Preparation Method: N/A Prep Batch: PB24014 Date Prepared: 12/27/02

Param	Flag	Result	Units	Dilution	RDL
pH		8.8	s.u.	1	1

Sample: 216427 - MW-22 Geotech

Analysis: FOC Analytical Method: D2974-87 QC Batch: QC26377 Date Analyzed: 1/9/03
Analyst: JSW Preparation Method: N/A Prep Batch: PB24357 Date Prepared: 1/9/03

Param	Flag	Result	Units	Dilution	RDL
FOC		0.92	%	1	0.10

Report Date: January 21, 2003
106.001

Order Number: A02121815
Jal Station

Page Number: 5 of 10
Jal,NM

Sample: 216427 - MW-22 Geotech

Analysis: pH Analytical Method: E 150.1 QC Batch: QC25937 Date Analyzed: 12/27/02
Analyst: RS Preparation Method: N/A Prep Batch: PB24014 Date Prepared: 12/27/02

Param	Flag	Result	Units	Dilution	RDL
pH		8.3	s.u.	1	1

Sample: 216428 - VMP-1 Geotech

Analysis: FOC Analytical Method: D2974-87 QC Batch: QC26377 Date Analyzed: 1/9/03
Analyst: JSW Preparation Method: N/A Prep Batch: PB24357 Date Prepared: 1/9/03

Param	Flag	Result	Units	Dilution	RDL
FOC		0.47	%	1	0.10

Sample: 216428 - VMP-1 Geotech

Analysis: pH Analytical Method: E 150.1 QC Batch: QC25937 Date Analyzed: 12/27/02
Analyst: RS Preparation Method: N/A Prep Batch: PB24014 Date Prepared: 12/27/02

Param	Flag	Result	Units	Dilution	RDL
pH		8.8	s.u.	1	1

Quality Control Report Method Blank

Method Blank

QCBatch: QC25963

Param	Flag	Results	Units	Reporting Limit
Bromochloromethane		<1.00	µg/L	1
Dichlorodifluoromethane		<1.00	µg/L	1
Chloromethane (methyl chloride)		<1.00	µg/L	1
Vinyl Chloride		<1.00	µg/L	1
Bromomethane (methyl bromide)		<5.00	µg/L	5
Chloroethane		<1.00	µg/L	1
Trichlorofluoromethane		<1.00	µg/L	1
Acetone		<10.0	µg/L	10
Iodomethane (methyl iodide)		<5.00	µg/L	5
Carbon Disulfide		<1.00	µg/L	1
Acrylonitrile		<1.00	µg/L	1
2-Butanone (MEK)		<5.00	µg/L	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	5
2-hexanone		<5.00	µg/L	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10
1,1-Dichloroethene		<1.00	µg/L	1
Methylene chloride		<5.00	µg/L	5
MTBE		<1.00	µg/L	1
trans-1,2-Dichloroethene		<1.00	µg/L	1
1,1-Dichloroethane		<1.00	µg/L	1
cis-1,2-Dichloroethene		<1.00	µg/L	1
2,2-Dichloropropane		<1.00	µg/L	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1
Chloroform		<1.00	µg/L	1
1,1,1-Trichloroethane		<1.00	µg/L	1
1,1-Dichloropropene		<1.00	µg/L	1
Benzene		<1.00	µg/L	1
Carbon Tetrachloride		<1.00	µg/L	1
1,2-Dichloropropane		<1.00	µg/L	1
Trichloroethene (TCE)		<1.00	µg/L	1
Dibromomethane (methylene bromide)		<1.00	µg/L	1
Bromodichloromethane		<1.00	µg/L	1
2-Chloroethyl vinyl ether		<5.00	µg/L	5
cis-1,3-Dichloropropene		<1.00	µg/L	1
trans-1,3-Dichloropropene		<1.00	µg/L	1
Toluene		<1.00	µg/L	1
1,1,2-Trichloroethane		<1.00	µg/L	1
1,3-Dichloropropane		<1.00	µg/L	1
Dibromochloromethane		<1.00	µg/L	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1
Tetrachloroethene (PCE)		<1.00	µg/L	1
Chlorobenzene		<1.00	µg/L	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1
Ethylbenzene		<1.00	µg/L	1
m,p-Xylene		<1.00	µg/L	1
Bromoform		<1.00	µg/L	1

Continued ...

... Continued

Param	Flag	Results	Units	Reporting Limit
Styrene		<1.00	µg/L	1
o-Xylene		<1.00	µg/L	1
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1
2-Chlorotoluene		<1.00	µg/L	1
1,2,3-Trichloropropane		<1.00	µg/L	1
Isopropylbenzene		<1.00	µg/L	1
Bromobenzene		<1.00	µg/L	1
n-Propylbenzene		<1.00	µg/L	1
1,3,5-Trimethylbenzene		<1.00	µg/L	1
tert-Butylbenzene		<1.00	µg/L	1
1,2,4-Trimethylbenzene		<1.00	µg/L	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1
sec-Butylbenzene		<1.00	µg/L	1
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1
p-Isopropyltoluene		<1.00	µg/L	1
4-Chlorotoluene		<1.00	µg/L	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1
n-Butylbenzene		<1.00	µg/L	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5
1,2,3-Trichlorobenzene		<5.00	µg/L	5
1,2,4-Trichlorobenzene		<5.00	µg/L	5
Naphthalene		<5.00	µg/L	5
Hexachlorobutadiene		<5.00	µg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		54.8	µg/L	1	50	109	70 - 130
Toluene-d8		55.7	µg/L	1	50	111	70 - 130
4-Bromofluorobenzene		54.2	µg/L	1	50	108	70 - 130

Method Blank QCBatch: QC26038

Param	Flag	Results	Units	Reporting Limit
SPLP GRO		<0.1	mg/L	0.10

Method Blank QCBatch: QC26044

Param	Flag	Results	Units	Reporting Limit
Pyridine		<0.05	ppb	0.25
1,4-Dichlorobenzene		<0.05	ppb	0.25
o-Cresol		<0.05	ppb	0.25
m,p-Cresol		<0.05	ppb	0.25
Hexachloroethane		<0.05	ppb	0.25
Nitrobenzene		<0.05	ppb	0.25
Hexachlorobutadiene		<0.05	ppb	0.25

Continued ...

... Continued

Param	Flag	Results	Units	Reporting Limit
2,4,6-Trichlorophenol		<0.05	ppb	0.25
2,4,5-Trichlorophenol		<0.05	ppb	0.25
2,4-Dinitrotoluene		<0.05	ppb	0.25
2,4-D		<0.05	ppb	0.25
Hexachlorobenzene		<0.05	ppb	0.25
2,4,5-TP		<0.05	ppb	0.25
Pentachlorophenol		<0.05	ppb	0.25

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		23.35	mg/L	1	80	29	21 - 100
Nitrobenzene-d5		49.05	mg/L	1	80	61	35 - 114
2-Fluorobiphenyl		51.69	mg/L	1	80	64	43 - 116
2,4,6-Tribromophenol		53.21	mg/L	1	80	66	10 - 123
Terphenyl-d14		43.52	mg/L	1	80	54	33 - 141

Quality Control Report Duplicate Samples

Duplicate QCBatch: QC25937

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH		9.0	9.0	s.u.	1	0	1

Duplicate QCBatch: QC26377

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
FOC		0.57	0.47	%	1	19	72

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC25963

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
1,1-Dichloroethene	109	109	µg/L	1	100	<1.00	109	0	80 - 120	20
Benzene	105	106	µg/L	1	100	<1.00	105	0	80 - 120	20
Trichloroethene (TCE)	96	97	µg/L	1	100	<1.00	96	1	90 - 120	20
Toluene	104	106	µg/L	1	100	<1.00	104	1	80 - 120	20
Chlorobenzene	102	103	µg/L	1	100	<1.00	102	0	80 - 120	20

Report Date: January 21, 2003
106.001

Order Number: A02121815
Jal Station

Page Number: 9 of 10
Jal,NM

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
Dibromofluoromethane	55.4	54.5	µg/L	1	50	110	109	70 - 130
Toluene-d8	54.5	54.7	µg/L	1	50	109	109	70 - 130
4-Bromofluorobenzene	53.8	54.1	µg/L	1	50	107	108	70 - 130

Laboratory Control Spikes

QCBatch: QC26038

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
SPLP GRO	0.944	0.887	mg/L	1	1	<0.1	94	6	70 - 130	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: QC25937

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	-0.1 s.u. - +0.1 s.u.	12/27/02

ICV (1)

QCBatch: QC25937

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	-0.1 s.u. - +0.1 s.u.	12/27/02

CCV (1)

QCBatch: QC25963

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50	52	104	80 - 120	12/27/02
1,1-Dichloroethene		µg/L	50	49	98	80 - 120	12/27/02
Chloroform		µg/L	50	53	106	80 - 120	12/27/02
1,2-Dichloropropane		µg/L	50	52	104	80 - 120	12/27/02
Toluene		µg/L	50	52	104	80 - 120	12/27/02
Chlorobenzene		µg/L	50	51	102	80 - 120	12/27/02
Ethylbenzene		µg/L	50	53	106	80 - 120	12/27/02
Dibromofluoromethane		µg/L	50	54.9	109	80 - 120	12/27/02

Continued ...

Report Date: January 21, 2003
106.001

Order Number: A02121815
Jal Station

Page Number: 10 of 10
Jal,NM

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene-d8		µg/L	50	56.1	112	80 - 120	12/27/02
4-Bromofluorobenzene		µg/L	50	57.6	115	80 - 120	12/27/02

CCV (1) QCBatch: QC26038

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP GRO		mg/L	1	0.924	92	85 - 115	1/7/03

ICV (1) QCBatch: QC26038

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP GRO		mg/L	1	0.890	89	85 - 115	1/7/03

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424 800•378•1296
El Paso, Texas 79932 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

EQUIVA - JENA HENRY

Attention: Jena Henry

P. O. Box 2648

Houston, TX 77252

H2A Environmental/Portland/Theresa Nix

January 21, 2003

Receiving Date: 12/28/2002

Sample Type: Soil

Loc. Address: 2 Miles South of Jal, NM

TA Job No: NA on Hwy. 18

Consultant Job#: 106.001

Lab Receiving #: A02121815

Prep Date: 01/17/2003

Analysis Date: 01/17/2003

Sampling Date: 12/13/2002

Sample Condition: Intact & Cool

Sample Received by: VH

Equiva Casualty Loss No: NA

Cost Center #: NA

Equiva Location Code: NA

TA#: T216420 FIELD CODE: MW-22 86-88'

FINGERPRINT

Sample 216420 was extracted with pentane and analyzed by GC, FID, capillary column and direct injection. The graph shows the sample contains diesel range hydrocarbons only. Sample graph and diesel graph included.

CHEMIST: BP


Director, Dr. Blair Leftwich

1-21-03
DATE

Software Version : 6.1.2.0.1:D19
 Operator : Turbochrom
 Sample Number : 083
 AutoSampler : BUILT-IN
 Instrument Name : TPH1
 Instrument Serial # : None
 Delay Time : 0.00 min
 Sampling Rate : 12.5000 pts/s
 Volume Injected : 1.000000 ul
 Sample Amount : 1.0000
 Data Acquisition Time : 12/24/02 11:25:15 AM

Date : 1/17/03 2:33:03 PM
 Sample Name : 216420
 Study : QC25774
 Rack/Vial : 0/1
 Channel : A
 A/D mV Range : 1000
 End Time : 4.00 min
 Area Reject : 0.000000
 Dilution Factor : 5.00
 Cycle : 83

Raw Data File : D:\Data\TPH1\NST1A083.raw <Modified>

Result File : D:\Data\TPH1\NST1A083.rst

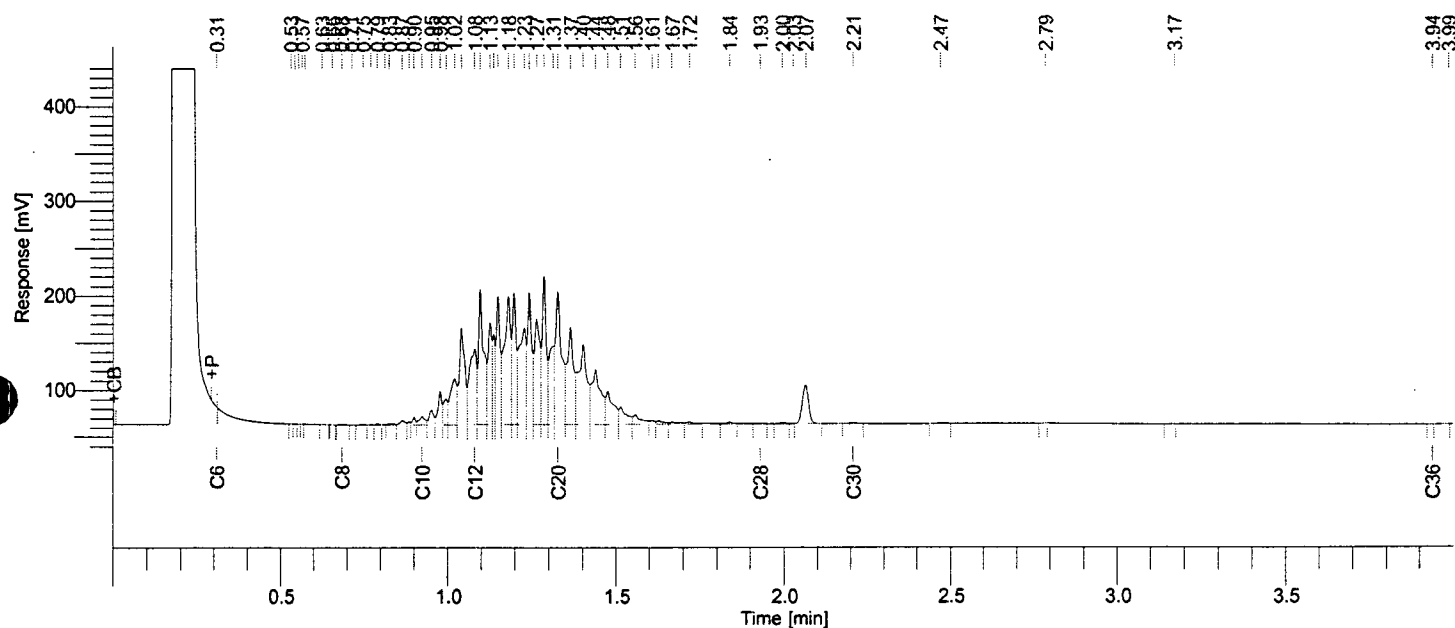
Inst Method : d:\methods\tph1dro from D:\Data\TPH1\NST1A083.rst

Proc Method : d:\methods\tph1dro.mth from D:\Data\TPH1\NST1A083.rst

Calib Method : d:\methods\tph1dro.mth from D:\Data\TPH1\NST1A083.rst

Sequence File : D:\Sequence\NST1A.seq

216420
 mw 22 86-88'



TX1005

Analytical Method: TX1005

Reporting Units: mg/Kg

Matrix: soil

Component Name	Adjusted Amount	Raw Amount	Area [μV s]
TPH AS DIESEL	4227.9	845.6	2401948.95
C30=	85.6	17.1	55257.25
			2457206.21

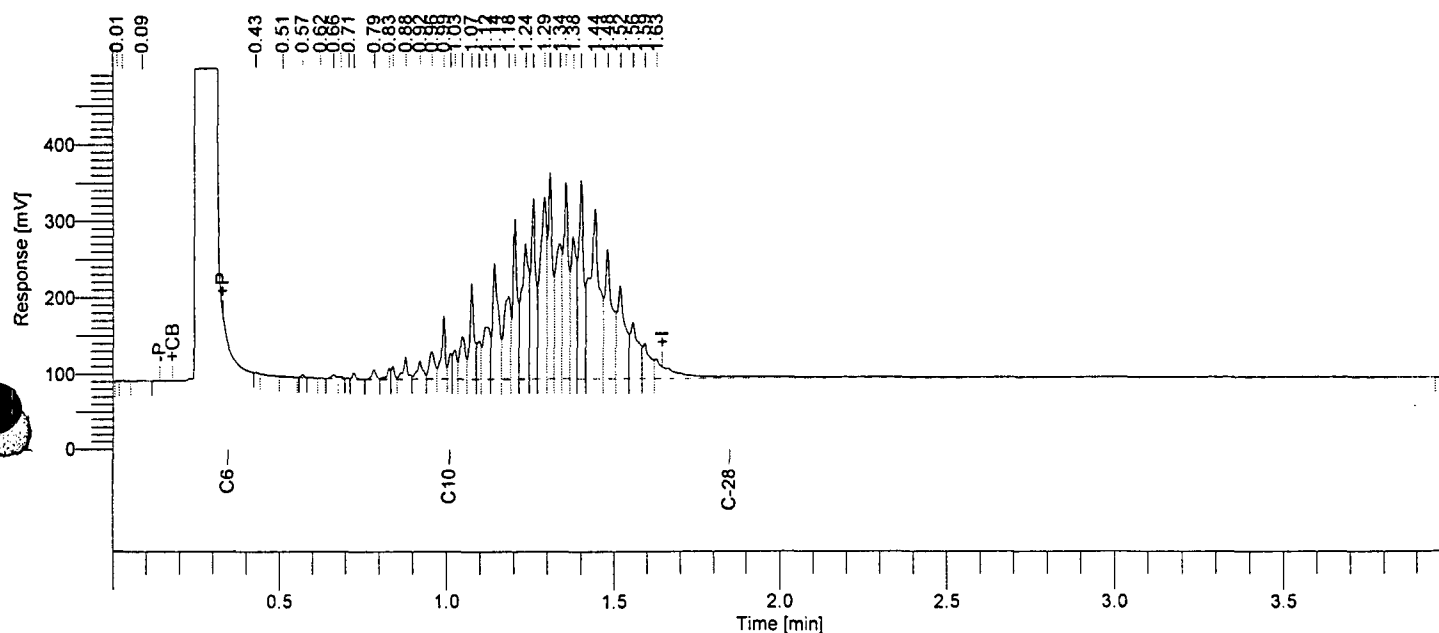
Report stored in ASCII file: D:\Data\TPH1\NST1A083.TX0

Software Version : 6.1.0.2:G07
 Operator : TurboChrom
 Sample Number : 005
 AutoSampler : BUILT-IN
 Instrument Name : GC6
 Instrument Serial # : None
 Delay Time : 0.00 min
 Sampling Rate : 25.0000 pts/s
 Volume Injected : 1.000000 ul
 Sample Amount : 1.0000
 Data Acquisition Time : 02/09/99 12:45:40 PM

Date : 02/09/99 01:32:35 PM
 Sample Name : Diesel*100
 Study : TPH
 Rack/Vial : 0/5
 Channel : A
 A/D mV Range : 1000
 End Time : 4.00 min
 Area Reject : 0.000000
 Dilution Factor : 100.00
 Cycle : 5

Raw Data File : T:\Data\GC6\BN6A005.raw
 Inst Method : D:\Method\TPHEZ from T:\Data\GC6\BN6A005.raw
 Proc Method : T:\Method\TPHEZ.mth
 Calib Method : T:\Method\TPHEZ.mth
 Sequence File : D:\Sequence\BN6A.seq

Diesel Standard



TX1005

Analytical Method: TX1005
 Reporting Units: mg/L
 Matrix: water

Component Name	Adjusted Amount	Raw Amount	Area [μV·s]
	0.1	0.0	743.15
	0.2	0.0	2463.95
	0.3	0.0	2637.81
TPH AS GASOLINE	48401.0	484.0	212577.14
TPH AS DIESEL	447838.2	4478.4	4269768.32
			4488190.37

Report stored in ASCII file: .TX0



Daniel B. Stephens & Associates, Inc.

Summary of Tests Performed

Laboratory Sample Number	Initial Soil Properties ¹ (θ , ρ_d , ϕ)	Saturated Hydraulic Conductivity ²			Moisture Characteristics ³					Unsaturated Hydraulic Conductivity	Particle Size ⁴			Effective Porosity	Particle Density	Air Permeability	1/3, 15 Bar Water Holding Capacity	Atterberg Limits	Proctor Compaction
		CH	FH		HC	PP	TH	WP	RH		DS	WS	H						
216426	X	X												X					
216427	X	X												X					
216428	X	X												X					

¹ θ = Initial moisture content, ρ_d = Dry bulk density, ϕ = Calculated porosity

² CH = Constant head, FH = falling head

³ HC = Hanging column, PP = Pressure plate, TH = Thermocouple psychrometer, WP = Water activity meter, RH = Relative humidity box

⁴ DS = Dry sieve, WS = Wet sieve, H = Hydrometer



Daniel B. Stephens & Associates, Inc.

**Summary of Initial Moisture Content, Dry Bulk Density
Wet Bulk Density and Calculated Porosity**

Sample Number	Initial Moisture Content		Dry Bulk Density (g/cm ³)	Wet Bulk Density (g/cm ³)	Calculated Porosity (%)
	Gravimetric (%, g/g)	Volumetric (%, cm ³ /cm ³)			
216426	10.9	17.1	1.57	1.75	40.6
216427	8.3	14.6	1.76	1.91	33.5
216428	7.5	11.7	1.57	1.69	40.6



Daniel B. Stephens & Associates, Inc.

Summary of Saturated Hydraulic Conductivity Tests

Sample Number	K_{sat} (cm/sec)	Intrinsic Permeability (cm ²)	Method of Analysis	
			Constant Head	Falling Head
216426	3.6E-04	3.71E-09	X	
216427	5.8E-06	5.91E-11	X	
216428	2.2E-05	2.24E-10	X	



Daniel B. Stephens & Associates, Inc.

Summary of Effective Porosity Tests

Sample Number	Effective Porosity (% cm^3/cm^3)
216426	29.8
216427	22.0
216428	32.3

Raw Laboratory Data and Graphical Plots



Daniel B. Stephens & Associates, Inc.

**Summary of Initial Moisture Content, Dry Bulk Density
Wet Bulk Density and Calculated Porosity**

Sample Number	Initial Moisture Content		Dry Bulk Density (g/cm ³)	Wet Bulk Density (g/cm ³)	Calculated Porosity (%)
	Gravimetric (%, g/g)	Volumetric (%, cm ³ /cm ³)			
216426	10.9	17.1	1.57	1.75	40.6
216427	8.3	14.6	1.76	1.91	33.5
216428	7.5	11.7	1.57	1.69	40.6



Daniel B. Stephens & Associates, Inc.

**Data for Initial Moisture Content,
Bulk Density, Porosity, and Percent Saturation**

Job Name: Trace Analysis
Job Number: WR03.0005.00
Sample Number: 216426
Ring Number: NA
Depth: NA

Test Date: 6-Jan-03

Field weight of sample (g):* 93.81
Tare weight, ring (g): 26.66
Tare weight, cap/plate/epoxy (g): 0.00

Dry weight of sample (g): 60.56
Sample volume (cm³): 38.47
Assumed particle density: 2.65

Initial Volumetric Moisture Content (% vol): 17.1
Initial Gravimetric Moisture Content (% g/g): 10.9
Dry bulk density (g/cm³): 1.57
Wet bulk density (g/cm³): 1.75
Calculated Porosity (% vol): 40.6
Percent Saturation: 42.2

Comments:

* Weight including tares

Laboratory analysis by: M. Devine
Data entered by: D. O'Dowd
Checked by: D. O'Dowd



Daniel B. Stephens & Associates, Inc.

**Data for Initial Moisture Content,
Bulk Density, Porosity, and Percent Saturation**

Job Name: Trace Analysis
Job Number: WR03.0005.00
Sample Number: 216427
Ring Number: NA
Depth: NA

Test Date: 6-Jan-03

Field weight of sample (g):* 84.79
Tare weight, ring (g): 23.00
Tare weight, cap/plate/epoxy (g): 0.00

Dry weight of sample (g): 57.07
Sample volume (cm³): 32.39
Assumed particle density: 2.65

Initial Volumetric Moisture Content (% vol): 14.6

Initial Gravimetric Moisture Content (% g/g): 8.3

Dry bulk density (g/cm³): 1.76

Wet bulk density (g/cm³): 1.91

Calculated Porosity (% vol): 33.5

Percent Saturation: 43.5

Comments:

* Weight including tares

Laboratory analysis by: M. Devine
Data entered by: D. O'Dowd
Checked by: D. O'Dowd



Daniel B. Stephens & Associates, Inc.

**Data for Initial Moisture Content,
Bulk Density, Porosity, and Percent Saturation**

Job Name: Trace Analysis

Job Number: WR03.0005.00

Sample Number: 216428

Ring Number: NA

Depth: NA

Test Date: 6-Jan-03

Field weight of sample (g): 83.62*

Tare weight, ring (g): 24.33

Tare weight, cap/plate/epoxy (g): 0.00

Dry weight of sample (g): 55.17

Sample volume (cm³): 35.07

Assumed particle density: 2.65

Initial Volumetric Moisture Content (% vol): 11.7

Initial Gravimetric Moisture Content (% g/g): 7.5

Dry bulk density (g/cm³): 1.57

Wet bulk density (g/cm³): 1.69

Calculated Porosity (% vol): 40.6

Percent Saturation: 28.9

Comments:

* Weight including tares

Laboratory analysis by: M. Devine

Data entered by: D. O'Dowd

Checked by: D. O'Dowd



Daniel B. Stephens & Associates, Inc.

Summary of Saturated Hydraulic Conductivity Tests

Sample Number	K_{sat} (cm/sec)	Intrinsic Permeability (cm ²)	Method of Analysis	
			Constant Head	Falling Head
216426	3.6E-04	3.71E-09	X	
216427	5.8E-06	5.91E-11	X	
216428	2.2E-05	2.24E-10	X	



Daniel B. Stephens & Associates, Inc.

**Saturated Hydraulic Conductivity
Constant Head Method**

Job name: Trace Analysis
Job number: WR03.0005.00
Sample number: 216426
Ring number: NA
Depth: NA

Type of water used: TAP
Collection vessel tare (g): 11.81
Sample length (cm): 3.67
Sample diameter (cm): 3.65
Sample x-sectional area (cm²): 10.48

Date	Time	Temp (°C)	Head (cm)	Q + Tare (g)	Q (cm ³)	Elapsed time (sec)	Ksat (cm/sec)	Ksat @ 20°C (cm/sec)
Test # 1:								
08-Jan-03	12:35:20	20.0	12.5	17.5	5.7	399	4.0E-04	4.0E-04
08-Jan-03	12:41:59							
Test # 2:								
08-Jan-03	14:29:51	20.0	12.5	41.3	29.5	2261	3.7E-04	3.6E-04
08-Jan-03	15:07:32							
Test # 3:								
13-Jan-03	13:25:27	20.0	12.5	17.2	5.4	464	3.3E-04	3.3E-04
13-Jan-03	13:33:11							

Average Ksat (cm/sec): 3.6E-04

Comments:

Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: D. O'Dowd



Daniel B. Stephens & Associates, Inc.

Saturated Hydraulic Conductivity Constant Head Method

Job name: Trace Analysis
Job number: WR03.0005.00
Sample number: 216427
Ring number: NA
Depth: NA

Type of water used: TAP
Collection vessel tare (g): 6.60
Sample length (cm): 3.09
Sample diameter (cm): 3.65
Sample x-sectional area (cm²): 10.47

Date	Time	Temp (°C)	Head (cm)	Q + Tare (g)	Q (cm ³)	Elapsed time (sec)	Ksat (cm/sec)	Ksat @ 20°C (cm/sec)
Test # 1:								
08-Jan-03	12:36:20	20.0	67.9	7.5	0.9	674	5.9E-06	5.9E-06
08-Jan-03	12:47:34							
Test # 2:								
08-Jan-03	14:30:14	20.0	67.9	9.5	2.9	2297	5.6E-06	5.6E-06
08-Jan-03	15:08:31							
Test # 3:								
09-Jan-03	07:48:06	20.5	67.9	7.7	1.1	776	6.0E-06	5.9E-06
09-Jan-03	08:01:02							

Average Ksat (cm/sec): 5.8E-06

Comments:

Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: D. O'Dowd



Daniel B. Stephens & Associates, Inc.

Saturated Hydraulic Conductivity Constant Head Method

Job name: Trace Analysis
Job number: WR03.0005.00
Sample number: 216428
Ring number: NA
Depth: NA

Type of water used: TAP
Collection vessel tare (g): 6.38
Sample length (cm): 3.37
Sample diameter (cm): 3.64
Sample x-sectional area (cm²): 10.41

Date	Time	Temp (°C)	Head (cm)	Q + Tare (g)	Q (cm ³)	Elapsed time (sec)	Ksat (cm/sec)	Ksat @ 20°C (cm/sec)
Test # 1:								
08-Jan-03	12:47:04	20.0	68.7	9.2	2.8	599	2.2E-05	2.2E-05
08-Jan-03	12:57:03							
Test # 2:								
08-Jan-03	14:29:33	20.0	68.7	16.6	10.3	2296	2.1E-05	2.1E-05
08-Jan-03	15:07:49							
Test # 3:								
09-Jan-03	07:47:06	20.5	68.7	10.3	4.0	813	2.3E-05	2.3E-05
09-Jan-03	08:00:39							

Average Ksat (cm/sec): 2.2E-05

Comments:

Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: D. O'Dowd



Daniel B. Stephens & Associates, Inc.

Summary of Effective Porosity Tests

Sample Number	Effective Porosity (% cm^3/cm^3)
216426	29.8
216427	22.0
216428	32.3



Daniel B. Stephens & Associates, Inc.

Effective Porosity Data

Job Name: Trace Analysis
Job Number: WR03.0005.00
Sample Number: 216426
Ring Number: NA
Depth: NA

Test Date: 14-Jan-03

Sample Dry Weight (g):* 139.33
Tare Weight (g): 113.57
Bulk Density (g/cm³): 1.57
Calculated Porosity (% cm³/cm³): 40.6

Pressure plate potential (-bars): 14.8
Sample weight at -14.8 bars (g):* 141.1

Moisture content (% g/g): 6.8
Moisture content (% cm³/cm³): 10.8
Matric potential (-cm): 15,093

Moisture content at -15 bars (% cm³/cm³): 10.8

Effective porosity (% cm³/cm³): 29.8

Comments:

* Weight including tares

Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: D. O'Dowd



Daniel B. Stephens & Associates, Inc.

Effective Porosity Data

Job Name: Trace Analysis
Job Number: WR03.0005.00
Sample Number: 216427
Ring Number: NA
Depth: NA
Test Date: 14-Jan-03

Sample Dry Weight* (g): 149.55
Tare Weight (g): 114.66

Bulk Density (g/cm³): 1.76
Calculated Porosity (% cm³/cm³): 33.5

Test 1

Thermocouple potential (-bars):	11.1
Sample weight* at -11.1 bars (g):	152.0
Moisture content (% g/g):	6.9
Moisture content (% cm ³ /cm ³):	12.2
Matric potential (-cm):	11,320

Test 2

Thermocouple potential (-bars):	22.8
Sample weight* at -22.8 bars (g):	151.5
Moisture content (% g/g):	5.7
Moisture content (% cm ³ /cm ³):	10.0
Matric potential (-cm):	23,251

Moisture content at -15 bars (% cm³/cm³): 11.5
Effective porosity (% cm³/cm³): 22.0

Comments:

* Weight including tares

Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: D. O'Dowd



Daniel B. Stephens & Associates, Inc.

Effective Porosity Data

Job Name: Trace Analysis
Job Number: WR03.0005.00
Sample Number: 216428
Ring Number: NA
Depth: NA

Test Date: 14-Jan-03

Sample Dry Weight* (g): 155.43
Tare Weight (g): 112.93

Bulk Density (g/cm³): 1.57
Calculated Porosity (% cm³/cm³): 40.6

Test 1

Thermocouple potential (-bars):	8.2
Sample weight* at -8.2 bars (g):	157.9
Moisture content (% g/g):	5.9
Moisture content (% cm ³ /cm ³):	9.2
Matric potential (-cm):	8,362

Test 2

Thermocouple potential (-bars):	15.8
Sample weight* at -15.8 bars (g):	157.7
Moisture content (% g/g):	5.2
Moisture content (% cm ³ /cm ³):	8.3
Matric potential (-cm):	16,113

Moisture content at -15 bars (% cm³/cm³): 8.4
Effective porosity (% cm³/cm³): 32.3

Comments:

* Weight including tares

Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: D. O'Dowd

Laboratory Tests and Methods



Daniel B. Stephens & Associates, Inc.

Methods for Geotechnical samples

Dry Bulk Density: ASTM D 4531-91

Moisture Content: ASTM D 2216-92

Calculated Porosity Klute, A. 1986. Porosity. Chp.18-2.1, pp. 444-445, in A. Klute (ed.), Methods of Soil Analysis, American Society of Agronomy, Madison, WI

Intrinsic permeability: Fetter, C. W. 1994, P.96, Applied Hydrogeology, 3rd ed, Printice Hall

Ksat:

Constant Head: ASTM D 2434-68 (93)

Falling Head: Klute, A. and C. Dirksen. 1986. Hydraulic Conductivity and Diffusivity: Laboratory Methods. Chp. 28, pp. 200-203, in A. Klute (ed.), Methods of Soil Analysis, American Society of Agronomy, Madison, WI

Effective Porosity: Corey, A. T. 1986 Chp. 2.3.3, pp. 40-42, in A. T. Corey, Mechanics of Immiscible Fluids in Porous Media, Book Crafters, Inc., Chelsea, Michigan, U.S.A.

TraceAnalysis, Inc.

**6701 Aberdeen Ave. Ste 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296**

Phone #: (361) 777-0860

Company Address: 418 Saw Saba, Portland, TX 78374 Fax #: (361) 777-0971

Equiva Contact: Jena Henry

Incident #	Location	Time	Officer	Vehicle	Remarks
1	1000	1000	1000	1000	1000
2	1000	1000	1000	1000	1000
3	1000	1000	1000	1000	1000
4	1000	1000	1000	1000	1000
5	1000	1000	1000	1000	1000
6	1000	1000	1000	1000	1000
7	1000	1000	1000	1000	1000
8	1000	1000	1000	1000	1000
9	1000	1000	1000	1000	1000
10	1000	1000	1000	1000	1000
11	1000	1000	1000	1000	1000
12	1000	1000	1000	1000	1000
13	1000	1000	1000	1000	1000
14	1000	1000	1000	1000	1000
15	1000	1000	1000	1000	1000
16	1000	1000	1000	1000	1000
17	1000	1000	1000	1000	1000
18	1000	1000	1000	1000	1000
19	1000	1000	1000	1000	1000
20	1000	1000	1000	1000	1000
21	1000	1000	1000	1000	1000
22	1000	1000	1000	1000	1000
23	1000	1000	1000	1000	1000
24	1000	1000	1000	1000	1000
25	1000	1000	1000	1000	1000
26	1000	1000	1000	1000	1000
27	1000	1000	1000	1000	1000
28	1000	1000	1000	1000	1000
29	1000	1000	1000	1000	1000
30	1000	1000	1000	1000	1000
31	1000	1000	1000	1000	1000
32	1000	1000	1000	1000	1000
33	1000	1000	1000	1000	1000
34	1000	1000	1000	1000	1000
35	1000	1000	1000	1000	1000
36	1000	1000	1000	1000	1000
37	1000	1000	1000	1000	1000
38	1000	1000	1000	1000	1000
39	1000	1000	1000	1000	1000
40	1000	1000	1000	1000	1000
41	1000	1000	1000	1000	1000
42	1000	1000	1000	1000	1000
43	1000	1000	1000	1000	1000
44	1000	1000	1000	1000	1000
45	1000	1000	1000	1000	1000
46	1000	1000	1000	1000	1000
47	1000	1000	1000	1000	1000
48	1000	1000	1000	1000	1000
49	1000	1000	1000	1000	1000
50	1000	1000	1000	1000	1000
51	1000	1000	1000	1000	1000
52	1000	1000	1000	1000	1000
53	1000	1000	1000	1000	1000
54	1000	1000	1000	1000	1000
55	1000	1000	1000	1000	1000
56	1000	1000	1000	1000	1000
57	1000	1000	1000	1000	1000
58	1000	1000	1000	1000	1000
59	1000	1000	1000	1000	1000
60	1000	1000	1000	1000	1000
61	1000	1000	1000	1000	1000
62	1000	1000	1000	1000	1000
63					

ss: 2 miles south of Jal, Nm

Sample Signature: [Signature]

Sample Signature: 

LAB # LAB USE ONLY	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX				PRESERVATIVE METHOD					SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCL	HNO ₃	NaHSO ₄	H ₂ SO ₄	ICE	NONE	DATE	TIME
216412	MW-21 10-10.5'	2	462	X		1	5	5	1					12/12	11:00
413	MW-21 40-40.5'	1				1	5	5	5					12/12	11:30
414	MW-21 75-75.5'					1	5	5	6					12/12	12:00
415	MW-21 86-88'					1	5	5	7					12/12	14:50
416	MW-21 88-90'					1	5	5	8					12/12	15:00
417	MW-22 10-10.5'					1	5	5	9					12/13	10:00
418	MW-22 50-50.5'					1	5	6	0					12/13	11:00
419	MW-22 84-86'					1	5	6	1					12/13	15:00
420	MW-22 86-88'					1	5	6	2					12/13	15:30
421	MW-22 88-90'					1	5	6	3					12/13	16:00
422	VM9-1 10-10.5'	1	1			1	5	4	4					12/16	10:30

Relinquished by: * Date: <u>08/30</u> Time:	Received by: Date: <u>08/30</u> Time:
---	---

<i>Blank</i> Disinquired by: _____ Date: _____ Time: _____	Received by: _____ Date: _____ Time: _____
--	---

Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
------------------	-------	-------	----------------------------	-------	-------

benefit of certain constitutes agreement to Terms and Conditions listed on reverse side of COC

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # **FD02121863**

ANALYSIS REQUEST * HIGHEST TPH *

[illegible]

THE

Iniac Y/N
 Headspace Y/N
 Temp 11
 3005
 100-in Review

Carrier #

REMARKS: Highest TPA from mw-21
mw-22

☐ Check if special reporting limits needed.

See also
remarks
next page

Page 2 of 2

**6701 Aberdeen Ave., Ste 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296**

Phone #: (361) 777-0860

Fax #: (361) 777-0971

Equiva Contact: Jena Henry

Incident # _____

ation Address: 2 miles South of Jal. N.M. Project Task:

Consultant Job#: Sampler Signature:

Inspector Job#: 1060.001
Inspector Signature: [Signature]

[illegible][illegible]

Relinquished by: <i>[Signature]</i>	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
-------------------------------------	-------------	-------------	--------------------	-------------	-------------

Surrendered by:	Date:	Time:	Received at Laboratory by:	Date:	Time:

by the use of samples constitutes agreement to Terms and Conditions listed on reverse side of COC

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424 800•378•1296
El Paso, Texas 79932 888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1296 FAX 806•794•1298
915•585•3443 FAX 915•585•4944

Analytical and Quality Control Report

Theresa Nix
H2A Environmental
418 San Saba
Portland, TX 78374

Report Date: January 20, 2003

Work Order: 2123109

Project Location: 2 Miles South of Jal, NM on Hwy 18
Project Name:
Project Number: Jal Basin Station

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
1585	VMP-2 10-10.5	soil	2002-12-17	10:00	2002-12-20
1586	VMP-2 50-50.5	soil	2002-12-17	10:30	2002-12-20
1587	VMP-2 70-70.5	soil	2002-12-17	11:00	2002-12-20
1588	VMP-2 79-80	soil	2002-12-17	11:20	2002-12-20
1589	VMP-3 10-10.5	soil	2002-12-18	09:50	2002-12-20
1590	VMP-3 50-50.5	soil	2002-12-18	10:15	2002-12-20
1591	VMP-3 70-70.5	soil	2002-12-18	10:30	2002-12-20
1592	VMP-3 79-80	soil	2002-12-18	11:00	2002-12-20

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 17 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Notes:

All sample results are reported on a dry weight basis.

For inorganic analyses, the term MQL should actually read PQL.

Standard Flags

U - Not detected. The analyte is not detected above the SQL.

J - Estimated. The analyte is positively identified and the value is approximated between the SQL and MQL.

B - The sample contains less than ten times the concentration found in the method blank.

JB - The analyte is positively identified and the value is approximated between the SQL and MQL.

The sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SQL.


Dr. Blair Leftwich, Director

Analytical Report

Note: All sample results are reported on a dry weight basis.

Sample: 1585 - VMP-2 10-10.5

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 224 Date Analyzed: 2002-12-23 Analyzed By: CG
Prep Batch: 205 Date Prepared: 2002-12-23 Prepared By: DN

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE	U	0.0172	0.0172	<0.00752	mg/Kg	1	0.00752	0.0108	0.006981
Benzene	U	<0.00255	<0.0108	<0.00255	mg/Kg	1	0.00255	0.0108	0.002366
Toluene	U	<0.00414	<0.0108	<0.00414	mg/Kg	1	0.00414	0.0108	0.003841
Ethylbenzene	U	<0.00489	<0.0108	<0.00489	mg/Kg	1	0.00489	0.0108	0.004535
Xylene (isomers)	U	<0.0138	<0.0323	<0.0138	mg/Kg	1	0.0138	0.0323	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.885	mg/Kg	1	1.00	88	52 - 148
4-Bromofluorobenzene (4-BFB)		0.887	mg/Kg	1	1.00	89	41 - 148

Sample: 1585 - VMP-2 10-10.5

Analysis: Moisture Content Analytical Method: SM D2974-87 Prep Method: N/A
QC Batch: 173 Date Analyzed: 2002-12-31 Analyzed By: RS
Prep Batch: 158 Date Prepared: 2002-12-31 Prepared By: RS

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		7.20	7.20	0.00	%	1	0.00	0.00	

Sample: 1585 - VMP-2 10-10.5

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 219 Date Analyzed: 2002-12-23 Analyzed By: BP
Prep Batch: 200 Date Prepared: 2002-12-23 Prepared By: MA

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	J	50.3	<53.9	<22.7	mg/Kg	1	22.7	53.9	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		125	mg/Kg	1	150	83	45 - 152

Sample: 1586 - VMP-2 50-50.5

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 223 Date Analyzed: 2002-12-23 Analyzed By: CG
Prep Batch: 204 Date Prepared: 2002-12-23 Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE	U	<0.0372	<0.0535	<0.00744	mg/Kg	5	0.00744	0.0107	0.006981
Benzene	U	<0.0126	<0.0535	<0.00252	mg/Kg	5	0.00252	0.0107	0.002366
Toluene	U	<0.0204	<0.0535	<0.00409	mg/Kg	5	0.00409	0.0107	0.003841
Ethylbenzene		0.258	0.258	<0.00483	mg/Kg	5	0.00483	0.0107	0.004535
Xylene (isomers)		0.329	0.329	<0.0136	mg/Kg	5	0.0136	0.0320	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.816	mg/Kg	1	1.00	82	52 - 148
4-Bromofluorobenzene (4-BFB)		1.4	mg/Kg	1	1.00	140	41 - 148

Sample: 1586 - VMP-2 50-50.5

Analysis: Moisture Content Analytical Method: SM D2974-87 Prep Method: N/A
QC Batch: 173 Date Analyzed: 2002-12-31 Analyzed By: RS
Prep Batch: 158 Date Prepared: 2002-12-31 Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		6.20	6.20	0.00	%	1	0.00	0.00	

Sample: 1586 - VMP-2 50-50.5

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 229 Date Analyzed: 2002-12-29 Analyzed By: BP
Prep Batch: 210 Date Prepared: 2002-12-29 Prepared By: WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO		4260	4260	<22.5	mg/Kg	10	22.5	53.3	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		77.2	mg/Kg	1	150	51	45 - 152

Sample: 1587 - VMP-2 70-70.5

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 223 Date Analyzed: 2002-12-23 Analyzed By: CG
Prep Batch: 204 Date Prepared: 2002-12-23 Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE	U	<0.0376	<0.0540	<0.00752	mg/Kg	5	0.00752	0.0108	0.006981
Benzene	U	<0.0128	<0.0540	<0.00255	mg/Kg	5	0.00255	0.0108	0.002366
Toluene	U	<0.0207	<0.0540	<0.00414	mg/Kg	5	0.00414	0.0108	0.003841
Ethylbenzene		1.44	1.44	<0.00489	mg/Kg	5	0.00489	0.0108	0.004535
Xylene (isomers)	U	<0.0690	<0.162	<0.0138	mg/Kg	5	0.0138	0.0323	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)	1	1.93	mg/Kg	1	1.00	193	52 - 148
4-Bromofluorobenzene (4-BFB)	2	2.95	mg/Kg	1	1.00	295	41 - 148

Sample: 1587 - VMP-2 70-70.5

Analysis: Moisture Content Analytical Method: SM D2974-87 Prep Method: N/A
QC Batch: 173 Date Analyzed: 2002-12-31 Analyzed By: RS
Prep Batch: 158 Date Prepared: 2002-12-31 Prepared By: RS

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		7.20	7.20	0.00	%	1	0.00	0.00	

Sample: 1587 - VMP-2 70-70.5

Analysis: PAH Analytical Method: S 8270C Prep Method: S 3510C
QC Batch: 248 Date Analyzed: 2003-01-02 Analyzed By: RC
Prep Batch: 224 Date Prepared: 2002-12-30 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Naphthalene	U	<0.0485	0.00	<0.0485	mg/Kg	1	0.0485	0.00	0.045
Acenaphthylene	U	<0.0409	0.00	<0.0409	mg/Kg	1	0.0409	0.00	0.038
Acenaphthene	U	<0.0409	0.00	<0.0409	mg/Kg	1	0.0409	0.00	0.038
Fluorene	U	<0.0431	0.00	<0.0431	mg/Kg	1	0.0431	0.00	0.04
Phenanthrene	U	<0.0216	0.00	<0.0216	mg/Kg	1	0.0216	0.00	0.02
Anthracene	U	<0.0259	0.00	<0.0259	mg/Kg	1	0.0259	0.00	0.024
Fluoranthene	U	<0.0377	0.00	<0.0377	mg/Kg	1	0.0377	0.00	0.035
Pyrene	U	<0.123	0.00	<0.123	mg/Kg	1	0.123	0.00	0.114
Benzo(a)anthracene	U	<0.0291	0.00	<0.0291	mg/Kg	1	0.0291	0.00	0.027
Chrysene	U	<0.0280	0.00	<0.0280	mg/Kg	1	0.0280	0.00	0.026
Benzo(b)fluoranthene	U	<0.0248	0.00	<0.0248	mg/Kg	1	0.0248	0.00	0.023
Benzo(k)fluoranthene	U	<0.0302	0.00	<0.0302	mg/Kg	1	0.0302	0.00	0.028
Benzo(a)pyrene	U	<0.0302	0.00	<0.0302	mg/Kg	1	0.0302	0.00	0.028
Indeno(1,2,3-cd)pyrene	U	<0.0517	0.00	<0.0517	mg/Kg	1	0.0517	0.00	0.048
Dibenzo(a,h)anthracene	U	<0.0539	0.00	<0.0539	mg/Kg	1	0.0539	0.00	0.05
Benzo(g,h,i)perylene	U	<0.0894	0.00	<0.0894	mg/Kg	1	0.0894	0.00	0.083

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		39.6	mg/Kg	1	80.0	50	27.9 - 109
Nitrobenzene-d5		32.2	mg/Kg	1	80.0	40	30.8 - 106
Terphenyl-d14		39	mg/Kg	1	80.0	49	40.3 - 113

Sample: 1587 - VMP-2 70-70.5

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 229 Date Analyzed: 2002-12-29 Analyzed By: BP
Prep Batch: 210 Date Prepared: 2002-12-29 Prepared By: WG

¹Elevated surrogate recovery due to coelution with unidentified peaks.
²Elevated surrogate recovery due to coelution with unidentified peaks.

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO		7360	7360	<22.7	mg/Kg	10	22.7	53.9	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		93.9	mg/Kg	1	150	63	45 - 152

Sample: 1588 - VMP-2 79-80

Analysis: BTEX (TRRP)
QC Batch: 223
Prep Batch: 204

Analytical Method: S 8021B
Date Analyzed: 2002-12-23
Date Prepared: 2002-12-23

Prep Method: S 5035
Analyzed By: CG
Prepared By: DN

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE	U	<0.0380	<0.0545	<0.00760	mg/Kg	5	0.00760	0.0109	0.006981
Benzene	U	<0.0128	<0.0545	<0.00257	mg/Kg	5	0.00257	0.0109	0.002366
Toluene	U	<0.0209	<0.0545	<0.00418	mg/Kg	5	0.00418	0.0109	0.003841
Ethylbenzene		2.50	2.50	<0.00493	mg/Kg	5	0.00493	0.0109	0.004535
Xylene (isomers)		2.32	2.32	<0.0139	mg/Kg	5	0.0139	0.0326	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)	3	2.36	mg/Kg	1	1.00	236	52 - 148
4-Bromofluorobenzene (4-BFB)	4	4.25	mg/Kg	1	1.00	425	41 - 148

Sample: 1588 - VMP-2 79-80

Analysis: Moisture Content
QC Batch: 173
Prep Batch: 158

Analytical Method: SM D2974-87
Date Analyzed: 2002-12-31
Date Prepared: 2002-12-31

Prep Method: N/A
Analyzed By: RS
Prepared By: RS

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		8.10	8.10	0.00	%	1	0.00	0.00	

Sample: 1588 - VMP-2 79-80

Analysis: TPH DRO
QC Batch: 229
Prep Batch: 210

Analytical Method: Mod. 8015B
Date Analyzed: 2002-12-29
Date Prepared: 2002-12-29

Prep Method: N/A
Analyzed By: BP
Prepared By: WG

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO		6470	6470	<23.0	mg/Kg	10	23.0	54.4	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		98.5	mg/Kg	1	150	66	45 - 152

³Elevated surrogate recovery due to coelution with unidentified peaks.

⁴Elevated surrogate recovery due to coelution with unidentified peaks.

Sample: 1589 - VMP-3 10-10.5

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 223 Date Analyzed: 2002-12-23 Analyzed By: CG
Prep Batch: 204 Date Prepared: 2002-12-23 Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE		0.0180	0.0180	<0.00738	mg/Kg	1	0.00738	0.0106	0.006981
Benzene	U	<0.00250	<0.0106	<0.00250	mg/Kg	1	0.00250	0.0106	0.002366
Toluene	U	<0.00406	<0.0106	<0.00406	mg/Kg	1	0.00406	0.0106	0.003841
Ethylbenzene		0.0444	0.0444	<0.00479	mg/Kg	1	0.00479	0.0106	0.004535
Xylene (isomers)	U	<0.0135	<0.0317	<0.0135	mg/Kg	1	0.0135	0.0317	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		1.15	mg/Kg	1	1.00	115	52 - 148
4-Bromofluorobenzene (4-BFB)		0.907	mg/Kg	1	1.00	91	41 - 148

Sample: 1589 - VMP-3 10-10.5

Analysis: Moisture Content Analytical Method: SM D2974-87 Prep Method: N/A
QC Batch: 173 Date Analyzed: 2002-12-31 Analyzed By: RS
Prep Batch: 158 Date Prepared: 2002-12-31 Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		5.40	5.40	0.00	%	1	0.00	0.00	

Sample: 1589 - VMP-3 10-10.5

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 253 Date Analyzed: 2002-12-23 Analyzed By: BP
Prep Batch: 228 Date Prepared: 2002-12-23 Prepared By: WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<22.3	<52.8	<22.3	mg/Kg	1	22.3	52.8	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		98.3	mg/Kg	1	150	66	45 - 152

Sample: 1590 - VMP-3 50-50.5

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 223 Date Analyzed: 2002-12-23 Analyzed By: CG
Prep Batch: 204 Date Prepared: 2002-12-23 Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE		0.0183	0.0183	<0.00751	mg/Kg	1	0.00751	0.0108	0.006981
Benzene	U	<0.00255	<0.0108	<0.00255	mg/Kg	1	0.00255	0.0108	0.002366

continued ...

sample 1590 continued ...

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Toluene	U	<0.00413	<0.0108	<0.00413	mg/Kg	1	0.00413	0.0108	0.003841
Ethylbenzene		0.151	0.151	<0.00488	mg/Kg	1	0.00488	0.0108	0.004535
Xylene (isomers)	U	<0.0138	<0.0323	<0.0138	mg/Kg	1	0.0138	0.0323	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.981	mg/Kg	1	1.00	98	52 - 148
4-Bromofluorobenzene (4-BFB)		0.947	mg/Kg	1	1.00	95	41 - 148

Sample: 1590 - VMP-3 50-50.5

Analysis: Moisture Content Analytical Method: SM D2974-87 Prep Method: N/A
QC Batch: 173 Date Analyzed: 2002-12-31 Analyzed By: RS
Prep Batch: 158 Date Prepared: 2002-12-31 Prepared By: RS

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		7.10	7.10	0.00	%	1	0.00	0.00	

Sample: 1590 - VMP-3 50-50.5

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 253 Date Analyzed: 2002-12-23 Analyzed By: BP
Prep Batch: 228 Date Prepared: 2002-12-23 Prepared By: WG

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<22.7	<53.8	<22.7	mg/Kg	1	22.7	53.8	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		106	mg/Kg	1	150	71	45 - 152

Sample: 1591 - VMP-3 70-70.5

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 223 Date Analyzed: 2002-12-23 Analyzed By: CG
Prep Batch: 204 Date Prepared: 2002-12-23 Prepared By: DN

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE		0.0182	0.0182	<0.00749	mg/Kg	1	0.00749	0.0107	0.006981
Benzene	U	<0.00254	<0.0107	<0.00254	mg/Kg	1	0.00254	0.0107	0.002366
Toluene	U	<0.00412	<0.0107	<0.00412	mg/Kg	1	0.00412	0.0107	0.003841
Ethylbenzene	U	<0.00486	<0.0107	<0.00486	mg/Kg	1	0.00486	0.0107	0.004535
Xylene (isomers)	U	<0.0137	<0.0322	<0.0137	mg/Kg	1	0.0137	0.0322	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.867	mg/Kg	1	1.00	87	52 - 148
4-Bromofluorobenzene (4-BFB)		0.892	mg/Kg	1	1.00	89	41 - 148

Sample: 1591 - VMP-3 70-70.5

Analysis: Moisture Content Analytical Method: SM D2974-87 Prep Method: N/A
QC Batch: 173 Date Analyzed: 2002-12-31 Analyzed By: RS
Prep Batch: 158 Date Prepared: 2002-12-31 Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		6.80	6.80	0.00	%	1	0.00	0.00	

Sample: 1591 - VMP-3 70-70.5

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 253 Date Analyzed: 2002-12-23 Analyzed By: BP
Prep Batch: 228 Date Prepared: 2002-12-23 Prepared By: WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<22.6	<53.6	<22.6	mg/Kg	1	22.6	53.6	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		115	mg/Kg	1	150	77	45 - 152

Sample: 1592 - VMP-3 79-80

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 223 Date Analyzed: 2002-12-23 Analyzed By: CG
Prep Batch: 204 Date Prepared: 2002-12-23 Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
MTBE	U	<0.00743	<0.0106	<0.00743	mg/Kg	1	0.00743	0.0106	0.006981
Benzene	U	<0.00252	<0.0106	<0.00252	mg/Kg	1	0.00252	0.0106	0.002366
Toluene	U	<0.00409	<0.0106	<0.00409	mg/Kg	1	0.00409	0.0106	0.003841
Ethylbenzene	U	<0.00482	<0.0106	<0.00482	mg/Kg	1	0.00482	0.0106	0.004535
Xylene (isomers)	U	<0.0136	<0.0319	<0.0136	mg/Kg	1	0.0136	0.0319	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.887	mg/Kg	1	1.00	89	52 - 148
4-Bromofluorobenzene (4-BFB)		0.902	mg/Kg	1	1.00	90	41 - 148

Sample: 1592 - VMP-3 79-80

Analysis: Moisture Content Analytical Method: SM D2974-87 Prep Method: N/A
QC Batch: 175 Date Analyzed: 2002-12-31 Analyzed By: RS
Prep Batch: 160 Date Prepared: 2002-12-31 Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Moisture		6.00	6.00	0.00	%	1	0.00	0.00	

Sample: 1592 - VMP-3 79-80

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 220 Date Analyzed: 2002-12-23 Analyzed By: BP
Prep Batch: 201 Date Prepared: 2003-01-13 Prepared By: MA

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<22.4	<53.2	<22.4	mg/Kg	1	22.4	53.2	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		111	mg/Kg	1	150	74	45 - 152

Method Blank (1) QC Batch: 219

Parameter	Flag	Result	Units	Reporting Limits
DRO		<21.1	mg/Kg	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		118	mg/Kg	1	150	79	45 - 152

Method Blank (1) QC Batch: 220

Parameter	Flag	Result	Units	Reporting Limits
DRO		<21.1	mg/Kg	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		119	mg/Kg	1	150	79	45 - 152

Method Blank (1) QC Batch: 223

Parameter	Flag	Result	Units	Reporting Limits
MTBE		<0.00698	mg/Kg	0.006981
Benzene		<0.00237	mg/Kg	0.002366
Toluene		<0.00384	mg/Kg	0.003841
Ethylbenzene		<0.00454	mg/Kg	0.004535
Xylene (isomers)		<0.0128	mg/Kg	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.941	mg/Kg	1	1.00	94	52 - 148
4-Bromofluorobenzene (4-BFB)		0.852	mg/Kg	1	1.00	85	41 - 148

Method Blank (1) QC Batch: 224

Parameter	Flag	Result	Units	Reporting Limits
MTBE		<0.00698	mg/Kg	0.006981
Benzene		<0.00237	mg/Kg	0.002366
Toluene		<0.00384	mg/Kg	0.003841
Ethylbenzene		<0.00454	mg/Kg	0.004535
Xylene (isomers)		<0.0128	mg/Kg	0.012793

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.95	mg/Kg	1	1.00	95	52 - 148
4-Bromofluorobenzene (4-BFB)		0.9	mg/Kg	1	1.00	90	41 - 148

Method Blank (1) QC Batch: 229

Parameter	Flag	Result	Units	Reporting Limits
DRO		<21.1	mg/Kg	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		99.2	mg/Kg	1	150	66	45 - 152

Method Blank (1) QC Batch: 248

Parameter	Flag	Result	Units	Reporting Limits
Naphthalene		<0.0450	mg/Kg	0.045
Acenaphthylene		<0.0380	mg/Kg	0.038
Acenaphthene		<0.0380	mg/Kg	0.038
Fluorene		<0.0400	mg/Kg	0.04
Phenanthrene		<0.0200	mg/Kg	0.02
Anthracene		<0.0240	mg/Kg	0.024
Fluoranthene		<0.0350	mg/Kg	0.035
Pyrene		<0.114	mg/Kg	0.114
Benzo(a)anthracene		<0.0270	mg/Kg	0.027
Chrysene		<0.0260	mg/Kg	0.026
Benzo(b)fluoranthene		<0.0230	mg/Kg	0.023
Benzo(k)fluoranthene		<0.0280	mg/Kg	0.028
Benzo(a)pyrene		<0.0280	mg/Kg	0.028
Indeno(1,2,3-cd)pyrene		<0.0480	mg/Kg	0.048
Dibenzo(a,h)anthracene		<0.0500	mg/Kg	0.05
Benzo(g,h,i)perylene		<0.0830	mg/Kg	0.083

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		27.4	mg/Kg	1	80.0	34	27.9 - 109
Nitrobenzene-d5		29.6	mg/Kg	1	80.0	37	30.8 - 106
Terphenyl-d14		52.2	mg/Kg	1	80.0	65	40.3 - 113

Method Blank (1) QC Batch: 253

Parameter	Flag	Result	Units	Reporting Limits
DRO		<21.1	mg/Kg	21.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		118	mg/Kg	1	150	79	45 - 152

Duplicate (1) QC Batch: 173

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Moisture	7.43	7.20	%	1	2	11.6

Duplicate (1) QC Batch: 175

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Moisture	3.20	3.20	%	1	0	11.6

Laboratory Control Spike (LCS-1) QC Batch: 219

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	227	227	mg/Kg	1	250	<21.1	91	0	46 - 148	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	106	107	mg/Kg	1	150	71	71	45 - 152

Laboratory Control Spike (LCS-1) QC Batch: 220

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	244	242	mg/Kg	1	250	<21.1	98	0	46 - 148	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	109	111	mg/Kg	1	150	73	74	45 - 152

Laboratory Control Spike (LCS-1) QC Batch: 223

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
MTBE	0.933	0.911	mg/Kg	1	1.00	<0.00698	93	1	79 - 113	20
Benzene	0.978	0.828	mg/Kg	1	1.00	<0.00237	98	8	88 - 107	20
Toluene	0.973	0.836	mg/Kg	1	1.00	<0.00384	97	8	86 - 110	20
Ethylbenzene	0.981	0.854	mg/Kg	1	1.00	<0.00454	98	7	85 - 110	20
Xylene (isomers)	2.96	2.60	mg/Kg	1	3.00	<0.0128	99	6	86 - 112	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorothymidine (TFT)	0.925	0.925	mg/Kg	1	1.00	92	92	41 - 148
4-Bromofluorobenzene (4-BFB)	0.936	0.936	mg/Kg	1	1.00	94	94	52 - 148

Laboratory Control Spike (LCS-1) QC Batch: 224

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
MTBE	1.02	1.00	mg/Kg	1	1.00	<0.00698	102	1	79 - 113	20
Benzene	0.988	1.01	mg/Kg	1	1.00	<0.00237	99	1	88 - 107	20
Toluene	0.986	1.01	mg/Kg	1	1.00	<0.00384	99	1	86 - 110	20
Ethylbenzene	0.996	1.01	mg/Kg	1	1.00	<0.00454	100	1	85 - 110	20
Xylene (isomers)	3.00	3.06	mg/Kg	1	3.00	<0.0128	100	1	86 - 112	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorothymidine (TFT)	0.957	0.918	mg/Kg	1	1.00	96	92	41 - 148
4-Bromofluorobenzene (4-BFB)	0.966	0.953	mg/Kg	1	1.00	97	95	52 - 148

Laboratory Control Spike (LCS-1) QC Batch: 229

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	255	262	mg/Kg	1	250	<21.1	102	1	46 - 148	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	100	102	mg/Kg	1	150	67	68	45 - 152

Laboratory Control Spike (LCS-1) QC Batch: 248

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Naphthalene	64.0	68.7	mg/Kg	1	80.0	<0.0450	80	4	20.1 - 110	20
Acenaphthylene	⁵ 74.1	70.6	mg/Kg	1	80.0	<0.0380	93	2	24.6 - 117	20
Acenaphthene	68.3	66.0	mg/Kg	1	80.0	<0.0380	85	2	24.3 - 117	20
Fluorene	⁶ 70.2	68.8	mg/Kg	1	80.0	<0.0400	88	1	22.4 - 124	20
Phenanthrene	⁷ 65.1	63.3	mg/Kg	1	80.0	<0.0200	81	1	37.5 - 97	20
Anthracene	⁸ 67.1	64.5	mg/Kg	1	80.0	<0.0240	84	2	28.3 - 109	20
Fluoranthene	66.0	64.8	mg/Kg	1	80.0	<0.0350	82	1	15.1 - 135	20
Pyrene	⁹ 70.4	68.0	mg/Kg	1	80.0	<0.114	88	2	32.1 - 113	20
Benzo(a)anthracene	¹⁰ 69.1	66.2	mg/Kg	1	80.0	<0.0270	86	2	40.7 - 108	20
Chrysene	60.4	59.2	mg/Kg	1	80.0	<0.0260	76	1	29.2 - 94.6	20
Benzo(b)fluoranthene	60.4	54.8	mg/Kg	1	80.0	<0.0230	76	5	17 - 130	20
Benzo(k)fluoranthene	73.6	76.8	mg/Kg	1	80.0	<0.0280	92	2	0 - 149	20
Benzo(a)pyrene	68.1	68.1	mg/Kg	1	80.0	<0.0280	85	0	37 - 114	20
Indeno(1,2,3-cd)pyrene	75.9	75.4	mg/Kg	1	80.0	<0.0480	95	0	29.4 - 125	20
Dibenzo(a,h)anthracene	57.2	57.1	mg/Kg	1	80.0	<0.0500	72	0	24.4 - 100	20
Benzo(g,h,i)perylene	¹¹ 79.3	78.3	mg/Kg	1	80.0	<0.0830	99	1	23.9 - 130	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2-Fluorobiphenyl	71.8	75.4	mg/Kg	1	80.0	90	94	27.9 - 109
Nitrobenzene-d5	71.1	70.6	mg/Kg	1	80.0	89	88	30.8 - 106

continued ...

⁵ Analyte above typical range for PAH. Sample reported as non-detect.
⁶ Analyte above typical range for PAH. Sample reported as non-detect.
⁷ Analyte above typical range for PAH. Sample reported as non-detect.
⁸ Analyte above typical range for PAH. Sample reported as non-detect.
⁹ Analyte above typical range for PAH. Sample reported as non-detect.
¹⁰ Analyte above typical range for PAH. Sample reported as non-detect.
¹¹ Analyte above typical range for PAH. Sample reported as non-detect.

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Terphenyl-d14	68.6	66.2	mg/Kg	1	80.0	86	83	40.3 - 113

Laboratory Control Spike (LCS-1) QC Batch: 253

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	227	227	mg/Kg	1	250	<21.1	90	0	46 - 148	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	106	107	mg/Kg	1	150	71	71	45 - 152

Matrix Spike (MS-1) QC Batch: 219

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	218	216	mg/Kg	1	250	<21.1	87	0	4.4 - 195	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	103	101	mg/Kg	1	150	69	67	45 - 152

Matrix Spike (MS-1) QC Batch: 220

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	237	223	mg/Kg	1	250	<21.1	95	3	4.4 - 195	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	101	100	mg/Kg	1	150	67	67	45 - 152

Matrix Spike (MS-1) QC Batch: 223

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
MTBE	0.816	0.812	mg/Kg	1	1.00	<0.00698	82	0	47 - 138	20
Benzene	0.872	0.898	mg/Kg	1	1.00	<0.00237	87	1	68 - 102	20
Toluene	0.884	0.906	mg/Kg	1	1.00	<0.00384	88	1	69 - 105	20
Ethylbenzene	0.902	0.925	mg/Kg	1	1.00	<0.00454	90	1	65 - 108	20
Xylene (isomers)	2.73	2.80	mg/Kg	1	3.00	<0.0128	91	1	63 - 114	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorothymidine (TFT)	0.861	0.901	mg/Kg	1	1	86	90	52 - 148
4-Bromofluorobenzene (4-BFB)	0.875	0.903	mg/Kg	1	1	88	90	41 - 148

Matrix Spike (MS-1) QC Batch: 224

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
MTBE	0.866	0.847	mg/Kg	1	1.00	<0.00698	87	1	47 - 138	20
Benzene	0.940	0.884	mg/Kg	1	1.00	<0.00237	94	3	68 - 102	20
Toluene	0.916	0.897	mg/Kg	1	1.00	<0.00384	92	1	69 - 105	20
Ethylbenzene	0.935	0.918	mg/Kg	1	1.00	<0.00454	94	1	65 - 108	20
Xylene (isomers)	2.82	2.78	mg/Kg	1	3.00	<0.0128	94	1	63 - 114	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorothymidine (TFT)	0.871	0.862	mg/Kg	1	1	87	86	52 - 148
4-Bromofluorobenzene (4-BFB)	0.876	0.877	mg/Kg	1	1	88	88	41 - 148

Matrix Spike (MS-1) QC Batch: 229

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO ¹²	7300	7540	mg/Kg	10	250	<211	292	2	4.4 - 195	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	96.7	103	mg/Kg	1	150	64	69	45 - 152

Standard (CCV-1) QC Batch: 219

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	235	94	75 - 125	2002-12-23

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
n-Triacontane		104	mg/Kg	1	150	69	45 - 152

Standard (CCV-2) QC Batch: 219

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	250	100	75 - 125	2002-12-23

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
n-Triacontane		109	mg/Kg	1	150	73	45 - 152

Standard (ICV-1) QC Batch: 220

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	241	96	75 - 125	2002-12-23

¹²Excessive hydrocarbons in sample caused elevated recovery. The LCS/LCSD show the analysis is in control.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
n-Triacontane		105	mg/Kg	1	150	70	45 - 152

Standard (CCV-1) QC Batch: 220

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	248	99	75 - 125	2002-12-23

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
n-Triacontane		107	mg/Kg	1	150	71	45 - 152

Standard (ICV-1) QC Batch: 223

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.0960	96	85 - 115	2002-12-23
Benzene		mg/Kg	0.100	0.0970	97	85 - 115	2002-12-23
Toluene		mg/Kg	0.100	0.0970	97	85 - 115	2002-12-23
Ethylbenzene		mg/Kg	0.100	0.0990	99	85 - 115	2002-12-23
Xylene (isomers)		mg/Kg	0.300	0.298	99	85 - 115	2002-12-23

Standard (CCV-1) QC Batch: 223

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.0990	99	85 - 115	2002-12-23
Benzene		mg/Kg	0.100	0.0980	98	85 - 115	2002-12-23
Toluene		mg/Kg	0.100	0.0980	98	85 - 115	2002-12-23
Ethylbenzene		mg/Kg	0.100	0.0990	99	85 - 115	2002-12-23
Xylene (isomers)		mg/Kg	0.300	0.299	100	85 - 115	2002-12-23

Standard (CCV-1) QC Batch: 224

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.0970	97	85 - 115	2002-12-23
Benzene		mg/Kg	0.100	0.0960	96	85 - 115	2002-12-23
Toluene		mg/Kg	0.100	0.0970	97	85 - 115	2002-12-23
Ethylbenzene		mg/Kg	0.100	0.0990	99	85 - 115	2002-12-23
Xylene (isomers)		mg/Kg	0.300	0.298	99	85 - 115	2002-12-23

Standard (CCV-2) QC Batch: 224

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.0970	97	85 - 115	2002-12-23
Benzene		mg/Kg	0.100	0.0970	97	85 - 115	2002-12-23
Toluene		mg/Kg	0.100	0.0970	97	85 - 115	2002-12-23
Ethylbenzene		mg/Kg	0.100	0.0980	98	85 - 115	2002-12-23

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Xylene (isomers)		mg/Kg	0.300	0.297	99	85 - 115	2002-12-23

Standard (ICV-1) QC Batch: 229

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	264	106	75 - 125	2002-12-29

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
n-Triacontane		97.8	mg/Kg	1	150	65	45 - 152

Standard (CCV-1) QC Batch: 229

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	294	118	75 - 125	2002-12-29

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
n-Triacontane		118	mg/Kg	1	150	79	45 - 152

Standard (CCV-1) QC Batch: 248

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/Kg	60.0	49.4	82	80 - 120	2003-01-02
Acenaphthylene		mg/Kg	60.0	52.8	88	80 - 120	2003-01-02
Acenaphthene		mg/Kg	60.0	53.6	89	80 - 120	2003-01-02
Fluorene		mg/Kg	60.0	53.0	88	80 - 120	2003-01-02
Phenanthrene		mg/Kg	60.0	60.1	100	80 - 120	2003-01-02
Anthracene		mg/Kg	60.0	50.0	83	80 - 120	2003-01-02
Fluoranthene		mg/Kg	60.0	56.2	94	80 - 120	2003-01-02
Pyrene		mg/Kg	60.0	56.6	94	80 - 120	2003-01-02
Benzo(a)anthracene		mg/Kg	60.0	58.4	97	80 - 120	2003-01-02
Chrysene		mg/Kg	60.0	49.1	82	80 - 120	2003-01-02
Benzo(b)fluoranthene		mg/Kg	60.0	63.6	106	80 - 120	2003-01-02
Benzo(k)fluoranthene		mg/Kg	60.0	58.6	98	80 - 120	2003-01-02
Benzo(a)pyrene		mg/Kg	60.0	65.8	110	80 - 120	2003-01-02
Indeno(1,2,3-cd)pyrene		mg/Kg	60.0	63.6	106	80 - 120	2003-01-02
Dibenzo(a,h)anthracene		mg/Kg	60.0	63.0	105	80 - 120	2003-01-02
Benzo(g,h,i)perylene		mg/Kg	60.0	59.2	99	80 - 120	2003-01-02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorobiphenyl		68	mg/Kg	1	60.0	113	27.9 - 109
Nitrobenzene-d5		56.9	mg/Kg	1	60.0	95	30.8 - 106
Terphenyl-d14		54.5	mg/Kg	1	60.0	91	40.3 - 113

Standard (ICV-1) QC Batch: 253

Report Date: January 20, 2003
Jal Basin Station

Work Order: 2123109

Page Number: 17 of 17
2 Miles South of Jal,NM on Hwy 18

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	232	93	75 - 125	2002-12-23

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
n-Triacontane		109	mg/Kg	1	150	73	45 - 152

Standard (CCV-1) QC Batch: 253

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	284	114	75 - 125	2002-12-23

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
n-Triacontane		124	mg/Kg	1	150	83	45 - 152

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424
El Paso, Texas 79932

800•378•1296
888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1296
915•585•3443

FAX 806•794•1298
FAX 915•585•4944

Analytical and Quality Control Report

Theresa Nix
H2A Environmental LTD
418 San Saba
Portland, Tx. 78374

Report Date: January 21, 2003

Order ID Number: A02122021

Project Number: 106.001
Project Name: Jal Station
Project Location: Jal,NM

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

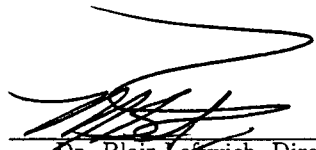
Sample	Description	Matrix	Date Taken	Time Taken	Date Received
216958	VMP-2 70-70.5'	Soil	12/17/02	11:00	12/20/02
216964	VMP-2 Geotech	Soil	12/17/02	11:25	12/20/02
216965	VMP-3 Geotech	Soil	12/18/02	11:05	12/20/02

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 8 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Note: Samples will be disposed of 30 days from the report date unless the lab is contacted before the 30 days has past.


Dr. Blair Leftwich, Director

Analytical Report

Sample: 216958 - VMP-2 70-70.5'

Analysis: SPLP DRO Analytical Method: Mod. 8015B QC Batch: QC26268 Date Analyzed: 1/16/03
Analyst: BP Preparation Method: 1312 Prep Batch: PB24269 Date Prepared: 1/10/03

Param	Flag	Result	Units	Dilution	RDL
SPLP DRO		54.8	mg/L	1	50

Sample: 216958 - VMP-2 70-70.5'

Analysis: SPLP Semivolatiles Analytical Method: E 8270C QC Batch: QC26094 Date Analyzed: 1/8/03
Analyst: RC Preparation Method: 1312 Prep Batch: PB24134 Date Prepared: 1/3/03

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.005	ppb	1	0.25
1,4-Dichlorobenzene		<0.005	ppb	1	0.25
o-Cresol		<0.005	ppb	1	0.25
m,p-Cresol		<0.005	ppb	1	0.25
Hexachloroethane		<0.005	ppb	1	0.25
Nitrobenzene		<0.005	ppb	1	0.25
Hexachlorobutadiene		<0.005	ppb	1	0.25
2,4,6-Trichlorophenol		<0.005	ppb	1	0.25
2,4,5-Trichlorophenol		<0.005	ppb	1	0.25
2,4-Dinitrotoluene		<0.005	ppb	1	0.25
2,4-D		<0.005	ppb	1	0.25
Hexachlorobenzene		<0.005	ppb	1	0.25
2,4,5-TP		<0.005	ppb	1	0.25
Pentachlorophenol		<0.005	ppb	1	0.25

Sample: 216958 - VMP-2 70-70.5'

Analysis: SPLP Volatiles Analytical Method: S 8260B QC Batch: QC26093 Date Analyzed: 1/2/03
Analyst: JG Preparation Method: 1312 Prep Batch: PB24137 Date Prepared: 12/30/02

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<5.00	µg/L	5	1
Dichlorodifluoromethane		<5.00	µg/L	5	1
Chloromethane (methyl chloride)		<5.00	µg/L	5	1
Vinyl Chloride		<5.00	µg/L	5	1
Bromomethane (methyl bromide)		<25.0	µg/L	5	5
Chloroethane		<5.00	µg/L	5	1
Trichlorofluoromethane		<5.00	µg/L	5	1
Acetone		<50.0	µg/L	5	10
Iodomethane (methyl iodide)		<25.0	µg/L	5	5
Carbon Disulfide		<5.00	µg/L	5	1
Acrylonitrile		<5.00	µg/L	5	1
2-Butanone (MEK)		<25.0	µg/L	5	5
4-methyl-2-pentanone (MIBK)		<25.0	µg/L	5	5
2-hexanone		<25.0	µg/L	5	5
trans 1,4-Dichloro-2-butene		<50.0	µg/L	5	10

Continued ...

... Continued Sample: 216958 Analysis: SPLP Volatiles

Param	Flag	Result	Units	Dilution	RDL
1,1-Dichloroethene		<5.00	µg/L	5	1
Methylene chloride		<25.0	µg/L	5	5
MTBE		<5.00	µg/L	5	1
trans-1,2-Dichloroethene		<5.00	µg/L	5	1
1,1-Dichloroethane		<5.00	µg/L	5	1
cis-1,2-Dichloroethene		<5.00	µg/L	5	1
2,2-Dichloropropane		<5.00	µg/L	5	1
1,2-Dichloroethane (EDC)		<5.00	µg/L	5	1
Chloroform		<5.00	µg/L	5	1
1,1,1-Trichloroethane		<5.00	µg/L	5	1
1,1-Dichloropropene		<5.00	µg/L	5	1
Benzene		<5.00	µg/L	5	1
Carbon Tetrachloride		<5.00	µg/L	5	1
1,2-Dichloropropane		<5.00	µg/L	5	1
Trichloroethene (TCE)		<5.00	µg/L	5	1
Dibromomethane (methylene bromide)		<5.00	µg/L	5	1
Bromodichloromethane		<5.00	µg/L	5	1
2-Chloroethyl vinyl ether		<25.0	µg/L	5	5
cis-1,3-Dichloropropene		<5.00	µg/L	5	1
trans-1,3-Dichloropropene		<5.00	µg/L	5	1
Toluene		<5.00	µg/L	5	1
1,1,2-Trichloroethane		<5.00	µg/L	5	1
1,3-Dichloropropane		<5.00	µg/L	5	1
Dibromochloromethane		<5.00	µg/L	5	1
1,2-Dibromoethane (EDB)		<5.00	µg/L	5	1
Tetrachloroethene (PCE)		<5.00	µg/L	5	1
Chlorobenzene		<5.00	µg/L	5	1
1,1,1,2-Tetrachloroethane		<5.00	µg/L	5	1
Ethylbenzene		8.21	µg/L	5	1
m,p-Xylene		<5.00	µg/L	5	1
Bromoform		<5.00	µg/L	5	1
Styrene		<5.00	µg/L	5	1
o-Xylene		<5.00	µg/L	5	1
1,1,2,2-Tetrachloroethane		<5.00	µg/L	5	1
2-Chlorotoluene		<5.00	µg/L	5	1
1,2,3-Trichloropropane		<5.00	µg/L	5	1
Isopropylbenzene		7.09	µg/L	5	1
Bromobenzene		<5.00	µg/L	5	1
n-Propylbenzene		10.8	µg/L	5	1
1,3,5-Trimethylbenzene		6.81	µg/L	5	1
tert-Butylbenzene		<5.00	µg/L	5	1
1,2,4-Trimethylbenzene		<5.00	µg/L	5	1
1,4-Dichlorobenzene (para)		<5.00	µg/L	5	1
sec-Butylbenzene		8.12	µg/L	5	1
1,3-Dichlorobenzene (meta)		<5.00	µg/L	5	1
p-Isopropyltoluene		<5.00	µg/L	5	1
4-Chlorotoluene		<5.00	µg/L	5	1
1,2-Dichlorobenzene (ortho)		<5.00	µg/L	5	1
n-Butylbenzene		<5.00	µg/L	5	1
1,2-Dibromo-3-chloropropane		<25.0	µg/L	5	5
1,2,3-Trichlorobenzene		<25.0	µg/L	5	5
1,2,4-Trichlorobenzene		<25.0	µg/L	5	5
Naphthalene		<25.0	µg/L	5	5

Continued ...

Report Date: January 21, 2003
106.001

Order Number: A02122021
Jal Station

Page Number: 4 of 8
Jal,NM

... Continued Sample: 216958 Analysis: SPLP Volatiles

Param	Flag	Result	Units	Dilution	RDL
Hexachlorobutadiene		<25.0	µg/L	5	5

Sample: 216964 - VMP-2 Geotech

Analysis:	pH	Analytical Method: E 150.1	QC Batch: QC25937	Date Analyzed:	12/27/02
Analyst:	RS	Preparation Method: N/A	Prep Batch: PB24014	Date Prepared:	12/27/02

Param	Flag	Result	Units	Dilution	RDL
pH		8.8	s.u.	1	1

Sample: 216965 - VMP-3 Geotech

Analysis:	pH	Analytical Method: E 150.1	QC Batch: QC25937	Date Analyzed:	12/27/02
Analyst:	RS	Preparation Method: N/A	Prep Batch: PB24014	Date Prepared:	12/27/02

Param	Flag	Result	Units	Dilution	RDL
pH		8.8	s.u.	1	1

Quality Control Report Method Blank

Method Blank

QCBatch: QC26093

Param	Flag	Results	Units	Reporting Limit
Bromochloromethane		<1.00	µg/L	1
Dichlorodifluoromethane		<1.00	µg/L	1
Chloromethane (methyl chloride)		<1.00	µg/L	1
Vinyl Chloride		<1.00	µg/L	1
Bromomethane (methyl bromide)		<5.00	µg/L	5
Chloroethane		<1.00	µg/L	1
Trichlorofluoromethane		<1.00	µg/L	1
Acetone		<10.0	µg/L	10
Iodomethane (methyl iodide)		<5.00	µg/L	5
Carbon Disulfide		<1.00	µg/L	1
Acrylonitrile		<1.00	µg/L	1
2-Butanone (MEK)		<5.00	µg/L	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	5
2-hexanone		<5.00	µg/L	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10
1,1-Dichloroethene		<1.00	µg/L	1
Methylene chloride		<5.00	µg/L	5
MTBE		<1.00	µg/L	1
trans-1,2-Dichloroethene		<1.00	µg/L	1
1,1-Dichloroethane		<1.00	µg/L	1
cis-1,2-Dichloroethene		<1.00	µg/L	1
2,2-Dichloropropane		<1.00	µg/L	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1
Chloroform		<1.00	µg/L	1
1,1,1-Trichloroethane		<1.00	µg/L	1
1,1-Dichloropropene		<1.00	µg/L	1
Benzene		<1.00	µg/L	1
Carbon Tetrachloride		<1.00	µg/L	1
1,2-Dichloropropane		<1.00	µg/L	1
Trichloroethene (TCE)		<1.00	µg/L	1
Dibromomethane (methylene bromide)		<1.00	µg/L	1
Bromodichloromethane		<1.00	µg/L	1
2-Chloroethyl vinyl ether		<5.00	µg/L	5
cis-1,3-Dichloropropene		<1.00	µg/L	1
trans-1,3-Dichloropropene		<1.00	µg/L	1
Toluene		<1.00	µg/L	1
1,1,2-Trichloroethane		<1.00	µg/L	1
1,3-Dichloropropane		<1.00	µg/L	1
Dibromochloromethane		<1.00	µg/L	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1
Tetrachloroethene (PCE)		<1.00	µg/L	1
Chlorobenzene		<1.00	µg/L	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1
Ethylbenzene		<1.00	µg/L	1
m,p-Xylene		<1.00	µg/L	1
Bromoform		<1.00	µg/L	1

Continued ...

... Continued

Param	Flag	Results	Units	Reporting Limit
Styrene		<1.00	µg/L	1
o-Xylene		<1.00	µg/L	1
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1
2-Chlorotoluene		<1.00	µg/L	1
1,2,3-Trichloropropane		<1.00	µg/L	1
Isopropylbenzene		<1.00	µg/L	1
Bromobenzene		<1.00	µg/L	1
n-Propylbenzene		<1.00	µg/L	1
1,3,5-Trimethylbenzene		<1.00	µg/L	1
tert-Butylbenzene		<1.00	µg/L	1
1,2,4-Trimethylbenzene		<1.00	µg/L	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1
sec-Butylbenzene		<1.00	µg/L	1
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1
p-Isopropyltoluene		<1.00	µg/L	1
4-Chlorotoluene		<1.00	µg/L	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1
n-Butylbenzene		<1.00	µg/L	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5
1,2,3-Trichlorobenzene		<5.00	µg/L	5
1,2,4-Trichlorobenzene		<5.00	µg/L	5
Naphthalene		<5.00	µg/L	5
Hexachlorobutadiene		<5.00	µg/L	5

Method Blank

QCBatch: QC26268

Param	Flag	Results	Units	Reporting Limit
SPLP DRO		<5.00	mg/L	50

Quality Control Report Duplicate Samples

Duplicate

QCBatch: QC25937

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH		9.0	9.0	s.u.	1	0	1

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC26093

Report Date: January 21, 2003
106.001

Order Number: A02122021
Jal Station

Page Number: 7 of 8
Jal,NM

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
1,1-Dichloroethene	106	106	µg/L	1	100	<1.00	106	0	80 - 120	20
Benzene	105	104	µg/L	1	100	<1.00	105	0	80 - 120	20
Trichloroethene (TCE)	93	93	µg/L	1	100	<1.00	93	0	90 - 120	20
Toluene	103	102	µg/L	1	100	<1.00	103	0	80 - 120	20
Chlorobenzene	101	101	µg/L	1	100	<1.00	101	0	80 - 120	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
Dibromofluoromethane	41.7	42.7	µg/L	1	50	83	85	70 - 130
Toluene-d8	51.9	53.2	µg/L	1	50	103	106	70 - 130
4-Bromofluorobenzene	43.3	42.2	µg/L	1	50	86	84	70 - 130

Laboratory Control Spikes

QCBatch: QC26268

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
SPLP DRO	22.7	22	mg/L	0.10	25	<5.00	90	3	70 - 130	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: QC25937

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	-0.1 s.u. - +0.1 s.u.	12/27/02

ICV (1)

QCBatch: QC25937

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	-0.1 s.u. - +0.1 s.u.	12/27/02

CCV (1)

QCBatch: QC26093

Report Date: January 21, 2003
106.001

Order Number: A02122021
Jal Station

Page Number: 8 of 8
Jal,NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50	53	106	80 - 120	1/2/03
1,1-Dichloroethene		µg/L	50	51	102	80 - 120	1/2/03
Chloroform		µg/L	50	49	98	80 - 120	1/2/03
1,2-Dichloropropane		µg/L	50	50	100	80 - 120	1/2/03
Toluene		µg/L	50	49	98	80 - 120	1/2/03
Chlorobenzene		µg/L	50	49	98	80 - 120	1/2/03
Ethylbenzene		µg/L	50	51	102	80 - 120	1/2/03
Dibromofluoromethane		µg/L	50	44.9	89	80 - 120	1/2/03
Toluene-d8		µg/L	50	52.8	105	80 - 120	1/2/03
4-Bromofluorobenzene		µg/L	50	51.3	102	80 - 120	1/2/03

CCV (1) QCBatch: QC26268

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP DRO		mg/L	250	265	106	75 - 125	1/16/03

ICV (1) QCBatch: QC26268

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP DRO		mg/L	250	222	88	75 - 125	1/16/03

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424 800•378•1296
El Paso, Texas 79932 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
EQUIVA - JENA HENRY
Attention: Jena Henry
P. O. Box 2648
Houston, TX 77252

H2A Environmental/Portland/Theresa Nix
January 21, 2003
Receiving Date: 12/20/2002
Sample Type: Soil
Loc. Address: 2 Miles South of Jal, NM
TA Job No: NA on Hwy. 18
Consultant Job#: NA

Lab Receiving #: A02122021
Prep Date: 01/17/2003
Analysis Date: 01/17/2003
Sampling Date: 12/17/2002
Sample Condition: Intact & Cool
Sample Received by: VH
Equiva Casualty Loss No: NA
Cost Center #: NA
Equiva Location Code: NA

TA#: T216958 FIELD CODE: VMP-2 70-70.5'

FINGERPRINT

Sample 216958 was extracted with pentane and analyzed by GC, FID, capillary column and direct injection. The graph shows the sample contains diesel range hydrocarbons only. Sample graph and diesel graph included.

CHEMIST: BP



Director, Dr. Blair Leftwich

1-21-03

DATE

Software Version : 6.1.2.0.1:D19
 Operator : Turbochrom
 Sample Number : 017
 AutoSampler : BUILT-IN
 Instrument Name : TPH1
 Instrument Serial # : None
 Delay Time : 0.00 min
 Sampling Rate : 12.5000 pts/s
 Volume Injected : 1.000000 ul
 Sample Amount : 1.0000
 Data Acquisition Time : 12/29/02 8:53:07 PM

Date : 1/17/03 2:33:45 PM
 Sample Name : 216958
 Study : QC25885
 Rack/Vial : 0/17
 Channel : A
 A/D mV Range : 1000
 End Time : 4.00 min
 Area Reject : 0.000000
 Dilution Factor : 10.00
 Cycle : 17

Raw Data File : D:\Data\TPH1\NYT1A017.raw <Modified>

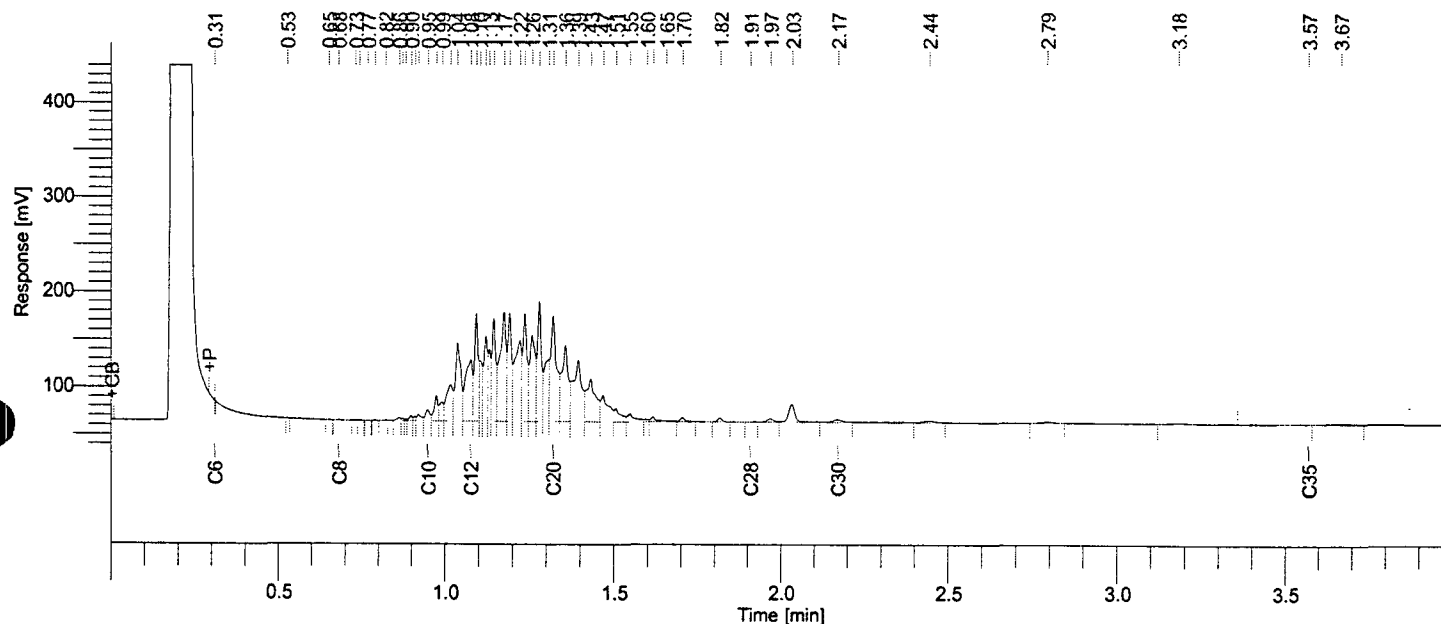
Result File : D:\Data\TPH1\NYT1A017.rst

Inst Method : D:\Methods\TPH1DRO from D:\Data\TPH1\NYT1A017.rst

Proc Method : D:\Methods\TPH1DRO.mth from D:\Data\TPH1\NYT1A017.rst

Calib Method : D:\Methods\TPH1DRO.mth from D:\Data\TPH1\NYT1A017.rst

Sequence File : D:\Sequence\NYT1A.seq



Analytical Method: TX1005

Reporting Units: mg/Kg

Matrix: soil

Component Name	Adjusted Amount	Raw Amount	Area [μV s]
TPH AS DIESEL	6829.5	682.9	1913240.47
C30=	93.9	9.4	31510.00
			1944750.47

Report stored in ASCII file: D:\Data\TPH1\NYT1A017.TX0

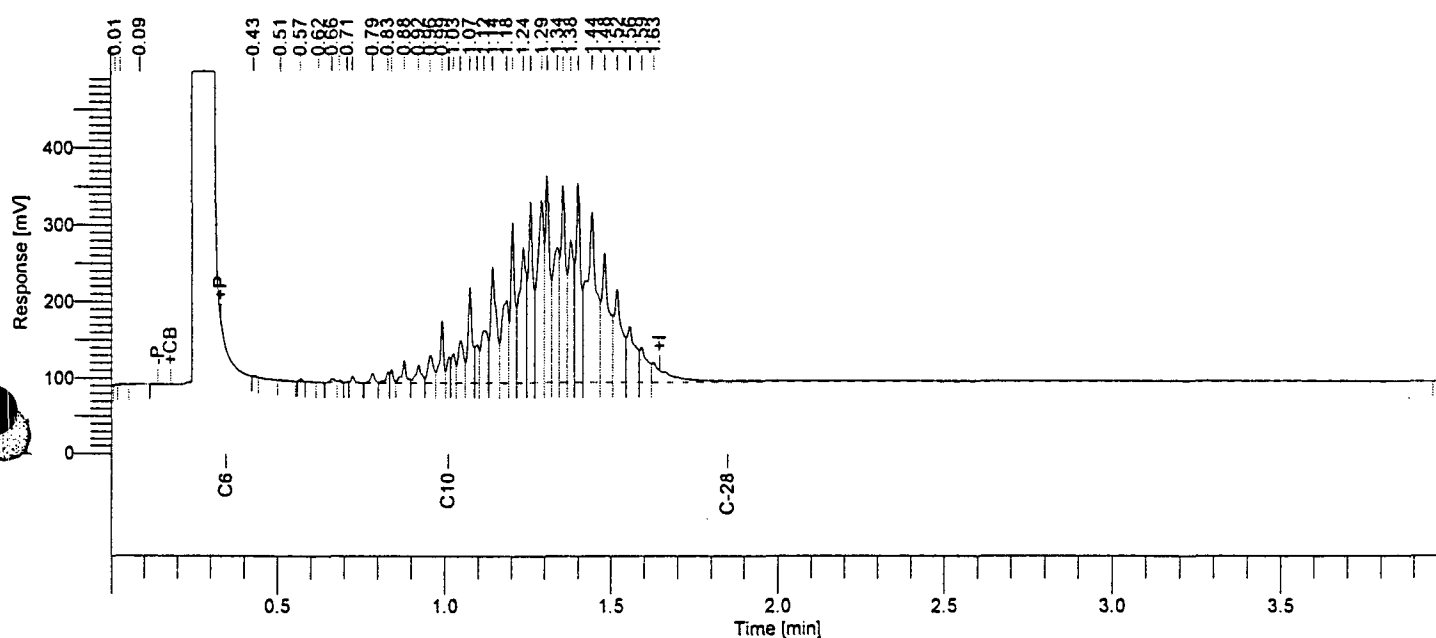
Software Version : 6.1.0.2:G07
 Operator : TurboChrom
 Sample Number : 005
 AutoSampler : BUILT-IN
 Instrument Name : GC6
 Instrument Serial # : None
 Delay Time : 0.00 min
 Sampling Rate : 25.0000 pts/s
 Volume Injected : 1.000000 ul
 Sample Amount : 1.0000
 Data Acquisition Time : 02/09/99 12:45:40 PM

Date : 02/09/99 01:32:35 PM
 Sample Name : Diesel*100
 Study : TPH
 Rack/Vial : 0/5
 Channel : A
 A/D mV Range : 1000
 End Time : 4.00 min

Area Reject : 0.000000
 Dilution Factor : 100.00
 Cycle : 5

Raw Data File : T:\Data\GC6\BN6A005.raw
 Inst Method : D:\Method\TPHEZ from T:\Data\GC6\BN6A005.raw
 Proc Method : T:\Method\TPHEZ.mth
 Calib Method : T:\Method\TPHEZ.mth
 Sequence File : D:\Sequence\BN6A.seq

Diesel Standard



TX1005

Analytical Method: TX1005
 Reporting Units: mg/L
 Matrix: water

Component Name	Adjusted Amount	Raw Amount	Area [μV·s]
	0.1	0.0	743.15
	0.2	0.0	2463.95
	0.3	0.0	2637.81
TPH AS GASOLINE	48401.0	484.0	212577.14
TPH AS DIESEL	447838.2	4478.4	4269768.32
			4488190.37

Report stored in ASCII file: .TX0



Daniel B. Stephens & Associates, Inc.

Summary of Tests Performed

Laboratory Sample Number	Initial Soil Properties ¹ (θ , ρ_d , ϕ)	Saturated Hydraulic Conductivity ²			Moisture Characteristics ³					Unsaturated Hydraulic Conductivity			Particle Size ⁴			Effective Porosity	Particle Density	Air Permeability	1/3, 15 Bar Water Holding Capacity	Atterberg Limits	Proctor Compaction
		CH	FH		HC	PP	TH	WP	RH				DS	WS	H						
216964	X	X														X					
216965	X	X														X					

¹ θ = Initial moisture content, ρ_d = Dry bulk density, ϕ = Calculated porosity

² CH = Constant head, FH = falling head

³ HC = Hanging column, PP = Pressure plate, TH = Thermocouple psychrometer, WP = Water activity meter, RH = Relative humidity box

⁴ DS = Dry sieve, WS = Wet sieve, H = Hydrometer



Daniel B. Stephens & Associates, Inc.

**Summary of Initial Moisture Content, Dry Bulk Density
Wet Bulk Density and Calculated Porosity**

Sample Number	Initial Moisture Content		Dry Bulk Density (g/cm ³)	Wet Bulk Density (g/cm ³)	Calculated Porosity (%)
	Gravimetric (%, g/g)	Volumetric (%, cm ³ /cm ³)			
216964	8.3	13.4	1.61	1.75	39.1
216965	8.7	13.8	1.59	1.73	40.0



Daniel B. Stephens & Associates, Inc.

Summary of Saturated Hydraulic Conductivity Tests

Sample Number	K_{sat} (cm/sec)	Intrinsic Permeability (cm ²)	Method of Analysis	
			Constant Head	Falling Head
216964	3.3E-05	3.3E-10	X	
216965	8.4E-05	8.6E-10	X	



Daniel B. Stephens & Associates, Inc.

Summary of Effective Porosity Tests

Sample Number	Effective Porosity (% cm^3/cm^3)
216964	28.2
216965	28.0

**Raw Laboratory Data
and Graphical Plots**



Daniel B. Stephens & Associates, Inc.

**Summary of Initial Moisture Content, Dry Bulk Density
Wet Bulk Density and Calculated Porosity**

Sample Number	Initial Moisture Content		Dry Bulk Density (g/cm ³)	Wet Bulk Density (g/cm ³)	Calculated Porosity (%)
	Gravimetric (%, g/g)	Volumetric (%, cm ³ /cm ³)			
216964	8.3	13.4	1.61	1.75	39.1
216965	8.7	13.8	1.59	1.73	40.0



Daniel B. Stephens & Associates, Inc.

**Data for Initial Moisture Content,
Bulk Density, Porosity, and Percent Saturation**

Job Name: Trace Analysis
Job Number: WR03.0006.00
Sample Number: 216964
Ring Number: NA
Depth: NA

Test Date: 4-Jan-03

Field weight of sample (g):* 98.79
Tare weight, ring (g): 27.65
Tare weight, cap/plate/epoxy (g): 0.00

Dry weight of sample (g): 65.67
Sample volume (cm³): 40.69
Assumed particle density: 2.65

Initial Volumetric Moisture Content (% vol): 13.4
Initial Gravimetric Moisture Content (% g/g): 8.3
Dry bulk density (g/cm³): 1.61
Wet bulk density (g/cm³): 1.75
Calculated Porosity (% vol): 39.1
Percent Saturation: 34.4

Comments:

* Weight including tares

Laboratory analysis by: M. Devine
Data entered by: D. O'Dowd
Checked by: D. O'Dowd



Daniel B. Stephens & Associates, Inc.

**Data for Initial Moisture Content,
Bulk Density, Porosity, and Percent Saturation**

Job Name: Trace Analysis
Job Number: WR03.0006.00
Sample Number: 216965
Ring Number: NA
Depth: NA

Test Date: 4-Jan-03

Field weight of sample (g):* 85.45
Tare weight, ring (g): 24.28
Tare weight, cap/plate/epoxy (g): 0.00

Dry weight of sample (g): 56.28
Sample volume (cm³): 35.40
Assumed particle density: 2.65

Initial Volumetric Moisture Content (% vol): 13.8
Initial Gravimetric Moisture Content (% g/g): 8.7
Dry bulk density (g/cm³): 1.59
Wet bulk density (g/cm³): 1.73
Calculated Porosity (% vol): 40.0
Percent Saturation: 34.5

Comments:

* Weight including tares

Laboratory analysis by: M. Devine
Data entered by: D. O'Dowd
Checked by: D. O'Dowd



Daniel B. Stephens & Associates, Inc.

Summary of Saturated Hydraulic Conductivity Tests

Sample Number	K_{sat} (cm/sec)	Intrinsic Permeability (cm ²)	Method of Analysis	
			Constant Head	Falling Head
216964	3.3E-05	3.3E-10	X	
216965	8.4E-05	8.6E-10	X	



Daniel B. Stephens & Associates, Inc.

Saturated Hydraulic Conductivity Constant Head Method

Job name: Trace Analysis
Job number: WR03.0006.00
Sample number: 216964
Ring number: NA
Depth: NA

Type of water used: TAP
Collection vessel tare (g): 10.97
Sample length (cm): 3.86
Sample diameter (cm): 3.66
Sample x-sectional area (cm²): 10.54

Date	Time	Temp (°C)	Head (cm)	Q + Tare (g)	Q (cm ³)	Elapsed time (sec)	Ksat (cm/sec)	Ksat @ 20°C (cm/sec)
Test # 1:								
08-Jan-03	12:36:13	20.0	70.1	13.4	2.4	403	3.1E-05	3.1E-05
08-Jan-03	12:42:56							
Test # 2:								
08-Jan-03	14:30:49	20.0	70.1	23.4	12.4	2241	2.9E-05	2.9E-05
08-Jan-03	15:08:10							
Test # 3:								
13-Jan-03	13:26:45	20.0	70.1	13.3	2.4	319	3.8E-05	3.8E-05
13-Jan-03	13:32:04							

Average Ksat (cm/sec): 3.3E-05

Comments:

Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: D. O'Dowd



Daniel B. Stephens & Associates, Inc.

Saturated Hydraulic Conductivity Constant Head Method

Job name: Trace Analysis
Job number: WR03.0006.00
Sample number: 216965
Ring number: NA
Depth: NA

Type of water used: TAP
Collection vessel tare (g): 11.93
Sample length (cm): 3.38
Sample diameter (cm): 3.65
Sample x-sectional area (cm²): 10.48

Date	Time	Temp (°C)	Head (cm)	Q + Tare (g)	Q (cm ³)	Elapsed time (sec)	Ksat (cm/sec)	Ksat @ 20°C (cm/sec)
Test # 1:								
08-Jan-03	12:36:00	20.0	13.5	13.3	1.4	391	8.5E-05	8.5E-05
08-Jan-03	12:42:31							
Test # 2:								
08-Jan-03	14:30:34	20.0	13.5	19.7	7.8	2306	8.0E-05	8.0E-05
08-Jan-03	15:09:00							
Test # 3:								
13-Jan-03	13:25:44	20.0	13.5	13.3	1.4	386	8.7E-05	8.7E-05
13-Jan-03	13:32:10							

Average Ksat (cm/sec): 8.4E-05

Comments:

Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: D. O'Dowd



Daniel B. Stephens & Associates, Inc.

Summary of Effective Porosity Tests

Sample Number	Effective Porosity (% cm^3/cm^3)
216964	28.2
216965	28.0



Daniel B. Stephens & Associates, Inc.

Effective Porosity Data

Job Name: Trace Analysis
Job Number: WR03.0006.00
Sample Number: 216964
Ring Number: NA
Depth: NA

Test Date: 14-Jan-03

Sample Dry Weight (g):* 151.54
Tare Weight (g): 117.41
Bulk Density (g/cm³): 1.61
Calculated Porosity (% cm³/cm³): 39.1

Pressure plate potential (-bars): 1.5
Sample weight at -1.5 bars (g):* 153.9

Moisture content (% g/g): 6.8
Moisture content (% cm³/cm³): 10.9
Matric potential (-cm): 1,530

Moisture content at -15 bars (% cm³/cm³): 10.9

Effective porosity (% cm³/cm³): 28.2

Comments:

* Weight including tares

Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: D. O'Dowd



Daniel B. Stephens & Associates, Inc.

Effective Porosity Data

Job Name: Trace Analysis
Job Number: WR03.0006.00
Sample Number: 216965
Ring Number: NA
Depth: NA

Test Date: 14-Jan-03

Sample Dry Weight* (g): 154.51
Tare Weight (g): 114.37

Bulk Density (g/cm³): 1.59
Calculated Porosity (% cm³/cm³): 40.0

Test 1

Thermocouple potential (-bars):	7.8
Sample weight* at -7.8 bars (g):	156.8
Moisture content (% g/g):	5.6
Moisture content (% cm ³ /cm ³):	8.9
Matric potential (-cm):	7,954

Test 2

Thermocouple potential (-bars):	2.6
Sample weight* at -2.6 bars (g):	156.2
Moisture content (% g/g):	4.2
Moisture content (% cm ³ /cm ³):	6.7
Matric potential (-cm):	2,621

Moisture content at -15 bars (% cm³/cm³): 12.0
Effective porosity (% cm³/cm³): 28.0

Comments:

* Weight including tares

Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: D. O'Dowd

Laboratory Tests and Methods



Daniel B. Stephens & Associates, Inc.

Methods for Geotechnical samples

Dry Bulk Density: ASTM D 4531-91

Moisture Content: ASTM D 2216-92

Calculated Porosity Klute, A. 1986. Porosity. Chp.18-2.1, pp. 444-445, in A. Klute (ed.), Methods of Soil Analysis, American Society of Agronomy, Madison, WI

Intrinsic permeability: Fetter, C. W. 1994, P.96, Applied Hydrogeology, 3rd ed, Printice Hall

Ksat:

Constant Head: ASTM D 2434-68 (93)

Falling Head: Klute, A. and C. Dirkson. 1986. Hydraulic Conductivity and Diffusivity: Laboratory Methods. Chp. 28, pp. 200-203, in A. Klute (ed.), Methods of Soil Analysis, American Society of Agronomy, Madison, WI

Effective Porosity: Corey, A. T. 1986 Chp. 2.3.3, pp. 40-42, in A. T. Corey, Mechanics of Immiscible Fluids in Porous Media, Book Crafters, Inc., Chelsea, Michigan, U.S.A.

TraceAnalysis, Inc.

6701 Aberdeen Ave., Suite 9

Lubbock, TX 79424-1515

(806) 794-1296

Report Date: March 18, 2003
106.001 Jal StationPage Number: 1 of 3
Jal,NM

Summary Report

Theresa Nix
H2A Environmental LTD
418 San Saba
Portland, Tx. 78374

Report Date: March 18, 2003

Order ID Number: A02122021

Project Number: 106.001
Project Name: Jal Station
Project Location: Jal,NM

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
216958	VMP-2 70-70.5'	Soil	12/17/02	11:00	12/20/02
216964	VMP-2 Geotech	Soil	12/17/02	11:25	12/20/02
216965	VMP-3 Geotech	Soil	12/18/02	11:05	12/20/02

0 This report consists of a total of 3 page(s) and is intended only as a summary of results for the sample(s) listed above.

Sample: 216958 - VMP-2 70-70.5'

Param	Flag	Result	Units
SPLP DRO		54.8	mg/L
Pyridine		<0.005	ppb
1,4-Dichlorobenzene		<0.005	ppb
o-Cresol		<0.005	ppb
m,p-Cresol		<0.005	ppb
Hexachloroethane		<0.005	ppb
Nitrobenzene		<0.005	ppb
Hexachlorobutadiene		<0.005	ppb
2,4,6-Trichlorophenol		<0.005	ppb
2,4,5-Trichlorophenol		<0.005	ppb
2,4-Dinitrotoluene		<0.005	ppb
2,4-D		<0.005	ppb
Hexachlorobenzene		<0.005	ppb
2,4,5-TP		<0.005	ppb
Pentachlorophenol		<0.005	ppb
Bromochloromethane		<5.00	µg/L
Dichlorodifluoromethane		<5.00	µg/L
Chloromethane (methyl chloride)		<5.00	µg/L
Vinyl Chloride		<5.00	µg/L
Bromomethane (methyl bromide)		<25.0	µg/L
Chloroethane		<5.00	µg/L
Trichlorofluoromethane		<5.00	µg/L
Acetone		<50.0	µg/L
Iodomethane (methyl iodide)		<25.0	µg/L
Carbon Disulfide		<5.00	µg/L
Acrylonitrile		<5.00	µg/L
2-Butanone (MEK)		<25.0	µg/L

Continued on next page ...

This is only a summary. Please, refer to the complete report package for quality control data.

TraceAnalysis, Inc.

6701 Aberdeen Ave., Suite 9

Lubbock, TX 79424-1515

(806) 794-1296

Report Date: March 18, 2003 Order Number: A02122021
106.001 Jal StationPage Number: 2 of 3
Jal,NM

Sample 216958 continued ...

Param	Flag	Result	Units
4-methyl-2-pentanone (MIBK)		<25.0	µg/L
2-hexanone		<25.0	µg/L
trans 1,4-Dichloro-2-butene		<50.0	µg/L
1,1-Dichloroethene		<5.00	µg/L
Methylene chloride		<25.0	µg/L
MTBE		<5.00	µg/L
trans-1,2-Dichloroethene		<5.00	µg/L
1,1-Dichloroethane		<5.00	µg/L
cis-1,2-Dichloroethene		<5.00	µg/L
2,2-Dichloropropane		<5.00	µg/L
1,2-Dichloroethane (EDC)		<5.00	µg/L
Chloroform		<5.00	µg/L
1,1,1-Trichloroethane		<5.00	µg/L
1,1-Dichloropropene		<5.00	µg/L
Benzene		<5.00	µg/L
Carbon Tetrachloride		<5.00	µg/L
1,2-Dichloropropane		<5.00	µg/L
Trichloroethene (TCE)		<5.00	µg/L
Dibromomethane (methylene bromide)		<5.00	µg/L
Bromodichloromethane		<5.00	µg/L
2-Chloroethyl vinyl ether		<25.0	µg/L
cis-1,3-Dichloropropene		<5.00	µg/L
trans-1,3-Dichloropropene		<5.00	µg/L
Toluene		<5.00	µg/L
1,1,2-Trichloroethane		<5.00	µg/L
1,3-Dichloropropane		<5.00	µg/L
Dibromochloromethane		<5.00	µg/L
1,2-Dibromoethane (EDB)		<5.00	µg/L
Tetrachloroethene (PCE)		<5.00	µg/L
Chlorobenzene		<5.00	µg/L
1,1,1,2-Tetrachloroethane		<5.00	µg/L
Ethylbenzene		8.21	µg/L
m,p-Xylene		<5.00	µg/L
Bromoform		<5.00	µg/L
Styrene		<5.00	µg/L
o-Xylene		<5.00	µg/L
1,1,2,2-Tetrachloroethane		<5.00	µg/L
2-Chlorotoluene		<5.00	µg/L
1,2,3-Trichloropropane		<5.00	µg/L
Isopropylbenzene		7.09	µg/L
Bromobenzene		<5.00	µg/L
n-Propylbenzene		10.8	µg/L
1,3,5-Trimethylbenzene		6.81	µg/L
tert-Butylbenzene		<5.00	µg/L
1,2,4-Trimethylbenzene		<5.00	µg/L
1,4-Dichlorobenzene (para)		<5.00	µg/L
sec-Butylbenzene		8.12	µg/L
1,3-Dichlorobenzene (meta)		<5.00	µg/L
p-Isopropyltoluene		<5.00	µg/L
4-Chlorotoluene		<5.00	µg/L

Continued on next page ...

This is only a summary. Please, refer to the complete report package for quality control data.

TraceAnalysis, Inc.

6701 Aberdeen Ave., Suite 9

Lubbock, TX 79424-1515

(806) 794-1296

Report Date: March 18, 2003 Order Number: A02122021
106.001 Jal StationPage Number: 3 of 3
Jal,NM*Sample 216958 continued ...*

Param	Flag	Result	Units
1,2-Dichlorobenzene (ortho)		<5.00	µg/L
n-Butylbenzene		<5.00	µg/L
1,2-Dibromo-3-chloropropane		<25.0	µg/L
1,2,3-Trichlorobenzene		<25.0	µg/L
1,2,4-Trichlorobenzene		<25.0	µg/L
Naphthalene		<25.0	µg/L
Hexachlorobutadiene		<25.0	µg/L

Sample: 216964 - VMP-2 Geotech

Param	Flag	Result	Units
FOC		0.95	%
pH		8.8	s.u.

Sample: 216965 - VMP-3 Geotech

Param	Flag	Result	Units
FOC		0.72	%
pH		8.8	s.u.

This is only a summary. Please, refer to the complete report package for quality control data.

TRACE ANALYSIS, INC.6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite HLubbock, Texas 79424
El Paso, Texas 79932800•378•1296
888•588•3443806•794•1296
915•585•3443FAX 806•794•1298
FAX 915•585•4944

E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Theresa Nix
H2A Environmental LTD
418 San Saba
Portland, Tx. 78374

Report Date: March 18, 2003

Order ID Number: A02122021

Project Number: 106.001
Project Name: Jal Station
Project Location: Jal, NM

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

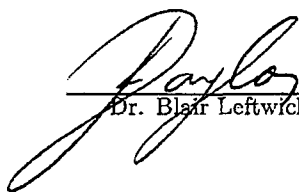
Sample	Description	Matrix	Date Taken	Time Taken	Date Received
216958	VMP-2 70-70.5'	Soil	12/17/02	11:00	12/20/02
216964	VMP-2 Geotech	Soil	12/17/02	11:25	12/20/02
216965	VMP-3 Geotech	Soil	12/18/02	11:05	12/20/02

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 8 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of Trace Analysis, Inc.

Note: Samples will be disposed of 30 days from the report date unless the lab is contacted before the 30 days has past.


Dr. Blair Leftwich, Director

Report Date: March 18, 2003
106.001

Order Number: A02122021
Jal Station

Page Number: 2 of 8
Jal,NM

Analytical Report

Sample: 216958 - VMP-2 70-70.5'

Analysis: SPLP DRO Analytical Method: Mod. 8015B QC Batch: QC26268 Date Analyzed: 1/16/03
Analyst: BP Preparation Method: 1312 Prep Batch: PB24269 Date Prepared: 1/10/03

Param	Flag	Result	Units	Dilution	RDL
SPLP DRO		54.8	mg/L	1	50

Sample: 216958 - VMP-2 70-70.5'

Analysis: SPLP Semivolatiles Analytical Method: E 8270C QC Batch: QC26094 Date Analyzed: 1/8/03
Analyst: RC Preparation Method: 1312 Prep Batch: PB24134 Date Prepared: 1/3/03

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.005	ppb	1	0.25
1,4-Dichlorobenzene		<0.005	ppb	1	0.25
o-Cresol		<0.005	ppb	1	0.25
m,p-Cresol		<0.005	ppb	1	0.25
Hexachloroethane		<0.005	ppb	1	0.25
Nitrobenzene		<0.005	ppb	1	0.25
Hexachlorobutadiene		<0.005	ppb	1	0.25
2,4,6-Trichlorophenol		<0.005	ppb	1	0.25
2,4,5-Trichlorophenol		<0.005	ppb	1	0.25
2,4-Dinitrotoluene		<0.005	ppb	1	0.25
2,4-D		<0.005	ppb	1	0.25
Hexachlorobenzene		<0.005	ppb	1	0.25
2,4,5-TP		<0.005	ppb	1	0.25
Pentachlorophenol		<0.005	ppb	1	0.25

Sample: 216958 - VMP-2 70-70.5'

Analysis: SPLP Volatiles Analytical Method: S 8260B QC Batch: QC26093 Date Analyzed: 1/2/03
Analyst: JG Preparation Method: 1312 Prep Batch: PB24137 Date Prepared: 12/30/02

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<5.00	µg/L	5	1
Dichlorodifluoromethane		<5.00	µg/L	5	1
Chloromethane (methyl chloride)		<5.00	µg/L	5	1
Vinyl Chloride		<5.00	µg/L	5	1
Bromomethane (methyl bromide)		<25.0	µg/L	5	5
Chloroethane		<5.00	µg/L	5	1
Trichlorofluoromethane		<5.00	µg/L	5	1
Acetone		<50.0	µg/L	5	10
Iodomethane (methyl iodide)		<25.0	µg/L	5	5
Carbon Disulfide		<5.00	µg/L	5	1
Acrylonitrile		<5.00	µg/L	5	1
2-Butanone (MEK)		<25.0	µg/L	5	5
4-methyl-2-pentanone (MIBK)		<25.0	µg/L	5	5
2-hexanone		<25.0	µg/L	5	5
trans 1,4-Dichloro-2-butene		<50.0	µg/L	5	10

Continued ...

Report Date: March 18, 2003
106.001

Order Number: A02122021
Jal Station

Page Number: 3 of 8
Jal,NM

... Continued Sample: 216958 Analysis: SPLP Volatiles

Param	Flag	Result	Units	Dilution	RDL
1,1-Dichloroethene		<5.00	µg/L	5	1
Methylene chloride		<25.0	µg/L	5	5
MTBE		<5.00	µg/L	5	1
trans-1,2-Dichloroethene		<5.00	µg/L	5	1
1,1-Dichloroethane		<5.00	µg/L	5	1
cis-1,2-Dichloroethene		<5.00	µg/L	5	1
2,2-Dichloropropane		<5.00	µg/L	5	1
1,2-Dichloroethane (EDC)		<5.00	µg/L	5	1
Chloroform		<5.00	µg/L	5	1
1,1,1-Trichloroethane		<5.00	µg/L	5	1
1,1-Dichloropropene		<5.00	µg/L	5	1
Benzene		<5.00	µg/L	5	1
Carbon Tetrachloride		<5.00	µg/L	5	1
1,2-Dichloropropane		<5.00	µg/L	5	1
Trichloroethene (TCE)		<5.00	µg/L	5	1
Dibromomethane (methylene bromide)		<5.00	µg/L	5	1
Bromodichloromethane		<5.00	µg/L	5	1
2-Chloroethyl vinyl ether		<25.0	µg/L	5	5
cis-1,3-Dichloropropene		<5.00	µg/L	5	1
trans-1,3-Dichloropropene		<5.00	µg/L	5	1
Toluene		<5.00	µg/L	5	1
1,1,2-Trichloroethane		<5.00	µg/L	5	1
1,3-Dichloropropane		<5.00	µg/L	5	1
Dibromochloromethane		<5.00	µg/L	5	1
1,2-Dibromoethane (EDB)		<5.00	µg/L	5	1
Tetrachloroethene (PCE)		<5.00	µg/L	5	1
Chlorobenzene		<5.00	µg/L	5	1
1,1,1,2-Tetrachloroethane		<5.00	µg/L	5	1
Ethylbenzene		8.21	µg/L	5	1
m,p-Xylene		<5.00	µg/L	5	1
Bromoform		<5.00	µg/L	5	1
Styrene		<5.00	µg/L	5	1
o-Xylene		<5.00	µg/L	5	1
1,1,2,2-Tetrachloroethane		<5.00	µg/L	5	1
2-Chlorotoluene		<5.00	µg/L	5	1
1,2,3-Trichloropropane		<5.00	µg/L	5	1
Isopropylbenzene		7.09	µg/L	5	1
Bromobenzene		<5.00	µg/L	5	1
n-Propylbenzene		10.8	µg/L	5	1
1,3,5-Trimethylbenzene		6.81	µg/L	5	1
tert-Butylbenzene		<5.00	µg/L	5	1
1,2,4-Trimethylbenzene		<5.00	µg/L	5	1
1,4-Dichlorobenzene (para)		<5.00	µg/L	5	1
sec-Butylbenzene		8.12	µg/L	5	1
1,3-Dichlorobenzene (meta)		<5.00	µg/L	5	1
p-Isopropyltoluene		<5.00	µg/L	5	1
4-Chlorotoluene		<5.00	µg/L	5	1
1,2-Dichlorobenzene (ortho)		<5.00	µg/L	5	1
n-Butylbenzene		<5.00	µg/L	5	1
1,2-Dibromo-3-chloropropane		<25.0	µg/L	5	5
1,2,3-Trichlorobenzene		<25.0	µg/L	5	5
1,2,4-Trichlorobenzene		<25.0	µg/L	5	5
Naphthalene		<25.0	µg/L	5	5

Continued ...

Report Date: March 18, 2003
106.001Order Number: A02122021
Jal StationPage Number: 4 of 8
Jal,NM

... Continued Sample: 216958 Analysis: SPLP Volatiles

Param	Flag	Result	Units	Dilution	RDL
Hexachlorobutadiene		<25.0	µg/L	5	5

Sample: 216964 - VMP-2 Geotech

Analysis:	FOC	Analytical Method:	D2974-87	QC Batch:	QC26377	Date Analyzed:	1/9/03
Analyst:	JSW	Preparation Method:	N/A	Prep Batch:	PB24357	Date Prepared:	1/9/03

Param	Flag	Result	Units	Dilution	RDL
FOC		0.95	%	1	0.10

Sample: 216964 - VMP-2 Geotech

Analysis:	pH	Analytical Method:	E 150.1	QC Batch:	QC25937	Date Analyzed:	12/27/02
Analyst:	RS	Preparation Method:	N/A	Prep Batch:	PB24014	Date Prepared:	12/27/02

Param	Flag	Result	Units	Dilution	RDL
pH		8.8	s.u.	1	1

Sample: 216965 - VMP-3 Geotech

Analysis:	FOC	Analytical Method:	D2974-87	QC Batch:	QC26377	Date Analyzed:	1/9/03
Analyst:	JSW	Preparation Method:	N/A	Prep Batch:	PB24357	Date Prepared:	1/9/03

Param	Flag	Result	Units	Dilution	RDL
FOC		0.72	%	1	0.10

Sample: 216965 - VMP-3 Geotech

Analysis:	pH	Analytical Method:	E 150.1	QC Batch:	QC25937	Date Analyzed:	12/27/02
Analyst:	RS	Preparation Method:	N/A	Prep Batch:	PB24014	Date Prepared:	12/27/02

Param	Flag	Result	Units	Dilution	RDL
pH		8.8	s.u.	1	1

Report Date: March 18, 2003
106.001Order Number: A02122021
Jal StationPage Number: 5 of 8
Jal,NMQuality Control Report
Method Blank

Method Blank

QCBatch: QC26093

Param	Flag	Results	Units	Reporting Limit
Bromochloromethane		<1.00	µg/L	1
Dichlorodifluoromethane		<1.00	µg/L	1
Chloromethane (methyl chloride)		<1.00	µg/L	1
Vinyl Chloride		<1.00	µg/L	1
Bromomethane (methyl bromide)		<5.00	µg/L	5
Chloroethane		<1.00	µg/L	1
Trichlorofluoromethane		<1.00	µg/L	1
Acetone		<10.0	µg/L	10
Iodomethane (methyl iodide)		<5.00	µg/L	5
Carbon Disulfide		<1.00	µg/L	1
Acrylonitrile		<1.00	µg/L	1
2-Butanone (MEK)		<5.00	µg/L	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	5
2-hexanone		<5.00	µg/L	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10
1,1-Dichloroethene		<1.00	µg/L	1
Methylene chloride		<5.00	µg/L	5
MTBE		<1.00	µg/L	1
trans-1,2-Dichloroethene		<1.00	µg/L	1
1,1-Dichloroethane		<1.00	µg/L	1
cis-1,2-Dichloroethene		<1.00	µg/L	1
2,2-Dichloropropane		<1.00	µg/L	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1
Chloroform		<1.00	µg/L	1
1,1,1-Trichloroethane		<1.00	µg/L	1
1,1-Dichloropropene		<1.00	µg/L	1
Benzene		<1.00	µg/L	1
Carbon Tetrachloride		<1.00	µg/L	1
1,2-Dichloropropane		<1.00	µg/L	1
Trichloroethene (TCE)		<1.00	µg/L	1
Dibromomethane (methylene bromide)		<1.00	µg/L	1
Bromodichloromethane		<1.00	µg/L	1
2-Chloroethyl vinyl ether		<5.00	µg/L	5
cis-1,3-Dichloropropene		<1.00	µg/L	1
trans-1,3-Dichloropropene		<1.00	µg/L	1
Toluene		<1.00	µg/L	1
1,1,2-Trichloroethane		<1.00	µg/L	1
1,3-Dichloropropane		<1.00	µg/L	1
Dibromochloromethane		<1.00	µg/L	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1
Tetrachloroethene (PCE)		<1.00	µg/L	1
Chlorobenzene		<1.00	µg/L	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1
Ethylbenzene		<1.00	µg/L	1
m,p-Xylene		<1.00	µg/L	1
Bromoform		<1.00	µg/L	1

Continued ...

Report Date: March 18, 2003
106.001Order Number: A02122021
Jal StationPage Number: 6 of 8
Jal,NM

... Continued

Param	Flag	Results	Units	Reporting Limit
Styrene		<1.00	µg/L	1
o-Xylene		<1.00	µg/L	1
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1
2-Chlorotoluene		<1.00	µg/L	1
1,2,3-Trichloropropane		<1.00	µg/L	1
Isopropylbenzene		<1.00	µg/L	1
Bromobenzene		<1.00	µg/L	1
n-Propylbenzene		<1.00	µg/L	1
1,3,5-Trimethylbenzene		<1.00	µg/L	1
tert-Butylbenzene		<1.00	µg/L	1
1,2,4-Trimethylbenzene		<1.00	µg/L	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1
sec-Butylbenzene		<1.00	µg/L	1
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1
p-Isopropyltoluene		<1.00	µg/L	1
4-Chlorotoluene		<1.00	µg/L	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1
n-Butylbenzene		<1.00	µg/L	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5
1,2,3-Trichlorobenzene		<5.00	µg/L	5
1,2,4-Trichlorobenzene		<5.00	µg/L	5
Naphthalene		<5.00	µg/L	5
Hexachlorobutadiene		<5.00	µg/L	5

Method Blank

QCBatch: QC26268

Param	Flag	Results	Units	Reporting Limit
SPLP DRO		<5.00	mg/L	50

Quality Control Report
Duplicate Samples

Duplicate

QCBatch: QC25937

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH		9.0	9.0	s.u.	1	0	1

Duplicate

QCBatch: QC26377

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
FOC		0.57	0.47	%	1	19	72

Report Date: March 18, 2003
106.001

Order Number: A02122021
Jal Station

Page Number: 7 of 8
Jal,NM

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC26093

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
1,1-Dichloroethene	106	106	µg/L	1	100	<1.00	106	0	80 - 120	20
Benzene	105	104	µg/L	1	100	<1.00	105	0	80 - 120	20
Trichloroethene (TCE)	93	93	µg/L	1	100	<1.00	93	0	90 - 120	20
Toluene	103	102	µg/L	1	100	<1.00	103	0	80 - 120	20
Chlorobenzene	101	101	µg/L	1	100	<1.00	101	0	80 - 120	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits..
Dibromofluoromethane	41.7	42.7	µg/L	1	50	83	85	70 - 130
Toluene-d8	51.9	53.2	µg/L	1	50	103	106	70 - 130
4-Bromofluorobenzene	43.3	42.2	µg/L	1	50	86	84	70 - 130

Laboratory Control Spikes

QCBatch: QC26268

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
SPLP DRO	22.7	22	mg/L	0.10	25	<5.00	90	3	70 - 130	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: QC25937

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	-0.1 s.u. - +0.1 s.u.	12/27/02

ICV (1)

QCBatch: QC25937

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	-0.1 s.u. - +0.1 s.u.	12/27/02

Report Date: March 18, 2003
106.001Order Number: A02122021
Jal StationPage Number: 8 of 8
Jal,NM

CCV (1) QCBatch: QC26093

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50	53	106	80 - 120	1/2/03
1,1-Dichloroethene		µg/L	50	51	102	80 - 120	1/2/03
Chloroform		µg/L	50	49	98	80 - 120	1/2/03
1,2-Dichloropropane		µg/L	50	50	100	80 - 120	1/2/03
Toluene		µg/L	50	49	98	80 - 120	1/2/03
Chlorobenzene		µg/L	50	49	98	80 - 120	1/2/03
Ethylbenzene		µg/L	50	51	102	80 - 120	1/2/03
Dibromofluoromethane		µg/L	50	44.9	89	80 - 120	1/2/03
Toluene-d8		µg/L	50	52.8	105	80 - 120	1/2/03
4-Bromofluorobenzene		µg/L	50	51.3	102	80 - 120	1/2/03

CCV (1) QCBatch: QC26268

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP DRO		mg/L	250	265	106	75 - 125	1/16/03

ICV (1) QCBatch: QC26268

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP DRO		mg/L	250	222	88	75 - 125	1/16/03

507-756712

2123109

AD2/2021

Page 7 of 7

Equiva Services, LLC

TraceAnalysis, Inc.

6701 Aberdeen Ave., Ste 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

Consulting Company Name:

Phone #:

(361) 777-0860

Consulting Company Address:

Company Address: 418 San Saba
Portland, TX 78374

Resulting Contact:

Equiva Contact:

Equiva Contact: Jana Henry, cmr
 Incident # 7 send original report
 to Sena at:

ation/SAP:

ation/SAP: Jal Basin Station
 ation Address: 2 miles South of Jal NM
ON Hwy 18
 sultant Job#:

Project Task:

Sullant Job#:

Sampler, Signature:

[illegible]

inquired by:

Date: _____ Time: _____

Received by:

Date: _____ Time: _____

infringed by:

Date: _____ Time: _____

~~Received by:~~

Date: _____ Time: _____

inquired by:

Date: _____ Time: _____

Received at L

Date: 5/1/2014

Initial of samples constitutes agreement to Terms and Conditions listed on reverse side of COC

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST	
LAB Order ID#	
ANALYSIS REQUEST (Circle or Specify Method No.)	Highest TPH
MTBE 8021B/602	
BTX 8021B/602	
TPH 418.1/TX1005	
PAH 8270C * HIGHEST TPH *	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC-MS Vol. 8260B/624	
GC/MS Semi. Vol. 8270C/625	
PCBs 8082/608	
Pesticides 8081A/608	
BBTSS # %m	
SPLP VOC	
SPLP SVOC	
SPLP TPH	
TPH FINGERPRINT	
Geotechnical Analysis (see for remarks)	
Turn Around Time if different from standard	
Hold	

REMARKS: Highest TPH from VMP-2 and VMP-3 additional analysis. Check if special reporting limits needed.

Geotechnical Analysis to include: bulk density, porosity, grain size, water content, & pH

LAB USE ONLY

Intact ☒ Y/N

Headspace ☐ Y/N

Temp ☐ Y/N

Log-in Review ☒ Y/N

Carrier # 834649705866

Report Date: February 18, 2002 Order Number: A02012911
106.001 Jal Station

Page Number: 1 of 3
Jal,NM

Summary Report

Theresa Nix
H2A Environmental LTD
418 San Saba
Portland, Tx. 78374

Report Date: February 18, 2002

Order ID Number: A02012911

Project Number: 106.001
Project Name: Jal Station
Project Location: Jal,NM

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
189885	MW-16	Water	1/26/02	12:00	1/29/02
189886	MW-17	Water	1/26/02	10:00	1/29/02

0 This report consists of a total of 3 page(s) and is intended only as a summary of results for the sample(s) listed above.

Sample - Field Code	BTEX					TPH DRO	TPH GRO
	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)	DRO (ppm)	GRO (ppm)
189885 - MW-16	<0.001	<0.001	<0.001	<0.001	<0.001	<5.00	<0.1
189886 - MW-17	<0.001	<0.001	<0.001	<0.001	<0.001	<5.00	<0.1

Sample: 189885 - MW-16

Param	Flag	Result	Units
Hydroxide Alkalinity		<1.0	mg/L as CaCo3
Carbonate Alkalinity		<1.0	mg/L as CaCo3
Bicarbonate Alkalinity		306	mg/L as CaCo3
Total Alkalinity		306	mg/L as CaCo3
Total Mercury		<0.0002	mg/L
Chloride	1	85.6	mg/L
Fluoride		4.07	mg/L
Nitrate-N	2	34.6	mg/L
Sulfate	3	518	mg/L
Naphthalene		<0.005	mg/L
Acenaphthylene		<0.005	mg/L
Acenaphthene		<0.005	mg/L
Fluorene		<0.005	mg/L
Phenanthrene		<0.005	mg/L
Anthracene		<0.005	mg/L
Fluoranthene		<0.005	mg/L
Pyrene		<0.005	mg/L
Benzo(a)anthracene		<0.005	mg/L

Continued on next page ...

¹Chloride re-ran on IC020402-2.sch. ICV %IA = 91; CCV %IA = 91; matrix spikes RPD = 0, %EA = 86; LCS spikes RPD = 0, %EA = 90.

²Sample was received out of hold time for NO3.

³Sulfate re-ran on IC020402-2.sch. ICV %IA = 95; CCV %IA = 96; matrix spikes RPD = 1, %EA = 94; LCS spikes RPD = 0, %EA = 95.

Report Date: February 18, 2002 Order Number: A02012911
106.001 Jal Station

Page Number: 2 of 3
Jal,NM

Sample 189885 continued ...

Param	Flag	Result	Units
Chrysene		<0.005	mg/L
Benzo(b)fluoranthene		<0.005	mg/L
Benzo(k)fluoranthene		<0.005	mg/L
Benzo(a)pyrene		<0.005	mg/L
Indeno(1,2,3-cd)pyrene		<0.005	mg/L
Dibenzo(a,h)anthracene		<0.005	mg/L
Benzo(g,h,i)perylene		<0.005	mg/L
Dissolved Calcium		168	mg/L
Dissolved Magnesium		83.7	mg/L
Dissolved Potassium		16.2	mg/L
Dissolved Sodium		201	mg/L
Total Dissolved Solids		1490	mg/L
Total Arsenic		<0.010	mg/L
Total Barium		<0.100	mg/L
Total Cadmium		<0.005	mg/L
Total Chromium		0.0118	mg/L
Total Copper		<0.0125	mg/L
Total Iron		4.20	mg/L
Total Lead		<0.010	mg/L
Total Manganese		0.0479	mg/L
Total Selenium		<0.050	mg/L
Total Silver		<0.0125	mg/L
Total Zinc		0.0456	mg/L

Sample: 189886 - MW-17

Param	Flag	Result	Units
Hydroxide Alkalinity		<1.0	mg/L as CaCo3
Carbonate Alkalinity		<1.0	mg/L as CaCo3
Bicarbonate Alkalinity		386	mg/L as CaCo3
Total Alkalinity		386	mg/L as CaCo3
Total Mercury		0.00026	mg/L
Chloride	4	20.7	mg/L
Fluoride		4.05	mg/L
Nitrate-N	5	5.93	mg/L
Sulfate	6	163	mg/L
Naphthalene		<0.005	mg/L
Acenaphthylene		<0.005	mg/L
Acenaphthene		<0.005	mg/L
Fluorene		<0.005	mg/L
Phenanthrene		<0.005	mg/L
Anthracene		<0.005	mg/L
Fluoranthene		<0.005	mg/L
Pyrene		<0.005	mg/L
Benzo(a)anthracene		<0.005	mg/L
Chrysene		<0.005	mg/L
Benzo(b)fluoranthene		<0.005	mg/L
Benzo(k)fluoranthene		<0.005	mg/L

Continued on next page ...

⁴Chloride re-ran on IC020402-2.sch. ICV %IA = 91; CCV %IA = 91; matrix spikes RPD = 0, %EA = 86; LCS spikes RPD = 0, %EA = 90.

⁵Sample was received out of hold time for NO3.

⁶Sulfate re-ran on IC020402-2.sch. ICV %IA = 95; CCV %IA = 96; matrix spikes RPD = 1, %EA = 94; LCS spikes RPD = 0, %EA = 95.

Report Date: February 18, 2002 Order Number: A02012911

Page Number: 3 of 3

106.001

Jal Station

Jal,NM

Sample 189886 continued ...

Param	Flag	Result	Units
Benzo(a)pyrene		<0.005	mg/L
Indeno(1,2,3-cd)pyrene		<0.005	mg/L
Dibenzo(a,h)anthracene		<0.005	mg/L
Benzo(g,h,i)perylene		<0.005	mg/L
Dissolved Calcium		102	mg/L
Dissolved Magnesium		53.4	mg/L
Dissolved Potassium		11.6	mg/L
Dissolved Sodium		73.9	mg/L
Total Dissolved Solids		716	mg/L
Total Arsenic		0.0562	mg/L
Total Barium		2.06	mg/L
Total Cadmium		0.014	mg/L
Total Chromium		0.225	mg/L
Total Copper		0.0538	mg/L
Total Iron		109	mg/L
Total Lead		0.0687	mg/L
Total Manganese		1.32	mg/L
Total Selenium		<0.050	mg/L
Total Silver		<0.0125	mg/L
Total Zinc		0.336	mg/L

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424
El Paso, Texas 79932

800•378•1296
888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1296
915•585•3443

FAX 806•794•1298
FAX 915•585•4944

Analytical and Quality Control Report

Theresa Nix
H2A Environmental LTD
418 San Saba
Portland, Tx. 78374

Report Date: February 18, 2002

Order ID Number: A02012911

Project Number: 106.001
Project Name: Jal Station
Project Location: Jal,NM

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
189885	MW-16	Water	1/26/02	12:00	1/29/02
189886	MW-17	Water	1/26/02	10:00	1/29/02

0

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.

This report consists of a total of 18 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

Analytical Report

Sample: 189885 - MW-16

Analysis: Alkalinity Analytical Method: E 310.1 QC Batch: QC18003 Date Analyzed: 1/31/02
Analyst: JSW Preparation Method: N/A Prep Batch: PB17545 Date Prepared: 1/31/02

Param	Flag	Result	Units	Dilution	RDL
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1	1
Bicarbonate Alkalinity		306	mg/L as CaCo3	1	1
Total Alkalinity		306	mg/L as CaCo3	1	1

Sample: 189885 - MW-16

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC17736 Date Analyzed: 1/29/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB17357 Date Prepared: 1/29/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.095	mg/L	1	0.10	95	70 - 130
4-BFB		0.094	mg/L	1	0.10	94	70 - 130

Sample: 189885 - MW-16

Analysis: Hg, Total Analytical Method: S 7470A QC Batch: QC18055 Date Analyzed: 2/9/02
Analyst: BC Preparation Method: N/A Prep Batch: PB17593 Date Prepared: 2/11/02

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.0002	mg/L	1	0.0002

Sample: 189885 - MW-16

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC17812 Date Analyzed: 1/29/02
Analyst: JS Preparation Method: N/A Prep Batch: PB17413 Date Prepared: 1/29/02

Param	Flag	Result	Units	Dilution	RDL
Chloride	1	85.6	mg/L	5	2
Fluoride	2	4.07	mg/L	5	0.20
Nitrate-N	2	34.6	mg/L	5	0.20
Sulfate	3	518	mg/L	50	2

¹Chloride re-ran on IC020402-2.sch. ICV %IA = 91; CCV %IA = 91; matrix spikes RPD = 0, %EA = 86; LCS spikes RPD = 0, %EA = 90.

²Sample was received out of hold time for NO3.

³Sulfate re-ran on IC020402-2.sch. ICV %IA = 95; CCV %IA = 96; matrix spikes RPD = 1, %EA = 94; LCS spikes RPD = 0, %EA = 95.

Sample: 189885 - MW-16

Analysis: PAH Analytical Method: S 8270C QC Batch: QC18177 Date Analyzed: 2/14/02
Analyst: RC Preparation Method: E 3510C Prep Batch: PB17690 Date Prepared: 1/31/02

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.005	mg/L	1	0.005
Acenaphthylene		<0.005	mg/L	1	0.005
Acenaphthene		<0.005	mg/L	1	0.005
Fluorene		<0.005	mg/L	1	0.005
Phenanthrene		<0.005	mg/L	1	0.005
Anthracene		<0.005	mg/L	1	0.005
Fluoranthene		<0.005	mg/L	1	0.005
Pyrene		<0.005	mg/L	1	0.005
Benzo(a)anthracene		<0.005	mg/L	1	0.005
Chrysene		<0.005	mg/L	1	0.005
Benzo(b)fluoranthene		<0.005	mg/L	1	0.005
Benzo(k)fluoranthene		<0.005	mg/L	1	0.005
Benzo(a)pyrene		<0.005	mg/L	1	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	1	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	1	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	1	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		66.48	mg/L	1	80	83	35 - 114
2-Fluorobiphenyl		67.71	mg/L	1	80	84	43 - 116
Terphenyl-d14		67.31	mg/L	1	80	84	33 - 141

Sample: 189885 - MW-16

Analysis: Salts Analytical Method: E 200.7 QC Batch: QC17917 Date Analyzed: 2/4/02
Analyst: BC Preparation Method: S 3005A Prep Batch: PB17369 Date Prepared: 1/31/02

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		168	mg/L	1	0.50
Dissolved Magnesium		83.7	mg/L	1	0.50
Dissolved Potassium		16.2	mg/L	1	0.50
Dissolved Sodium		201	mg/L	1	0.50

Sample: 189885 - MW-16

Analysis: TDS Analytical Method: E 160.1 QC Batch: QC17816 Date Analyzed: 2/1/02
Analyst: JS Preparation Method: N/A Prep Batch: PB17416 Date Prepared: 1/31/02

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		1490	mg/L	2	10

Sample: 189885 - MW-16

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC17845 Date Analyzed: 2/4/02
Analyst: MM Preparation Method: 3510C - Mod. Prep Batch: PB17443 Date Prepared: 2/1/02

Param	Flag	Result	Units	Dilution	RDL
DRO		<5.00	mg/L	0.10	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		14.4	mg/L	0.10	150	96	70 - 130

Sample: 189885 - MW-16

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC17738 Date Analyzed: 1/29/02
Analyst: CG Preparation Method: 5030 Prep Batch: PB17458 Date Prepared: 1/29/02

Param	Flag	Result	Units	Dilution	RDL
GRO		<0.1	mg/L	1	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.109	mg/L	1	0.10	109	70 - 130
4-BFB		0.084	mg/L	1	0.10	84	70 - 130

Sample: 189885 - MW-16

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC17782 Date Analyzed: 1/31/02
Analyst: RR Preparation Method: S 3010A Prep Batch: PB17360 Date Prepared: 1/30/02

Param	Flag	Result	Units	Dilution	RDL
Total Arsenic		<0.010	mg/L	1	0.01
Total Barium		<0.100	mg/L	1	0.10
Total Cadmium		<0.005	mg/L	1	0.005
Total Chromium		0.0118	mg/L	1	0.01
Total Copper		<0.0125	mg/L	1	0.01
Total Iron		4.20	mg/L	1	0.05
Total Lead		<0.010	mg/L	1	0.01
Total Manganese		0.0479	mg/L	1	0.02
Total Selenium		<0.050	mg/L	1	0.05
Total Silver		<0.0125	mg/L	1	0.01
Total Zinc		0.0456	mg/L	1	0.02

Sample: 189886 - MW-17

Analysis: Alkalinity Analytical Method: E 310.1 QC Batch: QC18003 Date Analyzed: 1/31/02
Analyst: JSW Preparation Method: N/A Prep Batch: PB17545 Date Prepared: 1/31/02

Param	Flag	Result	Units	Dilution	RDL
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1	1
Bicarbonate Alkalinity		386	mg/L as CaCo3	1	1
Total Alkalinity		386	mg/L as CaCo3	1	1

Sample: 189886 - MW-17

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC17736 Date Analyzed: 1/29/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB17357 Date Prepared: 1/29/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.097	mg/L	1	0.10	97	70 - 130
4-BFB		0.095	mg/L	1	0.10	95	70 - 130

Sample: 189886 - MW-17

Analysis: Hg, Total Analytical Method: S 7470A QC Batch: QC18055 Date Analyzed: 2/9/02
Analyst: BC Preparation Method: N/A Prep Batch: PB17593 Date Prepared: 2/11/02

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		0.00026	mg/L	1	0.0002

Sample: 189886 - MW-17

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC17812 Date Analyzed: 1/29/02
Analyst: JS Preparation Method: N/A Prep Batch: PB17413 Date Prepared: 1/29/02

Param	Flag	Result	Units	Dilution	RDL
Chloride	4	20.7	mg/L	5	2
Fluoride		4.05	mg/L	5	0.20
Nitrate-N	5	5.93	mg/L	5	0.20
Sulfate	6	163	mg/L	5	2

Sample: 189886 - MW-17

Analysis: PAH Analytical Method: S 8270C QC Batch: QC18177 Date Analyzed: 2/14/02
Analyst: RC Preparation Method: E 3510C Prep Batch: PB17690 Date Prepared: 1/31/02

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.005	mg/L	1	0.005
Acenaphthylene		<0.005	mg/L	1	0.005
Acenaphthene		<0.005	mg/L	1	0.005
Fluorene		<0.005	mg/L	1	0.005
Phenanthrene		<0.005	mg/L	1	0.005
Anthracene		<0.005	mg/L	1	0.005
Fluoranthene		<0.005	mg/L	1	0.005

Continued ...

⁴Chloride re-ran on IC020402-2.sch. ICV %IA = 91; CCV %IA = 91; matrix spikes RPD = 0, %EA = 86; LCS spikes RPD = 0, %EA = 90.

⁵Sample was received out of hold time for NO3.

⁶Sulfate re-ran on IC020402-2.sch. ICV %IA = 95; CCV %IA = 96; matrix spikes RPD = 1, %EA = 94; LCS spikes RPD = 0, %EA = 95.

... Continued Sample: 189886 Analysis: PAH

Param	Flag	Result	Units	Dilution	RDL
Pyrene		<0.005	mg/L	1	0.005
Benzo(a)anthracene		<0.005	mg/L	1	0.005
Chrysene		<0.005	mg/L	1	0.005
Benzo(b)fluoranthene		<0.005	mg/L	1	0.005
Benzo(k)fluoranthene		<0.005	mg/L	1	0.005
Benzo(a)pyrene		<0.005	mg/L	1	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	1	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	1	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	1	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		54.66	mg/L	1	80	68	35 - 114
2-Fluorobiphenyl		57.69	mg/L	1	80	72	43 - 116
Terphenyl-d14		44.08	mg/L	1	80	55	33 - 141

Sample: 189886 - MW-17

Analysis: Salts Analytical Method: E 200.7 QC Batch: QC17917 Date Analyzed: 2/4/02
Analyst: BC Preparation Method: S 3005A Prep Batch: PB17369 Date Prepared: 1/31/02

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		102	mg/L	1	0.50
Dissolved Magnesium		53.4	mg/L	1	0.50
Dissolved Potassium		11.6	mg/L	1	0.50
Dissolved Sodium		73.9	mg/L	1	0.50

Sample: 189886 - MW-17

Analysis: TDS Analytical Method: E 160.1 QC Batch: QC17816 Date Analyzed: 2/1/02
Analyst: JS Preparation Method: N/A Prep Batch: PB17416 Date Prepared: 1/31/02

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		716	mg/L	1	10

Sample: 189886 - MW-17

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC17845 Date Analyzed: 2/4/02
Analyst: MM Preparation Method: 3510C - Mod. Prep Batch: PB17443 Date Prepared: 2/1/02

Param	Flag	Result	Units	Dilution	RDL
DRO		<5.00	mg/L	0.10	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		12.3	mg/L	0.10	150	82	70 - 130

Sample: 189886 - MW-17

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC17738 Date Analyzed: 1/29/02
Analyst: CG Preparation Method: 5030 Prep Batch: PB17458 Date Prepared: 1/29/02

Param	Flag	Result	Units	Dilution	RDL
GRO		<0.1	mg/L	1	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.111	mg/L	1	0.10	111	70 - 130
4-BFB		0.086	mg/L	1	0.10	86	70 - 130

Sample: 189886 - MW-17

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC17782 Date Analyzed: 1/31/02
Analyst: RR Preparation Method: S 3010A Prep Batch: PB17360 Date Prepared: 1/30/02

Param	Flag	Result	Units	Dilution	RDL
Total Arsenic		0.0562	mg/L	1	0.01
Total Barium		2.06	mg/L	1	0.10
Total Cadmium		0.014	mg/L	1	0.005
Total Chromium		0.225	mg/L	1	0.01
Total Copper		0.0538	mg/L	1	0.01
Total Iron		109	mg/L	1	0.05
Total Lead		0.0687	mg/L	1	0.01
Total Manganese		1.32	mg/L	1	0.02
Total Selenium		<0.050	mg/L	1	0.05
Total Silver		<0.0125	mg/L	1	0.01
Total Zinc		0.336	mg/L	1	0.02

Quality Control Report Method Blank

Method Blank QCBatch: QC17736

Param	Flag	Results	Units	Reporting 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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.091	mg/L	1	0.10	91	70 - 130
4-BFB		0.09	mg/L	1	0.10	90	70 - 130

Method Blank QCBatch: QC17738

Param	Flag	Results	Units	Reporting Limit
GRO		<0.1	mg/L	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.105	mg/L	1	0.10	105	70 - 130
4-BFB		0.081	mg/L	1	0.10	81	70 - 130

Method Blank QCBatch: QC17782

Param	Flag	Results	Units	Reporting Limit
Total Arsenic		<0.010	mg/L	0.01
Total Barium		<0.100	mg/L	0.10
Total Cadmium		<0.005	mg/L	0.005
Total Chromium		<0.010	mg/L	0.01
Total Copper		<0.0125	mg/L	0.01
Total Iron		<0.050	mg/L	0.05
Total Lead		<0.010	mg/L	0.01
Total Manganese		<0.025	mg/L	0.02
Total Selenium		<0.050	mg/L	0.05
Total Silver		<0.0125	mg/L	0.01
Total Zinc		<0.025	mg/L	0.02

Method Blank QCBatch: QC17812

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

Method Blank QCBatch: QC17816

Param	Flag	Results	Units	Reporting Limit
Total Dissolved Solids		<10	mg/L	10

Method Blank QCBatch: QC17845

Param	Flag	Results	Units	Reporting Limit
DRO		<5.00	mg/L	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		13	mg/L	0.10	150	86	70 - 130

Method Blank QCBatch: QC17917

Param	Flag	Results	Units	Reporting Limit
Dissolved Calcium		<0.5	mg/L	0.50
Dissolved Magnesium		<0.5	mg/L	0.50
Dissolved Potassium		<0.5	mg/L	0.50
Dissolved Sodium		<0.5	mg/L	0.50

Method Blank QCBatch: QC18003

Param	Flag	Results	Units	Reporting Limit
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4	mg/L as CaCo3	1
Total Alkalinity		<4	mg/L as CaCo3	1

Method Blank QCBatch: QC18055

Param	Flag	Results	Units	Reporting Limit
Total Mercury		<0.0002	mg/L	0.0002

Method Blank

QCBatch: QC18177

Param	Flag	Results	Units	Reporting Limit
Naphthalene		<0.005	mg/L	0.005
Acenaphthylene		<0.005	mg/L	0.005
Acenaphthene		<0.005	mg/L	0.005
Fluorene		<0.005	mg/L	0.005
Phenanthrene		<0.005	mg/L	0.005
Anthracene		<0.005	mg/L	0.005
Fluoranthene		<0.005	mg/L	0.005
Pyrene		<0.005	mg/L	0.005
Benzo(a)anthracene		<0.005	mg/L	0.005
Chrysene		<0.005	mg/L	0.005
Benzo(b)fluoranthene		<0.005	mg/L	0.005
Benzo(k)fluoranthene		<0.005	mg/L	0.005
Benzo(a)pyrene		<0.005	mg/L	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		67.96	mg/L	1	80	84	35 - 114
2-Fluorobiphenyl		72.09	mg/L	1	80	90	43 - 116
Terphenyl-d14		78.98	mg/L	1	80	98	33 - 141

Quality Control Report Duplicate Samples

Duplicate

QCBatch: QC17816

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		756	754	mg/L	1	0	8.9

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC17736

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.101	0.103	mg/L	1	0.10	<0.001	101	1	82 - 111	20
Benzene	0.096	0.097	mg/L	1	0.10	<0.001	96	1	86 - 106	20
Toluene	0.101	0.103	mg/L	1	0.10	<0.001	101	1	82 - 108	20
Ethylbenzene	0.101	0.103	mg/L	1	0.10	<0.001	101	1	86 - 115	20
M,P,O-Xylene	0.309	0.312	mg/L	1	0.30	<0.001	103	0	79 - 122	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.09	0.093	mg/L	1	0.10	90	93	70 - 130
4-BFB	0.111	0.111	mg/L	1	0.10	111	111	70 - 130

Laboratory Control Spikes

QCBatch: QC17738

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
GRO	0.919	0.991	mg/L	1	1	<0.1	91	7	78 - 113	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.094	0.107	mg/L	1	0.10	94	107	70 - 130
4-BFB	0.097	0.098	mg/L	1	0.10	97	98	70 - 130

Laboratory Control Spikes

QCBatch: QC17782

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Aluminum	0.969	0.959	mg/L	1	1	<0.100	96	1	75 - 125	20
Total Arsenic	0.510	0.492	mg/L	1	0.50	<0.010	102	3	75 - 125	20
Total Barium	1.01	1.00	mg/L	1	1	<0.100	101	0	75 - 125	20
Total Beryllium	0.024	0.0239	mg/L	1	0.02	<0.0025	96	0	75 - 125	20
Total Boron	0.0538	0.052	mg/L	1	0.05	0.0139	107	3	75 - 125	20
Total Cadmium	0.239	0.239	mg/L	1	0.25	<0.005	95	0	75 - 125	20
Total Chromium	0.102	0.101	mg/L	1	0.10	<0.010	102	0	75 - 125	20
Total Cobalt	0.250	0.251	mg/L	1	0.25	<0.025	100	0	75 - 125	20
Total Copper	0.136	0.136	mg/L	1	0.12	<0.0125	108	0	75 - 125	20
Total Iron	0.586	0.496	mg/L	1	0.50	<0.050	117	16	75 - 125	20
Total Lead	0.482	0.472	mg/L	1	0.50	<0.010	96	2	75 - 125	20
Total Manganese	0.255	0.254	mg/L	1	0.25	<0.025	102	0	75 - 125	20
Total Molybdenum	0.505	0.501	mg/L	1	0.50	<0.050	101	0	75 - 125	20
Total Nickel	0.208	0.209	mg/L	1	0.25	<0.025	83	0	75 - 125	20
Total Selenium	0.407	0.405	mg/L	1	0.50	<0.050	81	0	75 - 125	20
Total Silver	0.121	0.120	mg/L	1	0.12	<0.0125	96	0	75 - 125	20
Total Uranium	0.504	0.499	mg/L	1	0.50	<0.050	100	0	75 - 125	20
Total Vanadium	0.253	0.251	mg/L	1	0.25	<0.025	101	0	75 - 125	20
Total Zinc	0.239	0.238	mg/L	1	0.25	<0.025	95	0	75 - 125	20

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

Laboratory Control Spikes

QCBatch: QC17812

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Fluoride	2.24	2.18	mg/L	1	2.50	<0.2	89	2	90 - 110	20
Nitrate-N	2.41	2.40	mg/L	1	2.50	<0.2	96	0	90 - 110	20

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

Laboratory Control Spikes

QCBatch: QC17845

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
DRO	23.7	23.6	mg/L	0.10	250	<5.00	95	0	70 - 130	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
n-Triacontane	12.8	12.6	mg/L	0.10	150	85	84	70 - 130

Laboratory Control Spikes

QCBatch: QC17917

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Calcium	110	108	mg/L	1	100	<0.5	110	1	75 - 125	20
Dissolved Magnesium	106	102	mg/L	1	100	<0.5	106	3	75 - 125	20
Dissolved Potassium	105	101	mg/L	1	100	<0.5	105	3	75 - 125	20
Dissolved Sodium	104	103	mg/L	1	100	<0.5	104	0	75 - 125	20

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

Laboratory Control Spikes

QCBatch: QC18177

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Naphthalene	65.54	63.97	mg/L	1	80	<0.005	81	2	21 - 133	20
Acenaphthylene	71.33	72.26	mg/L	1	80	<0.005	89	1	33 - 145	20
Acenaphthene	69.24	69.19	mg/L	1	80	<0.005	86	0	47 - 145	20
Fluorene	69.444	70.23	mg/L	1	80	<0.005	86	1	59 - 121	20
Phenanthrene	66.89	67.91	mg/L	1	80	<0.005	83	1	54 - 120	20
Anthracene	60.23	61.08	mg/L	1	80	<0.005	75	1	27 - 133	20
Fluoranthene	62.58	63.84	mg/L	1	80	<0.005	78	1	26 - 137	20
Pyrene	73.75	75.8	mg/L	1	80	<0.005	92	2	52 - 115	20
Benzo(a)anthracene	68.63	70.39	mg/L	1	80	<0.005	85	2	33 - 143	20
Chrysene	62.24	63.53	mg/L	1	80	<0.005	77	2	17 - 168	20
Benzo(b)fluoranthene	69.39	70.86	mg/L	1	80	<0.005	86	2	33 - 143	20
Benzo(k)fluoranthene	68.55	69.31	mg/L	1	80	<0.005	85	1	17 - 168	20
Benzo(a)pyrene	69.18	71.07	mg/L	1	80	<0.005	86	2	24 - 159	20
Indeno(1,2,3-cd)pyrene	70.09	72.71	mg/L	1	80	<0.005	87	3	0 - 171	20
Dibenzo(a,h)anthracene	49.24	51.93	mg/L	1	80	<0.005	61	5	0 - 227	20
Benzo(g,h,i)perylene	69.33	73.14	mg/L	1	80	<0.005	86	5	0 - 219	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
Nitrobenzene-d5	66.85	60.88	mg/L	1	80	83	76	35 - 114
2-Fluorobiphenyl	71.37	66.33	mg/L	1	80	89	82	43 - 116
Terphenyl-d14	75.62	73.58	mg/L	1	80	94	91	33 - 141

Quality Control Report

Matrix Spikes and Duplicate Spikes

Matrix Spikes

QCBatch: QC17782

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Arsenic	0.574	0.556	mg/L	1	0.50	0.0578	103	3	75 - 125	20
Total Barium	0.880	0.873	mg/L	1	1	<0.100	88	0	75 - 125	20
Total Cadmium	0.205	0.203	mg/L	1	0.25	<0.005	82	0	75 - 125	20
Total Chromium	0.0874	0.0851	mg/L	1	0.10	<0.010	87	2	75 - 125	20
Total Copper	0.129	0.130	mg/L	1	0.12	<0.0125	103	0	75 - 125	20
Total Iron	1.96	1.96	mg/L	1	0.50	1.51	90	0	75 - 125	20
Total Lead	0.427	0.423	mg/L	1	0.50	<0.010	85	0	75 - 125	20
Total Manganese	1.96	1.94	mg/L	1	0.25	1.70	103	8	75 - 125	20
Total Selenium	0.414	0.399	mg/L	1	0.50	<0.050	82	3	75 - 125	20
Total Silver	0.121	0.120	mg/L	1	0.12	<0.0125	96	0	75 - 125	20
Total Zinc	0.200	0.198	mg/L	1	0.25	<0.025	80	1	75 - 125	20

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

Matrix Spikes

QCBatch: QC17812

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Fluoride	13.92	13.91	mg/L	1	12.50		87	0	80 - 113	20
Fluoride	13.92	13.91	mg/L	1	12.50	2.97	87	0	80 - 113	20
Nitrate-N	14.37	14.22	mg/L	1	12.50		94	1	84 - 105	20
Nitrate-N	14.37	14.22	mg/L	1	12.50	2.55	94	1	84 - 105	20

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

Matrix Spikes

QCBatch: QC17917

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Calcium	297	303	mg/L	1	100	194	103	5	75 - 125	20
Dissolved Magnesium	315	312	mg/L	1	100	204	111	2	75 - 125	20
Dissolved Potassium	133	125	mg/L	1	100	25.2	107	7	75 - 125	20
Dissolved Sodium	210	211	mg/L	1	100	106	104	0	75 - 125	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: QC17736

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.094	94	85 - 115	1/29/02
Benzene		mg/L	0.10	0.093	93	85 - 115	1/29/02
Toluene		mg/L	0.10	0.098	98	85 - 115	1/29/02
Ethylbenzene		mg/L	0.10	0.098	98	85 - 115	1/29/02
M,P,O-Xylene		mg/L	0.30	0.297	99	85 - 115	1/29/02

ICV (1) QCBatch: QC17736

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.097	97	85 - 115	1/29/02
Benzene		mg/L	0.10	0.093	93	85 - 115	1/29/02
Toluene		mg/L	0.10	0.098	98	85 - 115	1/29/02
Ethylbenzene		mg/L	0.10	0.099	99	85 - 115	1/29/02
M,P,O-Xylene		mg/L	0.30	0.301	100	85 - 115	1/29/02

CCV (1) QCBatch: QC17738

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1	1.08	108	85 - 115	1/29/02

ICV (1) QCBatch: QC17738

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1	0.986	98	85 - 115	1/29/02

CCV (1) QCBatch: QC17782

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	2	1.97	98	90 - 110	1/31/02
Total Arsenic		mg/L	1	0.941	94	90 - 110	1/31/02
Total Barium		mg/L	2	1.94	97	90 - 110	1/31/02
Total Beryllium		mg/L	0.05	0.0481	96	90 - 110	1/31/02
Total Boron		mg/L	0.10	0.0964	82	90 - 110	1/31/02
Total Cadmium		mg/L	0.50	0.479	96	90 - 110	1/31/02
Total Chromium		mg/L	0.20	0.194	97	90 - 110	1/31/02
Total Cobalt		mg/L	0.50	0.489	98	90 - 110	1/31/02
Total Copper		mg/L	0.25	0.233	93	90 - 110	1/31/02

Continued ...

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1	0.974	97	90 - 110	1/31/02
Total Lead		mg/L	1	0.965	96	90 - 110	1/31/02
Total Manganese		mg/L	0.50	0.484	97	90 - 110	1/31/02
Total Molybdenum		mg/L	1	0.972	97	90 - 110	1/31/02
Total Nickel		mg/L	0.50	0.490	98	90 - 110	1/31/02
Total Selenium		mg/L	1	0.950	95	90 - 110	1/31/02
Total Silver		mg/L	0.25	0.241	96	90 - 110	1/31/02
Total Uranium		mg/L	1	1.02	102	90 - 110	1/31/02
Total Vanadium		mg/L	0.50	0.489	98	90 - 110	1/31/02
Total Zinc		mg/L	0.50	0.466	93	90 - 110	1/31/02

ICV (1)

QCBatch: QC17782

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	2	1.93	96	90 - 110	1/31/02
Total Arsenic		mg/L	1	0.956	96	90 - 110	1/31/02
Total Barium		mg/L	2	1.95	98	90 - 110	1/31/02
Total Beryllium		mg/L	0.05	0.0488	98	90 - 110	1/31/02
Total Boron		mg/L	0.10	0.103	103	90 - 110	1/31/02
Total Cadmium		mg/L	0.50	0.486	97	90 - 110	1/31/02
Total Chromium		mg/L	0.20	0.196	98	90 - 110	1/31/02
Total Cobalt		mg/L	0.50	0.490	98	90 - 110	1/31/02
Total Copper		mg/L	0.25	0.244	98	90 - 110	1/31/02
Total Iron		mg/L	1	0.966	97	90 - 110	1/31/02
Total Lead		mg/L	1	0.977	98	90 - 110	1/31/02
Total Manganese		mg/L	0.50	0.488	98	90 - 110	1/31/02
Total Molybdenum		mg/L	1	0.981	98	90 - 110	1/31/02
Total Nickel		mg/L	0.50	0.487	97	90 - 110	1/31/02
Total Selenium		mg/L	1	0.994	99	90 - 110	1/31/02
Total Silver		mg/L	0.25	0.245	98	90 - 110	1/31/02
Total Uranium		mg/L	1	0.972	97	90 - 110	1/31/02
Total Vanadium		mg/L	0.50	0.488	98	90 - 110	1/31/02
Total Zinc		mg/L	0.50	0.486	97	90 - 110	1/31/02

CCV (1)

QCBatch: QC17812

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		mg/L	2.50	2.27	90	90 - 110	1/29/02
Nitrate-N		mg/L	2.50	2.41	96	90 - 110	1/29/02

ICV (1)

QCBatch: QC17812

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		mg/L	2.50	2.25	90	90 - 110	1/29/02
Nitrate-N		mg/L	2.50	2.39	95	90 - 110	1/29/02

CCV (1) QCBatch: QC17816

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	984	98	90 - 110	2/1/02

ICV (1) QCBatch: QC17816

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	985	98	90 - 110	2/1/02

CCV (1) QCBatch: QC17845

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	245	98	75 - 125	2/4/02

ICV (1) QCBatch: QC17845

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	241	96	75 - 125	2/4/02

CCV (1) QCBatch: QC17917

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	27.5	110	90 - 110	2/4/02
Dissolved Magnesium		mg/L	25	26.9	107	90 - 110	2/4/02
Dissolved Potassium		mg/L	25	24.9	99	90 - 110	2/4/02
Dissolved Sodium		mg/L	25	26.4	105	90 - 110	2/4/02

ICV (1) QCBatch: QC17917

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	23.1	92	95 - 105	2/4/02
Dissolved Magnesium		mg/L	25	25.1	100	95 - 105	2/4/02
Dissolved Potassium		mg/L	25	24.9	99	95 - 105	2/4/02
Dissolved Sodium		mg/L	25	25.7	102	95 - 105	2/4/02

CCV (1) QCBatch: QC18003

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	<1	0	90 - 110	1/31/02
Carbonate Alkalinity		mg/L as CaCo3	0	232	0	90 - 110	1/31/02
Bicarbonate Alkalinity		mg/L as CaCo3	0	10	0	90 - 110	1/31/02
Total Alkalinity		mg/L as CaCo3	250	242	96	90 - 110	1/31/02

ICV (1) QCBatch: QC18003

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	<1	0	90 - 110	1/31/02
Carbonate Alkalinity		mg/L as CaCo3	0	252	0	90 - 110	1/31/02
Bicarbonate Alkalinity		mg/L as CaCo3	0	<1	0	90 - 110	1/31/02
Total Alkalinity		mg/L as CaCo3	250	252	100	90 - 110	1/31/02

CCV (1) QCBatch: QC18055

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.001	0.00105	105	80 - 120	2/9/02

ICV (1) QCBatch: QC18055

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.001	0.00103	103	80 - 120	2/9/02

CCV (1) QCBatch: QC18177

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60	59.9	99	80 - 120	2/14/02
Acenaphthylene		mg/L	60	59.55	99	80 - 120	2/14/02
Acenaphthene		mg/L	60	59.49	99	80 - 120	2/14/02
Fluorene		mg/L	60	59.1	98	80 - 120	2/14/02
Phenanthrene		mg/L	60	59.49	99	80 - 120	2/14/02
Anthracene		mg/L	60	59.8	99	80 - 120	2/14/02
Fluoranthene		mg/L	60	56.22	93	80 - 120	2/14/02
Pyrene		mg/L	60	61.85	103	80 - 120	2/14/02
Benzo(a)anthracene		mg/L	60	60.06	100	0 - 120	2/14/02
Chrysene		mg/L	60	58.17	96	0 - 120	2/14/02
Benzo(b)fluoranthene		mg/L	60	57.71	96	80 - 120	2/14/02
Benzo(k)fluoranthene		mg/L	60	56.28	93	80 - 120	2/14/02
Benzo(a)pyrene		mg/L	60	58.67	97	80 - 120	2/14/02
Indeno(1,2,3-cd)pyrene		mg/L	60	62.26	103	80 - 120	2/14/02
Dibenzo(a,h)anthracene		mg/L	60	60.35	100	80 - 120	2/14/02
Benzo(g,h,i)perylene		mg/L	60	57.74	96	80 - 120	2/14/02
Nitrobenzene-d5		mg/L	60	59.67	99	80 - 120	2/14/02
2-Fluorobiphenyl		mg/L	60	57.77	96	80 - 120	2/14/02
Terphenyl-d14		mg/L	60	61.8	103	80 - 120	2/14/02

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # AD2012a11

(Circle or Specify Method No.)

(Circle or specify material No.:)

(Circle or specify intended use.)

625

24
270C/
8

atiles
s
60B/6
ol. 82
3
A/60

tiles
mi. Vol
icides
l. 826
mi. V
2/608
8081

Volat
Sem
Pest

S Vo
S Se
s 808
cides

TCLP
TCLP
TCLP
RCI
GC/M
GC/M
PCB's
Pestic

	T
	T
	T
	F
	C
	C
	F
	F

--	--	--	--	--	--

--	--	--	--	--	--	--	--

*	

--	--	--	--	--	--	--

REMARKS:

REMARKS:

12

☐ Check if Special F

Limits Are Needed

8/9/2009/168

Report Date: April 15, 2002 Order Number: A02032909
106.001 Jal Station

Page Number: 1 of 1
Jal,NM

Summary Report

Marc C Oler
Equiva Mark Oler
308 Wilcox #101
Castlerock, Co. 80104

Report Date: April 15, 2002

Order ID Number: A02032909

Project: 106.001
TA Job Code: Jal Station
Casualty Code: 106.001
Project Location: Jal,NM
Project Address:
H2A Environmental LTD / Portland / Theresa Nix

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
193874	MW-16	Water	3/27/02	8:00	3/29/02
193875	MW-17	Water	3/27/02	9:00	3/29/02
193876	Effluent	Water	3/27/02	10:00	3/29/02
193877	MW-1	Water	3/27/02	11:00	3/29/02
193878	MW-5	Water	3/28/02	8:00	3/29/02
193879	MW-11	Water	3/28/02	8:30	3/29/02
193880	MW-13	Water	3/28/02	9:00	3/29/02
193881	MW-15	Water	3/28/02	9:30	3/29/02

0 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.

Sample - Field Code	BTEX				
	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)
193874 - MW-16	<0.001	<0.001	<0.001	<0.001	<0.001
193875 - MW-17	<0.001	<0.001	<0.001	<0.001	<0.001
193876 - Effluent	<0.001	<0.001	<0.001	<0.001	<0.001
193877 - MW-1	<0.005	<0.005	<0.005	<0.005	<0.005
193878 - MW-5	<0.001	<0.001	<0.001	<0.001	<0.001
193879 - MW-11	<0.001	<0.001	<0.001	<0.001	<0.001
193880 - MW-13	<0.001	<0.001	<0.001	<0.001	<0.001
193881 - MW-15	<0.001	<0.001	<0.001	<0.001	<0.001

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424 800•378•1296
El Paso, Texas 79932 888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1296 FAX 806•794•1298
915•585•3443 FAX 915•585•4944

Analytical and Quality Control Report

Marc C Oler
Equiva Mark Oler
308 Wilcox #101
Castlerock, Co. 80104

Report Date: April 15, 2002

Order ID Number: A02032909

Project: 106.001
TA Job Code: Jal Station
Casualty Code: 106.001
Project Location: Jal, NM
H2A Environmental LTD / Portland / Theresa Nix

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
193874	MW-16	Water	3/27/02	8:00	3/29/02
193875	MW-17	Water	3/27/02	9:00	3/29/02
193876	Effluent	Water	3/27/02	10:00	3/29/02
193877	MW-1	Water	3/27/02	11:00	3/29/02
193878	MW-5	Water	3/28/02	8:00	3/29/02
193879	MW-11	Water	3/28/02	8:30	3/29/02
193880	MW-13	Water	3/28/02	9:00	3/29/02
193881	MW-15	Water	3/28/02	9:30	3/29/02

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.

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.



Dr. Blair Leftwich, Director

Analytical Report

Sample: 193874 - MW-16

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC19200 Date Analyzed: 3/29/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB18547 Date Prepared: 3/29/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0913	mg/L	1	0.10	91	70 - 130
4-BFB		0.0928	mg/L	1	0.10	93	70 - 130

Sample: 193875 - MW-17

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC19200 Date Analyzed: 3/29/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB18547 Date Prepared: 3/29/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0915	mg/L	1	0.10	92	70 - 130
4-BFB		0.0923	mg/L	1	0.10	92	70 - 130

Sample: 193876 - Effluent

Analysis: BTEX Analytical Method: E 602 QC Batch: QC19200 Date Analyzed: 3/29/02
Analyst: CG Preparation Method: N/A Prep Batch: PB18547 Date Prepared: 3/29/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Report Date: April 15, 2002
106.001

Order Number: A02032909
Jal Station

Page Number: 3 of 7
Jal,NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0897	mg/L	1	0.10	90	70 - 130
4-BFB		0.0908	mg/L	1	0.10	91	70 - 130

Sample: 193877 - MW-1

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC19200 Date Analyzed: 3/29/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB18547 Date Prepared: 3/29/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0859	mg/L	5	0.10	85	70 - 130
4-BFB		0.0846	mg/L	5	0.10	84	70 - 130

Sample: 193878 - MW-5

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC19200 Date Analyzed: 3/29/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB18547 Date Prepared: 3/29/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0888	mg/L	1	0.10	88	70 - 130
4-BFB		0.0908	mg/L	1	0.10	91	70 - 130

Sample: 193879 - MW-11

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC19200 Date Analyzed: 3/29/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB18547 Date Prepared: 3/29/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Report Date: April 15, 2002
106.001

Order Number: A02032909
Jal Station

Page Number: 4 of 7
Jal,NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0863	mg/L	1	0.10	86	70 - 130
4-BFB		0.0876	mg/L	1	0.10	88	70 - 130

Sample: 193880 - MW-13

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC19200 Date Analyzed: 3/29/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB18547 Date Prepared: 3/29/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.092	mg/L	1	0.10	92	70 - 130
4-BFB		0.0907	mg/L	1	0.10	91	70 - 130

Sample: 193881 - MW-15

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC19200 Date Analyzed: 3/29/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB18547 Date Prepared: 3/29/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0906	mg/L	1	0.10	91	70 - 130
4-BFB		0.092	mg/L	1	0.10	92	70 - 130

Quality Control Report Method Blank

Method Blank

QCBatch: QC19200

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0845	mg/L	1	0.10	84	70 - 130
TFT		0.0845	mg/L	1	0.10	84	70 - 130
4-BFB		0.0855	mg/L	1	0.10	86	70 - 130
4-BFB		0.0855	mg/L	1	0.10	86	70 - 130

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC19200

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.0896	0.0878	mg/L	1	0.10	<0.001	90	2	70 - 130	20
MTBE	0.0896	0.0878	mg/L	1	0.10	<0.001	90	2	70 - 130	20
Benzene	0.0916	0.087	mg/L	1	0.10	<0.001	92	5	70 - 130	20
Benzene	0.0916	0.087	mg/L	1	0.10	<0.001	92	5	70 - 130	20
Toluene	0.0921	0.0882	mg/L	1	0.10	<0.001	92	4	70 - 130	20
Toluene	0.0921	0.0882	mg/L	1	0.10	<0.001	92	4	70 - 130	20
Ethylbenzene	0.0943	0.091	mg/L	1	0.10	<0.001	94	4	70 - 130	20
Ethylbenzene	0.0943	0.091	mg/L	1	0.10	<0.001	94	4	70 - 130	20
M,P,O-Xylene	0.281	0.271	mg/L	1	0.30	<0.001	94	4	70 - 130	20
M,P,O-Xylene	0.281	0.271	mg/L	1	0.30	<0.001	94	4	70 - 130	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.0893	0.0841	mg/L	1	0.10	89	84	70 - 130
TFT	0.0893	0.0841	mg/L	1	0.10	89	84	70 - 130
4-BFB	0.0904	0.0871	mg/L	1	0.10	90	87	70 - 130

Continued ...

Report Date: April 15, 2002
106.001

Order Number: A02032909
Jal Station

Page Number: 6 of 7
Jal,NM

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
4-BFB	0.0904	0.0871	mg/L	1	0.10	90	87	70 - 130

Quality Control Report Continuing Calibration Verification Standards

CCV (1)

QCBatch: QC19200

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0912	91	70 - 130	3/29/02
MTBE		mg/L	0.10	0.0912	91	70 - 130	3/29/02
Benzene		mg/L	0.10	0.0893	89	70 - 130	3/29/02
Benzene		mg/L	0.10	0.0893	89	70 - 130	3/29/02
Toluene		mg/L	0.10	0.0906	91	70 - 130	3/29/02
Toluene		mg/L	0.10	0.0906	91	70 - 130	3/29/02
Ethylbenzene		mg/L	0.10	0.0939	94	70 - 130	3/29/02
Ethylbenzene		mg/L	0.10	0.0939	94	70 - 130	3/29/02
M,P,O-Xylene		mg/L	0.30	0.2797	93	70 - 130	3/29/02
M,P,O-Xylene		mg/L	0.30	0.2797	93	70 - 130	3/29/02

CCV (2)

QCBatch: QC19200

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0912	91	70 - 130	3/29/02
MTBE		mg/L	0.10	0.0912	91	70 - 130	3/29/02
Benzene		mg/L	0.10	0.0934	93	70 - 130	3/29/02
Benzene		mg/L	0.10	0.0934	93	70 - 130	3/29/02
Toluene		mg/L	0.10	0.0945	94	70 - 130	3/29/02
Toluene		mg/L	0.10	0.0945	94	70 - 130	3/29/02
Ethylbenzene		mg/L	0.10	0.0971	97	70 - 130	3/29/02
Ethylbenzene		mg/L	0.10	0.0971	97	70 - 130	3/29/02
M,P,O-Xylene		mg/L	0.30	0.29	96	70 - 130	3/29/02
M,P,O-Xylene		mg/L	0.30	0.29	96	70 - 130	3/29/02

ICV (1)

QCBatch: QC19200

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0914	91	70 - 130	3/29/02
MTBE		mg/L	0.10	0.0914	91	70 - 130	3/29/02
Benzene		mg/L	0.10	0.0872	87	70 - 130	3/29/02
Benzene		mg/L	0.10	0.0872	87	70 - 130	3/29/02

Continued ...

Report Date: April 15, 2002
106.001

Order Number: A02032909
Jal Station

Page Number: 7 of 7
Jal,NM

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		mg/L	0.10	0.0889	89	70 - 130	3/29/02
Toluene		mg/L	0.10	0.0889	89	70 - 130	3/29/02
Ethylbenzene		mg/L	0.10	0.093	93	70 - 130	3/29/02
Ethylbenzene		mg/L	0.10	0.093	93	70 - 130	3/29/02
M,P,O-Xylene		mg/L	0.30	0.278	93	70 - 130	3/29/02
M,P,O-Xylene		mg/L	0.30	0.278	93	70 - 130	3/29/02

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424 800•378•1296
El Paso, Texas 79932 888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1296 FAX 806•794•1298
915•585•3443 FAX 915•585•4944

Analytical and Quality Control Report

Marc C Oler
Equiva Mark Oler
308 Wilcox #101
Castlerock, Co. 80104

Report Date: July 5, 2002

Order ID Number: A02062812

Project: 106.001
TA Job Code: Jal Station
Casualty Code: 106.001
Project Location: Jal, NM
H2A Environmental LTD / Portland / Theresa Nix

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
200327	MW-1	Water	6/26/02	12:10	6/28/02
200328	MW-5	Water	6/26/02	12:20	6/28/02
200329	MW-11	Water	6/26/02	12:30	6/28/02
200330	MW-13	Water	6/26/02	12:40	6/28/02
200331	MW-15	Water	6/26/02	12:50	6/28/02
200332	MW-16	Water	6/26/02	13:00	6/28/02
200333	MW-17	Water	6/26/02	13:10	6/28/02

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 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

Analytical Report

Sample: 200327 - MW-1

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC21462 Date Analyzed: 6/28/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB20371 Date Prepared: 6/28/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.0219	mg/L	1	0.001
Toluene		0.0018	mg/L	1	0.001
Ethylbenzene		0.0046	mg/L	1	0.001
M,P,O-Xylene		0.0042	mg/L	1	0.001
Total BTEX		0.0325	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.120	mg/L	1	0.10	120	70 - 130
4-BFB		0.0788	mg/L	1	0.10	79	70 - 130

Sample: 200328 - MW-5

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC21462 Date Analyzed: 6/28/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB20371 Date Prepared: 6/28/02

Param	Flag	Result	Units	Dilution	RDL
Benzene	1	<0.001	mg/L	1	0.001
Toluene	2	<0.001	mg/L	1	0.001
Ethylbenzene	3	<0.001	mg/L	1	0.001
M,P,O-Xylene	4	<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0887	mg/L	1	0.10	89	70 - 130
4-BFB		0.0821	mg/L	1	0.10	82	70 - 130

Sample: 200329 - MW-11

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC21462 Date Analyzed: 6/28/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB20371 Date Prepared: 6/28/02

Param	Flag	Result	Units	Dilution	RDL
Benzene	5	<0.001	mg/L	1	0.001
Toluene	6	<0.001	mg/L	1	0.001

Continued ...

¹Sample has a Benzene concentration of less than 0.000348 mg/L which is the MDL.

²Sample has a Toluene concentration of less than 0.000205 mg/L which is the MDL.

³Sample has an Ethylbenzene concentration of less than 0.000205 mg/L which is the MDL.

⁴Sample has a total Xylene concentration of less than 0.000434 mg/L which is the MDL.

⁵Sample has a Benzene concentration of less than 0.000348 mg/L which is the MDL.

⁶Sample has a Toluene concentration of 0.0009 mg/L which is greater than the MDL of .000205 mg/L but lower than the RDL. 0.0001 mg/L was present in the method blank.

... Continued Sample: 200329 Analysis: BTEX

Param	Flag	Result	Units	Dilution	RDL
Ethylbenzene	7	<0.001	mg/L	1	0.001
M,P,O-Xylene	8	<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0739	mg/L	1	0.10	74	70 - 130
4-BFB	9	0.0656	mg/L	1	0.10	65	70 - 130

Sample: 200330 - MW-13

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC21462 Date Analyzed: 6/28/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB20371 Date Prepared: 6/28/02

Param	Flag	Result	Units	Dilution	RDL
Benzene	10	<0.001	mg/L	1	0.001
Toluene	11	<0.001	mg/L	1	0.001
Ethylbenzene	12	<0.001	mg/L	1	0.001
M,P,O-Xylene	13	<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0928	mg/L	1	0.10	93	70 - 130
4-BFB		0.0857	mg/L	1	0.10	86	70 - 130

Sample: 200331 - MW-15

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC21462 Date Analyzed: 6/28/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB20371 Date Prepared: 6/28/02

Param	Flag	Result	Units	Dilution	RDL
Benzene	14	<0.001	mg/L	1	0.001
Toluene	15	<0.001	mg/L	1	0.001
Ethylbenzene	16	<0.001	mg/L	1	0.001
M,P,O-Xylene	17	<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

⁷Sample has an Ethylbenzene concentration of less than 0.000205 mg/L which is the MDL.

⁸Sample has a total Xylene concentration of less than 0.000434 mg/L which is the MDL.

⁹Low surrogate recovery due to matrix interference. ICV, CCV show the method to be in control.

¹⁰Sample has a Benzene concentration of less than 0.000348 mg/L which is the MDL.

¹¹Sample has a Toluene concentration of 0.0005 mg/L which is greater than the MDL of .000205 mg/L but lower than the RDL. 0.0001 mg/L was present in the method blank.

¹²Sample has an Ethylbenzene concentration of less than 0.000205 mg/L which is the MDL.

¹³Sample has a total Xylene concentration of less than 0.000434 mg/L which is the MDL.

¹⁴Sample has a Benzene concentration of less than 0.000348 mg/L which is the MDL.

¹⁵Sample has a Toluene concentration of 0.0003 mg/L which is greater than the MDL of .000205 mg/L but lower than the RDL. 0.0001 mg/L was present in the method blank.

¹⁶Sample has an Ethylbenzene concentration of less than 0.000205 mg/L which is the MDL.

¹⁷Sample has a Total Xylene concentration of 0.0009 mg/L which is greater than the MDL of .000434 mg/L but lower than the RDL. 0.0005 mg/L was present in the method blank.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.093	mg/L	1	0.10	93	70 - 130
4-BFB		0.0876	mg/L	1	0.10	88	70 - 130

Sample: 200332 - MW-16

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC21462 Date Analyzed: 6/28/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB20371 Date Prepared: 6/28/02

Param	Flag	Result	Units	Dilution	RDL
Benzene	18	<0.001	mg/L	1	0.001
Toluene	19	<0.001	mg/L	1	0.001
Ethylbenzene	20	<0.001	mg/L	1	0.001
M,P,O-Xylene	21	<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0839	mg/L	1	0.10	84	70 - 130
4-BFB		0.0806	mg/L	1	0.10	81	70 - 130

Sample: 200333 - MW-17

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC21462 Date Analyzed: 6/28/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB20371 Date Prepared: 6/28/02

Param	Flag	Result	Units	Dilution	RDL
Benzene	22	<0.001	mg/L	1	0.001
Toluene	23	<0.001	mg/L	1	0.001
Ethylbenzene	24	<0.001	mg/L	1	0.001
M,P,O-Xylene	25	<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.087	mg/L	1	0.10	87	70 - 130
4-BFB		0.0819	mg/L	1	0.10	82	70 - 130

¹⁸Sample has a Benzene concentration of less than 0.000348 mg/L which is the MDL.

¹⁹Sample has a Toluene concentration of less than 0.000205 mg/L which is the MDL.

²⁰Sample has an Ethylbenzene concentration of less than 0.000205 mg/L which is the MDL.

²¹Sample has a Total Xylene concentration of 0.0006 mg/L which is greater than the MDL of .000434 mg/L but lower than the RDL. 0.0005 mg/L was present in the method blank.

²²Sample has a Benzene concentration of less than 0.000348 mg/L which is the MDL.

²³Sample has a Toluene concentration of less than 0.000205 mg/L which is the MDL.

²⁴Sample has an Ethylbenzene concentration of less than 0.000205 mg/L which is the MDL.

²⁵Sample has a total Xylene concentration of less than 0.000434 mg/L which is the MDL.

Quality Control Report Method Blank

Method Blank QCBatch: QC21462

Param	Flag	Results	Units	Reporting 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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.108	mg/L	1	0.10	108	70 - 130
4-BFB		0.099	mg/L	1	0.10	99	70 - 130

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC21462

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.0975	0.107	mg/L	1	0.10	<0.001	98	9	70 - 130	20
Benzene	0.0938	0.102	mg/L	1	0.10	<0.001	94	8	70 - 130	20
Toluene	0.0926	0.101	mg/L	1	0.10	<0.001	93	9	70 - 130	20
Ethylbenzene	0.0905	0.099	mg/L	1	0.10	<0.001	90	9	70 - 130	20
M,P,O-Xylene	0.264	0.288	mg/L	1	0.30	<0.001	88	9	70 - 130	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.108	0.106	mg/L	1	0.10	108	106	70 - 130
4-BFB	0.101	0.0999	mg/L	1	0.10	101	100	70 - 130

Quality Control Report Continuing Calibration Verification Standards

CCV (1) QCBatch: QC21462

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.107	107	85 - 115	6/28/02

Continued ...

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.102	102	85 - 115	6/28/02
Toluene		mg/L	0.10	0.102	102	85 - 115	6/28/02
Ethylbenzene		mg/L	0.10	0.0991	99	85 - 115	6/28/02
M,P,O-Xylene		mg/L	0.30	0.290	97	85 - 115	6/28/02

CCV (2)

QCBatch: QC21462

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.107	107	85 - 115	6/28/02
Benzene		mg/L	0.10	0.102	102	85 - 115	6/28/02
Toluene		mg/L	0.10	0.101	101	85 - 115	6/28/02
Ethylbenzene		mg/L	0.10	0.0988	98	85 - 115	6/28/02
M,P,O-Xylene		mg/L	0.30	0.287	95	85 - 115	6/28/02

ICV (1)

QCBatch: QC21462

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.110	110	85 - 115	6/28/02
Benzene		mg/L	0.10	0.103	103	85 - 115	6/28/02
Toluene		mg/L	0.10	0.102	102	85 - 115	6/28/02
Ethylbenzene		mg/L	0.10	0.101	101	85 - 115	6/28/02
M,P,O-Xylene		mg/L	0.30	0.294	98	85 - 115	6/28/02

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

155 McCutcheon, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

Phone #: 211-777-0610

Company Name: H2A Environmental

Address: 418 San Sofia Portland DE 18374 Fax #: 361-777-0971

Contact Person: Theresa Nix

Invoice to:
(If different from above)

Project #: 106.001

Project Name: Jal Station

Project Location: Trail NM

Sampler Signature: Mr. Swasey

[illegible]

Relinquished by: K. L. Lee Date: 6-27-02 Time: 1200

Relinquished by: _____ Date: _____ Time: _____

Relinquished by: _____ Date: _____ Time: _____

Received by:

Date: _____ Time: _____

Received by:

Date: _____ Time: _____

Received at Laboratory by:
Mell Green

Date: 7-28-02 Time: 10:00am

Submission of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 402062812

ANALYSIS REQUEST

(Circle or Specify Method No.)

[illegible]

LAB USE ONLY

Intact (Y) / N

Headspace Y.

neauspae

Temp 21

REMARKS:

☐ Check If Special Reporting Limits Are Needed

Carrier # FedEx 8/9/22 2891 8244

Report Date: September 30, 2002
106.001

Order Number: A02092606
Jal Station

Page Number: 1 of 1
Jal,NM

Summary Report

Marc C Oler
Equiva Marc Oler
308 Wilcox #101
Castlerock, Co. 80104

Report Date: September 30, 2002

Order ID Number: A02092606

Project: 106.001
TA Job Code: Jal Station
Casualty Code: 106.001
Project Location: Jal,NM
Project Address:
H2A Environmental LTD / Portland / Theresa Nix

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
208806	MW-1	Water	9/25/02	7:30	9/26/02
208807	MW-5	Water	9/25/02	8:30	9/26/02
208808	MW-11	Water	9/25/02	9:30	9/26/02
208809	MW-13	Water	9/25/02	10:30	9/26/02
208810	MW-15	Water	9/25/02	11:30	9/26/02
208811	MW-16	Water	9/25/02	12:30	9/26/02
208812	MW-17	Water	9/25/02	13:30	9/26/02
208813	Effluent	Water	9/25/02	14:00	9/26/02

0 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.

Sample - Field Code	BTEX				
	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)
208806 - MW-1	<0.005	<0.005	<0.005	<0.005	<0.005
208807 - MW-5	<0.001	<0.001	<0.001	<0.001	<0.001
208808 - MW-11	<0.001	<0.001	<0.001	<0.001	<0.001
208809 - MW-13	<0.001	<0.001	<0.001	<0.001	<0.001
208810 - MW-15	<0.001	<0.001	<0.001	<0.001	<0.001
208811 - MW-16	0.0119	<0.001	<0.001	<0.001	0.0119
208812 - MW-17	<0.001	<0.001	<0.001	<0.001	<0.001
208813 - Effluent	<0.005	<0.005	<0.005	<0.005	<0.005

This is only a summary. Please, refer to the complete report package for quality control data.

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424 800•378•1296
El Paso, Texas 79932 888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1296 FAX 806•794•1298
915•585•3443 FAX 915•585•4944

Analytical and Quality Control Report

Marc C Oler
Equiva Marc Oler
308 Wilcox #101
Castlerock, Co. 80104

Report Date: September 30, 2002

Order ID Number: A02092606

Project: 106.001
TA Job Code: Jal Station
Casualty Code: 106.001
Project Location: Jal, NM
H2A Environmental LTD / Portland / Theresa Nix

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
208806	MW-1	Water	9/25/02	7:30	9/26/02
208807	MW-5	Water	9/25/02	8:30	9/26/02
208808	MW-11	Water	9/25/02	9:30	9/26/02
208809	MW-13	Water	9/25/02	10:30	9/26/02
208810	MW-15	Water	9/25/02	11:30	9/26/02
208811	MW-16	Water	9/25/02	12:30	9/26/02
208812	MW-17	Water	9/25/02	13:30	9/26/02
208813	Effluent	Water	9/25/02	14:00	9/26/02

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 9 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Note: Samples will be disposed of 30 days from the report date unless the lab is contacted before the 30 days has past.



Dr. Blair Leftwich, Director

Analytical Report

Sample: 208806 - MW-1

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC23798 Date Analyzed: 9/26/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB22259 Date Prepared: 9/26/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.087	mg/L	5	0.10	87	70 - 130
4-BFB		0.075	mg/L	5	0.10	75	70 - 130

Sample: 208807 - MW-5

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC23798 Date Analyzed: 9/26/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB22259 Date Prepared: 9/26/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0935	mg/L	1	0.10	94	70 - 130
4-BFB		0.0795	mg/L	1	0.10	80	70 - 130

Sample: 208808 - MW-11

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC23798 Date Analyzed: 9/26/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB22259 Date Prepared: 9/26/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Report Date: September 30, 2002
106.001

Order Number: A02092606
Jal Station

Page Number: 4 of 9
Jal,NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0883	mg/L	1	0.10	88	70 - 130
4-BFB		0.0795	mg/L	1	0.10	80	70 - 130

Sample: 208809 - MW-13

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC23798 Date Analyzed: 9/26/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB22259 Date Prepared: 9/26/02

Param	Flag	Result	Units	Dilution	RD L
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0927	mg/L	1	0.10	93	70 - 130
4-BFB		0.0823	mg/L	1	0.10	82	70 - 130

Sample: 208810 - MW-15

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC23798 Date Analyzed: 9/26/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB22259 Date Prepared: 9/26/02

Param	Flag	Result	Units	Dilution	RD L
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0855	mg/L	1	0.10	86	70 - 130
4-BFB		0.0729	mg/L	1	0.10	73	70 - 130

Sample: 208811 - MW-16

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC23798 Date Analyzed: 9/26/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB22259 Date Prepared: 9/26/02

Param	Flag	Result	Units	Dilution	RD L
Benzene		0.0119	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		0.0119	mg/L	1	0.001

Report Date: September 30, 2002
106.001

Order Number: A02092606
Jal Station

Page Number: 5 of 9
Jal,NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0868	mg/L	1	0.10	87	70 - 130
4-BFB		0.0772	mg/L	1	0.10	77	70 - 130

Sample: 208812 - MW-17

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC23798 Date Analyzed: 9/26/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB22259 Date Prepared: 9/26/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0995	mg/L	1	0.10	100	70 - 130
4-BFB		0.0865	mg/L	1	0.10	86	70 - 130

Sample: 208813 - Effluent

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC23841 Date Analyzed: 9/27/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB22284 Date Prepared: 9/27/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0905	mg/L	5	0.10	90	70 - 130
4-BFB		0.0797	mg/L	5	0.10	79	70 - 130

Quality Control Report Method Blank

Method Blank QCBatch: QC23798

Param	Flag	Results	Units	Reporting 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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0928	mg/L	1	0.10	93	70 - 130
4-BFB		0.078	mg/L	1	0.10	78	70 - 130

Method Blank QCBatch: QC23841

Param	Flag	Results	Units	Reporting 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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0931	mg/L	1	0.10	93	70 - 130
4-BFB		0.0756	mg/L	1	0.10	76	70 - 130

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC23798

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.0893	0.0914	mg/L	1	0.10	<0.001	89	2	70 - 130	20
Benzene	0.0868	0.0889	mg/L	1	0.10	<0.001	87	2	70 - 130	20
Toluene	0.0789	0.0826	mg/L	1	0.10	<0.001	79	4	70 - 130	20
Ethylbenzene	0.0798	0.0841	mg/L	1	0.10	<0.001	80	5	70 - 130	20
M,P,O-Xylene	0.248	0.258	mg/L	1	0.30	<0.001	83	4	70 - 130	20

Report Date: September 30, 2002
106.001

Order Number: A02092606
Jal Station

Page Number: 7 of 9
Jal,NM

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.0906	0.0923	mg/L	1	0.10	91	92	70 - 130
4-BFB	0.0939	0.0939	mg/L	1	0.10	94	94	70 - 130

Laboratory Control Spikes

QCBatch: QC23841

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.094	0.098	mg/L	1	0.10	<0.001	94	81	70 - 130	20
Benzene	0.0945	0.101	mg/L	1	0.10	<0.001	94	97	70 - 130	20
Toluene	0.0941	0.0978	mg/L	1	0.10	<0.001	94	97	70 - 130	20
Ethylbenzene	0.0922	0.096	mg/L	1	0.10	<0.001	92	100	70 - 130	20
M,P,O-Xylene	0.28	0.290	mg/L	1	0.30	<0.001	93	98	70 - 130	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.0885	0.0948	mg/L	1	0.10	88	95	70 - 130
4-BFB	0.0882	0.0883	mg/L	1	0.10	88	88	70 - 130

Quality Control Report Continuing Calibration Verification Standards

CCV (1)

QCBatch: QC23798

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.088	88	85 - 115	9/26/02
Benzene		mg/L	0.10	0.0855	86	85 - 115	9/26/02
Toluene	1	mg/L	0.10	0.083	83	85 - 115	9/26/02
Ethylbenzene	2	mg/L	0.10	0.084	84	85 - 115	9/26/02
M,P,O-Xylene	3	mg/L	0.30	0.249	83	85 - 115	9/26/02

CCV (2)

QCBatch: QC23798

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.091	91	85 - 115	9/26/02
Benzene		mg/L	0.10	0.093	93	85 - 115	9/26/02

Continued ...

¹Toluene outside normal limits. Average(85)of CCV components within acceptable limits.

²Ethylbenzene outside normal limits. Average(85)of CCV components within acceptable limits.

³Xylene outside normal limits. Average(85)of CCV components within acceptable limits.

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		mg/L	0.10	0.088	88	85 - 115	9/26/02
Ethylbenzene		mg/L	0.10	0.089	89	85 - 115	9/26/02
M,P,O-Xylene		mg/L	0.30	0.266	88	85 - 115	9/26/02

ICV (1) QCBatch: QC23798

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.088	88	85 - 115	9/26/02
Benzene		mg/L	0.10	0.091	91	85 - 115	9/26/02
Toluene	4	mg/L	0.10	0.084	84	85 - 115	9/26/02
Ethylbenzene	5	mg/L	0.10	0.084	84	85 - 115	9/26/02
M,P,O-Xylene		mg/L	0.30	0.263	87	85 - 115	9/26/02

CCV (1) QCBatch: QC23841

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0927	92	85 - 115	9/27/02
Benzene		mg/L	0.10	0.0969	96	85 - 115	9/27/02
Toluene		mg/L	0.10	0.0934	93	85 - 115	9/27/02
Ethylbenzene		mg/L	0.10	0.0926	93	85 - 115	9/27/02
M,P,O-Xylene		mg/L	0.30	0.281	93	85 - 115	9/27/02

CCV (2) QCBatch: QC23841

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0936	93	85 - 115	9/27/02
Benzene		mg/L	0.10	0.0954	95	85 - 115	9/27/02
Toluene		mg/L	0.10	0.0935	93	85 - 115	9/27/02
Ethylbenzene		mg/L	0.10	0.0934	93	85 - 115	9/27/02
M,P,O-Xylene		mg/L	0.30	0.283	94	85 - 115	9/27/02

ICV (1) QCBatch: QC23841

⁴Toluene outside normal limits. Average(87)of ICV components within acceptable limits.

⁵Ethylbenzene outside normal limits. Average(87)of ICV components within acceptable limits.

Report Date: September 30, 2002
106.001

Order Number: A02092606
Jal Station

Page Number: 9 of 9
Jal,NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.101	101	85 - 115	9/27/02
Benzene		mg/L	0.10	0.104	104	85 - 115	9/27/02
Toluene		mg/L	0.10	0.0997	100	85 - 115	9/27/02
Ethylbenzene		mg/L	0.10	0.0981	98	85 - 115	9/27/02
M,P,O-Xylene		mg/L	0.30	0.303	101	85 - 115	9/27/02

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

155 McCutcheon, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

Company Name: H2A Environmental Phone #: 361-777-0860
Address: 418 San Saba Portland Tx 78374 Fax #: 361-777-0971
Contact Person: Theresa Nif

Invoice to: (If different from above)
Project #: 106.001 Project Name: Jal Station
Project Location: Jal NM Sampler Signature: [Signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX				PRESERVATIVE METHOD					DATE	TIME
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE		
208806	MW-1	2	200	X				X			X		6-28-00	730
07	MW-5												830	
08	MW-11												930	
09	MW-13												1030	
10	MW-15												1130	
11	MW-16												1230	
12	MW-17												1330	
13	Effluent												1400	
14	LRP 2	1	1L		X						X		935	1420
15	LRP 2	1	1L								X		1440	1440

Relinquished by: [Signature] Date: 9-5-02 Time: 1600
Relinquished by: _____ Date: _____ Time: _____
Relinquished by: _____ Date: _____ Time: _____

Received by: _____ Date: _____ Time: _____
Received by: _____ Date: _____ Time: _____
Received at Laboratory by: [Signature] Date: 9-26-02 Time: _____

LAB USE ONLY
Intact Q/N
Headspace Y/N
Temp 11
Log-in Review MS

REMARKS: 1014PP

Check if Special Reporting Limits Are Needed ☐

Carrier # Fed 481922891819

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424 800•378•1296
El Paso, Texas 79932 888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1296 FAX 806•794•1298
915•585•3443 FAX 915•585•4944

Analytical and Quality Control Report

Thresa Nix
H2A Environmental
418 San Saba
Portland, TX 78374

Report Date: January 21, 2003

Work Order: 2123114

Project Location: 2 miles south of Jal, NM on Hwy 18
Project Name: Jal Basin Station
Project Number: 106.001

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
1647	MW-1	water	2002-12-28	08:00	2002-12-31
1648	MW-5	water	2002-12-28	09:00	2002-12-31
1649	MW-11	water	2002-12-28	10:00	2002-12-31
1650	MW-13	water	2002-12-28	11:00	2002-12-31
1651	MW-15	water	2002-12-28	12:00	2002-12-31
1652	MW-16	water	2002-12-28	13:00	2002-12-31
1653	MW-17	water	2002-12-28	14:00	2002-12-31
1654	MW-21	water	2002-12-28	15:00	2002-12-31
1655	Effluent	water	2002-12-28	13:00	2002-12-31

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 45 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Notes:

All sample results are reported on a dry weight basis.

For inorganic analyses, the term MQL should actually read PQL.

Standard Flags

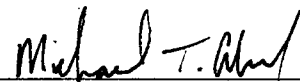
U - Not detected. The analyte is not detected above the SQL.

J - Estimated. The analyte is positively identified and the value is approximated between the SQL and MQL.

B - The sample contains less than ten times the concentration found in the method blank.

JB - The analyte is positively identified and the value is approximated between the SQL and MQL.

The sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SQL


Dr. Blair Leftwich, Director

Analytical Report

Note: All sample results are reported on a dry weight basis.

Sample: 1647 - MW-1

Analysis: Al, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Aluminum		0.995	0.995	<0.0227	mg/L	1	0.0227	0.100	0.0227

Sample: 1647 - MW-1

Analysis: B, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Boron		4.30	4.30	<0.000728	mg/L	1	0.000728	0.00500	0.000728

Sample: 1647 - MW-1

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 261 Date Analyzed: 2002-12-31 Analyzed By: CG
Prep Batch: 236 Date Prepared: 2002-12-31 Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	J	0.00120	<0.00500	<0.000155	mg/L	5	0.000155	0.00100	0.000155
Toluene	U	<0.000960	<0.00500	<0.000192	mg/L	5	0.000192	0.00100	0.000192
Ethylbenzene	U	<0.000960	<0.00500	<0.000192	mg/L	5	0.000192	0.00100	0.000192
Xylene (isomers)	U	<0.00458	<0.0150	<0.000917	mg/L	5	0.000917	0.00300	0.000917

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.09	mg/L	1	0.100	90	62 - 130
4-Bromofluorobenzene (4-BFB)		0.073	mg/L	1	0.100	73	60 - 134

Sample: 1647 - MW-1

Analysis: Co, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cobalt	U	<0.000705	<0.0250	<0.000705	mg/L	1	0.000705	0.0250	0.000705

Sample: 1647 - MW-1

Analysis: Cu, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Copper	U	<0.0177	<0.0250	<0.0177	mg/L	1	0.0177	0.0250	0.0177

Sample: 1647 - MW-1

Analysis: Fe, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Iron		0.661	0.661	<0.00220	mg/L	1	0.00220	0.0500	0.0022

Sample: 1647 - MW-1

Analysis: Mn, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Manganese		0.298	0.298	<0.000275	mg/L	1	0.000275	0.0250	0.000275

Sample: 1647 - MW-1

Analysis: Mo, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Molybdenum	U	<0.00136	<0.0500	<0.00136	mg/L	1	0.00136	0.0500	0.001361

Sample: 1647 - MW-1

Analysis: Ni, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Nickel	J	0.0128	<0.0250	<0.00269	mg/L	1	0.00269	0.0250	0.002693

Sample: 1647 - MW-1

Analysis: PAH
QC Batch: 247
Prep Batch: 223

Analytical Method: S 8270C
Date Analyzed: 2003-01-13
Date Prepared: 2003-01-13

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Naphthalene	U	<0.0000853	<0.000200	<0.0000853	mg/L	1	0.0000853	0.000200	8.53e-05
Acenaphthylene	U	<0.0000768	<0.000200	<0.0000768	mg/L	1	0.0000768	0.000200	7.68e-05
Acenaphthene	U	<0.000103	<0.000200	<0.000103	mg/L	1	0.000103	0.000200	0.0001028
Fluorene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Phenanthrene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Anthracene	U	<0.000170	<0.000200	<0.000170	mg/L	1	0.000170	0.000200	0.00017
Fluoranthene	U	<0.0000969	<0.000200	<0.0000969	mg/L	1	0.0000969	0.000200	9.69e-05
Pyrene	U	<0.0000855	<0.000200	<0.0000855	mg/L	1	0.0000855	0.000200	8.55e-05
Benzo(a)anthracene	U	<0.0000703	<0.000200	<0.0000703	mg/L	1	0.0000703	0.000200	7.03e-05
Chrysene	U	<0.000113	<0.000200	<0.000113	mg/L	1	0.000113	0.000200	0.0001129
Benzo(b)fluoranthene	U	<0.000134	<0.000200	<0.000134	mg/L	1	0.000134	0.000200	0.0001343
Benzo(k)fluoranthene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Benzo(a)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Indeno(1,2,3-cd)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Dibenzo(a,h)anthracene	U	<0.000180	<0.000200	<0.000180	mg/L	1	0.000180	0.000200	0.0001797
Benzo(g,h,i)perylene	U	<0.000158	<0.000200	<0.000158	mg/L	1	0.000158	0.000200	0.0001578

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		30.1	mg/L	1	80.0	38	23 - 116
Nitrobenzene-d5		30.1	mg/L	1	80.0	38	30 - 114
Terphenyl-d14		29.7	mg/L	1	80.0	37	25 - 141

Sample: 1647 - MW-1

Analysis: Total 8 Metals
QC Batch: 249
Prep Batch: 225
Analysis: Total 8 Metals
QC Batch: 251
Prep Batch: 226

Analytical Method: S 7470A
Date Analyzed: 2003-01-08
Date Prepared: 2003-01-07
Analytical Method: S 6010B
Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Prep Method: N/A
Analyzed By: BC
Prepared By: BC
Prep Method: S 3010A
Analyzed By: RR
Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Silver	J	0.00870	<0.0125	<0.000779	mg/L	1	0.000779	0.0125	0.000779
Total Arsenic	J	0.0245	<0.0500	<0.00593	mg/L	1	0.00593	0.0500	0.00593
Total Barium		0.112	0.112	<0.000343	mg/L	1	0.000343	0.100	0.000343
Total Cadmium	U	<0.000268	<0.00500	<0.000268	mg/L	1	0.000268	0.00500	0.000268
Total Chromium	J	0.00470	<0.0100	<0.000660	mg/L	1	0.000660	0.0100	0.00066
Total Mercury		0.000210	0.000210	<0.0000200	mg/L	1	0.0000200	0.000200	2e-05
Total Lead	U	<0.00367	<0.0100	<0.00367	mg/L	1	0.00367	0.0100	0.00367
Total Selenium		0.123	0.123	<0.0101	mg/L	1	0.0101	0.0500	0.0101

Sample: 1647 - MW-1

Analysis: Zn, Total
QC Batch: 251
Prep Batch: 226

Analytical Method: S 6010B
Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Prep Method: S 3010A
Analyzed By: RR
Prepared By: JH

Report Date: Not Approved
106.001

Work Order: 2123114
Jal Basin Station

Page Number: 5 of 45
2 miles south of Jal, NM on Hwy 18

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Zinc		0.0273	0.0273	<0.00907	mg/L	1	0.00907	0.0250	0.00907

Sample: 1648 - MW-5

Analysis: Al, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Aluminum		0.551	0.551	<0.0227	mg/L	1	0.0227	0.100	0.0227

Sample: 1648 - MW-5

Analysis: B, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Boron		0.343	0.343	<0.000728	mg/L	1	0.000728	0.00500	0.000728

Sample: 1648 - MW-5

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 261 Date Analyzed: 2002-12-31 Analyzed By: CG
Prep Batch: 236 Date Prepared: 2002-12-31 Prepared By: DN

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	<0.000155	<0.00100	<0.000155	mg/L	1	0.000155	0.00100	0.000155
Toluene	U	<0.000192	<0.00100	<0.000192	mg/L	1	0.000192	0.00100	0.000192
Ethylbenzene	U	<0.000192	<0.00100	<0.000192	mg/L	1	0.000192	0.00100	0.000192
Xylene (isomers)	U	<0.000917	<0.00300	<0.000917	mg/L	1	0.000917	0.00300	0.000917

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.0987	mg/L	1	0.100	99	62 - 130
4-Bromofluorobenzene (4-BFB)		0.08	mg/L	1	0.100	80	60 - 134

Sample: 1648 - MW-5

Analysis: Co, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

continued ...

sample 1648 continued ...

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cobalt	U	<0.000705	<0.0250	<0.000705	mg/L	1	0.000705	0.0250	0.000705

Sample: 1648 - MW-5

Analysis: Cu, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Copper	U	<0.0177	<0.0250	<0.0177	mg/L	1	0.0177	0.0250	0.0177

Sample: 1648 - MW-5

Analysis: Fe, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Iron		0.386	0.386	<0.00220	mg/L	1	0.00220	0.0500	0.0022

Sample: 1648 - MW-5

Analysis: Mn, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Manganese		0.0363	0.0363	<0.000275	mg/L	1	0.000275	0.0250	0.000275

Sample: 1648 - MW-5

Analysis: Mo, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Molybdenum	U	<0.00136	<0.0500	<0.00136	mg/L	1	0.00136	0.0500	0.001361

Sample: 1648 - MW-5

Analysis: Ni, Total
QC Batch: 251
Prep Batch: 226

Analytical Method: S 6010B
Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Prep Method: S 3010A
Analyzed By: RR
Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Nickel	U	<0.00269	<0.00250	<0.00269	mg/L	1	0.00269	0.0250	0.002693

Sample: 1648 - MW-5

Analysis: PAH
QC Batch: 247
Prep Batch: 223

Analytical Method: S 8270C
Date Analyzed: 2003-01-13
Date Prepared: 2003-01-13

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Naphthalene	U	<0.0000853	<0.000200	<0.0000853	mg/L	1	0.0000853	0.000200	8.53e-05
Acenaphthylene	U	<0.0000768	<0.000200	<0.0000768	mg/L	1	0.0000768	0.000200	7.68e-05
Acenaphthene	U	<0.000103	<0.000200	<0.000103	mg/L	1	0.000103	0.000200	0.0001028
Fluorene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Phenanthrene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Anthracene	U	<0.000170	<0.000200	<0.000170	mg/L	1	0.000170	0.000200	0.00017
Fluoranthene	U	<0.0000969	<0.000200	<0.0000969	mg/L	1	0.0000969	0.000200	9.69e-05
Pyrene	U	<0.0000855	<0.000200	<0.0000855	mg/L	1	0.0000855	0.000200	8.55e-05
Benzo(a)anthracene	U	<0.0000703	<0.000200	<0.0000703	mg/L	1	0.0000703	0.000200	7.03e-05
Chrysene	U	<0.000113	<0.000200	<0.000113	mg/L	1	0.000113	0.000200	0.0001129
Benzo(b)fluoranthene	U	<0.000134	<0.000200	<0.000134	mg/L	1	0.000134	0.000200	0.0001343
Benzo(k)fluoranthene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Benzo(a)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Indeno(1,2,3-cd)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Dibenzo(a,h)anthracene	U	<0.000180	<0.000200	<0.000180	mg/L	1	0.000180	0.000200	0.0001797
Benzo(g,h,i)perylene	U	<0.000158	<0.000200	<0.000158	mg/L	1	0.000158	0.000200	0.0001578

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		40.1	mg/L	1	80.0	50	23 - 116
Nitrobenzene-d5		45.6	mg/L	1	80.0	57	30 - 114
Terphenyl-d14		40.3	mg/L	1	80.0	50	25 - 141

Sample: 1648 - MW-5

Analysis: Total 8 Metals
QC Batch: 249
Prep Batch: 225
Analysis: Total 8 Metals
QC Batch: 251
Prep Batch: 226

Analytical Method: S 7470A
Date Analyzed: 2003-01-08
Date Prepared: 2003-01-07
Analytical Method: S 6010B
Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Prep Method: N/A
Analyzed By: BC
Prepared By: BC
Prep Method: S 3010A
Analyzed By: RR
Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Silver	J	0.00360	<0.0125	<0.000779	mg/L	1	0.000779	0.0125	0.000779
Total Arsenic	J	0.0107	<0.0500	<0.00593	mg/L	1	0.00593	0.0500	0.00593
Total Barium		0.102	0.102	<0.000343	mg/L	1	0.000343	0.100	0.000343

continued ...

sample 1648 continued ...

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cadmium	U	<0.000268	<0.00500	<0.000268	mg/L	1	0.000268	0.00500	0.000268
Total Chromium	U	<0.000660	<0.0100	<0.000660	mg/L	1	0.000660	0.0100	0.00066
Total Mercury	J	0.0000300	<0.000200	<0.0000200	mg/L	1	0.0000200	0.000200	2e-05
Total Lead	U	<0.00367	<0.0100	<0.00367	mg/L	1	0.00367	0.0100	0.00367
Total Selenium	U	<0.0101	<0.0500	<0.0101	mg/L	1	0.0101	0.0500	0.0101

Sample: 1648 - MW-5

Analysis: Zn, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Zinc		0.0451	0.0451	<0.00907	mg/L	1	0.00907	0.0250	0.00907

Sample: 1649 - MW-11

Analysis: Al, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Aluminum		3.25	3.25	<0.0227	mg/L	1	0.0227	0.100	0.0227

Sample: 1649 - MW-11

Analysis: B, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Boron		1.72	1.72	<0.000728	mg/L	1	0.000728	0.00500	0.000728

Sample: 1649 - MW-11

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 261 Date Analyzed: 2002-12-31 Analyzed By: CG
Prep Batch: 236 Date Prepared: 2002-12-31 Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	<0.000155	<0.00100	<0.000155	mg/L	1	0.000155	0.00100	0.000155
Toluene	U	<0.000192	<0.00100	<0.000192	mg/L	1	0.000192	0.00100	0.000192

continued ...

sample 1649 continued ...

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Ethylbenzene	U	<0.000192	<0.00100	<0.000192	mg/L	1	0.000192	0.00100	0.000192
Xylene (isomers)	U	<0.000917	<0.00300	<0.000917	mg/L	1	0.000917	0.00300	0.000917

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.099	mg/L	1	0.100	99	62 - 130
4-Bromofluorobenzene (4-BFB)		0.0807	mg/L	1	0.100	81	60 - 134

Sample: 1649 - MW-11

Analysis: Co, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cobalt	U	<0.000705	<0.0250	<0.000705	mg/L	1	0.000705	0.0250	0.000705

Sample: 1649 - MW-11

Analysis: Cu, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Copper	U	<0.0177	<0.0250	<0.0177	mg/L	1	0.0177	0.0250	0.0177

Sample: 1649 - MW-11

Analysis: Fe, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Iron		2.05	2.05	<0.00220	mg/L	1	0.00220	0.0500	0.0022

Sample: 1649 - MW-11

Analysis: Mn, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

continued ...

sample 1649 continued ...

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Manganese		0.0325	0.0325	<0.000275	mg/L	1	0.000275	0.0250	0.000275

Sample: 1649 - MW-11

Analysis: Mo, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Molybdenum	U	<0.00136	<0.0500	<0.00136	mg/L	1	0.00136	0.0500	0.001361

Sample: 1649 - MW-11

Analysis: Ni, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Nickel	U	<0.00269	<0.0250	<0.00269	mg/L	1	0.00269	0.0250	0.002693

Sample: 1649 - MW-11

Analysis: PAH Analytical Method: S 8270C Prep Method: S 3510C
QC Batch: 247 Date Analyzed: 2003-01-13 Analyzed By: RC
Prep Batch: 223 Date Prepared: 2003-01-13 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Naphthalene	U	<0.0000853	<0.000200	<0.0000853	mg/L	1	0.0000853	0.000200	8.53e-05
Acenaphthylene	U	<0.0000768	<0.000200	<0.0000768	mg/L	1	0.0000768	0.000200	7.68e-05
Acenaphthene	U	<0.000103	<0.000200	<0.000103	mg/L	1	0.000103	0.000200	0.0001028
Fluorene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Phenanthrene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Anthracene	U	<0.000170	<0.000200	<0.000170	mg/L	1	0.000170	0.000200	0.00017
Fluoranthene	U	<0.0000969	<0.000200	<0.0000969	mg/L	1	0.0000969	0.000200	9.69e-05
Pyrene	U	<0.0000855	<0.000200	<0.0000855	mg/L	1	0.0000855	0.000200	8.55e-05
Benzo(a)anthracene	U	<0.0000703	<0.000200	<0.0000703	mg/L	1	0.0000703	0.000200	7.03e-05
Chrysene	U	<0.000113	<0.000200	<0.000113	mg/L	1	0.000113	0.000200	0.0001129
Benzo(b)fluoranthene	U	<0.000134	<0.000200	<0.000134	mg/L	1	0.000134	0.000200	0.0001343
Benzo(k)fluoranthene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Benzo(a)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Indeno(1,2,3-cd)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002

continued ...

sample 1649 continued ...

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Dibenzo(a,h)anthracene	U	<0.000180	<0.000200	<0.000180	mg/L	1	0.000180	0.000200	0.0001797
Benzo(g,h,i)perylene	U	<0.000158	<0.000200	<0.000158	mg/L	1	0.000158	0.000200	0.0001578

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		39.5	mg/L	1	80.0	49	23 - 116
Nitrobenzene-d5		44.2	mg/L	1	80.0	55	30 - 114
Terphenyl-d14		33.1	mg/L	1	80.0	41	25 - 141

Sample: 1649 - MW-11

Analysis:	Total 8 Metals	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	249	Date Analyzed:	2003-01-08	Analyzed By:	BC
Prep Batch:	225	Date Prepared:	2003-01-07	Prepared By:	BC
Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	251	Date Analyzed:	2003-01-14	Analyzed By:	RR
Prep Batch:	226	Date Prepared:	2003-01-03	Prepared By:	JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Silver	J	0.00300	<0.0125	<0.000779	mg/L	1	0.000779	0.0125	0.000779
Total Arsenic	J	0.0212	<0.0500	<0.00593	mg/L	1	0.00593	0.0500	0.00593
Total Barium	J	0.00940	<0.100	<0.000343	mg/L	1	0.000343	0.100	0.000343
Total Cadmium	U	<0.000268	<0.00500	<0.000268	mg/L	1	0.000268	0.00500	0.000268
Total Chromium	J	0.00290	<0.0100	<0.000660	mg/L	1	0.000660	0.0100	0.00066
Total Mercury	J	0.0000500	<0.000200	<0.0000200	mg/L	1	0.0000200	0.000200	2e-05
Total Lead	U	<0.00367	<0.0100	<0.00367	mg/L	1	0.00367	0.0100	0.00367
Total Selenium	U	<0.0101	<0.0500	<0.0101	mg/L	1	0.0101	0.0500	0.0101

Sample: 1649 - MW-11

Analysis:	Zn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	251	Date Analyzed:	2003-01-14	Analyzed By:	RR
Prep Batch:	226	Date Prepared:	2003-01-03	Prepared By:	JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Zinc		0.0615	0.0615	<0.00907	mg/L	1	0.00907	0.0250	0.00907

Sample: 1650 - MW-13

Analysis:	Al, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	251	Date Analyzed:	2003-01-14	Analyzed By:	RR
Prep Batch:	226	Date Prepared:	2003-01-03	Prepared By:	JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Aluminum		0.331	0.331	<0.0227	mg/L	1	0.0227	0.100	0.0227

Report Date: Not Approved
106.001

Work Order: 2123114
Jal Basin Station

Page Number: 12 of 45
2 miles south of Jal, NM on Hwy 18

Sample: 1650 - MW-13

Analysis: B, Total
QC Batch: 251
Prep Batch: 226

Analytical Method: S 6010B
Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Prep Method: S 3010A
Analyzed By: RR
Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Boron		0.194	0.194	<0.000728	mg/L	1	0.000728	0.00500	0.000728

Sample: 1650 - MW-13

Analysis: BTEX (TRRP)
QC Batch: 261
Prep Batch: 236

Analytical Method: S 8021B
Date Analyzed: 2002-12-31
Date Prepared: 2002-12-31

Prep Method: S 5030B
Analyzed By: CG
Prepared By: DN

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	<0.000155	<0.00100	<0.000155	mg/L	1	0.000155	0.00100	0.000155
Toluene	U	<0.000192	<0.00100	<0.000192	mg/L	1	0.000192	0.00100	0.000192
Ethylbenzene	U	<0.000192	<0.00100	<0.000192	mg/L	1	0.000192	0.00100	0.000192
Xylene (isomers)	U	<0.000917	<0.00300	<0.000917	mg/L	1	0.000917	0.00300	0.000917

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.0989	mg/L	1	0.100	99	62 - 130
4-Bromofluorobenzene (4-BFB)		0.0805	mg/L	1	0.100	80	60 - 134

Sample: 1650 - MW-13

Analysis: Co, Total
QC Batch: 251
Prep Batch: 226

Analytical Method: S 6010B
Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Prep Method: S 3010A
Analyzed By: RR
Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cobalt	U	<0.000705	<0.0250	<0.000705	mg/L	1	0.000705	0.0250	0.000705

Sample: 1650 - MW-13

Analysis: Cu, Total
QC Batch: 251
Prep Batch: 226

Analytical Method: S 6010B
Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Prep Method: S 3010A
Analyzed By: RR
Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Copper	U	<0.0177	<0.0250	<0.0177	mg/L	1	0.0177	0.0250	0.0177

Sample: 1650 - MW-13

Analysis: Fe, Total
QC Batch: 251

Analytical Method: S 6010B
Date Analyzed: 2003-01-14

Prep Method: S 3010A
Analyzed By: RR

Report Date: Not Approved
106.001

Work Order: 2123114
Jal Basin Station

Page Number: 13 of 45
2 miles south of Jal, NM on Hwy 18

Prep Batch: 226

Date Prepared: 2003-01-03

Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Iron		0.236	0.236	<0.00220	mg/L	1	0.00220	0.0500	0.0022

Sample: 1650 - MW-13

Analysis: Mn, Total
QC Batch: 251
Prep Batch: 226

Analytical Method: S 6010B
Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Prep Method: S 3010A
Analyzed By: RR
Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Manganese		0.0272	0.0272	<0.000275	mg/L	1	0.000275	0.0250	0.000275

Sample: 1650 - MW-13

Analysis: Mo, Total
QC Batch: 251
Prep Batch: 226

Analytical Method: S 6010B
Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Prep Method: S 3010A
Analyzed By: RR
Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Molybdenum	U	<0.00136	<0.0500	<0.00136	mg/L	1	0.00136	0.0500	0.001361

Sample: 1650 - MW-13

Analysis: Ni, Total
QC Batch: 251
Prep Batch: 226

Analytical Method: S 6010B
Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Prep Method: S 3010A
Analyzed By: RR
Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Nickel	U	<0.00269	<0.0250	<0.00269	mg/L	1	0.00269	0.0250	0.002693

Sample: 1650 - MW-13

Analysis: PAH
QC Batch: 247
Prep Batch: 223

Analytical Method: S 8270C
Date Analyzed: 2003-01-13
Date Prepared: 2003-01-13

Prep Method: S 3510C
Analyzed By: RC
Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Naphthalene	U	<0.0000853	<0.000200	<0.0000853	mg/L	1	0.0000853	0.000200	8.53e-05
Acenaphthylene	U	<0.0000768	<0.000200	<0.0000768	mg/L	1	0.0000768	0.000200	7.68e-05
Acenaphthene	U	<0.000103	<0.000200	<0.000103	mg/L	1	0.000103	0.000200	0.0001028
Fluorene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Phenanthrene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Anthracene	U	<0.000170	<0.000200	<0.000170	mg/L	1	0.000170	0.000200	0.00017

continued ...

sample 1650 continued ...

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Fluoranthene	U	<0.0000969	<0.000200	<0.0000969	mg/L	1	0.0000969	0.000200	9.69e-05
Pyrene	U	<0.0000855	<0.000200	<0.0000855	mg/L	1	0.0000855	0.000200	8.55e-05
Benzo(a)anthracene	U	<0.0000703	<0.000200	<0.0000703	mg/L	1	0.0000703	0.000200	7.03e-05
Chrysene	U	<0.000113	<0.000200	<0.000113	mg/L	1	0.000113	0.000200	0.0001129
Benzo(b)fluoranthene	U	<0.000134	<0.000200	<0.000134	mg/L	1	0.000134	0.000200	0.0001343
Benzo(k)fluoranthene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Benzo(a)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Indeno(1,2,3-cd)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Dibenzo(a,h)anthracene	U	<0.000180	<0.000200	<0.000180	mg/L	1	0.000180	0.000200	0.0001797
Benzo(g,h,i)perylene	U	<0.000158	<0.000200	<0.000158	mg/L	1	0.000158	0.000200	0.0001578

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		36.4	mg/L	1	80.0	46	23 - 116
Nitrobenzene-d5		40.5	mg/L	1	80.0	51	30 - 114
Terphenyl-d14		31.8	mg/L	1	80.0	40	25 - 141

Sample: 1650 - MW-13

Analysis:	Total 8 Metals	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	249	Date Analyzed:	2003-01-08	Analyzed By:	BC
Prep Batch:	225	Date Prepared:	2003-01-07	Prepared By:	BC
Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	251	Date Analyzed:	2003-01-14	Analyzed By:	RR
Prep Batch:	226	Date Prepared:	2003-01-03	Prepared By:	JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Silver	J	0.00280	<0.0125	<0.000779	mg/L	1	0.000779	0.0125	0.000779
Total Arsenic	J	0.0124	<0.0500	<0.00593	mg/L	1	0.00593	0.0500	0.00593
Total Barium		0.138	0.138	<0.000343	mg/L	1	0.000343	0.100	0.000343
Total Cadmium	U	<0.000268	<0.00500	<0.000268	mg/L	1	0.000268	0.00500	0.000268
Total Chromium	U	<0.000660	<0.0100	<0.000660	mg/L	1	0.000660	0.0100	0.00066
Total Mercury	J	0.0000300	<0.000200	<0.0000200	mg/L	1	0.0000200	0.000200	2e-05
Total Lead	U	<0.00367	<0.0100	<0.00367	mg/L	1	0.00367	0.0100	0.00367
Total Selenium	U	<0.0101	<0.0500	<0.0101	mg/L	1	0.0101	0.0500	0.0101

Sample: 1650 - MW-13

Analysis:	Zn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	251	Date Analyzed:	2003-01-14	Analyzed By:	RR
Prep Batch:	226	Date Prepared:	2003-01-03	Prepared By:	JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Zinc		0.0301	0.0301	<0.00907	mg/L	1	0.00907	0.0250	0.00907

Sample: 1651 - MW-15

Analysis:	Al, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
-----------	-----------	--------------------	---------	--------------	---------

Report Date: Not Approved
106.001

Work Order: 2123114
Jal Basin Station

Page Number: 15 of 45
2 miles south of Jal, NM on Hwy 18

QC Batch: 251
Prep Batch: 226

Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Analyzed By: RR
Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Aluminum		0.629	0.629	<0.0227	mg/L	1	0.0227	0.100	0.0227

Sample: 1651 - MW-15

Analysis: B, Total
QC Batch: 251
Prep Batch: 226

Analytical Method: S 6010B
Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Prep Method: S 3010A
Analyzed By: RR
Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Boron		3.31	3.31	<0.000728	mg/L	1	0.000728	0.00500	0.000728

Sample: 1651 - MW-15

Analysis: BTEX (TRRP)
QC Batch: 261
Prep Batch: 236

Analytical Method: S 8021B
Date Analyzed: 2002-12-31
Date Prepared: 2002-12-31

Prep Method: S 5030B
Analyzed By: CG
Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	J	0.000200	<0.00100	<0.000155	mg/L	1	0.000155	0.00100	0.000155
Toluene	U	<0.000192	<0.00100	<0.000192	mg/L	1	0.000192	0.00100	0.000192
Ethylbenzene	U	<0.000192	<0.00100	<0.000192	mg/L	1	0.000192	0.00100	0.000192
Xylene (isomers)	U	<0.000917	<0.00300	<0.000917	mg/L	1	0.000917	0.00300	0.000917

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.0968	mg/L	1	0.100	97	62 - 130
4-Bromofluorobenzene (4-BFB)		0.0817	mg/L	1	0.100	82	60 - 134

Sample: 1651 - MW-15

Analysis: Co, Total
QC Batch: 251
Prep Batch: 226

Analytical Method: S 6010B
Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Prep Method: S 3010A
Analyzed By: RR
Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cobalt	U	<0.000705	<0.0250	<0.000705	mg/L	1	0.000705	0.0250	0.000705

Sample: 1651 - MW-15

Analysis: Cu, Total
QC Batch: 251
Prep Batch: 226

Analytical Method: S 6010B
Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Prep Method: S 3010A
Analyzed By: RR
Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Copper	U	<0.0177	<0.0250	<0.0177	mg/L	1	0.0177	0.0250	0.0177

Sample: 1651 - MW-15

Analysis: Fe, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Iron		0.459	0.459	<0.00220	mg/L	1	0.00220	0.0500	0.0022

Sample: 1651 - MW-15

Analysis: Mn, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Manganese		0.0329	0.0329	<0.000275	mg/L	1	0.000275	0.0250	0.000275

Sample: 1651 - MW-15

Analysis: Mo, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Molybdenum	J	0.00420	<0.0500	<0.00136	mg/L	1	0.00136	0.0500	0.001361

Sample: 1651 - MW-15

Analysis: Ni, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Nickel	U	<0.00269	<0.0250	<0.00269	mg/L	1	0.00269	0.0250	0.002693

Sample: 1651 - MW-15

Analysis: PAH Analytical Method: S 8270C Prep Method: S 3510C
QC Batch: 247 Date Analyzed: 2003-01-13 Analyzed By: RC
Prep Batch: 223 Date Prepared: 2003-01-13 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Naphthalene	U	<0.0000853	<0.000200	<0.0000853	mg/L	1	0.0000853	0.000200	8.53e-05
Acenaphthylene	U	<0.0000768	<0.000200	<0.0000768	mg/L	1	0.0000768	0.000200	7.68e-05
Acenaphthene	U	<0.000103	<0.000200	<0.000103	mg/L	1	0.000103	0.000200	0.0001028
Fluorene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Phenanthrene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Anthracene	U	<0.000170	<0.000200	<0.000170	mg/L	1	0.000170	0.000200	0.00017
Fluoranthene	U	<0.0000969	<0.000200	<0.0000969	mg/L	1	0.0000969	0.000200	9.69e-05
Pyrene	U	<0.0000855	<0.000200	<0.0000855	mg/L	1	0.0000855	0.000200	8.55e-05
Benzo(a)anthracene	U	<0.0000703	<0.000200	<0.0000703	mg/L	1	0.0000703	0.000200	7.03e-05
Chrysene	U	<0.000113	<0.000200	<0.000113	mg/L	1	0.000113	0.000200	0.0001129
Benzo(b)fluoranthene	U	<0.000134	<0.000200	<0.000134	mg/L	1	0.000134	0.000200	0.0001343
Benzo(k)fluoranthene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Benzo(a)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Indeno(1,2,3-cd)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Dibenzo(a,h)anthracene	U	<0.000180	<0.000200	<0.000180	mg/L	1	0.000180	0.000200	0.0001797
Benzo(g,h,i)perylene	U	<0.000158	<0.000200	<0.000158	mg/L	1	0.000158	0.000200	0.0001578

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		26.2	mg/L	1	80.0	33	23 - 116
Nitrobenzene-d5		25	mg/L	1	80.0	31	30 - 114
Terphenyl-d14		21.8	mg/L	1	80.0	27	25 - 141

Sample: 1651 - MW-15

Analysis:	Total 8 Metals	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	249	Date Analyzed:	2003-01-08	Analyzed By:	BC
Prep Batch:	225	Date Prepared:	2003-01-07	Prepared By:	BC
Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	251	Date Analyzed:	2003-01-14	Analyzed By:	RR
Prep Batch:	226	Date Prepared:	2003-01-03	Prepared By:	JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Silver	J	0.00330	<0.0125	<0.000779	mg/L	1	0.000779	0.0125	0.000779
Total Arsenic	J	0.0163	<0.0500	<0.00593	mg/L	1	0.00593	0.0500	0.00593
Total Barium	U	<0.000343	<0.100	<0.000343	mg/L	1	0.000343	0.100	0.000343
Total Cadmium	U	<0.000268	<0.00500	<0.000268	mg/L	1	0.000268	0.00500	0.000268
Total Chromium	J	0.00350	<0.0100	<0.000660	mg/L	1	0.000660	0.0100	0.00066
Total Mercury	J	0.0000600	<0.000200	<0.0000200	mg/L	1	0.0000200	0.000200	2e-05
Total Lead	U	<0.00367	<0.0100	<0.00367	mg/L	1	0.00367	0.0100	0.00367
Total Selenium	U	<0.0101	<0.0500	<0.0101	mg/L	1	0.0101	0.0500	0.0101

Sample: 1651 - MW-15

Analysis:	Zn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	251	Date Analyzed:	2003-01-14	Analyzed By:	RR
Prep Batch:	226	Date Prepared:	2003-01-03	Prepared By:	JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Zinc		0.0258	0.0258	<0.00907	mg/L	1	0.00907	0.0250	0.00907

Sample: 1652 - MW-16

Analysis: Al, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Aluminum	U	<0.0227	<0.100	<0.0227	mg/L	1	0.0227	0.100	0.0227

Sample: 1652 - MW-16

Analysis: B, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Boron		3.01	3.01	<0.000728	mg/L	1	0.000728	0.00500	0.000728

Sample: 1652 - MW-16

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 261 Date Analyzed: 2002-12-31 Analyzed By: CG
Prep Batch: 236 Date Prepared: 2002-12-31 Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	J	0.000500	<0.00100	<0.000155	mg/L	1	0.000155	0.00100	0.000155
Toluene	U	<0.000192	<0.00100	<0.000192	mg/L	1	0.000192	0.00100	0.000192
Ethylbenzene	U	<0.000192	<0.00100	<0.000192	mg/L	1	0.000192	0.00100	0.000192
Xylene (isomers)	U	<0.000917	<0.00300	<0.000917	mg/L	1	0.000917	0.00300	0.000917

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.0992	mg/L	1	0.100	99	62 - 130
4-Bromofluorobenzene (4BFB)		0.0837	mg/L	1	0.100	84	60 - 134

Sample: 1652 - MW-16

Analysis: Co, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cobalt	U	<0.000705	<0.0250	<0.000705	mg/L	1	0.000705	0.0250	0.000705

Sample: 1652 - MW-16

Analysis: Cu, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR

Report Date: Not Approved
106.001

Work Order: 2123114
Jal Basin Station

Page Number: 19 of 45
2 miles south of Jal, NM on Hwy 18

Prep Batch: 226		Date Prepared: 2003-01-03			Prepared By: JH				
		SQL Based	MQL Based	Method Blank					
Parameter	Flag	Result	Result	Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Copper	U	<0.0177	<0.0250	<0.0177	mg/L	1	0.0177	0.0250	0.0177

Sample: 1652 - MW-16

Analysis: Fe, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Iron	J	0.0200	<0.0500	<0.00220	mg/L	1	0.00220	0.0500	0.0022

Sample: 1652 - MW-16

Analysis: Mn, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Manganese	U	<0.000275	<0.0250	<0.000275	mg/L	1	0.000275	0.0250	0.000275

Sample: 1652 - MW-16

Analysis: Mo, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Molybdenum	J	0.00540	<0.0500	<0.00136	mg/L	1	0.00136	0.0500	0.001361

Sample: 1652 - MW-16

Analysis: Ni, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 251 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Nickel	U	<0.00269	<0.0250	<0.00269	mg/L	1	0.00269	0.0250	0.002693

Sample: 1652 - MW-16

Analysis: PAH Analytical Method: S 8270C Prep Method: S 3510C

QC Batch: 247
Prep Batch: 223

Date Analyzed: 2003-01-13
Date Prepared: 2003-01-13

Analyzed By: RC
Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Naphthalene	U	<0.0000853	<0.000200	<0.0000853	mg/L	1	0.0000853	0.000200	8.53e-05
Acenaphthylene	U	<0.0000768	<0.000200	<0.0000768	mg/L	1	0.0000768	0.000200	7.68e-05
Acenaphthene	U	<0.000103	<0.000200	<0.000103	mg/L	1	0.000103	0.000200	0.0001028
Fluorene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Phenanthrene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Anthracene	U	<0.000170	<0.000200	<0.000170	mg/L	1	0.000170	0.000200	0.00017
Fluoranthene	U	<0.0000969	<0.000200	<0.0000969	mg/L	1	0.0000969	0.000200	9.69e-05
Pyrene	U	<0.0000855	<0.000200	<0.0000855	mg/L	1	0.0000855	0.000200	8.55e-05
Benzo(a)anthracene	U	<0.0000703	<0.000200	<0.0000703	mg/L	1	0.0000703	0.000200	7.03e-05
Chrysene	U	<0.000113	<0.000200	<0.000113	mg/L	1	0.000113	0.000200	0.0001129
Benzo(b)fluoranthene	U	<0.000134	<0.000200	<0.000134	mg/L	1	0.000134	0.000200	0.0001343
Benzo(k)fluoranthene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Benzo(a)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Indeno(1,2,3-cd)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Dibenzo(a,h)anthracene	U	<0.000180	<0.000200	<0.000180	mg/L	1	0.000180	0.000200	0.0001797
Benzo(g,h,i)perylene	U	<0.000158	<0.000200	<0.000158	mg/L	1	0.000158	0.000200	0.0001578

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		40.1	mg/L	1	80.0	50	23 - 116
Nitrobenzene-d5		44.5	mg/L	1	80.0	56	30 - 114
Terphenyl-d14		43.8	mg/L	1	80.0	55	25 - 141

Sample: 1652 - MW-16

Analysis: Total 8 Metals
QC Batch: 249
Prep Batch: 225
Analysis: Total 8 Metals
QC Batch: 251
Prep Batch: 226

Analytical Method: S 7470A
Date Analyzed: 2003-01-08
Date Prepared: 2003-01-07
Analytical Method: S 6010B
Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Prep Method: N/A
Analyzed By: BC
Prepared By: BC
Prep Method: S 3010A
Analyzed By: RR
Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Silver	J	0.00290	<0.0125	<0.000779	mg/L	1	0.000779	0.0125	0.000779
Total Arsenic	J	0.0116	<0.0500	<0.00593	mg/L	1	0.00593	0.0500	0.00593
Total Barium	U	<0.000343	<0.100	<0.000343	mg/L	1	0.000343	0.100	0.000343
Total Cadmium	U	<0.000268	<0.00500	<0.000268	mg/L	1	0.000268	0.00500	0.000268
Total Chromium	U	<0.000660	<0.0100	<0.000660	mg/L	1	0.000660	0.0100	0.00066
Total Mercury	J	0.0000200	<0.000200	<0.0000200	mg/L	1	0.0000200	0.000200	2e-05
Total Lead	U	<0.00367	<0.0100	<0.00367	mg/L	1	0.00367	0.0100	0.00367
Total Selenium	U	<0.0101	<0.0500	<0.0101	mg/L	1	0.0101	0.0500	0.0101

Sample: 1652 - MW-16

Analysis: Zn, Total
QC Batch: 251
Prep Batch: 226

Analytical Method: S 6010B
Date Analyzed: 2003-01-14
Date Prepared: 2003-01-03

Prep Method: S 3010A
Analyzed By: RR
Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Zinc		0.107	0.107	<0.00907	mg/L	1	0.00907	0.0250	0.00907

Sample: 1653 - MW-17

Analysis: Al, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Aluminum	U	<0.0227	<0.100	<0.0227	mg/L	1	0.0227	0.100	0.0227

Sample: 1653 - MW-17

Analysis: B, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Boron		0.896	0.896	<0.000728	mg/L	1	0.000728	0.00500	0.000728

Sample: 1653 - MW-17

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 261 Date Analyzed: 2002-12-31 Analyzed By: CG
Prep Batch: 236 Date Prepared: 2002-12-31 Prepared By: DN

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	<0.000155	<0.00100	<0.000155	mg/L	1	0.000155	0.00100	0.000155
Toluene	U	<0.000192	<0.00100	<0.000192	mg/L	1	0.000192	0.00100	0.000192
Ethylbenzene	U	<0.000192	<0.00100	<0.000192	mg/L	1	0.000192	0.00100	0.000192
Xylene (isomers)	U	<0.000917	<0.00300	<0.000917	mg/L	1	0.000917	0.00300	0.000917

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.0995	mg/L	1	0.100	100	62 - 130
4-Bromofluorobenzene (4-BFB)		0.084	mg/L	1	0.100	84	60 - 134

Sample: 1653 - MW-17

Analysis: Co, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

continued ...

sample 1653 continued ...

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cobalt	U	<0.000705	<0.0250	<0.000705	mg/L	1	0.000705	0.0250	0.000705

Sample: 1653 - MW-17

Analysis: Cu, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Copper	U	<0.0177	<0.0250	<0.0177	mg/L	1	0.0177	0.0250	0.0177

Sample: 1653 - MW-17

Analysis: Fe, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Iron		0.139	0.139	<0.00220	mg/L	1	0.00220	0.0500	0.0022

Sample: 1653 - MW-17

Analysis: Mn, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Manganese	U	<0.000275	<0.0250	<0.000275	mg/L	1	0.000275	0.0250	0.000275

Sample: 1653 - MW-17

Analysis: Mo, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Molybdenum	U	<0.00136	<0.0500	<0.00136	mg/L	1	0.00136	0.0500	0.001361

Sample: 1653 - MW-17

Analysis: Ni, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Nickel	U	<0.00269	<0.0250	<0.00269	mg/L	1	0.00269	0.0250	0.002693

Sample: 1653 - MW-17

Analysis: PAH Analytical Method: S 8270C Prep Method: S 3510C
QC Batch: 247 Date Analyzed: 2003-01-13 Analyzed By: RC
Prep Batch: 223 Date Prepared: 2003-01-13 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Naphthalene	U	<0.0000853	<0.000200	<0.0000853	mg/L	1	0.0000853	0.000200	8.53e-05
Acenaphthylene	U	<0.0000768	<0.000200	<0.0000768	mg/L	1	0.0000768	0.000200	7.68e-05
Acenaphthene	U	<0.000103	<0.000200	<0.000103	mg/L	1	0.000103	0.000200	0.0001028
Fluorene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Phenanthrene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Anthracene	U	<0.000170	<0.000200	<0.000170	mg/L	1	0.000170	0.000200	0.00017
Fluoranthene	U	<0.0000969	<0.000200	<0.0000969	mg/L	1	0.0000969	0.000200	9.69e-05
Pyrene	U	<0.0000855	<0.000200	<0.0000855	mg/L	1	0.0000855	0.000200	8.55e-05
Benzo(a)anthracene	U	<0.0000703	<0.000200	<0.0000703	mg/L	1	0.0000703	0.000200	7.03e-05
Chrysene	U	<0.000113	<0.000200	<0.000113	mg/L	1	0.000113	0.000200	0.0001129
Benzo(b)fluoranthene	U	<0.000134	<0.000200	<0.000134	mg/L	1	0.000134	0.000200	0.0001343
Benzo(k)fluoranthene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Benzo(a)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Indeno(1,2,3-cd)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Dibenzo(a,h)anthracene	U	<0.000180	<0.000200	<0.000180	mg/L	1	0.000180	0.000200	0.0001797
Benzo(g,h,i)perylene	U	<0.000158	<0.000200	<0.000158	mg/L	1	0.000158	0.000200	0.0001578

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		35.6	mg/L	1	80.0	44	23 - 116
Nitrobenzene-d5		38.7	mg/L	1	80.0	48	30 - 114
Terphenyl-d14		29.8	mg/L	1	80.0	37	25 - 141

Sample: 1653 - MW-17

Analysis: Total 8 Metals Analytical Method: S 7470A Prep Method: N/A
QC Batch: 249 Date Analyzed: 2003-01-08 Analyzed By: BC
Prep Batch: 225 Date Prepared: 2003-01-07 Prepared By: BC
Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Silver	J	0.00320	<0.0125	<0.000779	mg/L	1	0.000779	0.0125	0.000779
Total Arsenic	J	0.00720	<0.0500	<0.00593	mg/L	1	0.00593	0.0500	0.00593
Total Barium	J	0.0116	<0.100	<0.000343	mg/L	1	0.000343	0.100	0.000343

continued ...

sample 1653 continued ...

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cadmium	U	<0.000268	<0.00500	<0.000268	mg/L	1	0.000268	0.000268	0.00500	0.000268
Total Chromium	U	<0.000660	<0.0100	<0.000660	mg/L	1	0.000660	0.000660	0.0100	0.00066
Total Mercury	J	0.0000200	<0.000200	<0.0000200	mg/L	1	0.0000200	0.0000200	0.000200	2e-05
Total Lead	U	<0.00367	<0.0100	<0.00367	mg/L	1	0.00367	0.00367	0.0100	0.00367
Total Selenium	J	0.0114	<0.0500	<0.0101	mg/L	1	0.0101	0.0101	0.0500	0.0101

Sample: 1653 - MW-17

Analysis: Zn, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Zinc		0.0482	0.0482	<0.00907	mg/L	1	0.00907	0.00907	0.0250	0.00907

Sample: 1654 - MW-21

Analysis: Al, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Aluminum		5.87	5.87	<0.0227	mg/L	1	0.0227	0.0227	0.100	0.0227

Sample: 1654 - MW-21

Analysis: B, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Boron		0.906	0.906	<0.000728	mg/L	1	0.000728	0.000728	0.00500	0.000728

Sample: 1654 - MW-21

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 261 Date Analyzed: 2002-12-31 Analyzed By: CG
Prep Batch: 236 Date Prepared: 2002-12-31 Prepared By: DN

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	<0.000155	<0.00100	<0.000155	mg/L	1	0.000155	0.000155	0.00100	0.000155
Toluene	U	<0.000192	<0.00100	<0.000192	mg/L	1	0.000192	0.000192	0.00100	0.000192

continued ...

sample 1654 continued ...

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Ethylbenzene	U	<0.000192	<0.00100	<0.000192	mg/L	1	0.000192	0.00100	0.000192
Xylene (isomers)	U	<0.000917	<0.00300	<0.000917	mg/L	1	0.000917	0.00300	0.000917

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.0991	mg/L	1	0.100	99	62 - 130
4-Bromofluorobenzene (4-BFB)		0.083	mg/L	1	0.100	83	60 - 134

Sample: 1654 - MW-21

Analysis: Co, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cobalt	J	0.0116	<0.0250	<0.000705	mg/L	1	0.000705	0.0250	0.000705

Sample: 1654 - MW-21

Analysis: Cu, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Copper	U	<0.0177	<0.0250	<0.0177	mg/L	1	0.0177	0.0250	0.0177

Sample: 1654 - MW-21

Analysis: Fe, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Iron		3.63	3.63	<0.00220	mg/L	1	0.00220	0.0500	0.0022

Sample: 1654 - MW-21

Analysis: Mn, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

continued ...

sample 1654 continued ...

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Manganese		0.0278	0.0278	<0.000275	mg/L	1	0.000275	0.0250	0.000275

Sample: 1654 - MW-21

Analysis: Mo, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Molybdenum	J	0.00390	<0.0500	<0.00136	mg/L	1	0.00136	0.0500	0.001361

Sample: 1654 - MW-21

Analysis: Ni, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 250 Date Analyzed: 2003-01-14 Analyzed By: RR
Prep Batch: 226 Date Prepared: 2003-01-03 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Nickel	U	<0.00269	<0.0250	<0.00269	mg/L	1	0.00269	0.0250	0.002693

Sample: 1654 - MW-21

Analysis: PAH Analytical Method: S 8270C Prep Method: S 3510C
QC Batch: 247 Date Analyzed: 2003-01-13 Analyzed By: RC
Prep Batch: 223 Date Prepared: 2003-01-13 Prepared By: JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Naphthalene	U	<0.0000853	<0.000200	<0.0000853	mg/L	1	0.0000853	0.000200	8.53e-05
Acenaphthylene	U	<0.0000768	<0.000200	<0.0000768	mg/L	1	0.0000768	0.000200	7.68e-05
Acenaphthene	U	<0.000103	<0.000200	<0.000103	mg/L	1	0.000103	0.000200	0.0001028
Fluorene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Phenanthrene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Anthracene	U	<0.000170	<0.000200	<0.000170	mg/L	1	0.000170	0.000200	0.00017
Fluoranthene	U	<0.0000969	<0.000200	<0.0000969	mg/L	1	0.0000969	0.000200	9.69e-05
Pyrene	U	<0.0000855	<0.000200	<0.0000855	mg/L	1	0.0000855	0.000200	8.55e-05
Benzo(a)anthracene	U	<0.0000703	<0.000200	<0.0000703	mg/L	1	0.0000703	0.000200	7.03e-05
Chrysene	U	<0.000113	<0.000200	<0.000113	mg/L	1	0.000113	0.000200	0.0001129
Benzo(b)fluoranthene	U	<0.000134	<0.000200	<0.000134	mg/L	1	0.000134	0.000200	0.0001343
Benzo(k)fluoranthene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Benzo(a)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Indeno(1,2,3-cd)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002

continued ...

sample 1654 continued ...

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Dibenzo(a,h)anthracene	U	<0.000180	<0.000200	<0.000180	mg/L	1	0.000180	0.000200	0.0001797
Benzo(g,h,i)perylene	U	<0.000158	<0.000200	<0.000158	mg/L	1	0.000158	0.000200	0.0001578

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		28.2	mg/L	1	80.0	35	23 - 116
Nitrobenzene-d5		29.3	mg/L	1	80.0	37	30 - 114
Terphenyl-d14		23.2	mg/L	1	80.0	29	25 - 141

Sample: 1654 - MW-21

Analysis:	Total 8 Metals	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	249	Date Analyzed:	2003-01-08	Analyzed By:	BC
Prep Batch:	225	Date Prepared:	2003-01-07	Prepared By:	BC
Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	250	Date Analyzed:	2003-01-14	Analyzed By:	RR
Prep Batch:	226	Date Prepared:	2003-01-03	Prepared By:	JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Silver	J	0.00220	<0.0125	<0.000779	mg/L	1	0.000779	0.0125	0.000779
Total Arsenic	J	0.0112	<0.0500	<0.00593	mg/L	1	0.00593	0.0500	0.00593
Total Barium		0.158	0.158	<0.000343	mg/L	1	0.000343	0.100	0.000343
Total Cadmium	U	<0.000268	<0.00500	<0.000268	mg/L	1	0.000268	0.00500	0.000268
Total Chromium	J	0.00850	<0.0100	<0.000660	mg/L	1	0.000660	0.0100	0.00066
Total Mercury	J	0.0000200	<0.000200	<0.0000200	mg/L	1	0.0000200	0.000200	2e-05
Total Lead	U	<0.00367	<0.0100	<0.00367	mg/L	1	0.00367	0.0100	0.00367
Total Selenium	J	0.0153	<0.0500	<0.0101	mg/L	1	0.0101	0.0500	0.0101

Sample: 1654 - MW-21

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	252	Date Analyzed:	2003-01-16	Analyzed By:	BP
Prep Batch:	227	Date Prepared:	2003-01-10	Prepared By:	WG

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
DRO		1.90	1.90	<2.30	mg/L	0.1	2.30	0.00	2.3

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		12.6	mg/L	0.1	150	84	75 - 125

Sample: 1654 - MW-21

Analysis:	Zn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	250	Date Analyzed:	2003-01-14	Analyzed By:	RR
Prep Batch:	226	Date Prepared:	2003-01-03	Prepared By:	JH

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Zinc		0.0420	0.0420	<0.00907	mg/L	1	0.00907	0.0250	0.00907

Sample: 1655 - Effluent

Analysis: BTEX (TRRP) Analytical Method: S 8021B Prep Method: S 5030B
QC Batch: 260 Date Analyzed: 2003-01-02 Analyzed By: CG
Prep Batch: 235 Date Prepared: 2003-01-02 Prepared By: DN

Parameter	Flag	SQL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	<0.000775	<0.00500	<0.000155	mg/L	5	0.000155	0.00100	0.000155
Toluene	U	<0.000960	<0.00500	<0.000192	mg/L	5	0.000192	0.00100	0.000192
Ethylbenzene	J	0.00160	<0.00500	<0.000192	mg/L	5	0.000192	0.00100	0.000192
Xylene (isomers)		0.0190	0.0190	<0.000917	mg/L	5	0.000917	0.00300	0.000917

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.435	mg/L	5	0.100	87	62 - 130
4-Bromofluorobenzene (4-BFB)		0.417	mg/L	5	0.100	83	60 - 134

Method Blank (1) QC Batch: 247

Parameter	Flag	Result	Units	Reporting Limits
Naphthalene		<0.0000853	mg/L	8.53e-05
Acenaphthylene		<0.0000768	mg/L	7.68e-05
Acenaphthene		<0.000103	mg/L	0.0001028
Fluorene		<0.0000861	mg/L	8.61e-05
Phenanthrene		<0.0000861	mg/L	8.61e-05
Anthracene		<0.000170	mg/L	0.00017
Fluoranthene		<0.0000969	mg/L	9.69e-05
Pyrene		<0.0000855	mg/L	8.55e-05
Benzo(a)anthracene		<0.0000703	mg/L	7.03e-05
Chrysene		<0.000113	mg/L	0.0001129
Benzo(b)fluoranthene		<0.000134	mg/L	0.0001343
Benzo(k)fluoranthene		<0.000200	mg/L	0.0002
Benzo(a)pyrene		<0.000200	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.000180	mg/L	0.0001797
Benzo(g,h,i)perylene		<0.000158	mg/L	0.0001578

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		40.1	mg/L	1	80.0	50	43 - 116
Nitrobenzene-d5		43.1	mg/L	1	80.0	54	35 - 114
Terphenyl-d14		50.7	mg/L	1	80.0	63	33 - 141

Method Blank (1) QC Batch: 249

Parameter	Flag	Result	Units	Reporting Limits
Total Mercury		<0.0000200	mg/L	2e-05

Report Date: Not Approved
106.001

Work Order: 2123114
Jal Basin Station

Page Number: 29 of 45
2 miles south of Jal, NM on Hwy 18

Method Blank (1) QC Batch: 250

Parameter	Flag	Result	Units	Reporting Limits
Total Aluminum		<0.0227	mg/L	0.0227

Method Blank (1) QC Batch: 250

Parameter	Flag	Result	Units	Reporting Limits
Total Boron		0.0835	mg/L	0.000728

Method Blank (1) QC Batch: 250

Parameter	Flag	Result	Units	Reporting Limits
Total Cobalt		<0.000705	mg/L	0.000705

Method Blank (1) QC Batch: 250

Parameter	Flag	Result	Units	Reporting Limits
Total Copper		<0.0177	mg/L	0.0177

Method Blank (1) QC Batch: 250

Parameter	Flag	Result	Units	Reporting Limits
Total Iron		<0.00220	mg/L	0.0022

Method Blank (1) QC Batch: 250

Parameter	Flag	Result	Units	Reporting Limits
Total Manganese		<0.000275	mg/L	0.000275

Method Blank (1) QC Batch: 250

Parameter	Flag	Result	Units	Reporting Limits
Total Molybdenum		<0.00136	mg/L	0.001361

Method Blank (1) QC Batch: 250

Parameter	Flag	Result	Units	Reporting Limits
Total Nickel		<0.00269	mg/L	0.002693

Method Blank (1) QC Batch: 250

Parameter	Flag	Result	Units	Reporting Limits
Total Zinc		0.0126	mg/L	0.00907

Method Blank (1) QC Batch: 250

Parameter	Flag	Result	Units	Reporting Limits
Total Silver		0.0035	mg/L	0.000779
Total Arsenic		<0.00593	mg/L	0.00593
Total Barium		<0.000343	mg/L	0.000343
Total Cadmium		<0.000268	mg/L	0.000268
Total Chromium		<0.000660	mg/L	0.00066
Total Lead		<0.00367	mg/L	0.00367
Total Selenium		<0.0101	mg/L	0.0101

Method Blank (1) QC Batch: 251

Parameter	Flag	Result	Units	Reporting Limits
Total Aluminum		<0.0227	mg/L	0.0227

Method Blank (1) QC Batch: 251

Parameter	Flag	Result	Units	Reporting Limits
Total Boron		0.0835	mg/L	0.000728

Method Blank (1) QC Batch: 251

Parameter	Flag	Result	Units	Reporting Limits
Total Cobalt		<0.000705	mg/L	0.000705

Method Blank (1) QC Batch: 251

Parameter	Flag	Result	Units	Reporting Limits
Total Copper		<0.0177	mg/L	0.0177

Method Blank (1) QC Batch: 251

Parameter	Flag	Result	Units	Reporting Limits
Total Iron		<0.00220	mg/L	0.0022

Method Blank (1) QC Batch: 251

Parameter	Flag	Result	Units	Reporting Limits
Total Manganese		<0.000275	mg/L	0.000275

Method Blank (1) QC Batch: 251

Parameter	Flag	Result	Units	Reporting Limits
Total Molybdenum		<0.00136	mg/L	0.001361

Method Blank (1) QC Batch: 251

Parameter	Flag	Result	Units	Reporting Limits
Total Nickel		<0.00269	mg/L	0.002693

Method Blank (1) QC Batch: 251

Parameter	Flag	Result	Units	Reporting Limits
Total Zinc		0.0126	mg/L	0.00907

Method Blank (1) QC Batch: 251

Parameter	Flag	Result	Units	Reporting Limits
Total Silver		0.0035	mg/L	0.000779
Total Arsenic		<0.00593	mg/L	0.00593
Total Barium		<0.000343	mg/L	0.000343
Total Cadmium		<0.000268	mg/L	0.000268
Total Chromium		<0.000660	mg/L	0.00066
Total Lead		<0.00367	mg/L	0.00367
Total Selenium		<0.0101	mg/L	0.0101

Method Blank (1) QC Batch: 252

Parameter	Flag	Result	Units	Reporting Limits
DRO		<2.30	mg/L	2.3

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		11.4	mg/L	0.1	150	76	75 - 125

Method Blank (1) QC Batch: 260

Parameter	Flag	Result	Units	Reporting Limits
Benzene		<0.000155	mg/L	0.000155
Toluene		<0.000192	mg/L	0.000192
Ethylbenzene		<0.000192	mg/L	0.000192
Xylene (isomers)		<0.000917	mg/L	0.000917

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.094	mg/L	1	0.100	94	62 - 130
4-Bromofluorobenzene (4-BFB)		0.077	mg/L	1	0.100	77	60 - 134

Method Blank (1) QC Batch: 261

Parameter	Flag	Result	Units	Reporting Limits
Benzene		<0.000155	mg/L	0.000155
Toluene		<0.000192	mg/L	0.000192
Ethylbenzene		<0.000192	mg/L	0.000192
Xylene (isomers)		<0.000917	mg/L	0.000917

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorothymidine (TFT)		0.093	mg/L	1	0.100	93	62 - 130
4-Bromofluorobenzene (4-BFB)		0.077	mg/L	1	0.100	77	60 - 134

Laboratory Control Spike (LCS-1) QC Batch: 247

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Naphthalene	30.9	33.4	mg/L	1	80.0	<0.0000853	39	4	16 - 96	20
Acenaphthylene	35.9	35.3	mg/L	1	80.0	<0.0000768	45	1	20 - 110	20
Acenaphthene	35.5	34.8	mg/L	1	80.0	<0.000103	44	1	18 - 108	20
Fluorene	42.1	42.0	mg/L	1	80.0	<0.0000861	53	0	22 - 102	20
Phenanthrene	50.2	51.6	mg/L	1	80.0	<0.0000861	63	1	25 - 103	20
Anthracene	51.5	52.3	mg/L	1	80.0	<0.000170	64	1	22 - 110	20
Fluoranthene	53.7	54.7	mg/L	1	80.0	<0.0000969	67	1	21 - 110	20
Pyrene	65.8	66.5	mg/L	1	80.0	<0.0000855	82	0	22 - 100	20
Benzo(a)anthracene	64.4	64.2	mg/L	1	80.0	<0.0000703	80	0	30 - 99	20
Chrysene	57.8	58.0	mg/L	1	80.0	<0.000113	72	0	27 - 108	20
Benzo(b)fluoranthene	62.6	56.6	mg/L	1	80.0	<0.000134	78	5	19 - 102	20
Benzo(k)fluoranthene	66.3	69.4	mg/L	1	80.0	<0.000200	83	2	35 - 103	20
Benzo(a)pyrene	56.2	56.9	mg/L	1	80.0	<0.000200	70	1	24 - 105	20
Indeno(1,2,3-cd)pyrene	53.1	46.5	mg/L	1	80.0	<0.000200	66	7	22 - 108	20
Dibenzo(a,h)anthracene	40.4	35.3	mg/L	1	80.0	<0.000180	50	7	23 - 77	20
Benzo(g,h,i)perylene	55.9	49.1	mg/L	1	80.0	<0.000158	70	6	19 - 119	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2-Fluorobiphenyl	35.5	37.8	mg/L	1	80.0	44	47	43 - 116
Nitrobenzene-d5	28.3	27.7	mg/L	1	80.0	35	35	35 - 114
Terphenyl-d14	47.0	47.4	mg/L	1	80.0	59	59	33 - 141

Laboratory Control Spike (LCS-1) QC Batch: 249

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	0.00109	0.00111	mg/L	1	0.00100	<0.0000200	109	1	86.7 - 177	20

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

Laboratory Control Spike (LCS-1) QC Batch: 250

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Aluminum	0.984	0.932	mg/L	1	1.00	<0.0227	98	3	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 250

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Boron	0.129	0.124	mg/L	1	0.0500	0.0835	91	2	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 250

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Cobalt	0.253	0.249	mg/L	1	0.250	<0.000705	101	1	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 250

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Copper	0.132	0.130	mg/L	1	0.125	<0.0177	106	1	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 250

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Iron	0.578	0.522	mg/L	1	0.500	<0.00220	116	5	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 250

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Manganese	0.271	0.263	mg/L	1	0.250	<0.000275	108	1	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 250

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Molybdenum	0.528	0.523	mg/L	1	0.500	<0.00136	106	0	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 250

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Nickel	0.262	0.259	mg/L	1	0.250	<0.00269	105	0	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 250

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Zinc	0.244	0.232	mg/L	1	0.250	<0.00907	98	2	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 250

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	0.126	0.125	mg/L	1	0.125	<0.000779	101	0	75 - 125	20
Total Arsenic	0.503	0.495	mg/L	1	0.500	<0.00593	101	1	75 - 125	20
Total Barium	1.05	1.04	mg/L	1	1.00	<0.000343	105	0	75 - 125	20
Total Cadmium	0.247	0.244	mg/L	1	0.250	<0.000268	99	1	75 - 125	20
Total Chromium	0.104	0.103	mg/L	1	0.100	<0.000660	104	0	75 - 125	20
Total Lead	0.539	0.533	mg/L	1	0.500	<0.00367	108	0	75 - 125	20
Total Selenium	0.444	0.448	mg/L	1	0.500	<0.0101	89	0	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 251

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Aluminum	0.984	0.932	mg/L	1	1.00	<0.0227	98	3	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 251

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Boron	0.129	0.124	mg/L	1	0.0500	0.0835	91	2	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 251

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Cobalt	0.253	0.249	mg/L	1	0.250	<0.000705	101	1	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 251

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Copper	0.132	0.130	mg/L	1	0.125	<0.0177	106	1	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 251

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Iron	0.578	0.522	mg/L	1	0.500	<0.00220	116	5	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 251

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Manganese	0.271	0.263	mg/L	1	0.250	<0.000275	108	1	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 251

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Molybdenum	0.528	0.523	mg/L	1	0.500	<0.00136	106	0	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 251

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Nickel	0.262	0.259	mg/L	1	0.250	<0.00269	105	0	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 251

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Zinc	0.244	0.232	mg/L	1	0.250	0.0126	92	2	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 251

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	0.126	0.125	mg/L	1	0.125	0.0035	98	0	75 - 125	20
Total Arsenic	0.503	0.495	mg/L	1	0.500	<0.00593	101	1	75 - 125	20
Total Barium	1.05	1.04	mg/L	1	1.00	<0.000343	105	0	75 - 125	20
Total Cadmium	0.247	0.244	mg/L	1	0.250	<0.000268	99	1	75 - 125	20
Total Chromium	0.104	0.103	mg/L	1	0.100	<0.000660	104	0	75 - 125	20
Total Lead	0.539	0.533	mg/L	1	0.500	<0.00367	108	0	75 - 125	20
Total Selenium	0.444	0.448	mg/L	1	0.500	<0.0101	89	0	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 252

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRÖ	22.7	22.0	mg/L	0.1	250	<0.230	91	2	59.8 - 132	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	11.8	11.5	mg/L	0.1	150	79	77	75 - 125

Laboratory Control Spike (LCS-1) QC Batch: 260

continued ...

control spikes continued ...

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.0970	0.0780	mg/L	1	0.100	<0.000155	97	11	86 - 106	20
Toluene	0.0970	0.0790	mg/L	1	0.100	<0.000192	97	10	82 - 108	20
Ethylbenzene	0.0970	0.0790	mg/L	1	0.100	<0.000192	97	10	86 - 115	20
Xylene (isomers)	0.289	0.242	mg/L	1	0.300	<0.000917	96	9	72 - 116	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorothymidine (TFT)	0.0950	0.0880	mg/L	1	0.100	95	88	62 - 130
4-Bromofluorobenzene (4-BFB)	0.0940	0.0940	mg/L	1	0.100	94	94	60 - 134

Laboratory Control Spike (LCS-1) QC Batch: 261

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.100	0.0960	mg/L	1	0.100	<0.000155	100	2	86 - 106	20
Toluene	0.0990	0.0950	mg/L	1	0.100	<0.000192	99	2	82 - 108	20
Ethylbenzene	0.0960	0.0930	mg/L	1	0.100	<0.000192	96	2	86 - 115	20
Xylene (isomers)	0.288	0.278	mg/L	1	0.300	<0.000917	96	2	72 - 116	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorothymidine (TFT)	0.0910	0.0850	mg/L	1	0.100	91	85	62 - 130
4-Bromofluorobenzene (4-BFB)	0.0890	0.0860	mg/L	1	0.100	89	86	60 - 134

Matrix Spike (MS-1) QC Batch: 249

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	0.00126	0.00120	mg/L	1	0.00100	<0.0000200	126	2	40.1 - 177	20

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

Matrix Spike (MS-1) QC Batch: 250

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Aluminum	0.962	1.06	mg/L	1	1.00	<0.0227	96	5	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 250

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Boron ¹	0.980	0.996	mg/L	1	0.0500	0.896	168	1	75 - 125	20

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

¹ Recovery outside control limits. LCS shows process is in control.

Matrix Spike (MS-1) QC Batch: 250

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Cobalt	0.209	0.209	mg/L	1	0.250	<0.000705	84	0	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 250

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Copper	0.115	0.116	mg/L	1	0.125	<0.0177	92	0	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 250

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Iron ²	0.505	0.560	mg/L	1	0.500	0.139	73	5	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 250

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Manganese	0.224	0.226	mg/L	1	0.250	<0.000275	90	0	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 250

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Molybdenum	0.475	0.474	mg/L	1	0.500	<0.00136	95	0	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 250

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Nickel	0.220	0.220	mg/L	1	0.250	<0.00269	88	0	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 250

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Zinc	0.249	0.242	mg/L	1	0.250	0.0482	80	1	75 - 125	20

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

²Recovery outside control limits. LCS shows process is in control.

Matrix Spike (MS-1) QC Batch: 250

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	0.119	0.116	mg/L	1	0.125	<0.000779	95	1	75 - 125	20
Total Arsenic	0.468	0.474	mg/L	1	0.500	<0.00593	94	1	75 - 125	20
Total Barium	0.945	0.945	mg/L	1	1.00	<0.000343	94	0	75 - 125	20
Total Cadmium	0.217	0.217	mg/L	1	0.250	<0.000268	87	0	75 - 125	20
Total Chromium	0.0898	0.0905	mg/L	1	0.100	<0.000660	90	0	75 - 125	20
Total Lead	0.456	0.456	mg/L	1	0.500	<0.00367	91	0	75 - 125	20
Total Selenium	0.426	0.418	mg/L	1	0.500	<0.0101	85	1	75 - 125	20

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

Standard (CCV-1) QC Batch: 247

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	62.7	104	80 - 120	2003-01-13
Acenaphthylene		mg/L	60.0	68.7	114	80 - 120	2003-01-13
Acenaphthene		mg/L	60.0	68.5	114	80 - 120	2003-01-13
Fluorene		mg/L	60.0	67.0	112	80 - 120	2003-01-13
Phenanthrene		mg/L	60.0	67.9	113	80 - 120	2003-01-13
Anthracene		mg/L	60.0	63.7	106	80 - 120	2003-01-13
Fluoranthene		mg/L	60.0	63.6	106	80 - 120	2003-01-13
Pyrene		mg/L	60.0	65.2	109	80 - 120	2003-01-13
Benzo(a)anthracene		mg/L	60.0	65.0	108	80 - 120	2003-01-13
Chrysene		mg/L	60.0	65.3	109	80 - 120	2003-01-13
Benzo(b)fluoranthene		mg/L	60.0	66.1	110	80 - 120	2003-01-13
Benzo(k)fluoranthene		mg/L	60.0	64.5	108	80 - 120	2003-01-13
Benzo(a)pyrene		mg/L	60.0	70.6	118	80 - 120	2003-01-13
Indeno(1,2,3-cd)pyrene		mg/L	60.0	49.8	83	80 - 120	2003-01-13
Dibenzo(a,h)anthracene		mg/L	60.0	49.5	82	80 - 120	2003-01-13
Benzo(g,h,i)perylene		mg/L	60.0	49.2	82	80 - 120	2003-01-13

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorobiphenyl		66	mg/L	1	60.0	110	43 - 116
Nitrobenzene-d5		66.2	mg/L	1	60.0	110	35 - 114
Terphenyl-d14		65.9	mg/L	1	60.0	110	33 - 141

Standard (ICV-1) QC Batch: 249

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.00100	100	80 - 120	2003-01-08

Standard (CCV-1) QC Batch: 249

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.000830	83	80 - 120	2003-01-08

Standard (ICV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	2.00	1.92	96	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Boron		mg/L	0.100	0.0962	96	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	0.500	0.486	97	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	0.250	0.242	97	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	0.995	100	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	0.500	0.489	98	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	1.01	101	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	0.500	0.483	97	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 250

Report Date: Not Approved
106.001

Work Order: 2123114
Jal Basin Station

Page Number: 40 of 45
2 miles south of Jal, NM on Hwy 18

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	0.500	0.479	96	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.250	0.245	98	90 - 110	2003-01-14
Total Arsenic		mg/L	1.00	0.981	98	90 - 110	2003-01-14
Total Barium		mg/L	2.00	1.99	100	90 - 110	2003-01-14
Total Cadmium		mg/L	0.500	0.495	99	90 - 110	2003-01-14
Total Chromium		mg/L	0.200	0.192	96	90 - 110	2003-01-14
Total Lead		mg/L	1.00	1.02	102	90 - 110	2003-01-14
Total Selenium		mg/L	1.00	0.973	97	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	2.00	1.94	97	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Boron		mg/L	0.100	0.100	100	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	0.500	0.491	98	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	0.250	0.247	99	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	1.00	100	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 250

Report Date: Not Approved
106.001

Work Order: 2123114
Jal Basin Station

Page Number: 41 of 45
2 miles south of Jal, NM on Hwy 18

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	0.500	0.495	99	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	0.969	97	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	0.500	0.487	97	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	0.500	0.486	97	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 250

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.250	0.248	99	90 - 110	2003-01-14
Total Arsenic		mg/L	1.00	0.985	98	90 - 110	2003-01-14
Total Barium		mg/L	2.00	2.03	102	90 - 110	2003-01-14
Total Cadmium		mg/L	0.500	0.498	100	90 - 110	2003-01-14
Total Chromium		mg/L	0.200	0.195	98	90 - 110	2003-01-14
Total Lead		mg/L	1.00	1.01	101	90 - 110	2003-01-14
Total Selenium		mg/L	1.00	0.977	98	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	2.00	1.92	96	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Boron		mg/L	0.100	0.0962	96	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 251

Report Date: Not Approved
106.001

Work Order: 2123114
Jal Basin Station

Page Number: 42 of 45
2 miles south of Jal, NM on Hwy 18

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	0.500	0.486	97	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	0.250	0.242	97	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	0.995	100	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	0.500	0.489	98	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	1.01	101	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	0.500	0.483	97	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	0.500	0.479	96	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.250	0.245	98	90 - 110	2003-01-14
Total Arsenic		mg/L	1.00	0.981	98	90 - 110	2003-01-14
Total Barium		mg/L	2.00	1.99	100	90 - 110	2003-01-14

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cadmium		mg/L	0.500	0.495	99	90 - 110	2003-01-14
Total Chromium		mg/L	0.200	0.192	96	90 - 110	2003-01-14
Total Lead		mg/L	1.00	1.02	102	90 - 110	2003-01-14
Total Selenium		mg/L	1.00	0.973	97	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	2.00	1.96	98	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Boron		mg/L	0.100	0.103	103	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	0.500	0.496	99	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	0.250	0.250	100	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	1.02	102	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	0.500	0.501	100	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	0.976	98	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	0.500	0.492	98	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	0.500	0.491	98	90 - 110	2003-01-14

Standard (CCV-1) QC Batch: 251

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.250	0.252	101	90 - 110	2003-01-14
Total Arsenic		mg/L	1.00	1.01	101	90 - 110	2003-01-14
Total Barium		mg/L	2.00	2.06	103	90 - 110	2003-01-14
Total Cadmium		mg/L	0.500	0.504	101	90 - 110	2003-01-14
Total Chromium		mg/L	0.200	0.196	98	90 - 110	2003-01-14
Total Lead		mg/L	1.00	1.01	101	90 - 110	2003-01-14
Total Selenium		mg/L	1.00	0.992	99	90 - 110	2003-01-14

Standard (ICV-1) QC Batch: 252

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	265	106	75 - 125	2003-01-16

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
n-Triacontane		112	mg/L	1	150	75	75 - 125

Standard (CCV-1) QC Batch: 252

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	222	89	75 - 125	2003-01-16

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
n-Triacontane		114	mg/L	1	150	76	75 - 125

Standard (ICV-1) QC Batch: 260

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0990	99	85 - 115	2003-01-02
Toluene		mg/L	0.100	0.0990	99	85 - 115	2003-01-02
Ethylbenzene		mg/L	0.100	0.0990	99	85 - 115	2003-01-02
Xylene (isomers)		mg/L	0.300	0.299	100	85 - 115	2003-01-02

Standard (CCV-1) QC Batch: 260

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0960	96	85 - 115	2003-01-02
Toluene		mg/L	0.100	0.0950	95	85 - 115	2003-01-02
Ethylbenzene		mg/L	0.100	0.0940	94	85 - 115	2003-01-02
Xylene (isomers)		mg/L	0.300	0.282	94	85 - 115	2003-01-02

Standard (ICV-1) QC Batch: 261

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0980	98	85 - 115	2002-12-31
Toluene		mg/L	0.100	0.0970	97	85 - 115	2002-12-31
Ethylbenzene		mg/L	0.100	0.0950	95	85 - 115	2002-12-31
Xylene (isomers)		mg/L	0.300	0.286	95	85 - 115	2002-12-31

Standard (CCV-1) QC Batch: 261

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0990	99	85 - 115	2002-12-31
Toluene		mg/L	0.100	0.0980	98	85 - 115	2002-12-31
Ethylbenzene		mg/L	0.100	0.0970	97	85 - 115	2002-12-31
Xylene (isomers)		mg/L	0.300	0.290	97	85 - 115	2002-12-31

Standard (CCV-2) QC Batch: 261

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0990	99	85 - 115	2002-12-31
Toluene		mg/L	0.100	0.0980	98	85 - 115	2002-12-31
Ethylbenzene		mg/L	0.100	0.0960	96	85 - 115	2002-12-31
Xylene (isomers)		mg/L	0.300	0.285	95	85 - 115	2002-12-31

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424 800•378•1296
El Paso, Texas 79932 888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1296 FAX 806•794•1298
915•585•3443 FAX 915•585•4944

Analytical and Quality Control Report

Theresa Nix
H2A Environmental LTD
418 San Saba
Portland, Tx. 78374

Report Date: January 21, 2003

Order ID Number: A02123105

Project Number: 106.001
Project Name: Jal Station
Project Location: Jal,NM

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

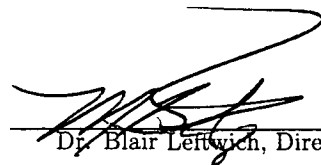
Sample	Description	Matrix	Date Taken	Time Taken	Date Received
217461	MW-21	Water	12/28/02	15:00	12/31/02

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

Note: Samples will be disposed of 30 days from the report date unless the lab is contacted before the 30 days has past.


Dr. Blair Leftwich, Director

Report Date: January 21, 2003
106.001

Order Number: A02123105
Jal Station

Page Number: 2 of 6
Jal,NM

Analytical Report

Sample: 217461 - MW-21

Analysis: Alkalinity Analytical Method: E 310.1 QC Batch: QC25952 Date Analyzed: 1/2/03
Analyst: RS Preparation Method: N/A Prep Batch: PB24027 Date Prepared: 1/2/03

Param	Flag	Result	Units	Dilution	RDL
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1	1
Bicarbonate Alkalinity		328	mg/L as CaCo3	1	1
Total Alkalinity		328	mg/L as CaCo3	1	1

Sample: 217461 - MW-21

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC25993 Date Analyzed: 12/31/02
Analyst: JSW Preparation Method: N/A Prep Batch: PB24062 Date Prepared: 12/31/02

Param	Flag	Result	Units	Dilution	RDL
Chloride		73.7	mg/L	5	2
Fluoride		4.33	mg/L	5	0.20
Nitrate-N		4.57	mg/L	5	0.20
Sulfate		152	mg/L	5	2

Sample: 217461 - MW-21

Analysis: Salts Analytical Method: E 200.7 QC Batch: QC26381 Date Analyzed: 1/12/03
Analyst: BC Preparation Method: S 3005A Prep Batch: PB24136 Date Prepared: 1/8/03

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		98.6	mg/L	1	0.50
Dissolved Magnesium		52.1	mg/L	1	0.50
Dissolved Potassium		10.4	mg/L	1	0.50
Dissolved Sodium		61.4	mg/L	1	0.50

Quality Control Report Method Blank

Method Blank QCBatch: QC25952

Param	Flag	Results	Units	Reporting Limit
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.0	mg/L as CaCo3	1
Total Alkalinity		<4.0	mg/L as CaCo3	1

Method Blank QCBatch: QC25993

Param	Flag	Results	Units	Reporting Limit
Chloride		<1.0	mg/L	2
Fluoride		<0.2	mg/L	0.20
Nitrate-N		<0.2	mg/L	0.20
Sulfate		<1.0	mg/L	2

Method Blank QCBatch: QC26381

Param	Flag	Results	Units	Reporting Limit
Dissolved Calcium		<0.5	mg/L	0.50
Dissolved Magnesium		<0.5	mg/L	0.50
Dissolved Potassium		<0.5	mg/L	0.50
Dissolved Sodium		<0.5	mg/L	0.50

Quality Control Report Duplicate Samples

Duplicate QCBatch: QC25952

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity		<1.0	<1.0	mg/L as CaCo3	1	0	9.2
Carbonate Alkalinity		<1.0	<1.0	mg/L as CaCo3	1	0	9.2
Bicarbonate Alkalinity		336	334	mg/L as CaCo3	1	0	9.2
Total Alkalinity		336	334	mg/L as CaCo3	1	0	9.2

Quality Control Report Lab Control Spikes and Duplicate Spikes

Report Date: January 21, 2003
106.001

Order Number: A02123105
Jal Station

Page Number: 4 of 6
Jal,NM

Laboratory Control Spikes

QCBatch: QC25993

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Sulfate	11.59	11.66	mg/L	1	12.50	<1.0	92	0	90 - 110	20

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

Laboratory Control Spikes

QCBatch: QC26381

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Calcium	98.7	97.6	mg/L	1	100	<0.5	98	1	75 - 125	20
Dissolved Magnesium	99.0	97.8	mg/L	1	100	<0.5	99	1	75 - 125	20
Dissolved Potassium	115	111	mg/L	1	100	<0.5	115	3	75 - 125	20
Dissolved Sodium	99.6	98.4	mg/L	1	100	<0.5	99	1	75 - 125	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 Spikes

QCBatch: QC25993

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Chloride	134	131	mg/L	1	62.50	73.7	96	5	48 - 127	20
Fluoride	15.9	16.1	mg/L	1	12.50	4.33	92	1	82 - 101	20
Nitrate-N	16.6	16.5	mg/L	1	12.50	4.57	96	0	87 - 100	20
Sulfate	208	208	mg/L	1	62.50	152	89	0	59 - 121	20

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

Matrix Spikes

QCBatch: QC26381

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Calcium	152	153	mg/L	1	100	56.3	95	1	75 - 125	20
Dissolved Magnesium	97.3	101	mg/L	1	100	7.22	90	4	75 - 125	20
Dissolved Potassium	92.1	89.3	mg/L	1	100	4.65	87	3	75 - 125	20
Dissolved Sodium	277	285	mg/L	1	100	170	107	7	75 - 125	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: QC25952

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	<1.0	0	-	1/2/03
Carbonate Alkalinity		mg/L as CaCo3	0	216	0	-	1/2/03
Bicarbonate Alkalinity		mg/L as CaCo3	0	20	0	-	1/2/03
Total Alkalinity		mg/L as CaCo3	250	236	94	90 - 110	1/2/03

ICV (1) QCBatch: QC25952

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	<1.0	0	-	1/2/03
Carbonate Alkalinity		mg/L as CaCo3	0	224	0	-	1/2/03
Bicarbonate Alkalinity		mg/L as CaCo3	0	12	0	-	1/2/03
Total Alkalinity		mg/L as CaCo3	250	236	94	90 - 110	1/2/03

CCV (1) QCBatch: QC25993

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	12.50	11.69	93	90 - 110	12/31/02

ICV (1) QCBatch: QC25993

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	12.50	11.73	93	90 - 110	12/31/02

CCV (1) QCBatch: QC26381

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	23.6	94	90 - 110	1/12/03
Dissolved Magnesium		mg/L	25	23.9	95	90 - 110	1/12/03
Dissolved Potassium		mg/L	25	24.4	97	90 - 110	1/12/03
Dissolved Sodium		mg/L	25	22.6	90	90 - 110	1/12/03

ICV (1) QCBatch: QC26381

Report Date: January 21, 2003
106.001

Order Number: A02123105
Jal Station

Page Number: 6 of 6
Jal,NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	24.7	98	95 - 105	1/12/03
Dissolved Magnesium		mg/L	25	25.5	102	95 - 105	1/12/03
Dissolved Potassium		mg/L	25	25.4	101	95 - 105	1/12/03
Dissolved Sodium		mg/L	25	25.4	101	95 - 105	1/12/03

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424 800•378•1296
El Paso, Texas 79932 888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1296 FAX 806•794•1298
915•585•3443 FAX 915•585•4944

Analytical and Quality Control Report

Thresa Nix
H2A Environmental
418 San Saba
Portland, TX 78374

Report Date: January 28, 2003

Work Order: 3011001

Project Location: 2 miles south of Jal, NM on Hwy 18
Project Name: Jal Basin Station
Project Number: 106.001

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
1663	MW-21	water	2003-01-09	10:00	2003-01-10
1664	Effluent	water	2003-01-09	11:00	2003-01-10

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 19 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Notes:

All sample results are reported on a dry weight basis.

For inorganic analyses, the term MQL should actually read PQL.

Standard Flags

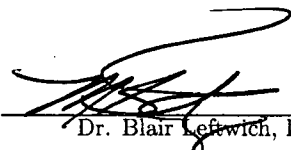
U - Not detected. The analyte is not detected above the SQL.

J - Estimated. The analyte is positively identified and the value is approximated between the SQL and MQL.

B - The sample contains less than ten times the concentration found in the method blank.

JB - The analyte is positively identified and the value is approximated between the SQL and MQL.

The sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SQL.


Dr. Blair Leftwich, Director

Analytical Report

Note: All sample results are reported on a dry weight basis.

Sample: 1663 - MW-21

Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A
QC Batch: 276 Date Analyzed: 2003-01-15 Analyzed By: RS
Prep Batch: 246 Date Prepared: 2003-01-15 Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids	¹	808	808	0.00	mg/L	1	0.00	0.00	

Sample: 1664 - Effluent

Analysis: Al, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 281 Date Analyzed: 2003-01-27 Analyzed By: RR
Prep Batch: 250 Date Prepared: 2003-01-13 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Aluminum	^U	<0.0227	<0.100	<0.0227	mg/L	1	0.0227	0.100	0.0227

Sample: 1664 - Effluent

Analysis: B, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 281 Date Analyzed: 2003-01-27 Analyzed By: RR
Prep Batch: 250 Date Prepared: 2003-01-13 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Boron		1.15	1.15	<0.000728	mg/L	1	0.000728	0.00500	0.000728

Sample: 1664 - Effluent

Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 275 Date Analyzed: 2003-01-10 Analyzed By: JW
Prep Batch: 245 Date Prepared: 2003-01-10 Prepared By: JW

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		37.1	37.1	<0.203	mg/L	5	0.203	0.500	0.2029

Sample: 1664 - Effluent

Analysis: Co, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 281 Date Analyzed: 2003-01-27 Analyzed By: RR
Prep Batch: 250 Date Prepared: 2003-01-13 Prepared By: JH

¹The sample which was duplicated had a RPD of 3.

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cobalt	J	0.00170	<0.0200	<0.000705	mg/L	1	0.000705	0.0200	0.000705

Sample: 1664 - Effluent

Analysis: Cu, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 281 Date Analyzed: 2003-01-27 Analyzed By: RR
Prep Batch: 250 Date Prepared: 2003-01-13 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Copper	U	<0.0177	<0.0250	<0.0177	mg/L	1	0.0177	0.0250	0.0177

Sample: 1664 - Effluent

Analysis: Fe, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 281 Date Analyzed: 2003-01-27 Analyzed By: RR
Prep Batch: 250 Date Prepared: 2003-01-13 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Iron	J	0.0160	<0.0500	<0.00220	mg/L	1	0.00220	0.0500	0.0022

Sample: 1664 - Effluent

Analysis: Mn, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 281 Date Analyzed: 2003-01-27 Analyzed By: RR
Prep Batch: 250 Date Prepared: 2003-01-13 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Manganese		0.0578	0.0578	<0.000275	mg/L	1	0.000275	0.0250	0.000275

Sample: 1664 - Effluent

Analysis: Mo, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 281 Date Analyzed: 2003-01-27 Analyzed By: RR
Prep Batch: 250 Date Prepared: 2003-01-13 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Molybdenum	J	0.0160	<0.0500	<0.00136	mg/L	1	0.00136	0.0500	0.001361

Sample: 1664 - Effluent

Analysis: Ni, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 281 Date Analyzed: 2003-01-27 Analyzed By: RR
Prep Batch: 250 Date Prepared: 2003-01-13 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Nickel	J	0.00980	<0.0250	<0.00269	mg/L	1	0.00269	0.0250	0.002693

Sample: 1664 - Effluent

Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 275 Date Analyzed: 2003-01-10 Analyzed By: JW
Prep Batch: 245 Date Prepared: 2003-01-10 Prepared By: JW

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		2.21	2.21	<0.0423	mg/L	5	0.0423	0.200	0.0423

Sample: 1664 - Effluent

Analysis: PAH Analytical Method: S 8270C Prep Method: S 3510C
QC Batch: 278 Date Analyzed: 2003-01-22 Analyzed By: RC
Prep Batch: 248 Date Prepared: 2003-01-10 Prepared By: RC

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Naphthalene	U	<0.0000853	<0.000200	<0.0000853	mg/L	1	0.0000853	0.000200	8.53e-05
Acenaphthylene	U	<0.0000768	<0.000200	<0.0000768	mg/L	1	0.0000768	0.000200	7.68e-05
Acenaphthene	U	<0.000103	<0.000200	<0.000103	mg/L	1	0.000103	0.000200	0.0001028
Fluorene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Phenanthrene	U	<0.0000861	<0.000200	<0.0000861	mg/L	1	0.0000861	0.000200	8.61e-05
Anthracene	U	<0.000170	<0.000200	<0.000170	mg/L	1	0.000170	0.000200	0.00017
Fluoranthene	U	<0.0000969	<0.000200	<0.0000969	mg/L	1	0.0000969	0.000200	9.69e-05
Pyrene		0.00191	0.00191	<0.0000855	mg/L	1	0.0000855	0.000200	8.55e-05
Benzo(a)anthracene	U	<0.0000703	<0.000200	<0.0000703	mg/L	1	0.0000703	0.000200	7.03e-05
Chrysene	U	<0.000113	<0.000200	<0.000113	mg/L	1	0.000113	0.000200	0.0001129
Benzo(b)fluoranthene	U	<0.000134	<0.000200	<0.000134	mg/L	1	0.000134	0.000200	0.0001343
Benzo(k)fluoranthene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Benzo(a)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Indeno(1,2,3-cd)pyrene	U	<0.000200	<0.000200	<0.000200	mg/L	1	0.000200	0.000200	0.0002
Dibenzo(a,h)anthracene	U	<0.000180	<0.000200	<0.000180	mg/L	1	0.000180	0.000200	0.0001797
Benzo(g,h,i)perylene	U	<0.000158	<0.000200	<0.000158	mg/L	1	0.000158	0.000200	0.0001578

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		43.3	mg/L	1	80.0	54	0 - 167
Nitrobenzene-d5		41.7	mg/L	1	80.0	52	0 - 163
Terphenyl-d14		52.9	mg/L	1	80.0	66	0 - 176

Sample: 1664 - Effluent

Analysis: pH- Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 274 Date Analyzed: 2003-01-10 Analyzed By: RS
Prep Batch: 244 Date Prepared: 2003-01-10 Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
pH		8.10	8.10	0.00	s.u.	1	0.00	0.00	

Sample: 1664 - Effluent

Analysis: SO4 (IC) Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 275 Date Analyzed: 2003-01-10 Analyzed By: JW
Prep Batch: 245 Date Prepared: 2003-01-10 Prepared By: JW

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Sulfate		162	162	<0.0851	mg/L	5	0.0851	0.500	0.08511

Sample: 1664 - Effluent

Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A
QC Batch: 276 Date Analyzed: 2003-01-15 Analyzed By: RS
Prep Batch: 246 Date Prepared: 2003-01-15 Prepared By: RS

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids	2	887	887	0.00	mg/L	1	0.00	0.00	

Sample: 1664 - Effluent

Analysis: Total 8 Metals Analytical Method: S 7470A Prep Method: N/A
QC Batch: 277 Date Analyzed: 2003-01-21 Analyzed By: BC
Prep Batch: 247 Date Prepared: 2003-01-20 Prepared By: BC
Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 281 Date Analyzed: 2003-01-27 Analyzed By: RR
Prep Batch: 250 Date Prepared: 2003-01-13 Prepared By: JH

Parameter	Flag	SQL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SQL	MQL (Unadjusted)	MDL (Unadjusted)
Total Silver	U	<0.000779	<0.0125	<0.000779	mg/L	1	0.000779	0.0125	0.000779
Total Arsenic		0.0303	0.0303	<0.00593	mg/L	1	0.00593	0.0100	0.00593
Total Barium		0.0672	0.0672	<0.000343	mg/L	1	0.000343	0.0100	0.000343
Total Cadmium	U	<0.000268	<0.00500	<0.000268	mg/L	1	0.000268	0.00500	0.000268
Total Chromium	U	<0.000660	<0.0100	<0.000660	mg/L	1	0.000660	0.0100	0.00066
Total Mercury	U	<0.0000200	<0.000200	<0.0000200	mg/L	1	0.0000200	0.000200	2e-05
Total Lead	U	<0.00367	<0.0100	<0.00367	mg/L	1	0.00367	0.0100	0.00367
Total Selenium	U	<0.0101	<0.0500	<0.0101	mg/L	1	0.0101	0.0500	0.0101

Sample: 1664 - Effluent

Analysis: Volatiles Analytical Method: S 8260B Prep Method: S 5030B
QC Batch: 279 Date Analyzed: 2003-01-14 Analyzed By: JG
Prep Batch: 249 Date Prepared: 2003-01-13 Prepared By: JG

²The sample which was duplicated had a RPD of 3.

Parameter	Flag	SQL	MQL	Method	Units	Dilution	SQL	MQL	MDL
		Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Bromochloromethane	U	<0.110	<1.00	<0.110	µg/L	1	0.110	1.00	0.11
Dichlorodifluoromethane	U	<0.0613	<1.00	<0.0613	µg/L	1	0.0613	1.00	0.0613
Chloromethane (methyl chloride)	U	<0.133	<1.00	<0.133	µg/L	1	0.133	1.00	0.133
Vinyl Chloride	U	<0.102	<1.00	<0.102	µg/L	1	0.102	1.00	0.102
Bromomethane (methyl bromide)	U	<0.440	<5.00	<0.440	µg/L	1	0.440	5.00	0.44
Chloroethane	U	<0.123	<1.00	<0.123	µg/L	1	0.123	1.00	0.123
Trichlorofluoromethane	U	<0.0217	<1.00	<0.0217	µg/L	1	0.0217	1.00	0.0217
Acetone	JB	0.540	<10.0	1.69	µg/L	1	0.416	10.0	0.416
Iodomethane (methyl iodide)	U	<0.267	<5.00	<0.267	µg/L	1	0.267	5.00	0.267
Carbon Disulfide	U	<0.0238	<1.00	<0.0238	µg/L	1	0.0238	1.00	0.0238
Acrylonitrile	U	<0.0745	<1.00	<0.0745	µg/L	1	0.0745	1.00	0.0745
2-Butanone (MEK)	U	<0.243	<5.00	<0.243	µg/L	1	0.243	5.00	0.243
4-Methyl-2-pentanone (MIBK)	U	<0.147	<5.00	<0.147	µg/L	1	0.147	5.00	0.147
2-Hexanone	U	<0.0647	<5.00	<0.0647	µg/L	1	0.0647	5.00	0.0647
trans 1,4-Dichloro-2-butene	U	<1.66	<10.0	<1.66	µg/L	1	1.66	10.0	1.66
1,1-Dichloroethene	U	<0.149	<1.00	<0.149	µg/L	1	0.149	1.00	0.149
Methylene chloride	U	<0.180	<5.00	0.640	µg/L	1	0.180	5.00	0.18
MTBE	U	<0.107	<1.00	<0.107	µg/L	1	0.107	1.00	0.107
trans-1,2-Dichloroethene	U	<0.150	<1.00	<0.150	µg/L	1	0.150	1.00	0.15
1,1-Dichloroethane	U	<0.0574	<1.00	<0.0574	µg/L	1	0.0574	1.00	0.0574
cis-1,2-Dichloroethene	U	<0.120	<1.00	<0.120	µg/L	1	0.120	1.00	0.12
2,2-Dichloropropane	U	<0.120	<1.00	<0.120	µg/L	1	0.120	1.00	0.12
1,2-Dichloroethane (EDC)	U	<0.0536	<1.00	<0.0536	µg/L	1	0.0536	1.00	0.0536
Chloroform	U	<0.0168	<1.00	<0.0168	µg/L	1	0.0168	1.00	0.0168
1,1,1-Trichloroethane	U	<0.0689	<1.00	<0.0689	µg/L	1	0.0689	1.00	0.0689
1,1-Dichloropropene	U	<0.475	<1.00	<0.475	µg/L	1	0.475	1.00	0.475
Benzene	J	0.0600	<1.00	<0.0536	µg/L	1	0.0536	1.00	0.0536
Carbon Tetrachloride	U	<0.0788	<1.00	<0.0788	µg/L	1	0.0788	1.00	0.0788
1,2-Dichloropropane	U	<0.0394	<1.00	<0.0394	µg/L	1	0.0394	1.00	0.0394
Trichloroethene (TCE)	U	<0.0977	<1.00	<0.0977	µg/L	1	0.0977	1.00	0.0977
Dibromomethane (methylene bromide)	U	<0.0625	<1.00	<0.0625	µg/L	1	0.0625	1.00	0.0625
Bromodichloromethane	U	<0.0699	<1.00	<0.0699	µg/L	1	0.0699	1.00	0.0699
2-Chloroethyl vinyl ether	U	<0.0925	<5.00	<0.0925	µg/L	1	0.0925	5.00	0.0925
cis-1,3-Dichloropropene	U	<0.0475	<1.00	<0.0475	µg/L	1	0.0475	1.00	0.0475
trans-1,3-Dichloropropene	U	<0.0594	<1.00	<0.0594	µg/L	1	0.0594	1.00	0.0594
Toluene	J	0.0500	<1.00	<0.0423	µg/L	1	0.0423	1.00	0.0423
1,1,2-Trichloroethane	U	<0.0675	<1.00	<0.0675	µg/L	1	0.0675	1.00	0.0675
1,3-Dichloropropane	U	<0.0470	<1.00	<0.0470	µg/L	1	0.0470	1.00	0.047
Dibromochloromethane	U	<0.0689	<1.00	<0.0689	µg/L	1	0.0689	1.00	0.0689
1,2-Dibromoethane (EDB)	U	<0.0602	<1.00	<0.0602	µg/L	1	0.0602	1.00	0.0602
Tetrachloroethene (PCE)	U	<0.214	<1.00	<0.214	µg/L	1	0.214	1.00	0.214
Chlorobenzene	U	<0.0217	<1.00	<0.0217	µg/L	1	0.0217	1.00	0.0217
1,1,1,2-Tetrachloroethane	U	<0.0640	<1.00	<0.0640	µg/L	1	0.0640	1.00	0.064
Ethylbenzene	U	<0.0181	<1.00	<0.0181	µg/L	1	0.0181	1.00	0.0181
m,p-Xylene	J	0.0600	<1.00	<0.0509	µg/L	1	0.0509	1.00	0.0509
Bromoform	U	<0.0423	<1.00	<0.0423	µg/L	1	0.0423	1.00	0.0423
Styrene	U	<0.0439	<1.00	<0.0439	µg/L	1	0.0439	1.00	0.0439
o-Xylene	U	<0.0283	<1.00	<0.0283	µg/L	1	0.0283	1.00	0.0283
1,1,2,2-Tetrachloroethane	U	<0.0654	<1.00	<0.0654	µg/L	1	0.0654	1.00	0.0654
2-Chlorotoluene	U	<0.0444	<1.00	<0.0444	µg/L	1	0.0444	1.00	0.0444
1,2,3-Trichloropropane	U	<0.232	<1.00	<0.232	µg/L	1	0.232	1.00	0.232
Isopropylbenzene	U	<0.0439	<1.00	<0.0439	µg/L	1	0.0439	1.00	0.0439
Bromobenzene	U	<0.0557	<1.00	<0.0557	µg/L	1	0.0557	1.00	0.0557
n-Propylbenzene	U	<0.0217	<1.00	<0.0217	µg/L	1	0.0217	1.00	0.0217
1,3,5-Trimethylbenzene	J	0.160	<1.00	<0.0527	µg/L	1	0.0527	1.00	0.0527
tert-Butylbenzene	U	<0.0672	<1.00	<0.0672	µg/L	1	0.0672	1.00	0.0672
1,2,4-Trimethylbenzene	J	0.190	<1.00	<0.0382	µg/L	1	0.0382	1.00	0.0382

continued ...

sample 1664 continued ...

Parameter	Flag	SQL	SQL	Method	Units	Dilution	SQL	SQL	MDL
		Based	Based	Blank				(Unadjusted)	(Unadjusted)
1,4-Dichlorobenzene (para)	U	<0.0480	<1.00	<0.0480	µg/L	1	0.0480	1.00	0.048
sec-Butylbenzene	U	<0.0307	<1.00	<0.0307	µg/L	1	0.0307	1.00	0.0307
1,3-Dichlorobenzene (meta)	U	<0.0460	<1.00	<0.0460	µg/L	1	0.0460	1.00	0.046
p-Isopropyltoluene	J	0.630	<1.00	<0.0181	µg/L	1	0.0181	1.00	0.0181
4-Chlorotoluene	U	<0.0307	<1.00	<0.0307	µg/L	1	0.0307	1.00	0.0307
1,2-Dichlorobenzene (ortho)	U	<0.0406	<1.00	<0.0406	µg/L	1	0.0406	1.00	0.0406
n-Butylbenzene	U	<0.0594	<1.00	<0.0594	µg/L	1	0.0594	1.00	0.0594
1,2-Dibromo-3-chloropropane	U	<0.342	<5.00	<0.342	µg/L	1	0.342	5.00	0.342
1,2,3-Trichlorobenzene	U	<0.0439	<5.00	<0.0439	µg/L	1	0.0439	5.00	0.0439
1,2,4-Trichlorobenzene	U	<0.0586	<5.00	<0.0586	µg/L	1	0.0586	5.00	0.0586
Naphthalene	J	0.320	<5.00	<0.0665	µg/L	1	0.0665	5.00	0.0665
Hexachlorobutadiene	U	<0.108	<5.00	<0.108	µg/L	1	0.108	5.00	0.108

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51.5	µg/L	1	50.0	103	70 - 130
Toluene-d8		48.8	µg/L	1	50.0	98	70 - 130
4-Bromofluorobenzene (4-BFB)		46.5	µg/L	1	50.0	93	70 - 130

Sample: 1664 - Effluent

Analysis: Zn, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 281 Date Analyzed: 2003-01-27 Analyzed By: RR
Prep Batch: 250 Date Prepared: 2003-01-13 Prepared By: JH

Parameter	Flag	SQL	SQL	Method	Units	Dilution	SQL	SQL	MDL
		Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Zinc	U	<0.00907	<0.0250	<0.00907	mg/L	1	0.00907	0.0250	0.00907

Method Blank (1) QC Batch: 275

Parameter	Flag	Result	Units	Reporting Limits
Chloride		<1.01	mg/L	0.2029

Method Blank (1) QC Batch: 275

Parameter	Flag	Result	Units	Reporting Limits
Nitrate-N		<0.212	mg/L	0.0423

Method Blank (1) QC Batch: 275

Parameter	Flag	Result	Units	Reporting Limits
Sulfate		<0.426	mg/L	0.08511

Method Blank (1) QC Batch: 277

Parameter	Flag	Result	Units	Reporting Limits
Total Mercury		<0.0000200	mg/L	2e-05

Method Blank (1) QC Batch: 278

Parameter	Flag	Result	Units	Reporting Limits
Naphthalene		<0.0000853	mg/L	8.53e-05
Acenaphthylene		<0.0000768	mg/L	7.68e-05
Acenaphthene		<0.000103	mg/L	0.0001028
Fluorene		<0.0000861	mg/L	8.61e-05
Phenanthrene		<0.0000861	mg/L	8.61e-05
Anthracene		<0.000170	mg/L	0.00017
Fluoranthene		<0.0000969	mg/L	9.69e-05
Pyrene		<0.0000855	mg/L	8.55e-05
Benzo(a)anthracene		<0.0000703	mg/L	7.03e-05
Chrysene		<0.000113	mg/L	0.0001129
Benzo(b)fluoranthene		<0.000134	mg/L	0.0001343
Benzo(k)fluoranthene		<0.000200	mg/L	0.0002
Benzo(a)pyrene		<0.000200	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.000180	mg/L	0.0001797
Benzo(g,h,i)perylene		<0.000158	mg/L	0.0001578

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		92.1	mg/L	1	80.0	115	0 - 167
Nitrobenzene-d5		90.9	mg/L	1	80.0	114	0 - 163
Terphenyl-d14		109	mg/L	1	80.0	136	0 - 176

Method Blank (1) QC Batch: 279

Parameter	Flag	Result	Units	Reporting Limits
Bromochloromethane		<0.110	µg/L	0.11
Dichlorodifluoromethane		<0.0613	µg/L	0.0613
Chloromethane (methyl chloride)		<0.133	µg/L	0.133
Vinyl Chloride		<0.102	µg/L	0.102
Bromomethane (methyl bromide)		<0.440	µg/L	0.44
Chloroethane		<0.123	µg/L	0.123
Trichlorofluoromethane		<0.0217	µg/L	0.0217
Acetone		1.69	µg/L	0.416
Iodomethane (methyl iodide)		<0.267	µg/L	0.267
Carbon Disulfide		<0.0238	µg/L	0.0238
Acrylonitrile		<0.0745	µg/L	0.0745
2-Butanone (MEK)		<0.243	µg/L	0.243
4-Methyl-2-pentanone (MIBK)		<0.147	µg/L	0.147
2-Hexanone		<0.0647	µg/L	0.0647
trans 1,4-Dichloro-2-butene		<1.66	µg/L	1.66
1,1-Dichloroethene		<0.149	µg/L	0.149
Methylene chloride		0.64	µg/L	0.18
MTBE		<0.107	µg/L	0.107
trans-1,2-Dichloroethene		<0.150	µg/L	0.15
1,1-Dichloroethane		<0.0574	µg/L	0.0574
cis-1,2-Dichloroethene		<0.120	µg/L	0.12
2,2-Dichloropropane		<0.120	µg/L	0.12

continued ...

method blank continued ...

Parameter	Flag	Result	Units	Reporting Limits
1,2-Dichloroethane (EDC)		<0.0536	µg/L	0.0536
Chloroform		<0.0168	µg/L	0.0168
1,1,1-Trichloroethane		<0.0689	µg/L	0.0689
1,1-Dichloropropene		<0.475	µg/L	0.475
Benzene		<0.0536	µg/L	0.0536
Carbon Tetrachloride		<0.0788	µg/L	0.0788
1,2-Dichloropropane		<0.0394	µg/L	0.0394
Trichloroethene (TCE)		<0.0977	µg/L	0.0977
Dibromomethane (methylene bromide)		<0.0625	µg/L	0.0625
Bromodichloromethane		<0.0699	µg/L	0.0699
2-Chloroethyl vinyl ether		<0.0925	µg/L	0.0925
cis-1,3-Dichloropropene		<0.0475	µg/L	0.0475
trans-1,3-Dichloropropene		<0.0594	µg/L	0.0594
Toluene		<0.0423	µg/L	0.0423
1,1,2-Trichloroethane		<0.0675	µg/L	0.0675
1,3-Dichloropropane		<0.0470	µg/L	0.047
Dibromochloromethane		<0.0689	µg/L	0.0689
1,2-Dibromoethane (EDB)		<0.0602	µg/L	0.0602
Tetrachloroethene (PCE)		<0.214	µg/L	0.214
Chlorobenzene		<0.0217	µg/L	0.0217
1,1,1,2-Tetrachloroethane		<0.0640	µg/L	0.064
Ethylbenzene		<0.0181	µg/L	0.0181
m,p-Xylene		<0.0509	µg/L	0.0509
Bromoform		<0.0423	µg/L	0.0423
Styrene		<0.0439	µg/L	0.0439
o-Xylene		<0.0283	µg/L	0.0283
1,1,2,2-Tetrachloroethane		<0.0654	µg/L	0.0654
2-Chlorotoluene		<0.0444	µg/L	0.0444
1,2,3-Trichloropropane		<0.232	µg/L	0.232
Isopropylbenzene		<0.0439	µg/L	0.0439
Bromobenzene		<0.0557	µg/L	0.0557
n-Propylbenzene		<0.0217	µg/L	0.0217
1,3,5-Trimethylbenzene		<0.0527	µg/L	0.0527
tert-Butylbenzene		<0.0672	µg/L	0.0672
1,2,4-Trimethylbenzene		<0.0382	µg/L	0.0382
1,4-Dichlorobenzene (para)		<0.0480	µg/L	0.048
sec-Butylbenzene		<0.0307	µg/L	0.0307
1,3-Dichlorobenzene (meta)		<0.0460	µg/L	0.046
p-Isopropyltoluene		<0.0181	µg/L	0.0181
4-Chlorotoluene		<0.0307	µg/L	0.0307
1,2-Dichlorobenzene (ortho)		<0.0406	µg/L	0.0406
n-Butylbenzene		<0.0594	µg/L	0.0594
1,2-Dibromo-3-chloropropane		<0.342	µg/L	0.342
1,2,3-Trichlorobenzene		<0.0439	µg/L	0.0439
1,2,4-Trichlorobenzene		<0.0586	µg/L	0.0586
Naphthalene		<0.0665	µg/L	0.0665
Hexachlorobutadiene		<0.108	µg/L	0.108

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.7	µg/L	1	50.0	101	70 - 130
Toluene-d8		52.7	µg/L	1	50.0	105	70 - 130
4-Bromofluorobenzene (4-BFB)		43.2	µg/L	1	50.0	86	70 - 130

Parameter	Flag	Result	Units	Reporting Limits
Total Aluminum		<0.0227	mg/L	0.0227

Method Blank (1) QC Batch: 281

Parameter	Flag	Result	Units	Reporting Limits
Total Boron		<0.000728	mg/L	0.000728

Method Blank (1) QC Batch: 281

Parameter	Flag	Result	Units	Reporting Limits
Total Cobalt		<0.000705	mg/L	0.000705

Method Blank (1) QC Batch: 281

Parameter	Flag	Result	Units	Reporting Limits
Total Copper		<0.0177	mg/L	0.0177

Method Blank (1) QC Batch: 281

Parameter	Flag	Result	Units	Reporting Limits
Total Iron		<0.00220	mg/L	0.0022

Method Blank (1) QC Batch: 281

Parameter	Flag	Result	Units	Reporting Limits
Total Manganese		<0.000275	mg/L	0.000275

Method Blank (1) QC Batch: 281

Parameter	Flag	Result	Units	Reporting Limits
Total Molybdenum		<0.00136	mg/L	0.001361

Method Blank (1) QC Batch: 281

Parameter	Flag	Result	Units	Reporting Limits
Total Nickel		<0.00269	mg/L	0.002693

Method Blank (1) QC Batch: 281

Parameter	Flag	Result	Units	Reporting Limits
Total Zinc		<0.00907	mg/L	0.00907

Method Blank (1) QC Batch: 281

Parameter	Flag	Result	Units	Reporting Limits
Total Silver		<0.000779	mg/L	0.000779
Total Arsenic		<0.00593	mg/L	0.00593
Total Barium		<0.000343	mg/L	0.000343
Total Cadmium		<0.000268	mg/L	0.000268
Total Chromium		<0.000660	mg/L	0.00066
Total Lead		<0.00367	mg/L	0.00367
Total Selenium		<0.0101	mg/L	0.0101

Duplicate (1) QC Batch: 274

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	7.60	8.10	s.u.	1	3	

Laboratory Control Spike (LCS-1) QC Batch: 275

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride ³	13.3	13.3	mg/L	1	12.5	<0.203	106	0	87.7 - 94.6	20

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

Laboratory Control Spike (LCS-1) QC Batch: 275

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N ⁴	2.36	2.35	mg/L	1	2.50	<0.0423	94	0	90 - 110	20

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

Laboratory Control Spike (LCS-1) QC Batch: 275

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Sulfate ⁵	12.7	12.8	mg/L	1	12.5	<0.0851	102	0	90.4 - 96.2	20

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

Laboratory Control Spike (LCS-1) QC Batch: 277

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury ⁶	0.00103	0.00104	mg/L	1	0.00100	<0.0000200	103	0	86.7 - 177	20

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

Laboratory Control Spike (LCS-1) QC Batch: 278

³The %EA and RPD for the matrix spikes were 106 and 1 respectively.

⁴The %EA and RPD for the matrix spikes were 88 and 3 respectively.

⁵The %EA and RPD for the matrix spikes were 99 and 2 respectively.

⁶The %EA and RPD for the matrix spikes were 104 and 1 respectively.

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Naphthalene	77.4	83.7	mg/L	1	80.0	<0.0000853	97	4	21 - 133	20
Acenaphthylene	88.9	92.3	mg/L	1	80.0	<0.0000768	111	2	33 - 145	20
Acenaphthene	81.3	84.3	mg/L	1	80.0	<0.000103	102	2	47 - 145	20
Fluorene	86.0	88.9	mg/L	1	80.0	<0.0000861	108	2	59 - 121	20
Phenanthrene	87.8	88.6	mg/L	1	80.0	<0.0000861	110	0	54 - 120	20
Anthracene	92.0	92.3	mg/L	1	80.0	<0.000170	115	0	27 - 133	20
Fluoranthene	91.6	93.2	mg/L	1	80.0	<0.0000969	114	1	26 - 137	20
Pyrene	88.9	90.4	mg/L	1	80.0	<0.0000855	111	1	52 - 115	20
Benzo(a)anthracene	79.7	82.4	mg/L	1	80.0	<0.0000703	100	2	33 - 143	20
Chrysene	54.2	55.0	mg/L	1	80.0	<0.000113	68	1	17 - 168	20
Benzo(b)fluoranthene	89.9	88.1	mg/L	1	80.0	<0.000134	112	1	24 - 159	20
Benzo(k)fluoranthene	89.1	91.4	mg/L	1	80.0	<0.000200	111	1	11 - 162	20
Benzo(a)pyrene	98.3	97.6	mg/L	1	80.0	<0.000200	123	0	17 - 163	20
Indeno(1,2,3-cd)pyrene	76.2	75.2	mg/L	1	80.0	<0.000200	95	1	0 - 171	20
Dibenzo(a,h)anthracene	59.5	58.3	mg/L	1	80.0	<0.000180	74	1	0 - 227	20
Benzo(g,h,i)perylene	82.7	78.6	mg/L	1	80.0	<0.000158	103	2	0 - 219	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2-Fluorobiphenyl	89.9	92.1	mg/L	1	80.0	112	115	0 - 167
Nitrobenzene-d5	89.3	87.4	mg/L	1	80.0	112	109	0 - 163
Terphenyl-d14	96.6	98.4	mg/L	1	80.0	121	123	0 - 176

Laboratory Control Spike (LCS-1) QC Batch: 279

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	118	118	µg/L	1	100	<0.149	118	0	70 - 130	20
Benzene	107	106	µg/L	1	100	<0.0536	107	0	70 - 130	20
Trichloroethene (TCE)	90.8	91.2	µg/L	1	100	<0.0977	91	0	70 - 130	20
Toluene	102	102	µg/L	1	100	<0.0423	102	0	70 - 130	20
Chlorobenzene	102	102	µg/L	1	100	<0.0217	102	0	70 - 130	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	51.4	50.3	µg/L	1	50.0	103	101	70 - 130
Toluene-d8	52.2	50.6	µg/L	1	50.0	104	101	70 - 130
4-Bromofluorobenzene (4-BFB)	43.4	42.9	µg/L	1	50.0	87	86	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 281

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Aluminum	1.02	1.03	mg/L	1	1.00	<0.0227	102	0	85 - 115	20

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

Laboratory Control Spike (LCS-1) QC Batch: 281

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Boron	0.0490	0.0480	mg/L	1	0.0500	<0.000728	98	1	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 281

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Cobalt	0.255	0.260	mg/L	1	0.250	<0.000705	102	1	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 281

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Copper	0.136	0.138	mg/L	1	0.125	<0.0177	109	1	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 281

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Iron	0.563	0.557	mg/L	1	0.500	<0.00220	113	0	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 281

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Manganese	0.280	0.284	mg/L	1	0.250	<0.000275	112	1	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 281

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Molybdenum	0.517	0.525	mg/L	1	0.500	<0.00136	103	1	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 281

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Nickel	0.262	0.266	mg/L	1	0.250	<0.00269	105	1	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 281

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Zinc	0.263	0.268	mg/L	1	0.250	<0.00907	105	1	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 281

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	0.131	0.134	mg/L	1	0.125	<0.000779	105	1	85 - 115	20
Total Arsenic	0.531	0.540	mg/L	1	0.500	<0.00593	106	1	75 - 125	20
Total Barium	1.10	1.13	mg/L	1	1.00	<0.000343	110	1	75 - 125	20
Total Cadmium	0.265	0.270	mg/L	1	0.250	<0.000268	106	1	75 - 125	20
Total Chromium	0.102	0.103	mg/L	1	0.100	<0.000660	102	0	75 - 125	20
Total Lead	0.557	0.568	mg/L	1	0.500	<0.00367	111	1	75 - 125	20
Total Selenium	0.487	0.491	mg/L	1	0.500	<0.0101	97	0	75 - 125	20

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

Standard (ICV-1) QC Batch: 274

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.00	100	-	2003-01-10

Standard (CCV-1) QC Batch: 274

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.10	101	-	2003-01-10

Standard (ICV-1) QC Batch: 275

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	13.2	105	90 - 110	2003-01-10

Standard (ICV-1) QC Batch: 275

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.30	92	90 - 110	2003-01-10

Standard (ICV-1) QC Batch: 275

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	12.5	12.5	100	90 - 110	2003-01-10

Standard (CCV-1) QC Batch: 275

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	13.2	106	90 - 110	2003-01-10

Standard (CCV-1) QC Batch: 275

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.34	94	90 - 110	2003-01-10

Standard (CCV-1) QC Batch: 275

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	12.5	12.9	103	90 - 110	2003-01-10

Standard (ICV-1) QC Batch: 276

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1000	100	-	2003-01-15

Standard (CCV-1) QC Batch: 276

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	993	99	-	2003-01-15

Standard (ICV-1) QC Batch: 277

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.00105	105	80 - 120	2003-01-21

Standard (CCV-1) QC Batch: 277

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.000830	83	80 - 120	2003-01-21

Standard (CCV-1) QC Batch: 278

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	63.9	106	80 - 120	2003-01-22
Acenaphthylene		mg/L	60.0	67.3	112	80 - 120	2003-01-22
Acenaphthene		mg/L	60.0	64.4	107	80 - 120	2003-01-22
Fluorene		mg/L	60.0	59.1	98	80 - 120	2003-01-22
Phenanthrene		mg/L	60.0	71.3	119	80 - 120	2003-01-22
Anthracene		mg/L	60.0	63.7	106	80 - 120	2003-01-22
Fluoranthene		mg/L	60.0	70.2	117	80 - 120	2003-01-22
Pyrene		mg/L	60.0	68.6	114	80 - 120	2003-01-22
Benzo(a)anthracene		mg/L	60.0	66.8	111	80 - 120	2003-01-22
Chrysene		mg/L	60.0	56.8	95	80 - 120	2003-01-22
Benzo(b)fluoranthene		mg/L	60.0	70.3	117	80 - 120	2003-01-22

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzo(k)fluoranthene		mg/L	60.0	54.0	90	80 - 120	2003-01-22
Benzo(a)pyrene		mg/L	60.0	63.7	106	80 - 120	2003-01-22
Indeno(1,2,3-cd)pyrene		mg/L	60.0	48.3	80	80 - 120	2003-01-22
Dibenzo(a,h)anthracene		mg/L	60.0	50.0	83	80 - 120	2003-01-22
Benzo(g,h,i)perylene		mg/L	60.0	48.7	81	80 - 120	2003-01-22

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorobiphenyl		67.7	mg/L	1	60.0	113	0 - 167
Nitrobenzene-d5		69.2	mg/L	1	60.0	115	0 - 163
Terphenyl-d14		69.8	mg/L	1	60.0	116	0 - 176

Standard (CCV-1) QC Batch: 279

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	53.0	106	70 - 130	2003-01-14
1,1-Dichloroethene		µg/L	50.0	57.0	114	70 - 130	2003-01-14
Chloroform		µg/L	50.0	60.0	120	70 - 130	2003-01-14
1,2-Dichloropropane		µg/L	50.0	56.0	112	70 - 130	2003-01-14
Toluene		µg/L	50.0	55.0	110	70 - 130	2003-01-14
Chlorobenzene		µg/L	50.0	54.0	108	70 - 130	2003-01-14
Ethylbenzene		µg/L	50.0	56.0	112	70 - 130	2003-01-14

Standard (ICV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	2.00	2.07	104	90 - 110	2003-01-27

Standard (ICV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Boron		mg/L	0.200	0.219	110	90 - 110	2003-01-27

Standard (ICV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	0.500	0.515	103	90 - 110	2003-01-27

Standard (ICV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	0.250	0.258	103	90 - 110	2003-01-27

Standard (ICV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	1.06	106	90 - 110	2003-01-27

Standard (ICV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	0.500	0.510	102	90 - 110	2003-01-27

Standard (ICV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	2.00	2.05	102	90 - 110	2003-01-27

Standard (ICV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	0.500	0.512	102	90 - 110	2003-01-27

Standard (ICV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	0.500	0.514	103	90 - 110	2003-01-27

Standard (ICV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.250	0.258	103	90 - 110	2003-01-27
Total Arsenic		mg/L	1.00	1.05	105	90 - 110	2003-01-27
Total Barium		mg/L	2.00	2.12	106	90 - 110	2003-01-27
Total Cadmium		mg/L	0.500	0.528	106	90 - 110	2003-01-27
Total Chromium		mg/L	0.200	0.205	102	90 - 110	2003-01-27
Total Lead		mg/L	1.00	1.02	102	90 - 110	2003-01-27
Total Selenium		mg/L	1.00	1.06	106	90 - 110	2003-01-27

Standard (CCV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	2.00	2.06	103	90 - 110	2003-01-27

Standard (CCV-1) QC Batch: 281

Report Date: January 28, 2003
106.001

Work Order: 3011001
Jal Basin Station

Page Number: 18 of 19
2 miles south of Jal, NM on Hwy 18

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Boron		mg/L	0.200	0.217	108	90 - 110	2003-01-27

Standard (CCV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	0.500	0.512	102	90 - 110	2003-01-27

Standard (CCV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	0.250	0.258	103	90 - 110	2003-01-27

Standard (CCV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	1.07	107	90 - 110	2003-01-27

Standard (CCV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	0.500	0.513	103	90 - 110	2003-01-27

Standard (CCV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	2.00	2.04	102	90 - 110	2003-01-27

Standard (CCV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	0.500	0.509	102	90 - 110	2003-01-27

Standard (CCV-1) QC Batch: 281

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	0.500	0.511	102	90 - 110	2003-01-27

Standard (CCV-1) QC Batch: 281

Report Date: January 28, 2003
106.001

Work Order: 3011001
Jal Basin Station

Page Number: 19 of 19
2 miles south of Jal, NM on Hwy 18

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.250	0.258	103	90 - 110	2003-01-27
Total Arsenic		mg/L	1.00	1.04	104	90 - 110	2003-01-27
Total Barium		mg/L	2.00	2.13	106	90 - 110	2003-01-27
Total Cadmium		mg/L	0.500	0.525	105	90 - 110	2003-01-27
Total Chromium		mg/L	0.200	0.205	102	90 - 110	2003-01-27
Total Lead		mg/L	1.00	1.00	100	90 - 110	2003-01-27
Total Selenium		mg/L	1.00	1.04	104	90 - 110	2003-01-27

3011001

155 McCutcheon, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # A03011009

ORIGINAL COPY

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424 800•378•1296
El Paso, Texas 79932 888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1296 FAX 806•794•1298
915•585•3443 FAX 915•585•4944

Analytical and Quality Control Report

Marc C Oler
Equiva Mark Oler
308 Wilcox #101
Castlerock, Co. 80104

Report Date: March 1, 2002

Order ID Number: A02022610

Project: 106.001
TA Job Code: Jal Station
Casualty Code: 106.001
Project Location: Jal, NM
H2A Environmental LTD / Portland / Theresa Nix

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
191680	Effluent	Water	2/25/02	:	2/26/02

0

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.

This report consists of a total of 4 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

Quality Control Report Method Blank

Method Blank

QCBatch: QC18522

Param	Flag	Results	Units	Reporting 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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0856	mg/L	1	0.10	86	70 - 130
4-BFB		0.0716	mg/L	1	0.10	72	70 - 130

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC18522

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.084	0.085	mg/L	1	0.10	<0.001	84	1	82 - 111	20
Benzene	0.0887	0.0905	mg/L	1	0.10	<0.001	89	2	86 - 106	20
Toluene	0.0889	0.0905	mg/L	1	0.10	<0.001	89	2	82 - 108	20
Ethylbenzene	0.0895	0.0912	mg/L	1	0.10	<0.001	90	2	86 - 115	20
M,P,O-Xylene	0.274	0.279	mg/L	1	0.30	<0.001	91	2	79 - 122	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.0834	0.084	mg/L	1	0.10	83	84	70 - 130
4-BFB	0.0838	0.0839	mg/L	1	0.10	84	84	70 - 130

Quality Control Report Continuing Calibration Verification Standards

CCV (1)

QCBatch: QC18522

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0871	87	85 - 115	2/28/02
Benzene		mg/L	0.10	0.0922	92	85 - 115	2/28/02

Continued ...

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		mg/L	0.10	0.0926	93	85 - 115	2/28/02
Ethylbenzene		mg/L	0.10	0.0929	93	85 - 115	2/28/02
M,P,O-Xylene		mg/L	0.30	0.285	95	85 - 115	2/28/02

CCV (2)

QCBatch: QC18522

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0905	90	85 - 115	2/28/02
Benzene		mg/L	0.10	0.0949	94	85 - 115	2/28/02
Toluene		mg/L	0.10	0.0957	95	85 - 115	2/28/02
Ethylbenzene		mg/L	0.10	0.0961	96	85 - 115	2/28/02
M,P,O-Xylene		mg/L	0.30	0.2942	98	85 - 115	2/28/02

ICV (1)

QCBatch: QC18522

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0877	88	85 - 115	2/28/02
Benzene		mg/L	0.10	0.089	89	85 - 115	2/28/02
Toluene		mg/L	0.10	0.0893	89	85 - 115	2/28/02
Ethylbenzene		mg/L	0.10	0.090	90	85 - 115	2/28/02
M,P,O-Xylene		mg/L	0.30	0.275	92	85 - 115	2/28/02

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

SECRET

Carrier # Fedex 828494043469

1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35
 36
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50
 51
 52
 53
 54
 55
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65
 66
 67
 68
 69
 70
 71
 72
 73
 74
 75
 76
 77
 78
 79
 80
 81
 82
 83
 84
 85
 86
 87
 88
 89
 90
 91
 92
 93
 94
 95
 96
 97
 98
 99
 100
 101
 102
 103
 104
 105
 106
 107
 108
 109
 110
 111
 112
 113
 114
 115
 116
 117
 118
 119
 120
 121
 122
 123
 124
 125
 126
 127
 128
 129
 130
 131
 132
 133
 134
 135
 136
 137
 138
 139
 140
 141
 142
 143
 144
 145
 146
 147
 148
 149
 150
 151
 152
 153
 154
 155
 156
 157
 158
 159
 160
 161
 162
 163
 164
 165
 166
 167
 168
 169
 170
 171
 172
 173
 174
 175
 176
 177
 178
 179
 180
 181
 182
 183
 184
 185
 186
 187
 188
 189
 190
 191
 192
 193
 194
 195
 196
 197
 198
 199
 200
 201
 202
 203
 204
 205
 206
 207
 208
 209
 210
 211
 212
 213
 214
 215
 216
 217
 218
 219
 220
 221
 222
 223
 224
 225
 226
 227
 228
 229
 230
 231
 232
 233
 234
 235
 236
 237
 238
 239
 240
 241
 242
 243
 244
 245
 246
 247
 248
 249
 250
 251
 252
 253
 254
 255
 256
 257
 258
 259
 260
 261
 262
 263
 264
 265
 266
 267
 268
 269
 270
 271
 272
 273
 274
 275
 276
 277
 278
 279
 280
 281
 282
 283
 284
 285
 286
 287
 288
 289
 290
 291
 292
 293
 294
 295
 296
 297
 298
 299
 300
 301
 302
 303
 304
 305
 306
 307
 308
 309
 310
 311
 312
 313
 314
 315
 316
 317
 318
 319
 320
 321
 322
 323
 324
 325
 326
 327
 328
 329
 330
 331
 332
 333
 334
 335
 336
 337
 338
 339
 340
 341
 342
 343
 344
 345
 346
 347
 348
 349
 350
 351
 352
 353
 354
 355
 356
 357
 358
 359
 360
 361
 362
 363
 364
 365
 366
 367
 368
 369
 370
 371
 372
 373
 374
 375
 376
 377
 378
 379
 380
 381
 382
 383
 384
 385
 386
 387
 388
 389
 390
 391
 392
 393
 394
 395
 396
 397
 398
 399
 400
 401
 402
 403
 404
 405
 406
 407
 408
 409
 410
 411
 412
 413
 414
 415
 416
 417
 418
 419
 420
 421
 422
 423
 424
 425
 426
 427
 428
 429
 430
 431
 432
 433
 434
 435
 436
 437
 438
 439
 440
 441
 442
 443
 444
 445
 446
 447
 448
 449
 450
 451
 452
 453
 454
 455
 456
 457
 458
 459
 460
 461
 462
 463
 464
 465
 466
 467
 468
 469
 470
 471
 472
 473
 474
 475
 476
 477
 478
 479
 480
 481
 482
 483
 484
 485
 486
 487
 488
 489
 490
 491
 492
 493
 494
 495
 496
 497
 498
 499
 500
 501
 502
 503
 504
 505
 506
 507
 508
 509
 510
 511
 512
 513
 514
 515
 516
 517
 518
 519
 520
 521
 522
 523
 524
 525

Report Date: May 7, 2002 Order Number: A02050321
106.001 Jal Station

Page Number: 1 of 1
Jal,NM

Summary Report

Marc C Oler
Equiva Mark Oler
308 Wilcox #101
Castlerock, Co. 80104

Report Date: May 7, 2002

Order ID Number: A02050321

Project: 106.001
TA Job Code: Jal Station
Casualty Code: 106.001
Project Location: Jal,NM
Project Address:
H2A Environmental LTD / Portland / Theresa Nix

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
196294	Effluent	Water	4/30/02	:	5/3/02

0 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.

Sample - Field Code	BTEX				
	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)
196294 - Effluent	<0.005	<0.005	<0.005	0.0053	0.0053

TRACE ANALYSIS, INC.

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

806•794•1296 FAX 806•794•1298
915•585•3443 FAX 915•585•4944

Analytical and Quality Control Report

Marc C Oler
Equiva Mark Oler
308 Wilcox #101
Castlerock, Co. 80104

Report Date: May 7, 2002

Order ID Number: A02050321

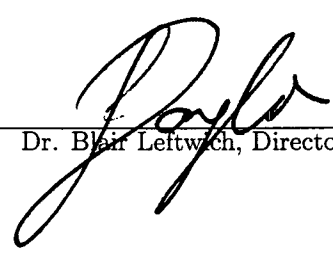
Project: 106.001
TA Job Code: Jal Station
Casualty Code: 106.001
Project Location: Jal, NM
H2A Environmental LTD / Portland / Theresa Nix

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
196294	Effluent	Water	4/30/02	:	5/3/02

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 4 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

Analytical Report

Sample: 196294 - Effluent

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC20104 Date Analyzed: 5/6/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB19267 Date Prepared: 5/6/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		0.0053	mg/L	5	0.001
Total BTEX		0.0053	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.105	mg/L	5	0.10	105	70 - 130
4-BFB		0.0989	mg/L	5	0.10	98	70 - 130

Quality Control Report Method Blank

Method Blank

QCBatch: QC20104

Param	Flag	Results	Units	Reporting 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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.104	mg/L	1	0.10	104	70 - 130
4-BFB		0.0979	mg/L	1	0.10	98	70 - 130

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC20104

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.102	0.102	mg/L	1	0.10	<0.001	102	0	70 - 130	20
Benzene	0.111	0.103	mg/L	1	0.10	<0.001	111	7	70 - 130	20
Toluene	0.108	0.103	mg/L	1	0.10	<0.001	108	5	70 - 130	20
Ethylbenzene	0.108	0.104	mg/L	1	0.10	<0.001	108	4	70 - 130	20
M,P,O-Xylene	0.315	0.309	mg/L	1	0.30	<0.001	105	2	70 - 130	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.107	0.101	mg/L	1	0.10	107	101	70 - 130
4-BFB	0.101	0.101	mg/L	1	0.10	101	101	70 - 130

Quality Control Report Continuing Calibration Verification Standards

CCV (1)

QCBatch: QC20104

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0997	100	85 - 115	5/6/02

Continued ...

... Continued

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	85 - 115	5/6/02
Toluene		mg/L	0.10	0.107	107	85 - 115	5/6/02
Ethylbenzene		mg/L	0.10	0.106	106	85 - 115	5/6/02
M,P,O-Xylene		mg/L	0.30	0.316	105	85 - 115	5/6/02

CCV (2)

QCBatch: QC20104

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0989	98	85 - 115	5/6/02
Benzene		mg/L	0.10	0.102	102	85 - 115	5/6/02
Toluene		mg/L	0.10	0.102	102	85 - 115	5/6/02
Ethylbenzene		mg/L	0.10	0.101	101	85 - 115	5/6/02
M,P,O-Xylene		mg/L	0.30	0.3	100	85 - 115	5/6/02

ICV (1)

QCBatch: QC20104

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.105	105	85 - 115	5/6/02
Benzene		mg/L	0.10	0.114	114	85 - 115	5/6/02
Toluene		mg/L	0.10	0.112	112	85 - 115	5/6/02
Ethylbenzene		mg/L	0.10	0.112	112	85 - 115	5/6/02
M,P,O-Xylene		mg/L	0.30	0.333	111	85 - 115	5/6/02

**6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296**

TraceAnalysis, Inc.

155 McCutcheon, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

Company Name:	42A Environmental	Phone #:	361-777-0860
Address:	(Street, City, Zip) 418 San Juan Roadland	Fax #:	361-777-0971
Contact Person:	Theresa Nix		

Invoice to:
(if different from above)

Project #: 106-001
Project Name: J-1 Station

Sampler Signature:

Project Location: J41 NM

[illegible]

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
<i>John Doe</i>	5-2-02	1200			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			<i>John Doe</i>	5-3-02	1000

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # _____

ANALYSIS REQUEST

(Circle or Specify Method No.)

[illegible]

REMARKS:

LAB USE ONLY

Intact Y / N
 Headspace Y / N
 Temp 22 °
 Log-in Review W

☐ Check If Special Reporting Limits Are Needed

Carrier # FedEx 819228 917 260

TraceAnalysis, Inc.

6701 Aberdeen Ave., Suite 9

Lubbock, TX 79424-1515

(806) 794-1296

Report Date: July 16, 2002
106.001Order Number: A02071025
Jal StationPage Number: 1 of 1
Jal,NM

Summary Report

Marc C Oler
Equiva Mark Oler
308 Wilcox #101
Castlerock, Co. 80104

Report Date: July 16, 2002

Order ID Number: A02071025

Project: 106.001
TA Job Code: Jal Station
Casualty Code: 106.001
Project Location: Jal,NM
Project Address:
H2A Environmental LTD / Portland / Theresa Nix

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
201169	Effluent	Water	7/9/02	9:00	7/10/02

0 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.

Sample - Field Code	BTEX				
	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)
201169 - Effluent	<0.005	<0.005	<0.005	<0.005	<0.005

This is only a summary. Please, refer to the complete report package for quality control data.

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424 800•378•1296
El Paso, Texas 79932 888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1296 FAX 806•794•1298
915•585•3443 FAX 915•585•4944

Analytical and Quality Control Report

Marc C Oler
Equiva Mark Oler
308 Wilcox #101
Castlerock, Co. 80104

Report Date: July 16, 2002

Order ID Number: A02071025

Project: 106.001
TA Job Code: Jal Station
Casualty Code: 106.001
Project Location: Jal, NM
H2A Environmental LTD / Portland / Theresa Nix

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
201169	Effluent	Water	7/9/02	9:00	7/10/02

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 4 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

Report Date: July 16, 2002
106.001

Order Number: A02071025
Jal Station

Page Number: 2 of 4
Jal,NM

Analytical Report

Sample: 201169 - Effluent

Analysis: BTEX Analytical Method: E 602 QC Batch: QC21846 Date Analyzed: 7/12/02
Analyst: CG Preparation Method: N/A Prep Batch: PB20680 Date Prepared: 7/12/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.449	mg/L	1	0.10	88	70 - 130
4-BFB		0.427	mg/L	1	0.10	85	70 - 130

Report Date: July 16, 2002
106.001

Order Number: A02071025
Jal Station

Page Number: 3 of 4
Jal,NM

Quality Control Report Method Blank

Method Blank QCBatch: QC21846

Param	Flag	Results	Units	Reporting 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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0949	mg/L	1	0.10	95	70 - 130
4-BFB		0.0882	mg/L	1	0.10	88	70 - 130

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC21846

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.0999	0.0949	mg/L	1	0.10	<0.001	100	5	70 - 130	20
Benzene	0.100	0.0938	mg/L	1	0.10	<0.001	100	6	70 - 130	20
Toluene	0.0968	0.0925	mg/L	1	0.10	<0.001	97	4	70 - 130	20
Ethylbenzene	0.0992	0.0942	mg/L	1	0.10	<0.001	99	5	70 - 130	20
M,P,O-Xylene	0.293	0.278	mg/L	1	0.30	<0.001	98	5	70 - 130	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.096	0.0937	mg/L	1	0.10	96	94	70 - 130
4-BFB	0.0954	0.0924	mg/L	1	0.10	95	92	70 - 130

Quality Control Report Continuing Calibration Verification Standards

CCV (1) QCBatch: QC21846

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0977	98	85 - 115	7/12/02

Continued ...

Report Date: July 16, 2002
106.001

Order Number: A02071025
Jal Station

Page Number: 4 of 4
Jal,NM

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.096	96	85 - 115	7/12/02
Toluene		mg/L	0.10	0.0935	94	85 - 115	7/12/02
Ethylbenzene		mg/L	0.10	0.0961	96	85 - 115	7/12/02
M,P,O-Xylene		mg/L	0.30	0.282	94	85 - 115	7/12/02

CCV (2)

QCBatch: QC21846

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0926	92	85 - 115	7/12/02
Benzene		mg/L	0.10	0.0937	93	85 - 115	7/12/02
Toluene		mg/L	0.10	0.0924	92	85 - 115	7/12/02
Ethylbenzene		mg/L	0.10	0.0931	93	85 - 115	7/12/02
M,P,O-Xylene		mg/L	0.30	0.277	92	85 - 115	7/12/02

ICV (1)

QCBatch: QC21846

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.097	97	85 - 115	7/12/02
Benzene		mg/L	0.10	0.100	100	85 - 115	7/12/02
Toluene		mg/L	0.10	0.0981	98	85 - 115	7/12/02
Ethylbenzene		mg/L	0.10	0.0997	100	85 - 115	7/12/02
M,P,O-Xylene		mg/L	0.30	0.297	99	85 - 115	7/12/02

6701 Aberdeen Ave., Ste 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

Carrier # 17418-1682-2613-3122

Report Date: September 4, 2002 Order Number: A02082320
106.001 Jal Station

Page Number: 1 of 1
Jal,NM

Summary Report

Theresa Nix
H2A Environmental LTD
418 San Saba
Portland, Tx. 78374

Report Date: September 4, 2002

Order ID Number: A02082320

Project Number: 106.001
Project Name: Jal Station
Project Location: Jal,NM

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
206064	Effluent	Water	8/21/02	10:00	8/23/02

0 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.

Sample - Field Code	BTEX				
	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)
206064 - Effluent	<0.005	<0.005	<0.005	<0.005	<0.005

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424 800•378•1296
El Paso, Texas 79932 888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1296 FAX 806•794•1298
915•585•3443 FAX 915•585•4944

Analytical and Quality Control Report

Theresa Nix
H2A Environmental LTD
418 San Saba
Portland, Tx. 78374

Report Date: September 4, 2002

Order ID Number: A02082320

Project Number: 106.001
Project Name: Jal Station
Project Location: Jal,NM

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
206064	Effluent	Water	8/21/02	10:00	8/23/02

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 4 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Note: Samples will be disposed of 30 days from the report date unless the lab is contacted before the 30 days has past.



Dr. Blair Leftwich, Director

Report Date: September 4, 2002
106.001

Order Number: A02082320
Jal Station

Page Number: 2 of 4
Jal,NM

Analytical Report

Sample: 206064 - Effluent

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC23264 Date Analyzed: 9/3/02
Analyst: CG Preparation Method: S 5030B Prep Batch: PB21828 Date Prepared: 9/3/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.072	mg/L	5	0.10	72	70 - 130
4-BFB		0.0785	mg/L	5	0.10	78	70 - 130

Quality Control Report Method Blank

Method Blank QCBatch: QC23264

Param	Flag	Results	Units	Reporting 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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0849	mg/L	1	0.10	85	70 - 130
4-BFB		0.078	mg/L	1	0.10	78	70 - 130

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC23264

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.0839	0.0829	mg/L	1	0.10	<0.001	84	1	70 - 130	20
Benzene	0.0859	0.0833	mg/L	1	0.10	<0.001	86	3	70 - 130	20
Toluene	0.0849	0.0832	mg/L	1	0.10	<0.001	85	2	70 - 130	20
Ethylbenzene	0.086	0.0848	mg/L	1	0.10	<0.001	86	1	70 - 130	20
M,P,O-Xylene	0.248	0.245	mg/L	1	0.30	<0.001	83	1	70 - 130	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.0863	0.0867	mg/L	1	0.10	86	87	70 - 130
4-BFB	0.083	0.0825	mg/L	1	0.10	83	82	70 - 130

Quality Control Report Continuing Calibration Verification Standards

CCV (1) QCBatch: QC23264

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0893	89	85 - 115	9/3/02

Continued ...

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.0887	89	85 - 115	9/3/02
Toluene		mg/L	0.10	0.088	88	85 - 115	9/3/02
Ethylbenzene		mg/L	0.10	0.0882	88	85 - 115	9/3/02
M,P,O-Xylene		mg/L	0.30	0.254	85	85 - 115	9/3/02

CCV (2)

QCBatch: QC23264

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0873	87	85 - 115	9/3/02
Benzene		mg/L	0.10	0.0884	88	85 - 115	9/3/02
Toluene		mg/L	0.10	0.0878	87	85 - 115	9/3/02
Ethylbenzene		mg/L	0.10	0.0888	88	85 - 115	9/3/02
M,P,O-Xylene		mg/L	0.30	0.255	85	85 - 115	9/3/02

ICV (1)

QCBatch: QC23264

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0858	86	85 - 115	9/3/02
Benzene		mg/L	0.10	0.0869	87	85 - 115	9/3/02
Toluene		mg/L	0.10	0.0871	87	85 - 115	9/3/02
Ethylbenzene		mg/L	0.10	0.0879	88	85 - 115	9/3/02
M,P,O-Xylene		mg/L	0.30	0.254	85	85 - 115	9/3/02

Page 7 of 7

902082320

Page 4 of 7

TraceAnalysis, Inc.

Selling Company Name: _____
Phone #: _____

H2A Environmental
361-777-0860

Consulting Company Address: 4118 Sun Safe Portland TX 78374
Fax #: 361-777-0971

Equiva Contact: _____

Theresa N.Y.

ation/SAP:

Location Address: _____ Project Task: _____

Jul Nov

Sullant Job#: _____
Sampler Signature: _____

100.901

[illegible]

Inquired by: _____ Date: _____ Time: _____

Date: _____ **Time:** _____

Received by:

Time:

Disinfectant by: _____ Date: _____ Time: _____

Date: _____ Time: _____

Received by:

Time:

Disseminated by: _____ Date: _____ Time: _____

~~Date:~~ Time:

Received at L

Time:

Received at Laboratory by: Ed. Muly 8-23-08 Date: _____ Time: _____

Terms and Conditions listed on reverse side of COC

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID: #

ANALYSIS REQUEST

(Circle or Specify Method No.)

	MTBE 8021B/602	X	
	BTEX 8021B/602	X	
	TPH 8021B/602	X	
	PAH 8270C		
	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7		
	TCLP Metals Ag As Ba Cd Cr Pb Se Hg		
	TCLP Volatiles		
	TCLP Semi Volatiles		
	TCLP Pesticides		
	RCI		
	GC-MS Vol. 8260B/624		
	GC/MS Seml. Vol. 8270C/625		
	PCBs 8082/608		
	Pesticides 8081A/608		
	BOD, TSS, pH		
	Turn Around Time if different from standard		
	Hold		

LAB USE ONLY

1990

Y/N

dependence

Standard 1.1

Temp

Log-In Review

Carrier # Fed Ex 8/92. 2891-8038

REMARKS:

☐ Check if special reporting limits needed.

7.26.2066 Bag rec. flat

9/5/16

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424 800•378•1296
El Paso, Texas 79932 888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1296 FAX 806•794•1298
915•585•3443 FAX 915•585•4944

Analytical and Quality Control Report

Marc C Oler
Equiva Marc Oler
308 Wilcox #101
Castlerock, Co. 80104

Report Date: November 7, 2002

Order ID Number: A02110422

Project: 106.001
TA Job Code: Jal Station
Casualty Code: 106.001
Project Location: Jal, NM
H2A Environmental LTD / Portland / Theresa Nix

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
212461	Effluent	Water	10/31/02	12:00	11/4/02

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 4 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Note: Samples will be disposed of 30 days from the report date unless the lab is contacted before the 30 days has past.


Dr. Blair Leftwich, Director

Report Date: November 7, 2002
106.001

Order Number: A02110422
Jal Station

Page Number: 2 of 4
Jal,NM

Analytical Report

Sample: 212461 - Effluent

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC24692 Date Analyzed: 11/5/02
Analyst: DN Preparation Method: S 5030B Prep Batch: PB23005 Date Prepared: 11/5/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		0.008	mg/L	5	0.001
Total BTEX		0.008	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.093	mg/L	5	0.10	93	70 - 130
4-BFB		0.091	mg/L	5	0.10	91	70 - 130

Quality Control Report Method Blank

Method Blank QCBatch: QC24692

Param	Flag	Results	Units	Reporting 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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.092	mg/L	1	0.10	92	70 - 130
4-BFB		0.086	mg/L	1	0.10	86	70 - 130

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC24692

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.095	0.097	mg/L	1	0.10	<0.001	95	2	70 - 130	20
Benzene	0.098	0.098	mg/L	1	0.10	<0.001	98	0	70 - 130	20
Toluene	0.094	0.093	mg/L	1	0.10	<0.001	94	1	70 - 130	20
Ethylbenzene	0.094	0.093	mg/L	1	0.10	<0.001	94	1	70 - 130	20
M,P,O-Xylene	0.280	0.277	mg/L	1	0.30	<0.001	93	1	70 - 130	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.091	0.093	mg/L	1	0.10	91	93	70 - 130
4-BFB	0.096	0.098	mg/L	1	0.10	96	98	70 - 130

Quality Control Report Continuing Calibration Verification Standards

CCV (1) QCBatch: QC24692

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.099	99	85 - 115	11/5/02

Continued ...

Report Date: November 7, 2002
106.001

Order Number: A02110422
Jal Station

Page Number: 4 of 4
Jal,NM

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.098	98	85 - 115	11/5/02
Toluene		mg/L	0.10	0.095	95	85 - 115	11/5/02
Ethylbenzene		mg/L	0.10	0.095	95	85 - 115	11/5/02
M,P,O-Xylene		mg/L	0.30	0.284	95	85 - 115	11/5/02

CCV (2) QCBatch: QC24692

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.101	101	85 - 115	11/5/02
Benzene		mg/L	0.10	0.098	98	85 - 115	11/5/02
Toluene		mg/L	0.10	0.093	93	85 - 115	11/5/02
Ethylbenzene		mg/L	0.10	0.093	93	85 - 115	11/5/02
M,P,O-Xylene		mg/L	0.30	0.276	92	85 - 115	11/5/02

ICV (1) QCBatch: QC24692

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.096	96	85 - 115	11/5/02
Benzene		mg/L	0.10	0.099	99	85 - 115	11/5/02
Toluene		mg/L	0.10	0.095	95	85 - 115	11/5/02
Ethylbenzene		mg/L	0.10	0.095	95	85 - 115	11/5/02
M,P,O-Xylene		mg/L	0.30	0.284	95	85 - 115	11/5/02

Page 10422 of 10422

**6701 Aberdeen Ave, Ste 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296**

Phone #: 361-777-0860

Fax #: _____

361.777 - 0971

Equiva Contact:**Incident #**

Project Task:

100%

Sampler Signature:

[illegible]

Received by:-

Received by:

Received at U

Receipt of samples constitutes agreement to Terms and Conditions listed on reverse side of COC

LAB Order ID #

(Circle or Specify Method No.)

	Hold
Turn Around Time if different from standard	
BOD, TSS, pH	
Pesticides 8081A/608	
PCBs 8082/608	
GC/MS Semi. Vol. 8270C/625	
GC-MS Vol. 8260B/624	
RCI	
TCLP Pesticides	
TCLP Semi Volatiles	
TCLP Volatiles	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
PAH 8270C	
TPH 418-1/TX1005 6015 DRD 6x9	X
BTEX 8021B/602	X
MTBE 8021B/602	

emp/

REMARKS:

☐ Check if special reporting limits needed.

Carrier # FE 91 83 06 19 78 42 52

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424

El Paso, Texas 79932

E-Mail: lab@traceanalysis.com

800•378•1296

888•588•3443

806•794•1296

915•585•3443

FAX 806•794•1298

FAX 915•585•4944

Analytical and Quality Control Report

Marc C Oler
Equiva Marc Oler
308 Wilcox #101
Castlerock, Co. 80104

Report Date: December 9, 2002

Order ID Number: A02120306

Project: 106.001
TA Job Code: Jal Station
Casualty Code: 106.001
Project Location: Jal, NM
H2A Environmental LTD / Portland / Theresa Nix

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
214900	Effluent	Water	11/30/02	12:00	12/3/02

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 4 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of Trace Analysis, Inc.

Note: Samples will be disposed of 30 days from the report date unless the lab is contacted before the 30 days has past.



Dr. Blair Leftwich, Director

Report Date: December 9, 2002
106.001

Order Number: A02120306
Jal Station

Page Number: 2 of 4
Jal,NM

Analytical Report

Sample: 214900 - Effluent

Analysis: BTEX Analytical Method: E 602 QC Batch: QC25318 Date Analyzed: 12/3/02
Analyst: CG Preparation Method: N/A Prep Batch: PB23502 Date Prepared: 12/3/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		0.0127	mg/L	5	0.001
Total BTEX		0.0127	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.094	mg/L	5	0.10	94	70 - 130
4-BFB		0.105	mg/L	5	0.10	105	70 - 130

Quality Control Report Method Blank

Method Blank QCBatch: QC25318

Param	Flag	Results	Units	Reporting 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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.090	mg/L	1	0.10	90	70 - 130
4-BFB		0.0986	mg/L	1	0.10	99	70 - 130

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC25318

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.0882	0.0887	mg/L	1	0.10	<0.001	88	0	70 - 130	20
Benzene	0.0904	0.0923	mg/L	1	0.10	<0.001	90	2	70 - 130	20
Toluene	0.0902	0.0923	mg/L	1	0.10	<0.001	90	2	70 - 130	20
Ethylbenzene	0.0948	0.0968	mg/L	1	0.10	<0.001	95	2	70 - 130	20
M,P,O-Xylene	0.287	0.294	mg/L	1	0.30	<0.001	96	2	70 - 130	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.0894	0.0907	mg/L	1	0.10	89	91	70 - 130
4-BFB	0.104	0.106	mg/L	1	0.10	104	106	70 - 130

Quality Control Report Continuing Calibration Verification Standards

CCV (1) QCBatch: QC25318

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.088	88	85 - 115	12/3/02

Continued ...

Report Date: December 9, 2002
106.001

Order Number: A02120306
Jal Station

Page Number: 4 of 4
Jal,NM

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.088	88	85 - 115	12/3/02
Toluene		mg/L	0.10	0.097	97	85 - 115	12/3/02
Ethylbenzene		mg/L	0.10	0.091	91	85 - 115	12/3/02
M,P,O-Xylene		mg/L	0.30	0.277	92	85 - 115	12/3/02

ICV (1)

QCBatch: QC25318

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.091	91	85 - 115	12/3/02
Benzene		mg/L	0.10	0.094	94	85 - 115	12/3/02
Toluene		mg/L	0.10	0.094	94	85 - 115	12/3/02
Ethylbenzene		mg/L	0.10	0.099	99	85 - 115	12/3/02
M,P,O-Xylene		mg/L	0.30	.3	100	85 - 115	12/3/02

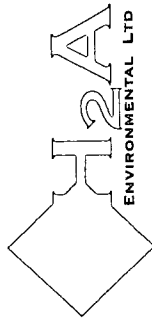
GROUND WATER MONITORING DATA SHEET

Job No. 106.001

Project Shell - Jal Basin Station

Date 3/27/2002

Field Tech. John Savoie



Well No.	PVC Elev.	GS Elev.	DTW		GW Elevation		Well Depth	Depth to PSH		PSH Elev.	PSH Thickness
			DTWgs	DTWpvc	Actual	Corrected		DTPgs	DTPpvc		
MW-1	2994.62	2992.30	91.88	94.20	2900.42	---	98.75	---	---	---	---
MW-2	2989.43	2987.02	87.29	89.70	2899.73	2899.82	NM	87.19	89.60	2899.83	0.10
MW-3	2990.81	2987.91	93.75	96.65	2894.16	2898.15	NM	89.10	92.00	2898.81	4.65
MW-4	2991.16	2988.22	92.06	95.00	2896.16	2899.42	NM	88.26	91.20	2899.96	3.80
MW-5	2991.38	2988.47	88.24	91.15	2900.23	---	98.30	---	---	---	---
MW-6	2990.17	2987.40	89.53	92.30	2897.87	2897.89	NM	89.51	92.28	2897.89	0.02
MW-8	2990.73	2987.97	92.84	95.60	2895.13	2899.85	NM	87.34	90.10	2900.63	5.50
MW-9	2990.31	2987.39	87.98	90.90	2899.41	2899.45	NM	87.93	90.85	2899.46	0.05
MW-10	2990.84	2987.96	91.57	94.45	2896.39	2900.04	NM	87.32	90.20	2900.64	4.25
MW-11	2992.30	2989.37	89.17	92.10	2900.20	---	100.20	---	---	---	---
MW-12	2990.99	2987.79	92.95	96.15	2894.84	2899.34	NM	87.70	90.90	2900.09	5.25
MW-13	2992.97	2989.79	89.82	93.00	2899.97	---	100.60	---	---	---	---
MW-14	2989.12	2986.02	87.80	90.90	2898.22	2899.46	NM	86.35	89.45	2899.67	1.45
MW-15	2989.64	2986.45	86.66	89.85	2899.79	---	101.00	---	---	---	---
MW-16	2988.71	2985.80	87.29	90.20	2898.51	---	103.00	---	---	---	---
MW-17	2987.77	2985.09	86.82	89.50	2898.27	---	103.00	---	---	---	---
MW-18	2989.68	2987.16	93.38	95.90	2893.78	2899.70	NM	86.48	89.00	2900.68	6.90
MW-19	2991.92	2988.86	94.24	97.30	2894.62	2899.85	NM	88.14	91.20	2900.72	6.10
MW-20	2989.64	2987.22	94.08	96.50	2893.14	2899.19	NM	87.03	89.45	2900.19	7.05
			---		---	---		---		---	---
			---		---	---		---		---	---

Note: 1. All measurements are reported in feet unless otherwise indicated

2. The corrected ground water elevation was calculated using a specific gravity for PSH of:

0.86

Comments: NM indicates the parameter was not measured.

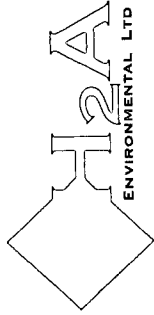
GROUND WATER MONITORING DATA SHEET

Job No. 106.001

Project Shell - Jal Basin Station

Date 6/26/2002

Field Tech. John Savoie



Well No.	PVC Elev.	GS Elev.	DTW		GW Elevation		Well Depth	Depth to PSH		PSH Elev.	PSH Thickness
			DTWgs	DTWpvc	Actual	Corrected		DTPgs	DTPpvc		
MW-1	2994.62	2992.30	92.08	94.40	2900.22	---	98.75	---	---	---	---
MW-2	2989.43	2987.02	89.29	91.70	2897.73	2899.70	NM	86.99	89.40	2900.03	2.30
MW-3	2990.81	2987.91	88.55	91.45	2899.36	2899.40	NM	88.50	91.40	2899.41	0.05
MW-4	2991.16	2988.22	88.31	91.25	2899.91	2899.95	NM	88.26	91.20	2899.96	0.05
MW-5	2991.38	2988.47	88.44	91.35	2900.03	---	98.30	---	---	---	---
MW-6	2990.17	2987.40	89.78	92.55	2897.62	2897.66	NM	89.73	92.50	2897.67	0.05
MW-8	2990.73	2987.97	92.79	95.55	2895.18	2899.77	NM	87.44	90.20	2900.53	5.35
MW-9	2990.31	2987.39	88.73	91.65	2898.66	2899.56	NM	87.68	90.60	2899.71	1.05
MW-10	2990.84	2987.96	91.62	94.50	2896.34	2899.90	NM	87.47	90.35	2900.49	4.15
MW-11	2992.30	2989.37	89.37	92.30	2900.00	---	100.20	---	---	---	---
MW-12	2990.99	2987.79	92.40	95.60	2895.39	2899.42	NM	87.70	90.90	2900.09	4.70
MW-13	2992.97	2989.79	90.02	93.20	2899.77	---	100.60	---	---	---	---
MW-14	2989.12	2986.02	NM	NM	NM	---	NM	NM	NM	NM	NM
MW-15	2989.64	2986.45	86.81	90.00	2899.64	---	101.00	---	---	---	---
MW-16	2988.71	2985.80	87.34	90.25	2898.46	---	103.00	---	---	---	---
MW-17	2987.77	2985.09	86.72	89.40	2898.37	---	103.00	---	---	---	---
MW-18	2989.68	2987.16	93.98	96.50	2893.18	2899.62	NM	86.48	89.00	2900.68	7.50
MW-19	2991.92	2988.86	94.19	97.25	2894.67	2899.73	NM	88.29	91.35	2900.57	5.90
MW-20	2989.64	2987.22	93.73	96.15	2893.49	2899.32	NM	86.93	89.35	2900.29	6.80
			---		---	---		---		---	---
			---		---	---		---		---	---

Note: 1. All measurements are reported in feet unless otherwise indicated

2. The corrected ground water elevation was calculated using a specific gravity for PSH of :

0.86

Comments: NM indicates the parameter was not measured.

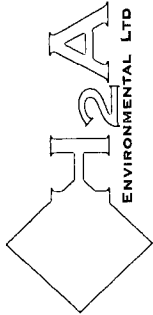
GROUND WATER MONITORING DATA SHEET

Job No. 106.001

Project Shell - Jal Basin Station

Date 9/25/2002

Field Tech. John Savoie



Well No.	PVC Elev.	GS Elev.	DTW		GW Elevation		Well Depth	Depth to PSH		PSH Elev.	PSH Thickness
			DTWgs	DTWpvc	Actual	Corrected		DTPgs	DTPpvc		
MW-1	2994.62	2992.30	92.28	94.60	2900.02	---	98.75	---	---	---	---
MW-2	2989.43	2987.02	NM	NM	NM	---	NM	NM	NM	NM	NM
MW-3	2990.81	2987.91	NM	NM	NM	---	NM	NM	NM	NM	NM
MW-4	2991.16	2988.22	NM	NM	NM	---	NM	NM	NM	NM	NM
MW-5	2991.38	2988.47	88.89	91.80	2899.58	---	98.40	---	---	---	---
MW-6	2990.17	2987.40	NM	NM	NM	---	NM	NM	NM	NM	NM
MW-8	2990.73	2987.97	93.84	96.60	2894.13	2899.15	NM	87.99	90.75	2899.98	5.85
MW-9	2990.31	2987.39	NM	NM	NM	---	NM	NM	NM	NM	NM
MW-10	2990.84	2987.96	NM	NM	NM	---	NM	NM	NM	NM	NM
MW-11	2992.30	2989.37	89.82	92.75	2899.55	---	100.20	---	---	---	---
MW-12	2990.99	2987.79	92.90	96.10	2894.89	2899.01	NM	88.10	91.30	2899.69	4.80
MW-13	2992.97	2989.79	90.02	93.20	2899.77	---	100.00	---	---	---	---
MW-14	2989.12	2986.02	NM	NM	NM	---	NM	NM	NM	NM	NM
MW-15	2989.64	2986.45	87.21	90.40	2899.24	---	NM	---	---	---	---
MW-16	2988.71	2985.80	87.59	90.50	2898.21	---	NM	---	---	---	---
MW-17	2987.77	2985.09	87.12	89.80	2897.97	---	NM	---	---	---	---
MW-18	2989.68	2987.16	94.23	96.75	2892.93	2898.94	NM	87.23	89.75	2899.93	7.00
MW-19	2991.92	2988.86	95.39	98.45	2893.47	2899.13	NM	88.79	91.85	2900.07	6.60
MW-20	2989.64	2987.22	94.73	97.15	2892.49	2898.54	NM	87.68	90.10	2899.54	7.05
			---	---	---	---		---		---	---
			---	---	---	---		---		---	---

Note : 1. All measurements are reported in feet unless otherwise indicated

2. The corrected ground water elevation was calculated using a specific gravity for PSH of :

0.86

Comments : NM indicates the parameter was not measured.

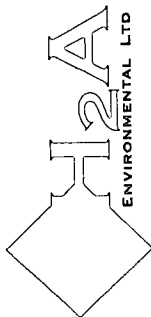
GROUND WATER MONITORING DATA SHEET

Job No. 106.001

Project Shell - Jal Basin Station

Date 12/28/2002

Field Tech. John Savoie



Well No.	PVC Elev.	GS Elev.	DTW		GW Elevation		Well Depth	Depth to PSH		PSH Elev.	PSH Thickness
			DTWgs	DTWpvc	Actual	Corrected		DTPgs	DTPpvc		
MW-1	2994.62	2992.30	92.53	94.85	2899.77	---	98.75	---	---	---	---
MW-2	2989.43	2987.02	87.51	89.92	2899.51	2899.53	NM	87.49	89.90	2899.53	0.02
MW-3	2990.81	2987.91	89.32	92.22	2898.59	2898.61	NM	89.30	92.20	2898.61	0.02
MW-4	2991.16	2988.22	90.38	93.32	2897.84	2897.86	NM	90.36	93.30	2897.86	0.02
MW-5	2991.38	2988.47	89.04	91.95	2899.43	---	98.30	---	---	---	---
MW-6	2990.17	2987.40	89.65	92.42	2897.75	2897.77	NM	89.63	92.40	2897.77	0.02
MW-8	2990.73	2987.97	92.79	95.55	2895.18	2898.91	NM	88.44	91.20	2899.53	4.35
MW-9	2990.31	2987.39	87.93	90.85	2899.46	2899.49	NM	87.90	90.82	2899.49	0.03
MW-10	2990.84	2987.96	90.52	93.50	2897.34	2899.36	NM	88.27	91.15	2899.69	2.35
MW-11	2992.30	2989.37	90.07	93.00	2899.30	---	100.20	---	---	---	---
MW-12	2990.99	2987.79	92.65	95.85	2895.14	2898.79	NM	88.40	91.60	2899.39	4.25
MW-13	2992.97	2989.79	90.32	93.50	2899.47	---	100.60	---	---	---	---
MW-14	2989.12	2986.02	89.20	92.30	2896.82	2898.79	NM	86.90	90.00	2899.12	2.30
MW-15	2989.64	2986.45	87.51	90.70	2898.94	---	101.00	---	---	---	---
MW-16	2988.71	2985.80	87.79	90.70	2898.01	---	103.00	---	---	---	---
MW-17	2987.77	2985.09	87.32	90.00	2897.77	---	103.00	---	---	---	---
MW-18	2989.68	2987.16	88.80	91.32	2898.36	2898.38	NM	88.78	91.30	2898.38	0.02
MW-19	2991.92	2988.86	91.46	94.52	2897.40	2897.42	NM	91.44	94.50	2897.42	0.02
MW-20	2989.64	2987.22	90.10	92.52	2897.12	2897.14	NM	90.08	92.50	2897.14	0.02
MW-21	2989.19	2986.63	88.54	91.10	2898.09	---	103.00	---	---	---	---
MW-22	2991.56	2989.24	90.83	93.15	2898.41	2899.27	NM	89.83	92.15	2899.41	1.00

Note : 1. All measurements are reported in feet unless otherwise indicated

2. The corrected ground water elevation was calculated using a specific gravity for PSH of :

0.86

Comments : NM indicates the parameter was not measured.

48036

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME SHELL PIPELINE COMPANY LP Ann: JENA HENRY, TSP 1605E

ADDRESS P.O. BOX 2648

CITY, STATE, ZIP HOUSTON, TX 77252-2648 PHONE NO. (713) 241-0236

CONTAINERS: No. 30 VOLUME 17 Cubic Yards WEIGHT _____

TYPE: ☐ TANK TRUCK ☐ DUMP TRUCK ☒ DRUMS ☐ CARTONS ☐ OTHER _____

WASTE DESCRIPTION SOIL W/CRUDE OIL GENERATING PROCESS _____

COMPONENTS OF WASTE			PPM	%	COMPONENTS OF WASTE			PPM	%
1.	_____	_____	_____	_____	5.	_____	_____	_____	_____
2.	_____	_____	_____	_____	6.	_____	_____	_____	_____
3.	_____	_____	_____	_____	7.	_____	_____	_____	_____
4.	_____	_____	_____	_____	8.	_____	_____	_____	_____

PROPERTIES: pH _____ ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☒ OTHER SOIL

HANDLING INSTRUCTIONS: _____

Facility:
JAL STATION
2 MILES SOUTH OF JAL ON H.
JAL, NM 88232

John Swore TYPED OR PRINTED FULL NAME & SIGNATURE DATE 3-13-83

TRANSPORTER

NAME TRIPOD, INC.

ADDRESS MILE MARKER 64, US HWY 62/180 SERVICE ORDER NO. _____

CITY, STATE, ZIP CARLSBAD NM 88221 PICK UP DATE _____

PHONE NO. (505) 887-4048

TRUCK, UNIT, I.D. NO. _____ TYPED OR PRINTED FULL NAME & SIGNATURE _____ DATE _____

TSD FACILITY

NAME LEALAND, INC. Profile Id: 0782379

ADDRESS MILE MARKER 64, US HWY 62/180 DISPOSAL METHOD ☐ LANDFILL ☐ OTHER _____

CITY, STATE, ZIP CARLSBAD NM 88221

PHONE NO. (505) 887-4048

TYPED OR PRINTED FULL NAME & SIGNATURE _____ DATE _____

GEN	OLD/NEW	L A	TONS
TRANS		S B	
C/Q		RT/CD	HWDF NONE

DISCREPANCY _____

MINIMUM NO. 11173

22445

GENERATOR'S PRELIMINARY COPY

1988 1-800-235-2222
(800) 666-2137

8-26-02
3000
04/1/05

11- 04675

BROWNFIELD TX / ABILENE TX / AMARILLO TX

Wanted: \$4 per Year Document Number

Customer I.D. Number

W2A. Emission 1
5119 Gen. Sec.
10/16/54 7834

1-6-100 Tel Strat
Tel 1-6-100

[illegible]

0-GAL P-150 T-10N B-10HLM Y-YD Q-10000M R-10000M

NUMBER OF CONFORMING BONDING TOTAL

Specimen	Srv. Charge	Cycle Wks.	Age	Colors of Spang Subject	Sex	Last Change
	Please Give To John					
	with #2H					

Part 1: Number Sentence Dots

Check Number	Total Payments	TOTAL DUE	1516
Due	Amount		
Due	Amount		
Due	Amount		
GENERATOR CERTIFICATION: I hereby declare that the contents of this assignment are a true and accurate depiction of those by proper means, preserved, transmitted, printed, stored, and kept in the public domain for the purpose of making available to the public the information contained herein.			
Print Name of Donor	Signature of Donor	Print Name of Donor	Signature of Donor
John D. Gillie	[Signature]	John D. Gillie	[Signature]
Print Name of Donor	Signature of Donor	Print Name of Donor	Signature of Donor
David L. Gillie	[Signature]	David L. Gillie	[Signature]
Print Name of Donor	Signature of Donor	Print Name of Donor	Signature of Donor

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

E & E / ENVIRONMENTAL

Please Remit To:
P.O. Box 683
Brownfield, Texas 79316

For Service Call:
(806) 637-9336
(800) 658-2137



Please Pay From This
CUSTOMER INVOICE #

11- 04954

Service Centers

BROWNFIELDTX / ABILENETX / AMARILLOTX / CHILDRESSTX / ODESSATX / OKLAHOMA CITY OK

Service Date	Customer PO Number	Customer Phone Number	Waste Manifest Document Number	Customer I.D. Number

BILL TO ADDRESS	GENERATOR SITE LOCATION

Generator US EPA ID#

Generator State ID#

RECYCLING SERVICES

Description	Empty Containers	Quantity	Unit Charge	Line Total
Non-Hazardous Used Oil Filters				
Used Antifreeze / Glycol				
Non-Hazardous Used Oil				

G=GAL P=LBS. T=TON D=DRUM Y=YD OP=OVERPAC RO=ROLL-OFF

RECYCLING SERVICES SECTION TOTAL

PARTS WASHERS

Machine Number	Svc. Charge	Cycle Week	Size	Gallons of Spent Solvent	Svc. Wk.	Unit Charge

Parts Washer Section Total

PAYMENT

Check Number	Total Received
Inv. #	Amount
Inv. #	Amount
Inv. #	Amount

TICKET TOTAL

SALES TAX

TOTAL DUE

GENERATOR CERTIFICATION I hereby declare that the contents of this consignment are full and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations.

Print Name of Generator	Signature of Generator	DATE
-------------------------	------------------------	------

Print Name of Transporter	Signature of Transporter	DATE
---------------------------	--------------------------	------

Facility Certification of Receipt of Materials

Designated Facility

E&E / ENVIRONMENTAL, Lubbock Hwy., Brownfield, TX

Print Name of Facility Operator	Signature of Facility Operator	DATE
---------------------------------	--------------------------------	------

US EPA TRANSPORTER I.D. # TXD982756868

US DOT I.D. # 374897