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REPORTS

DATE:

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ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

August 26, 2002

Mr. Neal Goates
Conoco Inc.
600 North Dairy Ashford
Houston, TX 77079-1175

**RE: Cooper Reed A Soil Investigation
Lea County, New Mexico
Maxim Project No. 2690018**

Handwritten note in a box:
Fax received
on May 7, 2003
2nd

Dear Neal:

This letter report discusses findings of soil boring and excavation work initiated by Maxim Technologies, Inc. (Maxim) at former Conoco Inc. (Conoco) site Reed A on March 12, 2002. The fieldwork performed followed the Maxim work plan dated March 7, 2001. This work plan was reviewed and approved by the New Mexico Oil and Conservation Department (OCD).

BACKGROUND

Former Conoco site Reed A is located in Section 24 of Township 20, South Range 36 East, Lea County, approximately 6 miles southwest of Monument, New Mexico (Figure 1). The site is situated on privately owned land showing visual indications of surficial staining from historic production operations. The site investigation was performed at the former tank battery area and adjacent depression area approximately 300 feet apart. Figure 1 is presented to illustrate the site layout and surrounding area. Within the natural depression area, a small pit (existing excavation) has been advanced and is holding water. It is approximately 15 feet long by 15 feet wide and 6 feet deep. It appeared to contain approximately one foot of water during the soil investigation site visit on March 12, 2002.

In May 2001 a Preliminary Exposure Pathway Assessment (PEPA) was conducted at the site. The PEPA indicated the closest residential water well is located 0.7 mile from the site. There are no perennial surface water bodies within the specified one-mile search radius. There are pipelines, oil-producing wellheads with pumpjacks, a surface waste facility, a residential home, an active tank battery, and underground utilities present within the search radius.

Maxim performed a soil investigation on site on March 12, 13, and 14, 2002. Eleven borings were advanced within the natural depression area and the former tank battery area. Fifteen excavation pits were advanced within the natural depression area. Figure 2 illustrates the site features, soil boring locations and excavation pit locations near the natural depression. Appendix A includes pictures of the soil boring and excavation activities. Soil samples were

Mr. Neal Goates
Conoco Inc.
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collected from the borings at two-foot intervals using continuous split spoon sampling methods, and a sample was obtained from a bottom interval for laboratory analysis. The soil samples were analyzed by Severn Trent Laboratories, Inc. (STL) in Austin, Texas, for total petroleum hydrocarbons--gasoline range organics (TPH-GRO) and total petroleum hydrocarbons--diesel range organics (TPH-DRO) using EPA Method SW-846, 8015B; chloride, using EPA Method MCAWW 300.0A; and percent moisture using ASTM D 2216-90. A photo-ionization detector (PID) instrument was used to obtain field measurements of organic vapors in soil samples. Composite soil samples were obtained from selected excavations in the natural depression area and from the soil borings in the former tank battery area. The composite samples were analyzed using the Environmental Protection Agency (EPA) Method 1312, Soil Precipitation Leaching Procedure (SPLP).

SOIL ASSESSMENTS

Soil Boring Activities and Results

Soil borings were advanced around the perimeter of the natural depression area and in the former tank battery area (Figures 1 and 2). The borings were drilled to average depths of 21 and 15 feet below ground surface (bgs). Soil samples obtained from split spoon sampling were split with half placed on ice and half retained for analysis in the field with a PID, per OCD guidelines. A PID reading of 100 ppm VOC or greater was assumed to indicate concentrations of benzene, toluene, ethylbenzene and total xylenes (BTEX) in excess of OCD-recommended guidelines and was substituted for this analysis during the investigation per OCD guidelines. If field PID readings indicated soil impacts greater than 100 parts per million (ppm) volatile organic compounds (VOCs), the borings were extended until PID readings were less than 100 ppm. The boring logs illustrating boring depths, PID readings, sample locations, and lithologic descriptions are attached as Appendix B.

A sample was collected from the bottom of each boring and submitted to STL for analysis. Table 1 presents the laboratory analytical data for the samples obtained during boring activities. The laboratory analytical report is attached as Appendix C. A composite sample from the former tank battery area was submitted for SPLP analysis for both volatile and semi-volatile organics using EPA Method 8260B to analyze for BTEX; and EPA Method 8015B to analyze for TPH-GRO and TPH-DRO. SPLP analysis was conducted in order to develop leaching potential data for the constituents of concern (COCs) at this site. Table 2 presents the laboratory analytical results of the SPLP analyses. The laboratory analytical report is attached as Appendix C.

Four borings were advanced surrounding the natural depression area (B-1, B-2, B-3, and B-4). These borings were drilled to a depth of 21 feet bgs, and samples were obtained from the 19- to 21-foot bgs interval for analysis. PID readings indicated levels of soil vapors at concentrations less than 100 ppm VOC consistently to 21 feet bgs in borings B-1 through B-4. No soil staining was observed. Laboratory analytical results revealed concentrations did not exceed the established OCD-recommended remediation action level for TPH-DRO and TPH-GRO, as

Next
10' intervals
4' s required

determined from guidance in *Guidelines for Remediation of Leaks, Spills and Releases, Oil Conservation Division, August 13, 1993*. Boring B-5 was advanced near the center of the natural depression area (Figure 1). PID readings indicated soil vapor concentrations above 100 ppm until approximately 45 feet bgs, and soil staining was observed to approximately 31 feet bgs. The laboratory results indicated the TPH concentration in the sample taken from B-5 at the 45- to 46-foot bgs interval did not exceed the OCD-recommended remediation action level. The B-5 boring was allowed to stand open for approximately two hours. Following this period, groundwater did not develop and the hold was plugged back to the surface with bentonite pellets.

Seven borings were installed in the former tank battery area. Three of these borings were drilled around the perimeter of the area (B-6, B-7, and B-8). See Figure 1 for boring locations. These borings were drilled to a depth of 15 feet bgs, and a soil sample from the 13- to 15-foot interval was obtained. Stained soil was not observed. All soil samples analyzed in the field with a PID indicated less than 100 ppm VOCs. The concentrations obtained from laboratory analysis of the 13- to 15-foot soil samples were below the OCD-recommended remediation action level for TPH.

Three borings were drilled within the footprint of the former tank battery area (B-9, B-10, and B-11). See Figure 1 for boring locations. These borings were drilled to a depth of 15 feet bgs, and sampled from 13 to 15 feet bgs, except B-10, which was drilled to a depth of 21 feet bgs and sampled from 15 to 17 feet bgs. No soil staining was observed. PID readings on field soil samples collected from boring B-9 from five to 15 feet bgs averaged 9.5 ppm VOCs, which is below ODC cleanup guidance for BTEX.

Boring B-10 was advanced to 21 feet because PID readings on field soil samples indicated VOC levels in excess of 100 ppm from 5 to 15 feet bgs (841 ppm VOCs average).

PID readings on field soil samples obtained from boring B-11 all registered below 100 ppm VOCs except the 12-foot bgs sample, which contained 117 ppm VOCs.

The laboratory analytical results revealed concentrations below the OCD-recommended remediation action level for TPH for sampling intervals from borings B-9 and B-11. The sample taken from B-10 revealed a TPH-DRO concentration of 250 milligrams per kilogram (mg/kg) and a TPH-GRO concentration of 4.0 mg/kg, which is above the OCD-recommended remediation action level for TPH.

A composite sample was obtained from samples representative of borings B-9, B-10, and B-11. The composite sample was skewed toward sampling intervals with relatively high PID readings and preferably located near the bottom of the boring. This sample was submitted for SPLP (EPA Method 1312) analysis. The analytical results indicate low potential for leaching of BTEX, chloride, and TPH into groundwater if a potential pathway exists.

B-9-10
High PID
must near
bottom

Soil Excavation Activities and Results

Fifteen pits were excavated in the area of the natural depression on the south side of the site. The pits were sited to develop data regarding soil volumes and types, and the nature and extent of impacts in the depression area. Upon arrival at the site, Maxim inspected the depression area and found water standing in the existing excavation near the center of the depression. The water had a sheen on the surface and the soil piles associated with this excavation were stained (see photo). Maxim was careful to locate excavations in a manner that would be protective of this site feature.

Excavations 1, 2, 3, 4, 5, 6, 7, 8, 10, and 15 were placed in a radius roughly 75 to 100 feet around the existing excavation holding water and were sited to determine impact depth near the outer edges of the depression (Figure 2).

Excavation Results

Excavation 1 was dug to approximately 7 feet bgs. Soil from the bottom of this excavation was sampled and field checked with the PID. The PID reading was 20.2 ppm VOCs. The following observations of the soil in the excavation were made:

- Surface to 1 foot bgs – loose, dry sand
- 1 to 2 feet bgs – dark stained soil, noticeable odor
- 2 to 7 feet bgs – clayey, caliche soil

Excavation 2 was dug to approximately 8 feet bgs. A PID reading taken on a soil sample collected from approximately 7 feet bgs read 23.1 ppm VOCs. The following observations were made about soil in the excavation:

- Surface to 3 feet bgs – loose, dry sand
- 3 to 4 feet bgs – dark stained soil, noticeable odor
- 4 to 8 feet bgs – moist dark sand

Excavation 3 was dug to approximately 7.5 feet bgs. A soil sample collected from 6 feet bgs and analyzed with the PID read 1.0 ppm VOCs. The following observations were made:

- Surface to 5.5 feet bgs – loose dry sand
- 5.5 to 7.5 feet bgs – clayey soil, no odor at depth

Excavation 4 was dug to approximately 13.5 feet bgs. Soil samples were collected from excavated material and analyzed in the field with the PID. From surface to approximately 5 feet bgs, the soil was dry loose sand. Below that depth, the following observations were made:

Sample Depth (feet bgs)	PID Reading (ppm VOCs)	Observations
5	729	Tight silty clay, strong odor
8	135	Tight silty clay, strong odor
10	463	Tight silty clay, strong odor
11	471	Tight silty clay, some odor

Excavation 4 was advanced deeper than the other excavations due to the fact that it is located over 115 feet west of the existing water-containing excavation and posed little risk to the "source" of the water.

Excavation 5 was dug to approximately 5 feet bgs. No odor was noticed. The following observations were made:

- Surface to 2 feet bgs – loose dry sand
- 2 to 5 feet bgs – hard, tight clay interspersed with caliche material

Excavation 6 was dug to approximately 4 feet bgs. No noticeable odor was noted. Soil in the excavation was described as:

- Surface to 2 feet bgs – loose dry sand
- 2 to 4 feet bgs – caliche

Excavation 7 was dug to approximately 5 feet bgs. Some odor was noted during excavation. A PID reading taken on soil sampled at 5 feet bgs indicated 20.8 ppm VOCs.

- Surface to 2 feet bgs – loose dry sand
- 2 to 4 feet bgs – stained soil
- 4 to 4.5 feet bgs – moist sand and clay, no staining
- 4.5 to 5 feet bgs - clay

Excavation 8 was dug to approximately 6 feet bgs. A PID reading on a soil sample collected from approximately 5 feet bgs was 29.8 ppm VOCs. The following observations were made:

- Surface to 5 feet bgs - loose, dry sand
- 5 to 6 feet bgs – black, stained soil

Excavation 10 was dug to approximately 9 feet bgs. The following observations were made:

- Surface to 6 feet bgs – loose dry sand
- 6 to 9 feet bgs – stained soil

Excavation 15 was dug to approximately 8 feet bgs. The following observations were made:

- Surface to 2.5 feet bgs – loose dry sand
- 2.5 to 8 feet bgs – dark stained soil

Excavations 1 through 8, 10, and 15 all exhibited a surficial layer of loose dry sand with thicknesses ranging from 1 to 5 feet. This material is probably the result of deposition onto the site by wind. Excavated sand showed no evidence of staining. Most of the excavations contained layers of relatively tight clay material at depth. PID readings on soil sampled from Excavation 4 indicated soil impacts from 5 to 11 feet bgs but no staining was noted. Excavations 7, 8, 10, and 15 all contained stained soil, with excavations 8, 10, and 15 terminating in stained soil.

Excavation 9 was installed in a narrow channel emanating from the east side of the site that appeared to be the only surface drainage) from the depression (Figure 2). This excavation was dug to approximately 6 feet bgs. It contained 0.5 foot of dry loose sand at the surface and 5.5 feet of dark stained soil. The excavation was terminated in dark stained soil (see photo).

Another group of excavations were installed on an average radius of approximately 50 feet around the existing excavation containing water. These excavations (11, 12, 13, and 14) were installed to develop data about impacts closer to the center of the depression and learn more about the nature of groundwater conditions and recharge at the site.

Excavation 11 was installed to a total depth of 8 feet bgs. Observations included the following:

- Surface to 1 foot bgs – loose dry sand
- 1 to 8 feet bgs – dark stained soil

The excavation terminated in dark stained soil. No excessive odors were noted. Approximately one hour after the excavation was completed, a dark-colored, viscous liquid was noted emitting from the east wall of the hole about 2.5 to 3 feet bgs.

Excavation 12 was installed to a total depth of 8 feet bgs and contained dark, stained soil from surface to termination of the hole. No excessive odors were noted. Approximately one hour after completion of work in the hole, a dark-colored, viscous liquid was noted emitting from the south wall of the hole about 3 feet bgs.

Excavation 13 was installed to a total depth of 8 feet bgs and contained dark, stained soil from surface to termination depth. No excessive odors were noted. Approximately 1 hour after completion of digging, a dark-colored, viscous fluid was noted emitting from the south wall of the hole about 2 feet bgs.

Excavation 14 was installed to a total depth of approximately 8 feet bgs and contained dark, stained soil from surface to termination depth. No odors were noted.

After completion of the excavations, a final inspection was made of all holes, noting any changes and specifically looking for any sign of seepage of groundwater. Soil samples were gathered from each of the soil piles. The samples were skewed to darker stained soil (e.g., if an excavation contained particularly dark stained soil, the darker materials were gathered as representative of that excavation). The samples were composited and placed on ice for SPLP analysis by the laboratory. Some of the holes had partially caved but none showed signs of liquid except for the holes mentioned previously with fluids emitting from the walls. The excavations were backfilled for safety and access reasons, except for Excavations 2, 10, 11, and 13. These holes were fenced to keep livestock out and maintained overnight to monitor for inflow of groundwater. These holes were chosen because:

- They bracketed the original water-containing excavation roughly on the northeast, southeast, northwest, and southwest.
- Excavations 11 and 13 were within approximately 50 feet of the water-containing excavation.
- Excavation 2 was maintained specifically because it was noted to contain particularly moist sand near the bottom of the hole.

The holes were inspected the following morning for evidence of groundwater seepage. No groundwater was noted, and there was no evidence of seepage in any of the holes. The fencing was removed and the holes were backfilled.

CONCLUSIONS

The laboratory results from the soil boring investigation indicate only one boring (B-10) contained levels of TPH exceeding the OCD-recommended remediation action level. The SPLP analyses of the composite samples from both areas indicate a low potential for leaching of COCs into groundwater. Groundwater was not encountered during drilling or excavation, so the water table is assumed to be below these depths in each respective boring or excavation location. The soil encountered during the investigation can be described as clayey sand to sandy clay with caliche occurring at various intervals below 13 feet bgs (Appendix B). Most of the surficial soil material is comprised of dry loose sand.

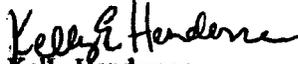
Mr. Neal Goates
Conoco Inc.
August 26, 2002
Page 8 of 8

If you have any questions regarding this communication, please contact Clyde Yancey or Tom Tangen at 505-237-8440.

Sincerely,

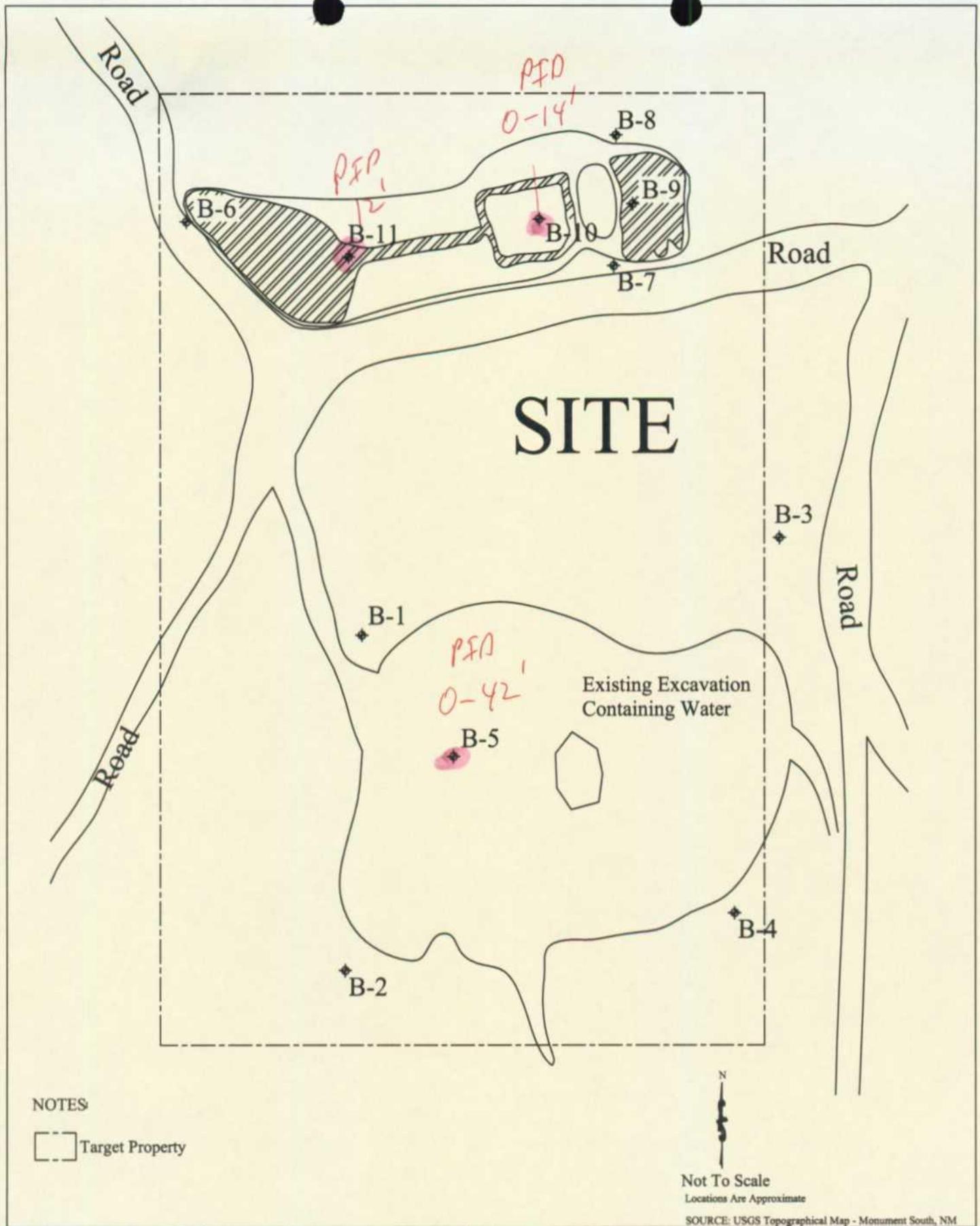
MAXIM TECHNOLOGIES, INC.


Tom Tangen
Environmental Engineer


Kelly Henderson
Staff Geologist

Enclosures

FIGURES



NOTES

□ Target Property

Not To Scale
Locations Are Approximate

SOURCE: USGS Topographical Map - Monument South, NM

TARGET PROPERTY: Former Tank Battery - Reed "A"

LEGAL DESCRIPTION

CITY/STATE/ZIP:

LAT/LONG:

Lea County, New Mexico

N32.55510/W103.31170

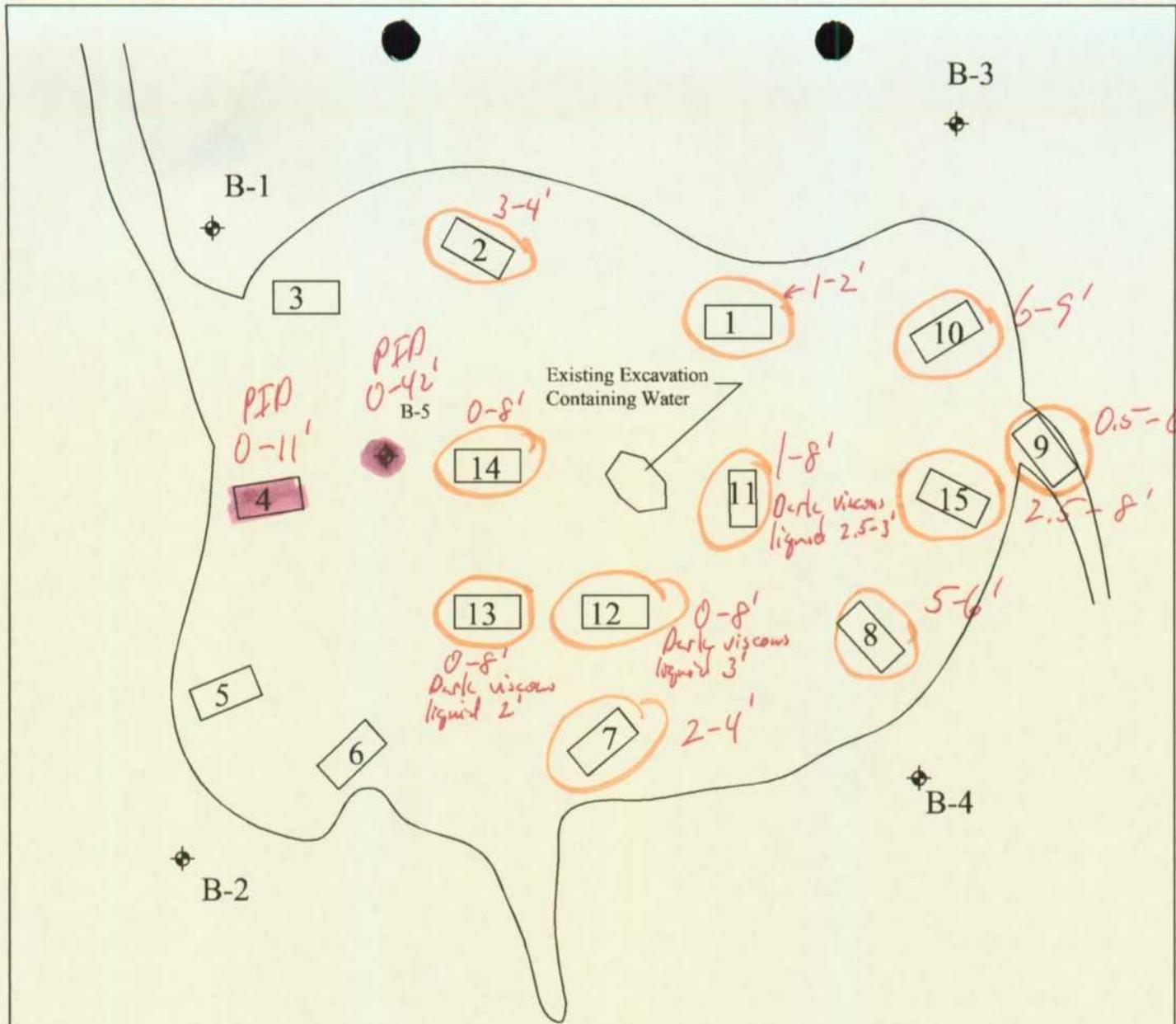
SITE MAP

MAXIM
TECHNOLOGIES INC.

Project No. 2690018.100

Drawing: 2690018F1.DWG

FIGURE 1



NOTES:

□ TEST PIT

⊕ BORING LOCATION

○ - saturated soil

● - PIA > 100 ppm

N
 Not To Scale
 Locations Are Approximate
 SOURCE: USGS Topographical Map - Monument South, NM

TARGET PROPERTY: Former Tank Battery - Reed "A"

LEGAL DESCRIPTION

CITY/STATE/ZIP:

LAT/LONG:

Lea County, New Mexico

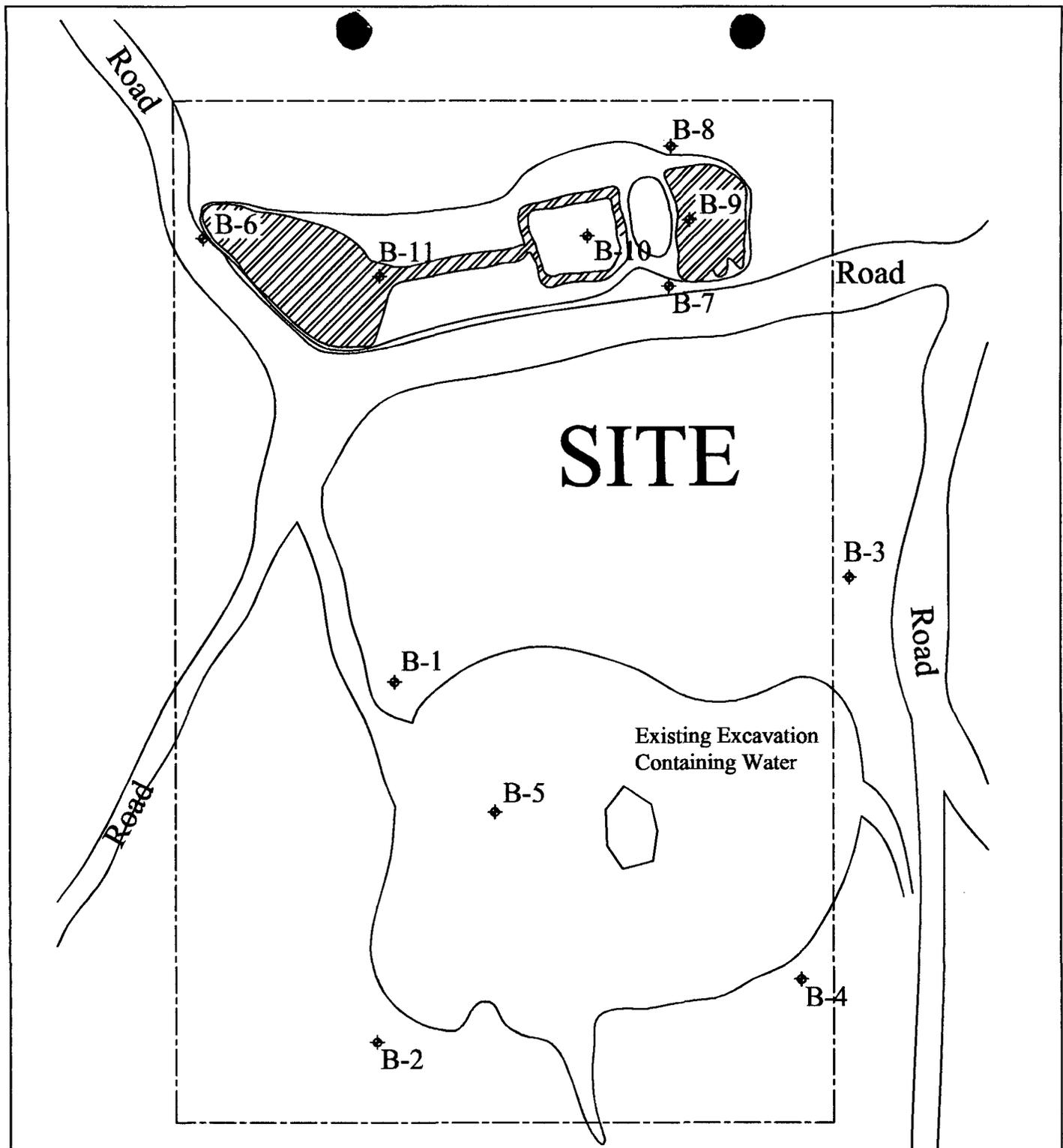
N32.55510/W103.31170

TEST PIT LOCATION MAP
 NATURAL DEPRESSION AREA

MAXIM
 TECHNOLOGIES INC
 Project No. 2690018.100

Drawing: 2690018F2.DWG

FIGURE 2



NOTES

 Target Property

N

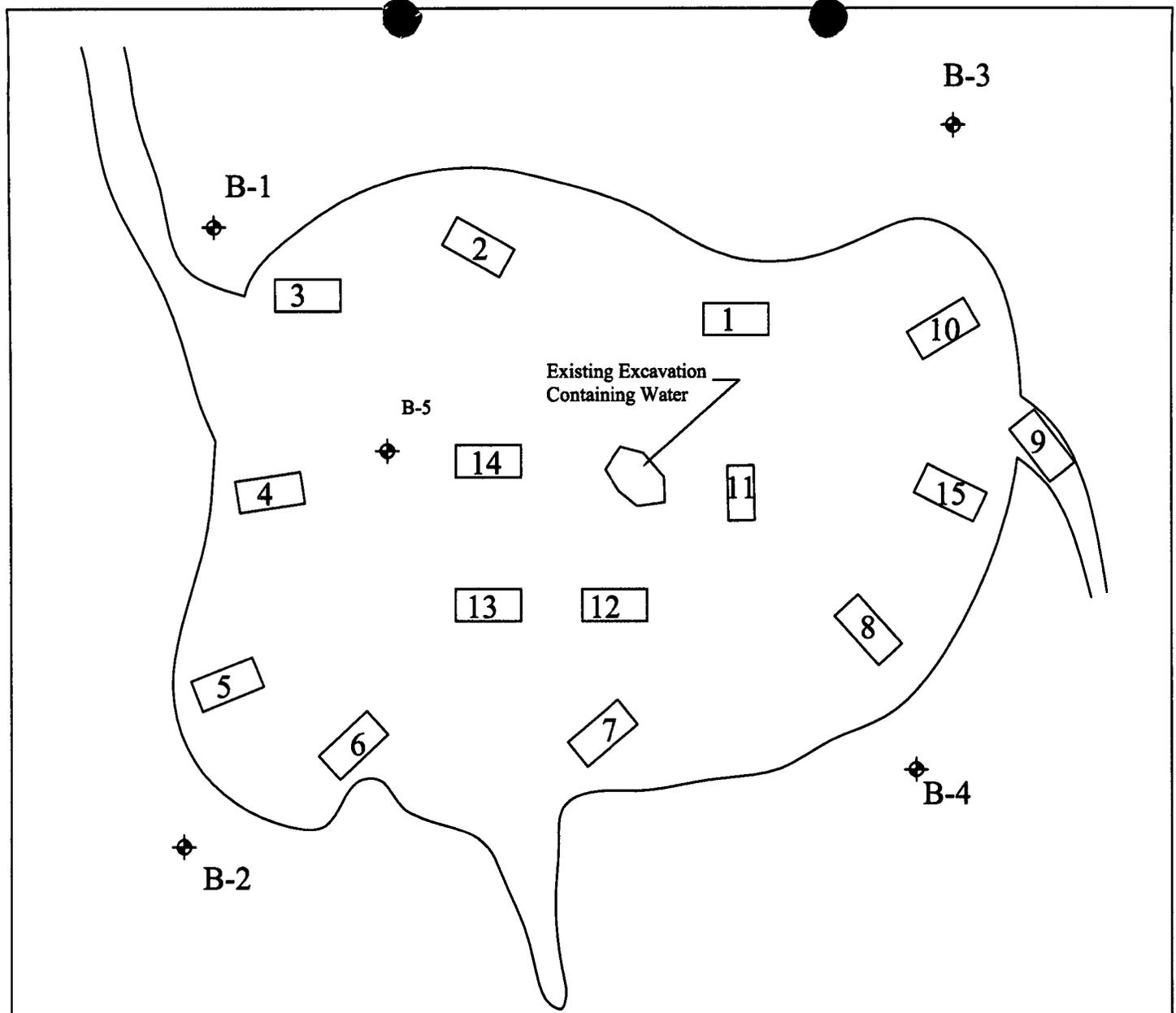
 Not To Scale
 Locations Are Approximate

SOURCE: USGS Topographical Map - Monument South, NM

TARGET PROPERTY:	Former Tank Battery - Reed "A"
LEGAL DESCRIPTION	
CITY/STATE/ZIP:	Lea County, New Mexico
LAT/LONG:	N32.55510/W103.31170

<h2>SITE MAP</h2>	 Project No. 2690018.100
	Drawing: 2690018F1.DWG

FIGURE 1



NOTES:

 TEST PIT

 BORING LOCATION

N

 Not To Scale
 Locations Are Approximate

SOURCE: USGS Topographical Map - Monument South, NM

<p>TARGET PROPERTY: LEGAL DESCRIPTION CITY/STATE/ZIP: LAT/LONG:</p>	<p>Former Tank Battery - Reed "A" Lea County, New Mexico N32.55510/W103.31170</p>	<p>TEST PIT LOCATION MAP NATURAL DEPRESSION AREA Drawing: 2690018F2.DWG</p>	<p> Project No. 2690018.100 FIGURE 2</p>
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TABLES

Table 1. Conoco Reed A Site Investigation Soil Analytical Results

Sample Location	Date Sampled	Sample Depth (feet bgs)	Results Reported in Parts Per Million (mg/kg)				ASTM D 2216-90 % Moisture
			EPA Method MCAWW 300.0A	EPA Method SW-846, 8015B			
			Chloride	TPH-GRO	TPH-DRO	Total TPH	
B-1	03/12/02	19-21	144	<0.089	<1.7	<LDL	17.3
B-2	03/12/02	19-21	146	<0.092	1.8	1.8	22.4
B-3	03/12/02	19-21	<10	<0.098	<1.7	<LDL	15.9
B-4	03/12/02	19-21	31.5	<0.094	3.1	3.1	13.7
B-5	03/13/02	45-46	89.2	<0.095	3.2	3.2	6.0
B-6	03/13/02	13-15	<10	<0.098	1.8	1.8	8.5
B-7	03/13/02	13-15	<10	<0.090	2.5	2.5	8.7
B-8	03/13/02	13-15	<10	<0.094	2.2	2.2	20.3
B-9	03/13/02	13-15	<10	<0.094	2.4	2.4	14.5
B-10	03/13/02	15-17	<10	4.0	250	254	16.7
B-11	03/13/02	13-15	<10	<0.094	2.5	2.5	13.2
Applicable OCD Cleanup Levels			NE	NE	NE	100	NA

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

<LDL = Less than laboratory detection limits

NE = Not established by ODC

NA = Not Applicable

bgs = Below land surface

OCD = Oil and Conservation Department

EPA = Environmental Protection Agency

B = Boring

Table 2. Conoco Reed A Site Investigation - SPLP Soil Analyses

Sample ID	Date Sampled	Composite Collection Location	Results Reported in Parts Per Million (mg/L)									
			EPA Method MCAWW 300.0A		EPA Method SW-846, 8260B				EPA Method SW-846, 8015B			
			Chloride		Benzene	Ethylbenzene	Toluene	Xylenes	Total BTEX	TPH-GRO	TPH-DRO	Total TPH
SPLP 1	03/12/02	Depression Area	8.9	<0.0010	<0.0010	<0.0010	<0.0020	<LDL	<0.100	1.1	1.1	
SPLP 2	03/13/02	Former Tank Battery Area	<1.0	<0.0010	<0.0010	<0.0020	<LDL	<0.100	0.31	0.31		
Applicable OCD Cleanup Levels			NE	10	NE	NE	NE	50	NE	NE	100	

- SPLP = Synthetic precipitation leaching procedure
- TPH-GRO = Total petroleum hydrocarbons - gasoline range organics
- TPH-DRO = Total petroleum hydrocarbons - diesel range organics
- BTEX = Benzene, toluene, ethylbenzene, and xylenes
- <LDL = Less than laboratory detection limits
- NE = Not established by OCD
- OCD = Oil and Conservation Department
- EPA = Environmental Protection Agency
- SPLP 1 = Composite sample obtained from excavations within natural depression area
- SPLP 2 = Composite sample obtained from borings located in former tank battery area

APPENDIX A

Site Photographs



Photo 1. Drill rig set up on B-1. View is to the southeast.



Photo 2. Drill rig set up on B-2. View is to the northeast.

Cooper Reed A Soil Investigation	Photographer: Kelly Henderson Photo Date: 03/12/02-3/13/02	Project No./Task 2690018.100
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Photo 3. Drill rig setting up on B-3. View is to the southeast.



Photo 4. Drill Rig setting up on B-5. View is to the southeast.

Cooper Reed A Soil Investigation	Photographer: Kelly Henderson Photo Date: 03/12/02-3/13/02	Project No./Task 2690018.100
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Photo 5. B-5 Location with pit area located in background to the southeast.



Photo 6. Drill rig setting up on B-6. View is to the east.

<p>Cooper Reed A Soil Investigation</p>	<p>Photographer: Kelly Henderson Photo Date: 03/12/02-3/13/02</p>	<p>Project No./Task 2690018.100</p>
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Photo 7. Drilling B-7. View is to the northeast.



Photo 8. Drilling B-9. View is to the east.

<p>Cooper Reed A Soil Investigation</p>	<p>Photographer: Kelly Henderson Photo Date: 03/12/02-3/13/02</p>	<p>Project No./Task 2690018.100</p>
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Photo 9. Existing excavation soil piles showing dark staining.



Photo 10. Excavation #7 – Stained soil evident at about 2 feet below ground surface in right side wall.

<p>Cooper Reed A Soil Investigation</p>	<p>Photographer: Kelly Henderson Photo Date: 03/12/02-3/13/02</p>	<p>Project No./Task 2690018.100</p>
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Photo 11. Excavation #9 – Stained soil in side wall with dark staining at depth.



Photo 12. Excavation #15 – Loose, dry sand at surface, underlain by stained soil at approximately 2.5 feet below ground surface.

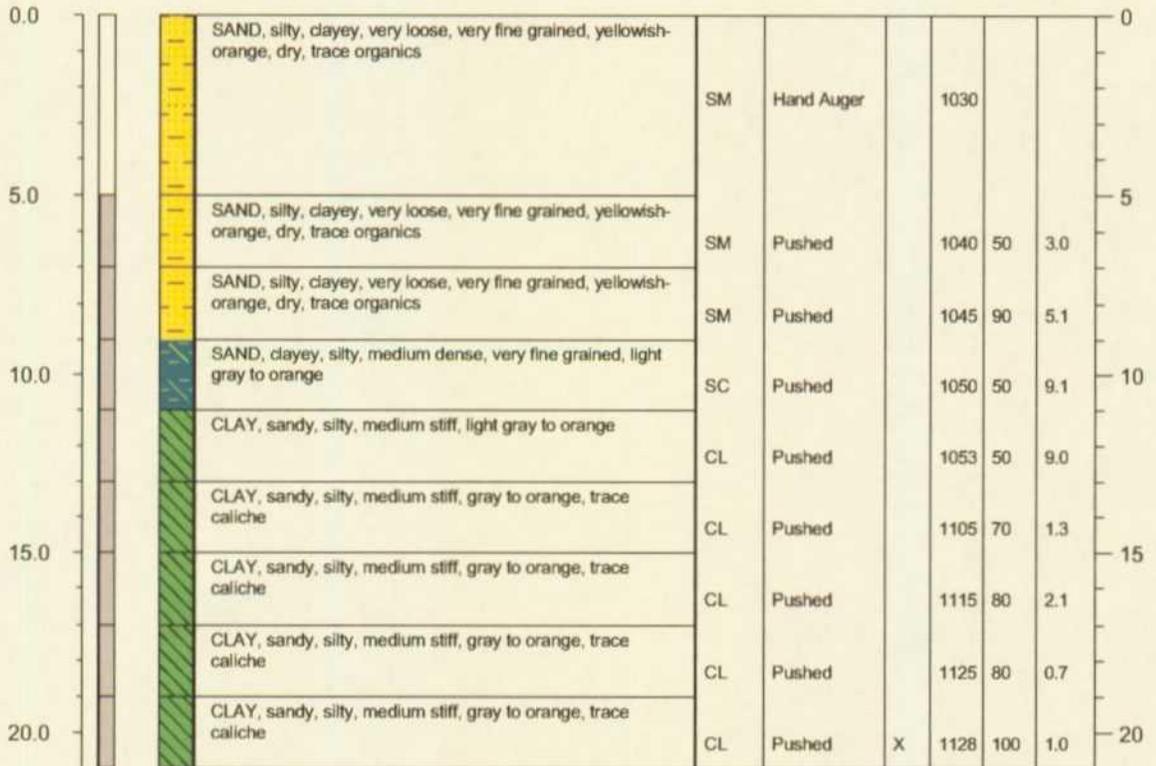
Cooper Reed A Soil Investigation	Photographer: Kelly Henderson Photo Date: 03/12/02-3/13/02	Project No./Task 2690018.100
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APPENDIX B

Boring Logs

PROJECT NAME: <u>Maxim #2690018</u> LOCATION: <u>Reed A, Lea County, New Mexico</u> DRILLED BY: <u>Scarborough Drilling</u> DATE HOLE DRILLED: <u>3/12/02</u> DATE ABANDONED: <u>3/12/02</u> REMARKS: <u>bgs = below ground surface</u> <u>ND=Not Detected, NS=No Sample</u> <u>NA=Not Applicable</u>	SOIL VAPOR BORING NO. <u>B-1</u> FIELD LOGGED BY: <u>K.Henderson</u> GROUNDWATER LEVEL (bgs): <u>Not Encountered</u> (ft) DRILL TYPE: <u>Air Rotary</u> <u>Ford Midway 1300</u> BORE HOLE DIAMETER: <u>5</u> (in)
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DEPTH (bgs) - ft	SAMPLE INTERVAL/ID #	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
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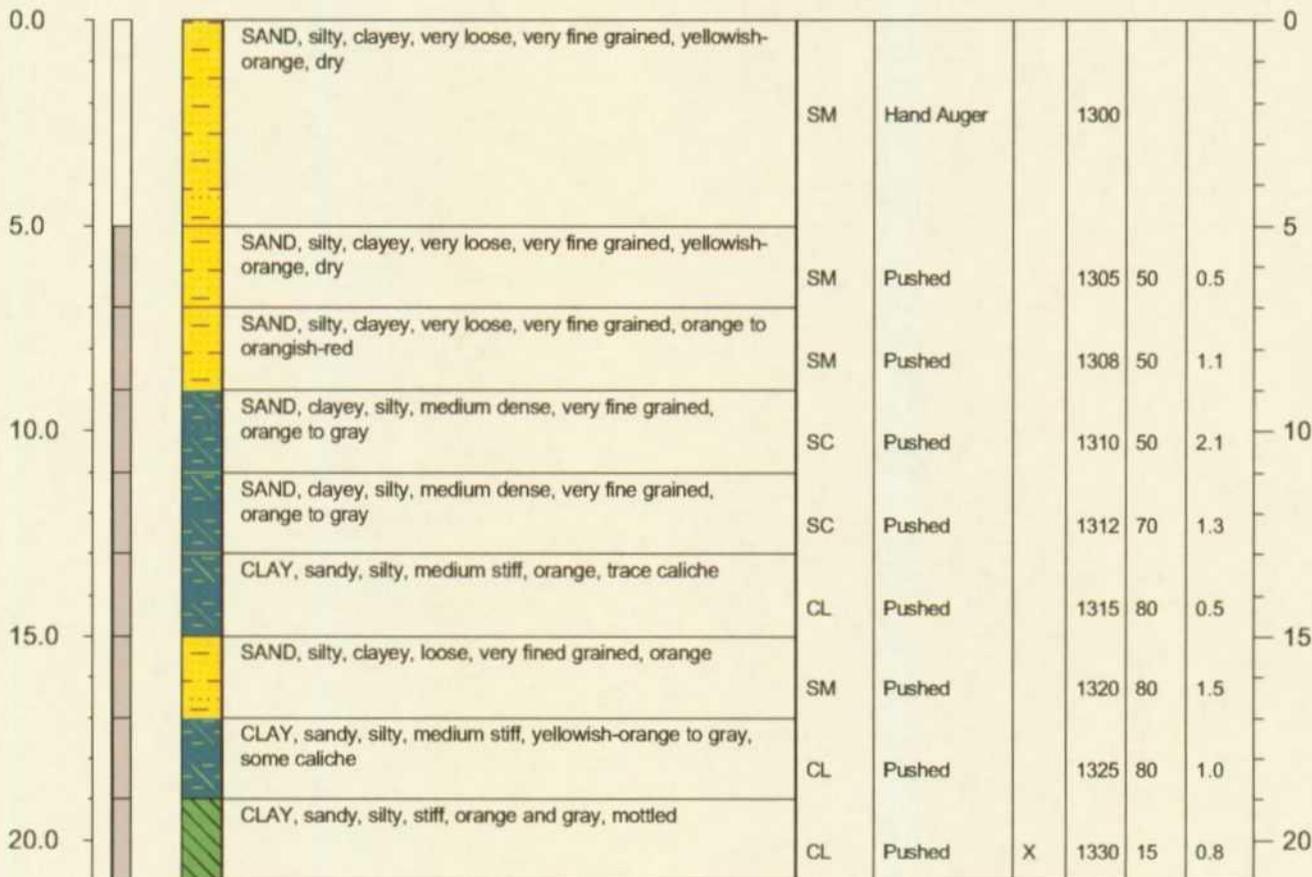


Boring Terminated at 21' bgs

2690018		EXPLORATORY BORING LOG	B-1
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PROJECT NAME: <u>Maxim #2690018</u> LOCATION: <u>Reed A, Lea County, New Mexico</u> DRILLED BY: <u>Scarborough Drilling</u> DATE HOLE DRILLED: <u>3/12/02</u> DATE ABANDONED: <u>3/12/02</u> REMARKS: <u>bgs = below ground surface</u> <u>ND=Not Detected, NS=No Sample</u> <u>NA=Not Applicable</u>	SOIL VAPOR BORING NO. <u>B-2</u> FIELD LOGGED BY: <u>K.Henderson</u> GROUNDWATER LEVEL (bgs): <u>Not Encountered</u> (ft) DRILL TYPE: <u>Air Rotary</u> <u>Ford Midway 1300</u> BORE HOLE DIAMETER: <u>5</u> (in)
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DEPTH (bgs) - ft	SAMPLE INTERVAL/ID #	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
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Boring Terminated at 21' bgs

PROJECT NAME: <u>Maxim #2690018</u> LOCATION: <u>Reed A, Lea County, New Mexico</u> DRILLED BY: <u>Scarborough Drilling</u> DATE HOLE DRILLED: <u>3/12/02</u> DATE ABANDONED: <u>3/12/02</u> REMARKS: <u>bgs = below ground surface</u> <u>ND=Not Detected, NS=No Sample</u> <u>NA=Not Applicable</u>	SOIL VAPOR BORING NO. <u>B-3</u> FIELD LOGGED BY: <u>K.Henderson</u> GROUNDWATER LEVEL (bgs): <u>Not Encountered</u> (ft) DRILL TYPE: <u>Air Rotary</u> <u>Ford Midway 1300</u> BORE HOLE DIAMETER: <u>5</u> (in)
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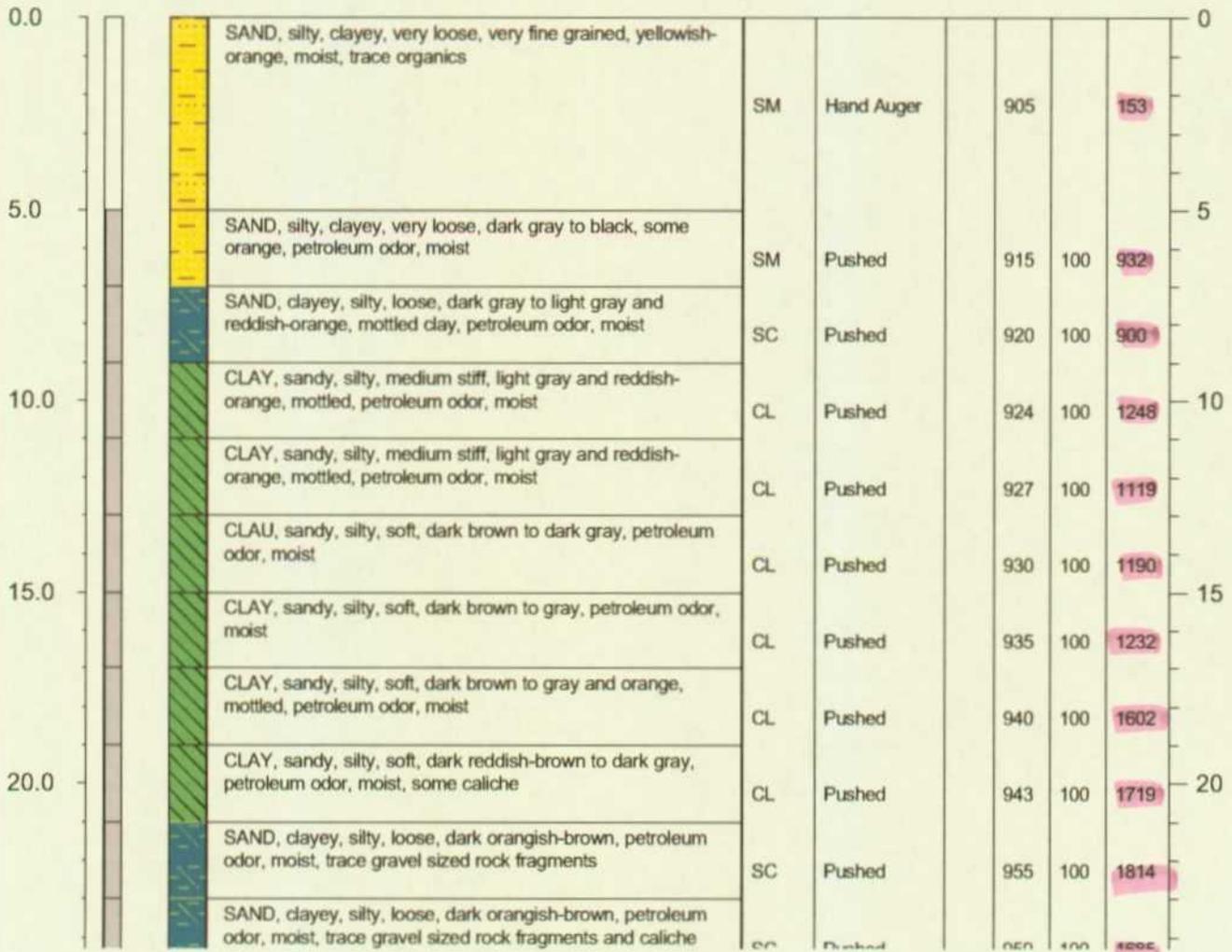
DEPTH (bgs) - ft	SAMPLE INTERVAL/ID #	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
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0.0		SAND, silty, clayey, very loose, very fine grained, yellowish-orange, dry	SM	Hand Auger		1412			0
5.0		SAND, silty, clayey, very loose, very fine grained, yellowish-orange, dry	SM	Pushed		1425	50	0.6	5
		SAND, silty, clayey, very loose, very fine grained, yellowish-orange, trace caliche	SM	Pushed		1430	50	0.7	
10.0		SAND, clayey, silty, very loose, very fine grained, light brown to orange	SC	Pushed		1435	100	0.6	10
		CLAY, sandy, silty, stiff, orange to yellowish orange	CL	Pushed		1440	100	1.0	
		CLAY, sandy, silty, stiff, light brown to orange, some caliche	CL	Pushed		1445	100	0.6	15
15.0		CALICHE, white, hard, some clay and sand, silty, gray to light yellow		Pushed		1450	100	0.5	
		CLAY, sandy, silty, very stiff, gray to orange, some caliche, white, hard	CL	Pushed		1454	100	0.6	20
20.0		CLAY, sandy, silty, stiff, orange, some very loose sand, light orange	CL	Pushed	X	1457	100	0.5	20

Boring Terminated at 21' bgs

PROJECT NAME: <u>Maxim #2690018</u> LOCATION: <u>Reed A, Lea County, New Mexico</u> DRILLED BY: <u>Scarborough Drilling</u> DATE HOLE DRILLED: <u>3/13/02</u> DATE ABANDONED: <u>3/13/02</u> REMARKS: <u>bgs = below ground surface</u> <u>ND=Not Detected, NS=No Sample</u> <u>NA=Not Applicable</u>	SOIL VAPOR BORING NO. <u>B-5</u> FIELD LOGGED BY: <u>K.Henderson</u> GROUNDWATER LEVEL (bgs): <u>Not Encountered</u> (ft) DRILL TYPE: <u>Air Rotary</u> <u>Ford Midway 1300</u> BORE HOLE DIAMETER: <u>5</u> (in)
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DEPTH (bgs) - ft	SAMPLE INTERVAL/ID #	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
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Boring Terminated at 46' bgs

PROJECT NAME: <u>Maxim #2690018</u> LOCATION: <u>Reed A, Lea County, New Mexico</u> DRILLED BY: <u>Scarborough Drilling</u> DATE HOLE DRILLED: <u>3/13/02</u> DATE ABANDONED: <u>3/13/02</u> REMARKS: <u>bgs = below ground surface</u> <u>ND=Not Detected, NS=No Sample</u> <u>NA=Not Applicable</u>	SOIL VAPOR BORING NO. <u>B-5</u> FIELD LOGGED BY: <u>K.Henderson</u> GROUNDWATER LEVEL (bgs): <u>Not Encountered</u> (ft) DRILL TYPE: <u>Air Rotary</u> <u>Ford Midway 1300</u> BORE HOLE DIAMETER: <u>5</u> (in)
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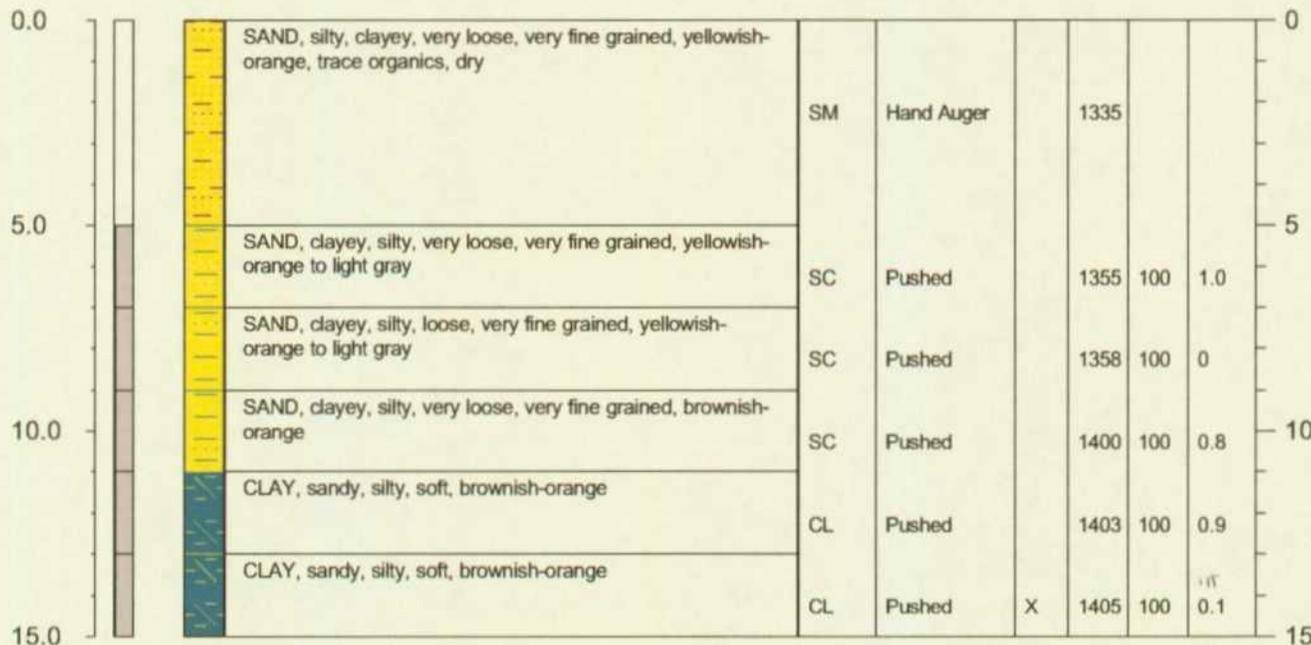
DEPTH (bgs) - ft	SAMPLE INTERVAL/ID #	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
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25.0			SC	Pushed		959	100	1685	25
		SAND, clayey, silty, loose, dark orangish-brown, petroleum odor, moist, trace gravel sized rock fragments and caliche	SC	Pushed		1005	100	1723	
		SAND, clayey, silty, loose, dark orangish-brown, petroleum odor, moist, trace gravel sized rock fragments and caliche	SC	Pushed		1010	100	1777	
		SAND, clayey, silty, loose, dark orangish-brown, petroleum odor, moist, trace gravel sized rock fragments	SC	Pushed		1013	100	2031	30
30.0		SAND, clayey, silty, loose, dark brown to light brown, petroleum odor, dry, 50% caliche, white, hard	SC	Pushed		1019	20	1398	
		SAND, clayey, silty, very loose, very fine, dark brown to light brown, petroleum odor, dry, 50% caliche, white, hard	SC	Pushed		1025	20	1883	
35.0		SAND, clayey, silty, very loose, very fine, light brown, petroleum odor, damp, trace pebble sized rock fragments	SC	Pushed		1037	100	2669	35
		SAND, clayey, silty, very loose, very fine, light orange, petroleum odor, damp, trace pebble sized rock fragments	SC	Pushed		1050	15	455	
		SAND, clayey, silty, very loose, very fine, light orange, petroleum odor, damp, trace pebble sized rock fragments	SC	Pushed		1055	10	286	40
40.0		SAND, clayey, silty, very loose, very fine, light orange, petroleum odor, moist, trace pebble sized rock fragments	SC	Shovel Sample		1100		168	
		SAND, clayey, silty, very loose, very fine, light orange, no odor, moist, trace pebble sized rock fragments	SC	Shovel Sample		1110		12.1	
45.0		SAND, clayey, silty, very loose, very fine, light orange, no odor, moist, trace pebble sized rock fragments	SC	Shovel Sample Pushed (Jam)	X	1125	100	7.7	45

Boring Terminated at 46' bgs

PROJECT NAME: <u>Maxim #2690018</u> LOCATION: <u>Reed A, Lea County, New Mexico</u> DRILLED BY: <u>Scarborough Drilling</u> DATE HOLE DRILLED: <u>3/13/02</u> DATE ABANDONED: <u>3/13/02</u> REMARKS: <u>bgs = below ground surface</u> <u>ND=Not Detected, NS=No Sample</u> <u>NA=Not Applicable</u>	SOIL VAPOR BORING NO. <u>B-7</u> FIELD LOGGED BY: <u>K.Henderson</u> GROUNDWATER LEVEL (bgs): <u>Not Encountered</u> (ft) DRILL TYPE: <u>Air Rotary</u> <u>Ford Midway 1300</u> BORE HOLE DIAMETER: <u>5</u> (in)
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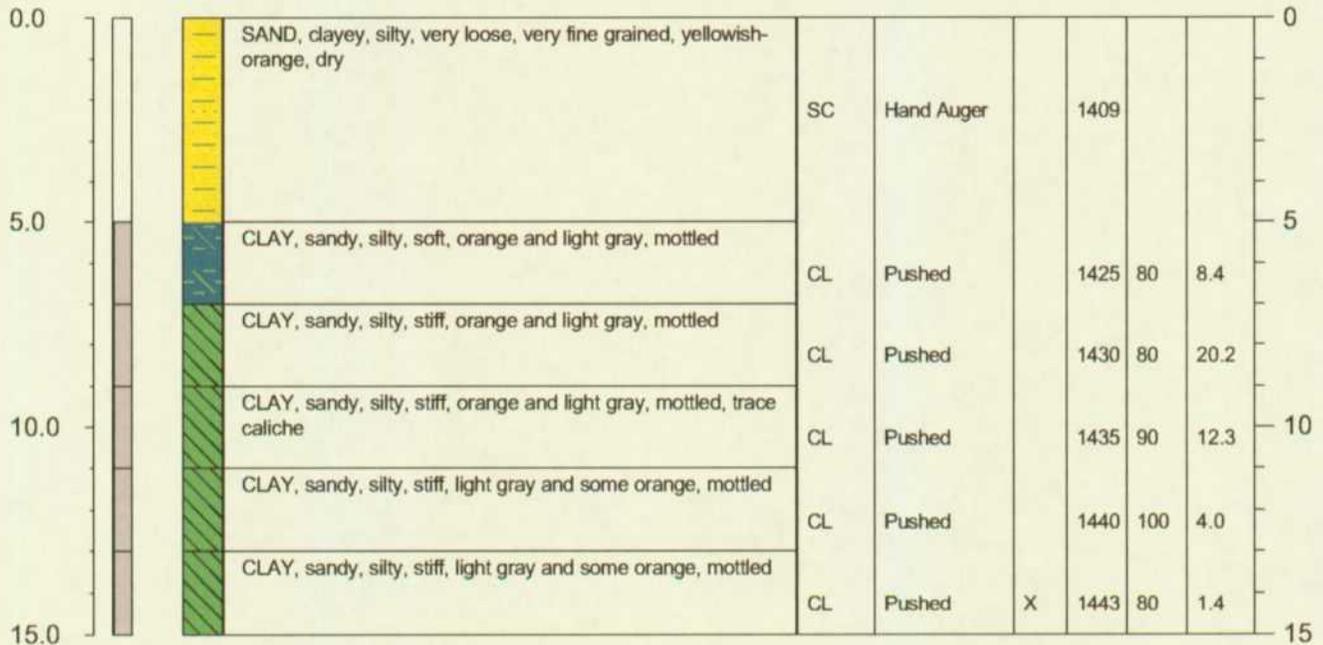
DEPTH (bgs) - ft	SAMPLE INTERVAL/ID #	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
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Boring Terminated at 15' bgs

PROJECT NAME: <u>Maxim #2690018</u> LOCATION: <u>Reed A, Lea County, New Mexico</u> DRILLED BY: <u>Scarborough Drilling</u> DATE HOLE DRILLED: <u>3/13/02</u> DATE ABANDONED: <u>3/13/02</u> REMARKS: <u>bgs = below ground surface</u> <u>ND=Not Detected, NS=No Sample</u> <u>NA=Not Applicable</u>	SOIL VAPOR BORING NO. <u>B-8</u> FIELD LOGGED BY: <u>K.Henderson</u> GROUNDWATER LEVEL (bgs): <u>Not Encountered</u> (ft) DRILL TYPE: <u>Air Rotary</u> <u>Ford Midway 1300</u> BORE HOLE DIAMETER: <u>5</u> (in)
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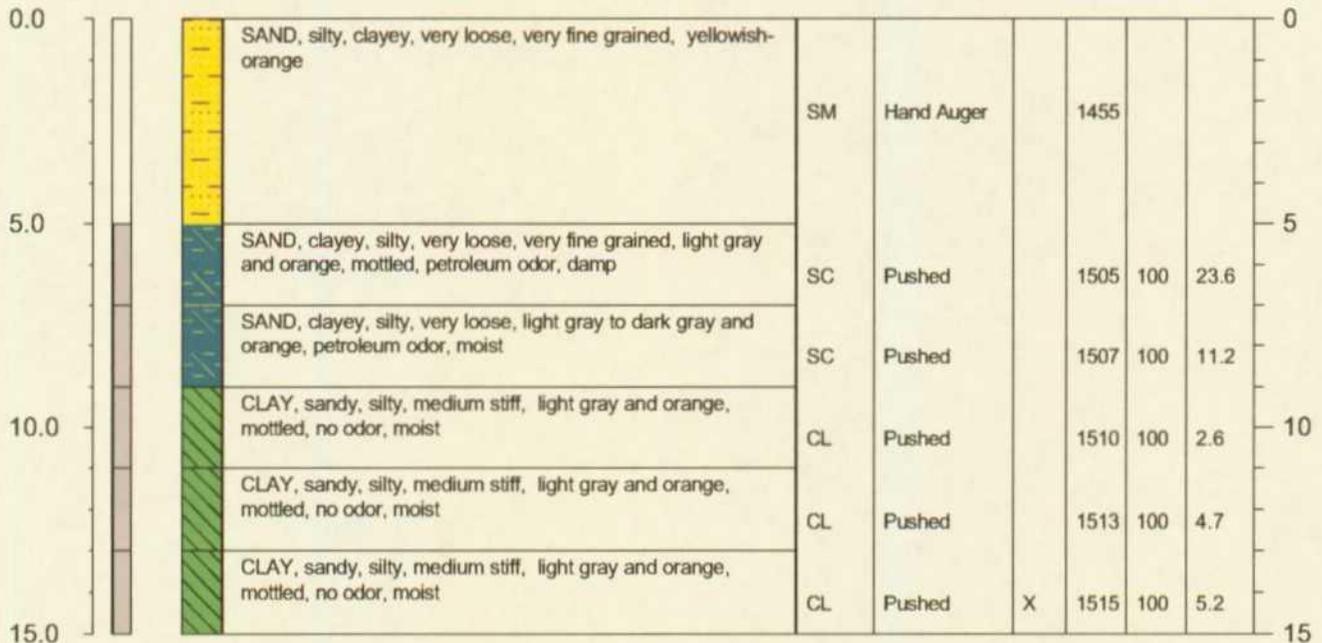
DEPTH (bgs) - ft	SAMPLE INTERVAL/ID #	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
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Boring Terminated at 15' bgs

PROJECT NAME: <u>Maxim #2690018</u> LOCATION: <u>Reed A, Lea County, New Mexico</u> DRILLED BY: <u>Scarborough Drilling</u> DATE HOLE DRILLED: <u>3/13/02</u> DATE ABANDONED: <u>3/13/02</u> REMARKS: <u>bgs = below ground surface</u> <u>ND=Not Detected, NS=No Sample</u> <u>NA=Not Applicable</u>	SOIL VAPOR BORING NO. <u>B-9</u> FIELD LOGGED BY: <u>K.Henderson</u> GROUNDWATER LEVEL (bgs): <u>Not Encountered</u> (ft) DRILL TYPE: <u>Air Rotary</u> <u>Ford Midway 1300</u> BORE HOLE DIAMETER: <u>5</u> (in)
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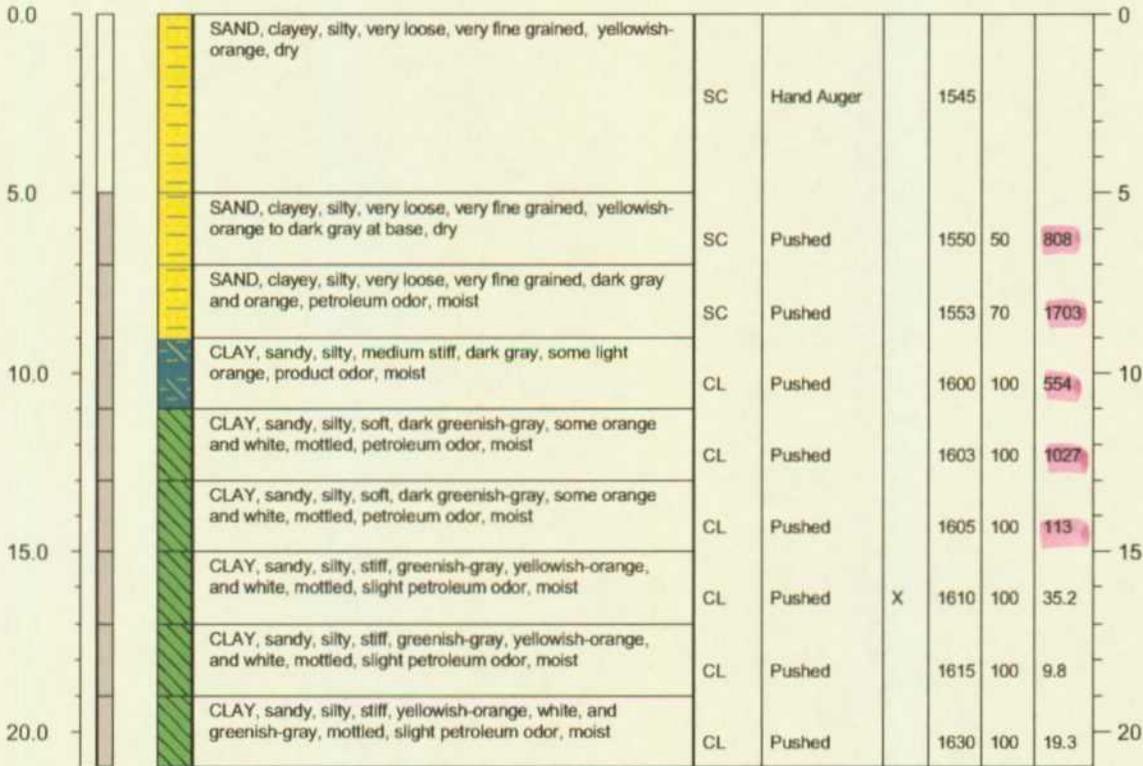
DEPTH (bgs) - ft	SAMPLE INTERVAL/ID #	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
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Boring Terminated at 15' bgs

PROJECT NAME: <u>Maxim #2690018</u>	SOIL VAPOR BORING NO. <u>B-10</u>
LOCATION: <u>Reed A, Lea County, New Mexico</u>	FIELD LOGGED BY: <u>K.Henderson</u>
DRILLED BY: <u>Scarborough Drilling</u>	GROUNDWATER LEVEL (bgs): <u>Not Encountered (ft)</u>
DATE HOLE DRILLED: <u>3/13/02</u>	DRILL TYPE: <u>Air Rotary</u>
DATE ABANDONED: <u>3/13/02</u>	<u>Ford Midway 1300</u>
REMARKS: <u>bgs = below ground surface</u>	BORE HOLE DIAMETER: <u>5</u> (in)
<u>ND=Not Detected, NS=No Sample</u>	
<u>NA=Not Applicable</u>	

DEPTH (bgs) - ft	SAMPLE INTERVAL/ID #	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
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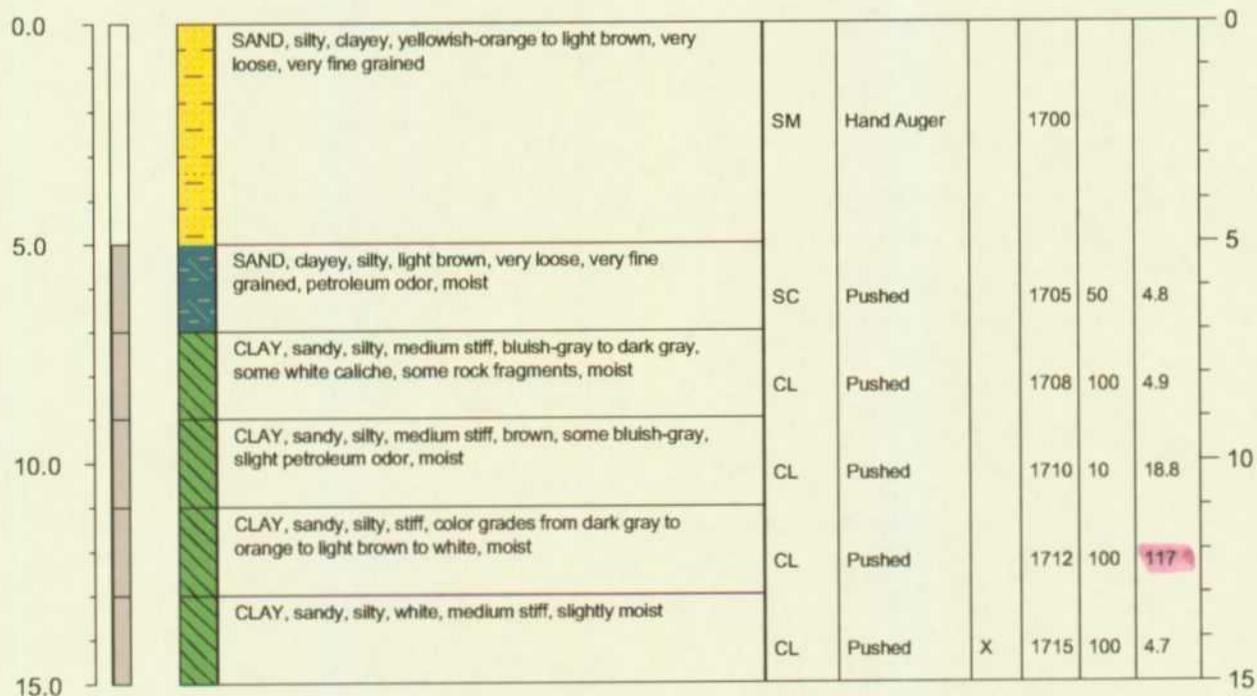


Boring Terminated at 21' bgs

2690018	MAXIM TECHNOLOGIES INC.	EXPLORATORY BORING LOG	B-10
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PROJECT NAME: <u>Maxim #2690018</u>	SOIL VAPOR BORING NO. <u>B-11</u>
LOCATION: <u>Reed A, Lea County, New Mexico</u>	FIELD LOGGED BY: <u>K.Henderson</u>
DRILLED BY: <u>Scarborough Drilling</u>	GROUNDWATER LEVEL (bgs): <u>Not Encountered</u> (ft)
DATE HOLE DRILLED: <u>3/13/02</u>	DRILL TYPE: <u>Air Rotary</u>
DATE ABANDONED: <u>3/13/02</u>	<u>Ford Midway 1300</u>
REMARKS: <u>bgs = below ground surface</u>	BORE HOLE DIAMETER: <u>5</u> (in)
<u>ND=Not Detected, NS=No Sample</u>	
<u>NA=Not Applicable</u>	

DEPTH (bgs) - ft	SAMPLE INTERVAL/ID #	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
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Boring Terminated at 15' bgs

APPENDIX C

Analytical Reports

**Certificate of
Analysis**

STL Austin
14046 Summit Drive
Austin, Texas 78728

Tel: 512 244 0855
Fax: 512 244 0160
www.stl-inc.com



STL Austin

ANALYTICAL REPORT

PROJECT NO. REED A/MONUMENT

EP01002 Reed A Monument, NM

Lot #: I2C150119

Tom Tangen

**Maxim Technologies
10601 Lomas NE Ste 106
Albuquerque, NM 87112**

SEVERN TRENT LABORATORIES, INC.

A handwritten signature in cursive script that reads "Carla Butler".

**Carla M. Butler
Project Manager**

March 27, 2002

American Council of Independent Laboratories
International Association of Environmental Testing Laboratories
STL Austin is a part of Severn Trent Laboratories, Inc.

CASE NARRATIVE

I2C150119

Samples received in good condition within acceptable cooler temperature.

Surrogate recovery was outside control limits due to co-elution for the GRO analysis of sample 010.

EXECUTIVE SUMMARY - Detection Highlights

I2C150119

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
B-1 (19-21) 03/12/02 11:28 001				
Chloride	144	50.0	mg/kg	MCAWW 300.0A
Percent Moisture	17.3	0.50	%	ASTM D 2216-90
B-2 (19-21) 03/12/02 13:30 002				
Diesel Range Organics	1800	1700	ug/kg	SW846 8015B
Chloride	146	50.0	mg/kg	MCAWW 300.0A
Percent Moisture	22.4	0.50	%	ASTM D 2216-90
B-3 (19-21) 03/12/02 14:57 003				
Percent Moisture	15.9	0.50	%	ASTM D 2216-90
B-4 (19-21) 03/12/02 16:37 004				
Diesel Range Organics	3100	1700	ug/kg	SW846 8015B
Chloride	31.5	10.0	mg/kg	MCAWW 300.0A
Percent Moisture	13.7	0.50	%	ASTM D 2216-90
B-5 (45-46) 03/13/02 11:25 005				
Diesel Range Organics	3200	1700	ug/kg	SW846 8015B
Chloride	89.2	10.0	mg/kg	MCAWW 300.0A
Percent Moisture	6.0	0.50	%	ASTM D 2216-90
B-6 (13-15) 03/13/02 13:20 006				
Diesel Range Organics	1800	1700	ug/kg	SW846 8015B
Percent Moisture	8.5	0.50	%	ASTM D 2216-90
B-7 (13-15) 03/13/02 14:05 007				
Diesel Range Organics	2500	1700	ug/kg	SW846 8015B
Percent Moisture	8.7	0.50	%	ASTM D 2216-90
B-8 (13-15) 03/13/02 14:43 008				
Diesel Range Organics	2200	1700	ug/kg	SW846 8015B
Percent Moisture	20.3	0.50	%	ASTM D 2216-90

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

I2C150119

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
B-9 (13-15) 03/13/02 15:15 009				
Diesel Range Organics	2400	1700	ug/kg	SW846 8015B
Percent Moisture	14.5	0.50	%	ASTM D 2216-90
B-10 (15-17) 03/13/02 16:10 010				
Diesel Range Organics	250000	1700	ug/kg	SW846 8015B
Gasoline Range Organics	4000	92	ug/kg	SW846 8015B
Percent Moisture	16.7	0.50	%	ASTM D 2216-90
B-11 (13-15) 03/13/02 17:15 011				
Diesel Range Organics	2500	1700	ug/kg	SW846 8015B
Percent Moisture	13.2	0.50	%	ASTM D 2216-90

ANALYTICAL METHODS SUMMARY

I2C150119

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
Chloride	MCAWW 300.0A
Extractable Petroleum Hydrocarbons	SW846 8015B
Method for Determination of Water Content of Soil	ASTM D 2216-90
Volatile Petroleum Hydrocarbons	SW846 8015B

References:

- ASTM Annual Book Of ASTM Standards.
- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

I2C150119

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
ASTM D 2216-90	David A. Tocher	800002
MCAWW 300.0A	Cynthia A. Anderson	034090
SW846 8015B	Ellen Grett	014902
SW846 8015B	Mark Shafer	001952

References:

ASTM Annual Book Of ASTM Standards.

MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

I2C150119

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
EWFDP	001	B-1 (19-21)	03/12/02	11:28
EWFDR	002	B-2 (19-21)	03/12/02	13:30
EWFDT	003	B-3 (19-21)	03/12/02	14:57
EWFDV	004	B-4 (19-21)	03/12/02	16:37
EWFDX	005	B-5 (45-46)	03/13/02	11:25
EWFD0	006	B-6 (13-15)	03/13/02	13:20
EWFD3	007	B-7 (13-15)	03/13/02	14:05
EWFD4	008	B-8 (13-15)	03/13/02	14:43
EWFD5	009	B-9 (13-15)	03/13/02	15:15
EWFD6	010	B-10 (15-17)	03/13/02	16:10
EWFD8	011	B-11 (13-15)	03/13/02	17:15

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

I2C150119

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	MCAWW 300.0A		2079127	2079021
	SOLID	SW846 8015B		2080379	2080170
	SOLID	SW846 8015B		2081276	2081145
	SOLID	ASTM D 2216-90		2079392	2079200
002	SOLID	MCAWW 300.0A		2079127	2079021
	SOLID	SW846 8015B		2080379	2080170
	SOLID	SW846 8015B		2081276	2081145
	SOLID	ASTM D 2216-90		2079392	2079200
003	SOLID	MCAWW 300.0A		2079127	2079021
	SOLID	SW846 8015B		2080379	2080170
	SOLID	SW846 8015B		2081276	2081145
	SOLID	ASTM D 2216-90		2079392	2079200
004	SOLID	MCAWW 300.0A		2079127	2079021
	SOLID	SW846 8015B		2080379	2080170
	SOLID	SW846 8015B		2081276	2081145
	SOLID	ASTM D 2216-90		2079473	2079229
005	SOLID	MCAWW 300.0A		2079127	2079021
	SOLID	SW846 8015B		2080379	2080170
	SOLID	SW846 8015B		2081276	2081145
	SOLID	ASTM D 2216-90		2079473	2079229
006	SOLID	MCAWW 300.0A		2079127	2079021
	SOLID	SW846 8015B		2080379	2080170
	SOLID	SW846 8015B		2081276	2081145
	SOLID	ASTM D 2216-90		2079473	2079229
007	SOLID	MCAWW 300.0A		2079127	2079021
	SOLID	SW846 8015B		2080379	2080170
	SOLID	SW846 8015B		2081276	2081145
	SOLID	ASTM D 2216-90		2079473	2079229
008	SOLID	MCAWW 300.0A		2079127	2079021
	SOLID	SW846 8015B		2080379	2080170
	SOLID	SW846 8015B		2081276	2081145
	SOLID	ASTM D 2216-90		2079473	2079229
009	SOLID	MCAWW 300.0A		2079127	2079021
	SOLID	SW846 8015B		2080379	2080170
	SOLID	SW846 8015B		2081276	2081145

(Continued on next page)

QC DATA ASSOCIATION SUMMARY

I2C150119

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
009	SOLID	ASTM D 2216-90		2079473	2079229
010	SOLID	MCAWW 300.0A		2079127	2079021
	SOLID	SW846 8015B		2080379	2080170
	SOLID	SW846 8015B		2081276	2081145
	SOLID	ASTM D 2216-90		2079473	2079229
011	SOLID	MCAWW 300.0A		2079127	2079021
	SOLID	SW846 8015B		2080379	2080170
	SOLID	SW846 8015B		2081276	2081145
	SOLID	ASTM D 2216-90		2079473	2079229

CONOCO INC.

Client Sample ID: B-1 (19-21)

GC Volatiles

Lot-Sample #....: I2C150119-001 Work Order #....: EWFDPIAA Matrix.....: SOLID
Date Sampled....: 03/12/02 11:28 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/21/02
Prep Batch #....: 2081276
Dilution Factor: 0.89
% Moisture.....: 17 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Gasoline Range Organics	ND	89	ug/kg
<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>	
	<u>RECOVERY</u>	<u>LIMITS</u>	
Bromofluorobenzene	65	(14 - 165)	

CONOCO INC.

Client Sample ID: B-1 (19-21)

GC Semivolatiles

Lot-Sample #...: I2C150119-001 Work Order #...: EWFDP1AC Matrix.....: SOLID
Date Sampled...: 03/12/02 11:28 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
Prep Batch #...: 2080379
Dilution Factor: 1
% Moisture.....: 17 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Diesel Range Organics	ND	1700	ug/kg

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
o-Terphenyl	98	(40 - 144)
Dotriacontane	99	(42 - 159)

CONOCO INC.

Client Sample ID: B-1 (19-21)

General Chemistry

Lot-Sample #...: I2C150119-001 Work Order #...: EWFDP Matrix.....: SOLID
Date Sampled...: 03/12/02 11:28 Date Received...: 03/15/02
% Moisture.....: 17

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	144	50.0	mg/kg	MCAWW 300.0A	03/19-03/20/02	2079127
		Dilution Factor: 5				
Percent Moisture	17.3	0.50	%	ASTM D 2216-90	03/19-03/20/02	2079392
		Dilution Factor: 1				

CONOCO INC.

Client Sample ID: B-2 (19-21)

GC Volatiles

Lot-Sample #...: I2C150119-002 Work Order #...: EWFDR1AA Matrix.....: SOLID
Date Sampled...: 03/12/02 13:30 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/21/02
Prep Batch #...: 2081276
Dilution Factor: 0.92
% Moisture.....: 22 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Gasoline Range Organics	ND	92	ug/kg
<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	
Bromofluorobenzene	62	(14 - 165)	

CONOCO INC.

Client Sample ID: B-2 (19-21)

GC Semivolatiles

Lot-Sample #...: I2C150119-002 Work Order #...: EWFDR1AC Matrix.....: SOLID
Date Sampled...: 03/12/02 13:30 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
Prep Batch #...: 2080379
Dilution Factor: 1
% Moisture.....: 22 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Diesel Range Organics	1800	1700	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
o-Terphenyl	108	(40 - 144)
Dotriacontane	111	(42 - 159)

CONOCO INC.

Client Sample ID: B-2 (19-21)

General Chemistry

Lot-Sample #...: I2C150119-002 Work Order #...: EWFDR Matrix.....: SOLID
Date Sampled...: 03/12/02 13:30 Date Received...: 03/15/02
% Moisture.....: 22

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	146	50.0	mg/kg	MCAWW 300.0A	03/19-03/20/02	2079127
			Dilution Factor: 5			
Percent Moisture	22.4	0.50	%	ASTM D 2216-90	03/19-03/20/02	2079392
			Dilution Factor: 1			

CONOCO INC.

Client Sample ID: B-3 (19-21)

GC Volatiles

Lot-Sample #...: I2C150119-003 Work Order #...: EWFDT1AA Matrix.....: SOLID
Date Sampled...: 03/12/02 14:57 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/21/02
Prep Batch #...: 2081276
Dilution Factor: 0.98
% Moisture.....: 16 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Gasoline Range Organics	ND	98	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Bromofluorobenzene	53	(14 - 165)

CONOCO INC.

Client Sample ID: B-3 (19-21)

GC Semivolatiles

Lot-Sample #...: I2C150119-003 Work Order #...: EWFDT1AC Matrix.....: SOLID
Date Sampled...: 03/12/02 14:57 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
Prep Batch #...: 2080379
Dilution Factor: 1
% Moisture.....: 16 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Diesel Range Organics	ND	1700	ug/kg

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
o-Terphenyl	105	(40 - 144)
Dotriacontane	107	(42 - 159)

CONOCO INC.

Client Sample ID: B-3 (19-21)

General Chemistry

Lot-Sample #...: I2C150119-003 Work Order #...: EWFDT Matrix.....: SOLID
Date Sampled...: 03/12/02 14:57 Date Received...: 03/15/02
% Moisture.....: 16

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	03/19-03/20/02	2079127
		Dilution Factor: 1				
Percent Moisture	15.9	0.50	%	ASTM D 2216-90	03/19-03/20/02	2079392
		Dilution Factor: 1				

CONOCO INC.

Client Sample ID: B-4 (19-21)

GC Volatiles

Lot-Sample #...: I2C150119-004 Work Order #...: EWFDV1AA Matrix.....: SOLID
Date Sampled...: 03/12/02 16:37 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/22/02
Prep Batch #...: 2081276
Dilution Factor: 0.94
% Moisture.....: 14 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Gasoline Range Organics	ND	94	ug/kg
<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	
Bromofluorobenzene	56	(14 - 165)	

CONOCO INC.

Client Sample ID: B-4 (19-21)

GC Semivolatiles

Lot-Sample #...: I2C150119-004 Work Order #...: EWFDV1AC Matrix.....: SOLID
Date Sampled...: 03/12/02 16:37 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
Prep Batch #...: 2080379
Dilution Factor: 1
% Moisture.....: 14 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Diesel Range Organics	3100	1700	ug/kg
<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	
o-Terphenyl	87	(40 - 144)	
Dotriacontane	105	(42 - 159)	

CONOCO INC.

Client Sample ID: B-4 (19-21)

General Chemistry

Lot-Sample #....: I2C150119-004 Work Order #....: EWFDV Matrix.....: SOLID
Date Sampled...: 03/12/02 16:37 Date Received...: 03/15/02
% Moisture.....: 14

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	31.5	10.0	mg/kg	MCAWW 300.0A	03/19-03/20/02	2079127
			Dilution Factor: 1			
Percent Moisture	13.7	0.50	%	ASTM D 2216-90	03/19-03/20/02	2079473
			Dilution Factor: 1			

CONOCO INC.

Client Sample ID: B-5 (45-46)

GC Volatiles

Lot-Sample #....: I2C150119-005 Work Order #....: EWFDX1AA Matrix.....: SOLID
Date Sampled...: 03/13/02 11:25 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/22/02
Prep Batch #....: 2081276
Dilution Factor: 0.95
% Moisture.....: 6.0 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Gasoline Range Organics	ND	95	ug/kg
<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	
Bromofluorobenzene	71	(14 - 165)	

CONOCO INC.

Client Sample ID: B-5 (45-46)

GC Semivolatiles

Lot-Sample #...: I2C150119-005 Work Order #...: EWFDX1AC Matrix.....: SOLID
Date Sampled...: 03/13/02 11:25 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
Prep Batch #...: 2080379
Dilution Factor: 1
% Moisture.....: 6.0 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Diesel Range Organics	3200	1700	ug/kg

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
o-Terphenyl	116	(40 - 144)
Dotriacontane	117	(42 - 159)

CONOCO INC.

Client Sample ID: B-5 (45-46)

General Chemistry

Lot-Sample #...: I2C150119-005 Work Order #...: EWFDX Matrix.....: SOLID
Date Sampled...: 03/13/02 11:25 Date Received...: 03/15/02
% Moisture.....: 6.0

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	89.2	10.0	mg/kg	MCAWW 300.0A	03/19-03/20/02	2079127
			Dilution Factor: 1			
Percent Moisture	6.0	0.50	%	ASTM D 2216-90	03/19-03/20/02	2079473
			Dilution Factor: 1			

CONOCO INC.

Client Sample ID: B-6 (13-15)

GC Volatiles

Lot-Sample #...: I2C150119-006 Work Order #...: EWFD01AA Matrix.....: SOLID
Date Sampled...: 03/13/02 13:20 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/22/02
Prep Batch #...: 2081276
Dilution Factor: 0.98
% Moisture.....: 8.5 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	<u>LIMIT</u>	<u>UNITS</u>
Gasoline Range Organics	ND	98		ug/kg
<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>LIMITS</u>	
Bromofluorobenzene	RECOVERY	54	(14 - 165)	

CONOCO INC.

Client Sample ID: B-6 (13-15)

GC Semivolatiles

Lot-Sample #....: I2C150119-006 Work Order #....: EWFD01AC Matrix.....: SOLID
Date Sampled...: 03/13/02 13:20 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
Prep Batch #....: 2080379
Dilution Factor: 1
% Moisture.....: 8.5 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Diesel Range Organics	1800	1700	ug/kg

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
o-Terphenyl	93	(40 - 144)
Dotriacontane	105	(42 - 159)

CONOCO INC.

Client Sample ID: B-6 (13-15)

General Chemistry

Lot-Sample #...: I2C150119-006 Work Order #...: EWFD0 Matrix.....: SOLID
Date Sampled...: 03/13/02 13:20 Date Received...: 03/15/02
% Moisture.....: 8.5

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	03/19-03/20/02	2079127
		Dilution Factor: 1				
Percent Moisture	8.5	0.50	%	ASTM D 2216-90	03/19-03/20/02	2079473
		Dilution Factor: 1				

CONOCO INC.

Client Sample ID: B-7 (13-15)

GC Volatiles

Lot-Sample #...: I2C150119-007 Work Order #...: EWFD31AA Matrix.....: SOLID
Date Sampled...: 03/13/02 14:05 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/22/02
Prep Batch #...: 2081276
Dilution Factor: 0.9
% Moisture.....: 8.7 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Gasoline Range Organics	ND	90	ug/kg

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Bromofluorobenzene	50	(14 - 165)

CONOCO INC.

Client Sample ID: B-7 (13-15)

GC Semivolatiles

Lot-Sample #...: I2C150119-007 Work Order #...: EWFD31AC Matrix.....: SOLID
Date Sampled...: 03/13/02 14:05 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
Prep Batch #...: 2080379
Dilution Factor: 1
% Moisture.....: 8.7 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Diesel Range Organics	2500	1700	ug/kg

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
o-Terphenyl	93	(40 - 144)
Dotriacontane	113	(42 - 159)

CONOCO INC.

Client Sample ID: B-7 (13-15)

General Chemistry

Lot-Sample #...: I2C150119-007 Work Order #...: EWFD3 Matrix.....: SOLID
Date Sampled...: 03/13/02 14:05 Date Received...: 03/15/02
% Moisture.....: 8.7

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	03/19-03/20/02	2079127
			Dilution Factor: 1			
Percent Moisture	8.7	0.50	%	ASTM D 2216-90	03/19-03/20/02	2079473
			Dilution Factor: 1			

CONOCO INC.

Client Sample ID: B-8 (13-15)

GC Volatiles

Lot-Sample #...: I2C150119-008 Work Order #...: EWFD41AA Matrix.....: SOLID
Date Sampled...: 03/13/02 14:43 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/22/02
Prep Batch #...: 2081276
Dilution Factor: 0.94
% Moisture.....: 20 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Gasoline Range Organics	ND	94	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Bromofluorobenzene	89	(14 - 165)

CONOCO INC.

Client Sample ID: B-8 (13-15)

GC Semivolatiles

Lot-Sample #....: I2C150119-008 Work Order #....: EWFD41AC Matrix.....: SOLID
Date Sampled....: 03/13/02 14:43 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
Prep Batch #....: 2080379
Dilution Factor: 1
% Moisture.....: 20 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Diesel Range Organics	2200	1700	ug/kg
	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
<u>SURROGATE</u>			
o-Terphenyl	83	(40 - 144)	
Dotriacontane	99	(42 - 159)	

CONOCO INC.

Client Sample ID: B-8 (13-15)

General Chemistry

Lot-Sample #...: I2C150119-008 Work Order #...: EWFD4 Matrix.....: SOLID
Date Sampled...: 03/13/02 14:43 Date Received...: 03/15/02
% Moisture.....: 20

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	03/19-03/20/02	2079127
		Dilution Factor: 1				
Percent Moisture	20.3	0.50	%	ASTM D 2216-90	03/19-03/20/02	2079473
		Dilution Factor: 1				

CONOCO INC.

Client Sample ID: B-9 (13-15)

GC Volatiles

Lot-Sample #...: I2C150119-009 Work Order #...: EWFD51AA Matrix.....: SOLID
Date Sampled...: 03/13/02 15:15 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/22/02
Prep Batch #...: 2081276
Dilution Factor: 0.94
% Moisture.....: 14 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Gasoline Range Organics	ND	94	ug/kg
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
Bromofluorobenzene	61	(14 - 165)	

CONOCO INC.

Client Sample ID: B-9 (13-15)

GC Semivolatiles

Lot-Sample #...: I2C150119-009 Work Order #...: EWFD51AC Matrix.....: SOLID
Date Sampled...: 03/13/02 15:15 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
Prep Batch #...: 2080379
Dilution Factor: 1
% Moisture.....: 14 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Diesel Range Organics	2400	1700	ug/kg
<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	
o-Terphenyl	88	(40 - 144)	
Dotriacontane	97	(42 - 159)	

CONOCO INC.

Client Sample ID: B-9 (13-15)

General Chemistry

Lot-Sample #...: I2C150119-009 Work Order #...: EWFD5 Matrix.....: SOLID
Date Sampled...: 03/13/02 15:15 Date Received...: 03/15/02
% Moisture.....: 14

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	03/19-03/20/02	2079127
			Dilution Factor: 1			
Percent Moisture	14.5	0.50	%	ASTM D 2216-90	03/19-03/20/02	2079473
			Dilution Factor: 1			

CONOCO INC.

Client Sample ID: B-10 (15-17)

GC Volatiles

Lot-Sample #...: I2C150119-010 Work Order #...: EWFD61AA Matrix.....: SOLID
Date Sampled...: 03/13/02 16:10 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/22/02
Prep Batch #...: 2081276
Dilution Factor: 0.92
% Moisture.....: 17 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Gasoline Range Organics	4000	92	ug/kg
<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	
Bromofluorobenzene	482 *	(14 - 165)	

NOTE (S) :

* Surrogate recovery is outside stated control limits.
Surrogates outside acceptance criteria due to coelution.

CONOCO INC.

Client Sample ID: B-10 (15-17)

GC Semivolatiles

Lot-Sample #....: I2C150119-010 Work Order #....: EWFD61AC Matrix.....: SOLID
Date Sampled...: 03/13/02 16:10 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
Prep Batch #....: 2080379
Dilution Factor: 1
% Moisture.....: 17 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Diesel Range Organics	250000	1700	ug/kg

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
o-Terphenyl	133	(40 - 144)
Dotriacontane	113	(42 - 159)

CONOCO INC.

Client Sample ID: B-10 (15-17)

General Chemistry

Lot-Sample #...: I2C150119-010 Work Order #...: EWFD6 Matrix.....: SOLID
Date Sampled...: 03/13/02 16:10 Date Received...: 03/15/02
% Moisture.....: 17

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	03/19-03/20/02	2079127
			Dilution Factor: 1			
Percent Moisture	16.7	0.50	%	ASTM D 2216-90	03/19-03/20/02	2079473
			Dilution Factor: 1			

CONOCO INC.

Client Sample ID: B-11 (13-15)

GC Volatiles

Lot-Sample #...: I2C150119-011 Work Order #...: EWFD81AA Matrix.....: SOLID
Date Sampled...: 03/13/02 17:15 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/22/02
Prep Batch #...: 2081276
Dilution Factor: 0.94
% Moisture.....: 13 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Gasoline Range Organics	ND	94	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Bromofluorobenzene	76	(14 - 165)

CONOCO INC.

Client Sample ID: B-11 (13-15)

GC Semivolatiles

Lot-Sample #....: I2C150119-011 Work Order #....: EWFD81AC Matrix.....: SOLID
Date Sampled....: 03/13/02 17:15 Date Received...: 03/15/02
Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
Prep Batch #....: 2080379
Dilution Factor: 1
% Moisture.....: 13 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Diesel Range Organics	2500	1700	ug/kg

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
o-Terphenyl	78	(40 - 144)
Dotriacontane	105	(42 - 159)

CONOCO INC.

Client Sample ID: B-11 (13-15)

General Chemistry

Lot-Sample #...: I2C150119-011 Work Order #...: EWFDS Matrix.....: SOLID
Date Sampled...: 03/13/02 17:15 Date Received...: 03/15/02
% Moisture.....: 13

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	03/19-03/20/02	2079127
		Dilution Factor: 1				
Percent Moisture	13.2	0.50	%	ASTM D 2216-90	03/19-03/20/02	2079473
		Dilution Factor: 1				

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: I2C150119
MB Lot-Sample #: I2C220000-276

Work Order #...: EWR5A1AA

Matrix.....: SOLID

Analysis Date...: 03/21/02
Dilution Factor: 1

Prep Date.....: 03/21/02

Prep Batch #...: 2081276

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>
		<u>LIMIT</u>	<u>UNITS</u>	
Gasoline Range Organics	ND	100	ug/kg	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Bromofluorobenzene	81	(14 - 165)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: I2C150119 Work Order #...: EWQLE1AA Matrix.....: SOLID
MB Lot-Sample #: I2C210000-379
Prep Date.....: 03/21/02
Analysis Date...: 03/23/02 Prep Batch #...: 2080379
Dilution Factor: 1

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>
		<u>LIMIT</u>	<u>UNITS</u>	
Diesel Range Organics	ND	1700	ug/kg	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	107	(40 - 144)
Dotriacontane	118	(42 - 159)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: I2C150119

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Chloride	ND	Work Order #: EWL8A1AA 10.0	mg/kg	MB Lot-Sample #: MCAWW 300.0A	I2C200000-127 03/19-03/20/02	2079127

Dilution Factor: 1

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: I2C150119 Work Order #...: EWR5A1AC Matrix.....: SOLID
 LCS Lot-Sample#: I2C220000-276
 Prep Date.....: 03/21/02 Analysis Date...: 03/21/02
 Prep Batch #...: 2081276
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
Gasoline Range Organics	92	(70 - 134)	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Bromofluorobenzene	124	(14 - 165)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: I2C150119 Work Order #...: EWQLE1AC Matrix.....: SOLID
 LCS Lot-Sample#: I2C210000-379
 Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
 Prep Batch #...: 2080379
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
Diesel Range Organics	55	(38 - 139)	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
o-Terphenyl	87	(40 - 144)
Dotriacontane	106	(42 - 159)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: I2C150119

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	102	(80 - 120)	MCAWW 300.0A	03/19-03/20/02	2079127

Work Order #: EWL8A1AC LCS Lot-Sample#: I2C200000-127
Dilution Factor: 1

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: I2C150119 Work Order #...: EWFD1AG-MS Matrix.....: SOLID
 MS Lot-Sample #: I2C150119-003 EWFD1AH-MSD
 Date Sampled...: 03/12/02 14:57 Date Received...: 03/15/02
 Prep Date.....: 03/21/02 Analysis Date...: 03/22/02
 Prep Batch #...: 2081276
 Dilution Factor: 0.96 % Moisture.....: 16

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Gasoline Range Organics	86	(70 - 134)			SW846 8015B
	90	(70 - 134)	3.1	(0-30)	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Bromofluorobenzene	109	(14 - 165)
	110	(14 - 165)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: I2C150119 Work Order #...: EWFDR1AF-MS Matrix.....: SOLID
 MS Lot-Sample #: I2C150119-002 EWFDR1AG-MSD
 Date Sampled...: 03/12/02 13:30 Date Received...: 03/15/02
 Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
 Prep Batch #...: 2080379
 Dilution Factor: 1 % Moisture.....: 22

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Diesel Range Organics	64	(40 - 126)			SW846 8015B
	51	(40 - 126)	21	(0-30)	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
o-Terphenyl	78	(40 - 144)
	73	(40 - 144)
Dotriacontane	101	(42 - 159)
	104	(42 - 159)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: I2C150119

Matrix.....: SOLID

Date Sampled...: 03/13/02 17:15 Date Received...: 03/15/02

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride			WO#: EWFDPIAF-MS/	EWFDPIAG-MSD	MS	Lot-Sample #: I2C150119-001	
	100	(75 - 125)			MCAWW 300.0A	03/19-03/20/02	2079127
	100	(75 - 125)	0.12	(0-20)	MCAWW 300.0A	03/19-03/20/02	2079127
			Dilution Factor: 1				
Chloride			WO#: EWFD81AF-MS/	EWFD81AG-MSD	MS	Lot-Sample #: I2C150119-011	
	86	(75 - 125)			MCAWW 300.0A	03/19-03/20/02	2079127
	87	(75 - 125)	0.67	(0-20)	MCAWW 300.0A	03/19-03/20/02	2079127
			Dilution Factor: 1				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Chain of Custody Record

CHAIN OF CUSTODY NUMBER
\$007340-000

**SEVERN
TRENT
SERVICES**

89790
I2C150119
Severn Trent Laboratories, Inc.

STL4149 (0700)
Client: **Maxim Technologies**
Address: **10601 Lomas NE Ste 106**
City: **Albuquerque** State: **NM** Zip Code: **87112**
Project Manager: **Tom Tardien** Date: **03/08/2002**
Telephone Number (Area Code)/Fax Number: **(000) / (000)** Lab Location: **STL AUSTIN**
Site Contact: **Tom Tardien** Carrier/Waybill Number: **8255-3192-1788**
Project Number/Name: **EP01002** Contract/Purchase Order/Quote Number: **4501176533REED A SITE INVESTIGATION**
QUOTE: 46673

Sample I.D. Number and Description	Date	Time	Sample Type	Containers		Preservative	Condition on Receipt/Comments
				Volume	Type		
B-1 (19-26)	3-12-02	1128	Soil	402	Glass	None	2525-15-02 cc
B-2 (19-28)	3-12-02	1330	Soil	402	Glass	None	
B-3 (19-24)	3-12-02	1457	Soil	402	Glass	None	
B-4 (19-21)	3-12-02	1657	Soil	402	Glass	None	
B-5 (45-46)	3-15-02	1125	Soil	402	Glass	None	
B-6 (13-15)	3-13-02	1320	Soil	402	Glass	None	
B-7 (13-15)	3-13-02	1405	Soil	402	Glass	None	
B-8 (13-15)	3-13-02	1443	Soil	402	Glass	None	
B-9 (13-15)	3-13-02	1515	Soil	402	Glass	None	
B-10 (15-17)	3-13-02	1610	Soil	402	Glass	None	
B-11 (13-15)	3-13-02	1715	Soil	402	Glass	None	

Special Instructions: *(Large handwritten mark)*

Possible Hazard Identification:
 Non-Hazard
 Flammable
 Skin Irritant
 Poison B
 Turn Around Time Required
 Normal
 Rush
 Other

Sample Disposal:
 Return To Client
 Disposal By Lab
 Archive For _____ Months

QC Level:
 I.
 II.
 III.

Project Specific Requirements (Specify):
 1. Relinquished By: *S.E. Dade* Date: **3/8/02** Time: **1610**
 2. Relinquished By: *(Signature)* Date: **3/14/02** Time: **0730**
 3. Relinquished By: *(Signature)* Date: _____ Time: _____

Analysis: *(Handwritten: CHLORIDE 3652)*

Page _____ of _____

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

**Certificate of
Analysis**

STL Austin
14046 Summit Drive
Austin, Texas 78728

Tel: 512 244 0855
Fax: 512 244 0160
www.stl-inc.com



STL Austin

ANALYTICAL REPORT

PROJECT NO. REED A/MONUMENT

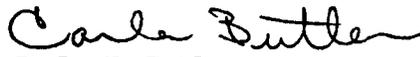
EP01002 Reed A Monument, NM

Lot #: I2C150263

Tom Tangen

**Maxim Technologies
10601 Lomas NE Ste 106
Albuquerque, NM 87112**

SEVERN TRENT LABORATORIES, INC.


Carla M. Butler
Project Manager

April 4, 2002

American Council of Independent Laboratories
International Association of Environmental Testing Laboratories
STL Austin is a part of Severn Trent Laboratories, Inc.

CASE NARRATIVE

I2C150263

Samples received in good condition within acceptable cooler temperature.

Trichloroethene was above control limits for the 8260B Laboratory Control Sample. The analyte was not detected in any of the samples. This slight positive bias is not believed to have impacted data quality. Recoveries for the Matrix Spike/Matrix Spike Duplicate of sample 002 were acceptable.

In lieu of a Matrix Spike/Matrix Spike Duplicate for DRO, a duplicate Laboratory Control Sample was prepared to provide precision measurements.

EXECUTIVE SUMMARY - Detection Highlights

I2C150263

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
SPLP 1 03/12/02 15:00 001				
Diesel Range Organics	1100	50	ug/L	SW846 8015B
Chloride	8.9	1.0	mg/L	SW846 9056
SPLP 2 03/13/02 17:30 002				
Diesel Range Organics	310	50	ug/L	SW846 8015B

ANALYTICAL METHODS SUMMARY

I2C150263

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
Chloride	SW846 9056
Extractable Petroleum Hydrocarbons	SW846 8015B
Volatile Organics by GC/MS	SW846 8260B
Volatile Petroleum Hydrocarbons	SW846 8015B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

I2C150263

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 8015B	Ellen Grett	014902
SW846 8015B	Mark Shafer	001952
SW846 8260B	David Yancey	014906
SW846 9056	Cynthia A. Anderson	034090

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

I2C150263

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
EWGND	001	SPLP 1	03/12/02	15:00
EWGNE	002	SPLP 2	03/13/02	17:30

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

I2C150263

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 9056	P207805	2079125	2079022
	SOLID	SW846 8015B	P207805	2080376	
	SOLID	SW846 8015B	P207802	2088273	2088094
	SOLID	SW846 8260B	P207802	2084212	2084094
002	SOLID	SW846 9056	P207805	2079125	2079022
	SOLID	SW846 8015B	P207805	2080376	
	SOLID	SW846 8015B	P207802	2088273	2088094
	SOLID	SW846 8260B	P207802	2084212	2084094

CONOCO INC.

Client Sample ID: SPLP 1

SPLP GC/MS Volatiles

Lot-Sample #...: I2C150263-001 Work Order #...: EWGND1AA Matrix.....: SOLID
Date Sampled...: 03/12/02 15:00 Date Received...: 03/15/02
Leach Date.....: 03/18/02 Prep Date.....: 03/23/02 Analysis Date...: 03/24/02
Leach Batch #...: P207802 Prep Batch #...: 2084212
Dilution Factor: 1
% Moisture.....: Method.....: SW846 8260B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
4-Bromofluorobenzene	110	(74 - 134)
Toluene-d8	99	(85 - 125)
Dibromofluoromethane	96	(69 - 136)
1,2-Dichloroethane-d4	90	(75 - 134)

NOTE(S) :

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

CONOCO INC.

Client Sample ID: SPLP 1

SPLP GC Volatiles

Lot-Sample #...: I2C150263-001 Work Order #...: EWGND1AD Matrix.....: SOLID
Date Sampled...: 03/12/02 15:00 Date Received...: 03/15/02
Leach Date.....: 03/18/02 Prep Date.....: 03/29/02 Analysis Date...: 03/29/02
Leach Batch #...: P207802 Prep Batch #...: 2088273
Dilution Factor: 1
% Moisture.....: Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Gasoline Range Organics	ND	100	ug/L

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Bromofluorobenzene	96	(75 - 125)

NOTE (S) :

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

CONOCO INC.

Client Sample ID: SPLP 1

SPLP GC Semivolatiles

Lot-Sample #...: I2C150263-001 Work Order #...: EWGND1AC Matrix.....: SOLID
Date Sampled...: 03/12/02 15:00 Date Received...: 03/15/02
Leach Date.....: 03/18/02 Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
Leach Batch #...: P207805 Prep Batch #...: 2080376
Dilution Factor: 1
% Moisture.....: Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Diesel Range Organics	1100	50	ug/L

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
o-Terphenyl	116	(28 - 131)
Dotriacontane	105	(37 - 139)

NOTE(S) :

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

CONOCO INC.

Client Sample ID: SPLP 1

SPLP General Chemistry

Lot-Sample #...: I2C150263-001
Date Sampled...: 03/12/02 15:00
% Moisture.....:

Work Order #...: EWGND
Date Received...: 03/15/02
Leach Date.....: 03/18/02

Matrix.....: SOLID
Leach Batch #...: P207805

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	8.9	1.0	mg/L	SW846 9056	03/18-03/20/02	2079125

Dilution Factor: 1

CONOCO INC.

Client Sample ID: SPLP 2

SPLP GC/MS Volatiles

Lot-Sample #...: I2C150263-002 Work Order #...: EWGNE1AA Matrix.....: SOLID
Date Sampled...: 03/13/02 17:30 Date Received...: 03/15/02
Leach Date.....: 03/18/02 Prep Date.....: 03/23/02 Analysis Date...: 03/24/02
Leach Batch #...: P207802 Prep Batch #...: 2084212
Dilution Factor: 1
% Moisture.....: Method.....: SW846 8260B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
4-Bromofluorobenzene	114	(74 - 134)
Toluene-d8	101	(85 - 125)
Dibromofluoromethane	97	(69 - 136)
1,2-Dichloroethane-d4	94	(75 - 134)

NOTE(S) :

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

CONOCO INC.

Client Sample ID: SPLP 2

SPLP GC Volatiles

Lot-Sample #...: I2C150263-002 Work Order #...: EWGNE1AD Matrix.....: SOLID
Date Sampled...: 03/13/02 17:30 Date Received...: 03/15/02
Leach Date.....: 03/18/02 Prep Date.....: 03/29/02 Analysis Date...: 03/29/02
Leach Batch #...: P207802 Prep Batch #...: 2088273
Dilution Factor: 1
% Moisture.....: Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Gasoline Range Organics	ND	100	ug/L
<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>	
	<u>RECOVERY</u>	<u>LIMITS</u>	
Bromofluorobenzene	93	(75 - 125)	

NOTE (S) :

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

CONOCO INC.

Client Sample ID: SPLP 2

SPLP GC Semivolatiles

Lot-Sample #...: I2C150263-002 Work Order #...: EWGNE1AC Matrix.....: SOLID
Date Sampled...: 03/13/02 17:30 Date Received...: 03/15/02
Leach Date.....: 03/18/02 Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
Leach Batch #...: P207805 Prep Batch #...: 2080376
Dilution Factor: 1
% Moisture.....: Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Diesel Range Organics	310	50	ug/L
<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	
o-Terphenyl	118	(28 - 131)	
Dotriacontane	109	(37 - 139)	

NOTE(S) :

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

CONOCO INC.

Client Sample ID: SPLP 2

SPLP General Chemistry

Lot-Sample #...: I2C150263-002
Date Sampled...: 03/13/02 17:30
% Moisture.....:

Work Order #...: EWGNE
Date Received...: 03/15/02
Leach Date.....: 03/18/02

Matrix.....: SOLID
Leach Batch #...: P207805

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	ND	1.0	mg/L	SW846 9056	03/18-03/20/02	2079125

Dilution Factor: 1

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: I2C150263
MB Lot-Sample #: I2C250000-212

Work Order #...: EWWFJ1AA

Matrix.....: SOLID

Prep Date.....: 03/23/02

Analysis Date...: 03/24/02

Prep Batch #...: 2084212

Dilution Factor: 1

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>
		<u>LIMIT</u>	<u>UNITS</u>	
Benzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
4-Bromofluorobenzene	107	(74 - 134)
Toluene-d8	101	(85 - 125)
Dibromofluoromethane	94	(69 - 136)
1,2-Dichloroethane-d4	92	(75 - 134)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: I2C150263 Work Order #...: EW6H01AA Matrix.....: SOLID
MB Lot-Sample #: I2C290000-273
Prep Date.....: 03/29/02
Analysis Date..: 03/29/02 Prep Batch #...: 2088273
Dilution Factor: 1

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
Gasoline Range Organics	ND	100	ug/L	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Bromofluorobenzene	97	(75 - 125)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: I2C150263 Work Order #...: EWQK61AA Matrix.....: SOLID
MB Lot-Sample #: I2C210000-376
Prep Date.....: 03/21/02
Analysis Date...: 03/23/02 Prep Batch #...: 2080376
Dilution Factor: 1

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
Diesel Range Organics	ND	50	ug/L	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
o-Terphenyl	128	(28 - 131)
Dotriacontane	110	(37 - 139)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: I2C150263

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Chloride	ND	Work Order #: EWL8D1AA 1.0	mg/L	MB Lot-Sample #: SW846 9056	I2C200000-125 03/18-03/20/02	2079125

Dilution Factor: 1

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: I2C150263 Work Order #...: EWWFJ1AC Matrix.....: SOLID
 LCS Lot-Sample#: I2C250000-212
 Prep Date.....: 03/23/02 Analysis Date...: 03/24/02
 Prep Batch #...: 2084212
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
Benzene	110	(80 - 122)	SW846 8260B
1,1-Dichloroethene	99	(51 - 131)	SW846 8260B
Toluene	98	(81 - 127)	SW846 8260B
Trichloroethene	131 a	(78 - 124)	SW846 8260B
Chlorobenzene	101	(81 - 123)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
4-Bromofluorobenzene	113	(74 - 134)
Toluene-d8	100	(85 - 125)
Dibromofluoromethane	97	(69 - 136)
1,2-Dichloroethane-d4	94	(75 - 134)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: I2C150263 Work Order #...: EW6H01AC Matrix.....: SOLID
LCS Lot-Sample#: I2C290000-273
Prep Date.....: 03/29/02 Analysis Date...: 03/29/02
Prep Batch #...: 2088273
Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
Gasoline Range Organics	111	(80 - 120)	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Bromofluorobenzene	112	(75 - 125)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: I2C150263 Work Order #...: EWQK61AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: I2C210000-376 EWQK61AD-LCSD
 Prep Date.....: 03/21/02 Analysis Date...: 03/23/02
 Prep Batch #...: 2080376
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Diesel Range Organics	115	(51 - 127)			SW846 8015B
	125	(51 - 127)	8.5	(0-28)	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
o-Terphenyl	113	(28 - 131)
	120	(28 - 131)
Dotriacontane	106	(37 - 139)
	118	(37 - 139)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: I2C150263

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	101	Work Order #: EWL8D1AC (80 - 120)	LCS Lot-Sample#: I2C200000-125 SW846 9056	03/18-03/20/02	2079125

Dilution Factor: 1

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

SPLP GC/MS Volatiles

Client Lot #...: I2C150263 Work Order #...: EWGNE1AF-MS Matrix.....: SOLID
 MS Lot-Sample #: I2C150263-002 EWGNE1AG-MSD
 Date Sampled...: 03/13/02 17:30 Date Received...: 03/15/02
 Leach Date.....: 03/18/02 Prep Date.....: 03/23/02 Analysis Date...: 03/24/02
 Leach Batch #...: P207802 Prep Batch #...: 2084212
 Dilution Factor: 1 % Moisture.....:

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Benzene	102	(80 - 122)			SW846 8260B
	105	(80 - 122)	2.2	(0-13)	SW846 8260B
1,1-Dichloroethene	94	(51 - 131)			SW846 8260B
	97	(51 - 131)	3.1	(0-29)	SW846 8260B
Toluene	92	(81 - 127)			SW846 8260B
	93	(81 - 127)	1.8	(0-20)	SW846 8260B
Trichloroethene	105	(78 - 124)			SW846 8260B
	108	(78 - 124)	2.8	(0-14)	SW846 8260B
Chlorobenzene	91	(81 - 123)			SW846 8260B
	95	(81 - 123)	3.8	(0-17)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
4-Bromofluorobenzene	113	(74 - 134)
	112	(74 - 134)
Toluene-d8	101	(85 - 125)
	100	(85 - 125)
Dibromofluoromethane	98	(69 - 136)
	98	(69 - 136)
1,2-Dichloroethane-d4	95	(75 - 134)
	93	(75 - 134)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: I2C150263 Work Order #...: EWGND1AH-MS Matrix.....: SOLID
 MS Lot-Sample #: I2C150263-001 EWGND1AJ-MSD
 Date Sampled...: 03/12/02 15:00 Date Received...: 03/15/02
 Prep Date.....: 03/29/02 Analysis Date...: 03/29/02
 Prep Batch #...: 2088273
 Dilution Factor: 1 % Moisture.....:

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Gasoline Range Organics	108	(80 - 120)			SW846 8015B
	108	(80 - 120)	0.0	(0-30)	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Bromofluorobenzene	115	(75 - 125)
	112	(75 - 125)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: I2C150263

Matrix.....: SOLID

Date Sampled...: 03/12/02 15:00 Date Received...: 03/15/02

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride			WO#:	EWGND1AF-MS/	EWGND1AG-MSD	MS Lot-Sample #:	I2C150263-001
	87	(75 - 125)			SW846 9056	03/18-03/20/02	2079125
	87	(75 - 125)	0.05	(0-20)	SW846 9056	03/18-03/20/02	2079125

Dilution Factor: 1

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

