1R - 427-24

REPORTS

DATE:

5-12-2003

IRO 727-24

FINAL

REPORT

RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
EME	State 'F' EOL	M	36	19 S	36 E	Lea	Moved 60' East		

LAND TYPE: BLM _____ STATE _____ FEE LANDOWNER DLD Corp. OTHER _____

Depth to Groundwater none feet NMOCD SITE ASSESSMENT RANKING SCORE: 0

Date Started 5/1/2003 Date Completed 5/7/2003 OCD Witness No

Soil Excavated 133 cubic yards Excavation Length 30 Width 30 Depth 4 feet

Soil Disposed 0 cubic yards Offsite Facility n/a Location n/a

FINAL ANALYTICAL RESULTS: **Sample Date** 5/7/2003 **Sample Depth** 4'bgs

Procure 5-point composite sample of bottom and 4-point composite sample of sidewalls. TPH, BTEX and Chloride laboratory test results completed by using an approved lab and testing procedures pursuant to NMOCD guidelines.

Sample Location	Benzene mg/kg	Toluene mg/kg	Ethyl Benzene mg/kg	Total Xylenes mg/kg	GRO mg/kg	DRO mg/kg	Chlorides mg/kg
SIDEWALLS	<0.025	<0.025	<0.025	<0.025	21.5	980	603
BOTTOM	<0.025	<0.025	<0.025	<0.025	<10.0	346	354
REMEDIATED	<0.025	<0.025	0.029	0.096	188	2630	496

General Description of Remedial Action: This box was previously the site of a boot and is located about 50' east of an abandoned battery site. When excavation commenced, a very hard caliche rock layer was encountered that only allowed excavation to a depth of 4' bgs. A 30' x 30' area was excavated to 4' bgs where TPH concentrations exhibited a significant decline. A compacted clay barrier was installed at the bottom of the excavation to inhibit vertical migration of impact and the excavated soil was then backfilled on top of the clay. ROC contends that there is no groundwater below this site due to a soil boring approximately 2,600 ft north of State 'F' conducted by Amerada Hess in 1992 during which there was no indication of groundwater. ROC conducted a soil bore approximately 2,000 south of State 'F' in 2001 during which there was also no indication of groundwater where it was previously believed to be. A new watertight junction box was built 60' east of this location.

cc: lab results, photos, absence of groundwater documentation

CHLORIDE FIELD TESTS

LOCATION	DEPTH (ft)	ppm
Vertical	2	600
	4	800
15' N	4	250
15' S	4	800
15' E	4	100
15' W	4	1600
bottom comp.	4	680
wall comp.	n/a	650
remed. comp.	n/a	680

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE 5/12/2003 PRINTED NAME Kristin Farris

SIGNATURE Kristin Farris TITLE Project Scientist

RICE Operating Company
122 West Taylor • Hobbs, New Mexico 88240
Phone: (505)393-9174 • Fax: (505) 397-1471

November 5, 2002

Mr. Paul Sheeley
New Mexico Energy, Minerals, and Natural Resources
Oil Conservation Division
1625 N. French Dr.
Hobbs, New Mexico 88240

Re: EME State 'F' EOL Release Site
Unit Letter M, Sec. 36, T19S, R36E

Mr. Sheeley:

Per your request, Rice Operating Company (ROC) encloses evidence of soil borings that support ROC's conclusion of the absence of groundwater at the above-referenced release site:

> In 1992, Amerada Hess conducted 3 soil borings in section 36 which resulted in one monitoring well. According to a report submitted to the OCD, the two other bores had no significant indications of groundwater. The dry bores were down gradient (southeast) of the monitoring well. The State 'F' release site is located south of the Amerada Hess locations.
>
> In September of 2001, ROC conducted a soil bore at junction C-1-1 in Unit Letter C, Section 1, T20S, R36E. Groundwater was not encountered. The State 'F' release site is located approximately 2,000 feet north of C-1-1.

Based on these activities, ROC concludes that there is no groundwater below the State 'F' location since borings conducted north and south of the location did not result in a groundwater encounter.

In the letter that was sent to you on October 11, 2002 concerning this site, ROC stated that the site was located on state land. Since then, it has been confirmed that the site is not state land but very close to a property line. ROC plans to arrange a survey of the

location to determine correct ownership in the near future. Upon ownership confirmation, ROC plans to initiate leaching according to the procedure outlined in the October letter.

Please contact me with any questions or concerns. Thank you.

RICE OPERATING COMPANY

Kristin Farris

Kristin Farris
Environmental Projects Scientist

Enclosed: ROC bore log, Amerada Hess soil bore report.
Cc: CDH, file

similar product. Drums 20 and 23 were found to contain virgin Scale Preventive which can be either water or solvent based, but contains highly flammable components. Drum 19 is believed to contain virgin Breaxit which is an organic acid. The contents of Drums 13 and 21 could not be classified, based on the information available.

D. Subsurface Investigation

Drilling and monitor well installation during this investigation was conducted by Eades Water Well Drilling & Pump Service of Hobbs, New Mexico. On December 9, 1992, three soil borings were advanced using rotary air drilling techniques. Drill cuttings and returns were monitored continuously while drilling. Soil samples were collected for examination approximately every 10 feet.

The lithology was determined based primarily on visual observation, drilling characteristics, and the examination of returns. Selected soil samples were placed in zip-lock plastic bags, sealed and screened for hydrocarbon vapor concentrations with an Hnu photo-ionization detector (PID). No volatile compounds were detected during drilling operations, and no soil samples were retained for laboratory analysis. Drilling and sampling equipment was decontaminated after each soil boring to eliminate the potential for cross-contamination.

The locations for the three soil borings were selected based on the apparent regional groundwater gradient. Regional groundwater flow was anticipated to be southeasterly based on topography, regional stratigraphy, and local sources knowledgeable in subsurface conditions. Since the precise boundary of the pit was unknown, borings were located outside the suspected boundary of the pit to avoid disturbing possible buried materials, or penetrating any

impermeable strata beneath the pit which could create a vertical migration pathway. Therefore, one boring (MW-1) was positioned in a upgradient position at the northwest corner spoils area, while the other two borings (B-2 and B-3) were positioned in a relative downgradient position.

One of the soil borings, soil boring B-1, was converted to monitor well MW-1. Monitor well MW-1 was completed 60 feet below the surface, using 4-inch diameter flush joint schedule 40 PVC well material. A 15 foot screened interval was set from 45 to 60 feet below the surface using 0.020-inch slotted well screen with 45 feet of solid riser to the surface. The well was completed in an upright fashion within a four foot square concrete pad. The Monitor Well Construction Diagram is provided in Appendix 4.

The relative elevations between the borings were surveyed using a level. The top of the concrete pad was given the arbitrary elevation of 100 feet above sea level, and the two other borings elevations were measured in relation to it. The relative ground elevation at soil boring B-2 was 97.67 feet, and 99.60 feet at B-3.

TABLE 2
Relative Elevations of MW-1, B-2, B-3

MW-1	100.00 ft
B-2	97.67 ft
B-3	99.60 ft

A cross-section constructed from the boring logs appears on the next page. Since there was only a minor relative difference in surface elevations between the borings no corrections were made. The cross-section does not reveal any significant correlation between the borings. There is no correlation of water-

bearing zones between MW-1 and B-2, and B-3. Boring B-3 exhibited the greater sand content but it did not correlate to either of the other borings.

Monitor Well MW-1 / Soil Boring B-1

Soil boring B-1 was drilled to 60 feet below the surface. Caliche was encountered from approximately 1 to 20 feet below the surface. Red silty clay was encountered from approximately 20 to 60 feet below the surface. The returns were dry from 0 to 50 feet. An increase in sand content was observed in samples collected from 50 to 60 feet. Also, a water-bearing zone was encountered at approximately 50 feet below the surface as indicated by muddy returns. To confirm the presence of a viable water-bearing zone, drilling and air circulation were halted, the drill string was raised approximately 10 feet off-bottom, and the hole was left static to allow for possible groundwater infiltration. After approximately 10 minutes, the hole was reamed and air circulation was begun which resulted in watery returns confirming the presence of a water-bearing zone. The boring was advanced to 60 feet below the surface and the same procedure was performed to allow for water infiltration. Again, the watery returns indicated that the water-bearing zone was viable for completion of a monitoring well. Sand pack and bentonite were used to set well screen and casing, and the concrete grout was set around the cased portion of the well the following day.

Soil Boring B-2

Soil boring B-2 was drilled to a depth of 120 feet below the surface. In general, caliche was encountered from 1 to 20 feet below the surface and red to reddish brown silty clay was encountered from 20 to 120 feet. The formation became increasingly dense and darker in color from 90 to 120 feet below the surface. Drilling and air circulation was halted at two different intervals to determine if water-bearing zones were present in B-2.

Dry returns were observed from 0 to 80 feet below the surface, but increased moisture and stiff muddy returns at 80 feet indicated the presence of a possible water-bearing zone. Circulation was halted, the drill string was raised off bottom, and the hole was left static for 30 minutes. Returns after 30 minutes consisted of stiff mud clumps, but no significant indication of a water-bearing zone were observed. The hole was advanced to 87 feet and circulation was again halted, the drill string raised and the hole left static. Again, no significant indications of a water-bearing zone were observed. The hole was advanced to a total depth of 120 feet below the surface with relatively dry returns and no water-bearing zones encountered.

Soil boring B-2 was allowed to stand open overnight. On the morning of December 10, 1992, a hand bailer was lowered into the bore hole, but only minor amounts of muddy water were present in the bore hole. There was no significant accumulation of water and approximately the lower 30 feet of the borehole had collapsed. The hole was subsequently grouted to the surface.

Soil Boring B-3

Soil boring B-3 was drilled to a depth of 80 feet below the surface. In general, caliche was encountered from 1 to 20 feet below the surface and red

to reddish brown silty clay was encountered from 20 to 80 feet. The formation became increasingly silty and sandy in the interval from 50 to 80 feet below the surface. Dry returns were observed from 0 to the total depth of 80 feet below the surface when drilling was halted. No moisture or muddy returns were observed, and no significant indications of a water-bearing zone were observed. Soil boring B-3 was left to stand open overnight. A hand bailer was lowered into the bore hole on the morning of December 10, 1992, and only minor amounts of mud and silt were present on the bailer and in the bore hole. The hole was subsequently grouted to the surface.

E. Analytical Results

On December 10, 1991, monitor well MW-1 was purged using a submersible (Grundfos) pump and allowed to recharge in preparation for sampling. The well was producing approximately 2-3 gallons per minute without a significant reduction in the water level. Approximately 200 gallons of groundwater were purged into a trailer-mounted steel tank by Eades Drilling. Static water level was measured prior to purging with an electronic water level indicator at 37.0 feet from the top of casing (34.0 feet below the surface). Subsequent water level measurements were within 1/10 of a foot.

Groundwater samples were obtained using a teflon bailer lowered into the well with a clean (virgin) nylon rope. Groundwater samples were placed in clean, laboratory-supplied containers, stored on ice, and transported to Analytical Laboratories Inc. in Albuquerque, New Mexico within twenty-four hours of the sampling event. A summary of analytical results appear in Table 3. The analytical report is included as Appendix 5.

TABLE 3
MW-1 Groundwater Sample Results

PARAMETER	LABORATORY RESULT	FIELD RESULT
Total Organic Carbon	6.9 mg/l	--
Carbonate ($CaCO_3$)	<1 mg/l	--
Bicarbonate ($CaCO_3$)	477 mg/l	--
Hydroxide ($CaCO_3$)	<1 mg/l	--
Total Alkalinity (as $CaCO_3$)	477 mg/l	--
Chloride (EPA 325.2)	460 mg/l	--
Conductivity (uMhos/cm)	2790	3200
Fluoride (EPA 353.2)	1.6 mg/l	--
Nitrate (EPA 353.2)	25.4 mg/l	--
Sulfate (EPA 375.2)	280 mg/l	--
pH (EPA 150.1)	7.3 units	6.9
Total Dissolved Solids (160.1)	2000 mg/l	2200 mg/l

III. CONCLUSIONS AND RECOMMENDATIONS

Of the materials that were observed, the pit was found to contain varying quantities of oil field waste materials which are nonhazardous.

Based on observations made at the site the investigation and subsequent laboratory results, there does not appear to be a significant threat to groundwater resulting from the surface and near surface debris. The water-bearing zone encountered in MW-1 was not encountered in either soil boring B-1 or B-2 which indicates lateral migration beneath the site in a water-bearing zone is unlikely. Furthermore, vertical migration appears unlikely based on the apparent impermeable nature of the "red-bed" clay strata which lie beneath the area.

Although, a water-bearing zone was encountered in MW-1, groundwater monitoring wells were not installed at soil boring B-2 and B-3 because field observations indicated that a well would not produce sufficient recharge to adequately sustain sampling, monitoring, or accurately reflect groundwater conditions. As a result, a groundwater gradient map cannot be made. Laboratory results of groundwater sampled from MW-1 do not indicate unusual groundwater conditions, and there were no significant hydrocarbon vapors detected in any of the three soil borings which would indicate the presence of volatile hydrocarbon-based materials.

It is recommended, however, that Amerada Hess remove the waste materials for proper disposal and cap the area with native soils. The presence of the pit creates an attractive nuisance and encourages continued dumping of waste materials. Eventually, hazardous materials could be deposited in the pit which would require more costly clean-up in the future and expose Amerada Hess to potential liability as owner of the property.

DRILLING LOG	Site Name/Location				Logged by: DEA
RICE Operarting Company	Jct. Box C-1-1	Well No. N/A	Date Drilled: 9/18/01	Driller: Adkins	Construction:
122 West Taylor	1-T20S-R36E	Well Depth: N/A	Boring Depth: 23'	Well Material: N/A	Plugged boring
Hobbs, New Mexico 88240	EME	Casing Length: N/A	Boring Diameter: 2.5"	Casing Size: N/A	w/ 20' bentonite,
Phone: (505) 393-9174	SWD System	Screen Length: N/A	Drilling Method: Air Rotary	Slot Size: N/A	water & backfill
Fax: (505) 397-1471	Lea County, NM				

DEPTH	SUBSURFACE LITHOLOGY	SAMPLE TYPE	TEST (ppm)	REMARKS	Boring
0	Ground surface		Cl		
1	Sand	Grab			
2					
3					
4					
5	Dry sandy caliche		124		
6					
7					
8	Dry caliche rock				
9					
10	Dry caliche sand		142		
11					
12					
13	Dry caliche rock				
14					
15			99		
16					
17					
18	Dry caliche				
19					
20			159		
21					
22					
23	Hard limestone		131		
24					
25					
26	Dry caliche sand				
27					
28					
29	Dry caliche sand		80		

C-1-1

A soil boring on this site, completed 9/13/01, demonstrates a dramatic drop in TPH from 1620 ppm @ 15 to 352 ppm at 30'. A lab verification of the 30' sample was 272 ppm, all DRO. There are no water wells within 3/4 mile of this site. Those wells to the southwest and SE are @ ± 26' bgs. There are no wells in the section to the north of this site. The soil boring did not encounter any groundwater to 30'. Based on the results of the soil boring, no gw is present at this site and there is no threat to the public health or the environment. The junction Box site will be excavated to 8' bgs. And as competent clay layer will be installed to prevent [illegible] Compounding of impacted soil. A spill containment box is installed around the junction + Valves to contain any discharges.

Barrier to Vertical transmissivity,
the "stranded pocket of the remaining plume is
aliphatic" (long chain) fraction w/ no BTEX
Significant

EME State 'F' EOL

Before Excavation

4' Deep Excavation with New Junction Box in Background

Clay Barrier

Backfilled

ANALYTICAL REPORT

Prepared for:

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Project:	EME
PO#:	
Order#:	G0306439
Report Date:	05/10/2003

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0306439
Project:
Project Name: EME
Location: State 'F' Amerada

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0306439-01	Wall Comp.	SOIL	5/7/03 13:00	5/7/03 17:00	4 oz Glass	Ice
	Lab Testing: 8015M, 8021B/5030 BTEX, Chloride	**Rejected:** No		**Temp:** 5.5 C		
0306439-02	Bottom Comp @4'	SOIL	5/7/03 13:00	5/7/03 17:00	4 oz Glass	Ice
	Lab Testing: 8015M, 8021B/5030 BTEX, Chloride	**Rejected:** No		**Temp:** 5.5 C		
0306439-03	Backfill Comp	SOIL	5/7/03 13:00	5/7/03 17:00	4 oz Glass	Ice
	Lab Testing: 8015M, 8021B/5030 BTEX, Chloride	**Rejected:** No		**Temp:** 5.5 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0306439
Project:
Project Name: EME
Location: State 'F' Amerada

Lab ID: 0306439-01
Sample ID: Wall Comp.

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		5/7/03	1	1	WL	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	21.5	10.0
DRO, >C12-C35	980	10.0
TOTAL, C6-C35	1,002	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	124%	70	130
1-Chlorooctadecane	112%	70	130

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0005477-02		5/9/03 11:38	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	87%	80	120
Bromofluorobenzene	106%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0306439
Project:
Project Name: EME
Location: State 'F' Amerada

Lab ID: 0306439-02
Sample ID: Bottom Comp @4'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		5/7/03	1	1	WL	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	346	10.0
TOTAL, C6-C35	346	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	118%	70	130
1-Chlorooctadecane	110%	70	130

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0005477-02		5/9/03 12:00	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	86%	80	120
Bromofluorobenzene	107%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0306439
Project:
Project Name: EME
Location: State 'F' Amerada

Lab ID: 0306439-03
Sample ID: Backfill Comp

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		5/7/03	1	5	WL	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	188	50.0
DRO, >C12-C35	2630	50.0
TOTAL, C6-C35	2818	50.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	23%	70	130
1-Chlorooctadecane	42%	70	130

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0005477-02		5/9/03 10:32	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	0.029	0.025
p/m-Xylene	0.096	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	97%	80	120
Bromofluorobenzene	104%	80	120

Approval: Raland K. Tuttle 5-12-03
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris		Order#:	G0306439
Rice Operating		Project:	
122 W. Taylor		Project Name:	EME
Hobbs, NM 88240		Location:	State 'F' Amerada

Lab ID: 0306439-01
Sample ID: Wall Comp.

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	603	mg/kg	1	20	9253	5/8/03	SB

Lab ID: 0306439-02
Sample ID: Bottom Comp @4'

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	354	mg/kg	1	20	9253	5/8/03	SB

Lab ID: 0306439-03
Sample ID: Backfill Comp

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	496	mg/kg	1	20	9253	5/8/03	SB

Approval: Raland K Tuttle 5-12-03
Raland K. Tuttle, Lab Director, QA Officer — Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0306439

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0005469-02			<10.0		
MS SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0306436-01	0	952	872	92.%	
MSD SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0306436-01	0	952	841	88.%	3.6%
SRM SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0005469-05		1000	915	91.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0306439

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	0005477-02			<0.025		
Toluene-mg/kg	0005477-02			<0.025		
Ethylbenzene-mg/kg	0005477-02			<0.025		
p/m-Xylene-mg/kg	0005477-02			<0.025		
o-Xylene-mg/kg	0005477-02			<0.025		
MS SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/kg	0306428-12	0	0.1	0.102	102.%	
Toluene-mg/kg	0306428-12	0	0.1	0.101	101.%	
Ethylbenzene-mg/kg	0306428-12	0	0.1	0.098	98.%	
p/m-Xylene-mg/kg	0306428-12	0	0.2	0.204	102.%	
o-Xylene-mg/kg	0306428-12	0	0.1	0.096	96.%	
MSD SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/kg	0306428-12	0	0.1	0.090	90.%	12.5%
Toluene-mg/kg	0306428-12	0	0.1	0.089	89.%	12.6%
Ethylbenzene-mg/kg	0306428-12	0	0.1	0.088	88.%	10.8%
p/m-Xylene-mg/kg	0306428-12	0	0.2	0.184	92.%	10.3%
o-Xylene-mg/kg	0306428-12	0	0.1	0.086	86.%	11.%
SRM SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/kg	0005477-05		0.1	0.101	101.%	
Toluene-mg/kg	0005477-05		0.1	0.099	99.%	
Ethylbenzene-mg/kg	0005477-05		0.1	0.094	94.%	
p/m-Xylene-mg/kg	0005477-05		0.2	0.194	97.%	
o-Xylene-mg/kg	0005477-05		0.1	0.091	91.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0306439

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg	0005463-01			<20.0		
MS SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/kg	0306431-01	142	500	638	99.2%	
MSD SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/kg	0306431-01	142	500	656	102.8%	2.8%
SRM SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/kg	0005463-04		5000	4960	99.2%	

CASE NARRATIVE
ENVIRONMENTAL LAB OF TEXAS

Prepared for:

Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0306439
Project: EME

The following samples were received as indicated below and on the attached Chain of Custody record. All analyses were performed within the holding time and with acceptable quality control results unless otherwise noted.

SAMPLE ID	LAB ID	MATRIX	Date Collected	Date Received
Wall Comp.	0306439-01	SOIL	05/07/2003	05/07/2003
Bottom Comp @4'	0306439-02	SOIL	05/07/2003	05/07/2003
Backfill Comp	0306439-03	SOIL	05/07/2003	05/07/2003

Surrogate recoveries on 8015M TPH are outside of control limits due to dilution (G0306439-03).

The enclosed results of analyses are representative of the samples as received by the laboratory. Environmental Lab of Texas makes no representations or certifications as to the methods of sample collection, sample identification, or transportation handling procedures used prior to our receipt of samples. To the best of my knowledge, the information contained in this report is accurate and complete.

Approved By: Rolanda K Perkins Date: 5-12-03
Environmental Lab of Texas I, Ltd.

Environmental Lab of Texas I, Ltd.

12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris
Company Name: Rice
Company Address: 122 w Taylor
City/State/Zip: Hobbs, NM 88240
Telephone No:
Fax No:
Sampler Signature:

Project Name: EME
Project #:
Project Loc: State 'F' Anderson
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify)	Analyze For: TCLP: TPH: 418.1 8015M 1005 1006	Analyze For: TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Gamma			RUSH TAT (Pre-Schedule)	Standard TAT
0306439- 01	Wallcomp.	5-7-03	1:00P	1	X									X		X		X					X							
02	Bottomcomp @4'	5-7-03	1:00P	1	X									X		X		X					X							
03	Backfillcomp	5-7-03	1:00	1	X									X		X		X					X							

Special Instructions: Fax to Rice

Sample Containers Intact? (Y) N
Temperature Upon Receipt: 5.5°C
Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
	5-7-03	2:00P		5-7-03	2:00P
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
	5-7-03	5:00P		5/7/03	17:00