1R - 426-0

GENERAL CORRESPONDENCE

YEAR(S):

2006-2001

RICE *Operating Company*

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

CERTIFIED MAIL
RETURN RECIEPT NO. 7005 1820 0001 6804 8132

COPY

IR0426

March 27, 2006

Mr. Wayne Price
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87504

RE: JUNCTION BOX UPGRADE REPORT for 2005
BD SWD SYSTEM
Lea County, New Mexico

Mr. Price:

Rice Operating Company (ROC) takes this opportunity to submit the Junction Box Upgrade results for the year 2005. Enclosed is a list of the completed junction boxes and their respective closure/disclosure dates. These boxes are located in the Blinebry Drinkard (BD) Salt Water Disposal System. ROC completed 10 junction box sites in 2005. Junction box upgrades in 2006 will be conducted in conjunction with scheduled line replacements; 27 boxes are expected to be replaced.

Enclosed are the 2005 results from the PID/BTEX study described in the NMOCD-approved Revised Junction Box Upgrade Work Plan (July 16, 2003). This comparison study is ongoing and data will continue to be collected in 2006. From the data collected thus far, no definitive conclusions can be drawn from the composite methods analyzed. An analysis of ROC's 2005 chloride field tests compared to chloride laboratory analysis is also enclosed. The study of this data continues to validate the accuracy of the chloride field tests employed by ROC.

ROC is the service provider (operator) for the BD SWD System and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis.

Replacement/closure projects of this magnitude require System Partner AFE approval and work begins as funds are received.

Thank you for your consideration of this Junction Box Upgrade Report for 2005.

RICE OPERATING COMPANY

Kristin Farris Pope

Kristin Farris Pope
Project Scientist

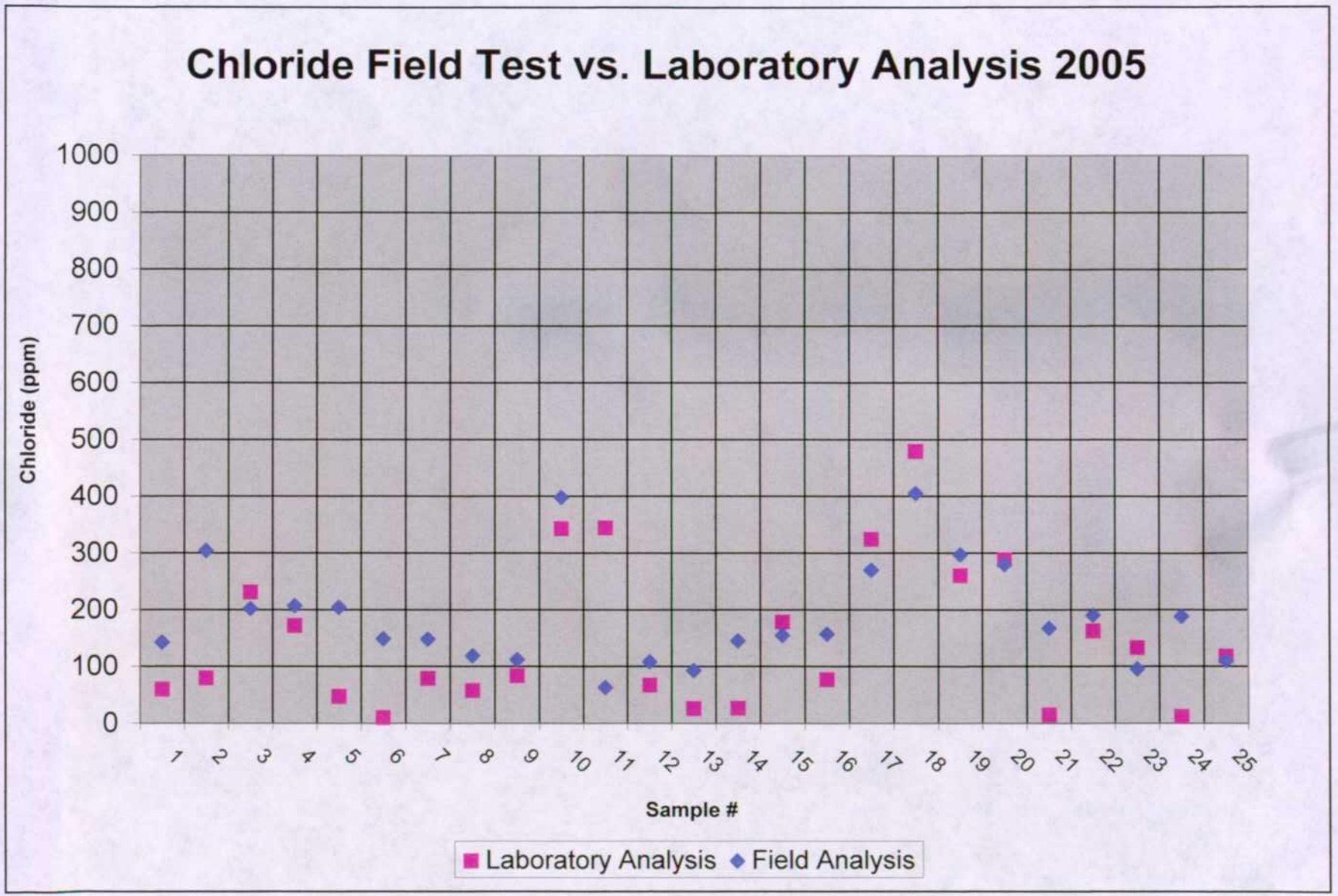
enclosures as stated

cc: LBG, CDH, Rob Roy Industries, file,

Mr. Chris Williams
NMOCD, District I Office
1625 N. French Drive
Hobbs, NM 88240

RICE *Operating Company*
BD SWD SYSTEM Junction Box Upgrade Project
2005 Completed Boxes

	Junction Box Name	Legal Description				Completion Date	OCD Assessment Score	Report Status
		Unit	Sec	T	R			
1	jct. A-27	A	27	21S	37E	4/8/2005	10	Closure
2	jct. D-4	D	4	22S	37E	4/1/2005	10	Closure
3	jct. F-25-2	F	25	21S	37E	6/4/2004	20	Disclosure
4	F-35 boot	F	35	21S	37E	4/28/2005	20	Disclosure
5	jct. L-33	L	33	21S	37E	7/11/2005	10	Closure
6	jct. A-35	A	35	21S	37E	11/1/2005	20	Closure
7	jct. P-26-3	P	26	21S	37E	10/25/2005	20	Closure
8	jct. K-21-1	K	21	21S	37E	6/14/2004	10	Closure
9	jct. M-14	M	14	21S	37E	5/10/2005	0	Closure
10	jct. I-27	I	27	21S	37E	1/3/2006	20	Closure


Chloride Field Test vs. Laboratory Analysis 2005
Chloride (ppm)
1000
900
800
700
600
500
400
300
200
100
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
Sample #
Laboratory Analysis
Field Analysis

Laboratory vs. Field Chloride Test Results 2005

Sample #	Location	Date	Location of Sample	LABORATORY analysis (ppm)	FIELD analysis (ppm)
1	Vacuum jct. M-25	7/13/05	grab @ 8 ft	59.3	142
2	Vacuum Southwestern VC EOL	8/11/05	bottom grab @12 ft	79.2	304
3	Vacuum Exxon St. 'J' EOL	7/13/05	grab @ 9 ft	231	202
4	Vacuum jct. F-30	7/13/05	grab @ 8 ft	172	207
5	EME Amerada Mattern EOL	6/17/05	bottom comp. @ 12 ft	46.9	204
6	Vacuum K-33 vent	9/1/05	bottom grab @ 7 ft	9.63	149
7	Vacuum Chevron 4-27 EOL	7/28/05	bottom grab @ 10 ft	78.9	148
8	EME jct. G-5-1	6/22/05	vertical Grab @ 12 ft	57.4	119
9	EME El Paso EOL	6/22/05	vertical @ 12 ft	83.7	112
10	Vacuum Mack Energy EOL	8/29/05	bottom comp. @ 12 ft	343	398
11	BD jct. A-35	10/4/05	vertical @ 8 ft	344	63
12	Vacuum jct. G-33	9/13/05	vertical @ source 6 ft	67.1	108
13	Vacuum Phillips 'B' Santa Fe EOL	9/6/05	vertical @ source 6 ft	25.7	93
14	Vacuum jct. N-30	9/6/05	vertical @ 13 ft	26.3	145
15	Vacuum OXY Swigart EOL	9/19/05	vertical @ 3 ft	178	155
16	EME jct. K-4	10/11/05	grab @ 7 ft	76.8	157
17	Vacuum jct. C-36	3/16/05	vertical @ 9 ft	324	270
18	EME Amerada St. 'Q' EOL	11/29/04	bottom comp. @ 12 ft	479	405
19	EME Burleson St. 'A' EOL	2/16/05	bottom comp. @ 12 ft	260	297
20	BD jct. K-21-1	6/11/03	vertical @ 12 ft	288	280
21	BD jct. P-26-3	10/25/05	grab @ 9 ft	14.6	167
22	EME jct. P-31	11/9/05	vertical @ source 12 ft	162	190
23	EME jct. P-2	11/7/05	bottom comp @ 12 ft	133	95.5
24	EME Conoco St. A-2A EOL	11/9/05	vertical @ 12 ft	11.6	188
25	Vacuum jct. H-27	7/29/05	vertical @ 7 ft	118	110

DIFFERENT COLORS INDICATE DIFFERENT TECHNICIAN SAMPLERS

2005 BTEX Study

Revised Junction Box Upgrade Plan (2003)

System: EME
Site: Amerada St. 'Q' EOL
Date: 11/29/2004
Sampler: Joe Gatts
Laboratory: Environmental Lab of Texas

Location	Component Sample	PID reading (ppm)	FIELD COMPOSITE (mg/kg)			
			Benzene	Toluene	Ethyl Benzene	Total Xylenes
bottom composite at 12 ft BGS	1	102.6	0.0223	0.280	0.806	3.104
	2	104.7				
	3	468.0				
	4	172.0				
	5	16.6				
			LAB COMPOSITE (mg/kg)			
			0.0201	0.243	0.811	2.706

Field PID tests <100 ppm are considered final for BTEX. If PID is >100 ppm, the components of the BTEX composite sample will be collected individually and will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing BTEX samples. Composite components are collected in a skewed 'W' pattern.

Revised Junction Box Upgrade Work Plan (July 16, 2003)

2005 BTEX Study

Revised Junction Box Upgrade Plan (2003)

System: EME
Site: jct. A-2-1
Date: 3/2/2004
Sampler: Gary Stark (ETGI-Hobbs)
Laboratory: Environmental Lab of Texas

Location	Component	PID reading (ppm)	FIELD COMPOSITE (mg/kg) Benzene	Toluene	Ethyl Benzene	Total Xylenes
bottom composite at 12 ft BGS	1	1424	0.425	1.20	11.90	22.140
	2	682				
	3	1910				
	4	1869				
	5	842				
			LAB COMPOSITE (mg/kg)			
			1.17	1.87	17.7	28.73
			FIELD COMPOSITE (mg/kg)			
4-wall composite		1402	0.122	0.486	4.05	5.958
			LAB COMPOSITE (mg/kg)			
			0.492	1.09	10.4	13.27

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Revised Junction Box Upgrade Work Plan (July 16, 2003)

2005 BTEX Study

Revised Junction Box Upgrade Plan (2003)

System: EME
Site: Gilluly 'B' boot
Date: 9/16/2004
Sampler: Joe Gatts
Laboratory: Environmental Lab of Texas

Location	Component Sample	PID reading (ppm)	FIELD COMPOSITE (mg/kg)			
			Benzene	Toluene	Ethyl Benzene	Total Xylenes
bottom composite at 12-18 ft BGS	1	16.9	<0.025	<0.025	0.554	0.2029
	2	150.0				
	3	331.0				
	4	363.0				
	5	34.3				
			LAB COMPOSITE (mg/kg)			
			<0.025	<0.025	0.0626	0.2368

Field PID tests <100 ppm are considered final for BTEX. If PID is >100 ppm, the components of the BTEX composite sample will be collected individually and will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing BTEX samples. Composite components are collected in a skewed 'W' pattern.

Revised Junction Box Upgrade Work Plan (July 16, 2003)

2005 BTEX Study

Revised Junction Box Upgrade Plan (2003)

System: Justis
Site: D-1 vent
Date: 12/7/2004
Sampler: Joe Gatts
Laboratory: Environmental Lab of Texas

Location	Component	PID reading (ppm)	FIELD COMPOSITE (mg/kg) Benzene	Toluene	Ethyl Benzene	Total Xylenes
bottom composite at 12 ft BGS	1	1523.0	0.0435	0.740	4.62	10.82
	2	18.2				
	3	219.0				
	4	0.1				
	5	0.1				
			LAB COMPOSITE (mg/kg)			
			0.0942	1.47	7.24	18.56
			FIELD COMPOSITE (mg/kg)			
4-wall composite		267.0	0.0181	0.181	1.59	4.023
			LAB COMPOSITE (mg/kg)			
			<0.025	0.0981	0.579	1.555

Field PID tests <100 ppm are considered final for BTEX. If PID is >100 ppm, the components of the BTEX composite sample will be collected individually and will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing BTEX samples. Composite components are collected in a skewed 'W' pattern.

Revised Junction Box Upgrade Work Plan (July 16, 2003)

. 2005 BTEX Study

Revised Junction Box Upgrade Plan (2003)

System: EME
Site: Conoco A-17 EOL
Date: 10/21/2004
Sampler: Roy Rascon
Laboratory: Environmental Lab of Texas

Location	Component	PID reading (ppm)	FIELD COMPOSITE (mg/kg) Benzene	Toluene	Ethyl Benzene	Total Xylenes
bottom composite at 13 ft BGS	1	1433.0	<0.025	0.286	0.449	1.814
	2	55.4				
	3	4.4				
	4	2.4				
	5	4.5				
			LAB COMPOSITE (mg/kg)			
			<0.025	0.150	0.352	1.326
			FIELD COMPOSITE (mg/kg)			
4-wall composite		634.0	<0.025	0.177	0.338	1.551
			LAB COMPOSITE (mg/kg)			
			<0.025	0.203	0.479	2.073

Field PID tests <100 ppm are considered final for BTEX. If PID is >100 ppm, the components of the BTEX composite sample will be collected individually and will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing BTEX samples. Composite components are collected in a skewed 'W' pattern.

Revised Junction Box Upgrade Work Plan (July 16, 2003)

RICE *Operating Company*

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

CERTIFIED MAIL
RETURN RECIEPT NO. 7002 2410 0000 4940 1886

March 18, 2005

1R0426

Mr. Wayne Price
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87504

RE: JUNCTION BOX UPGRADE REPORT for 2004
BD SWD SYSTEM
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Mr. Price:

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ROC is the service provider (operator) for the BD SWD System and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis. Replacement/closure projects of this magnitude require System Partner AFE approval and work begins as funds are received.

ROC completed 20 junction box sites in 2004. Junction box upgrades in 2005 will be conducted in conjunction with scheduled line replacements; 20-30 boxes are expected to be replaced.

Enclosed are the 2004 results from the PID/BTEX study described in the NMOCD-approved Revised Junction Box Upgrade Work Plan (July 16, 2003). This comparison study is ongoing and data will continue to be collected in 2005.

Thank you for your consideration of this Junction Box Upgrade Report for 2004.

RICE OPERATING COMPANY

Kristin Farris Pope

Kristin Farris Pope
Project Scientist

enclosures

cc: LBG, CDH, Rob Roy Industries, file,

Mr. Chris Williams
NMOCD, District I Office
1625 N. French Drive
Hobbs, NM 88240

RICE *Operating Company*
BD SWD SYSTEM Junction Box Upgrade Project
2004 Completed Boxes

	Junction Box	Legal Description				Completion Date	NMOCD Assessment #	Report Status
		Unit	Sec	T	R			
1	O-23-1 Vent	O	23	21S	37E	5/11/2004	10	Disclosure
2	O-23 Vent	O	23	21S	37E	5/13/2004	10	Disclosure
3	Jct M-16-2	M	16	21S	37E	5/19/2004	10	Final
4	Jct C-2-1	C	2	22S	37E	5/24/2004	10	Final
5	C-2 Vent	C	2	22S	37E	5/25/2004	10	Final
6	Jct N-16A	N	16	21S	37E	6/2/2004	10	Disclosure
7	M-16 Vent	M	16	21S	37E	6/2/2004	10	Final
8	Jct H-14-2	H	14	22S	37E	6/8/2004	20	Disclosure
9	Jct H-14-1	H	14	22S	37E	6/8/2004	20	Disclosure
10	H-14 Boot	H	14	22S	37E	6/8/2004	20	Disclosure
11	Jct L-25	L	25	21S	37E	6/9/2004	20	Final
12	K-21-2 Vent	K	21	21S	37E	7/9/2004	10	Final
13	C-26 Vent	C	26	21S	37E	6/23/2004	10	Final
14	Jct B-25	B	25	21S	37E	6/24/2004	20	Disclosure
15	Jct C-4-3	C	4	22S	37E	7/6/2004	10	Disclosure
16	P-26-1 Vent	P	26	21S	37E	7/15/2004	20	Disclosure
17	Jct M-16-1	M	16	21S	37E	7/15/2004	10	Final
18	Cliffton EOL	M	4	22S	37E	7/15/2004	10	Final
19	Jct P-26-2	P	26	21S	37E	7/28/2004	20	Disclosure
20	jct. F-25-1	F	25	21S	37E	2/23/2005	20	Disclosure

2004 BTEX Study

Revised Junction Box Upgrade Plan (2003)

System: EME
Site: jct. G-18
Date: 2/26/2004
Sampler: Gary Stark (ETGI Hobbs)
Laboratory: Environmental Lab of Texas

Location	Component	PID reading (ppm)	FIELD COMPOSITE (mg/kg) Benzene	Toluene	Ethyl Benzene	Total Xylenes
bottom composite at 12 ft BGS	1	1340.0	3.65	4.15	0.626	2.645
	2	128.0				
	3	1271.0				
	4	15.3				
	5	873.0				
			LAB COMPOSITE (mg/kg)			
			1.3	2.74	0.438	2.078
			FIELD COMPOSITE (mg/kg)			
4-wall composite		340.0	0.044	0.281	0.265	1.621
			LAB COMPOSITE (mg/kg)			
			0.0246	0.191	0.224	1.307

Field PID tests <100 ppm are considered final for BTEX. If PID is >100 ppm, the components of the BTEX composite sample will be collected individually and will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing BTEX samples. Composite components are collected in a skewed 'W' pattern.

Revised Junction Box Upgrade Work Plan (July 16, 2003)

2004 BTEX Study

Revised Junction Box Upgrade Plan (2003)

System: BD
Site: jct. C-4-3
Date: 6/22/2004
Sampler: Joe Gatts (ROC)
Laboratory: Environmental Lab of Texas

Field PID tests <100 ppm are considered final for BTEX. If PID is >100 ppm, the components of the BTEX composite sample will be collected individually and will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing BTEX samples. Composite components are collected in a skewed 'W' pattern. Revised Junction Box Upgrade Work Plan (July 16, 2003)

Location	Component	PID reading (ppm)	Benzene	Toluene	Ethyl Benzene	Total Xylenes
			FIELD COMPOSITE (mg/kg)			
bottom composite at 12 ft BGS	1	41.3	<0.025	0.123	0.113	0.962
	2	57.0				
	3	947.0				
	4	180.0				
	5	709.0				
			LAB COMPOSITE (mg/kg)			
			0.0268	0.139	0.155	1.208
			FIELD COMPOSITE (mg/kg)			
NORTH Wall Composite	1	226.0	<0.0025	0.0796	0.184	0.958
	2	206.0				
	3	225.0				
	4	774.0				
	5	156.0				
			LAB COMPOSITE (mg/kg)			
			<0.0025	0.0977	0.350	1.119

BD
jct. C-4-3

page 2

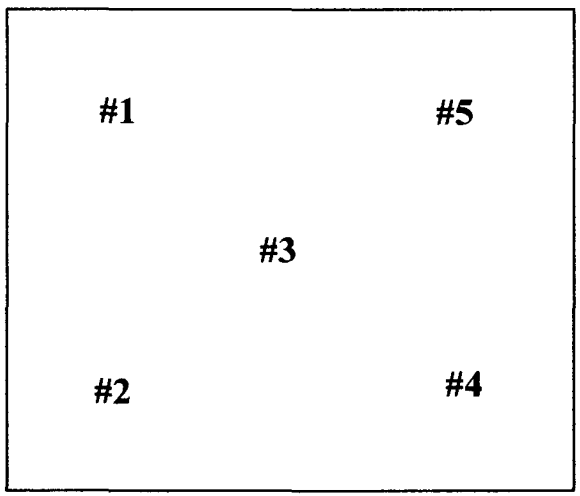
Location	Component	PID reading (ppm)	Benzene	Toluene	Ethyl Benzene	Total Xylenes
			FIELD COMPOSITE (mg/kg)			
SOUTH Wall Composite	1	4.8	<0.0025	0.0265	0.0433	0.1646
	2	3.0				
	3	0.1				
	4	0.2				
	5	285.0				
			LAB COMPOSITE (mg/kg)			
			<0.0025	0.0289	0.0656	0.2342

			FIELD COMPOSITE (mg/kg)			
EAST Wall Composite	1	55.7	<0.0025	0.135	0.126	0.923
	2	244.0				
	3	388.0				
	4	136.0				
	5	178.0				
			LAB COMPOSITE (mg/kg)			
			<0.0025	0.100	0.186	1.089

BD
jct. C-4-3

page 3

Location	Component	PID reading (ppm)	Benzene	Toluene	Ethyl Benzene	Total Xylenes
			FIELD COMPOSITE (mg/kg)			
WEST Wall Composite	1	990.0	<0.0025	<0.0025	<0.0025	<0.0025
	2	17.6				
	3	4.1				
	4	5.9				
	5	16.2				
			LAB COMPOSITE (mg/kg)			
			<0.0025	<0.0025	<0.0025	<0.0025



All composite sample components are collected in this pattern.

←

2004 BTEX Study

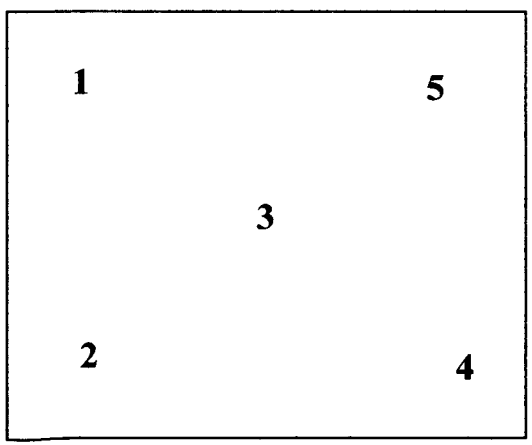
Revised Junction Box Upgrade Plan (2003)

System: EME
Site: jct. P-24

Date: 8/12/2004
Sampler: Joe Gatts (RICE Operating)

Laboratory: Environmental Lab of Texas

Location	Component	PID reading (ppm)	FIELD COMPOSITE (mg/kg)			
			Benzene	Toluene	Ethyl Benzene	Total Xylenes
bottom composite at 12 ft BGS	1	31.0	0.189	0.587	0.758	2.797
	2	1027.0				
	3	737.0				
	4	853.0				
	5	1206.0				
			LAB COMPOSITE (mg/kg)			
			0.123	0.541	0.946	3.195



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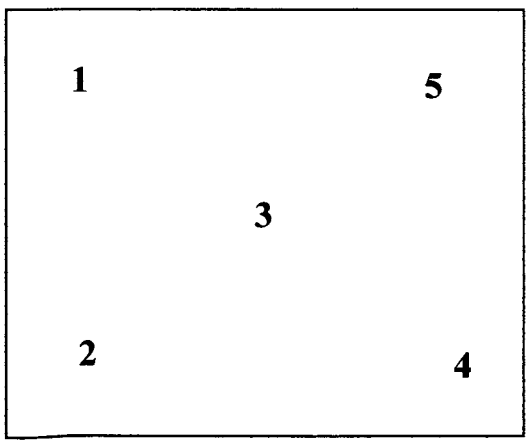
Revised Junction Box Upgrade Work Plan (July 16, 2003)

2004 BTEX Study

Revised Junction Box Upgrade Plan (2003)

System: EME
Site: JR Phillips EOL
Date: 9/17/2004
Sampler: Rob Elam (Curt's Environmental)
Laboratory: Environmental Lab of Texas

Location	Component	PID reading (ppm)	FIELD COMPOSITE (mg/kg)			
			Benzene	Toluene	Ethyl Benzene	Total Xylenes
bottom composite at 12 ft BGS	1	916.0	0.0874	0.581	0.524	2.349
	2	432.0				
	3	535.0				
	4	483.0				
	5	743.0				
			LAB COMPOSITE (mg/kg)			
			0.166	0.852	0.747	2.743



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Revised Junction Box Upgrade Work Plan (July 16, 2003)

Price, Wayne

From: Price, Wayne
Sent: Thursday, December 09, 2004 10:42 AM
To: Carolyn Doran Haynes (E-mail); Kristin Farris Pope (E-mail)
Cc: Randall Hicks (E-mail); Gil Van Deventer (E-mail)
Subject: Path Forward

Dear Ms. Haynes:

The OCD has logged every ROC site into our RBDM system. I will be sending you this comprehensive list. The list will have case numbers for all of our sites. I would like to see Kristin add those numbers to here spreadsheet if possible. I will be in the process of reviewing all of the closure sites (i.e. green sheet cover) and hope to send you approvals so we can close those sites out. I would also think it would be helpful if ROC would spell out on your spread sheet how each site was being closed. For example if one of the generic plans is or was used please note that, If not then signify type of closure, i.e. case-by-case, etc.

For disclosure sites, I am going to try to let ROC set the priority for these sites, however if we receive a complaint or in OCD's opinion it is a possible threat to public health then we may ask you to address that particular site.

I have already sent you my comments concerning the monument area up-gradient groundwater issue. The vadose zone and groundwater issues will have to be addressed. One thing we might do is set a lower priority on those sites and delay work until we have more data.

The other issue of concern for OCD is where disclosure sites had groundwater contamination and over a period of time this contamination has been reduced below the groundwater standards by dilution. OCD is very concerned that salt density gradient plumes are simply moving off site and thus could degrade down-gradient fresh water sources. OCD has a fiduciary duty to make sure this is not happing. Therefore, ROC will be expected to demonstrate this phenomenon is not happing. OCD will not accept models that demonstrate this unless monitor wells are installed to calibrate the model.

Sincerely:

Wayne Price
New Mexico Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505
505-476-3487
fax: 505-476-3462
E-mail: WPRICE@state.nm.us

RICE *Operating Company*

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Phone: (505)393-9174 • Fax: (505) 397-1471

IR0426

CERTIFIED MAIL
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March 11, 2004

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BD SWD SYSTEM
Lea County, New Mexico

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Rice Operating Company (ROC) takes this opportunity to submit the Junction Box Upgrade results for the year 2003. Enclosed is a list of the completed junction boxes and their respective closure/disclosure dates. These boxes are located in the Blinebry Drinkard (BD) Salt Water Disposal System.

ROC is the service provider (operator) for the BD SWD System and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis. Replacement/closure projects of this magnitude require System Partner AFE approval and work begins as funds are received.

ROC completed 27 junction box sites in 2003. ROC has scheduled 35 sites to complete in 2004. The AFE for this work has been approved by System Partners. Enclosed are the 2003 results from the PID/BTEX study described in the NMOCD-approved Revised Junction Box Upgrade Work Plan (July 16, 2003). This comparison study is ongoing and data will continue to be collected in 2004.

Thank you for your consideration of this Junction Box Upgrade Report for 2003.

RICE OPERATING COMPANY

Kristin Farris

Kristin Farris
Project Scientist

Enclosures

cc: LBG, CDH, file,

Mr. Chris Williams
NMOCD, District I Office
1625 N. French Drive
Hobbs, NM 88240

RICE Operating Company
BD SWD SYSTEM Junction Box Upgrade Project
Completed Boxes 2003 Final Report and Disclosure Report

Junction Box	Legal Description				Completion Date	NMOCD Assessment #	Report Status
	UL	Sec	T	R			
F-7	F	7	22	37	02/25/2003	10	Final
C-16	C	16	22	37	03/18/2003	10	Final
I-8	I	8	22	37	03/31/2003	10	Disclosure
M-26-1	M	26	21	37	04/01/2003	20	Disclosure
M-26	M	26	21	37	04/02/2003	20	Final
N-9	N	9	22	37	04/07/2003	10	Final
Grizzel EOL	G	8	22	37	04/22/2003	10	Disclosure
K-4 North	K	4	22	37	04/23/2003	10	Final
K-4 South	K	4	22	37	04/23/2003	10	Final
Brunson EOL	P	4	22	37	04/23/2003	10	Disclosure
K-27 South	K	27	21	37	05/19/2003	20	Final
K-27 North	K	27	21	37	06/04/2003	20	Disclosure
K-27-1	K	27	21	37	06/05/2003	20	Disclosure
L-1	L	1	22	36	06/16/2003	0	Final
J-21-1	J	21	21	37	06/17/2003	10	Final
J-21-2	J	21	21	37	06/17/2003	10	Final
M-14	M	14	21	37	06/26/2003	20	Disclosure
Hardy EOL	K	20	21	37	08/05/2003	10	Disclosure
Lee EOL	C	20	21	37	08/06/2003	10	Disclosure
H-19	H	10	21	37	08/06/2003	10	Disclosure
Mattern 5 EOL	I	18	21	37	08/06/2003	10	Disclosure
K-20-1 Vent	K	20	21	37	08/06/2003	10	Final
Jct K-20-2	K	20	21	37	08/06/2003	10	Disclosure
O-17-1	O	7	21	37	08/29/2003	10	Disclosure
F-17	F	17	21	37	Not Complete	10	Disclosure
F-29	F	29	21	37	08/01/2003	10	Disclosure
F-29-1	F	29	21	37	08/01/2003	10	Disclosure

2003 BTEX Study

Revised Junction Box Upgrade Plan (2003)

System: EME
Site: jct. I-9
Date: 10/27/2003
Sampler: Gary Stark (ETGI Hobbs)
Laboratory: Environmental Lab of Texas

Location	Component	PID reading (ppm)	FIELD COMPOSITE (mg/kg)			
			Benzene	Toluene	Ethyl Benzene	Total Xylenes
Bottom Composite at 12 ft BGS	1	0.0	<0.025	<0.025	0.033	0.132
	2	269.0				
	3	0.0				
	4	0.0				
	5	16.7				
			LAB COMPOSITE (mg/kg)			
			<0.025	0.028	0.050	0.244

Field PID tests >100 ppm are considered final for BTEX. If PID is >100 ppm, the components of the BTEX composite sample will be collected individually and will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing BTEX samples. Composite components are collected in a skewed 'W' pattern.

Revised Junction Box Upgrade Work Plan (July 16, 2003)

RICE *Operating Company*

JUNCTION BOX UPGRADE
WORK PLAN
REVISION: JULY 16, 2003

RICE *Operating Company*
122 West Taylor
Hobbs, NM 88240

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

July 16, 2003

Certified Mail Return Receipt No.
7002 2410 0000 4940 1077

Mr. Wayne Price
NM Energy, Minerals and Natural Resources Department
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, NM 87504

Re: Revised Junction Box Upgrade Work Plan Project

Dear Mr. Price:

Rice Operating Company (ROC) is submitting the revised work plan for upgrading junction boxes presently used in the ROC-operated SWD systems in Lea County. ROC has no ownership of pipelines, wells, or facilities. Each system is owned by a consortium of oil producers, System Partners, who provide operating capital based on percent ownership or usage. This type of capital improvement project requires System Partner AFE approval and pre-work funding.

The site assessments, work schedules, impacted soil handling, replacement junction boxes, etc. will be specifically conformed to the particular site, but will follow this generic plan. NMOCD will be notified in advance by email of work schedule and timing of significant events and will be consulted throughout the work plan process for concurrence of any significant plan alterations, analytical interpretations, etc. NMOCD will be given specific advance notice of sites located within a city limits or ¼ mile from a residence, business, school, public water source, etc. Work plan activities and results at any of these sites will be immediately communicated to the Santa Fe NMOCD office for concurrence or conditions of strategy.

The impact target values of this work plan reflect the present NMOCD guidelines for Clean-up *Target Concentrations of TPH and BTEX. Chloride impact will be evaluated according to* concentration-decline trending and where deemed warranted, by further boring-delineation.

Thank you for your attention to the details of this work plan and for acknowledging issues ROC faces with landowners, System Partners and operations of an aging infrastructure. Modifications that we discussed are incorporated into this revision. ROC asks that the NMOCD review this plan revision for approval. We look forward to hearing from you soon. If there are any additional questions, please contact me at the above phone number.

Carolyn Doran Haynes

Carolyn Doran Haynes
Engineering Manager

Attachments
cc: LBG, SC, KF, file; NMOCD: Roger Anderson, Larry Johnson, Paul Sheeley

RICE *Operating Company*

Junction Box Upgrade Work Plan

1. Notify NM OneCall and spot area pipelines. Use caution to ensure pipeline integrity or temporarily re-route pipeline. Remove junction box. Per NMED guidelines, remove and contain NORM impacted soils for export to a NORM-permitted disposal facility.

2. Evaluate site by "Initial Assessment", "Assessment Criteria" and record on "Initial Report".

3. Submit by email the weekly environmental-work schedule of sites: legal description, scheduled work and groundwater depth, to both NMOCD Hobbs and Santa Fe offices. The Santa Fe NMOCD office will be given special notice of sites within a city limits or ¼ mile from a residence, business, school, public water source, etc. At these sites, work activities and results will be immediately communicated to NMOCD for concurrence or conditions of strategy.

4. Begin site work activities. Maximum suggested excavation dimension is 30 feet x 30 feet x 12 feet deep, however, do not excavate under vegetated areas. Highly impacted soils (>10,000 ppm TPH) will be properly disposed at an OCD approved facility with remaining soils remediated or blended on-site to use as backfill. During vertical and lateral excavation, procure samples at regular intervals of depth and breadth and conduct field-testing using "Quality Procedures" included in this plan. When results indicate NMOCD "Clean-up Target Concentrations" for TPH and BTEX can be met, stop excavation and review field data for chloride concentration decline trend. Graph the site "Chloride Concentration Curve" and compare to "Closure Curve Examples" and "Disclosure Curve Examples." Follow "Chloride Impact Flowchart" for closure strategy. Complete and file *FINAL REPORT* with NMOCD.

   If 12 feet vertical delineation at the source reveals Target Concentrations for TPH or BTEX will not meet NMOCD guidelines or TPH and BTEX will meet guidelines but there is not a significant decline vs depth in chloride concentration, the site-impact is judged to be outside the scope of this work plan and will become a risk-based corrective action (RBCA) project-site. (RBCA project-sites will be "GPS"-defined, evaluated, and prioritized with individual work plans submitted in due course to the NMOCD; 6-8 of these sites will be worked each year.) Procure bottom sample for lab confirmation. File *DISCLOSURE REPORT* and notify NMOCD Environmental Bureau Chief of the potential for groundwater impact.

5. Using "Quality Procedures," procure bottom and side grab-samples for BTEX PID testing* and composite-samples of bottom (5-point) and sides (4-point) for lab analysis of TPH, Chlorides using approved laboratory-testing procedures as per NMOCD guidelines.

6. Install as warranted for inhibition of downward migration of impact remaining in-place at closure locations (TPH, BTEX or chlorides), a 10-12" thick clay layer (as diagramed in "Clay Layer Barrier"); compact to meet or exceed 95% of a Proctor Test ASTM-D-698 with permeability (hydraulic conductivity) $\leq 1x10^{-7}$ cm/sec. Verify compaction compliance at each closure site by performing at least one compaction test.

7. Backfill with clean/remediated soil that meets NMOCD TPH/BTEX guidelines and will support vegetation: Chloride concentration remaining in the backfill soil will be at a level that will not inhibit the growth of vegetation, generally <1000ppm. Compact to within 2 feet below pipeline. Line junction area with 20-mil poly or compacted clay to provide secondary containment for new junction box. Construct watertight junction box around pipeline connections. Complete backfill, mounding soil away from box to prevent moisture accumulation at the box. Fertilize and seed site to restore surface vegetation. Monitor surface re-vegetation results. If warranted, conduct further surface re-vegetation activities to insure re-vegetation. Cross-sectional view in "Completed Box Site."

8. Submit Annual Report to NMOCD of site "Final Report" or "Disclosure Report" by April 1.

*Field PID tests <100ppm are considered final for BTEX. If PID is >100ppm, the BTEX composite-sample will be collected in accordance to "Quality Procedure-08" and will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing BTEX results.

July 16, 2003

RICE *Operating Company*

Junction Box Upgrade Work Plan

INITIAL ASSESSMENT AND DOCUMENTATION REQUIREMENTS

Junction Box site is transferred to Environmental Group for TPH and Salt remediation when de-contamination for NORM has been completed.

1. **Initial Observation: arrive on location and make visual assessment and GPS recording. Include the following on the Initial Report form:**
   - All pipelines, facilities, oil and gas wells and production batteries
   - Vegetation condition, surface staining and other obvious staining
   - Disturbed surface areas, work space, near-surface lithology (caliche, sand, etc.)
   - Windmills, water wells, surface water, roads, housing, cattle, public access areas

2. **Initial Sampling**
   - Procure samples for on-site testing:
     - Below pipeline at surface and as deep as is practical in 1-2 feet increments
     - Walls: individual samples to identify most to least impacted
     - Surface surrounding box where bare soil or stressed vegetation is obvious
       - Continue as deep as is practical in 1-2 feet increments
     - Background: near-surface at a point obviously never impacted
   - Test samples on-site as is practical
   - Record results on the site map of Initial Report
     - Site parameters, perhaps even cross-sectional, including reference points
     - Record sample sites and associated results
   - Install site sign if further excavation if necessary

3. **If excavation is probable, record driving directions for one-call.**

4. **Perform reconnaissance of junction box history**
   - Confirm landowner
   - Review history for boot or vent presence
   - Review history for leaks and spills
   - Confirm groundwater depth and any other available aquifer information
   - On topographical map, confirm nearest wells or surface water within 1 mile

5. Bring all information to the discussion-table to discuss closure options

Decide if further action at the site is warranted
Estimate width, length, and possibly depth of excavation
Identify equipment most practical to excavate and contractor to use
Evaluate line interference problems – if need to relocate lines
Discuss on-site soil remediation or soil disposal, importation, replacement source
Begin worksheet with all information including sections for costs, activity updates

6. If necessary, take work plan to operations: looping, re-plumbing, or relocating box

7. Documentation of Site Work Activities

NMOCD notification by E-Mail of work schedule
Landowner notification and Contractor scheduling
Safety meeting on-site and record
Sample, test on-site as excavation continues: record developments on worksheet
Daily, collect all manifests, work tickets, daily costs and record
Regularly update project board of all significant events
Table discussion of project and developments, possible plan adjustments
Pictures of all significant events during workplan
Final samples of bottom and sidewalls to lab for confirmation
If clay barrier is required, move in clay and compact; test for compaction
Backfill/compact to within 2 feet below line or as proscribed by Operations

8. Documentation Requirements to Complete Report

Complete Final Report or Disclosure Report (in triplicate) with:
- Accurate measurements of excavation and worksite dimensions
- Photos of significant events (added after photos are returned)
- "Chloride Concentration Curve"
- Copy manifests as needed
- Update final site diagram with sample points, borings, liners, MWs, etc.
- Discuss completed form and comments with team before filing

Archive appropriate samples of bottom, walls, borings, backfill etc.
Compare field sample results with lab confirmation results
Copy field log notes into file
File original manifests in file
Complete total cost
Pass-on camera and information to operations for completion of junction box
Complete annual report to NMOCD

9. Disclosure Junction Box Sites

Place RICE Identification marker at source point and record GPS data.
Compare site priority with other existing SWD System Disclosure Sites
Assign a timeline for RBCA workplan development

Site Assessment Criteria (NMOCD)

Depth to Ground Water (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet 50 feet to 99 feet Greater than 100 feet	(20 points) (10 points) (0 points) _____
Wellhead Protection Area (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources)	Yes No	(20 points) (0 points) _____
Distance to Surface Water Body: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet 200 feet to 1000 feet Greater than 1000 feet	(20 points) (10 points) (0 points) _____

RANKING SCORE (TOTAL POINTS): _____

Clean-up Target Concentrations for "Site Closure" (NMOCD)

IF RANKING SCORE IS:	**>19**	**10-19**	**0-9**
Benzene (ppm) *	**10**	**10**	**10**
BTEX (ppm) *	**50**	**50**	**50**
TPH (ppm) **	**100**	**1000**	**5000**

* A field vapor headspace measurement of 100 ppm may be substitued for a laboratory analysis.

** The contaminant concentration for TPH is the concentration above background levels.

RICE OPERATING COMPANY
JUNCTION BOX INITIAL REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	ORIGINAL BOX DIMENSIONS - FEET		
							Length	Width	Depth

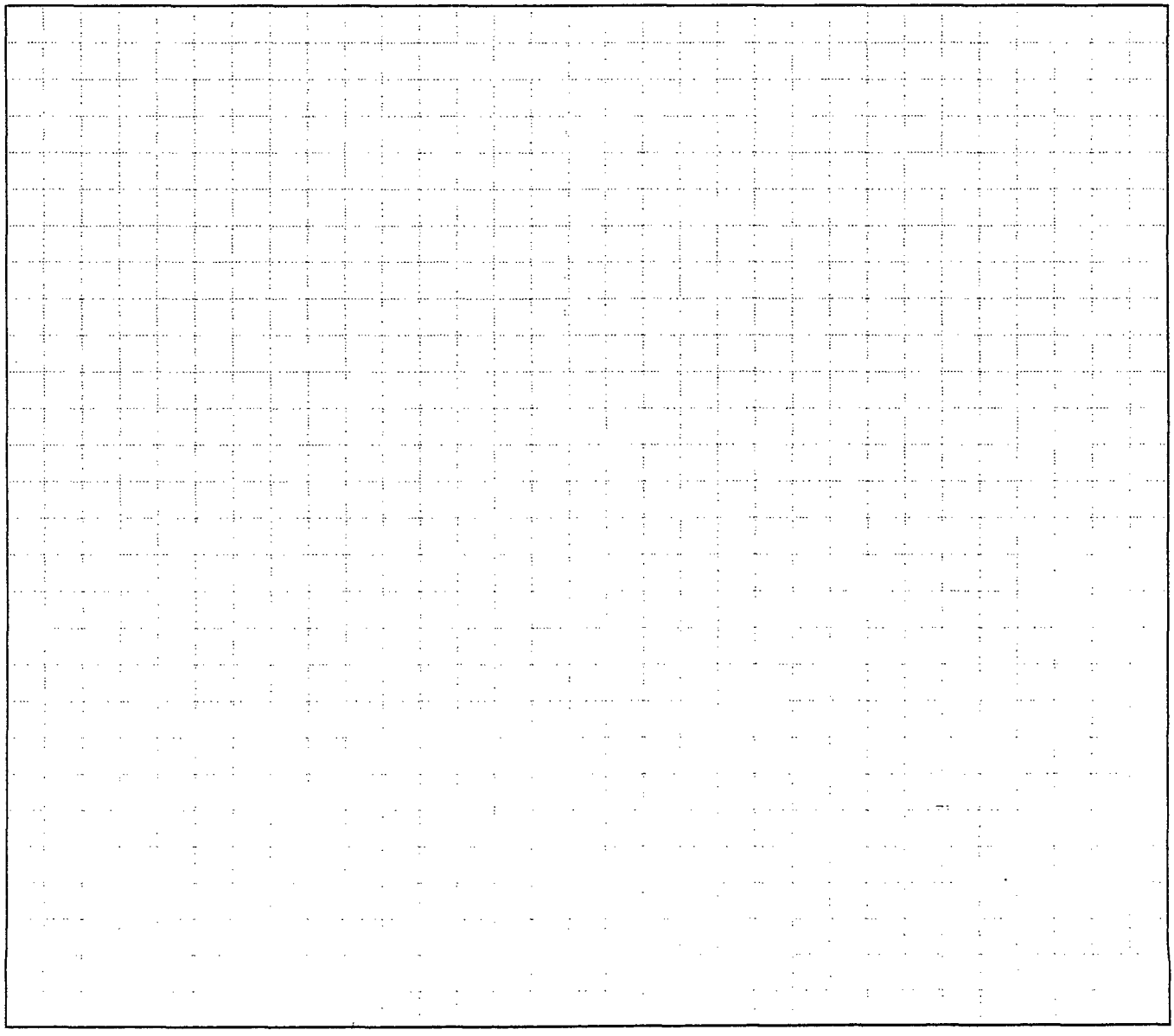
LAND TYPE: BLM ☐ STATE ☐ FEE LANDOWNER _____ OTHER _____

Depth to Groundwater _____ feet Move or Replace Box? _____

Date Initial _____ Boot or Vent? _____ New or Loop Line? _____

Depth of Pipeline _____ Pipeline Material _____ Past Leaks? _____

Initial Observation: Arial View Sketch of location as it appears upon arrival: as applicable to remediation plans: include all wells and surface water sources, roads, stressed vegetation, cattle, houses, oil wells, pipelines, facilities, dirt piles, fences, measurements, reference point, sample locations, etc.



FIELD TESTS FOR INITIAL DELINEATION

TEST POINT NO. *Background*				
DEPTH	TPH	Cl^-	Soil	H_2O

TEST POINT NO. *Original Bottom*				
DEPTH	TPH	Cl^-	Soil	H_2O

TEST POINT NO.				
DEPTH	TPH	Cl^-	Soil	H_2O

TEST POINT NO.				
DEPTH	TPH	Cl^-	Soil	H_2O

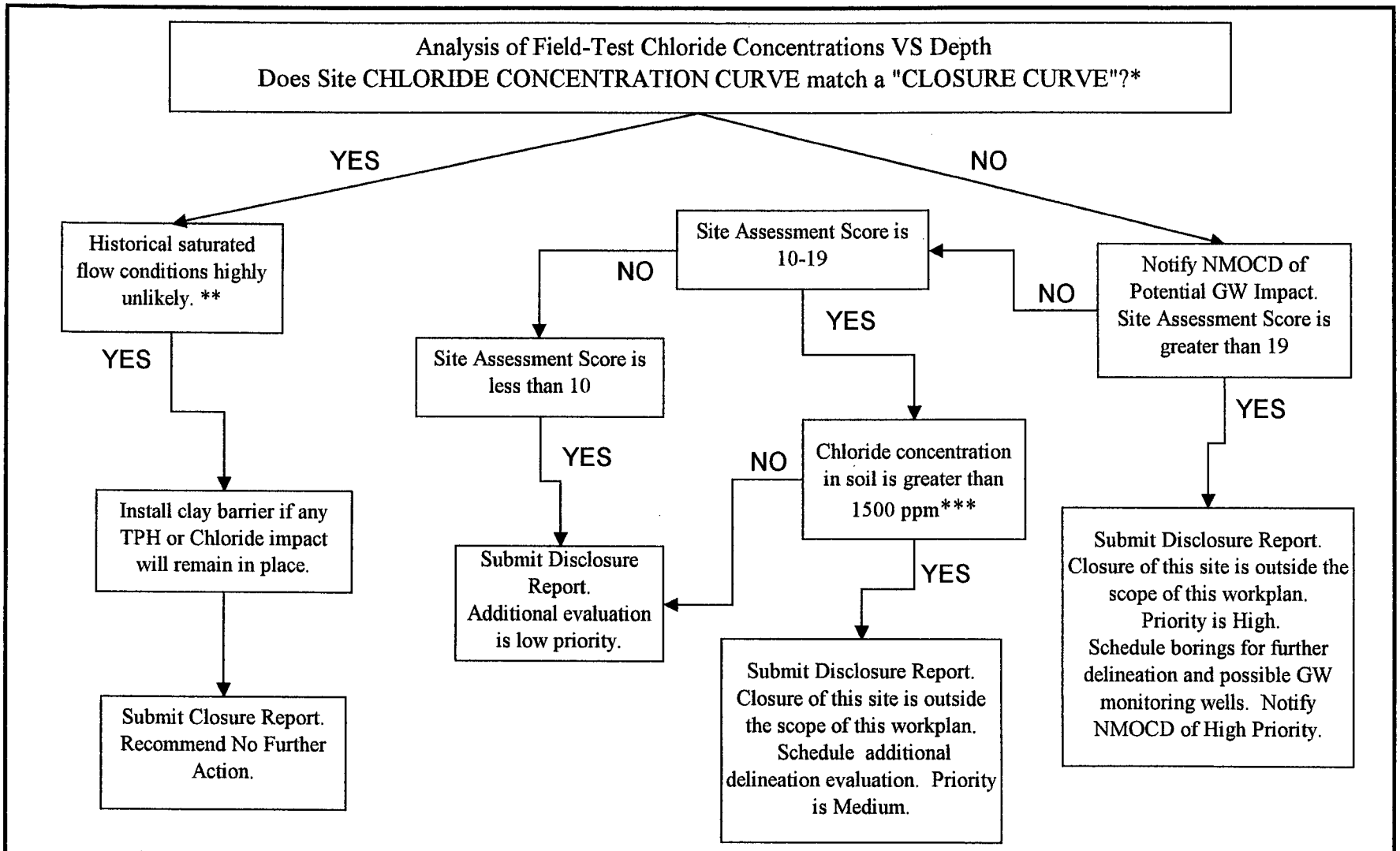
TEST POINT NO.				
DEPTH	TPH	Cl^-	Soil	H_2O

TEST POINT NO.				
DEPTH	TPH	Cl^-	Soil	H_2O

TEST POINT NO.				
DEPTH	TPH	Cl^-	Soil	H_2O

TEST POINT NO.				
DEPTH	TPH	Cl^-	Soil	H_2O

TEST POINT NO.				
DEPTH	TPH	Cl^-	Soil	H_2O



* Closure Curve and Disclosure Curve examples accompany this flowchart.

** If question remains about historical saturated-flow condition, a vertical delineation boring may be conducted to illustrate further chloride impact documentation.

*** Through evaluation of ROC experience with salt-impacted junction box sites, the median chloride concentration for Disclosure Sites is approx. 1500 ppm. Using this number as a discriminating guideline will aid ROC in prioritizing the Disclosure Sites for RBCA Plans.

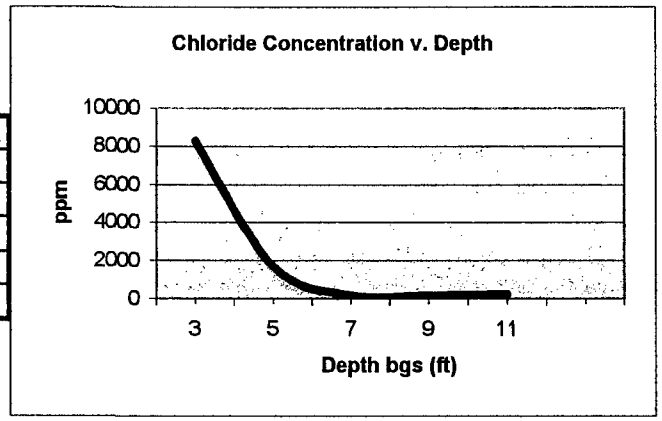
RICE Operating Company 122 West Taylor Hobbs, NM 88240 505-393-9174	**CHLORIDE IMPACT FLOWCHART**	**ROC Junction Box Work Plan Closure/Disclosure Strategy**

CLOSURE CURVE EXAMPLES

CLOSED SITES THAT EXHIBIT A SIGNIFICANT CHLORIDE DECLINE WITH DEPTH

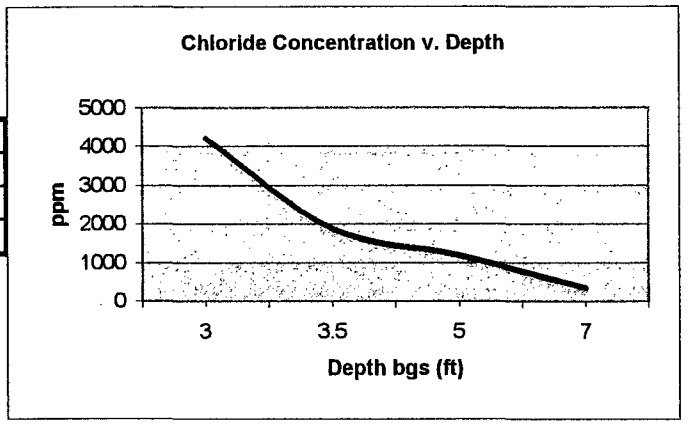
EME jct. H-10-1
T20S, R36E

Depth bgs (ft)	[Cl-] ppm
3	8300
5	1716
7	199
9	201
11	284



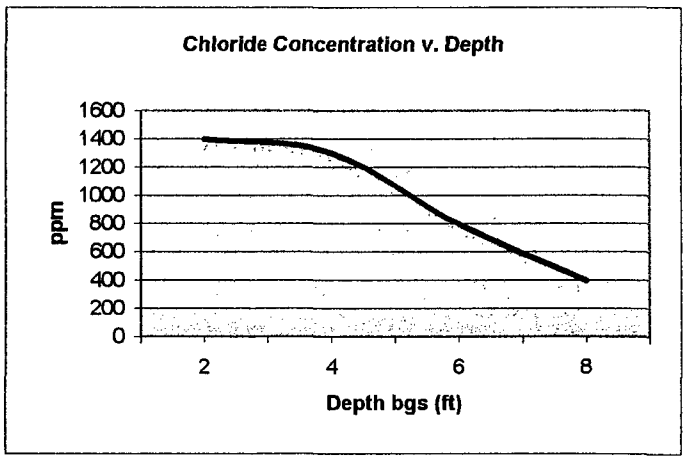
EME jct. H-2
T20S, R37E

Depth bgs (ft)	[Cl-] ppm
3.5	1895
5	1200
7	350



EME jct. C-12-1 North
T20S, R36E

Depth bgs (ft)	[Cl-] ppm
2	1400
4	1300
6	800
8	400



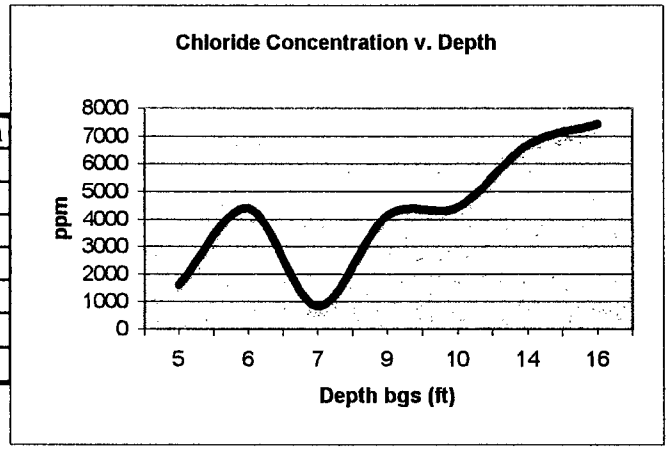
RICE *Operating Company*

DISCLOSURE CURVE EXAMPLES

DISCLOSED SITES THAT DID NOT EXHIBIT A SIGNIFICANT CHLORIDE DECLINE WITH DEPTH

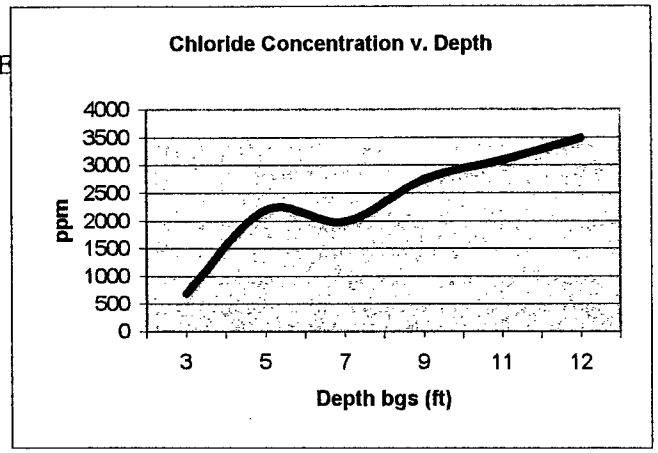
BD jct. I-8
T22S, R37E

Depth bgs (ft)	[Cl-] ppm
5	1617
6	4397
7	837
9	4157
10	4450
14	6700
16	7450



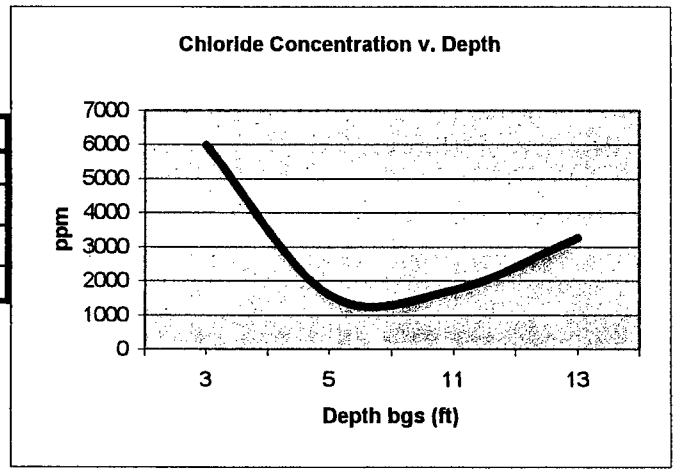
BD Brunson EOL
UL 'P', Sec. 4, T22S, R37E

Depth bgs (ft)	[Cl-] ppm
3	700
5	2200
7	2000
9	2750
11	3100
12	3500



BD jct. F-17
T21S, R37E

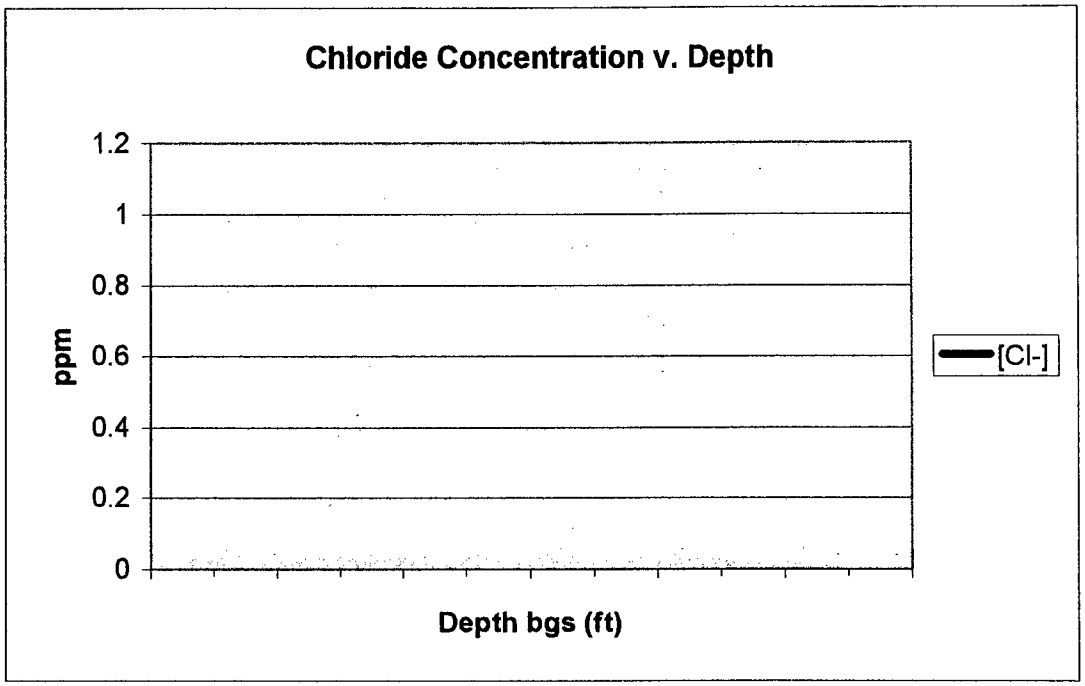
Depth bgs (ft)	[Cl-] ppm
3	6001
5	1591
11	1749
13	3273

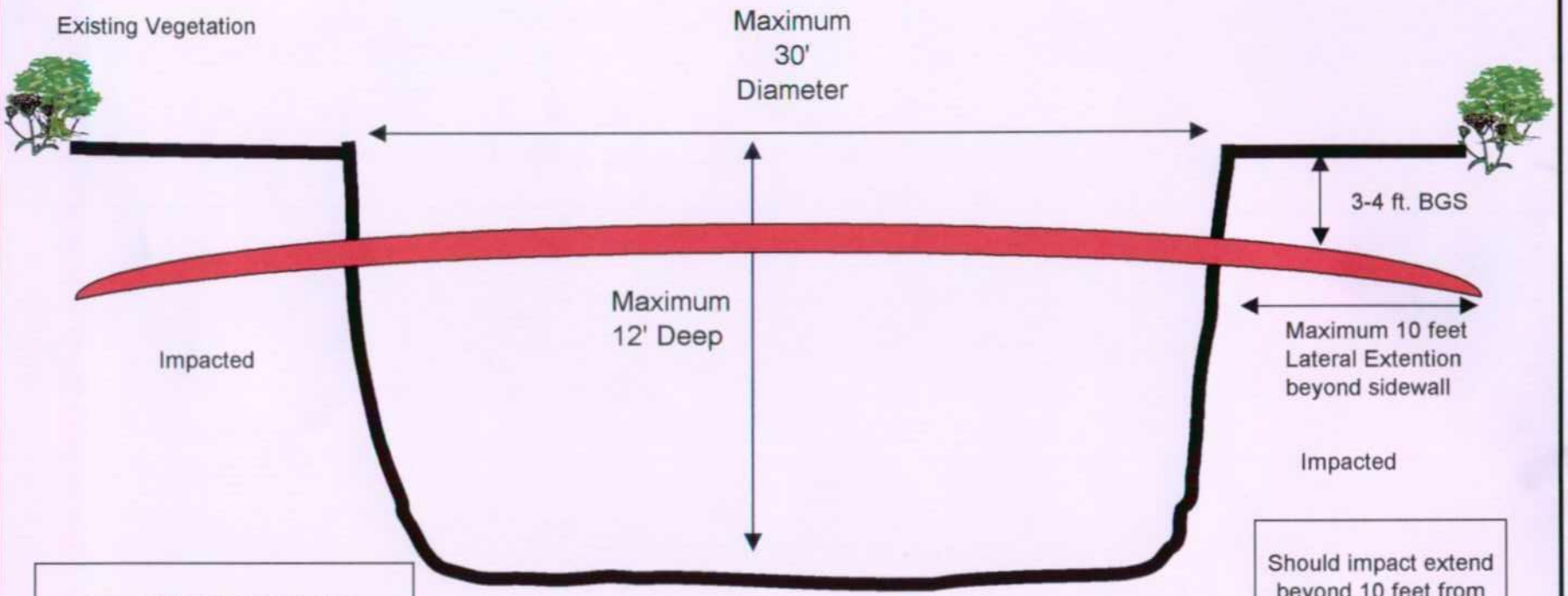


A soil bore was conducted at this location and the site was found to have chloride impact to groundwater.

Site Name
Legal Description

Depth bgs (ft)	[Cl-] ppm

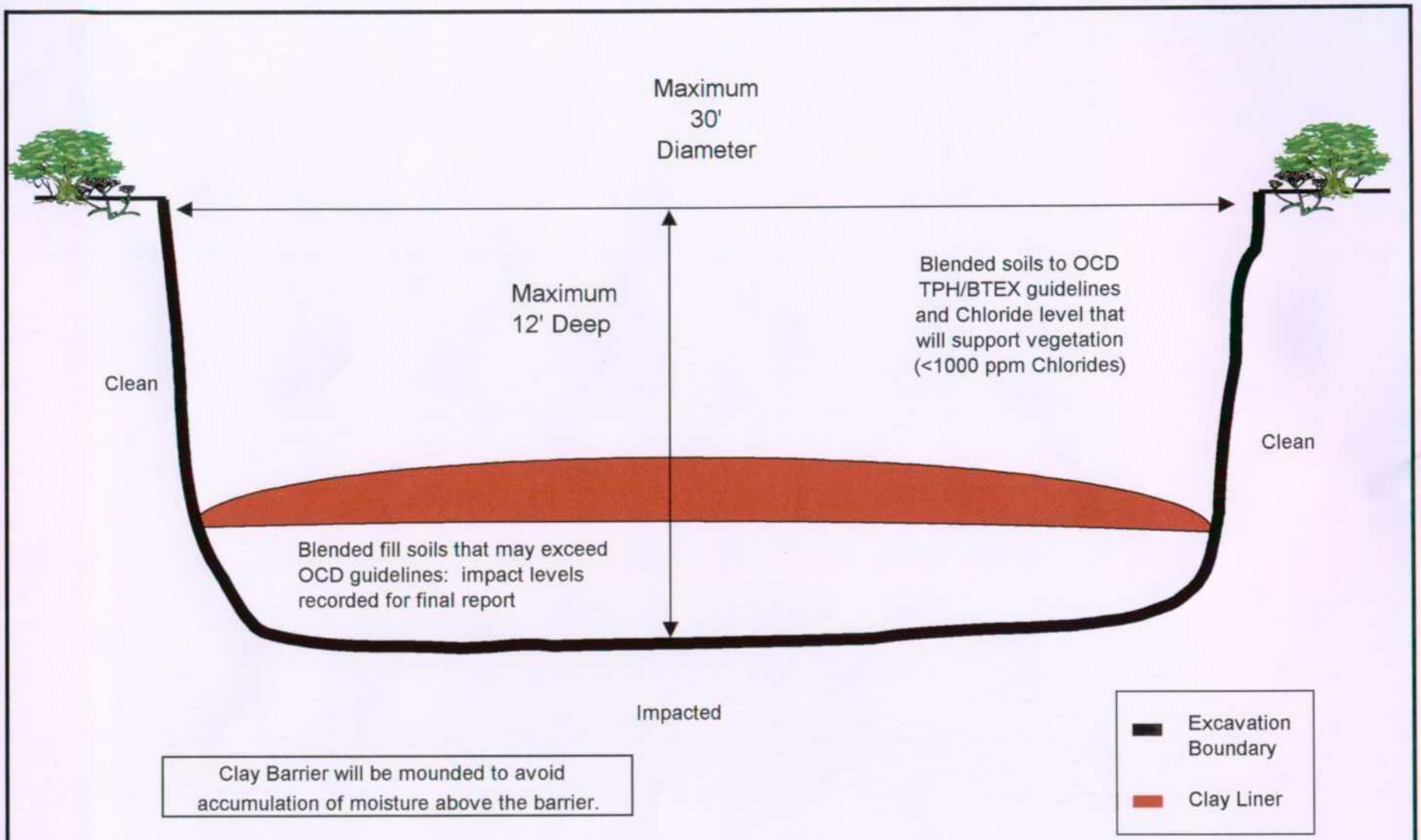




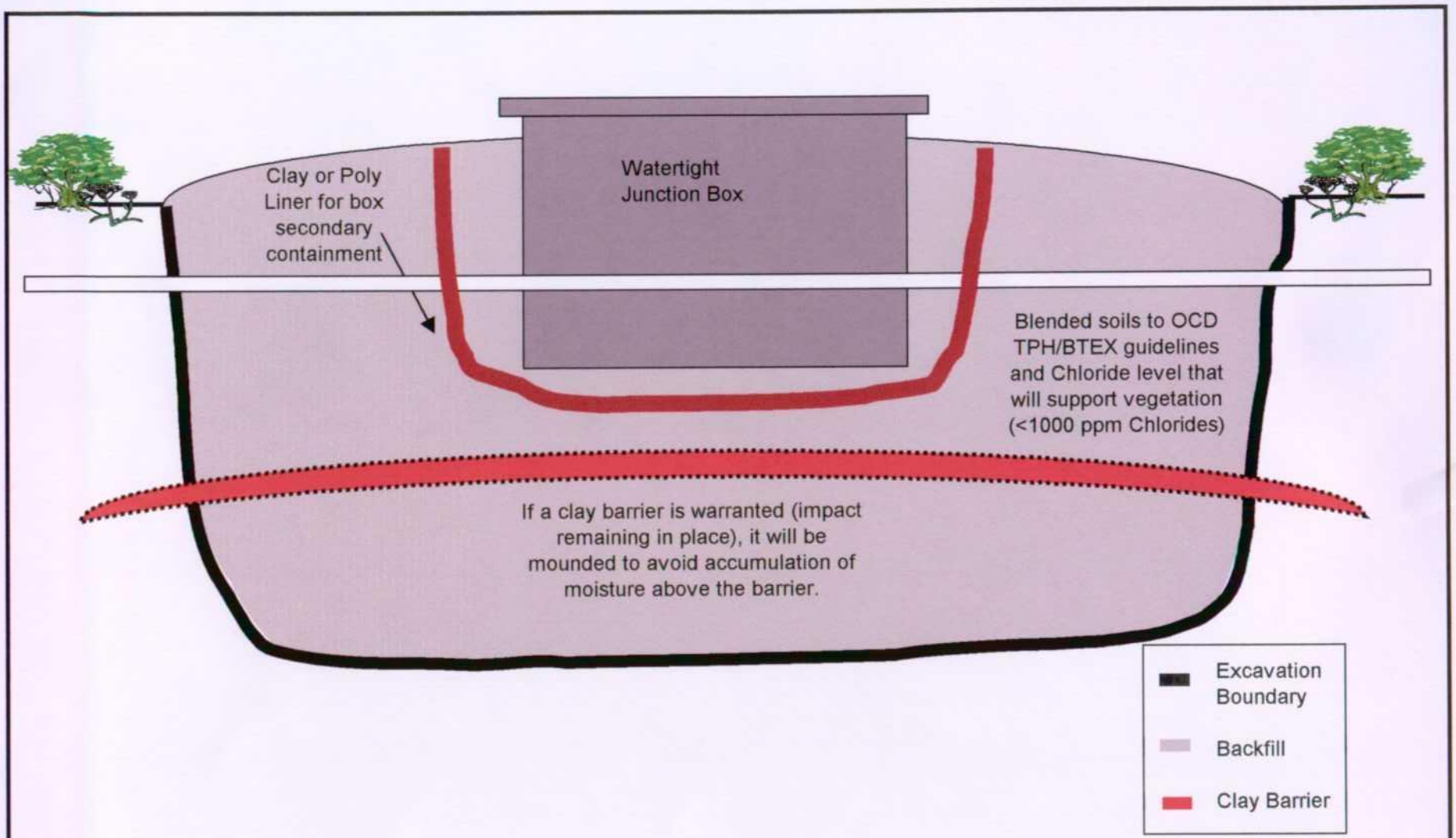
As impact extends laterally, excavation will stop at the point of surface vegetation, or a maximum of 10 feet beyond sidewalls. Compacted Clay Layer will be installed at 3-4 feet BGS.

Should impact extend beyond 10 feet from the excavation, a soil-blending or leach-down remediation procedure will be employed to restore surface vegetation.

Rice Operating Company 122 West Taylor Hobbs, NM 88240 (505) 393-9174	**Clay Layer Barrier** **Impacted Sidewalls, Deep Impact**	**ROC Junction Box Work Plan** **Liner Staging**



Rice Operating Company 122 West Taylor Hobbs, NM 88240 (505) 393-9174	Clay Layer Barrier for Clean Sidewalls, Deep Impact	ROC Junction Box Work Plan Liner Staging



Rice Operating Company 122 West Taylor Hobbs, NM 88240 (505) 393-9174	CrossSectional View	ROC Junction Box Work Plan Completed Box Site

RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth

LAND TYPE: BLM ☐ STATE ☐ FEE LANDOWNER _____ OTHER _____

Depth to Groundwater _____ feet NMOCD SITE ASSESSMENT RANKING SCORE: _____

Date Started _____ Date Completed _____ OCD Witness _____

Soil Excavated _____ cubic yards Excavation Length _____ Width _____ Depth _____ feet

Soil Disposed _____ cubic yards Offsite Facility _____ Location _____

FINAL ANALYTICAL RESULTS: **Sample Date** _____ **Sample Depth** _____

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*	OVM *ppm*	GRO *mg/kg*	DRO *mg/kg*	Chlorides *mg/kg*
SIDEWALLS								
BOTTOM								
BACKFILL								

General Description of Remedial Action: _____

CHLORIDE FIELD TESTS

LOCATION	DEPTH	mg/kg

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

DATE _____ PRINTED NAME _____

SIGNATURE _____ TITLE _____

RICE OPERATING COMPANY
JUNCTION BOX DISCLOSURE* REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth

LAND TYPE: BLM ☐ STATE ☐ FEE LANDOWNER _____ OTHER _____

Depth to Groundwater _____ feet NMOCD SITE ASSESSMENT RANKING SCORE: _____

Date Started _____ Date Completed _____ OCD Witness _____

Soil Excavated _____ cubic yards Excavation Length _____ Width _____ Depth _____ feet

Soil Disposed _____ cubic yards Offsite Facility _____ Location _____

FINAL ANALYTICAL RESULTS: **Sample Date** _____ **Sample Depth** _____

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	OVM ppm	GRO mg/kg	DRO mg/kg	Chlorides mg/kg
SIDEWALLS								
BOTTOM								
BACKFILL								

General Description of Remedial Action: _____

CHLORIDE FIELD TESTS

LOCATION	DEPTH	mg/kg

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

DATE _____ PRINTED NAME _____

SIGNATURE _____ TITLE _____

This site is a "DISCLOSURE." It will be placed on a prioritized list of similar sites for further consideration.

Rice Operating Company

Quality Procedure
Field TPH Analysis

1.0 Purpose

To define the procedure to be used in conducting total percentage hydrocarbon testing in accordance with EPA Method 418.1 (modified) using the "MEGA" TPH Analyzer.

2.0 Scope

This procedure is to be used for field testing and on site remediation information.

3.0 Procedure

1.1 The G.A.C. "MEGA" TPH analyzer is an instrument that measures concentrations of aliphatic hydrocarbons by means of infra-red spectrometry. It is manufactured to specifications and can accurately measure concentrations from two parts per million through 100,000 parts per million. The unit is factory calibrated however minor calibration adjustments may be made in the field. Quality Procedure 25 defines the field calibration methods to be employed.

1.2 Prior to taking the machine into the field, insert a 500 ppm and 5,000 ppm calibration standard into the sample port of the machine. Zero out the Range dial until the instrument records the exact standard reading.

1.3 Once in the field, insert a large and small cuvette filled with clean Freon 113 into the sample port of the machine. Use the range dial to zero in the reading. If the machine does not zero, do not attempt to adjust the span dial. Immediately implement Quality Procedure 25.

1.4 Place a 100 g weight standard on the field scale to insure accuracy. Zero out the scale as necessary.

1.5 Tare a clean 100 ml sample vial with the Teflon cap removed. Add 10 g (+/-.01g), of sample soil into the vial taking care to remove rocks or vegetable matter from the sample to be tested. If the sample is wet, add up to 5 g silica gel or anhydrous sodium sulfate to the sample after weighing.

1.6 Dispense 10 ml Freon 113 into the sample vial.

1.7 Cap the vial and shake for five minutes.

1.8 Carefully decant the liquid contents of the vial into a filter/desiccant cartridge and affix the cartridge cap. Recap the sample vial and set aside.

1.9 Insert the metal tip of the pressure syringe into the cap opening and slowly pressurize. **WARNING: APPLY ONLY ENOUGH PRESSURE ON THE SYRINGE TO EFFECT FLOW THROUGH THE FILTERS. TOO MUCH PRESSURE MAY CAUSE THE CAP TO SEPARATE FROM THE BODY OF THE CARTRIDGE.** Once flow is established through the cartridge, direct the flow into the 5 cm cuvette until the cuvette is full. Reverse the pressure on the syringe and remove the syringe tip form the cartridge cap. Set the cartridge aside in vertical position.

1.10 The cuvette has two clear and two frosted sides. Hold the cuvette by the frosted sides and carefully insert into the sample port of the machine. Read the right hand digital read-out of the instrument. If the reading is less than 1,000 ppm, the results shall be recorded in the field Soil Analysis Report. If the result is higher than 1,000 ppm, continue with the dilution procedure.

4.0 Dilution Procedure

1.11 When initial readings are greater than 1,000 ppm using the 5 cm cuvette, pour the contents of the 5 cm cuvette into a 1 cm cuvette. Insert the 1 cm cuvette into the metal holder and place into the test port of the instrument.

1.12 Read the left hand read-out of the machine. If the results are less than 10,000 ppm, record the results into the field Soil Analysis Reports. If greater than 10,000 ppm, continue the dilution process. **Concentrations >10,000 ppm are to be used for field screen purposes only.**

1.13 Pour the contents of the small cuvette into a graduated glass pipette. Add 10 ml pure Freon 113 into the pipette. Shake the contents and pour into the 1cm. cuvette. Repeat step 4.2 adding two zeros to the end of the displayed number. If the reported result is greater than 100,000 ppm, the accuracy of further readings through additional dilutions is extremely questionable. **Do not use for reporting purposes.**

1.14 **Pour all sample Freon into the recycling container.**

5.0 Split Samples

1.15 Each tenth test sample shall be a split sample. Decant approximately one half of the extraction solvent through a filter cartridge and insert into the instrument to obtain a concentration reading. Clean and rinse the cuvette and decant the remainder of the fluid to obtain a second concentration reading from the same sample. If the second reading varies by more than 1% from the original, it will be necessary to completely recalibrate the instrument.

Rice Operating Company

Quality Procedure
Soil Samples for Transportation to a Laboratory

1.0 Purpose

This procedure outlines the methods to be employed when obtaining soil samples to be taken to a laboratory for analysis.

2.0 Scope

This procedure is to be used when collecting soil samples intended for ultimate transfer to a testing laboratory.

3.0 Preliminary

3.1 Obtain sterile sampling containers from the testing laboratory designated to conduct analyses of the soil. The shipment should include a Certificate of Compliance from the manufacturer of the collection bottle or vial and a Serial Number for the lot of containers. Retain this Certificate for future documentation purposes.

3.2 If collecting TPH, BTEX, RCRA 8 metals, cation /anions or O&G, the sample jar may be a clear 4 oz. container with Teflon lid. If collecting PAH's, use an amber 4 oz. container.

4.0 Chain of Custody

4.1 Prepare a Sample Plan. The plan will list the number, location and designation of each planned sample and the individual tests to be performed on the sample. The sampler will check the list against the available inventory of appropriate sample collection bottles to insure against shortage.

4.2 Transfer the data to the Laboratory Chain of Custody Form. Complete all sections of the form except those that relate to the time of delivery of the samples to the laboratory.

4.3 Pre-label the sample collection jars. Include all requested information except time of collection. (Use a fine point Sharpie to insure that the ink remains on the label.) Affix the labels to the jars.

5.0 Sampling Procedure

5.1. Do not touch the soil with your bare hands. Use new latex gloves with each sample to help minimize any cross-contamination.

5.2. Go to the sampling point with the sample container. If not analyzing for ions or metals, use a trowel to obtain the soil.

5.3. Pack the soil tightly into the container leaving the top slightly domed. Screw the lid down tightly. Enter the time of collection onto the sample collection jar label.

5.4. Place the sample directly on ice for transport to the laboratory if required.

5.5. Complete the Chain of Custody form to include the collection times for each sample. Deliver all samples to the laboratory.

6.0 Documentation

6.1 The testing laboratory shall provide the following minimum information:

a. Project and sample name.
b. Signed copy of the original Chain of Custody Form including the time the sample was received by the lab.
c. Results of the requested analyses
d. Test Methods employed
e. Quality Control methods and results

Rice Operating Company

QUALITY PROCEDURE
Chloride Titration Using
0.282 Normal Silver Nitrate Solution

1.0 Purpose

This procedure is to be used to determine the concentration of chloride in soil.

2.0 Scope

This procedure is to be used as the standard field measurement for soil chloride concentrations.

3.0 Sample Collection and Preparation

3.1 Collect at least 80 grams of soil from the sample collection point. Take care to insure that the sample is representative of the general background to include visible concentrations of hydrocarbons and soil types. If necessary, prepare a composite sample for soils obtained at several points in the sample area. Take care to insure that no loose vegetation, rocks or liquids are included in the sample(s).

3.2 The soil sample(s) shall be immediately inserted into a one-quart or larger polyethylene freezer bag. Care should be taken to insure that no cross-contamination occurs between the soil sample and the collection tools or sample processing equipment.

3.3 The sealed sample bag should be massaged to break up any clods.

4.0 Sample Preparation

4.1 Tare a clean glass vial having a minimum 40 ml capacity. Add at least 10 grams of the soil sample and record the weight.

4.2 Add at least 10 grams of reverse osmosis water to the soil sample and shake for 20 seconds.

4.3 Allow the sample to set for a period of 5 minutes or until the separation of soil and water.

4.4 Carefully pour the free liquid extract from the sample through a paper filter into a clean plastic cup if necessary.

5.0 Titration Procedure

5.1 Using a graduated pipette, remove 10 ml extract and dispense into a clean plastic cup.

5.2 Add 2-3 drops potassium chromate (K_2CrO_4) to mixture.

5.3 If the sample contains any sulfides (hydrogen or iron sulfides are common to oilfield soil samples) add 2-3 drops of hydrogen peroxide (H_2O_2) to mixture.

5.4 Using a 1 ml pipette, carefully add .282 normal silver nitrate (one drop at a time) to the sample while constantly agitating it. Stop adding silver nitrate when the solution begins to change from yellow to red. Be consistent with endpoint recognition.

5.5 Record the ml of silver nitrate used.

6.0 Calculation

To obtain the chloride concentration, insert measured data into the following formula:

$$\frac{.282 \times 35{,}450 \times \text{ml } AgNO_3}{\text{ml water extract}} \times \frac{\text{grams of water in mixture}}{\text{grams of soil in mixture}}$$

Using Step 5.0, determine the chloride concentration of the RO water used to mix with the soil sample. Record this concentration and subtract it from the formula results to find the net chloride in the soil sample.

Record all results on the delineation form.

Rice Operating Company

Quality Procedure
Development of Cased Water-Monitoring Wells

1.0 Purpose

This procedure outlines the methods to be employed to develop cased monitoring wells.

2.0 Scope

This procedure shall be used for developed, cased water monitoring wells. It is not to be used for standing water samples such as ponds or streams.

3.0 Sample Collection and Preparation

3.1 Prior to development, the static water level and height of the water column within the well casing will be measured with the use of an electric D.C. probe or a steel engineer's tape and water sensitive paste.

3.2 All measurements will be recorded within a field log notebook.

3.3 All equipment used to measure the static water level will be decontaminated after each use by means of Liquinox, a phosphate free laboratory detergent, and water to reduce the possibility of cross-contamination. The volume of water in each well casing will be calculated.

4.0 Purging

4.1 Wells will be purged by using a 2" decontaminated submersible pump or dedicated one liter Teflon bailer. Wells should be purged until the pH and conductivity are stabilized and the turbidity has been reduced to the greatest extent possible.

4.2 If a submersible is used the pump will be decontaminated prior to use by scrubbing the outside surface of tubing and wiring with a Liquinox water mixture, pumping a Liquinox-water mixture through the pump, and a final flush with fresh water.

5.0 Water Disposal

5.1 All purge and decontamination water will be temporarily stored within a portable tank to be later disposed of in an appropriate manner.

6.0 Records

6.1 Rice Operating Company will record the amount of water removed from the well during development procedures. The purge volume will be reported to the appropriate regulatory authority when filing the closure report.

Rice Operating Company

Quality Procedure
Sampling of Cased Water-Monitoring Well
Using One-Liter Bailer

1.0 Purpose

This procedure outlines the methods to be employed in obtaining water samples from cased monitoring wells.

2.0 Scope

This procedure shall be used for developed, cased water monitoring wells. It is not to be used for standing water samples such as ponds or streams.

3.0 Preliminary

3.1 Obtain sterile sampling containers from the testing laboratory designated to conduct analyses of the water. The shipment should include a Certificate of Compliance from the manufacturer of the collection bottle or vial and a Serial Number for the lot of containers. Retain this Certificate for future documentation purposes.

3.2 The following table shall be used to select the appropriate sampling container, preservative method and holding times for the various elements and compounds to be analyzed.

Compound to be Analyzed	Sample Container Size	Sample Container Description	Cap Requirements	Preservative	Maximum Hold Time
BTEX	40 ml	VOA Container	Teflon Lined	HCl	7 days
TPH	1 liter	clear glass	Teflon Lined	HCl	28 days
PAH	1 liter	amber glass	Teflon Lined	Ice	7 days
Cation/Anion	1 liter	clear glass	Teflon Lined	None	48 Hrs
Metals	1 liter	HD polyethylene	Any Plastic	Ice/HNO_3	28 Days
TDS	300 ml	clear glass	Any Plastic	Ice	7 Days

4.0 Chain of Custody

4.1 Prepare a Sample Plan. The plan will list the well identification and the individual tests to be performed at that location. The sampler will check the list against the available inventory of appropriate sample collection bottles to insure against shortage.

4.2 Transfer the data to the Laboratory Chain of Custody Form. Complete all sections of the form except those that relate to the time of delivery of the samples to the laboratory.

4.3 Pre-label the sample collection jars. Include all requested information except time of collection. (Use a fine point Sharpie to insure that the ink remains on the label). Affix the labels to the jars.

5.0 Bailing Procedure

5.1 Identify the well from the sites schematics. Place pre-labeled jar(s) next to the well. Remove the plastic cap from the well bore by first lifting the metal lever and then unscrewing the entire assembly.

5.2 Using a dedicated one liter Teflon bailer, purge a minimum of three well volumes. Place the water in storage container for transport to a ROC disposal facility.

5.3 Take care to insure that the bailing device and string do not become cross-contaminated. A clean pair of rubber gloves should be used when handling either the retrieval string or bailer. The retrieval string should not be allowed to come into contact with the ground.

6.0 Sampling Procedure

6.1 Once the well has been bailed in accordance with 5.2 of this procedure, a sample may be decanted into the appropriate sample collection jar directly from the bailer. The collection jar should be filled to the brim. Once the jar is sealed, turn the jar over to detect any bubbles that may be present. Add additional water to remove all bubbles from the sample container.

6.2 Note the time of collection on the sample jar with a fine Sharpie.

6.3 Place the sample directly on ice for transport to the laboratory. The preceding table shows the maximum hold times between collection and testing for the various analyses.

6.4 Complete the Chain of Custody form to include the collection times for each sample. Deliver all samples to the laboratory.

7.0 Documentation

7.1 The testing laboratory shall provide the following minimum information:

A. Project and sample name.
B. Signed copy of the original Chain of Custody Form including the time the sample was received by the lab.
C. Results of the requested analyses
D. Test Methods employed
E. Quality Control methods and results

Calculation for Determining the Minimum Bailing Volume for Monitor Wells
Formula V= ($\pi r^2 h$)
2" well [V/231=gal] X 3 = Purge Volume

V=Volume
π=pi
r=inside radius of the well bore
h=maximum height of well bore in water table

Example:

π	r^2	h(in)	V(cu.in)	V(gal)	X 3 Volumes	Actual
3.1416	1	180	565.488	2.448	7.34 gal	>10 gal

Rice Operating Company

Quality Procedure
Composite Sampling of Excavation Sidewalls and Bottoms For TPH and Chloride Analysis

1.0 Purpose

This procedure outlines the methods to be employed when obtaining final composite soil samples for TPH and Chloride analysis.

2.0 Scope

This procedure is to be used in conjunction with ***Quality Procedure – 02: Soil Samples for Transportation to a Laboratory*** and will be inserted at subparagraph 5.2 of Section 5.0: Sampling Procedure.

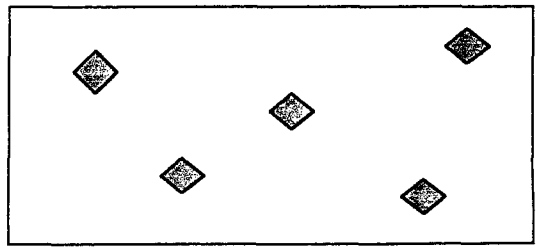
3.0 Sampling Procedure

Follow ***Quality Procedure – 02: Soil Samples for Transportation to a Laboratory*** for all Sections and subparagraphs until subparagraph 5.2 of Section 5.0: Sampling Procedure. Instead of 5.2 instructions, perform the composite sample collection procedure as follows:

3.1 Go to the excavation with a clean large blending bowl or new plastic baggie. If not analyzing for ions or metals, use a trowel to obtain the soil. If the excavation is deeper than 6' BGS, do not enter the pit, but use a backhoe to assist in procurement of the sample. (If a backhoe is used, the backhoe will obtain an amount of soil from each composite point, bring the purchase to the surface staging area where a sample-portion of soil will be extracted from the backhoe purchase. The remainder of the backhoe purchase will be staged on the surface with other staged soils.)

3.2 Sidewall samples

3.2.1 On each sidewall, procure a 5oz sample from each of five distinct points on the sidewall with distinct points resembling the "W" pattern:



3.2.2 Thoroughly blend these five samples in the blending bowl.
3.2.3 Pour blended sample into sifter and sift into labeled baggie.
3.2.4 Repeat steps 3.2.1 through 3.2.4 for each remaining sidewall, using a clean blending bowl for each sidewall.
3.2.5 From each labeled baggie, procure a 5 oz portion and pour into a baggie labeled "Sidewall Composite". Blend this soil mixture completely.
3.2.6 Obtain proper laboratory sample container for "Sidewall Composite" and continue with subparagraph 5.3 of QP – 02.

3.3 Bottom Sample
3.3.1 From bottom of excavation, procure a 5oz sample from each of five distinct points with distinct points resembling the "W" pattern as illustrated above.
3.3.2 Thoroughly blend these five samples in a clean blending bowl.
3.2.3 Pour blended sample into sifter and sift into baggie labeled "Bottom Composite".
3.2.6 Obtain proper laboratory sample container for "Bottom Composite" and continue with subparagraph 5.3 of QP – 02.

Rice Operating Company

QUALITY PROCEDURE
Sampling and Testing Protocol for VOC in Soil

1.0 Purpose

This procedure is to be used to determine the concentrations of Volatile Organic Compounds in soils.

2.0 Scope

This procedure is to be used as the standard field measurement for soil VOC concentrations. It is not to be used as a substitute for full spectrographic speciation of organic compounds.

3.0 Procedure

3.1 Sample Collection and Preparation

3.1.1 Collect at least 500 g. of soil from the sample collection point. Take care to insure that the sample is representative of the general background to include visible concentrations of hydrocarbons and soil types. If necessary, prepare a composite sample of soils obtained at several points in the sample area. Take care to insure that no loose vegetation, rocks or liquids are included in the sample(s).

3.1.2 The soil sample(s) shall be immediately inserted into a one-quart or larger polyethylene freezer bag and sealed. When sealed, the bag should contain a nearly equal space between the soil sample and trapped air. Record the sample name and the time that the sample was collected on the Field Analytical Report Form.

3.1.3 The sealed samples shall be allowed to set for a minimum of five minutes at a temperature of between 10-15 Celsius, (59-77 ^{0}F). The sample temperatures may be adjusted by cooling the sample in ice, or by heating the sample within a generally controlled environment such as the inside of a vehicle. The samples should not be placed directly on heated surfaces or placed in direct heat sources such as lamps or heater vents.

3.1.4 The sealed sample bag should be massaged to break up any clods, and to provide the soil sample with as much exposed surface area as practically possible.

3.2 Sampling Procedure

3.2.1 The instrument to be used in conducting VOC concentration testing shall be an Environmental Instruments 13471 OVM / Datalogger or a similar PID-type instrument. (Device will be identified on VOC Field Test Report Form.) Prior to use, the instrument shall be zeroed-out in accordance with the appropriate maintenance and calibration procedure outlined in the instrument operation manual. The PID device will be calibrated each day it's used.

3.2.2 Carefully open one end of the collection bag and insert the probe tip into the bag taking care that the probe tip not touch the soil sample or the sidewalls of the bag.

3.2.3 Set the instrument to retain the highest result reading value. Record the reading onto the Field Test Report Form.

3.2.4 If the instrument provides a reading exceeding 100 ppm, proceed to conduct BTEX Speciation in accordance with **QP-02 and QP-06. If the reading is 100 ppm or less, NMOCD BTEX guideline has been met and no further testing for BTEX is necessary. File the Field Test Report Form in the project file.**

4.0 Clean-up

After testing, the soil samples shall be returned to the sampling location, and the bags collected for off-site disposal. **IN NO CASE SHALL THE SAME BAG BE USED TWICE. EACH SAMPLE CONTAINER MUST BE DISCARDED AFTER EACH USE.**

Rice Operating Company

Quality Procedure
Composite Sampling of Excavation Sidewalls and Bottoms For BTEX Analysis

1.0 Purpose

This procedure outlines the methods to be employed when obtaining final composite soil samples for BTEX analysis.

2.0 Scope

This procedure is to be used when collecting soil samples intended for ultimate transfer to a testing laboratory for BTEX analysis. This procedure is to be used only when the PID field-test results for OVM exceeds 100 ppm.

3.0 Preliminary

3.1 Obtain sterile, clear, 2 oz. glass containers with Teflon lid from a laboratory supply company or the testing laboratory designated to conduct analyses of the soil.

3.2 The container shipment should include a Certificate of Compliance from the manufacturer of the collection bottle or vial and a Serial Number for the lot of containers. Retain this Certificate for future documentation purposes.

4.0 Chain of Custody

4.1 Prepare a Sample Plan. The plan will list the number, location and designation of each planned sample and the individual tests to be performed on the sample. The sampler will check the list against the available inventory of appropriate sample collection bottles to insure against shortage.

4.2 Transfer the data to the Laboratory Chain of Custody Form. Complete all sections of the form except those that relate to the time of delivery of the samples to the laboratory.

4.3 Pre-label the sample collection jars. Include all requested information except time of collection. (Use a fine point Sharpie to insure that the ink remains on the label.) Affix the labels to the jars.

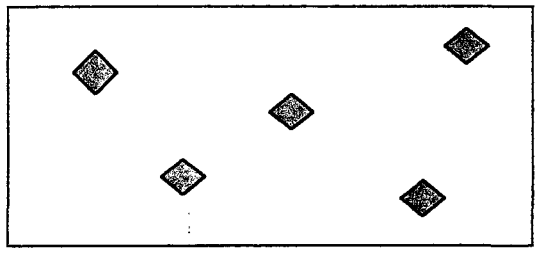
5.0 Sampling Procedure

5.1. Do not touch the soil with your bare hands. Use new latex gloves with each sample to help minimize any cross-contamination.

5.2. If safe and within OSHA regulations, go to the sampling point with the sample container. If not analyzing for ions or metals, use a trowel to obtain the soil. If the excavation is deeper than 6' BGS, do not enter the pit, but use a backhoe to assist in procurement of the sample. (If a backhoe is used, the backhoe will obtain an amount of soil from each composite point, bring the purchase to the surface staging area where a sample-portion of soil will be extracted from the backhoe purchase. The remainder of the backhoe purchase will be staged on the surface with other staged soils.)

5.3. Sidewall Samples

5.3.1. On each sidewall, procure a 2oz sample from each of five distinct points on the sidewall with distinct points resembling the "W" pattern:



5.4. Pack the soil tightly into the container leaving the top slightly domed. Screw the lid down tightly. Enter the time of collection onto the sample collection jar label. Repeat for each sampling point.

5.5. Place the samples directly on ice for transport to the laboratory if required.

5.6. Complete the Chain of Custody form to include the collection times for each sample. Deliver all samples to the laboratory.

6.0 Documentation

6.1 The testing laboratory shall provide the following minimum information:

a. Project and sample name.
b. Signed copy of the original Chain of Custody Form including the time the sample was received by the lab.
c. Results of the requested analyses
d. Test Methods employed
e. Quality Control methods and results

Price, Wayne

From: Price, Wayne
Sent: Friday, June 13, 2003 3:09 PM
To: Price, Wayne; 'Kristin Farris'
Subject: RE: Junction Box Plan Revision

After discussing the chloride decreasing trend with the staff, it appears there may be a concern as to the depth of the Closure curves versus the depth of the Disclosures.

OCD would like to see some evidence that a sample taken below the final sample confirms the trend.

-----Original Message-----
From: Price, Wayne
Sent: Friday, June 13, 2003 2:35 PM
To: 'Kristin Farris'
Subject: RE: Junction Box Plan Revision

Feedback!

1. Item number 4. third line "at a permitted facility" we would like to have it read "at an OCD approved facility"
2. Any where you indicate the symbols for feet ' please spell out "feet".
3. Item #4 "Quality Procedures" please reference where in document and document number
4. Please stipulate that any site located within a city limits, or 1/4 mile from any occupied residence, or in a wetland, designated wildlife area, playa lake or watercourse shall have individual OCD approval before excavation begins.
5. Item #6. (Test randomly for compliance) does this mean at each site or randomly at various sites? In addition, pursuant to our telephone conversation you indicated that you are only going to use the Clay Layer Barrier, if so then your final submittal shall not include the other drawings.

6. .Item number #8. "Accurate measurements or excavation and worksite dimensions" Please include location.

I am still working on other issues!

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-----Original Message-----
From: Kristin Farris [mailto:enviro@leaco.net]
Sent: Thursday, June 12, 2003 11:22 AM
To: Wayne Price
Subject: Fw: Junction Box Plan Revision

---- Original Message ----
From: riceswd
To: Kristin Farris
Sent: Tuesday, June 10, 2003 3:13 PM
Subject: Fw: Junction Box Plan Revision

---- Original Message ----
From: riceswd

To: Wayne Price
Sent: Tuesday, June 10, 2003 3:04 PM
Subject: Junction Box Plan Revision

Wayne,

This should complete the changes we discussed.

Kristin and I have made changes to the Chloride Flowchart with the distinction for the 1500ppm as an * and a red box to explain the *. Also, to the file we've added sheets describing Closure Curve Examples, Disclosure Curve Examples, and a blank curve. We have also committed that each junction box site report should include a chloride curve, therefore, additional changes had to be made to the Work Plan, item # 4; Initial Assessment item # 8 and we have added item # 9 to confirm ROC's intention of proceeding with RBCA workplans for sites out of the scope of the junction box plan.

The Chloride Concentration Curve will look like the ones in the examples (Chloride Flowchart file). The Blank Curve will be the format used and the ppm axis range will reflect concentrations applicable to the individual box.

Any questions or suggestions for changes or clarification, please don't hesitate to call. I will be in the Hobbs office the remainder of the week.

Carolyn Haynes

Price, Wayne

From: Kristin Farris [enviro@leaco.net]
Sent: Thursday, June 12, 2003 11:22 AM
To: Wayne Price
Subject: Fw: Junction Box Plan Revision

—— Original Message ——
From: riceswd
To: Kristin Farris
Sent: Tuesday, June 10, 2003 3:13 PM
Subject: Fw: Junction Box Plan Revision

—— Original Message ——
From: riceswd
To: Wayne Price
Sent: Tuesday, June 10, 2003 3:04 PM
Subject: Junction Box Plan Revision

Wayne,

This should complete the changes we discussed.

Kristin and I have made changes to the Chloride Flowchart with the distinction for the 1500ppm as an * and a red box to explain the *. Also, to the file we've added sheets describing Closure Curve Examples, Disclosure Curve Examples, and a blank curve. We have also committed that each junction box site report should include a chloride curve, therefore, additional changes had to be made to the Work Plan, item # 4; Initial Assessment item # 8 and we have added item # 9 to confirm ROC's intention of proceeding with RBCA workplans for sites out of the scope of the junction box plan.

The Chloride Concentration Curve will look like the ones in the examples (Chloride Flowchart file). The Blank Curve will be the format used and the ppm axis range will reflect concentrations applicable to the individual box.

Any questions or suggestions for changes or clarification, please don't hesitate to call. I will be in the Hobbs office the remainder of the week.

Carolyn Haynes

RICE *Operating Company*

Junction Box Upgrade Work Plan

1. Notify NM OneCall and spot area pipelines. Use caution to ensure pipeline integrity or temporarily re-route pipeline. Remove junction box. Per NMED guidelines, remove and contain NORM impacted soils for export to a NORM-permitted disposal facility.
2. Evaluate site by "Initial Assessment", "Assessment Criteria" and record on "Initial Report".
3. Submit by email the weekly environmental-work schedule of sites: legal description, scheduled work and groundwater depth, to both NMOCD Hobbs and Santa Fe offices.
4. Begin site work activities. Maximum suggested excavation dimension is 30' x 30' x 12' deep, however, do not excavate under vegetated areas. Highly impacted soils (>10,000 ppm TPH) will be properly disposed at a permitted facility with remaining soils remediated or blended on-site to use as backfill. During vertical and lateral excavation, procure samples at regular intervals of depth and breadth and conduct field-testing using "Quality Procedures." When results indicate NMOCD "Clean-up Target Concentrations" for TPH and BTEX can be met, stop excavation and review field data for chloride concentration decline trend. Graph the site "Chloride Concentration Curve" and compare to "Closure Curve Examples" and "Disclosure Curve Examples." Follow "Chloride Impact Flowchart" for closure strategy. Complete and file *FINAL* Report with NMOCD.

   If vertical delineation to 12' deep at the source reveals Target Concentrations for TPH or BTEX will not meet NMOCD guidelines or TPH and BTEX will meet guidelines but there is not a significant decline vs depth in chloride concentration, the site impact is judged to be outside the scope of this work plan and will become a project site for risk-based corrective action (RBCA). (All RBCA project sites will be evaluated, prioritized and will have individual work plans submitted in due course to the NMOCD; 6-8 of these sites will be worked each year.) Procure bottom sample for lab confirmation. File *DISCLOSURE* Report and notify NMOCD Environmental Bureau Chief of the potential for groundwater impact.
5. Procure composite samples of bottom (5-point) and sides (4-point) for lab analysis of TPH, BTEX*, Chlorides using approved laboratory-testing procedures as per NMOCD guidelines.
6. Install (as diagramed in "Clay Layer Barrier") as warranted for inhibition of downward migration of impact remaining in-place at *CLOSURE* locations (TPH, BTEX or chlorides), a clay layer (10-12" thick) compacted to meet or exceed 95% of a Proctor Test ASTM-D-698 with permeability (hydraulic conductivity) $\leq 1x10^{-7}$ cm/sec. (Test randomly for compliance).
7. Backfill with clean/remediated soil that meets NMOCD TPH/BTEX guidelines and will support vegetation (<1000 ppm Chlorides) and compact to within 2' below pipeline. Line junction area with 20-mil poly or compacted clay to provide secondary containment for new junction box. Construct watertight junction box around pipeline connections. Complete backfill, mounding soil away from box to prevent moisture accumulation. Cross-sectional view in "Completed Box Site."
8. Submit Annual Report to NMOCD of site "Final Report" or "Disclosure Report" by April 1.

*BTEX composite sample will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing results. The study will be forwarded to NMOCD for comment.

June 10, 2003
Submitted by Carolyn Doran Haynes

RICE *Operating Company*

Junction Box Upgrade Work Plan

INITIAL ASSESSMENT AND DOCUMENTATION REQUIREMENTS

Junction Box site is transferred to Environmental Group for TPH and Salt remediation when de-contamination for NORM has been completed.

1. **Initial Observation: arrive on location and make visual assessment. Include the following on the Initial Report form:**
   - All pipelines, facilities, oil and gas wells and production batteries
   - Vegetation condition, surface staining and other obvious staining
   - Disturbed surface areas, work space, near-surface lithology (caliche, sand, etc.)
   - Windmills, water wells, surface water, roads, housing, cattle, public access areas

   PHOTOS

2. **Initial Sampling**
   - Procure samples for on-site testing:
     - Below pipeline at surface and as deep as is practical in 1-2' increments
     - Walls: individual samples to identify most to least impacted
     - Surface surrounding box where bare soil or stressed vegetation is obvious
       - Continue as deep as is practical in 1-2' increments
     - Background: near-surface at a point obviously never impacted
   - Test samples on-site as is practical
   - Record results on the site map of Initial Report
     - Site parameters, perhaps even cross-sectional, including reference points
     - Record sample sites and associated results
   - Install site sign if further excavation if necessary

3. **If excavation is probable, record driving directions for one-call.**

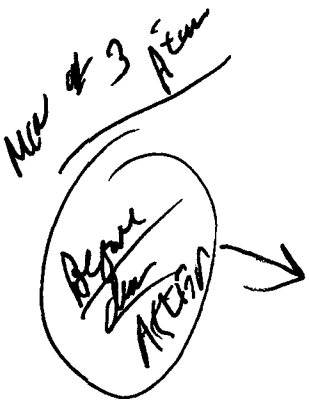
4. **Perform reconnaissance of junction box history**
   - Confirm landowner
   - Review history for boot or vent presence
   - Review history for leaks and spills
   - Confirm groundwater depth and any other available aquifer information
   - On topographical map, confirm nearest wells or surface water within 1 mile

5. Bring all information to the discussion-table to discuss closure options

Decide if further action at the site is warranted
Estimate width, length, and possibly depth of excavation
Identify equipment most practical to excavate and contractor to use
Evaluate line interference problems – if need to relocate lines
Discuss on-site soil remediation or soil disposal, importation, replacement source
Begin worksheet with all information including sections for costs, activity updates

6. If necessary, take work plan to operations: looping, re-plumbing, or relocating box

7. Documentation of Site Work Activities



NMOCD notification by E-Mail of work schedule
Landowner notification and Contractor scheduling
Safety meeting on-site and record
Sample, test on-site as excavation continues: record developments on worksheet
Daily, collect all manifests, work tickets, daily costs and record
Regularly update project board of all significant events
Table discussion of project and developments, possible plan adjustments
Pictures of all significant events during workplan
Final samples of bottom and sidewalls to lab for confirmation
If clay barrier is required, move in clay and compact; test for compaction
Backfill/compact to within 2' below line or as proscribed by Operations

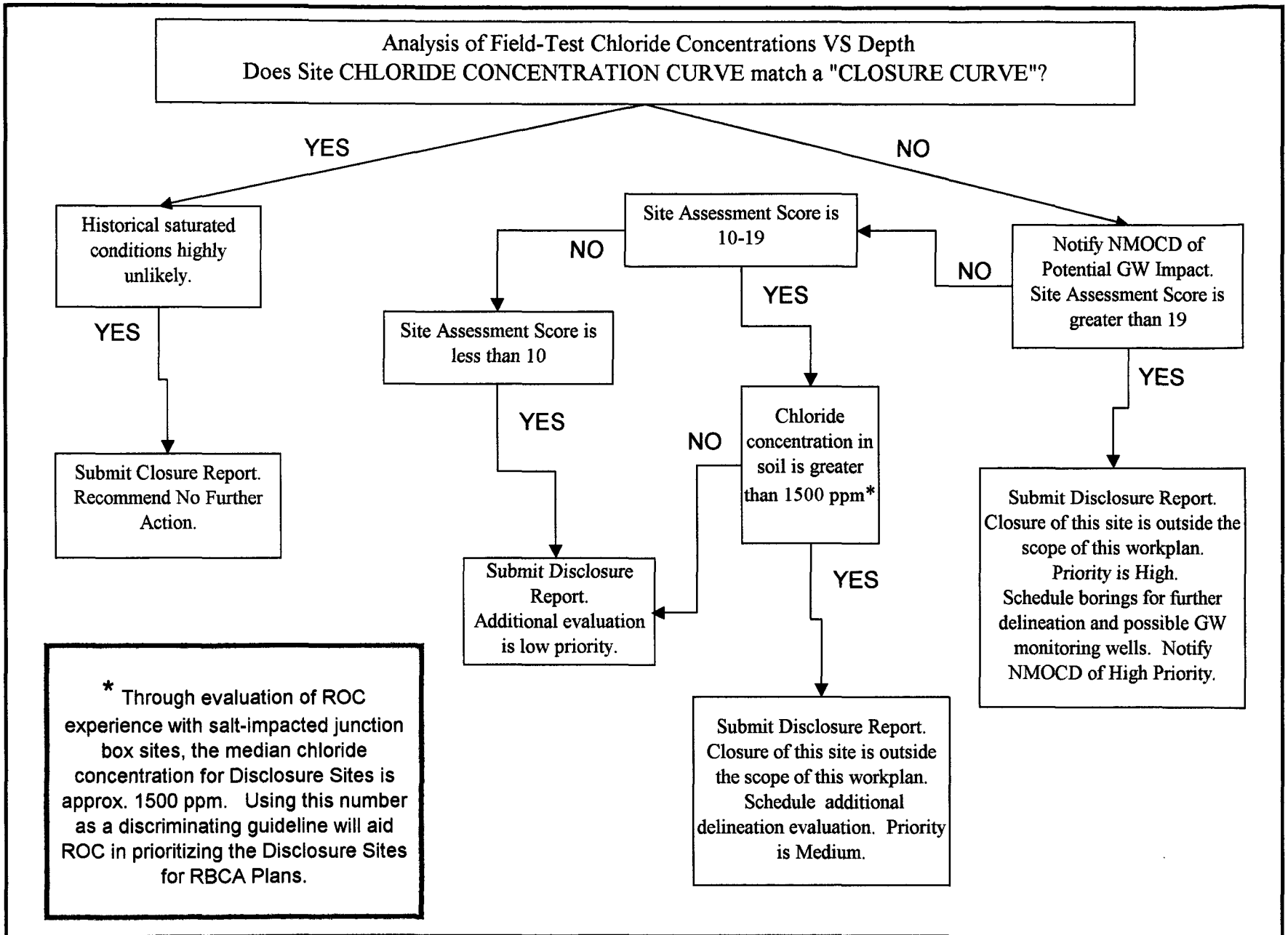
8. Documentation Requirements to Complete Report

Complete Final Report or Disclosure Report (in triplicate) with:
- Accurate measurements of excavation and worksite dimensions — And Location
- Photos of significant events (added after photos are returned)
- "Chloride Concentration Curve"
- Copy manifests as needed
- Update final site diagram with sample points, borings, liners, MWs, etc.
- Discuss completed form and comments with team before filing

Archive appropriate samples of bottom, walls, borings, backfill etc.
Compare field sample results with lab confirmation results
Copy field log notes into file
File original manifests in file
Complete total cost
Pass-on camera and information to operations for completion of junction box
Complete annual report to NMOCD

9. Disclosure Junction Box Sites

Compare site priority with other existing SWD System Disclosure Sites
Assign a timeline for RBCA workplan development



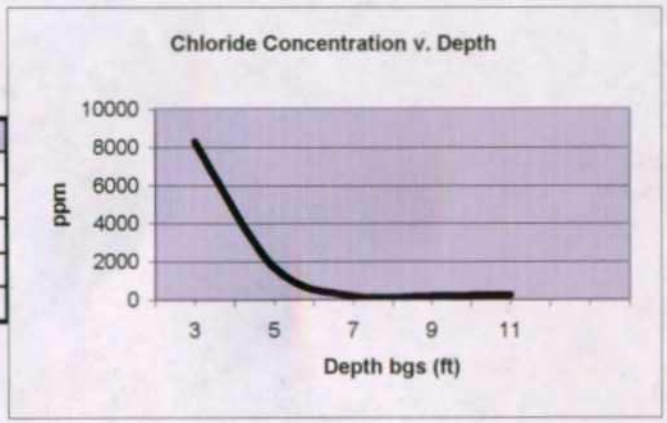
RICE Operating Company 122 West Taylor Hobbs, NM 88240 505-393-9174	**CHLORIDE IMPACT FLOWCHART**	**ROC Junction Box Work Plan Closure/Disclosure Strategy**

CLOSURE CURVE EXAMPLES

CLOSED SITES THAT EXHIBIT A SIGNIFICANT CHLORIDE DECLINE WITH DEPTH

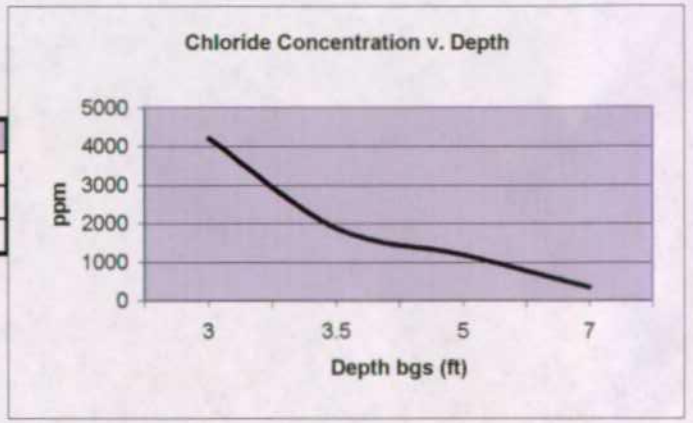
EME jct. H-10-1
T20S, R36E

Depth bgs (ft)	[Cl-] ppm
3	8300
5	1716
7	199
9	201
11	284



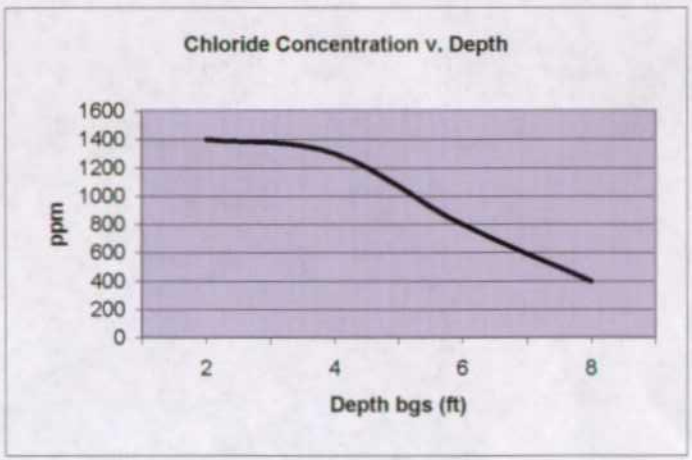
EME jct. H-2
T20S, R37E

Depth bgs (ft)	[Cl-] ppm
3.5	1895
5	1200
7	350



EME jct. C-12-1 North
T20S, R36E

Depth bgs (ft)	[Cl-] ppm
2	1400
4	1300
6	800
8	400



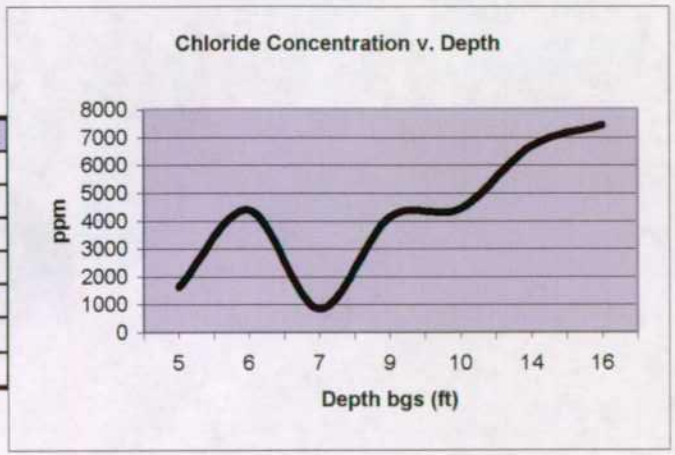
RICE *Operating Company*

DISCLOSURE CURVE EXAMPLES

DISCLOSED SITES THAT DID NOT EXHIBIT A SIGNIFICANT CHLORIDE DECLINE WITH DEPTH

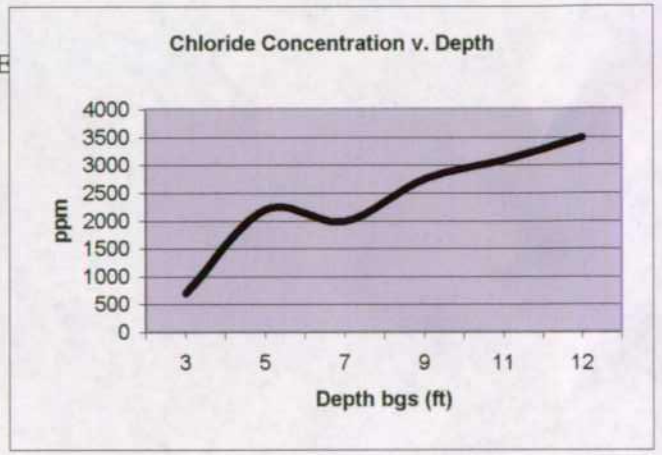
BD jct. I-8
T22S, R37E

Depth bgs (ft)	[Cl-] ppm
5	1617
6	4397
7	837
9	4157
10	4450
14	6700
16	7450



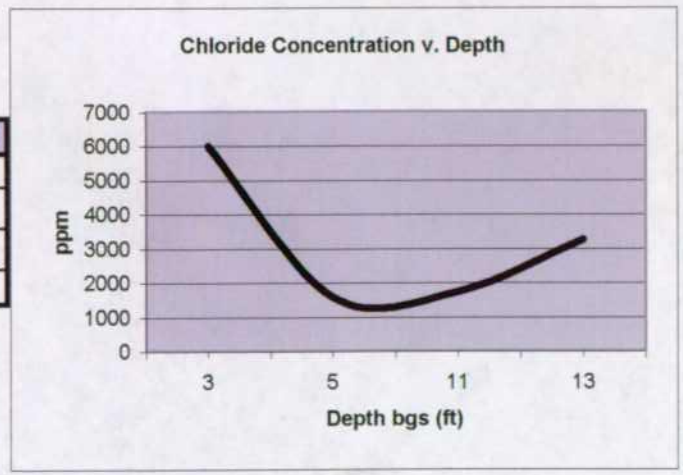
BD Brunson EOL
UL 'P', Sec. 4, T22S, R37E

Depth bgs (ft)	[Cl-] ppm
3	700
5	2200
7	2000
9	2750
11	3100
12	3500



BD jct. F-17
T21S, R37E

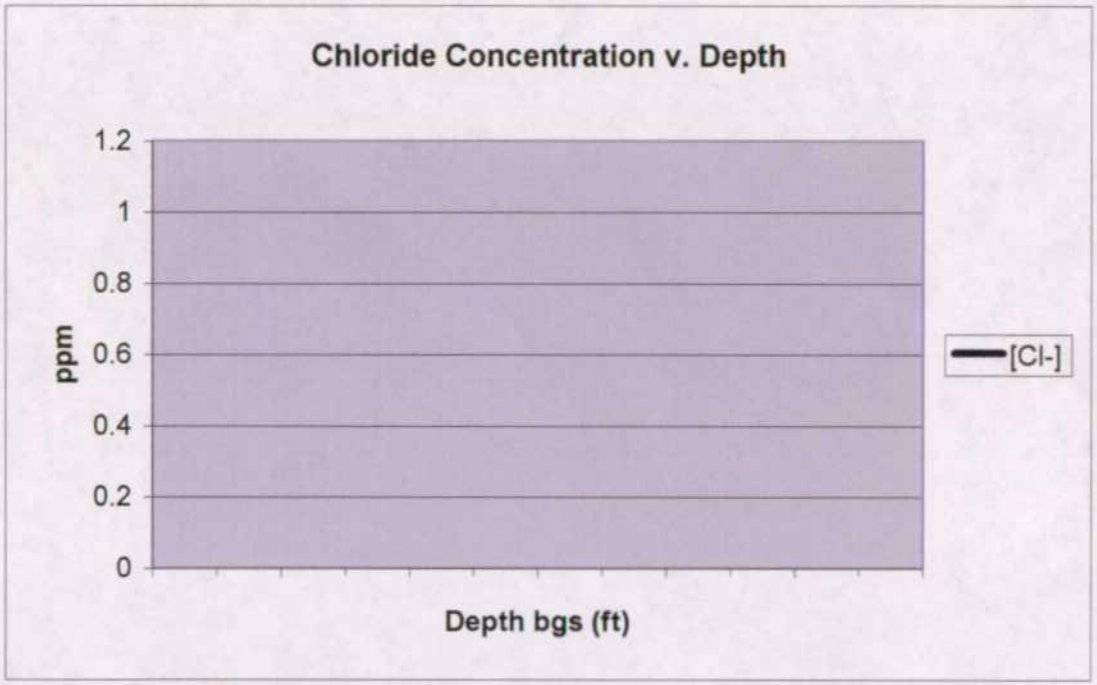
Depth bgs (ft)	[Cl-] ppm
3	6001
5	1591
11	1749
13	3273



A soil bore was conducted at this location and the site was found to have chloride impact to groundwater.

Site Name
Legal Description

Depth bgs (ft)	[Cl-] ppm



RICE Jct Upgrade Work Plan- OCD evaluation comments

Where will norm be disposed ?

The initial assessment should include playa lakes, dry lakebeds etc.

Surface water includes playa lakes even if dry- will write in approval process

Section 5 land farming?? Explain. Will remove

Recommend Attach photos to Initial report-OK

Chloride flow chart: under the NO option is their a liner ????? or what??? No further action

Also what rational was used to establish a number of 1500 ppm
Rice will explain

What QA/QC procedure will be used to compare field samples and lab samples-explain-OK

OCD will not accept procedure for composite sampling for BTEX samples. We recommend that you have the lab composite these under lab conditions.-will submit addendum

---

OCD is concerned in the validity of using trends to determine if vertical extent should be stopped. What values or criteria would you use. Please see the attached drawing to help explain our concern.- will provide additional info

---

Please provide Liner spec's including life of liner. What Institutional Controls will be used for future protection of the liner. Deed recording etc.- will elminate

On the "Impacted Sidewalls, Deep Impact" drawing what levels of BTEX, TPH or chlorides will be used to determine when you stop the horizontal delineation. If these levels are extremely high then what contingency do you have.-explain doing more work

On the "Clay Layer Barrier for Clean Sidewalls Deep Impact" drawing what is the criteria or definition you will use to determine what is clean. Also Blended soils above the liner that meets OCD guidelines for TPH/BTEX will suffice, but will the remaining chlorides that support vegetation be high enough to cause groundwater contamination in the foreseeable future. What Level of chlorides do you anticipate this will be.-1000 ppm cl

Transmitted via E-Mail
on May 22, 2003

RICE *Operating Company*

122 West Taylor • Hobbs, NM 88240
Phone: (505) 393-9174 • Fax: (505) 397-1471

May 22, 2003

Certified Mail Return Receipt No.
7002 2410 0000 4940 1022

Mr. Wayne Price
NM Energy, Minerals and Natural Resources Department
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, NM 87504

Re: Revised Junction Box Upgrade Work Plan Project

Dear Mr. Price:

Rice Operating Company (ROC) is submitting the revised work plan for upgrading junction boxes that are presently used in the ROC-operated SWD systems in Lea County. ROC has no ownership of pipelines, wells, or facilities. Each system is owned by a consortium of oil producers, System Partners, who provide operating capital based on percent ownership or usage. This type of capital improvement project requires AFE approval and pre-work funding.

The site assessments, work schedules, sample and test procedures, impacted soil handling, replacement junction boxes, etc. will be specifically conformed to the particular site, but will follow this generic plan. NMOCD will be notified in advance by email of work schedule and timing of significant events and will be consulted throughout the work plan process for concurrence of any significant plan alterations, analytical interpretations, etc.

The impact target values of this work plan reflect the present NMOCD guidelines for Clean-up Target Concentrations of TPH and BTEX. Should these guideline values be adjusted in the course of the TPH and Chlorides Workgroup results, the target values mentioned in this plan will be adjusted to reflect the new criteria.

Thank you for meeting with Kristin Farris and me yesterday to discuss details of this work plan and to clarify issues ROC faces with landowners, System Partners and operations of an aging infrastructure. Modifications that were suggested are incorporated into this revision. ROC asks that the NMOCD review this plan revision for approval. We look forward to hearing from you soon. If there are any additional questions, please contact me at the above phone number.

Carolyn Doran Haynes

Carolyn Doran Haynes
Engineering Manager

Attachments
cc: LBG, SC, KF, file; NMOCD: Roger Anderson, Larry Johnson, Paul Sheeley

RICE *Operating Company*

Junction Box Upgrade Work Plan

1. Notify NM OneCall and spot area pipelines. Use caution to ensure pipeline integrity or temporarily re-route pipeline. Remove junction box. Remove and contain NORM impacted soils for proper disposal at a permitted facility.

2. Evaluate site by "Initial Assessment", "Assessment Criteria" and record on "Initial Report".

3. Submit by email the weekly environmental-work schedule of sites: legal description, scheduled work and groundwater depth, to both NMOCD Hobbs and Santa Fe offices.

4. Begin site work activities. During vertical and lateral excavation, procure samples and conduct field-testing using "Quality Procedures" to evaluate concentration decrease trends of TPH and chloride. When results indicate NMOCD "Clean-up Target Concentrations" for TPH and BTEX can be met, stop excavation and review field data for chloride concentration decline trend. Field-testing for chloride will be performed at regular intervals of depth and breadth; if chloride concentrations decline significantly, stop excavation, however, do not excavate under vegetated areas. Maximum suggested excavation dimension is 30' x 30' x 12' deep; highly impacted soils (>10,000 ppm TPH) will be properly disposed at a permitted facility with remaining soils remediated/blended on-site to use as backfill. Follow "Chloride Impact Flowchart" for closure strategy. Complete and file *FINAL* Report with NMOCD.

   If vertical delineation to 12' deep at the source reveals Target Concentrations for TPH or BTEX will not meet NMOCD guidelines or TPH and BTEX will meet guidelines but there is not a significant decline vs depth in the concentration of chloride, the site impact is judged to be outside the scope of this work plan and will be evaluated as a project site for risk-based corrective action. Procure bottom sample for lab confirmation. File *DISCLOSURE* Report and notify NMOCD Environmental Bureau Chief of the potential for groundwater impact.

5. Procure composite samples of bottom (5-point) and sides (4-point) for lab analysis of TPH, BTEX, Chlorides using approved laboratory-testing procedures as per NMOCD guidelines.

6. As warranted for containment/isolation or inhibition of downward migration of impact remaining in-place at *CLOSURE* locations (TPH, BTEX or chlorides), install either a 20-mil poly liner or a clay liner (10-12" thick) compacted to meet or exceed 95% of a Proctor Test ASTM-D-698 with permeability (hydraulic conductivity) equal to or less than $1x10^{-7}$ cm/sec. (Test randomly for compliance). Stage liner as diagramed in "Liner Staging."

7. Backfill and compact with clean/remediated soils (meets NMOCD TPH/BTEX guidelines and will support vegetation) to within 2' below pipeline. Line junction area with 20-mil poly or compacted clay to provide secondary containment for new junction box. Construct watertight junction box around pipeline connections. Complete backfill, mounding soil away from box to prevent moisture accumulation. Cross-sectional view in "Completed Box Site"

8. Submit Annual Report to NMOCD of site "Final Report" or "Disclosure Report" by April 1.

May 22, 2003
Submitted by Carolyn Doran Haynes

RICE *Operating Company*

Junction Box Upgrade Work Plan

INITIAL ASSESSMENT AND DOCUMENTATION REQUIREMENTS

Junction Box site is transferred to Environmental Group for TPH and Salt remediation when de-contamination for NORM has been completed.

1. **Initial Observation: arrive on location and make visual assessment. Include the following on the Initial Report form:**
   - All pipelines, facilities, oil and gas wells and production batteries
   - Vegetation condition, surface staining and other obvious staining
   - Disturbed surface areas, work space, near-surface lithology (caliche, sand, etc.)
   - Windmills, water wells, surface water, roads, housing, cattle, public access areas

2. **Initial Sampling**
   - Procure samples for on-site testing:
     - Below pipeline at surface and as deep as is practical in 1-2' increments
     - Walls: individual samples to identify most to least impacted
     - Surface surrounding box where bare soil or stressed vegetation is obvious
       - Continue as deep as is practical in 1-2' increments
     - Background: near-surface at a point obviously never impacted
   - Test samples on-site as is practical
   - Record results on the site map of Initial Report
     - Site parameters, perhaps even cross-sectional, including reference points
     - Record sample sites and associated results
   - Install site sign if further excavation if necessary

3. **If excavation is probable, record driving directions for one-call.**

4. **Perform reconnaissance of junction box history**
   - Confirm landowner
   - Review history for boot or vent presence
   - Review history for leaks and spills
   - Confirm groundwater depth and any other available aquifer information
   - On topographical map, confirm nearest wells or surface water within 1 mile

5. **Bring all information to the discussion-table to discuss closure options**
   - Decide if further action at the site is warranted
   - Estimate width, length, and possibly depth of excavation
   - Identify equipment most practical to excavate and contractor to use
   - Evaluate line interference problems – if need to relocate lines
   - Discuss landfarming or soil disposal, soil importation, soil replacement source
   - Begin worksheet with all information including sections for costs, activity updates

6. **If necessary, take work plan to operations: looping, re-plumbing, or relocating box**

7. **Documentation of Site Work Activities**
   - NMOCD notification by E-Mail of work schedule
   - Landowner notification and Contractor scheduling
   - Safety meeting on-site and record
   - Sample, test on-site as excavation continues: record developments on worksheet
   - Daily, collect all manifests, work tickets, daily costs and record
   - Regularly update project board of all significant events
   - Table discussion of project and developments, possible plan adjustments
   - Pictures of all significant events during workplan
   - Final samples of bottom and sidewalls to lab for confirmation
   - If clay barrier is required, move in clay and compact; test for compaction
   - If poly liner is required, measure, order, install and diagram layout
   - Backfill/compact to within 2' below line or as proscribed by Operations

8. **Documentation Requirements to Complete Report**
   - Complete Final Report or Disclosure Report (in triplicate) with:
     - Accurate measurements of excavation and worksite dimensions
     - Photos of significant events (added after photos are returned)
     - Copy manifests as needed
     - Update final site diagram with sample points, borings, liners, MWs, etc.
     - Discuss completed form and comments with team before filing
   - Archive appropriate samples of bottom, walls, borings, backfill etc.
   - Compare field sample results with lab confirmation results
   - Copy field log notes into file
   - File original manifests in file
   - Complete total cost
   - Pass-on camera and information to operations for completion of junction box
   - Complete annual report to NMOCD

RICE OPERATING COMPANY
JUNCTION BOX INITIAL REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	ORIGINAL BOX DIMENSIONS - FEET		
							Length	Width	Depth

LAND TYPE: BLM ☐ STATE ☐ FEE LANDOWNER _____ OTHER _____

Depth to Groundwater _____ feet Move or Replace Box? _____

Date Initial _____ Boot or Vent? _____ New or Loop Line? _____

Depth of Pipeline _____ Pipeline Material _____ Past Leaks? _____

Initial Observation: Arial View Sketch of location as it appears upon arrival: as applicable to remediation plans: include all wells and surface water sources, roads, stressed vegetation, cattle, houses, oil wells, pipelines, facilities, dirt piles, fences, measurements, reference point, sample locations, etc.

FIELD TESTS FOR INITIAL DELINEATION

TEST POINT NO. *Background*				
DEPTH	TPH	Cl^-	Soil	H_2O

TEST POINT NO. *Original Bottom*				
DEPTH	TPH	Cl^-	Soil	H_2O

TEST POINT NO.				
DEPTH	TPH	Cl^-	Soil	H_2O

TEST POINT NO.				
DEPTH	TPH	Cl^-	Soil	H_2O

TEST POINT NO.				
DEPTH	TPH	Cl^-	Soil	H_2O

TEST POINT NO.				
DEPTH	TPH	Cl^-	Soil	H_2O

TEST POINT NO.				
DEPTH	TPH	Cl^-	Soil	H_2O

TEST POINT NO.				
DEPTH	TPH	Cl^-	Soil	H_2O

TEST POINT NO.				
DEPTH	TPH	Cl^-	Soil	H_2O

Site Assessment Criteria (NMOCD)

Depth to Ground Water (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet	(20 points)
	50 feet to 99 feet	(10 points)
	Greater than 100 feet	(0 points) _____
Wellhead Protection Area (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources)	Yes	(20 points)
	No	(0 points) _____
Distance to Surface Water Body: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	(20 points)
	200 feet to 1000 feet	(10 points)
	Greater than 1000 feet	(0 points) _____

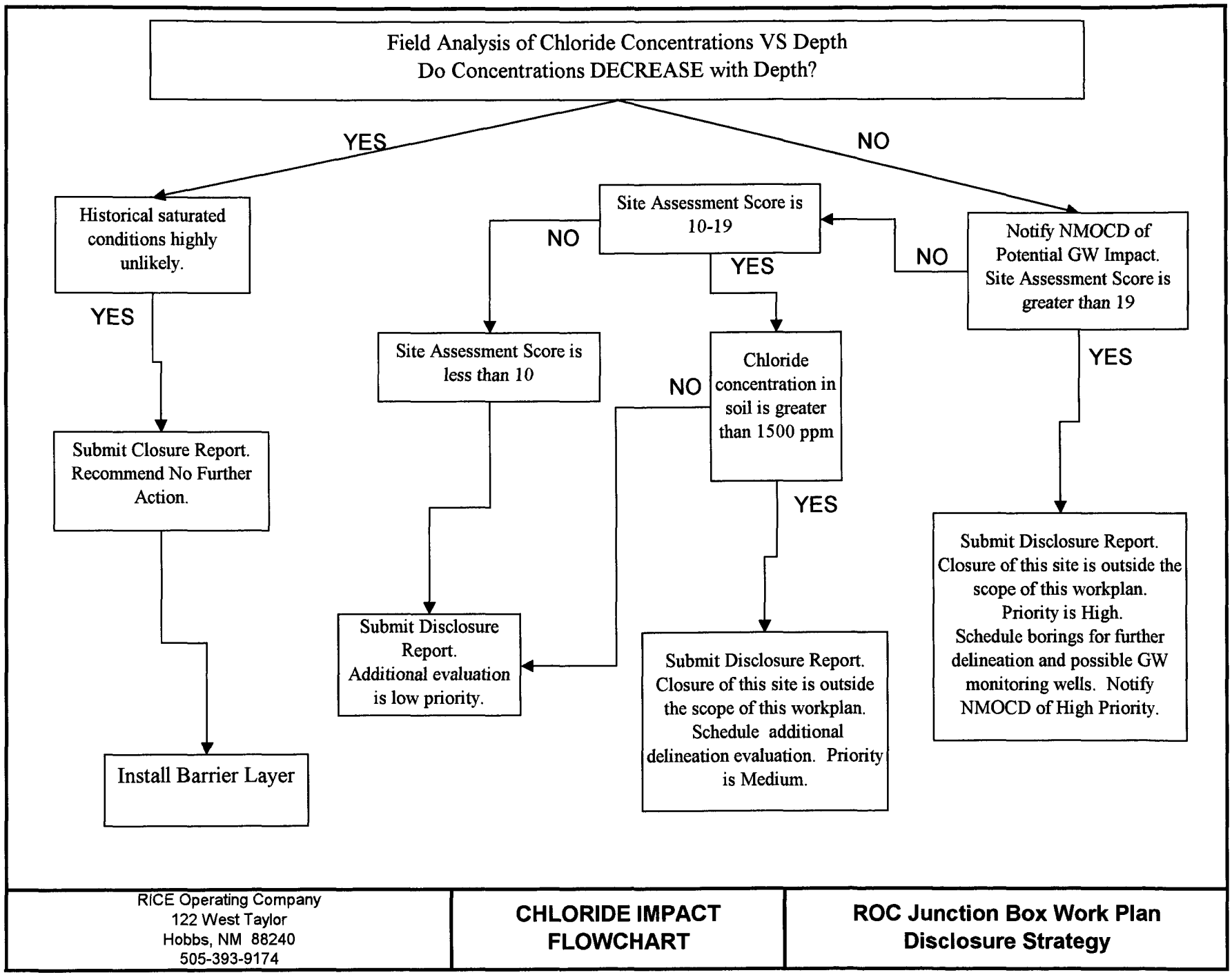
RANKING SCORE (TOTAL POINTS): _____

Clean-up Target Concentrations for "Site Closure" (NMOCD)

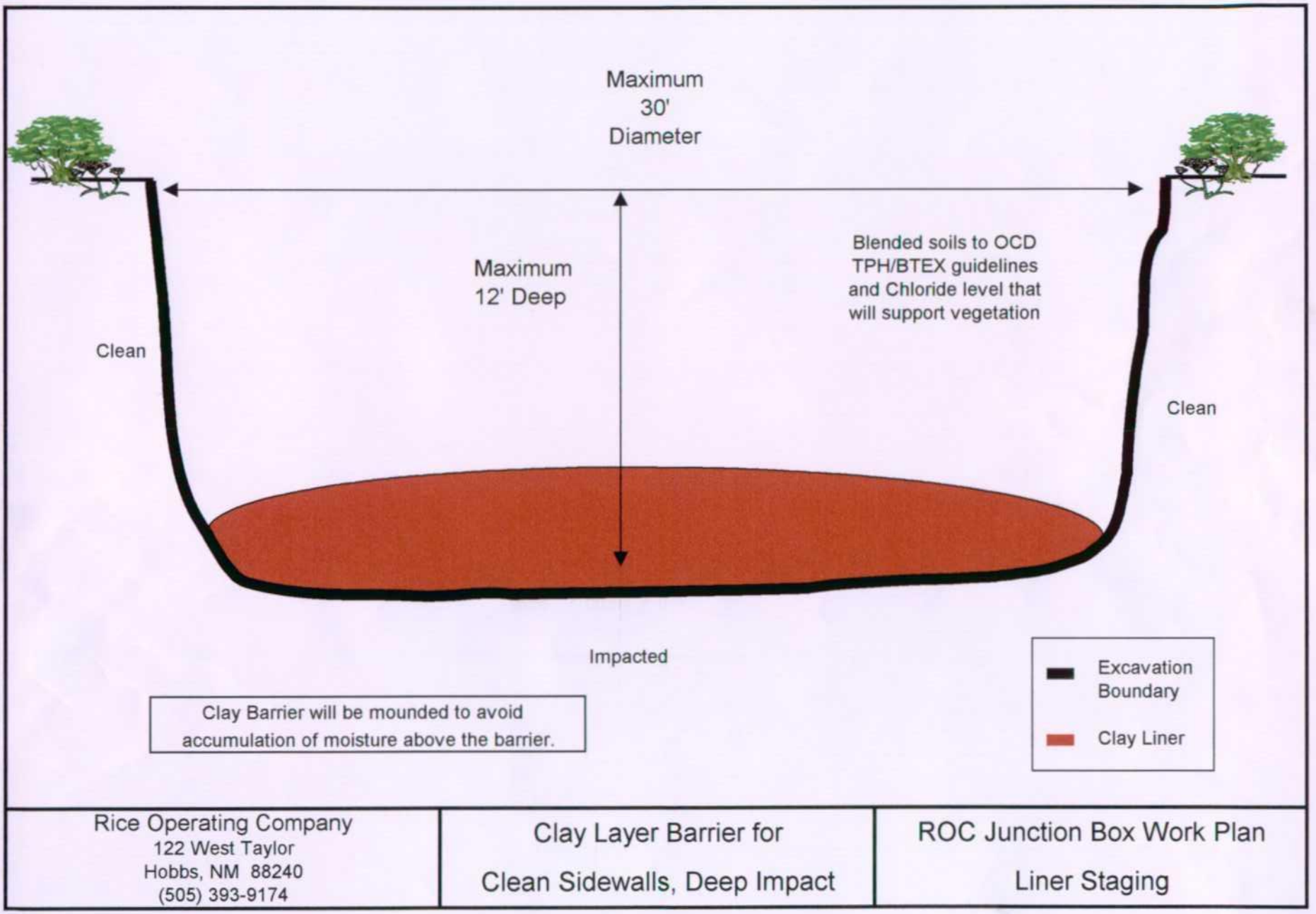
IF RANKING SCORE IS:	**>19**	**10-19**	**0-9**
Benzene (ppm) *	**10**	**10**	**10**
BTEX (ppm) *	**50**	**50**	**50**
TPH (ppm) **	**100**	**1000**	**5000**

* A field vapor headspace measurement of 100 ppm may be substitued for a laboratory analysis.

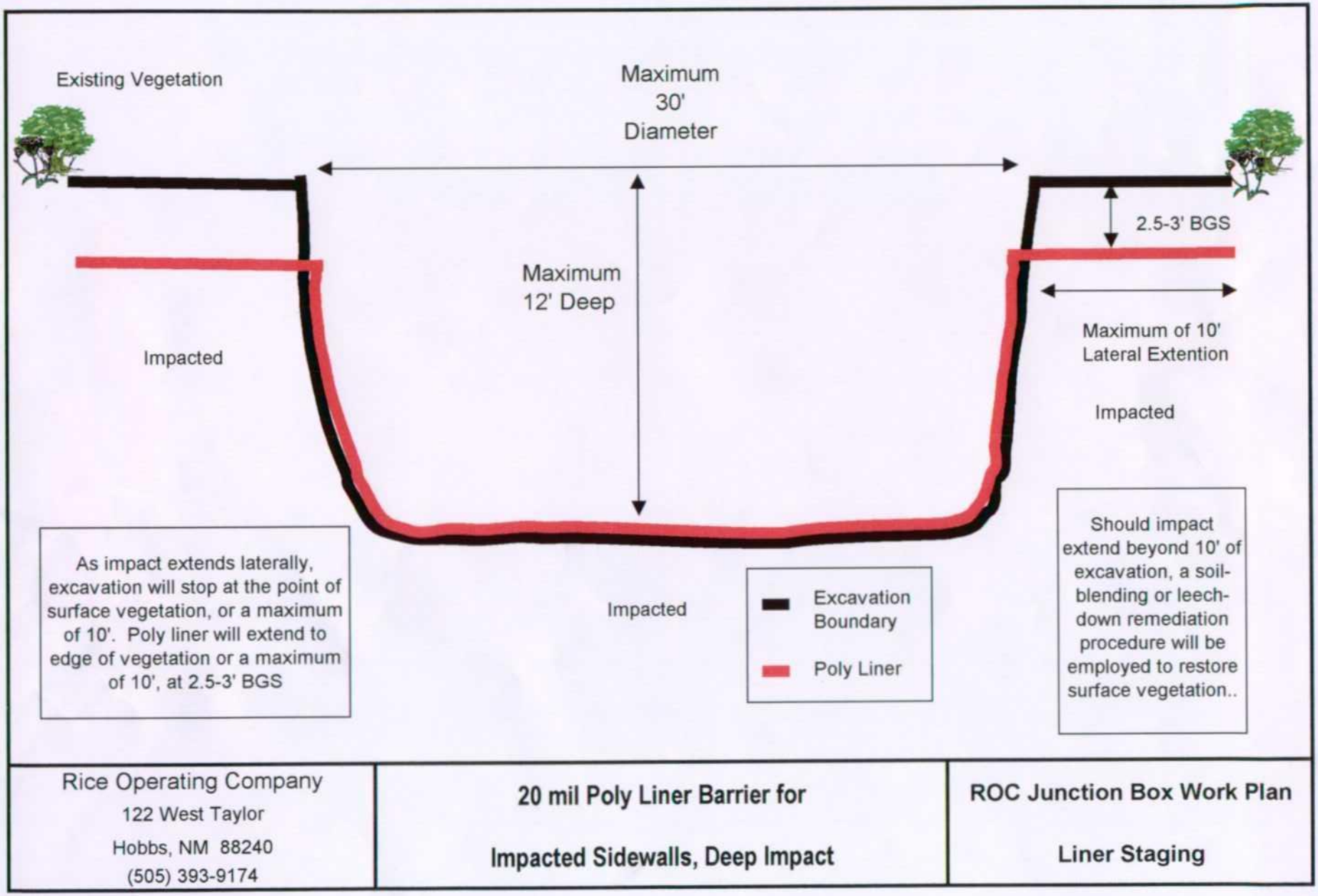
** The contaminant concentration for TPH is the concentration above background levels.



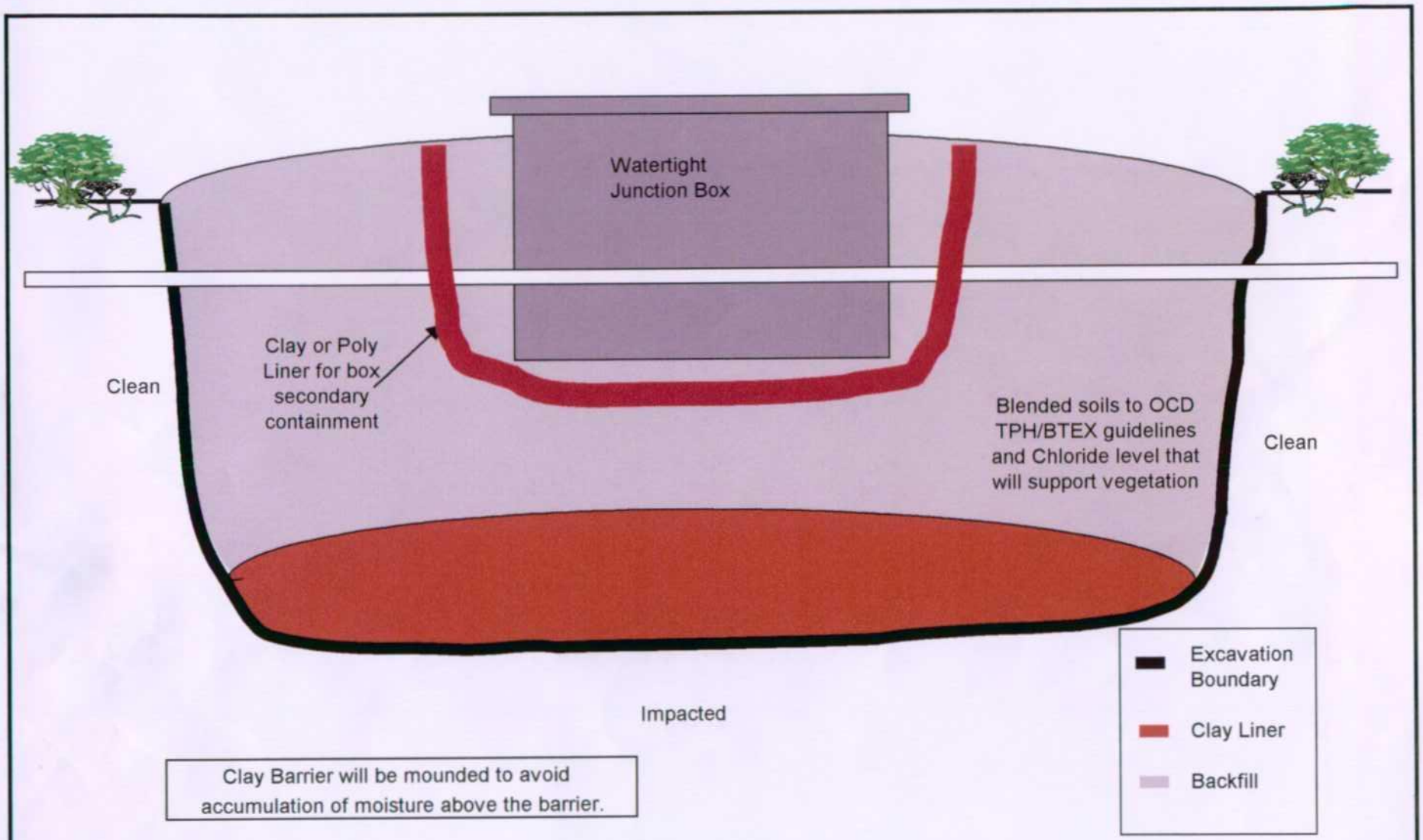
RICE Operating Company 122 West Taylor Hobbs, NM 88240 505-393-9174	**CHLORIDE IMPACT FLOWCHART**	**ROC Junction Box Work Plan Disclosure Strategy**



Rice Operating Company 122 West Taylor Hobbs, NM 88240 (505) 393-9174	Clay Layer Barrier for Clean Sidewalls, Deep Impact	ROC Junction Box Work Plan Liner Staging



Rice Operating Company 122 West Taylor Hobbs, NM 88240 (505) 393-9174	**20 mil Poly Liner Barrier for** **Impacted Sidewalls, Deep Impact**	**ROC Junction Box Work Plan** **Liner Staging**



Clay Barrier will be mounded to avoid accumulation of moisture above the barrier.

Rice Operating Company 122 West Taylor Hobbs, NM 88240 (505) 393-9174	CrossSectional View	ROC Junction Box Work Plan Completed Box Site

RICE OPERATING COMPANY
JUNCTION BOX DISCLOSURE REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth

LAND TYPE: BLM ☐ STATE ☐ FEE LANDOWNER _____ OTHER _____

Depth to Groundwater _____ feet NMOCD SITE ASSESSMENT RANKING SCORE: _____

Date Started _____ Date Completed _____ OCD Witness _____

Soil Excavated _____ cubic yards Excavation Length _____ Width _____ Depth _____ feet

Soil Disposed _____ cubic yards Offsite Facility _____ Location _____

FINAL ANALYTICAL RESULTS: **Sample Date** _____ **Sample Depth** _____

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							
BOTTOM							
BACKFILL							

General Description of Remedial Action: _____

CHLORIDE FIELD TESTS

LOCATION	DEPTH	mg/kg

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

DATE _____ PRINTED NAME _____

SIGNATURE _____ TITLE _____

RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth

LAND TYPE: BLM ☐ STATE ☐ FEE LANDOWNER _____ OTHER _____

Depth to Groundwater _____ feet NMOCD SITE ASSESSMENT RANKING SCORE: _____

Date Started _____ Date Completed _____ OCD Witness _____

Soil Excavated _____ cubic yards Excavation Length _____ Width _____ Depth _____ feet

Soil Disposed _____ cubic yards Offsite Facility _____ Location _____

FINAL ANALYTICAL RESULTS: **Sample Date** _____ **Sample Depth** _____

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							
BOTTOM							
BACKFILL							

General Description of Remedial Action: _____

CHLORIDE FIELD TESTS

LOCATION	DEPTH	mg/kg

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

DATE _____ PRINTED NAME _____

SIGNATURE _____ TITLE _____

Rice Operating Company

Quality Procedure
Field TPH Analysis

1.0 Purpose

To define the procedure to be used in conducting total percentage hydrocarbon testing in accordance with EPA Method 418.1 (modified) using the "MEGA" TPH Analyzer.

2.0 Scope

This procedure is to be used for field testing and on site remediation information.

3.0 Procedure

1.1 The G.A.C. "MEGA" TPH analyzer is an instrument that measures concentrations of aliphatic hydrocarbons by means of infra-red spectrometry. It is manufactured to specifications and can accurately measure concentrations from two parts per million through 100,000 parts per million. The unit is factory calibrated however minor calibration adjustments may be made in the field. Quality Procedure 25 defines the field calibration methods to be employed.

1.2 Prior to taking the machine into the field, insert a 500 ppm and 5,000 ppm calibration standard into the sample port of the machine. Zero out the Range dial until the instrument records the exact standard reading.

1.3 Once in the field, insert a large and small cuvette filled with clean Freon 113 into the sample port of the machine. Use the range dial to zero in the reading. If the machine does not zero, do not attempt to adjust the span dial. Immediately implement Quality Procedure 25.

1.4 Place a 100 g weight standard on the field scale to insure accuracy. Zero out the scale as necessary.

1.5 Tare a clean 100 ml sample vial with the Teflon cap removed. Add 10 g (+/-.01g), of sample soil into the vial taking care to remove rocks or vegetable matter from the sample to be tested. If the sample is wet, add up to 5 g silica gel or anhydrous sodium sulfate to the sample after weighing.

1.6 Dispense 10 ml Freon 113 into the sample vial.

1.7 Cap the vial and shake for five minutes.

1.8 Carefully decant the liquid contents of the vial into a filter/desiccant cartridge and affix the cartridge cap. Recap the sample vial and set aside.

1.9 Insert the metal tip of the pressure syringe into the cap opening and slowly pressurize. **WARNING: APPLY ONLY ENOUGH PRESSURE ON THE SYRINGE TO EFFECT FLOW THROUGH THE FILTERS. TOO MUCH PRESSURE MAY CAUSE THE CAP TO SEPARATE FROM THE BODY OF THE CARTRIDGE.** Once flow is established through the cartridge, direct the flow into the 5 cm cuvette until the cuvette is full. Reverse the pressure on the syringe and remove the syringe tip form the cartridge cap. Set the cartridge aside in vertical position.

1.10 The cuvette has two clear and two frosted sides. Hold the cuvette by the frosted sides and carefully insert into the sample port of the machine. Read the right hand digital read-out of the instrument. If the reading is less than 1,000 ppm, the results shall be recorded in the field Soil Analysis Report. If the result is higher than 1,000 ppm, continue with the dilution procedure.

4.0 Dilution Procedure

1.11 When initial readings are greater than 1,000 ppm using the 5 cm cuvette, pour the contents of the 5 cm cuvette into a 1 cm cuvette. Insert the 1 cm cuvette into the metal holder and place into the test port of the instrument.

1.12 Read the left hand read-out of the machine. If the results are less than 10,000 ppm, record the results into the field Soil Analysis Reports. If greater than 10,000 ppm, continue the dilution process. **Concentrations >10,000 ppm are to be used for field screen purposes only.**

1.13 Pour the contents of the small cuvette into a graduated glass pipette. Add 10 ml pure Freon 113 into the pipette. Shake the contents and pour into the 1cm. cuvette. Repeat step 4.2 adding two zeros to the end of the displayed number. If the reported result is greater than 100,000 ppm, the accuracy of further readings through additional dilutions is extremely questionable. **Do not use for reporting purposes.**

1.14 **Pour all sample Freon into the recycling container.**

5.0 Split Samples

1.15 Each tenth test sample shall be a split sample. Decant approximately one half of the extraction solvent through a filter cartridge and insert into the instrument to obtain a concentration reading. Clean and rinse the cuvette and decant the remainder of the fluid to obtain a second concentration reading from the same sample. If the second reading varies by more than 1% from the original, it will be necessary to completely recalibrate the instrument.

Rice Operating Company

Quality Procedure
Soil Samples for Transportation to a Laboratory

1.0 Purpose

This procedure outlines the methods to be employed when obtaining soil samples to be taken to a laboratory for analysis.

2.0 Scope

This procedure is to be used when collecting soil samples intended for ultimate transfer to a testing laboratory.

3.0 Preliminary

3.1 Obtain sterile sampling containers from the testing laboratory designated to conduct analyses of the soil. The shipment should include a Certificate of Compliance from the manufacturer of the collection bottle or vial and a Serial Number for the lot of containers. Retain this Certificate for future documentation purposes.

3.2 If collecting TPH, BTEX, RCRA 8 metals, cation /anions or O&G, the sample jar may be a clear 4 oz. container with Teflon lid. If collecting PAH's, use an amber 4 oz. container.

4.0 Chain of Custody

4.1 Prepare a Sample Plan. The plan will list the number, location and designation of each planned sample and the individual tests to be performed on the sample. The sampler will check the list against the available inventory of appropriate sample collection bottles to insure against shortage.

4.2 Transfer the data to the Laboratory Chain of Custody Form. Complete all sections of the form except those that relate to the time of delivery of the samples to the laboratory.

4.3 Pre-label the sample collection jars. Include all requested information except time of collection. (Use a fine point Sharpie to insure that the ink remains on the label.) Affix the labels to the jars.

5.0 Sampling Procedure

5.1.Do not touch the soil with your bare hands. Use new latex gloves with each sample to help minimize any cross-contamination.

5.2. Go to the sampling point with the sample container. If not analyzing for ions or metals, use a trowel to obtain the soil.

5.3. Pack the soil tightly into the container leaving the top slightly domed. Screw the lid down tightly. Enter the time of collection onto the sample collection jar label.

5.4. Place the sample directly on ice for transport to the laboratory if required.

5.5. Complete the Chain of Custody form to include the collection times for each sample. Deliver all samples to the laboratory.

6.0 Documentation

6.1 The testing laboratory shall provide the following minimum information:

a. Project and sample name.
b. Signed copy of the original Chain of Custody Form including the time the sample was received by the lab.
c. Results of the requested analyses
d. Test Methods employed
e. Quality Control methods and results

Rice Operating Company

QUALITY PROCEDURE
Chloride Titration Using
0.282 Normal Silver Nitrate Solution

1.0 Purpose

This procedure is to be used to determine the concentration of chloride in soil.

2.0 Scope

This procedure is to be used as the standard field measurement for soil chloride concentrations.

3.0 Sample Collection and Preparation

3.1 Collect at least 80 grams of soil from the sample collection point. Take care to insure that the sample is representative of the general background to include visible concentrations of hydrocarbons and soil types. If necessary, prepare a composite sample for soils obtained at several points in the sample area. Take care to insure that no loose vegetation, rocks or liquids are included in the sample(s).

3.2 The soil sample(s) shall be immediately inserted into a one-quart or larger polyethylene freezer bag. Care should be taken to insure that no cross-contamination occurs between the soil sample and the collection tools or sample processing equipment.

3.3 The sealed sample bag should be massaged to break up any clods.

4.0 Sample Preparation

4.1 Tare a clean glass vial having a minimum 40 ml capacity. Add at least 10 grams of the soil sample and record the weight.

4.2 Add at least 10 grams of reverse osmosis water to the soil sample and shake for 20 seconds.

4.3 Allow the sample to set for a period of 5 minutes or until the separation of soil and water.

4.4 Carefully pour the free liquid extract from the sample through a paper filter into a clean plastic cup if necessary.

5.0 Titration Procedure

5.1 Using a graduated pipette, remove 10 ml extract and dispense into a clean plastic cup.

5.2 Add 2-3 drops potassium chromate (K_2CrO_4) to mixture.

5.3 If the sample contains any sulfides (hydrogen or iron sulfides are common to oilfield soil samples) add 2-3 drops of hydrogen peroxide (H_2O_2) to mixture.

5.4 Using a 1 ml pipette, carefully add .282 normal silver nitrate (one drop at a time) to the sample while constantly agitating it. Stop adding silver nitrate when the solution begins to change from yellow to red. Be consistent with endpoint recognition.

5.5 Record the ml of silver nitrate used.

6.0 Calculation

To obtain the chloride concentration, insert measured data into the following formula:

$$\frac{.282 \times 35{,}450 \times \text{ml } AgNO_3}{\text{ml water extract}} \times \frac{\text{grams of water in mixture}}{\text{grams of soil in mixture}}$$

Using Step 5.0, determine the chloride concentration of the RO water used to mix with the soil sample. Record this concentration and subtract it from the formula results to find the net chloride in the soil sample.

Record all results on the delineation form.

Rice Operating Company

Quality Procedure
Composite Sampling of Excavation Sidewalls and Bottoms

1.0 Purpose

This procedure outlines the methods to be employed when obtaining final composite soil samples.

2.0 Scope

This procedure is to be used in conjunction with ***Quality Procedure – 02: Soil Samples for Transportation to a Laboratory*** and will be inserted at subparagraph 5.2 of Section 5.0: Sampling Procedure.

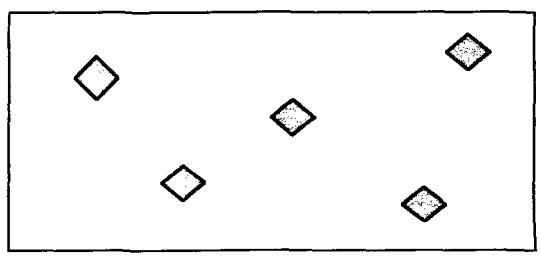
3.0 Sampling Procedure

Follow ***Quality Procedure – 02: Soil Samples for Transportation to a Laboratory*** for all Sections and subparagraphs until subparagraph 5.2 of Section 5.0: Sampling Procedure. Instead of 5.2 instructions, perform the composite sample collection procedure as follows:

3.1 Go to the excavation with a clean large blending bowl or new plastic baggie. If not analyzing for ions or metals, use a trowel to obtain the soil. If the excavation is deeper than 6' BGS, do not enter the pit, but use a backhoe to assist in procurement of the sample. (If a backhoe is used, the backhoe will obtain an amount of soil from each composite point, bring the purchase to the surface staging area where a sample-portion of soil will be extracted from the backhoe purchase. The remainder of the backhoe purchase will be staged on the surface with other staged soils.)

3.2 Sidewall samples

3.2.1 On each sidewall, procure a 5oz sample from each of five distinct points on the sidewall with distinct points resembling the "W" pattern:



3.2.2 Thoroughly blend these five samples in the blending bowl.
3.2.3 Pour blended sample into sifter and sift into labeled baggie.
3.2.4 Repeat steps 3.2.1 through 3.2.4 for each remaining sidewall, using a clean blending bowl for each sidewall.
3.2.5 From each labeled baggie, procure a 5 oz portion and pour into a baggie labeled "Sidewall Composite". Blend this soil mixture completely.
3.2.6 Obtain proper laboratory sample container for "Sidewall Composite" and continue with subparagraph 5.3 of QP – 02.

3.3 Bottom Sample
3.3.1 From bottom of excavation, procure a 5oz sample from each of five distinct points with distinct points resembling the "W" pattern as illustrated above.
3.3.2 Thoroughly blend these five samples in a clean blending bowl.
3.2.3 Pour blended sample into sifter and sift into baggie labeled "Bottom Composite".
3.2.6 Obtain proper laboratory sample container for "Bottom Composite" and continue with subparagraph 5.3 of QP – 02.

RICE *Operating Company*

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

CERTIFIED MAIL
RETURN RECEIPT NO. 7000 1530 0005 9895 4534

March 7, 2002

Mr. Wayne Price
NM Energy, Minerals, and Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: JUNCTION BOX UPGRADE SCHEDULE 2002
Eunice Monument Eumont (EME), Blinebry Drinkard (BD), and Justis SWD Systems
Lea County, NM

Mr. Price:

Rice Operating Company (ROC) takes this opportunity to submit the Junction Box Upgrade schedule for the year 2002. A list of the scheduled junction boxes and their respective proposed start dates is attached. These boxes are located in the EME, BD, and Justis Salt Water Disposal Systems.

ROC is the service provider (operator) for the EME, BD, and Justis Salt Water Disposal Systems and has no ownership of any portion of the pipelines, wells or facilities. The EME, BD and Justis Systems are owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis. Replacement/closure projects of this magnitude require System Partner AFE approval and work begins as funds are received.

ROC has scheduled 64 sites in the EME, 25 in the BD, and 5 in the Justis SWD systems to complete in 2002. The AFEs for this work have been approved by System Partners.

If you have any questions, please let me know.

RICE OPERATING COMPANY

Donnie Anderson
Project Leader-Environmental

Enclosures
Cc: CDH, file

Mr. Chris Williams
NMOCD, District 1 Office
1625 N. French Drive
Hobbs, NM 88240

RICE Operating Company

EME SWD SYSTEM Junction Box UpGrade Project Work Schedule 2002

Expected Start Date	Junction Box	Legal Descrip			Depth to GW	Water Well < 200'	Surf Water <1000'	Water Well <1000'	NMOCD Assessment #
		Sec	T	R					
January 2002	L-18	18	19	37	63	NO	NO	NO	10
January 2002	G-19	19	19	37	58	NO	NO	YES	20
January 2002	L-25	25	19	36	63	NO	NO	NO	10
January 2002	K-25	25	19	36	63	NO	NO	NO	10
January 2002	TRIO PERSONS	27	19	36	20	NO	NO	YES	20
February 2002	E-2	2	20	36	39	NO	NO	NO	20
February 2002	A-2	2	20	36	30	NO	NO	NO	20
February 2002	M-34	34	19	37	31	NO	NO	NO	20
February 2002	K-6	6	20	37	29	NO	NO	NO	20
February 2002	P-6	6	20	37	30	NO	NO	NO	20
February 2002	N-4-1	4	20	37	29	NO	NO	YES	20
February 2002	MARATHON BARBER	5	20	37	30	NO	NO	YES	20
February 2002	B-7	7	20	37	30	NO	NO	NO	20
February 2002	M-9	9	20	37	<50	NO	NO	NO	20
March 2002	B-18	18	19	37	63	NO	NO	NO	10
March 2002	O-7	7	19	37	64	NO	NO	NO	10
March 2002	L-19-2	19	20	37	37	NO	NO	NO	20
March 2002	O-19	19	20	37	30	NO	NO	NO	20
March 2002	P-19	19	20	37	43	NO	NO	NO	20
March 2002	O-24	24	20	36	<50	NO	NO	NO	20
March 2002	C-2	2	20	36	30	NO	NO	NO	20
March 2002	G-32	32	19	37	12	NO	NO	YES	20
April 2002	O-7-1	7	19	37	64	NO	NO	NO	10
April 2002	M-17	17	20	37	26	NO	NO	NO	20
April 2002	O-34	34	19	37	30	NO	NO	NO	20
April 2002	E-16-1	16	20	37	20	NO	NO	NO	20
April 2002	E-16-2	16	20	37	20	NO	NO	NO	20
April 2002	A-26-B	26	20	36	107	NO	NO	YES	20
April 2002	D-28	28	21	36	245	NO	NO	NO	0

RICE Operating Company

EME SWD SYSTEM Junction Box UpGrade Project Work Schedule 2002

Expected Start Date	Junction Box	Legal Descrip			Depth to GW	Water Well < 200'	Surf Water <1000'	Water Well <1000'	NMOCD Assessment #
		Sec	T	R					
April 2002	B-30	30	19	37	<50	NO	NO	NO	20
May 2002	J-2	2	20	37	NONE	NO	NO	NO	0
May 2002	L-1	1	20	37	NONE	NO	NO	NO	0
May 2002	O-33	33	19	37	22	NO	NO	NO	20
May 2002	G-36-A	36	19	36	NONE	NO	NO	NO	0
May 2002	PENROCK FOPEANO FED	35	20	36	>100	NO	NO	NO	0
May 2002	C-12-2	12	20	36	29	NO	NO	NO	20
May 2002	K-15-1	15	20	37	NONE	NO	NO	NO	0
May 2002	L-20	20	20	37	27	NO	NO	NO	20
June 2002	G-9	9	21	36	>100	NO	NO	NO	0
June 2002	D-3	3	20	37	33	NO	NO	YES	20
June 2002	B-32	32	19	37	12	NO	NO	NO	20
June 2002	H-32-1	32	19	37	12	NO	NO	YES	20
June 2002	N-18	18	20	37	<50	NO	NO	NO	20
June 2002	H-20	20	20	37	23	NO	NO	NO	20
July 2002	H-29	29	21	36	240	NO	NO	NO	0
July 2002	G-18	18	19	37	64	NO	NO	NO	10
July 2002	C-12-1	12	20	36	<50	NO	YES	NO	20
July 2002	AMERADA MONSTATE	13	19	36	51	NO	NO	YES	20
July 2002	F-29-1	29	19	37	17	NO	NO	NO	20
August 2002	P-13	13	20	36	<50	NO	NO	NO	20
August 2002	CHEVRON ORCUTT	25	21	35	>100	NO	NO	NO	0
August 2002	F-11	11	21	36	>100	NO	NO	NO	0
August 2002	CHEVRON EVA-S	3	21	36	>100	NO	NO	NO	0
September 2002	E-35	35	20	36	>100	NO	NO	NO	0
September 2002	B-33	33	20	36	>100	NO	NO	NO	0
September 2002	K-35	35	20	36	>100	NO	NO	NO	0
September 2002	WARRIOR COOPER D	26	20	36	>50	NO	NO	NO	10
October 2002	D-25	25	20	36	68	NO	NO	NO	10

RICE Operating Company

EME SWD SYSTEM Junction Box UpGrade Project Work Schedule 2002

Expected Start Date	Junction Box	Legal Descrip Sec	T	R	Depth to GW	Water Well < 200'	Surf Water <1000'	Water Well <1000'	NMOCD Assessment #
October 2002	C-25-A	25	20	36	68	NO	NO	NO	10
October 2002	O-24	24	20	36	36	NO	NO	NO	20
November 2002	C-19-2	19	19	37	57	NO	NO	NO	10
November 2002	I-19	19	20	37	<50	NO	NO	NO	20
November 2002	I-20	20	21	36	>100	NO	NO	NO	0
November 2002	K-18	18	19	37	64	NO	NO	NO	10

RICE Operating Company

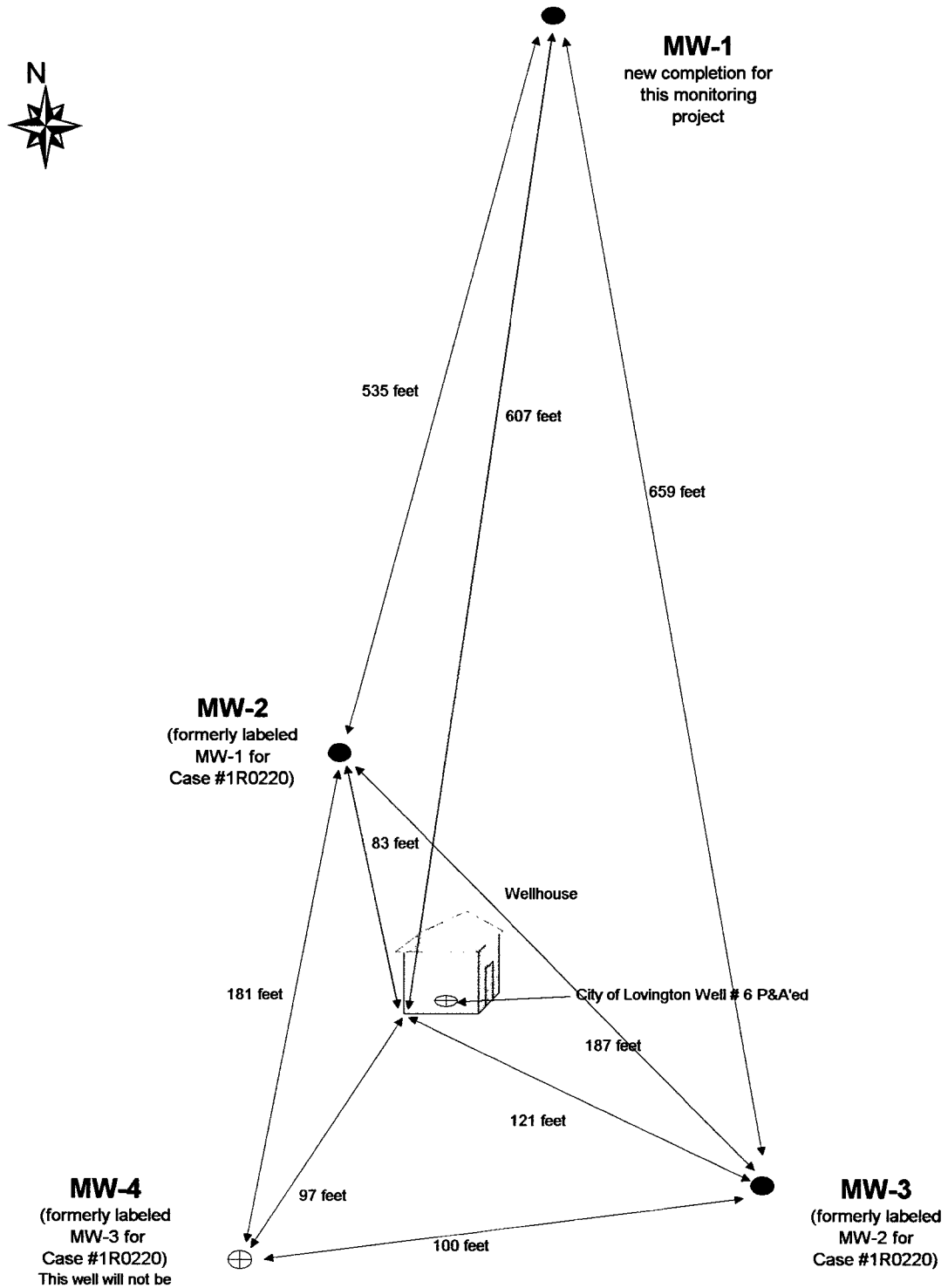
BD SWD SYSTEM Junction Box UpGrade Project Work Schedule 2002

Expected Start Date	Junction Box	Legal Descrip Sec	T	R	Depth to GW	Water Well < 200'	Surf Water <1000'	Water Well <1000'	NMOCD Assessment #
January 2002	N-15-1	15	21	37	49	NO	NO	YES	20
January 2002	N-15-2	15	21	37	49	NO	NO	YES	20
January 2002	P-16-1	16	21	37	63	NO	NO	NO	10
January 2002	N-16-1	16	21	37	73	NO	NO	NO	10
January 2002	P-16-3	16	21	37	63	NO	NO	NO	10
January 2002	P-16-2	16	21	37	63	NO	NO	NO	10
January 2002	P-16-4	16	21	37	63	NO	NO	NO	10
January 2002	B-22-2	22	21	37	43	NO	NO	YES	20
January 2002	B-22-3	22	21	37	43	NO	NO	YES	20
January 2002	G-22	22	21	37	43	NO	NO	YES	20
January 2002	H-22	22	21	37	43	NO	NO	NO	20
January 2002	TEXACO "S" EOL	15	21	37	49	NO	NO	YES	20
February 2002	B-30	30	21	37	107	NO	NO	NO	0
February 2002	C-28	28	22	37	60	NO	NO	NO	10
February 2002	J-21-A	21	22	37	66	NO	NO	YES	20
March 2002	J-17	17	22	37	67	NO	NO	YES	20
March 2002	H-14	14	22	37	64	NO	NO	YES	20
May 2002	A-2	2	22	37	55	NO	NO	YES	20
May 2002	H-3	3	22	37	>50	NO	NO	NO	10
June 2002	VENT E-3	3	22	37	93	NO	NO	YES	20
June 2002	VENT H-3-1	31	22	37	54	NO	NO	NO	10
July 2002	F-3	3	22	37	93	NO	NO	NO	10
August 2002	N-11	11	22	37	39	NO	NO	NO	20
August 2002	ZAC. HINTON	12	22	37	>50	NO	NO	NO	10
September 2002	J-26	26	21	37	37	NO	NO	NO	20

RICE Operating Company

Justis SWD SYSTEM Junction Box UpGrade Project Work Schedule 2002

Expected Start Date	Junction Box	Legal Descrip Sec	T	R	NORM level	Depth to GW	Water Well < 200'	Surf Water <1000'	Water Well <1000'	NMOCD Assessment #
February 2002	E-26	26	24	37	350	>50	NO	NO	NO	10
February 2002	L-26	26	24	37	15	>50	NO	NO	NO	10
March 2002	J-25	25	25	37	100	80	NO	NO	NO	10
March 2002	Vent B-26	26	25	37	140	75	NO	NO	NO	10
March 2002	L-36	36	24	37	15	>50	NO	NO	NO	10



MW # 4 is now used by the City of Lovington for measurements

Rice Operating Company 122 West Taylor Hobbs, NM 88240 (505) 393-9174	Monitor Wells	ABO SWD System Unit Letter L, Sec 31-T16S-R37E Lea County, New Mexico

RICE *Operating Company*

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

CERTIFIED MAIL
RETURN RECIEPT NO. 7000 1530 0005 9895 4787

March 27, 2003

Mr. Wayne Price
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87504

RE: JUNCTION BOX UPGRADE REPORT for 2002
BD SWD SYSTEM
Lea County, New Mexico

Mr. Price:

Rice Operating Company (ROC) takes this opportunity to submit the Junction Box Upgrade results for the year 2002. Enclosed is a list of the completed junction boxes and their respective closure/disclosure dates. These boxes are located in the Blinebry Drinkard (BD) Salt Water Disposal System.

ROC is the service provider (operator) for the BD SWD System and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis. Replacement/closure projects of this magnitude require System Partner AFE approval and work begins as funds are received.

ROC completed 39 junction box sites in 2002. ROC has scheduled 25 sites to complete in 2003. The AFE for this work has been approved by System Partners. Enclosed is an analysis of ROC's chloride field tests compared with the laboratory's results.

Thank you for your consideration of this Junction Box Upgrade Report for 2002.

RICE OPERATING COMPANY

Kristin Farris

Kristin Farris
Project Scientist

Enclosures
Cc: LBG, CDH, file,

Mr. Chris Williams
NMOCD, District I Office
1625 N. French Drive
Hobbs, NM 88240

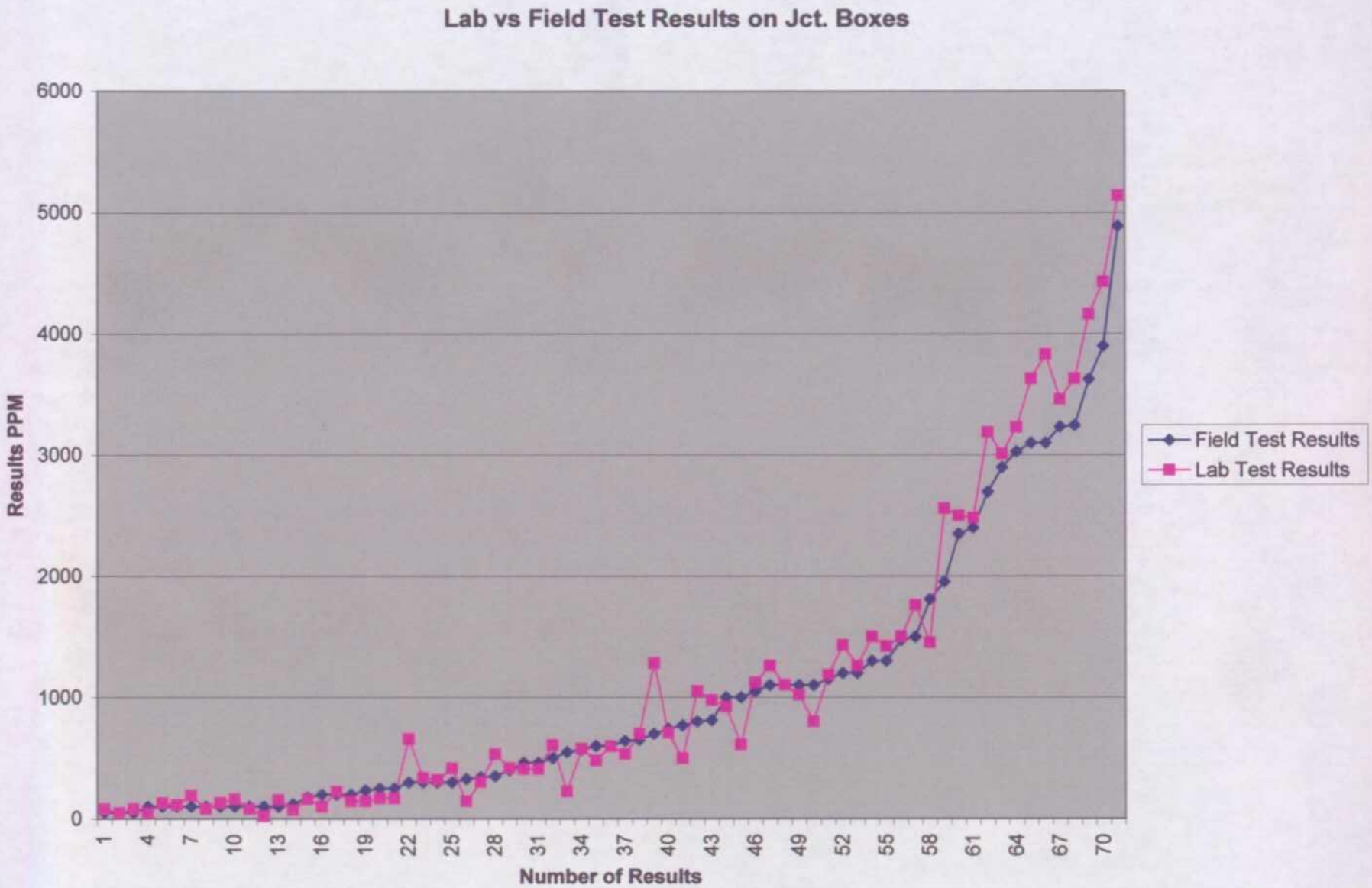
RICE Operating Company

BD SWD SYSTEM Junction Box Upgrade Project

Completed Boxes 2002 Final Report and Disclosure Report

Junction Box	Legal Description			Completion Date	NMOCD Assessment #
	Sec	T	R		
H-3	3	22	37	7/2/2002	20
E-3	3	22	37	5/15/2002	10
J-26	26	21	37	10/1/2002	20
H-22	22	21	37	1/3/2002	10
F-3	3	22	37	5/15/2002	10
G-22	22	21	37	12/31/2001	20
B-22-2	22	21	37	12/31/2001	20
B-22-3	22	21	37	12/31/2001	20
G-16 EOL	16	22	37	11/21/2002	10
H-3-1	3	22	37	8/12/2002	20
I-27	27	21	37	10/15/2002	20
P-16-1	16	21	37	12/28/2001	10
P-16-2	16	21	37	12/27/2001	10
P-16-3	16	21	37	1/28/2002	10
P-16-4	16	21	37	12/28/2001	10
Texaco "S" EOL	15	21	37	1/10/2002	20
O-17	17	21	37	9/18/2002	10
O-17-2	17	21	37	9/18/2002	10
N-15-2	15	21	37	12/28/2001	10
N-16-1	16	21	37	1/4/2002	10
K-17	17	21	37	9/24/2002	0
K-17-2	17	21	37	10/1/2002	10
N-15-1	15	21	37	1/25/2002	20
N-29-1	29	21	37	10/31/2002	10
N-29	29	21	37	12/27/2002	10
A-2	2	22	37	3/25/2002	10
M-9	9	22	37	10/10/2002	10
C-28	28	22	37	2/22/2002	10
N-26	26	21	37	10/31/2002	10
G-3	3	22	37	8/19/2002	20
J-21	21	22	37	2/22/2002	10
B-30	30	21	37	3/1/2002	10
J-17	17	22	37	3/1/2002	10

Wagner Brown EOL	21	22	37	1/2/2003	10
N-29-2	29	21	37	10/31/2002	10
Zachary Hinton EOL	12	22	37	1/21/2003	10
F-17	17	21	37	1/21/2003	10
G-16	16	22	37	11/22/2002	10
B-16	16	22	37	11/22/2002	10


Lab vs Field Test Results on Jct. Boxes
Results PPM
6000
5000
4000
3000
2000
1000
0
1
4
7
10
13
16
19
22
25
28
31
34
37
40
43
46
49
52
55
58
61
64
67
70
Number of Results
Field Test Results
Lab Test Results

Lab vs Field Chloride Test Results

Number of Samples	Location	Date	Bottom, Sidewalls, or Boring	Field Test Results	Lab Test Results
1	BD Jct. P-16-2	1/2/2002	Sidewalls 3'	50	80
2	BD Jct. P-16-2	1/2/2002	Bottom 5'	50	48
3	BD Jct. P-16-4	1/2/2002	Bottom 4'	50	80
4	BD Jct. N-15 North Box	1/25/2002	Soil Boring @ 25'	100	48
5	BD Jct. N-15 South Box	1/2/2002	Bottom 5'	100	128
6	BD Jct. B-22-3	1/2/2002	Sidewalls 3'	100	112
7	BD Jct. B-22-3	1/2/2002	Bottom 6'	100	192
8	BD Jct. P-16-4	1/2/2002	Sidewalls 3'	100	80
9	BD Texaco 'S' EOL	1/10/2002	Sidewalls 2.5'	100	131
10	BD Jct. G-22	1/2/2002	Sidewalls 3'	100	160
11	BD Jct. G-22	1/2/2002	Bottom 4'	100	80
12	EME Jct. B-32	3/19/2002	Soil Boring @ 20'	100	22
13	EME Jct. B-18	2/9/2002	Sidewalls 6'	100	154
14	EME Jct. M-34	3/7/2002	Soil Boring @ 35'	120	71
15	BD Jct. P-16-1	1/2/2002	Sidewalls 2'	175	160
16	BD Jct. H-22	1/2/2002	Bottom 7'	200	98
17	EME Jct. B-18	2/9/2002	Bottom 7'	200	222
18	EME Trio Persons	2/4/2002	Vertical Extent @ 11'	200	142
19	BD Jct. N-29-2	11/7/2002	Bottom 20'	233	142
20	BD Jct. H-22	1/2/2002	Sidewalls 4'	250	166
21	EME Trio Persons	2/4/2002	Sidewalls 5'	250	168
222	BD Jct. N-15 South Box	1/2/2002	Sidewalls 3'	300	656
23	BD Jct. P-16-3	1/28/2002	Sidewalls 5'	300	337
24	BD Texaco 'S' EOL	1/10/2002	Bottom 3'	300	319
25	EME Jct. M-34	3/7/2002	Sidewalls 8'	300	414
26	BD Jct. N-29-2	11/7/2002	Sidewalls 15'	328	142
27	BD Jct. N-29-1	11/7/2002	Sidewalls 3'	343	301
28	EME Trio Persons	2/4/2002	Bottom 6'	350	532
29	BD Jct. I-27	10/15/2002	Remediated Soil	400	417
30	BD Jct. N-29-1	11/7/2002	Remediated Soil	461	408

Number of Samples	Location	Date	Bottom, Sidewalls, or Boring	Field Test Results	Lab Test Results
31	BD Jct. N-29-2	11/7/2002	Remediated Soil	461	408
32	EME Jct. M-34	3/7/2002	Bottom 9'	500	606
33	BD Jct. B-22-2	1/2/2002	Bottom 5'	550	224
34	BD Jct. N-29	11/22/2002	Soil Boring @ 90'	570	576
35	BD Jct N-29 Vent	12/30/2002	Bottom 20'	599	478
36	EME Jct. B-32	3/19/2002	Sidewalls 7'	600	595
37	EME Jct. A-26	12/30/2002	Remediated Soil	641	532
38	EME Jct. B-32	3/19/2002	Bottom 8'	650	698
39	BD Jct. P-16-1	1/2/2002	Bottom 5'	700	1280
40	BD Jct. N-29-1	11/7/2002	Bottom 6'	743	709
41	EME Jct. A-26	12/30/2002	Bottom 10'	769	496
42	BD Jct. E-3	5/20/2002	Sidewalls 8'	800	1050
43	BD Jct. O-17-2	9/19/2002	Bottom 14'	810	975
44	BD Jct. O-17-2	9/19/2002	Sidewalls 13'	1000	922
45	EME Jct. L-1	3/7/2002	Bottom 4'	1000	610
46	BD Jct. G-3	7/27/2002	Bottom 42'	1050	1120
47	BD Jct. N-15 North Box	1/25/2002	Bottom 7'	1100	1260
48	BD Jct. G-3	7/27/2002	Sidewalls 39'	1100	1100
49	BD Jct. F-3	6/7/2002	Bottom 14'	1100	1020
50	EME Jct. L-1	3/7/2002	Sidewalls 3'	1100	798
51	BD Jct. B-22-2	1/2/2002	Sidewalls 3'	1150	1184
52	BD Jct. N-15 North Box	1/25/2002	Sidewalls 4'	1200	1430
53	BD Jct. E-3	5/20/2002	Bottom 9'	1200	1260
54	BD Jct. P-16-3	1/28/2002	Bottom 6'	1300	1500
55	BD Jct. N-16-1	1/4/2002	Sidewalls 4'	1300	1420
56	BD Jct. I-27	10/15/2002	Bottom 15'	1470	1500
57	EME Jct. L-25	2/15/2002	Sidewalls 4'	1500	1760
58	EME Jct. A-26	12/30/2002	Sidewalls 8'	1809	1450
59	BD Chevron Cole 'A'	11/14/2002	Bottom	1956	2560
60	BD Jct. I-27	10/15/2002	Sidewalls 15'	2350	2500
61	BD Jct. N-16-1	1/4/2002	Bottom 6'	2400	2480

Number of Samples	Location	Date	Bottom, Sidewalls, or Boring	Field Test Results	Lab Test Results
62	BD Jct. N-29	11/22/2002	Soil Boring @ 60'	2696	3190
63	BD Jct. N-29	11/22/2002	Soil Boring @ 70'	2899	3010
64	BD Chevron Cole 'A'	11/14/2002	Sidewalls	3029	3230
65	BD Jct. F-3	6/7/2002	Sidewalls 12'	3100	3630
66	EME Jct. L-25	2/15/2002	Bottom 5'	3100	3830
67	BD Jct. N-29	11/22/2002	Soil Boring @ 84'	3234	3460
68	BD Jct. N-29	11/22/2002	Soil Boring @ 50'	3245	3630
69	BD Jct. N-29	11/22/2002	Soil Boring @ 40'	3626	4160
70	BD Jct. N-29	11/22/2002	Soil Boring @ 80'	3899	4430
71	BD Jct N-29 Vent	12/30/2002	Sidewalls 17'	4889	5140

RICE *Operating Company*

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

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March 4, 2002

Mr. Wayne Price
NM Energy, Minerals, and Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, NM 87505

1R-426

RE: JUNCTION BOX UPGRADE REPORT for 2001
Blinebry Drinkard SWD SYSTEM
Lea County, NM

Mr. Price:

Rice Operating Company (ROC) takes this opportunity to submit the Junction Box Upgrade results for the year 2001. A list of the completed junction boxes and their respective closure dates is attached. These boxes are located in the Blinebry Drinkard (BD) Salt Water Disposal System.

ROC is the service provider (operator) for the BD Salt Water Disposal System and has no ownership of any portion of the pipeline, well or facility. The BD System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis. Replacement/closure projects of this magnitude require System Partner AFE approval and work begins as funds are received.

ROC completed seventeen junction box sites in 2001. ROC has scheduled 25 sites to complete in 2002. The AFE for this work has been approved by System Partners.

Thank you for your consideration of this Junction Box Upgrade Report for 2001.

RICE OPERATING COMPANY

Donnie Anderson
Project Leader-Environmental

Enclosures
Cc: CDH, file

Mr. Chris Williams
NMOCD, District 1 Office
1625 N. French Drive
Hobbs, NM 88240

RICE Operating Company

BD SWD SYSTEM Junction Box UpGrade Project

Completed Boxes 2001

Junction Box	Legal Descrip Sec	T	R	Completion Date	NMOCD Assessment #
JCT I-1-A	1	22	36	02/09/2001	0
JCT I-1-B	1	22	36	02/09/2001	0
JCT F-32	32	21	37	01/02/2001	10
JCT F-19	19	21	36	07/19/2001	0
JCT M-19	19	21	37	08/22/2001	10
JCT N-33	33	21	37	12/18/2001	0
JCT B-4-1 2X	4	22	37	12/11/2001	0
JCT B-4	4	22	37	11/02/2001	0
JCT O-17	17	22	37	03/26/2001	20
VENT H-4	4	22	37	11/27/2001	0
JCT F-21	21	21	37	04/05/2001	10
JCT B-20	20	22	37	08/29/2001	10
JCT N-36-1	36	21	36	05/02/2001	0
VENT N-36-3	36	21	36	04/04/2001	0
ME-TEX PAN CA	6	22	37	02/16/2001	0
ZIA ST BJ	17	22	37	02/15/2001	20
JCT C-13	13	22	36	07/31/2001	0

RICE *Operating Company*

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

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RETURN RECEIPT NO. 7000 1530 0005 9895 4459

January 18, 2002

WERE THESE REPLACED BY ~~March~~ MARCH 04, 2002 letter?!

Mr. Wayne Price
NM Energy, Minerals, and Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: JUNCTION BOX UPGRADE REPORT for 2001
Blinebry Drinkard SWD SYSTEM
Lea County, NM

Mr. Price:

Rice Operating Company (ROC) takes this opportunity to submit the Junction Box Upgrade results for the year 2001. A list of the completed junction boxes and their respective closure dates is attached. These boxes are located in the Blinebry Drinkard (BD) Salt Water Disposal System.

ROC is the service provider (operator) for the BD Salt Water Disposal System and has no ownership of any portion of the pipeline, well or facility. The BD System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis. Replacement/closure projects of this magnitude require System Partner AFE approval and work begins as funds are received.

ROC completed seventeen junction box sites in 2001. ROC has scheduled 33 sites to complete in 2002. The AFE for this work have been approved by System Partners.

Thank you for your consideration of this Junction Box Upgrade Report for 2001.

RICE OPERATING COMPANY

Donnie Anderson
Project Leader-Environmental

Enclosures
Cc: CDH, file

Mr. Chris Williams
NMOCD, District 1 Office
1625 N. French Drive
Hobbs, NM 88240

RICE Operating Company

BD SWD SYSTEM Junction Box UpGrade Project

Completed Boxes 2001

Junction Box	Legal Descrip Sec	T	R	Completion Date	NMOCD Assessment #
JCT I-1-A	1	22	36	02/09/2001	0
JCT I-1-B	1	22	36	02/09/2001	0
JCT F-32	32	21	37	01/02/2001	10
ARCO F DE	19	21	37	01/29/2001	0
JCT M-19	19	21	37	08/22/2001	10
JCT N-33	33	21	37	12/18/2001	0
JCT B-4-1 2X	4	22	37	12/11/2001	0
JCT B-4	4	22	37	11/02/2001	0
JCT O-17	17	22	37	03/26/2001	20
VENT H-4	4	22	37	11/27/2001	0
JCT F-21	21	21	37	04/05/2001	10
JCT B-20	20	22	37	08/29/2001	10
JCT N-36-1	36	21	36	05/02/2001	0
VENT N-36-3	36	21	36	04/04/2001	0
ME-TEX PAN CAN	6	22	37	02/16/2001	0
ZIA ST BJ	17	22	37	02/15/2001	20
JCT C-13	13	22	36	07/31/2001	0

RICE *Operating Company*

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

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RETURN RECEIPT NO. 7099 3220 0001 9928 4416

March 5, 2001

Mr. Wayne Price
NM Energy, Minerals, and Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, NM 87504

RE: JUNCTION BOX UPGRADE REPORT for 2000
BD AND EME SWD SYSTEMS
Lea County, NM

Dear Mr. Price:

Rice Operating Company (ROC) takes this opportunity to submit the Junction Box Upgrade results for the Year 2000. These locations are located in the Blinebry Drinkard (BD) and Eunice Monument Eumont (EME) Salt Water Disposal Systems.

ROC is the service provider (operator) for the BD and EME SWD Systems and has no ownership of any portion of pipeline, well or facility. The BD and EME Systems are each owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis. Replacement/closure projects of this magnitude require System Partner AFE approval and work begins as funds are received.

ROC completed seven junction box sites in 2000. ROC has scheduled 75-80 sites to complete in 2001. The AFEs for this work have been approved by System Partners. ROC would like to schedule the End-Of-Year Report for the 2001 work (January 1 to December 31) to be due April 1, 2002, and each subsequent year-end report due the following April 1.

Thank you for your consideration of this Junction Box Upgrade Report for 2001.

RICE OPERATING COMPANY

Carolyn Doran Haynes

Carolyn Doran Haynes
Operations Engineer

Enclosures
cc: LBG, file,

Mr. Chris Williams
NMOCD, District I Office
1625 N. French Drive
Hobbs, NM 88240

RICE Operating Company

BD SWD SYSTEM Junction Box UpGrade Project Work Schedule

Expected Start Date	Junction Box	Legal Descrip Sec	T	R	Depth to GW	Water Well < 200'	Surf Water <1000'	Water Well <1000'	NMOCD Assessment #
September 2000	JCT N-19-N	19	21	37	100+	no	no	no	0
September 2000	JCT N-19-S	19	21	37	100+	no	no	no	0
September 2000	APACHE CK	19	21	37	100+	no	no	no	0
September 2000	JCT K-19	19	21	37	100+	no	no	no	0
September 2000	JCT I-1-A	1	22	36	100+	no	no	no	0
October 2000	JCT I-1-B	1	22	36	100+	no	no	no	0
October 2000	JCT F-32	32	21	37	90-99	no	no	no	10
November 2000	JCT F-19	19	21	37	100+	no	no	no	0
November 2000	JCT M-19	19	21	37	100+	no	no	no	0
November 2000	JCT N-33	33	21	37	90-108	no	no	no	0
November 2000	JCT B-1-1	1	22	36	100+	no	no	no	0
December 2000	JCT B-4-1 2X	4	22	37	90-115	no	no	no	0
December 2000	JCT B-4	4	22	37	90-115	no	no	no	0
December 2000	HNDRX XMAS	17	22	37	64-72	no	no	no	10
December 2000	ARCO D157	12	22	36	124	no	no	no	0
January 2001	JCT O-17	17	22	37	64-72	no	no	yes	20
January 2001	VENT H-4	4	22	37	90-115	no	no	no	0
January 2001	JCT F-21	21	21	37	73-80	no	no	no	10
February 2001	JCT B-20	20	22	37	64	no	no	no	10
February 2001	JCT N-36-1	36	21	36	100+	no	no	no	0
February 2001	VENT N-36-3	36	21	36	100+	no	no	no	0
March 2001	ME-TEX PAN CAN	6	22	37	100+	no	no	no	0
March 2001	VENT H-3	3	22	37	80-100	no	no	no	10
March 2001	ZIA ST BJ	17	22	37	64-72	no	no	yes	20
April 2001	JCT C-13	13	22	36	100+	no	no	no	0