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# **WORK PLANS**

# DATE: 5-9-07



Highlander Environmental Corp.

Midland, Texas

2007 MAY 14 AM 10 21 5-9-07

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CERTIFIED MAIL RETURN RECIEPT NO. 7004 2510 0001 1869 0927

May 9, 2007

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

#### RE: **CORRECTIVE ACTION PLAN (CAP) O-17-1 VENT, BD SWD SYSTEM** UNIT "O", SEC. 17, T21S, R37E Lea County, New Mexico

Mr. Johnson:

RICE Operating Company (ROC) has retained Highlander Environmental Corp. (Highlander) to address potential environmental concerns at the above-referenced site. ROC is the service provider (agent) for the 0-17-1 Vent, BD SWD System (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. Environmental projects of this magnitude require System Partner AFE approval and work begins as funds are received. In general, project funding is not forthcoming until NMOCD approves the work plan. Therefore, your timely review of this submission is requested.

For all environmental projects, ROC will choose a path forward that:

- protects public health, •
- provides the greatest net environmental benefit, .
- complies with NMOCD Rules, and
- is supported by good science.

Each site shall have three submissions or a combination of:

- An Investigation and Characterization Plan (ICP) is a proposal for data gathering and 1. site characterization and assessment.
- 2. Upon evaluating the data and results from the ICP, a recommended remedy is submitted in this Corrective Action Plan (CAP).

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3. Finally, after implementing the remedy, a <u>Closure Report</u> with final documentation will be submitted.

# **1.0 BACKGROUND & PREVIOUS WORK**

As part of the ROC Junction Box Upgrade Workplan, starting on March 7, 2003, the junction box was removed and the Site was investigated vertically and horizontally with a backhoe. See site location as shown on Figure 1. The Site was excavated to the approximate dimensions of 27' x 18' x 12'. TPH impact was noted to a depth of at least 12' below ground surface (bgs). Chloride impact was consistent vertically and horizontally, with a bottom hole chloride concentration of 1,740 mg/kg at 12' below ground surface. Regional groundwater information indicates that the depth to groundwater is approximately 70' bgs.

The junction box once contained a vent, but the junction was eliminated and the site was plumbed straight through with new poly pipeline. ROC completed the replacement of the line on August 29, 2003. On September 16, 2003, ROC submitted a Junction Box Disclosure Report to the NMOCD. A copy of the Junction Box Disclosure Report is included in Appendix A.

On August 10, 2006, ROC submitted the ICP to Mr. Wayne Price of the NMOCD-Santa Fe office for review. Mr. Price granted approval of the ICP in a letter dated September 21, 2006.

On October 9 and 10, 2006, Highlander personnel were onsite to oversee the installation of five soil borings (SB-1, SB-2, SB-3, SB-4, and SB-5) within and adjacent to the former junction box location. Soil samples were collected every 5' beginning at a depth of 13 feet bgs within the excavated area and 3 feet bgs outside the excavated area. Samples were collected utilizing a split spoon sampler, and placed into laboratory supplied containers and delivered to the laboratory under chain-of-custody control for chloride analysis by EPA method 300.0 and specific samples for TPH analysis by EPA method 8015 modified. The collected samples were field screened for TPH utilizing a photoionization detector (PID) and for chlorides with a field sampling kit. The split spoons were decontaminated between samples utilizing an alconox and deionization water wash followed by a deionization water rinse. Copies of laboratory analyses and chain-of-custody documentation are included in Appendix B. The soil boring locations are shown on Figure 2. The soil boring logs are included in Appendix C. The results of the sampling are summarized in Table 1.

Referring to Table 1, the TPH concentrations were below the NMOCD guidelines in all samples collected and submitted for analysis. The chloride concentrations showed a marked decrease with depth in each of the five soil borings.

# 2.0 COLLECTED REGIONAL HYDROGEOLOGIC DATA

Since groundwater was not encountered during drilling of the site, it was not deemed necessary to perform a water well inventory within a <sup>1</sup>/<sub>2</sub> mile radius of the site.

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### 3.0 EVALUATION

When evaluating any proposed remedy or investigative work, ROC will confirm that there is a reasonable relationship between the benefits created by the proposed remedy or assessment and the economic and social costs. In evaluating the documented levels of chlorides within the soil, it was determined that an unconsolidated clay barrier be placed within the impacted zone in order to prevent further vertical migration of the chlorides into the surrounding soils.

# 4.0 **PROPOSED REMEDY**

Groundwater is 70' bgs and the chlorides and TPH decrease with depth and do not extend beyond 35' bgs. As such, ROC proposes preparation and revegetation of the surface soils in order to provide an infiltration barrier. This may include removal of existing gravel, importation of clean topsoil and reseeding utilizing native vegetation. In addition, the site will be monitored for growth. Based on the visual inspection and subsurface drilling, the area of the former junction box to be revegetated is approximately 37' by 38'.

If you require any additional information or have any questions or comments, please call.



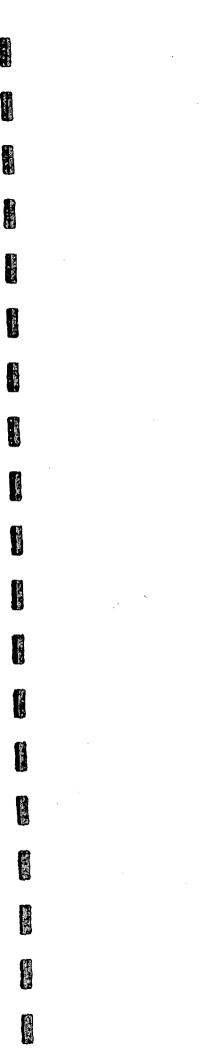
Highlander Environmental Corp.

Jeffrey Kindley, P.G.

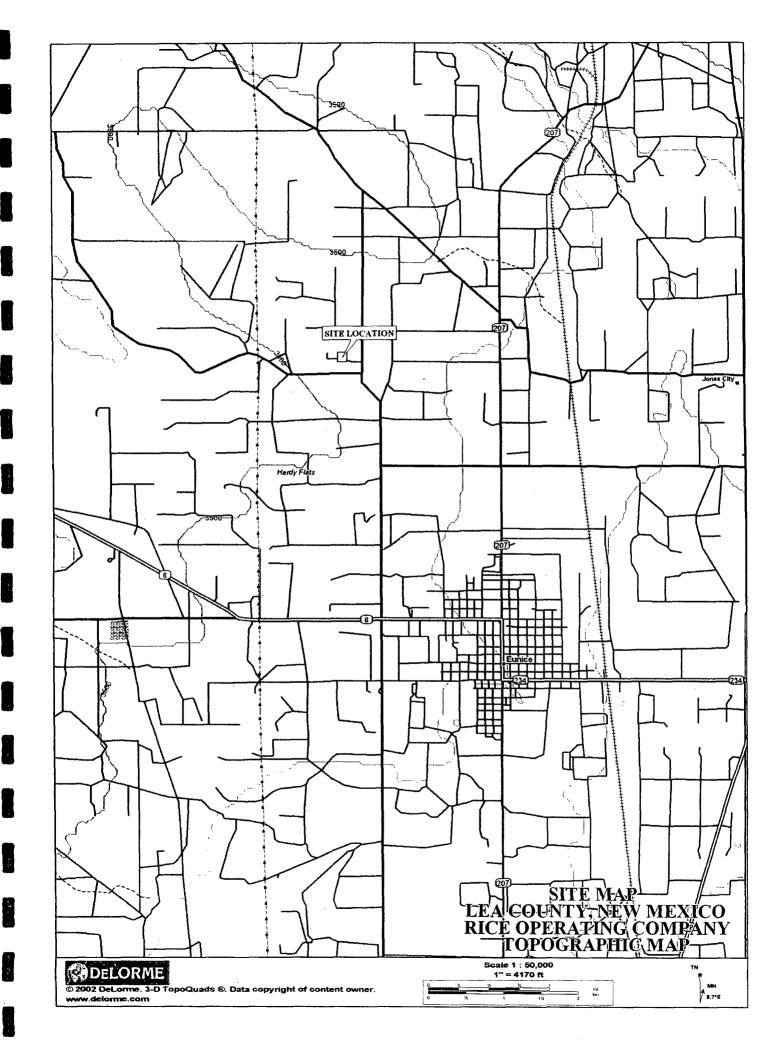
Jeffrey Kindley, P.G. Senior Environmental Geologist

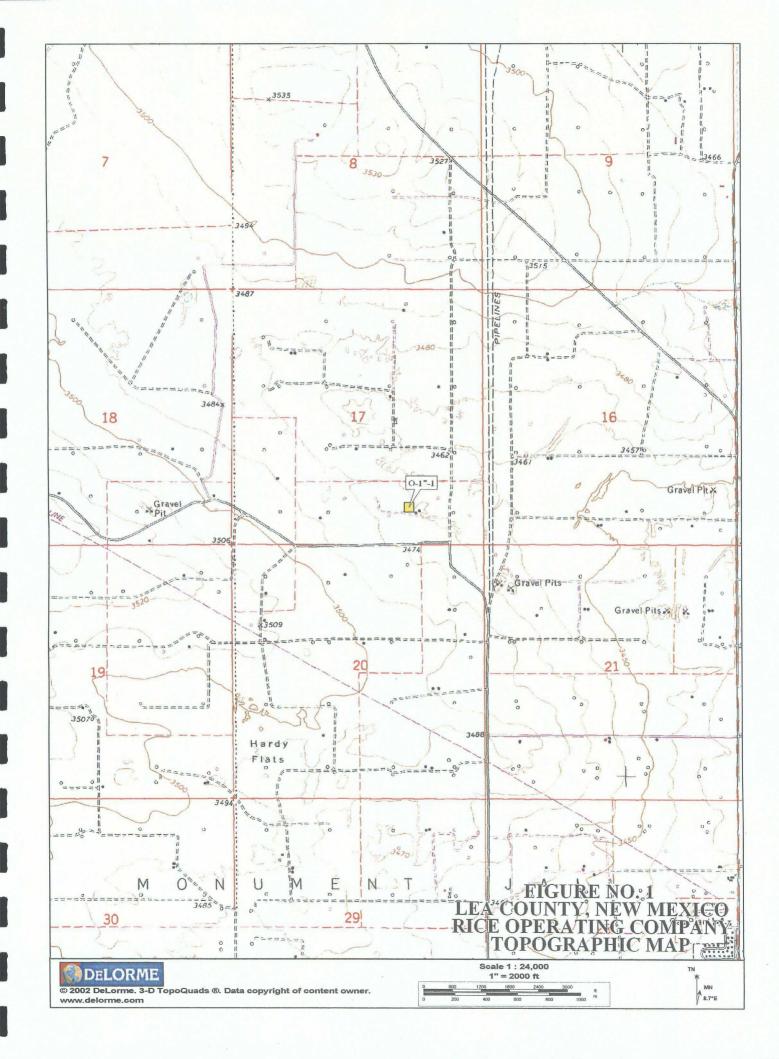
cc: ROC Edward Hansen-NMOCD

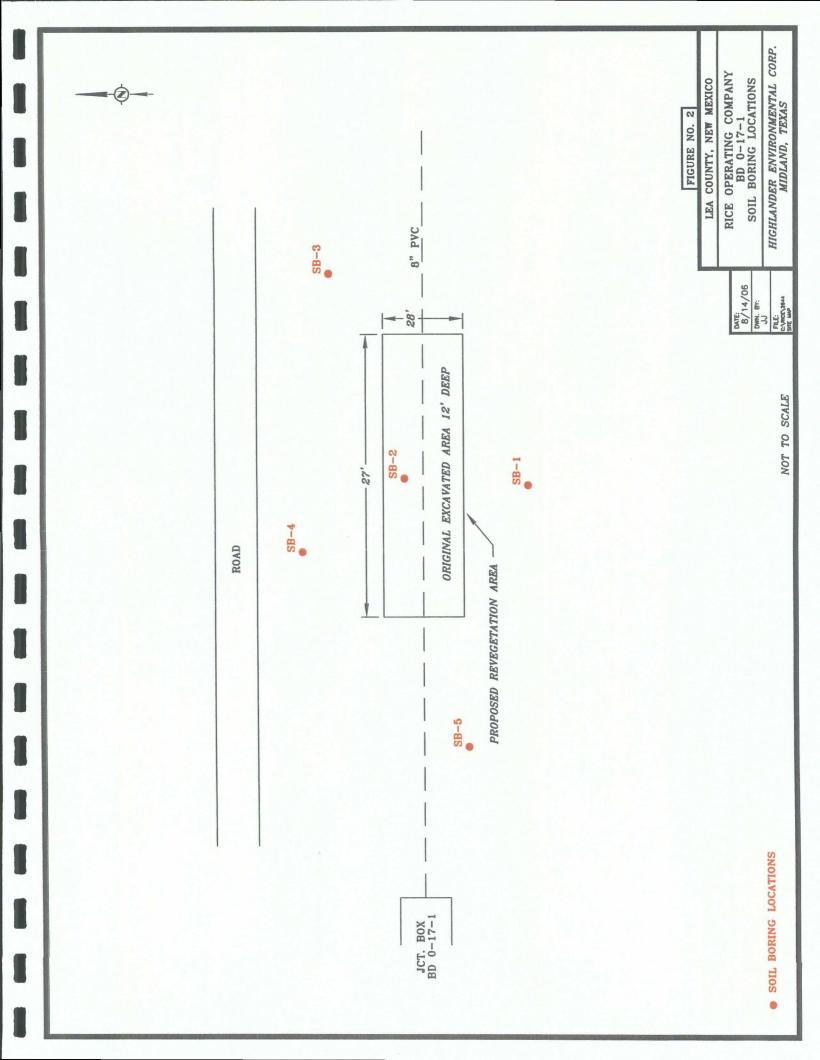
enclosures: site maps, data tables, lab results, figures



Figures









Surface Heads

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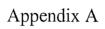
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# Rice Operating

# BD 0-17-1

# Lea County, New Mexico

Sample	Date	Sample	Chlorides	Chlorides	and the second se		(mg/kg)	an a
<u>D</u>	Sampled		Field (mg/kg)	(mġ/kġ)	∴ C6-C12	C12-C28*	a o mate du servera la valego da	
SB-1	10/09/06	13-15'	895	978	<10.0	314	56.7	371
SB-1	10/09/06	18-20'	571	. 213	NA	NA	NA	NA
SB-1	10/09/06	23-25'	212	255	NA	NA	NA	NA
SB-1	10/09/06	28-30'	169	NA	NA	NA	NA	NA
SB-1	10/09/06	33-35'	226	298	NA	NA	NA	NA
SB-2	10/09/06	13-15'	1,293	638	30.4	553	94.4	678
<u>SB-2</u>	10/09/06	18-20'	995	1,360	<10.0	80	<10.0	80
<u>SB-2</u>	10/09/06	23-25'	210	681	NA	NA	. NA	NA
SB-2	10/09/06	28-30'	930	638	NA	NA	NA	NA
SB-2	10/09/06	33-35'	411	362	NA	NA	NA	NA
<u>SB-2</u>	10/09/06	38-40'	621	181	NA	NA	NA	NA
<u>SB-2</u>	10/09/06	43-45'	374	128	NA	NA	NA	NA
SB-2	10/09/06	48-50'	270	95.7	NA	NA	NA	NA
SB-2	10/09/06	53-55'	266	21.3	NA	NA	NA	NA
SB-2	10/09/06	58-60'	239	31.9	NA	NA	NA	NA
SB-3	10/09/06	3-5'	274	106	<10.0	13.2	<10.0	13.2
SB-3	10/09/06	8-10'	470	425	NA	NA	NA	NA
SB-3	10/09/06	13-15'	615	596	NA	NA	NA	NA
SB-3	10/09/06	18-20'	488	638	NA	NA	NA	NA
SB-3	10/09/06	23-25'	682	596	NA	NA	NA	NA
SB-3	10/09/06	28-30'	441	383	NA	ŇA	NA	NA
SB-3	10/09/06	33-35'	276	53.2	NA	NA	NA	NA
SB-3	10/09/06	38- <b>4</b> 0'	234	42.5	NA	NA	NA	NA
SB-4	10/09/06	3-5'	348	128	<10.0	<10.0	<10.0	<10.0
SB-4	10/09/06	8-10'	556	596	NA	NA	NA	NA
SB-4	10/09/06	13-15'	255	213	NA	NA	NA	NA
SB-4	10/09/06	18-20'	235	42.5	NA	NA	NA	NA
SB-4	10/09/06	23-25'	149	63.8	NA	NA	NA	NA
SB-5	10/09/06	13-15'	834	1,110	<10.0	<10.0	<10.0	<10.0
SB-5	10/09/06	18-20'	406	468	NA	NA	NA	NA
SB-5	10/09/06	23-25'	300	234	NA	NA	NA	NA
 SB-5	10/09/06	28-30'	236	128	NA	NA	NA	NA
SB-5	10/09/06	33-35'	160 .	31.9	NA	NA	NA	NA



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# RICE OPERATING COMPANY JUNCTION BOX DISCLOSURE\* REPORT

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				BOX LOC	ATION					
SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY		DIMENSIONS		
Blinebry-Drinkard	O-17-1 vent	0	17	21S	37E	Lea	Length	No Box	Depth	
LAND TYPE: E	BLMST	ATE	FEE L/	ANDOWNER	Millard	Deck Estate		۲		
Depth to Groun	dwater	70	feet	NMOCD	SITEASS	ESSMENT	RANKING	SCORE:	10	
Date Started	3/7/200	3	Date Co	mpleted	8/29/2003		Witness	1	NO	
Soil Excavated	240	_cubic yan	is Ex	cavation Le	ngth30_	Width	18	Depth	12	feet
Soil Disposed	σ	_cubic yard	is Of	ffsite Facility	n	/a	Location	۱	n/a	
	TICAL RES ocure 5-point co 3TEX and Chlo	omposite ride labo	sample of ratory test		4-point com	nposite sam ing an appi	- Iple of sidev	•	12 ft bg	JS
Sample	Benzene	Tolu		thyl Benzene	Total Xylen		RO	DRO	Chlor	
Location SIDEWALLS	mg/kg <0.025	mg/ <0.0			mg/kg 0.281		26	mg/kg 1290	mg/ 181	
BOTTOM	<0.025	0.9		4.44	19.42		120	5280	174	
General Descriptio but the junction has be pipeline. The 30 x 18	en eliminated and x 12 ft deep exca	the site revealed the site re	ed TPH imp	traight through act to at least 1	with new poly 2 ft deep.	\	OCATION CHLO	DEPTH RIDE FIELD	<u>I</u>	pm
Vertically, the 8 ft and respectively. However	·····						Vertical	8	1	000
excavation walls. The				······································			Vertical	12		100
due to the TPH concer discrepancy with the la for further consideration	ab results. The ex	······				fied	ŢP	H FIELD TE	STS	
							Vertical	4	28	3220
ADDIT	IONAL EVA	LUATIC	N IS HIC	H PRIOR	ITY.		Vertical	8	4	220
· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·			[	Vertical	12	35	5070
cc: lab results, photos								1. <u>1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1</u>	<del>ai lauta</del>	
I HEREB	Y CERTIFY TH	IAT THE		TION ABOV			PLETE TO	THE BEST	OF MY	
DATE	9/16/2	2003		PR			Kri	stin Farris		
	Paistio	fair	is)		TITLE		Proj	ect Scientist		

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



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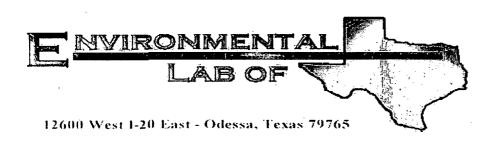
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# Analytical Report

# Prepared for:

Tim Reed Highlander Environmental Corp. 1910 N. Big Spring St. Midland, TX 79705

> Project: Rice/ 0-17-1 Project Number: 2644 Location: None Given

Lab Order Number: 6J13017

Report Date: 10/23/06

Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705

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Project: Rice/ 0-17-1 Project Number: 2644 Project Manager: Tim Reed

# Fax: (432) 682-3946

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ANALYTICAL REPOR	RT FOR SAMPLES
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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1 13-15'	6J13017-01	Soil	10/09/06 00:00	10-13-2006 16:20
SB-1 18-20'	6J13017-02	Soil	10/09/06 00:00	10-13-2006 16:20
SB-1 23-25'	6J13017-03	Soil	10/09/06 00:00	10-13-2006 16:20
SB-1 33-35'	6J13017-04	Soil	10/09/06 00:00	10-13-2006 16:20
SB-2 13-15'	6J13017-05	Soil	10/09/06 00:00	10-13-2006 16:2
SB-2 18-20'	6J13017-06	Soil	10/09/06 00:00	10-13-2006 16:20
SB-2 23-25'	6113017-07	Soil	10/09/06 00:00	10-13-2006 16:2
SB-2 28-30'	6J13017-08	Soil	10/09/06 00:00	10-13-2006 16:2
SB-2 33-35'	6J13017-09	Soil	10/09/06 00:00	10-13-2006 16:2
SB-2 38-40'	6J13017-10	Soil	10/09/06 00:00	10-13-2006 16:2
SB-2 43-45'	6J13017-11	Soil	10/09/06 00:00	10-13-2006 16:2
SB-2 48-50'	6J13017-12	Soil	10/09/06 00:00	10-13-2006 16:2
SB-2 53-55'	6J13017-13	Soil	10/09/06 00:00	10-13-2006 16:2
SB-2 58-60'	6J13017-14	Soil	10/09/06 00:00	10-13-2006 16:2
SB-3 3-5'	6J13017-15	Soil	10/09/06 00:00	10-13-2006 16:2
SB-3 8-10'	6J13017-16	Soil	10/09/06 00:00	10-13-2006 16:2
SB-3 13-15'	6J13017-17	Soil	10/09/06 00:00	10-13-2006 16:2
SB-3 18-20'	6J13017-18	Soil	10/09/06 00:00	10-13-2006 16:2
SB-3 23-25'	6J13017-19	Soil	10/09/06 00:00	10-13-2006 16:2
SB-3 28-30'	6J13017-20	Soil	10/09/06 00:00	10-13-2006 16:
SB-3 33-35'	6J13017-21	Soil	10/09/06 00:00	10-13-2006 16:
SB-3 38-40'	6J13017-22	Soil	10/09/06 00:00	10-13-2006 16;2
SB-4 3-5'	6J13017-23	Soil	10/09/06 00:00	10-13-2006 16:
SB-4 8-10'	6J13017-24	Soil	10/09/06 00:00	10-1 <b>3-2</b> 006 16:
SB-4 13-15'	6J13017-25	Soil	10/09/06 00:00	10-13-2006 16:
SB-4 18-20'	6J13017-26	Soil	10/09/06 00:00	10-13-2006 16:
SB-4 23-25'	6J13017-27	Soil	10/09/06 00:00	10-13-2006 16:
SB-5 13-15'	6J13017-28	Soil	10/09/06 00:00	10-13-2006 16:
SB-5 18-20'	6J13017-29	Soil	10/09/06 00:00	10-13-2006 16:
SB-5 23-25'	6J13017-30	Soil	10/09/06 00:00	10-13-2006 16:
SB-5 28-30'	6J13017-31	Soil	10/09/06 00:00	10-13-2006 16:
SB-5 32-35'	6J13017-32	Soil	10/09/06 00:00	10-13-2006 16:

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705		Project N	Project: Rice umber: 264 anager: Tim	4				Fax: (432) (	582-3946
		Or	ganics by	y GC					
		Environ	mental L	ab of Te	exas				
		Reporting				<u></u>			
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 13-15' (6J13017-01) Soil		Υ							
Carbon Ranges C6-C12	J [7.69]	10.0	mg/kg dry	ł	EJ61502	10/15/06	10/15/06	EPA 8015M	
Carbon Ranges C12-C28	314	10.0	ц		п	n	н	н	
Carbon Ranges C28-C35	56.7	10.0	"		н	n	п	п	
Total Hydrocarbons	371	10.0	н	"	u	n	н	н	
Surrogate: 1-Chlorooctane		89.6 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		79.4 %	70-1	30	"	"	"	"	
SB-2 13-15' (6J13017-05) Soil									
Carbon Ranges C6-C12	30.4	10.0	mg/kg dry	. 1	EJ61502	10/15/06	10/15/06	EPA 8015M	
Carbon Ranges C12-C28	553	10.0	**		**		и	"	
Carbon Ranges C28-C35	94.4	10.0			"		19	".	
Total Hydrocarbons	678	10.0	**	"	**		"	"	
Surrogate: 1-Chlorooctane		90.8 %	. 70-1	30	"	"	и	"	
Surrogate: 1-Chlorooctadecane		80.2 %	70-1	30	"	"	11	"	
SB-2 18-20' (6J13017-06) Soil									
Carbon Ranges C6-C12	J [9.93]	10.0	mg/kg dry	1	EJ61502	10/15/06	10/16/06	EPA 8015M	
Carbon Ranges C12-C28	80.0	10.0		"	11	"	н		
Carbon Ranges C28-C35	J [9.44]	10.0	п	"	"	"	u.		
Total Hydrocarbons	80.0	10.0		"	11	"			
Surrogate: 1-Chlorooctane		91.6 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		80.2 %	70-1	30	"	"	"	"	
SB-3 3-5' (6J13017-15) Soil									
Carbon Ranges C6-C12	ND	10.0	ıng/kg dry	1	EJ61502	10/15/06	10/16/06	EPA 8015M	
Carbon Ranges C12-C28	13.2	10.0	"	"	"			"	
Carbon Ranges C28-C35	ND	10.0	**	"	"	"	"	**	
Total Hydrocarbons	13.2	10.0	"	**	**	n	"		
Surrogate: 1-Chlorooctane		87.2 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		80.6 %	70-1	30	"	"	"	"	

Environmental Lab of Texas

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The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Page 2 of 13

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Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705

#### Project: Rice/0-17-1 Project Number: 2644 Project Manager: Tim Reed

Fax: (432) 682-3946

# Organics by GC

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SB-4 3-5' (6J13017-23) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EJ61609	10/16/06	10/17/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	11	и	"	n	н	*	
Carbon Ranges C28-C35	ND	10.0	11		"	"	п	11	
Total Hydrocarbons	ND	10.0	н	н	11	14		u	
Surrogate: 1-Chlorooctane		87.8 %	70-1	30	"	"	"	п	
Surrogate: 1-Chlorooctadecane		79.8 %	70-1	30	"	"	"	"	

#### Carbon Ranges C6-C12 ND 10.0 mg/kg dry EJ61502 10/15/06 EPA 8015M l 10/16/06 Carbon Ranges C12-C28 .. " " ND 10.0 Carbon Ranges C28-C35 10.0 ... ND n ... н Total Hydrocarbons ND 10.0 u. Surrogate: 1-Chlorooctane 89.4 % 70-130 " " ,, " 78.8 % 70-130 Surrogate: 1-Chlorooctadecane ,, ...

Environmental Lab of Texas

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# General Chemistry Parameters by EPA / Standard Methods

	Environ	nicitai L		лаз				
Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	No
							·····	
978	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
7.2	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
213	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
255	20.0	ıng/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	~
298	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
638	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
10.9	0.1	%	I	EJ61601	10/13/06	10/16/06	% calculation	
1360	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
10.1	0.1	%	L	EJ61601	10/13/06	10/16/06	% calculation	
681	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
638	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
362	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
181	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
	978 7.2 213 255 298 638 10.9 1360 10.1 681 638 638 362	Result     Reporting Limit       978     20.0       7.2     0.1       213     20.0       255     20.0       298     20.0       638     20.0       10.9     0.1       1360     20.0       10.1     0.1       638     20.0       362     20.0	Result     Reporting Limit     Units       978     20.0     mg/kg Wet       7.2     0.1     %       213     20.0     mg/kg Wet       255     20.0     mg/kg Wet       298     20.0     mg/kg Wet       10.9     0.1     %       113     20.0     mg/kg Wet       200.0     mg/kg Wet        201     9%        2028     20.0     mg/kg Wet       0.1     %        638     20.0     mg/kg Wet       10.1     0.1     %       681     20.0     mg/kg Wet       638     20.0     mg/kg Wet	Result     Reporting Limit     Units     Dilution       978     20.0     mg/kg Wet     2       7.2     0.1     %     1       213     20.0     mg/kg Wet     2       255     20.0     mg/kg Wet     2       298     20.0     mg/kg Wet     2       638     20.0     mg/kg Wet     2       10.9     0.1     %     1       1360     20.0     mg/kg Wet     2       10.1     0.1     %     1       681     20.0     mg/kg Wet     2       638     20.0     mg/kg Wet     2       10.1     0.1     %     1       631     20.0     mg/kg Wet     2       638     20.0     mg/kg Wet     2       638     20.0     mg/kg Wet     2       632     20.0     mg/kg Wet     2	Result     Limit     Units     Dilution     Batch       978     20.0     mg/kg Wet     2     EJ62014       7.2     0.1     %     1     EJ61601       213     20.0     mg/kg Wet     2     EJ62014       255     20.0     mg/kg Wet     2     EJ62014       298     20.0     mg/kg Wet     2     EJ62014       638     20.0     mg/kg Wet     2     EJ62014       10.9     0.1     %     1     EJ62014       10.9     0.1     %     1     EJ62014       10.9     0.1     %     1     EJ62014       10.1     0.1     %     1     EJ61601       631     20.0     mg/kg Wet     2     EJ62014       638     20.0     mg/kg Wet     2     EJ62014       638     20.0     mg/kg Wet     2     EJ62014       638     20.0     mg/kg Wet     2     EJ62014       362     20.0     mg/kg Wet	Result     Reporting Limit     Units     Dilution     Batch     Prepared       978     20.0     mg/kg Wet     2     EJ62014     10/20/06       7.2     0.1     %     1     EJ61601     10/13/06       213     20.0     mg/kg Wet     2     EJ62014     10/20/06       255     20.0     mg/kg Wet     2     EJ62014     10/20/06       298     20.0     mg/kg Wet     2     EJ62014     10/20/06       638     20.0     mg/kg Wet     2     EJ62014     10/20/06       10.9     0.1     %     1     EJ62014     10/20/06       10.9     0.1     %     1     EJ62014     10/20/06       10.9     0.1     %     1     EJ62014     10/20/06       10.1     0.1     %     1     EJ62014     10/20/06       681     20.0     mg/kg Wet     2     EJ62014     10/20/06       638     20.0     mg/kg Wet     2     EJ62014     10/20/06	Result     Reporting Limit     Units     Dilution     Batch     Prepared     Analyzed       978     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06       7.2     0.1     %     1     EJ61601     10/13/06     10/22/06       213     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06       255     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06       298     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06       638     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06       10.9     0.1     %     1     EJ62014     10/20/06     10/22/06       10.9     0.1     %     1     EJ61601     10/13/06     10/22/06       10.1     0.1     %     1     EJ62014     10/20/06     10/22/06       681     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06       638 <td>Result     Reporting Limit     Units     Dilution     Batch     Prepared     Analyzed     Method       978     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06     SW 846 9233       7.2     0.1     %     1     EJ6101     10/13/06     10/22/06     SW 846 9233       213     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06     SW 846 9233       255     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06     SW 846 9253       298     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06     SW 846 9253       638     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06     SW 846 9253       10.9     0.1     %     1     EJ6101     10/13/06     10/16/06     % calculation       10.1     0.1     %     1     EJ6101     10/20/06     10/22/06     SW 846 9253       10.1     0.1     %     1     EJ62014     10/20/0</td>	Result     Reporting Limit     Units     Dilution     Batch     Prepared     Analyzed     Method       978     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06     SW 846 9233       7.2     0.1     %     1     EJ6101     10/13/06     10/22/06     SW 846 9233       213     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06     SW 846 9233       255     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06     SW 846 9253       298     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06     SW 846 9253       638     20.0     mg/kg Wet     2     EJ62014     10/20/06     10/22/06     SW 846 9253       10.9     0.1     %     1     EJ6101     10/13/06     10/16/06     % calculation       10.1     0.1     %     1     EJ6101     10/20/06     10/22/06     SW 846 9253       10.1     0.1     %     1     EJ62014     10/20/0

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# General Chemistry Parameters by EPA / Standard Methods

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SB-2 43-45' (6J13017-11) Soil								· · · · · · · · · · · · · · · · · · ·	
Chloride	128	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
SB-2 48-50' (6J13017-12) Soil									
Chloride	95.7	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
SB-2 53-55' (6J13017-13) Soil									
Chloride	21.3	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
SB-2 58-60' (6J13017-14) Soil									
Chloride	31.9	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
SB-3 3-5' (6J13017-15) Soil									
Chloride	106	20.0	ıng/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
% Moisture	3.8	0.1	%	I	EJ61601	10/13/06	10/16/06	% calculation	
SB-3 8-10' (6J13017-16) Soil						<u>.                                    </u>			
Chloride	425	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
SB-3 13-15' (6J13017-17) Soil									
Chloride	596	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
SB-3 18-20' (6J13017-18) Soil			-						
Chloride	638	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
SB-3 23-25' (6J13017-19) Soil									
Chloride	596	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
SB-3 28-30' (6J13017-20) Soil									
Chloride	383	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	

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# General Chemistry Parameters by EPA / Standard Methods

		Environ	mental La	ab of Te	xas				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SB-3 33-35' (6J13017-21) Soil									
Chloride	53.2	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
SB-3 38-40' (6J13017-22) Soil									
Chloride .	42.5	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
SB-4 3-5' (6J13017-23) Soil				-					
Chloride	128	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
% Moisture	12.0	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
SB-4 8-10' (6J13017-24) Soil				¥					
Chloride	596	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
SB-4 13-15' (6J13017-25) Soil									
Chloride	213	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
SB-4 18-20' (6J13017-26) Soil									
Chloride	42.5	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
SB-4 23-25' (6J13017-27) Soil									
Chloride	63.8	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
SB-5 13-15' (6J13017-28) Soil									
Chloride	1110	. 20.0	ıng/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
% Moisture	12.1	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
SB-5 18-20' (6J13017-29) Soil									
Chloride	468	20.0	ıng/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
SB-5 23-25' (6J13017-30) Soil									
Chloride	234	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	

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Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705 Project: Rice/ 0-17-1 Project Number: 2644 Project Manager: Tim Reed

# General Chemistry Parameters by EPA / Standard Methods

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-5 28-30' (6J13017-31) Soil			··· ·· ·				,,,,,,,,	97	
Chloride	128	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
SB-5 32-35' (6J13017-32) Soil									
Chloride	31.9	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	

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Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705		Project N	Project: Rice umber: 264 anager: Tim	1					Fax: (432)	682-3946
		rganics by Environ		-						
Analyte	Result	Reporting	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ61502 - Solvent Extraction (GC)										
Blank (EJ61502-BLK1)				Prepared &	Analyzed:	10/15/06				
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	45.3		mg <sup>,</sup> kg	50.0		90.6	70-130			
Surrogate: 1-Chlorooctadecane	41.1		"	50.0		82.2	70-130			
LCS (EJ61502-BS1)				Prepared &	2 Analyzed:	10/15/06		*		
Carbon Ranges C6-C12	486	10.0	mg/kg wet	500		97.2	75-125			
Carbon Ranges C12-C28	474	10.0		500		94.8	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	960	10.0	"	1000		96.0	75-125			
Surrogate: 1-Chlorooctane	58,0	_	mg·kg	50,0		116	70-130	· · · ·		
Surrogate: 1-Chlorooctadecane	43.7		"	50.0		87.4	70-130	•		
Calibration Check (EJ61502-CCV1)				Prepared:	10/15/06 A	nalyzed: 10	)/16/06			
Carbon Ranges C6-C12	203		ma/ka	250		81.2	80-120			

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Carbon Ranges C6-C12	203	mg/kg	250	81.2	80-120	
Carbon Ranges C12-C28	237		250	94.8	80-120	
Total Hydrocarbons	440	+1	500	88.0	80-120	
Surrogate: 1-Chlorooctane	47.8	"	50.0	95.6	70-130	
Surrogate: 1-Chlorooctadecane	38.4	"	50.0	76.8	70-130	

Matrix Spike (EJ61502-MS1)	Source	e: 6J13015	-01	Prepared: 1	0/15/06 A	nalyzed: 10	)/16/06
Carbon Ranges C6-C12	527	10.0	mg/kg dry	567	ND	92.9	75-125
Carbon Ranges C12-C28	507	10.0	н	567	ND	89.4	75-125
Carbon Ranges C28-C35	ND	10.0	н	0.00	ND		75-125
Total Hydrocarbons	1030	10.0	"	1130	ND	91.2	75-125
Surrogate: 1-Chlorooctane	56.9		mg kg	50.0		114	70-130
Surrogate: 1-Chlorooctadecane	43.3		"	50.0		86.6	70-130

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Highlander Environmental Corp.		Р	roject: Ric	e/ 0-17-1					Fax: (432)	682-3946
1910 N. Big Spring St.		Project Nu	umber: 264	4	·					
Midland TX, 79705		Project Ma	inager: Tim	n Reed						
	0	rganics by	- GC - Q	uality Co	ontrol					
		Environn	nental L	ab of Tex	xas					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ61502 - Solvent Extraction (GC)		····· ··· ··· ···								
Matrix Spike Dup (EJ61502-MSD1)	Sou	rce: 6J13015	-01	Prepared: 1	10/15/06 A	nalyzed: 10	/16/06			-
Carbon Ranges C6-C12	525	10.0	ing/kg dry	567	ND	92.6	75-125	0.380	20	
Carbon Ranges C12-C28	513	10.0		<b>*</b> 567	ND	90.5	75-125	1.18	20	
Carbon Ranges C28-C35	ND	10.0		0.00	ND		75-125		20	
Total Hydrocarbons	1040	10.0		1130	ND	92.0	75-125	0.966	20	
Surrogate: 1-Chlorooctane	57. I		mg≤kg	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	42.8		u.	50.0		85.6	70-130			
Batch EJ61609 - Solvent Extraction (GC)										
Blank (EJ61609-BLK1)				Prepared:	10/16/06 A	nalyzed: 10	/17/06			
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	**							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	н							
Surrogate: 1-Chlorooctane	48.3		mg/kg	50.0		96.6	70-130			
Surrogate: 1-Chlorooctadecane	45.0		"	50.0		90.0	70-130			
LCS (EJ61609-BS1)				Prepared:	10/16/06 A	nalyzed: 10	/17/06			
Carbon Ranges C6-C12	469	10.0	mg/kg wet	500		93.8	75-125			
Carbon Ranges C12-C28	452	10.0	n	500		90.4	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	921	10.0	"	1000		92.1	75-125			
Surrogate: 1-Chlorooctane	60.5		mg kg	50.0		121	70-130			
Surrogate: 1-Chlorooctadecane	46.4		"	50.0		92.8	70-130			
Calibration Check (EJ61609-CCV1)				Prepared:	10/16/06 A	nalyzed: 10	)/18/06			
Carbon Ranges C6-C12	216		mg/kg	250		86.4	80-120			
Carbon Ranges C12-C28	248		11	250		99.2	80-120			
Total Hydrocarbons	464		п	500		92.8	80-120			
Surrogate: 1-Chlorooctane	64.5		"	50.0		129	70-130			
Surrogate: 1-Chlorooctadecane	62.7		"	50.0		125	70-130			

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# Project: Rice/ 0-17-1 Project Number: 2644 Project Manager: Tim Reed

# Organics by GC - Quality Control

# Environmental Lab of Texas

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		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

#### Batch EJ61609 - Solvent Extraction (GC)

Matrix Spike (EJ61609-MS1)	Source	e: 6J16003	-03	Prepared: 1	0/16/06 A	nalyzed: 10	)/17/06			
Carbon Ranges C6-C12	511	10.0	mg/kg dry	572	ND	89.3	75-125			
Carbon Ranges C12-C28	504	. 10.0		572	ND	88.1	75-125			
Carbon Ranges C28-C35	ND	10.0		0.00	ND		75-125			
Total Hydrocarbons	1020	10.0	**	1140	ND	89.5	75-125			
Surrogate: 1-Chlorooctane	56.5		mg/kg	50.0	· · · · ·	113	70-130			•
Surrogate: 1-Chlorooctadecane	43.8		"	50.0		87.6	70-130			
Matrix Spike Dup (EJ61609-MSD1)	Source	e: 6J16003	-03	Prepared: 1	0/16/06 A	nalyzed: 10	0/17/06			
Carbon Ranges C6-C12	511	10.0	mg/kg dry	572	ND	89.3	75-125	0.00	20	÷
Carbon Ranges C12-C28	500	10.0		572	ND	87.4	75-125	0.797	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1010	10.0	"	1140	ND	88.6	75-125	0.985	20	
Surrogate: 1-Chlorooctane	55.2		mg kg	50.0		110	70-130			
Surrogate: 1-Chlorooctadecane	41.0		"	50.0		82.0	70-130			

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# General Chemistry Parameters by EPA / Standard Methods - Quality Control

# **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result		%REC Limits	RPD	RPD Limit	Notes
Batch EJ61601 - General Preparation (Prep)										
Blank (EJ61601-BLK1)				Prepared:	10/13/06	Analyzed:	10/16/06			
% Solids	100		%							
Duplicate (EJ61601-DUP1)	Sou	ırce: 6J13004-	01	Prepared:	10/13/06	Analyzed:	10/16/06			
% Solids	74.4		%		74.5			0.134	20	
Duplicate (EJ61601-DUP2)	Sou	ırce: 6J13017-	06	Prepared:	10/13/06	Analyzed:	10/16/06			
% Solids	90.4		%		89.9			0.555	, 20	
Duplicate (EJ61601-DUP3)	Sou	arce: 6J13021-	05	Prepared:	10/13/06	Analyzed:	10/16/06			
% Solids	89.8		%		90.8			1.11	20	
Duplicate (EJ61601-DUP4)	Sou	urce: 6J14001	-02	Prepared:	10/13/06	Analyzed:	10/16/06			
% Solids	85.1		%		85.1			0.00	20	
Batch EJ62014 - Water Extraction										
Blank (EJ62014-BLK1)				Prepared:	10/20/06	Analyzed:	10/22/06			
Chloride	ND	20.0	mg/kg Wet							
LCS (EJ62014-BS1)				Prepared:	10/20/06	Analyzed:	10/22/06			
Chloride	92.5	5.00	mg/kg Wet	100		92.5	80-120			
Matrix Spike (EJ62014-MS1)	So	urce: 6J13017	-13	Prepared:	10/20/06	Analyzed:	10/22/06			
Chloride	521	20.0	mg/kg Wet	500	21.3	99.9	80-120			-
Matrix Spike Dup (EJ62014-MSD1)	So	urce: 6J13017	-13	Prepared:	10/20/06	Analyzed:	10/22/06			
Chloride	532	20.0	mg/kg Wet	500	21.3	102	80-120	2.09	20	

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# General Chemistry Parameters by EPA / Standard Methods - Quality Control

#### **Environmental Lab of Texas**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EJ62014 - Water Extraction										
Reference (EJ62014-SRM1)				Prepared:	0/20/06	Analyzed:	10/22/06			
Chloride	51.0		mg/kg	50.0		102	80-120			
Batch EJ62015 - Water Extraction										
Blank (EJ62015-BLK1)				Prepared:	10/20/06	Analyzed:	10/22/06	•		
Chloride	ND	20.0	ing/kg Wet							
LCS (EJ62015-BS1)				Prepared:	10/20/06	Analyzed:	10/22/06			
Chloride	91.5	5.00	mg/kg Wet	100		91.5	80-120			
Matrix Spike (EJ62015-MS1)	Sourc	e: 6J13017	-23	Prepared:	10/20/06	Analyzed:	10/22/06			
Chloride	638	20.0	mg/kg Wet	500	128	102	80-120			
Matrix Spike Dup (EJ62015-MSD1)	Sourc	e: 6J13017	-23	Prepared:	10/20/06	Analyzed:	10/22/06			
Chloride	649	20.0	mg/kg Wet	500	128	104	80-120	1.71	20	
Reference (EJ62015-SRM1)				Prepared:	10/20/06	Analyzed:	10/22/06			
Chloride	52.1		mg/kg	50.0		104	80-120			

Environmental Lab of Texas

Fax: (432) 682-3946 Project: Rice/ 0-17-1 Highlander Environmental Corp. Project Number: 2644 1910 N. Big Spring St. Midland TX, 79705 Project Manager: Tim Reed **Notes and Definitions** Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). J DET Analyte DETECTED Analyte NOT DETECTED at or above the reporting limit ND NR Not Reported Sample results reported on a dry weight basis dry RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:

Raland K Juli Date:

10/23/2006

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director, Org. Tech Director Peggy Allen, QA Officer Jeanne Mc Murrey, Inorg. Tech Director LaTasha Cornish, Chemist Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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# Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client:	Highlander	_
Date/ Time:	4.0/13/ble 4:20	_
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# Sample Receipt Checklist

				Client	Initials
¥1	Temperature of container/ cooler?	Yes	No	3.0 °C	
#2	Shipping container in good condition?	(TE9	No		
<u>#2</u> <u>#3</u>	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	1
#5	Chain of Custody present?	Tes	No		
#5 #6	Sample instructions complete of Chain of Custody?	XES .	No		
#7	Chain of Custody signed when relinquished/ received?	tes	No		
#8	Chain of Custody agrees with sample label(s)?	(es	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Kes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Jos	No ·		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	(FES	No	See Below	
#13	Samples properly preserved?	des	No	See Below	
#14	Sample bottles intact?	Yeş	No		
#15	Preservations documented on Chain of Custody?	Yes	No	· · · · ·	
#16	Containers documented on Chain of Custody?	Xes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	VOC samples have zero headspace?	Yes	No	Not Applicable	

# Variance Documentation

Contact:		Contacted by:	Date/ Time:
Regarding:			
Corrective Action Taker	:		
		· · · · · · · · · · · · · · · · · · ·	
Check all that Apply:		See attached e-mail/ fax Client understands and would like to proceed with a Cooling process had begun shortly after sampling e	•



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Boring/Well:SB-1Project Number:2644Client:Rice EngineeringSite Location:BD 0-17-1Location:Lea County, New MexicoTotal Depth35Date Installed:10/09/06

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DEPTH (in feet)	ΟνΜ	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
13-15	25	895	Tan calcareous sand with slight hydrocarbon odor
18-20	0	571	Tan calcareous fine grain sand
23-25	0	212	Tan calcareous fine grain sand
28-30	0	169	Tan calcareous fine grain sand
33-35	0	226	Tan calcareous fine grain sand

Boring completed at 35 feet bgs

Boring/Well:SB-2Project Number:2644Client:Rice EngineeringSite Location:BD 0-17-1Location:Lea County, New MexicoTotal Depth60Date Installed:10/09/06

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DEPTH (in feet)	OVM	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
13-15	28	1293	Tan calcareous sand with slight hydrocarbon odor
18-20	25	995	Tan calcareous fine grain sand
23-25	10	_210	Tan calcareous fine grain sand
28-30	2	930	Tan calcareous fine grain sand
33-35	0	411	Tan calcareous fine grain sand
38-40	0	621	Tan calcareous fine grain sand
43-45	0	374	Tan calcareous fine grain sand
48-50	0	270	Tan calcareous fine grain sand
53-55	0	266	Tan calcareous fine grain sand
58-60	0	239	Tan calcareous fine grain sand

Boring completed at 60 feet bgs

Boring/Well:SB-3Project Number:2644Client:Rice EngineeringSite Location:BD 0-17-1Location:Lea County, New MexicoTotal Depth40Date Installed:10/09/06

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DEPTH (in feet)	OVM	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
3-5	2	274	Brown fine grain sand
8-10	0	470	Dark brown clayey sand
13-15	0	615	Dark brown clayey sand
18-20	0	488	Dark brown clayey sand
23-25	0	682	Tan calcareous fine grain sand
28-30	0	441	Tan calcareous fine grain sand
33-35	0	276	Tan calcareous fine grain sand
38-40	0	234	Tan calcareous fine grain sand

Boring completed at 40 feet bgs

Boring/Well:	SB-4
Project Number:	2644
Client:	Rice Engineering
Site Location:	BD 0-17-1
Location:	Lea County, New Mexico
Total Depth	25
Date Installed:	10/10/06

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DEPTH (in feet)	ονΜ	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
3-5	2	348	Tan clayey fine grain sand with no odor or staining
8-10	2	556	Tan calcareous fine grain sand with no odor or staining
13-15	2	255	Tan calcareous fine grain sand with no odor or staining
18-20	2	235	Tan calcareous fine grain sand with no odor or staining
23-25	0	149	Tan calcareous fine grain sand with no odor or staining

Boring completed at 25 feet bgs

Boring/Well:	SB-5
Project Number:	2644
Client:	Rice Engineering
Site Location:	BD 0-17-1
Location:	Lea County, New Mexico
Total Depth	35
Date Installed:	10/10/06

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DEPTH (in feet)	OVM	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
13-15	2	834	Tan/brown calcareous fine grain sand with no odor or staining
18-20	2	406	Tan calcareous fine grain sand with no odor or staining
23-25	0	300	Tan calcareous fine grain sand with no odor or staining
28-30	0	236	Tan calcareous fine grain sand with no odor or staining
33-35	0	149	Tan calcareous fine grain sand with no odor or staining

Boring completed at 35 feet bgs