AP - 59

F-35
ANNUAL GW MONITORING REPORT

DATE:
2006

AP-59
F-35 Annual GW Mon. Report
2006

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

February 12, 2007

Wayne Price
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: 2006 Annual Ground Water Monitoring Report
F-35 SWD, Sec 35, T17S, R35E, Unit "F"
NMOCD Case #: AP-59

Dear Mr. Wayne Price:

R.T. Hicks Consultants, Ltd is pleased to submit the 2006 Annual Ground Water Monitoring Report for the F-35 SWD site located in the Vacuum Salt Water Disposal System (SWD). *This report consists of the following sections:*

1. A table summarizing all laboratory results, depth to ground water and other pertinent data associated with ground water sampling at the site, including this past year.
2. Graphs showing chemical concentration vs. time for chloride and TDS.
3. Laboratory data sheets associated with the routine sampling for 2006.
4. Potentiometric surface map.

The Vadose Zone Remedy Plan was submitted to NMOCD on November 15, 2006. The Vadose Zone Remedy Plan is pending NMOCD approval.

Thank you for your consideration of this annual summary information. The attached CD contains an electronic copy of the annual report. If you have any questions, please contact us at 505-266-5004, or Kristin Farris Pope at ROC, 505-393-9174.

Sincerely,
R.T. Hicks Consultants, Ltd.

Randall T. Hicks
Principal

Copy: Hobbs NMOCD office; Rice Operating Company

Table 1: chemistry over time

F-35 SWD

Well Name	*Date*	*DTW (ft)*	*Chloride (mg/L)*	*Sulfate (mg/L)*	*TDS (mg/L)*	*Benzene (ug/L)*	*Toluene (ug/L)*	*EthylBenzene (ug/L)*	*Total Xylenes (ug/L)*	*Comments*
MW-1	1/10/2002	58.00	5200	5	9425	0.050	0.053	0.050	0.0900	
MW-1	1/10/2002	58.00	5200	5	9425	0.050	0.053	0.050	0.0900	
MW-1	5/15/2002	XXX	3720	3.2	7050	0.744	0.207	0.510	0.3090	
MW-1	5/15/2002	XXX	3720	3.2	7050	0.744	0.207	0.510	0.3090	
MW-1	8/19/2002	XXX	3630	10.7	6040	0.705	0.172	0.112	0.0760	
MW-1	8/19/2002	XXX	3630	10.7	6040	0.705	0.172	0.112	0.0760	
MW-1	11/11/2002	XXX	3720	2.8	6020	1.210	0.343	0.835	0.4310	
MW-1	11/11/2002	XXX	3720	2.8	6020	1.210	0.343	0.835	0.4310	
MW-1	2/28/2003	XXX	2200	26.2	4040	0.909	0.840	0.321	0.1240	
MW-1	2/28/2003	XXX	2200	26.2	4040	0.909	0.840	0.321	0.1240	
MW-1	6/5/2003	XXX	2300	20.3	4180	0.632	0.134	0.061	0.0670	
MW-1	6/5/2003	XXX	2300	20.3	4180	0.632	0.134	0.061	0.0670	
MW-1	8/21/2003	XXX	2060	4.9	4000	0.617	0.360	0.202	0.1920	
MW-1	8/21/2003	XXX	2060	4.9	4000	0.617	0.360	0.202	0.1920	
MW-1	11/19/2003	XXX	2000	5.1	3760	0.797	0.301	0.264	0.2480	
MW-1	11/19/2003	XXX	2000	5.1	3760	0.797	0.301	0.264	0.2480	
MW-1	2/18/2004	58.20	1819	0.19	3932	0.349	0.038	0.121	0.0270	
MW-1	2/18/2004	58.20	1819	0.19	3932	0.349	0.038	0.121	0.0270	
MW-1	5/27/2004	58.50	1759	8.7	4008	0.726	0.176	0.268	0.2150	
MW-1	5/27/2004	58.50	1759	8.7	4008	0.726	0.176	0.268	0.2150	
MW-1	9/7/2004	58.20	1040	19.9	3000	0.429	0.221	0.143	0.2247	mod. odor; gray
MW-1	9/7/2004	58.20	1040	19.9	3000	0.429	0.221	0.143	0.2247	mod. odor; gray
MW-1	11/24/2004	57.81	1260	51	2740	0.0489	0.313	0.209	0.2507	mod. odor; gray
MW-1	11/24/2004	57.81	1260	51	2740	0.0489	0.313	0.209	0.2507	mod. odor; gray
MW-1	3/21/2005	57.18	1220	110	2210	2.200	1.610	0.848	1.2830	mod. odor; gray
MW-1	3/21/2005	57.18	1220	110	2210	2.200	1.610	0.848	1.2830	mod. odor; gray
MW-1	5/11/2005		1490	24.6	2970	686	451	374	176.2000	
MW-1	5/11/2005		1490	24.6	2970	686	451	374	176.2000	

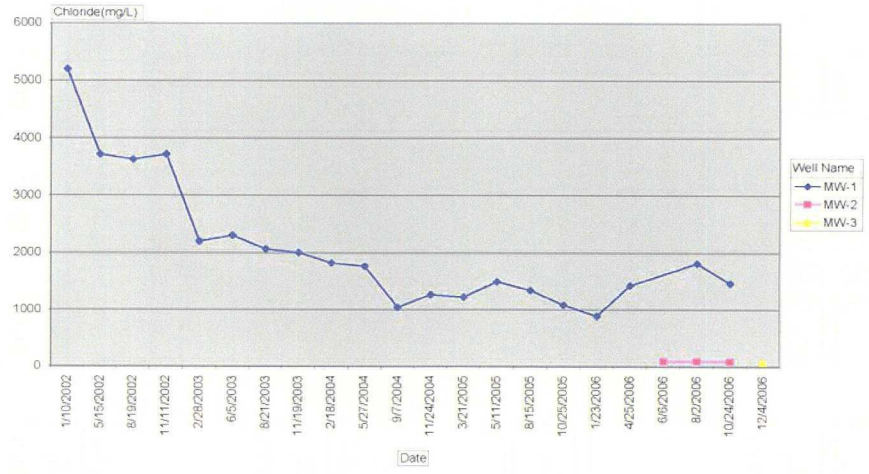
Table 1: chemistry over time

F-35 SWD

Well Name	*Date*	*DTW (ft)*	*Chloride (mg/L)*	*Sulfate (mg/L)*	*TDS (mg/L)*	*Benzene (ug/L)*	*Toluene (ug/L)*	*EthylBenzene (ug/L)*	*Total Xylenes (ug/L)*	*Comments*
MW-1	8/15/2005	58.40	1340	69.5	2890	0.819	0.393	0.666	0.5840	
MW-1	8/15/2005	58.40	1340	69.5	2890	0.819	0.393	0.666	0.5840	
MW-1	10/25/2005	57.45	1080	72.7	2540	0.779	0.243	0.394	0.3062	
MW-1	10/25/2005	57.45	1080	72.7	2540	0.779	0.243	0.394	0.3062	
MW-1	1/23/2006	57.38	886	88.2	2080	0.447	0.222	0.28	0.3006	Heavy skim of Oil: Septic Odor
MW-1	1/23/2006	57.38	886	88.2	2080	0.447	0.222	0.28	0.3006	Heavy skim of Oil: Septic Odor
MW-1	4/25/2006	57.58	1420	62.5	3040	0.227	0.0956	0.174	0.1614	
MW-1	4/25/2006	57.58	1420	62.5	3040	0.227	0.0956	0.174	0.1614	
MW-1	8/2/2006	57.69	1810	17	2680	0.349	0.108	0.213	0.2010	Heavy skim of Oil: Septic Odor Clear turning Dark Gray
MW-1	10/24/2006	XXX	1460	45.2	3190	0.462	0.489	0.230	0.745	Clear with a strong septic odor
MW-2	6/6/2006	52.57	97.6	63.3	724	<0.001	<0.001	<0.001	<0.001	Clear no odor
MW-2	6/6/2006	52.57	97.6	63.3	724	<0.001	<0.001	<0.001	<0.001	Clear no odor
MW-2	8/2/2006	52.66	96	66	723	<0.001	<0.001	<0.001	<0.001	
MW-2	10/24/2006	52.77	89.1	67.2	598	<0.001	<0.001	<0.001	<0.001	
MW-3	12/4/2006	52.18	80.1	81.5	450	0.000370	0.0150	<0.001	<0.001	Clear / Slight Odor

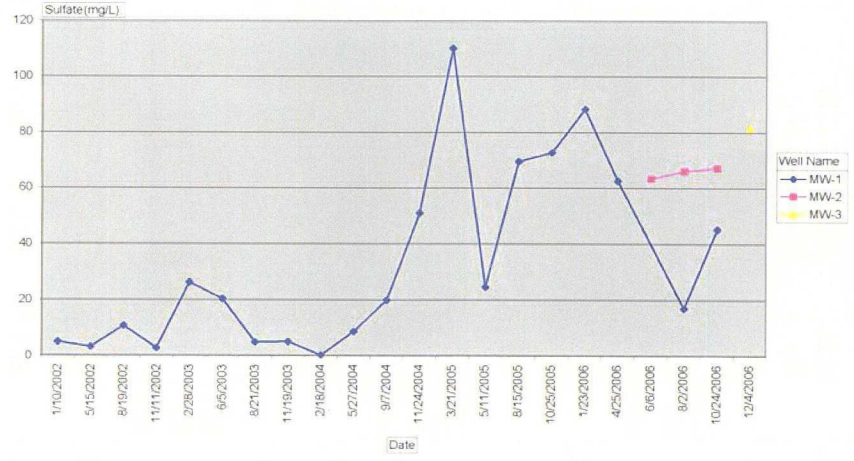
Site Name:F-35 SWD

Chloride Over Time



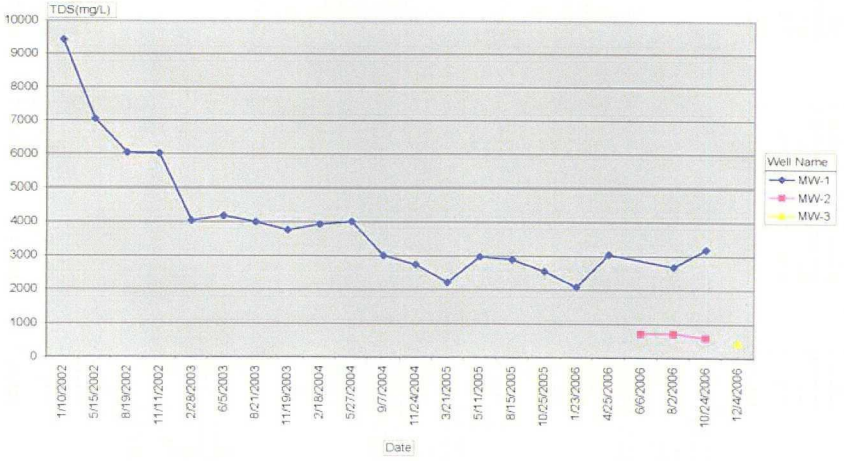
Site Name:F-35 SWD

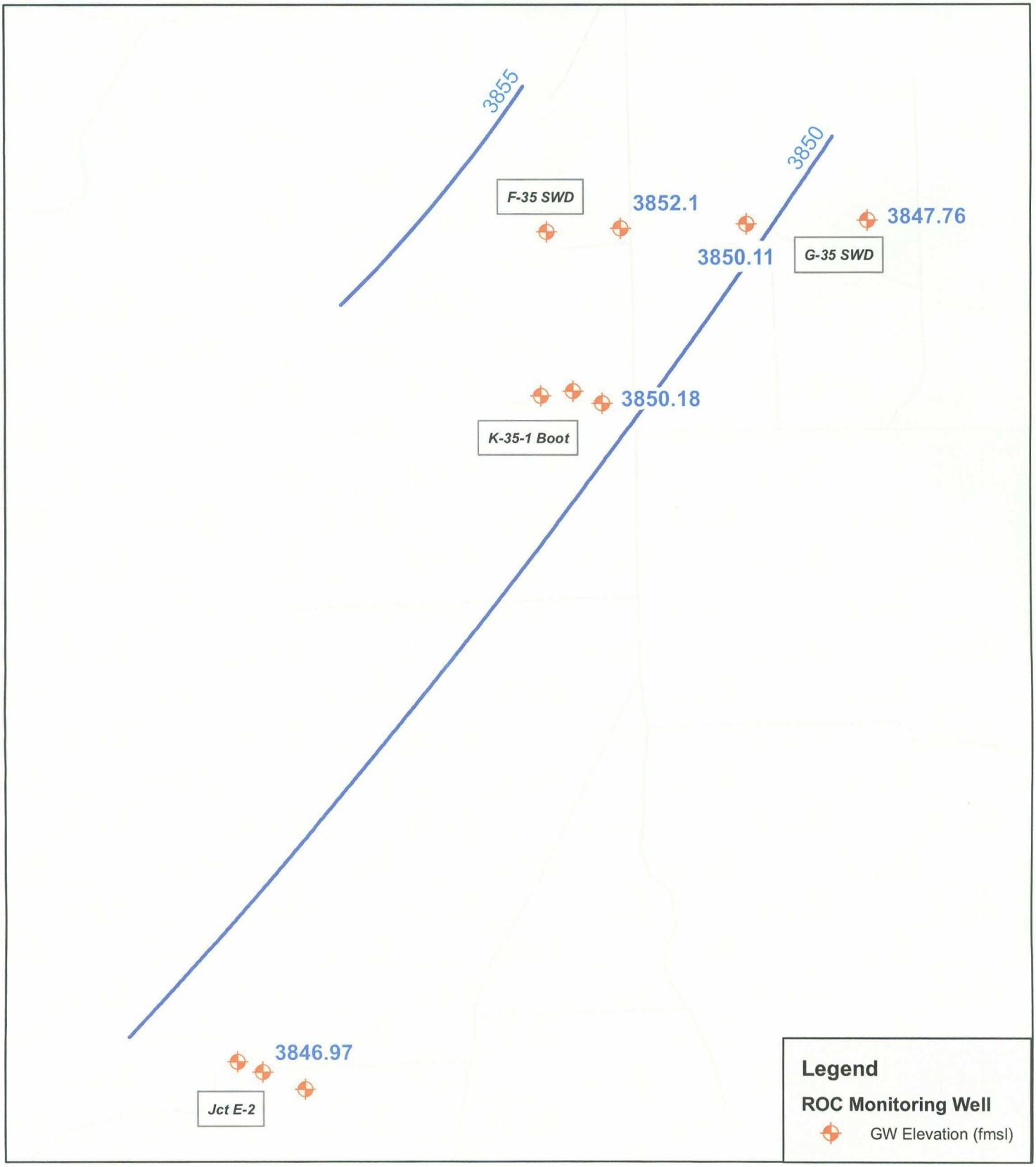
Sulfate Over Time



Site Name:F-35 SWD

TDS Over Time





R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	3rd Quarter 2006 Potentiometric Surface	
	Rice Operating Company: Hobbs SWD System	February 2007

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Vacuum F-35 SWD

Project Number: None Given

Location: Lea County

Lab Order Number: 6A25018

Report Date: 02/01/06

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/01/06 08:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1	6A25018-01	Water	01/23/06 13:00	01/25/06 13:25

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/01/06 08:25

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (6A25018-01) Water									
Benzene	**0.447**	0.0100	mg/L	10	EA62618	01/26/06	01/27/06	EPA 8021B	
Toluene	**0.222**	0.0100	"	"	"	"	"	"	
Ethylbenzene	**0.280**	0.0100	"	"	"	"	"	"	
Xylene (p/m)	**0.240**	0.0100	"	"	"	"	"	"	
Xylene (o)	**0.0606**	0.0100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*112 %*		*80-120*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*115 %*		*80-120*	"	"	"	"	

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/01/06 08:25

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (6A25018-01) Water									
Total Alkalinity	**404**	2.00	mg/L	1	EA62406	01/26/06	01/26/06	EPA 310.1M	
Chloride	**886**	25.0	"	50	EA63004	01/30/06	01/30/06	EPA 300.0	
Total Dissolved Solids	**2080**	5.00	"	1	EA63003	01/26/06	01/27/06	EPA 160.1	
Sulfate	**88.2**	25.0	"	50	EA63004	01/30/06	01/30/06	EPA 300.0	

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/01/06 08:25

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (6A25018-01) Water									
Calcium	**28.4**	0.100	mg/L	10	EA62615	01/26/06	01/26/06	EPA 6010B	
Magnesium	**8.99**	0.0100	"	"	"	"	"	"	
Potassium	**1.46**	0.500	"	"	"	"	"	"	
Sodium	**603**	5.00	"	500	"	"	"	"	

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/01/06 08:25

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA62618 - EPA 5030C (GC)										
Blank (EA62618-BLK1)				Prepared: 01/26/06 Analyzed: 01/27/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*38.5*		*ug/l*	*40.0*		*96.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.4*		"	*40.0*		*106*	*80-120*			
LCS (EA62618-BS1)				Prepared: 01/26/06 Analyzed: 01/27/06						
Benzene	0.0566	0.00100	mg/L	0.0500		113	80-120			
Toluene	0.0557	0.00100	"	0.0500		111	80-120			
Ethylbenzene	0.0547	0.00100	"	0.0500		109	80-120			
Xylene (p/m)	0.102	0.00100	"	0.100		102	80-120			
Xylene (o)	0.0538	0.00100	"	0.0500		108	80-120			
Surrogate: a,a,a-Trifluorotoluene	*41.2*		*ug/l*	*40.0*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.8*		"	*40.0*		*82.0*	*80-120*			
Calibration Check (EA62618-CCV1)				Prepared: 01/26/06 Analyzed: 01/28/06						
Benzene	51.3		ug/l	50.0		103	80-120			
Toluene	52.5		"	50.0		105	80-120			
Ethylbenzene	54.5		"	50.0		109	80-120			
Xylene (p/m)	101		"	100		101	80-120			
Xylene (o)	55.6		"	50.0		111	80-120			
Surrogate: a,a,a-Trifluorotoluene	*34.3*		"	*40.0*		*85.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*39.5*		"	*40.0*		*98.8*	*80-120*			
Matrix Spike (EA62618-MS1)		**Source: 6A24010-01**		Prepared: 01/26/06 Analyzed: 01/27/06						
Benzene	0.0559	0.00100	mg/L	0.0500	ND	112	80-120			
Toluene	0.0548	0.00100	"	0.0500	ND	110	80-120			
Ethylbenzene	0.0515	0.00100	"	0.0500	ND	103	80-120			
Xylene (p/m)	0.0835	0.00100	"	0.100	ND	83.5	80-120			
Xylene (o)	0.0512	0.00100	"	0.0500	ND	102	80-120			
Surrogate: a,a,a-Trifluorotoluene	*37.5*		*ug/l*	*40.0*		*93.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*34.3*		"	*40.0*		*85.8*	*80-120*			

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/01/06 08:25

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA62618 - EPA 5030C (GC)										
Matrix Spike Dup (EA62618-MSD1)	**Source: 6A24010-01**			Prepared: 01/26/06 Analyzed: 01/28/06						
Benzene	0.0482	0.00100	mg/L	0.0500	ND	96.4	80-120	15.0	20	
Toluene	0.0484	0.00100	"	0.0500	ND	96.8	80-120	12.8	20	
Ethylbenzene	0.0456	0.00100	"	0.0500	ND	91.2	80-120	12.2	20	
Xylene (p/m)	0.0841	0.00100	"	0.100	ND	84.1	80-120	0.716	20	
Xylene (o)	0.0448	0.00100	"	0.0500	ND	89.6	80-120	12.9	20	
Surrogate: a,a,a-Trifluorotoluene	*33.0*		*ug/l*	*40.0*		*82.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.4*		*"*	*40.0*		*81.0*	*80-120*			

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/01/06 08:25

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA62406 - General Preparation (WetChem)										
Blank (EA62406-BLK1)				Prepared & Analyzed: 01/26/06						
Total Alkalinity	ND	2.00	mg/L							
LCS (EA62406-BS1)				Prepared & Analyzed: 01/26/06						
Bicarbonate Alkalinity	220		mg/L	200		110	85-115			
Duplicate (EA62406-DUP1)	**Source: 6A19005-01**			Prepared & Analyzed: 01/26/06						
Total Alkalinity	258	2.00	mg/L		256			0.778	20	
Reference (EA62406-SRM1)				Prepared & Analyzed: 01/26/06						
Total Alkalinity	97.0		mg/L	100		97.0	90-110			
Batch EA63003 - General Preparation (WetChem)										
Blank (EA63003-BLK1)				Prepared: 01/26/06 Analyzed: 01/27/06						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EA63003-DUP1)	**Source: 6A25018-01**			Prepared: 01/26/06 Analyzed: 01/27/06						
Total Dissolved Solids	2020	5.00	mg/L		2080			2.93	5	
Batch EA63004 - General Preparation (WetChem)										
Blank (EA63004-BLK1)				Prepared & Analyzed: 01/30/06						
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	"							
LCS (EA63004-BS1)				Prepared & Analyzed: 01/30/06						
Sulfate	9.61	0.500	mg/L	10.0		96.1	80-120			
Chloride	8.40	0.500	"	10.0		84.0	80-120			

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/01/06 08:25

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA63004 - General Preparation (WetChem)										
Calibration Check (EA63004-CCV1)				Prepared & Analyzed: 01/30/06						
Sulfate	9.82		mg/L	10.0		98.2	80-120			
Chloride	8.64		"	10.0		86.4	80-120			
Duplicate (EA63004-DUP1)	**Source: 6A25018-01**			Prepared & Analyzed: 01/30/06						
Sulfate	84.4	25.0	mg/L		88.2			4.40	20	
Chloride	879	25.0	"		886			0.793	20	

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/01/06 08:25

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA62615 - 6010B/No Digestion										
Blank (EA62615-BLK1)				Prepared & Analyzed: 01/26/06						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EA62615-CCV1)				Prepared & Analyzed: 01/26/06						
Calcium	2.12		mg/L	2.00		106	85-115			
Magnesium	1.99		"	2.00		99.5	85-115			
Potassium	1.88		"	2.00		94.0	85-115			
Sodium	1.94		"	2.00		97.0	85-115			
Duplicate (EA62615-DUP1)	**Source: 6A19005-01**			Prepared & Analyzed: 01/26/06						
Calcium	224	0.500	mg/L		222			0.897	20	
Magnesium	115	0.0500	"		120			4.26	20	
Potassium	14.6	0.500	"		15.2			4.03	20	
Sodium	306	0.500	"		313			2.26	20	

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/01/06 08:25

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 2/1/2006

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.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope kpriceswd@valornet.com
Project Name: Vacuum F-35 SWD
Company Name: RICE Operating Company
Project #:
Company Address: 122 W. Taylor Street
Project Loc: Lea County
City/State/Zip: Hobbs, New Mexico 88240
PO #:
Telephone No: (505) 393-9174
Fax No: (505) 397-1471
Sampler Signature: Rozanne Johnson (505) 631-9310
Email: rozanne@valornet.com

Lab# 25018

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl (2) 40 ml glass vials	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None (1) 1 Liter HDPE	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify)	Analyze For: TCLP:	Analyze For: TOTAL:	RUSH TAT (Pre-Scheduled)	Standard TAT
01	Monitor Well #1	1/23/2006	13:00	3	X		2			1		X							X

TPH: 418.1 8015M 1005 1006 | Cations (Ca, Mg, Na, K) | Anions (Cl, SO4, CO3, HCO3) | SAR / ESP / CEC | Metals: As Ag Ba Cd Cr Pb Hg Se | Volatiles | Semivolatiles | BTEX 8021B/5030 | RCI | N.O.R.M. | Total Dissolved Solids

Special Instructions:

PLEASE Email RESULTS TO: kpriceswd@valornet.com & mfranks@riceswd.com

Sample Containers Intact? (Y) N
Labels on container? (Y) N
Custody Seals: Containers Cooler
Temperature Upon Receipt: -2.5°C not frozen

Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	1/25/06	1:25			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
				01-25-06	1325

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Rice Op.

Date/Time: 1/25/06 13:25

Order #: 6A25018

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	-2.5 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

Variance Documentation:

Contact Person: - Date/Time: Contacted by:

Regarding:

Corrective Action Taken:

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Vacuum F-35 SWD

Project Number: None Given

Location: Lea County

Lab Order Number: 6D27015

Report Date: 05/04/06

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/04/06 14:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1	6D27015-01	Water	04/25/06 11:25	04/27/06 10:30

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/04/06 14:08

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (6D27015-01) Water									
Benzene	**0.227**	0.00100	mg/L	1	ED62807	04/28/06	05/01/06	EPA 8021B	
Toluene	**0.0956**	0.00100	"	"	"	"	"	"	
Ethylbenzene	**0.174**	0.00100	"	"	"	"	"	"	
Xylene (p/m)	**0.136**	0.00100	"	"	"	"	"	"	
Xylene (o)	**0.0254**	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*120 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*80-120*		"	"	"	"	

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/04/06 14:08

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (6D27015-01) Water									
Total Alkalinity	**446**	2.00	mg/L	1	EE60301	05/03/06	05/03/06	EPA 310.1M	
Chloride	**1420**	25.0	"	50	EE60116	05/01/06	05/01/06	EPA 300.0	
Total Dissolved Solids	**3040**	5.00	"	1	EE60115	04/27/06	04/28/06	EPA 160.1	
Sulfate	**62.5**	25.0	"	50	EE60116	05/01/06	05/01/06	EPA 300.0	

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/04/06 14:08

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (6D27015-01) Water									
Calcium	**122**	0.500	mg/L	50	ED62719	04/27/06	04/27/06	EPA 6010B	
Magnesium	**36.0**	0.0100	"	10	"	"	"	"	
Potassium	**5.87**	0.500	"	"	"	"	"	"	
Sodium	**916**	5.00	"	500	"	"	"	"	

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/04/06 14:08

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED62807 - EPA 5030C (GC)										
Blank (ED62807-BLK1)				Prepared: 04/28/06 Analyzed: 04/30/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*42.7*		*ug/l*	*40.0*		*107*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.2*		*"*	*40.0*		*106*	*80-120*			
LCS (ED62807-BS1)				Prepared: 04/28/06 Analyzed: 04/30/06						
Benzene	0.0599	0.00100	mg/L	0.0500		120	80-120			
Toluene	0.0580	0.00100	"	0.0500		116	80-120			
Ethylbenzene	0.0551	0.00100	"	0.0500		110	80-120			
Xylene (p/m)	0.120	0.00100	"	0.100		120	80-120			
Xylene (o)	0.0596	0.00100	"	0.0500		119	80-120			
Surrogate: a,a,a-Trifluorotoluene	*43.0*		*ug/l*	*40.0*		*108*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.2*		*"*	*40.0*		*106*	*80-120*			
Calibration Check (ED62807-CCV1)				Prepared: 04/28/06 Analyzed: 05/01/06						
Benzene	55.0		ug/l	50.0		110	80-120			
Toluene	53.0		"	50.0		106	80-120			
Ethylbenzene	55.9		"	50.0		112	80-120			
Xylene (p/m)	110		"	100		110	80-120			
Xylene (o)	55.9		"	50.0		112	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.0*		*"*	*40.0*		*97.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*39.1*		*"*	*40.0*		*97.8*	*80-120*			
Matrix Spike (ED62807-MS1)	**Source: 6D27008-01**			Prepared: 04/28/06 Analyzed: 05/01/06						
Benzene	0.0576	0.00100	mg/L	0.0500	ND	115	80-120			
Toluene	*0.0568*	*0.00100*	*"*	*0.0500*	*ND*	*114*	*80-120*			
Ethylbenzene	0.0587	0.00100	"	0.0500	ND	117	80-120			
Xylene (p/m)	0.120	0.00100	"	0.100	ND	120	80-120			
Xylene (o)	0.0600	0.00100	"	0.0500	ND	120	80-120			
Surrogate: a,a,a-Trifluorotoluene	*41.7*		*ug/l*	*40.0*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*47.5*		*"*	*40.0*		*119*	*80-120*			

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/04/06 14:08

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED62807 - EPA 5030C (GC)										
Matrix Spike Dup (ED62807-MSD1)	**Source: 6D27008-01**			Prepared: 04/28/06 Analyzed: 05/01/06						
Benzene	0.0597	0.00100	mg/L	0.0500	ND	119	80-120	3.42	20	
Toluene	0.0579	0.00100	"	0.0500	ND	116	80-120	1.74	20	
Ethylbenzene	0.0585	0.00100	"	0.0500	ND	117	80-120	0.00	20	
Xylene (p/m)	0.120	0.00100	"	0.100	ND	120	80-120	0.00	20	
Xylene (o)	0.0598	0.00100	"	0.0500	ND	120	80-120	0.00	20	
Surrogate: a,a,a-Trifluorotoluene	*43.5*		*ug/l*	*40.0*		*109*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.4*		*"*	*40.0*		*116*	*80-120*			

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/04/06 14:08

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE60115 - General Preparation (WetChem)										
Blank (EE60115-BLK1)				Prepared: 04/27/06 Analyzed: 04/28/06						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EE60115-DUP1)	**Source: 6D27015-01**			Prepared: 04/27/06 Analyzed: 04/28/06						
Total Dissolved Solids	3020	5.00	mg/L		3040			0.660	5	
Batch EE60116 - General Preparation (WetChem)										
Blank (EE60116-BLK1)				Prepared & Analyzed: 05/01/06						
Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	"							
LCS (EE60116-BS1)				Prepared & Analyzed: 05/01/06						
Sulfate	9.47	0.500	mg/L	10.0		94.7	80-120			
Chloride	9.71	0.500	"	10.0		97.1	80-120			
Calibration Check (EE60116-CCV1)				Prepared & Analyzed: 05/01/06						
Chloride	9.86		mg/L	10.0		98.6	80-120			
Sulfate	8.11		"	10.0		81.1	80-120			
Duplicate (EE60116-DUP1)	**Source: 6D27008-01**			Prepared & Analyzed: 05/01/06						
Sulfate	80.0	2.50	mg/L		79.2			1.01	20	
Chloride	49.3	2.50	"		49.0			0.610	20	
Batch EE60301 - General Preparation (WetChem)										
Blank (EE60301-BLK1)				Prepared & Analyzed: 05/03/06						
Total Alkalinity	ND	2.00	mg/L							

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/04/06 14:08

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE60301 - General Preparation (WetChem)										
LCS (EE60301-BS1)				Prepared & Analyzed: 05/03/06						
Bicarbonate Alkalinity	214		mg/L	200		107	85-115			
Duplicate (EE60301-DUP1)	**Source: 6D26006-01**			Prepared & Analyzed: 05/03/06						
Total Alkalinity	29.0	2.00	mg/L		28.0			3.51	20	
Reference (EE60301-SRM1)				Prepared & Analyzed: 05/03/06						
Total Alkalinity	96.0		mg/L	100		96.0	90-110			

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/04/06 14:08

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED62719 - 6010B/No Digestion										
Blank (ED62719-BLK1)				Prepared & Analyzed: 04/27/06						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (ED62719-CCV1)				Prepared & Analyzed: 04/27/06						
Calcium	2.08		mg/L				85-115			
Magnesium	2.16		"				85-115			
Potassium	1.94		"				85-115			
Sodium	1.96		"				85-115			
Duplicate (ED62719-DUP1)		**Source: 6D26006-01**		Prepared & Analyzed: 04/27/06						
Calcium	0.0366	0.0100	mg/L		0.0367			0.273	20	
Magnesium	ND	0.00100	"		ND				20	
Potassium	0.275	0.0500	"		0.275			0.00	20	
Sodium	13.0	0.100	"		12.1			7.17	20	

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/04/06 14:08

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 5/4/2006

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.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope kpope@riceswd.com
Company Name: RICE Operating Company
Company Address: 122 W. Taylor Street
City/State/Zip: Hobbs, New Mexico 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature: Rozanne Johnson (505) 631-9310
Email: rozanne@valornet.com

Project Name: Vacuum F-35 SWD
Project #:
Project Loc: Lea County
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl (2) 40 ml glass vials	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None (1) 1 Liter HDPE	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify):	Analyze For: TCLP: TPH: 418.1 8015M 1005 1006	TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Dissolved Solids				RUSH TAT (Pre-Schedule)	Standard TAT
01	Monitor Well #1	4/25/2006	11:25	3	X		2			1		X					X	X					X			X					X

Special Instructions:

PLEASE Email RESULTS TO: kpope@riceswd.com & mfranks@riceswd.com

Sample Containers Intact? Y N
Labels on container? Y N
Custody Seals: Containers / Cooler
Temperature Upon Receipt: 4.0

Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	4/27/06	6:00	James Johnson	4/27/06	6:01
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
James Johnson	4/27/06	10:30		4/27/06	10:30

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

ent: Rice Op.

ite/Time: 4/27/06 10:30

der #: 6D27015

tials: CK

Sample Receipt Checklist

	Yes	No	
mperature of container/cooler?			2.0 C
ipping container/cooler in good condition?	Yes	No	
stody Seals intact on shipping container/cooler?	Yes	No	Not present
stody Seals intact on sample bottles?	Yes	No	Not present
ain of custody present?	Yes	No	
mple Instructions complete on Chain of Custody?	Yes	No	
ain of Custody signed when relinquished and received?	Yes	No	
ain of custody agrees with sample label(s)	Yes	No	
ntainer labels legible and intact?	Yes	No	
mple Matrix and properties same as on chain of custody?	Yes	No	
mples in proper container/bottle?	Yes	No	
mples properly preserved?	Yes	No	
mple bottles intact?	Yes	No	
servations documented on Chain of Custody?	Yes	No	
ntainers documented on Chain of Custody?	Yes	No	
fficient sample amount for indicated test?	Yes	No	
samples received within sufficient hold time?	Yes	No	
OC samples have zero headspace?	Yes	No	Not Applicable

ther observations:

Variance Documentation:

ontact Person: - Date/Time: Contacted by:

egarding:

orrective Action Taken:

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page 1 of 1

Company Name:	Rice Operating Company	BILL TO	PO #:
Project Manager:	Kristen Farris-Pope	Company:	
Address:	122 W Taylor Street	Attn:	
City:	Hobbs State: NM Zip: 88240	Address:	
Phone #:	(505) 393-9174	City:	
Fax #:	(505) 397-1471	State:	Zip:
Project #:	Project Owner:	Phone #:	
Project Name:	Vacuum F-35 SWD	Fax #:	
Project Location:	Lea County		

ANALYSIS REQUEST

FOR LAB USE ONLY				MATRIX						PRES.			SAMPLING		Cations (Ca, Mg, Na, K)	Anions (Cl, SO_4, CO_3, HCO$_3$)	Total Dissolved Solids	BTEX	Total
LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID: (Y) BTEX	ICE / COOL	OTHER:	DATE	TIME					
H11193-1	Monitor Well #2		3	X						X	X		6/16/06	7:00	X	X	X	X	

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: Rozanne Johnson	Date: 6/16/2006 Time: 12:20	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #: Fax Result: ☐ Yes ☐ No REMARKS: Please Email Results to: kpope@ricesud.com mfranks@ricesud.com rozanne@valornet.com
Relinquished By:	Date: Time:	Received By: (Lab Staff)	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool: ☒ Yes ☐ No Intact: ☒ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: KRISTIN FARRIS-POPE
122 W. TAYLOR STREET
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 06/06/06
Reporting Date: 06/07/06
Project Number: NOT GIVEN
Project Name: VACUUM F-35 SWD
Project Location: LEA COUNTY, NM

Sampling Date: 06/06/06
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: HM

LAB NUMBER SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:	06/07/06	06/07/06	06/07/06	06/07/06	06/06/06	06/07/06
H11193-1 MONITOR WELL #2	20	128	29	3.81	989	240
Quality Control	NR	48.0	48.6	3.82	1425	NR
True Value QC	NR	50.0	50	4.00	1413	NR
% Recovery	NR	96	97	96	101	NR
Relative Percent Difference	NR	0.0	0.0	1.8	0.07	NR
METHODS:		SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	06/07/06	06/07/06	06/07/06	06/07/06	06/06/06	06/07/06
H11193-1 MONITOR WELL #2	104	96	0	293	7.20	652
Quality Control	970	27.5	NR	976	7.01	NR
True Value QC	1000	25.0	NR	1000	7.00	NR
% Recovery	97	110	NR	98	100	NR
Relative Percent Difference	1	2.9	NR	0	0.1	
METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

06-08-06
Date

H11193

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: KRISTIN FARRIS-POPE
122 W. TAYLOR STREET
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 06/06/06
Reporting Date: 06/07/06
Project Number: NOT GIVEN
Project Name: VACUUM F-35 SWD
Project Location: LEA COUNTY, NM

Sampling Date: 06/06/06
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		06/06/06	06/06/06	06/06/06	06/06/06
H11193-1	MONITOR WELL #2	<0.002	<0.002	<0.002	<0.006
Quality Control		0.102	0.102	0.099	0.304
True Value QC		0.100	0.100	0.100	0.300
% Recovery		102	102	98.9	101
Relative Percent Difference		1.8	1.7	1.1	1.2

METHOD: EPA SW-846 8260

Chemist

6/7/06
Date

H11193

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Vacuum F-35 SWD

Project Number: None Given

Location: Lea County

Lab Order Number: 6F06020

Report Date: 06/23/06

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #2	6F06020-01	Water	06/06/06 07:00	06/06/06 15:40

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #2 (6F06020-01) Water									
Benzene	ND	0.00100	mg/L	1	EF60716	06/07/06	06/09/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*91.5 %*		*80-120*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.0 %*		*80-120*	"	"	"	"	

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #2 (6F06020-01) Water									
Total Alkalinity	**286**	2.00	mg/L	1	EF60916	06/09/06	06/09/06	EPA 310.1M	
Chloride	**97.6**	5.00	"	10	EF60811	06/08/06	06/08/06	EPA 300.0	
Total Dissolved Solids	**724**	5.00	"	1	EF60810	06/07/06	06/07/06	EPA 160.1	
Sulfate	**63.3**	5.00	"	10	EF60811	06/08/06	06/08/06	EPA 300.0	

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #2 (6F06020-01) Water									
Calcium	**92.8**	0.100	mg/L	10	EF60804	06/08/06	06/08/06	EPA 6010B	
Magnesium	**19.7**	0.0100	"	"	"	"	"	"	
Potassium	**3.24**	0.500	"	"	"	"	"	"	
Sodium	**36.2**	0.100	"	"	"	"	"	"	

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF60716 - EPA 5030C (GC)										
Blank (EF60716-BLK1)				Prepared: 06/07/06 Analyzed: 06/09/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*34.4*		*ug/l*	*40.0*		*86.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*33.3*		*"*	*40.0*		*83.2*	*80-120*			
LCS (EF60716-BS1)				Prepared: 06/07/06 Analyzed: 06/08/06						
Benzene	0.0428	0.00100	mg/L	0.0500		85.6	80-120			
Toluene	0.0446	0.00100	"	0.0500		89.2	80-120			
Ethylbenzene	0.0420	0.00100	"	0.0500		84.0	80-120			
Xylene (p/m)	0.0893	0.00100	"	0.100		89.3	80-120			
Xylene (o)	0.0490	0.00100	"	0.0500		98.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	*32.8*		*ug/l*	*40.0*		*82.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.5*		*"*	*40.0*		*96.2*	*80-120*			
Calibration Check (EF60716-CCV1)				Prepared: 06/07/06 Analyzed: 06/09/06						
Benzene	48.5		ug/l	50.0		97.0	80-120			
Toluene	50.0		"	50.0		100	80-120			
Ethylbenzene	52.4		"	50.0		105	80-120			
Xylene (p/m)	98.3		"	100		98.3	80-120			
Xylene (o)	51.1		"	50.0		102	80-120			
Surrogate: a,a,a-Trifluorotoluene	*41.0*		*"*	*40.0*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.7*		*"*	*40.0*		*81.8*	*80-120*			
Matrix Spike (EF60716-MS1)	**Source: 6F01010-01**			Prepared: 06/07/06 Analyzed: 06/09/06						
Benzene	0.0479	0.00100	mg/L	0.0500	ND	95.8	80-120			
Toluene	0.0469	0.00100	"	0.0500	ND	93.8	80-120			
Ethylbenzene	0.0446	0.00100	"	0.0500	ND	89.2	80-120			
Xylene (p/m)	0.0979	0.00100	"	0.100	ND	97.9	80-120			
Xylene (o)	0.0519	0.00100	"	0.0500	ND	104	80-120			
Surrogate: a,a,a-Trifluorotoluene	*33.8*		*ug/l*	*40.0*		*84.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*44.0*		*"*	*40.0*		*110*	*80-120*			

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF60716 - EPA 5030C (GC)										
Matrix Spike Dup (EF60716-MSD1)	**Source: 6F01010-01**			Prepared: 06/07/06 Analyzed: 06/09/06						
Benzene	0.0519	0.00100	mg/L	0.0500	ND	104	80-120	8.21	20	
Toluene	0.0510	0.00100	"	0.0500	ND	102	80-120	8.38	20	
Ethylbenzene	0.0480	0.00100	"	0.0500	ND	96.0	80-120	7.34	20	
Xylene (p/m)	0.107	0.00100	"	0.100	ND	107	80-120	8.88	20	
Xylene (o)	0.0565	0.00100	"	0.0500	ND	113	80-120	8.29	20	
Surrogate: a,a,a-Trifluorotoluene	*40.8*		*ug/l*	*40.0*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*44.1*		*"*	*40.0*		*110*	*80-120*			

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF60810 - Filtration Preparation										
Blank (EF60810-BLK1)				Prepared & Analyzed: 06/07/06						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EF60810-DUP1)	**Source: 6F06018-01**			Prepared & Analyzed: 06/07/06						
Total Dissolved Solids	542	5.00	mg/L		552			1.83	5	
Batch EF60811 - General Preparation (WetChem)										
Blank (EF60811-BLK1)				Prepared & Analyzed: 06/08/06						
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	"							
LCS (EF60811-BS1)				Prepared & Analyzed: 06/08/06						
Chloride	9.87	0.500	mg/L	10.0		98.7	80-120			
Sulfate	8.09	0.500	"	10.0		80.9	80-120			
Calibration Check (EF60811-CCV1)				Prepared & Analyzed: 06/08/06						
Chloride	10.1		mg/L	10.0		101	80-120			
Sulfate	9.04		"	10.0		90.4	80-120			
Duplicate (EF60811-DUP1)	**Source: 6F06018-01**			Prepared & Analyzed: 06/08/06						
Sulfate	76.2	5.00	mg/L		76.6			0.524	20	
Chloride	38.5	5.00	"		38.5			0.00	20	
Duplicate (EF60811-DUP2)	**Source: 6F08002-01**			Prepared & Analyzed: 06/08/06						
Chloride	2030	50.0	mg/L		2150			5.74	20	
Sulfate	278	50.0	"		282			1.43	20	

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF60811 - General Preparation (WetChem)										
Matrix Spike (EF60811-MS1)	**Source: 6F06018-01**			Prepared & Analyzed: 06/08/06						
Chloride	132	5.00	mg/L	100	38.5	93.5	80-120			
Sulfate	142	5.00	"	100	76.6	65.4	75-125			QS-1
Matrix Spike (EF60811-MS2)	**Source: 6F08002-01**			Prepared & Analyzed: 06/08/06						
Chloride	3330	50.0	mg/L	1000	2150	118	80-120			
Sulfate	923	50.0	"	1000	282	64.1	75-125			QS-1
Batch EF60916 - General Preparation (WetChem)										
Blank (EF60916-BLK1)				Prepared & Analyzed: 06/09/06						
Total Alkalinity	ND	2.00	mg/L							
LCS (EF60916-BS1)				Prepared & Analyzed: 06/09/06						
Bicarbonate Alkalinity	214	2.00	mg/L	200		107	85-115			
Duplicate (EF60916-DUP1)	**Source: 6F06018-01**			Prepared & Analyzed: 06/09/06						
Total Alkalinity	206	2.00	mg/L		207			0.484	20	
Reference (EF60916-SRM1)				Prepared & Analyzed: 06/09/06						
Total Alkalinity	96.0		mg/L	100		96.0	90-110			

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF60804 - 6010B/No Digestion										
Blank (EF60804-BLK1)				Prepared & Analyzed: 06/08/06						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EF60804-CCV1)				Prepared & Analyzed: 06/08/06						
Calcium	2.12		mg/L	2.00		106	85-115			
Magnesium	2.10		"	2.00		105	85-115			
Potassium	1.95		"	2.00		97.5	85-115			
Sodium	2.02		"	2.00		101	85-115			
Duplicate (EF60804-DUP1)	**Source: 6F01010-01**			Prepared & Analyzed: 06/08/06						
Calcium	102	0.100	mg/L		100			1.98	20	
Magnesium	10.5	0.0100	"		9.85			6.39	20	
Potassium	3.96	0.500	"		4.06			2.49	20	
Sodium	27.4	0.100	"		30.6			11.0	20	

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

Rice Operating Co.	Project: Vacuum F-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Notes and Definitions

QS-1	The spike recovery value is outside Laboratory historical or method prescribed QC limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K. Tuttle Date: 6/23/2006

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.

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

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope kpope@riceswd.com
Company Name: RICE Operating Company
Company Address: 122 W. Taylor Street
City/State/Zip: Hobbs, New Mexico 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature: Rozanne Johnson (505) 631-9310
Email: rozanne@valornet.com

Project Name: Vacuum F-35 SWD
Project #:
Project Loc: Lea County
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl (2) 40 ml glass vials	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None (1) 1 Liter HDPE	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify):	Analyze For: TCLP: TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	TOTAL: BTEX 8021B/5030	RCI	N.O.R.M.	Total Dissolved Solids				RUSH TAT (Pre-Schedule)	Standard TAT
6/7/2020																							X								
-01	Monitor Well #2	6/6/2006	7:00	3	X		2			1		X					X	X					X			X					X

Special Instructions:

PLEASE Email RESULTS TO: kpope@riceswd.com & mfranks@riceswd.com

Sample Containers Intact? Y N
Labels on container? Y N
Custody Seals: Containers / Cooler
Temperature Upon Receipt: 1.5

Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	6/6/06	3:40			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Cecil Cobb	6/6/06	3:40

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Rice Dr.

Date/Time: 6/16/06 3:40

Order #: 6F06020

Initials: CK

Sample Receipt Checklist

	Yes	No	
Temperature of container/cooler?		No	1.5 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

Variance Documentation:

Contact Person: _____ Date/Time: _____ Contacted by: _____

Regarding:

Corrective Action Taken:

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail lab@traceanalysis.com

Analytical and Quality Control Report

Kristin Farris-Pope
Rice Operating Company
122 W Taylor Street
Hobbs, NM, 88240

Report Date: August 24, 2006

Work Order: 6080430

Project Location: Lea County,NM
Project Name: Vacuum F-35 SWD
Project Number: Vacuum F-35 SWD

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
98076	Monitor Well #1	water	2006-08-02	12:00	2006-08-04
98077	Monitor Well #2	water	2006-08-02	13:40	2006-08-04

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 13 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Blair Leftwich

Dr. Blair Leftwich, Director

Analytical Report

Sample: 98076 - Monitor Well #1

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	28900	Date Analyzed:	2006-08-10	Analyzed By:	LJ
Prep Batch:	25245	Sample Preparation:	2006-08-10	Prepared By:	LJ

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		**632**	mg/L as CaCo3	1	4.00
Total Alkalinity		**632**	mg/L as CaCo3	1	4.00

Sample: 98076 - Monitor Well #1

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	28800	Date Analyzed:	2006-08-08	Analyzed By:	MT
Prep Batch:	25183	Sample Preparation:	2006-08-08	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**0.349**	mg/L	1	0.00100
Toluene		**0.108**	mg/L	1	0.00100
Ethylbenzene		**0.213**	mg/L	1	0.00100
Xylene		**0.201**	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0997	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)		0.113	mg/L	1	0.100	113	70 - 130

Sample: 98076 - Monitor Well #1

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	28886	Date Analyzed:	2006-08-10	Analyzed By:	TP
Prep Batch:	25206	Sample Preparation:	2006-08-09	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		**178**	mg/L	10	0.500
Dissolved Potassium		**14.2**	mg/L	1	1.00
Dissolved Magnesium		**55.3**	mg/L	1	1.00
Dissolved Sodium		**1010**	mg/L	100	1.00

Sample: 98076 - Monitor Well #1

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	28875	Date Analyzed:	2006-08-08	Analyzed By:	WB
Prep Batch:	25189	Sample Preparation:	2006-08-07	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1810**	mg/L	100	0.500
Sulfate		**17.0**	mg/L	10	0.500

Sample: 98076 - Monitor Well #1

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	28836	Date Analyzed:	2006-08-09	Analyzed By:	SM
Prep Batch:	25194	Sample Preparation:	2009-08-08	Prepared By:	SM

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**2680**	mg/L	5	10.00

Sample: 98077 - Monitor Well #2

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	28900	Date Analyzed:	2006-08-10	Analyzed By:	LJ
Prep Batch:	25245	Sample Preparation:	2006-08-10	Prepared By:	LJ

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		**336**	mg/L as CaCo3	1	4.00
Total Alkalinity		**336**	mg/L as CaCo3	1	4.00

Sample: 98077 - Monitor Well #2

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	28800	Date Analyzed:	2006-08-08	Analyzed By:	MT
Prep Batch:	25183	Sample Preparation:	2006-08-08	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.101	mg/L	1	0.100	101	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0924	mg/L	1	0.100	92	70 - 130

Sample: 98077 - Monitor Well #2

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	28886	Date Analyzed:	2006-08-10	Analyzed By:	TP
Prep Batch:	25206	Sample Preparation:	2006-08-09	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		**137**	mg/L	10	0.500
Dissolved Potassium		**5.26**	mg/L	1	1.00
Dissolved Magnesium		**17.3**	mg/L	1	1.00
Dissolved Sodium		**35.9**	mg/L	1	1.00

Sample: 98077 - Monitor Well #2

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	28875	Date Analyzed:	2006-08-08	Analyzed By:	WB
Prep Batch:	25189	Sample Preparation:	2006-08-07	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**96.0**	mg/L	5	0.500
Sulfate		**66.0**	mg/L	5	0.500

Sample: 98077 - Monitor Well #2

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	28836	Date Analyzed:	2006-08-09	Analyzed By:	SM
Prep Batch:	25194	Sample Preparation:	2009-08-08	Prepared By:	SM

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**723.0**	mg/L	1	10.00

Method Blank (1) QC Batch: 28800

QC Batch:	28800	Date Analyzed:	2006-08-08	Analyzed By:	MT
Prep Batch:	25183	QC Preparation:	2006-08-08	Prepared By:	MT

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000305	mg/L	0.001
Toluene		<0.000497	mg/L	0.001
Ethylbenzene		<0.000294	mg/L	0.001
Xylene		<0.000348	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0996	mg/L	1	0.100	100	81.4 - 109

continued ...

method blank continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)		0.0904	mg/L	1	0.100	90	57.1 - 113

Method Blank (1) QC Batch: 28836

QC Batch: 28836 Date Analyzed: 2006-08-09 Analyzed By: SM
Prep Batch: 25194 QC Preparation: 2006-08-08 Prepared By: SM

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<5.000	mg/L	10

Method Blank (1) QC Batch: 28875

QC Batch: 28875 Date Analyzed: 2006-08-08 Analyzed By: WB
Prep Batch: 25189 QC Preparation: 2006-08-07 Prepared By: WB

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.0181	mg/L	0.5
Sulfate		<0.0485	mg/L	0.5

Method Blank (1) QC Batch: 28886

QC Batch: 28886 Date Analyzed: 2006-08-10 Analyzed By: TP
Prep Batch: 25206 QC Preparation: 2006-08-09 Prepared By: TS

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		<0.0950	mg/L	0.5
Dissolved Potassium		<0.377	mg/L	1
Dissolved Magnesium		<0.704	mg/L	1
Dissolved Sodium		<0.261	mg/L	1

Method Blank (1) QC Batch: 28900

QC Batch: 28900 Date Analyzed: 2006-08-10 Analyzed By: LJ
Prep Batch: 25245 QC Preparation: 2006-08-10 Prepared By: LJ

Parameter	Flag	MDL Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Duplicates (1)

QC Batch: 28836 | Date Analyzed: 2006-08-09 | Analyzed By: SM
Prep Batch: 25194 | QC Preparation: 2006-08-08 | Prepared By: SM

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	748.0	636.0	mg/L	1	16	17.2

Duplicates (1)

QC Batch: 28900 | Date Analyzed: 2006-08-10 | Analyzed By: LJ
Prep Batch: 25245 | QC Preparation: 2006-08-10 | Prepared By: LJ

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	160	156	mg/L as CaCo3	1	2	12.6
Total Alkalinity	160	156	mg/L as CaCo3	1	2	11.5

Laboratory Control Spike (LCS-1)

QC Batch: 28800 | Date Analyzed: 2006-08-08 | Analyzed By: MT
Prep Batch: 25183 | QC Preparation: 2006-08-08 | Prepared By: MT

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0995	mg/L	1	0.100	<0.000305	100	80 - 120
Toluene	0.0981	mg/L	1	0.100	<0.000497	98	80 - 120
Ethylbenzene	0.0990	mg/L	1	0.100	<0.000294	99	80 - 120
Xylene	0.291	mg/L	1	0.300	<0.000348	97	80 - 120

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.102	mg/L	1	0.100	<0.000305	100	80 - 120	2	20
Toluene	0.101	mg/L	1	0.100	<0.000497	98	80 - 120	3	20
Ethylbenzene	0.102	mg/L	1	0.100	<0.000294	99	80 - 120	3	20
Xylene	0.299	mg/L	1	0.300	<0.000348	97	80 - 120	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.102	0.100	mg/L	1	0.100	102	100	80 - 120
4-Bromofluorobenzene (4-BFB)	0.102	0.104	mg/L	1	0.100	102	104	80 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 28875 | Date Analyzed: 2006-08-08 | Analyzed By: WB
Prep Batch: 25189 | QC Preparation: 2006-08-07 | Prepared By: WB

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11.2	mg/L	1	12.5	<0.0181	90	90 - 110
Sulfate	11.3	mg/L	1	12.5	<0.0485	90	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	11.6	mg/L	1	12.5	<0.0181	90	90 - 110	4	20
Sulfate	11.5	mg/L	1	12.5	<0.0485	90	90 - 110	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 28886 | Date Analyzed: 2006-08-10 | Analyzed By: TP
Prep Batch: 25206 | QC Preparation: 2006-08-09 | Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	54.1	mg/L	1	50.0	<0.0950	108	85 - 115
Dissolved Potassium	54.1	mg/L	1	50.0	<0.377	108	85 - 113
Dissolved Magnesium	52.3	mg/L	1	50.0	<0.704	105	85 - 113
Dissolved Sodium	53.5	mg/L	1	50.0	<0.261	107	85 - 111

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	52.8	mg/L	1	50.0	<0.0950	108	85 - 115	2	20
Dissolved Potassium	50.8	mg/L	1	50.0	<0.377	108	85 - 113	6	20
Dissolved Magnesium	50.2	mg/L	1	50.0	<0.704	105	85 - 113	4	20
Dissolved Sodium	52.6	mg/L	1	50.0	<0.261	107	85 - 111	2	20

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

Matrix Spike (MS-1) Spiked Sample: 97754

QC Batch: 28800 | Date Analyzed: 2006-08-08 | Analyzed By: MT
Prep Batch: 25183 | QC Preparation: 2006-08-08 | Prepared By: MT

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.102	mg/L	1	0.100	<0.000305	102	80.8 - 117
Toluene	0.101	mg/L	1	0.100	<0.000497	101	85 - 113
Ethylbenzene	0.101	mg/L	1	0.100	<0.000294	101	80.5 - 112
Xylene	0.295	mg/L	1	0.300	<0.000348	98	83.8 - 109

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	[1]	NA	mg/L	1	0.100	<0.000305	0	80.8 - 117	200	20
Toluene	[2]	NA	mg/L	1	0.100	<0.000497	0	85 - 113	200	20
Ethylbenzene	[3]	NA	mg/L	1	0.100	<0.000294	0	80.5 - 112	200	20
Xylene	[4]	NA	mg/L	1	0.300	<0.000348	0	83.8 - 109	200	20

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

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	[5]	0.101	NA	mg/L	1	0.1	101	0	85 - 114
4-Bromofluorobenzene (4-BFB)	[6]	0.106	NA	mg/L	1	0.1	106	0	90.8 - 120

Matrix Spike (MS-1) Spiked Sample: 98079

QC Batch: 28875 | Date Analyzed: 2006-08-08 | Analyzed By: WB
Prep Batch: 25189 | QC Preparation: 2006-08-07 | Prepared By: WB

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	2400	mg/L	100	12.5	1160	99	25.4 - 171
Sulfate	1210	mg/L	100	12.5	24.9	95	0 - 677

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	2430	mg/L	100	12.5	1160	102	25.4 - 171	1	20
Sulfate	1230	mg/L	100	12.5	24.9	96	0 - 677	2	20

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

Matrix Spike (MS-1) Spiked Sample: 98074

QC Batch: 28886 | Date Analyzed: 2006-08-10 | Analyzed By: TP
Prep Batch: 25206 | QC Preparation: 2006-08-09 | Prepared By: TS

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium		133	mg/L	1	50.0	96.3	73	68.4 - 138
Dissolved Potassium		65.0	mg/L	1	50.0	10.8	108	82 - 129
Dissolved Magnesium		85.2	mg/L	1	50.0	49.3	72	61.2 - 135
Dissolved Sodium	[7]	201	mg/L	10	50.0	167	7	81.8 - 125

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

[1]RPD is out of range because a matrix spike duplicate was not prepared.
[2]RPD is out of range because a matrix spike duplicate was not prepared.
[3]RPD is out of range because a matrix spike duplicate was not prepared.
[4]RPD is out of range because a matrix spike duplicate was not prepared.
[5]RPD is out of range because a matrix spike duplicate was not prepared.
[6]RPD is out of range because a matrix spike duplicate was not prepared.
[7]Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium		146	mg/L	1	50.0	96.3	99	68.4 - 138	9	20
Dissolved Potassium		70.5	mg/L	1	50.0	10.8	119	82 - 129	8	20
Dissolved Magnesium		95.6	mg/L	1	50.0	49.3	93	61.2 - 135	12	20
Dissolved Sodium	[8]	223	mg/L	10	50.0	167	11	81.8 - 125	10	20

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

Standard (ICV-1)

QC Batch: 28800 Date Analyzed: 2006-08-08 Analyzed By: MT

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0995	100	85 - 115	2006-08-08
Toluene		mg/L	0.100	0.0969	97	85 - 115	2006-08-08
Ethylbenzene		mg/L	0.100	0.0967	97	85 - 115	2006-08-08
Xylene		mg/L	0.300	0.284	95	85 - 115	2006-08-08

Standard (CCV-1)

QC Batch: 28800 Date Analyzed: 2006-08-08 Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0974	97	85 - 115	2006-08-08
Toluene		mg/L	0.100	0.0964	96	85 - 115	2006-08-08
Ethylbenzene		mg/L	0.100	0.0970	97	85 - 115	2006-08-08
Xylene		mg/L	0.300	0.285	95	85 - 115	2006-08-08

Standard (ICV-1)

QC Batch: 28836 Date Analyzed: 2006-08-09 Analyzed By: SM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1026	103	90 - 110	2006-08-09

Standard (CCV-1)

QC Batch: 28836 Date Analyzed: 2006-08-09 Analyzed By: SM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1001	100	90 - 110	2006-08-09

[8]Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

Standard (ICV-1)

QC Batch: 28875 Date Analyzed: 2006-08-08 Analyzed By: WB

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.4	91	90 - 110	2006-08-08
Sulfate		mg/L	12.5	11.5	92	90 - 110	2006-08-08

Standard (CCV-1)

QC Batch: 28875 Date Analyzed: 2006-08-08 Analyzed By: WB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.4	91	90 - 110	2006-08-08
Sulfate		mg/L	12.5	11.3	90	90 - 110	2006-08-08

Standard (ICV-1)

QC Batch: 28886 Date Analyzed: 2006-08-10 Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	49.9	100	90 - 110	2006-08-10
Dissolved Potassium		mg/L	50.0	51.5	103	90 - 110	2006-08-10
Dissolved Magnesium		mg/L	50.0	51.0	102	90 - 110	2006-08-10
Dissolved Sodium		mg/L	50.0	53.1	106	90 - 110	2006-08-10

Standard (CCV-1)

QC Batch: 28886 Date Analyzed: 2006-08-10 Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	52.9	106	90 - 110	2006-08-10
Dissolved Potassium		mg/L	50.0	53.0	106	90 - 110	2006-08-10
Dissolved Magnesium		mg/L	50.0	48.2	96	90 - 110	2006-08-10
Dissolved Sodium		mg/L	50.0	52.7	105	90 - 110	2006-08-10

Standard (ICV-1)

QC Batch: 28900 Date Analyzed: 2006-08-10 Analyzed By: LJ

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	250	100	90 - 110	2006-08-10

Standard (CCV-1)

QC Batch: 28900

Date Analyzed: 2006-08-10

Analyzed By: LJ

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	248	99	90 - 110	2006-08-10

[illegible] Ave, Ste 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

155 McCutcheon Way, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 6080430

Company Name: RICE Operating Company	Phone #: (505)393-9174
Address: (Street, City, Zip) 122 W Taylor Street - Hobbs, New Mexico 88240	Fax #: (505) 397-1471
Contact Person: Kristin Farris - Pope, Project Scientist	kpope@riceswd.com
Invoice to: (If different from above)	
Project #: None Given	Project Name: Vacuum F-35 SWD
Project Location: Lea County - New Mexico	Sampler Signature: Rozanne Johnson (505)631-9310 rozanne@valornet.com

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO_3	$NaHSO_4$	H_2SO_4	ICE	NONE	SAMPLING: DATE 2006	TIME
98076	Monitor Well #1	2	40 ml	X				X				X		8-2	12:00
	Monitor Well #1	1	1L	X								X		8-2	12:00
77	Monitor Well #2	2	40 ml	X				X				X		8-2	13:40
	Monitor Well #2	1	1L	X								X		8-2	13:40

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005 / TX1005 Extended (C35)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Moisture Content	Cations (Ca, Mg, Na, K)	Anions (Cl, SSSSO4, CO3, HCO3)	Total Dissolved Solids		Turn Around Time if different from standard	Hold
	X																				
																X	X	X			
	X																				
																X	X	X			

Relinquished by: Rozanne Johnson Date: 8/3/06 Time: 2:30pm
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received at Laboratory by: Date: Time:
Jerry Adams 8/4/06 10:30AM

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of COC

LAB USE ONLY
Intact Y/N
Headspace Y/N
Temp 4°C
Log-in Review

REMARKS: Please email results to:
kpope@riceswd.com
mfranks @ riceswd.com
rozanne@valornet.com

☐ check if special reporting limits needed

Carrier # Gilly Young GLI-169017666 75

Report Date: August 24, 2006
Vacuum F-35 SWD

Work Order: 6080430
Vacuum F-35 SWD

Page Number: 12 of 13
Lea County, NM

Cation-Anion Balance Sheet

DATE: 8/24/2006

Sample #	Calcium ppm	Magnesium ppm	Sodium ppm	Potassium ppm	Alkalinity ppm	Sulfate ppm	Chloride ppm	Nitrate ppm	Fluoride ppm	Bromide ppm	TDS ppm	EC µMHOs/cm
98076	178	55.3	1010	14.2	632	17	1810				2680	
98077	137	17.3	35.9	5.26	336	66	96				723	

Sample #	Calcium in meq/L	Magnesium in meq/L	Sodium in meq/L	Potassium in meq/L	Alkalinity in meq/L	Sulfate in meq/L	Chloride in meq/L	Nitrate in meq/L	Fluoride in meq/L	Bromide in meq/L	**Cations in meq/L**	**Anions in meq/L**	**Percentage Error**
98076	8.88	4.55	43.94	0.36	12.64	0.35	51.06	0	0	0	57.73	64.05	10.38380939
98077	6.84	1.42	1.56	0.13	6.72	1.37	2.71	0	0	0	9.96	10.80	8.152480824

	EC/Cation	EC/Anion
98076	5773.1073	6405.404
98077	995.61178	1080.228

range 0 to 0
range 0 to 0

TDS/EC	TDS/Cat	TDS/Anion
#DIV/0!	0.46	0.42
#DIV/0!	0.73	0.67

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Vacuum G-35/ F-35 Site

Project Number: None Given

Location: T17S- R35E- Sec 35 F/G, Lea County, NM

Lab Order Number: 6J27015

Report Date: 11/10/06

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
F-35 SWD Monitor Well #1	6J27015-01	Water	10/24/06 14:40	10-27-2006 14:45
F-35 SWD Monitor Well #2	6J27015-02	Water	10/24/06 15:45	10-27-2006 14:45
G-35 SWD Monitor Well #1	6J27015-03	Water	10/25/06 16:10	10-27-2006 14:45
G-35 SWD Monitor Well #2	6J27015-04	Water	10/25/06 09:45	10-27-2006 14:45

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
F-35 SWD Monitor Well #1 (6J27015-01) Water									
Benzene	**0.462**	0.00100	mg/L	1	EJ63104	10/31/06	10/31/06	EPA 8021B	
Toluene	**0.489**	0.00100	"	"	"	"	"	"	
Ethylbenzene	**0.230**	0.00100	"	"	"	"	"	"	
Xylene (p/m)	**0.305**	0.00100	"	"	"	"	"	"	
Xylene (o)	**0.135**	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*138 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*108 %*	*80-120*		"	"	"	"	
F-35 SWD Monitor Well #2 (6J27015-02) Water									
Benzene	ND	0.00100	mg/L	1	EJ63104	10/31/06	10/31/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*87.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*82.5 %*	*80-120*		"	"	"	"	
G-35 SWD Monitor Well #1 (6J27015-03) Water									
Benzene	**0.394**	0.00500	mg/L	5	EJ63104	10/31/06	10/31/06	EPA 8021B	
Toluene	**0.0204**	0.00500	"	"	"	"	"	"	
Ethylbenzene	**0.0774**	0.00500	"	"	"	"	"	"	
Xylene (p/m)	**0.0177**	0.00500	"	"	"	"	"	"	
Xylene (o)	**0.0261**	0.00500	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*94.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.8 %*	*80-120*		"	"	"	"	
G-35 SWD Monitor Well #2 (6J27015-04) Water									
Benzene	ND	0.00100	mg/L	1	EJ63104	10/31/06	11/01/06	EPA 8021B	
Toluene	**0.00308**	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*86.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*82.5 %*	*80-120*		"	"	"	"	

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
F-35 SWD Monitor Well #1 (6J27015-01) Water									
Total Alkalinity	**432**	2.00	mg/L	1	EJ63107	10/31/06	10/31/06	EPA 310.1M	
Chloride	**1460**	25.0	"	50	EJ62702	10/27/06	10/27/06	EPA 300.0	
Total Dissolved Solids	**3190**	10.0	"	1	EJ63006	10/30/06	10/31/06	EPA 160.1	
Sulfate	**45.2**	25.0	"	50	EJ62702	10/27/06	10/27/06	EPA 300.0	
F-35 SWD Monitor Well #2 (6J27015-02) Water									
Total Alkalinity	**314**	2.00	mg/L	1	EJ63107	10/31/06	10/31/06	EPA 310.1M	
Chloride	**89.1**	5.00	"	10	EJ62702	10/27/06	10/27/06	EPA 300.0	
Total Dissolved Solids	**598**	10.0	"	1	EJ63006	10/30/06	10/31/06	EPA 160.1	
Sulfate	**67.2**	5.00	"	10	EJ62702	10/27/06	10/27/06	EPA 300.0	
G-35 SWD Monitor Well #1 (6J27015-03) Water									
Total Alkalinity	**208**	2.00	mg/L	1	EJ63107	10/31/06	10/31/06	EPA 310.1M	
Chloride	**13.4**	2.50	"	5	EJ62702	10/27/06	10/27/06	EPA 300.0	
Total Dissolved Solids	**264**	10.0	"	1	EJ63006	10/30/06	10/31/06	EPA 160.1	
Sulfate	**22.8**	2.50	"	5	EJ62702	10/27/06	10/27/06	EPA 300.0	
G-35 SWD Monitor Well #2 (6J27015-04) Water									
Total Alkalinity	**476**	2.00	mg/L	1	EJ63107	10/31/06	10/31/06	EPA 310.1M	
Chloride	**1350**	25.0	"	50	EJ62702	10/27/06	10/27/06	EPA 300.0	
Total Dissolved Solids	**2800**	10.0	"	1	EJ63006	10/30/06	10/31/06	EPA 160.1	
Sulfate	**39.7**	25.0	"	50	EJ62702	10/27/06	10/27/06	EPA 300.0	

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
F-35 SWD Monitor Well #1 (6J27015-01) Water									
Calcium	**192**	4.05	mg/L	50	EK60223	11/02/06	11/02/06	EPA 6010B	
Magnesium	**49.2**	0.360	"	10	"	"	"	"	
Potassium	**6.45**	0.600	"	"	"	"	"	"	
Sodium	**816**	10.8	"	250	"	"	"	"	
F-35 SWD Monitor Well #2 (6J27015-02) Water									
Calcium	**111**	4.05	mg/L	50	EK60223	11/02/06	11/02/06	EPA 6010B	
Magnesium	**17.5**	0.360	"	10	"	"	"	"	
Potassium	**2.85**	0.600	"	"	"	"	"	"	
Sodium	**32.8**	0.430	"	"	"	"	"	"	
G-35 SWD Monitor Well #1 (6J27015-03) Water									
Calcium	**49.2**	0.810	mg/L	10	EK60223	11/02/06	11/02/06	EPA 6010B	
Magnesium	**8.36**	0.360	"	"	"	"	"	"	
Potassium	**1.53**	0.600	"	"	"	"	"	"	
Sodium	**8.18**	0.430	"	"	"	"	"	"	
G-35 SWD Monitor Well #2 (6J27015-04) Water									
Calcium	**50.9**	4.05	mg/L	50	EK60223	11/02/06	11/02/06	EPA 6010B	
Magnesium	**18.3**	0.360	"	10	"	"	"	"	
Potassium	**9.76**	0.600	"	"	"	"	"	"	
Sodium	**908**	10.8	"	250	"	"	"	"	

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ63104 - EPA 5030C (GC)										
Blank (EJ63104-BLK1)				Prepared & Analyzed: 10/31/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*36.2*		*ug/l*	*40.0*		*90.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.9*		*"*	*40.0*		*82.2*	*80-120*			
LCS (EJ63104-BS1)				Prepared & Analyzed: 10/31/06						
Benzene	0.0581	0.00100	mg/L	0.0500		116	80-120			
Toluene	0.0561	0.00100	"	0.0500		112	80-120			
Ethylbenzene	0.0545	0.00100	"	0.0500		109	80-120			
Xylene (p/m)	0.118	0.00100	"	0.100		118	80-120			
Xylene (o)	0.0512	0.00100	"	0.0500		102	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.8*		*ug/l*	*40.0*		*99.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.5*		*"*	*40.0*		*101*	*80-120*			
Calibration Check (EJ63104-CCV1)				Prepared: 10/31/06 Analyzed: 11/01/06						
Benzene	51.6		ug/l	50.0		103	80-120			
Toluene	45.6		"	50.0		91.2	80-120			
Ethylbenzene	46.4		"	50.0		92.8	80-120			
Xylene (p/m)	88.7		"	100		88.7	80-120			
Xylene (o)	40.4		"	50.0		80.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*34.6*		*"*	*40.0*		*86.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*34.0*		*"*	*40.0*		*85.0*	*80-120*			
Matrix Spike (EJ63104-MS1)	**Source: 6J23009-02**			Prepared: 10/31/06 Analyzed: 11/01/06						
Benzene	0.0575	0.00100	mg/L	0.0500	ND	115	80-120			
Toluene	0.0530	0.00100	"	0.0500	ND	106	80-120			
Ethylbenzene	*0.0524*	*0.00100*	"	*0.0500*	ND	*105*	80-120			
Xylene (p/m)	0.107	0.00100	"	0.100	ND	107	80-120			
Xylene (o)	0.0456	0.00100	"	0.0500	ND	91.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	*37.3*		*ug/l*	*40.0*		*93.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.0*		*"*	*40.0*		*108*	*80-120*			

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ63104 - EPA 5030C (GC)										
Matrix Spike Dup (EJ63104-MSD1)	**Source: 6J23009-02**			Prepared: 10/31/06 Analyzed: 11/01/06						
Benzene	0.0564	0.00100	mg/L	0.0500	ND	113	80-120	1.75	20	
Toluene	0.0524	0.00100	"	0.0500	ND	105	80-120	0.948	20	
Ethylbenzene	0.0532	0.00100	"	0.0500	ND	106	80-120	0.948	20	
Xylene (p/m)	0.105	0.00100	"	0.100	ND	105	80-120	1.89	20	
Xylene (o)	0.0442	0.00100	"	0.0500	ND	88.4	80-120	3.12	20	
Surrogate: a,a,a-Trifluorotoluene	*35.8*		*ug/l*	*40.0*		*89.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*37.7*		*"*	*40.0*		*94.2*	*80-120*			

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ62702 - General Preparation (WetChem)										
Blank (EJ62702-BLK1)				Prepared & Analyzed: 10/27/06						
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	"							
LCS (EJ62702-BS1)				Prepared & Analyzed: 10/27/06						
Sulfate	10.8	0.500	mg/L	10.0		108	80-120			
Chloride	10.8	0.500	"	10.0		108	80-120			
Calibration Check (EJ62702-CCV1)				Prepared & Analyzed: 10/27/06						
Sulfate	10.8		mg/L	10.0		108	80-120			
Chloride	11.2		"	10.0		112	80-120			
Duplicate (EJ62702-DUP1)	**Source: 6J26011-02**			Prepared & Analyzed: 10/27/06						
Sulfate	129	12.5	mg/L		129			0.00	20	
Chloride	643	12.5	"		645			0.311	20	
Duplicate (EJ62702-DUP2)	**Source: 6J27017-05**			Prepared & Analyzed: 10/27/06						
Sulfate	223	25.0	mg/L		226			1.34	20	
Chloride	1310	25.0	"		1330			1.52	20	
Matrix Spike (EJ62702-MS1)	**Source: 6J26011-02**			Prepared & Analyzed: 10/27/06						
Sulfate	369	12.5	mg/L	250	129	96.0	80-120			
Chloride	934	12.5	"	250	645	116	80-120			
Matrix Spike (EJ62702-MS2)	**Source: 6J27017-05**			Prepared & Analyzed: 10/27/06						
Sulfate	716	25.0	mg/L	500	226	98.0	80-120			
Chloride	1930	25.0	"	500	1330	120	80-120			

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ63006 - Filtration Preparation										
Blank (EJ63006-BLK1)				Prepared: 10/30/06 Analyzed: 10/31/06						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EJ63006-DUP1)		**Source: 6J27015-01**		Prepared: 10/30/06 Analyzed: 10/31/06						
Total Dissolved Solids	2860	10.0	mg/L		3190			10.9	5	R2
Duplicate (EJ63006-DUP2)		**Source: 6J27017-03**		Prepared: 10/30/06 Analyzed: 10/31/06						
Total Dissolved Solids	1590	10.0	mg/L		1910			18.3	5	R2
Batch EJ63107 - General Preparation (WetChem)										
Blank (EJ63107-BLK1)				Prepared & Analyzed: 10/31/06						
Total Alkalinity	ND	2.00	mg/L							
LCS (EJ63107-BS1)				Prepared & Analyzed: 10/31/06						
Total Alkalinity	196	2.00	mg/L	200		98.0	85-115			
Duplicate (EJ63107-DUP1)		**Source: 6J27015-01**		Prepared & Analyzed: 10/31/06						
Total Alkalinity	424	2.00	mg/L		432			1.87	20	
Reference (EJ63107-SRM1)				Prepared & Analyzed: 10/31/06						
Total Alkalinity	254		mg/L	250		102	90-110			

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK60223 - 6010B/No Digestion										
Blank (EK60223-BLK1)				Prepared & Analyzed: 11/02/06						
Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							
Calibration Check (EK60223-CCV1)				Prepared & Analyzed: 11/02/06						
Calcium	2.22		mg/L	2.00		111	85-115			
Magnesium	2.07		"	2.00		104	85-115			
Potassium	1.80		"	2.00		90.0	85-115			
Sodium	1.98		"	2.00		99.0	85-115			
Duplicate (EK60223-DUP1)	**Source: 6J27015-01**			Prepared & Analyzed: 11/02/06						
Calcium	186	4.05	mg/L		192			3.17	20	
Magnesium	49.6	0.360	"		49.2			0.810	20	
Potassium	6.20	0.600	"		6.45			3.95	20	
Sodium	801	10.8	"		816			1.86	20	

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
R2	The RPD exceeded the acceptance limit.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 11/10/2006

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.

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

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope kpope@riceswd.com
Company Name: RICE Operating Company
Company Address: 122 W. Taylor Street
City/State/Zip: Hobbs, New Mexico 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature: Rozanne Johnson (505) 631-9310
Email: rozanne@valornet.com

Project Name: Vacuum F-35 SWD and G-35 SWD
Project Number:
Project Loc: T17S-R35E-Sec 35 F/G, Lea County NM
PO Number:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl (2) 40 ml glass vials	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None (1) 1 Liter HDPE	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify):	Analyze For: TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Dissolved Solids				RUSH TAT (Pre-Schedule)	Standard TAT
																TCLP:							TOTAL:								
-01	F-35 SWD Monitor Well #1	10/24/2006	14:40	3	X		2			1		X					X	X					X			X					X
-02	F-35 SWD Monitor Well #2	10/24/2006	15:45	3	X		2			1		X					X	X					X			X					X
-03	G-35 SWD Monitor Well #1	10/25/2006	16:10	3	X		2			1		X					X	X					X			X					X
-04	G-35 SWD Monitor Well #2	10/25/2006	9:45	3	X		2			1		X					X	X					X			X					X

Special Instructions:

PLEASE Email RESULTS TO: kpope@riceswd.com; mfranks@riceswd.com
rozanne@valornet.com

Sample Containers Intact? Y N
Labels on container? Y N
Custody Seals: Containers / Cooler
Temperature Upon Receipt: 1.5

Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	10-27-06	2:45			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
				10/27/06	2:45

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Rice Dp.

Date/ Time: 10/27/09 2:45

Lab ID # : 052715

Initials: CK

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	1.5 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	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 Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Vacuum G-35/ F-35 Site

Project Number: None Given

Location: T17S- R35E- Sec 35 F/G, Lea County, NM

Lab Order Number: 6J27015

Report Date: 12/01/06

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	*Laboratory ID*	Matrix	Date Sampled	Date Received
F-35 SWD Monitor Well #1	6J27015-01	Water	10/24/06 14:40	10-27-2006 14:45
F-35 SWD Monitor Well #2	6J27015-02	Water	10/24/06 15:45	10-27-2006 14:45
G-35 SWD Monitor Well #1	6J27015-03	Water	10/25/06 16:10	10-27-2006 14:45
G-35 SWD Monitor Well #2	6J27015-04	Water	10/25/06 09:45	10-27-2006 14:45

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
F-35 SWD Monitor Well #1 (6J27015-01) Water									
Benzene	**0.462**	0.00100	mg/L	1	EJ63104	10/31/06	10/31/06	EPA 8021B	
Toluene	**0.489**	0.00100	"	"	"	"	"	"	
Ethylbenzene	**0.230**	0.00100	"	"	"	"	"	"	
Xylene (p/m)	**0.305**	0.00100	"	"	"	"	"	"	
Xylene (o)	**0.135**	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*138 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*108 %*	*80-120*		"	"	"	"	
F-35 SWD Monitor Well #2 (6J27015-02) Water									
Benzene	ND	0.00100	mg/L	1	EJ63104	10/31/06	10/31/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*87.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*82.5 %*	*80-120*		"	"	"	"	
G-35 SWD Monitor Well #1 (6J27015-03) Water									
Benzene	**0.394**	0.00500	mg/L	5	EJ63104	10/31/06	10/31/06	EPA 8021B	
Toluene	**0.0204**	0.00500	"	"	"	"	"	"	
Ethylbenzene	**0.0774**	0.00500	"	"	"	"	"	"	
Xylene (p/m)	**0.0177**	0.00500	"	"	"	"	"	"	
Xylene (o)	**0.0261**	0.00500	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*94.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.8 %*	*80-120*		"	"	"	"	
G-35 SWD Monitor Well #2 (6J27015-04) Water									
Benzene	ND	0.00100	mg/L	1	EJ63104	10/31/06	11/01/06	EPA 8021B	
Toluene	**0.00308**	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*86.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*82.5 %*	*80-120*		"	"	"	"	

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
F-35 SWD Monitor Well #1 (6J27015-01) Water									
Total Alkalinity	**432**	2.00	mg/L	1	EJ63107	10/31/06	10/31/06	EPA 310.1M	
Chloride	**1460**	25.0	"	50	EJ62702	10/27/06	10/27/06	EPA 300.0	
Total Dissolved Solids	**3190**	10.0	"	1	EJ63006	10/30/06	10/31/06	EPA 160.1	
Sulfate	**45.2**	25.0	"	50	EJ62702	10/27/06	10/27/06	EPA 300.0	
F-35 SWD Monitor Well #2 (6J27015-02) Water									
Total Alkalinity	**314**	2.00	mg/L	1	EJ63107	10/31/06	10/31/06	EPA 310.1M	
Chloride	**89.1**	5.00	"	10	EJ62702	10/27/06	10/27/06	EPA 300.0	
Total Dissolved Solids	**598**	10.0	"	1	EJ63006	10/30/06	10/31/06	EPA 160.1	
Sulfate	**67.2**	5.00	"	10	EJ62702	10/27/06	10/27/06	EPA 300.0	
G-35 SWD Monitor Well #1 (6J27015-03) Water									
Total Alkalinity	**476**	2.00	mg/L	1	EJ63107	10/31/06	10/31/06	EPA 310.1M	
Chloride	**1350**	25.0	"	50	EJ62702	10/27/06	10/27/06	EPA 300.0	
Total Dissolved Solids	**2800**	10.0	"	1	EJ63006	10/30/06	10/31/06	EPA 160.1	
Sulfate	**39.7**	25.0	"	50	EJ62702	10/27/06	10/27/06	EPA 300.0	
G-35 SWD Monitor Well #2 (6J27015-04) Water									
Total Alkalinity	**208**	2.00	mg/L	1	EJ63107	10/31/06	10/31/06	EPA 310.1M	
Chloride	**13.4**	2.50	"	5	EJ62702	10/27/06	10/27/06	EPA 300.0	
Total Dissolved Solids	**264**	10.0	"	1	EJ63006	10/30/06	10/31/06	EPA 160.1	
Sulfate	**22.8**	2.50	"	5	EJ62702	10/27/06	10/27/06	EPA 300.0	

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
F-35 SWD Monitor Well #1 (6J27015-01) Water									
Calcium	**192**	4.05	mg/L	50	EK60223	11/02/06	11/02/06	EPA 6010B	
Magnesium	**49.2**	0.360	"	10	"	"	"	"	
Potassium	**6.45**	0.600	"	"	"	"	"	"	
Sodium	**816**	10.8	"	250	"	"	"	"	
F-35 SWD Monitor Well #2 (6J27015-02) Water									
Calcium	**111**	4.05	mg/L	50	EK60223	11/02/06	11/02/06	EPA 6010B	
Magnesium	**17.5**	0.360	"	10	"	"	"	"	
Potassium	**2.85**	0.600	"	"	"	"	"	"	
Sodium	**32.8**	0.430	"	"	"	"	"	"	
G-35 SWD Monitor Well #1 (6J27015-03) Water									
Calcium	**50.9**	4.05	mg/L	50	EK60223	11/02/06	11/02/06	EPA 6010B	
Magnesium	**18.3**	0.360	"	10	"	"	"	"	
Potassium	**9.76**	0.600	"	"	"	"	"	"	
Sodium	**908**	10.8	"	250	"	"	"	"	
G-35 SWD Monitor Well #2 (6J27015-04) Water									
Calcium	**49.2**	0.810	mg/L	10	EK60223	11/02/06	11/02/06	EPA 6010B	
Magnesium	**8.36**	0.360	"	"	"	"	"	"	
Potassium	**1.53**	0.600	"	"	"	"	"	"	
Sodium	**8.18**	0.430	"	"	"	"	"	"	

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

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: Vacuum G-35/ F-35 Site
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ63104 - EPA 5030C (GC)										
Blank (EJ63104-BLK1)				Prepared & Analyzed: 10/31/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*36.2*		*ug/l*	*40.0*		*90.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.9*		*"*	*40.0*		*82.2*	*80-120*			
LCS (EJ63104-BS1)				Prepared & Analyzed: 10/31/06						
Benzene	0.0581	0.00100	mg/L	0.0500		116	80-120			
Toluene	0.0561	0.00100	"	0.0500		112	80-120			
Ethylbenzene	0.0545	0.00100	"	0.0500		109	80-120			
Xylene (p/m)	0.118	0.00100	"	0.100		118	80-120			
Xylene (o)	0.0512	0.00100	"	0.0500		102	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.8*		*ug/l*	*40.0*		*99.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.5*		*"*	*40.0*		*101*	*80-120*			
Calibration Check (EJ63104-CCV1)				Prepared: 10/31/06 Analyzed: 11/01/06						
Benzene	51.6		ug/l	50.0		103	80-120			
Toluene	45.6		"	50.0		91.2	80-120			
Ethylbenzene	46.4		"	50.0		92.8	80-120			
Xylene (p/m)	88.7		"	100		88.7	80-120			
Xylene (o)	40.4		"	50.0		80.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*34.6*		*"*	*40.0*		*86.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*34.0*		*"*	*40.0*		*85.0*	*80-120*			
Matrix Spike (EJ63104-MS1)	**Source: 6J23009-02**			Prepared: 10/31/06 Analyzed: 11/01/06						
Benzene	0.0575	0.00100	mg/L	0.0500	ND	115	80-120			
Toluene	0.0530	0.00100	"	0.0500	ND	106	80-120			
Ethylbenzene	0.0524	0.00100	"	0.0500	ND	105	80-120			
Xylene (p/m)	0.107	0.00100	"	0.100	ND	107	80-120			
Xylene (o)	0.0456	0.00100	"	0.0500	ND	91.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	*37.3*		*ug/l*	*40.0*		*93.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.0*		*"*	*40.0*		*108*	*80-120*			

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ63104 - EPA 5030C (GC)										
Matrix Spike Dup (EJ63104-MSD1)	**Source: 6J23009-02**			Prepared: 10/31/06 Analyzed: 11/01/06						
Benzene	0.0564	0.00100	mg/L	0.0500	ND	113	80-120	1.75	20	
Toluene	0.0524	0.00100	"	0.0500	ND	105	80-120	0.948	20	
Ethylbenzene	0.0532	0.00100	"	0.0500	ND	106	80-120	0.948	20	
Xylene (p/m)	0.105	0.00100	"	0.100	ND	105	80-120	1.89	20	
Xylene (o)	0.0442	0.00100	"	0.0500	ND	88.4	80-120	3.12	20	
Surrogate: a,a,a-Trifluorotoluene	*35.8*		*ug/l*	*40.0*		*89.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*37.7*		*"*	*40.0*		*94.2*	*80-120*			

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ62702 - General Preparation (WetChem)										
Blank (EJ62702-BLK1)				Prepared & Analyzed: 10/27/06						
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	"							
LCS (EJ62702-BS1)				Prepared & Analyzed: 10/27/06						
Sulfate	10.8	0.500	mg/L	10.0		108	80-120			
Chloride	10.8	0.500	"	10.0		108	80-120			
Calibration Check (EJ62702-CCV1)				Prepared & Analyzed: 10/27/06						
Sulfate	10.8		mg/L	10.0		108	80-120			
Chloride	11.2		"	10.0		112	80-120			
Duplicate (EJ62702-DUP1)	**Source: 6J26011-02**			Prepared & Analyzed: 10/27/06						
Sulfate	129	12.5	mg/L		129			0.00	20	
Chloride	643	12.5	"		645			0.311	20	
Duplicate (EJ62702-DUP2)	**Source: 6J27017-05**			Prepared & Analyzed: 10/27/06						
Sulfate	223	25.0	mg/L		226			1.34	20	
Chloride	1310	25.0	"		1330			1.52	20	
Matrix Spike (EJ62702-MS1)	**Source: 6J26011-02**			Prepared & Analyzed: 10/27/06						
Sulfate	369	12.5	mg/L	250	129	96.0	80-120			
Chloride	934	12.5	"	250	645	116	80-120			
Matrix Spike (EJ62702-MS2)	**Source: 6J27017-05**			Prepared & Analyzed: 10/27/06						
Sulfate	716	25.0	mg/L	500	226	98.0	80-120			
Chloride	1930	25.0	"	500	1330	120	80-120			

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ63006 - Filtration Preparation										
Blank (EJ63006-BLK1)				Prepared: 10/30/06 Analyzed: 10/31/06						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EJ63006-DUP1)		**Source: 6J27015-01**		Prepared: 10/30/06 Analyzed: 10/31/06						
Total Dissolved Solids	2860	10.0	mg/L		3190			10.9	5	R2
Duplicate (EJ63006-DUP2)		**Source: 6J27017-03**		Prepared: 10/30/06 Analyzed: 10/31/06						
Total Dissolved Solids	1590	10.0	mg/L		1910			18.3	5	R2
Batch EJ63107 - General Preparation (WetChem)										
Blank (EJ63107-BLK1)				Prepared & Analyzed: 10/31/06						
Total Alkalinity	ND	2.00	mg/L							
LCS (EJ63107-BS1)				Prepared & Analyzed: 10/31/06						
Total Alkalinity	196	2.00	mg/L	200		98.0	85-115			
Duplicate (EJ63107-DUP1)		**Source: 6J27015-01**		Prepared & Analyzed: 10/31/06						
Total Alkalinity	424	2.00	mg/L		432			1.87	20	
Reference (EJ63107-SRM1)				Prepared & Analyzed: 10/31/06						
Total Alkalinity	254		mg/L	250		102	90-110			

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK60223 - 6010B/No Digestion										
Blank (EK60223-BLK1)				Prepared & Analyzed: 11/02/06						
Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							
Calibration Check (EK60223-CCV1)				Prepared & Analyzed: 11/02/06						
Calcium	2.22		mg/L	2.00		111	85-115			
Magnesium	2.07		"	2.00		104	85-115			
Potassium	1.80		"	2.00		90.0	85-115			
Sodium	1.98		"	2.00		99.0	85-115			
Duplicate (EK60223-DUP1)	**Source: 6J27015-01**			Prepared & Analyzed: 11/02/06						
Calcium	186	4.05	mg/L		192			3.17	20	
Magnesium	49.6	0.360	"		49.2			0.810	20	
Potassium	6.20	0.600	"		6.45			3.95	20	
Sodium	801	10.8	"		816			1.86	20	

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

Rice Operating Co.	Project: Vacuum G-35/ F-35 Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
R2	The RPD exceeded the acceptance limit.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 12/1/2006

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.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79766
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope kpope@riceswd.com
Company Name: RICE Operating Company
Company Address: 122 W. Taylor Street
City/State/Zip: Hobbs, New Mexico 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature: Rozanne Johnson (505) 631-9310
Email: rozanne@valornet.com

Project Name: Vacuum F-35 SWD and G-35 SWD
Project Number:
Project Loc: T17S-R35E-Sec 35 F/G, Lea County NM
PO Number:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl (2) 40 ml glass vials	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None (1) 1 Liter HDPE	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify)	Analyze For: TCLP: TPH: 418.1 8015M 1006 1006	Analyze For: TCLP: Cations (Ca, Mg, Na, K)	Analyze For: TCLP: Anions (Cl, SO4, CO3, HCO3)	Analyze For: TCLP: SAR / ESP / CEC	Analyze For: TCLP: Metals: As Ag Ba Cd Cr Pb Hg Se	Analyze For: TCLP: Volatiles	Analyze For: TCLP: Semivolatiles	Analyze For: TOTAL: BTEX 8021B/5030	Analyze For: TOTAL: RCI	Analyze For: TOTAL: N.O.R.M.	Analyze For: TOTAL: Total Dissolved Solids	RUSH TAT (Pre-Schedule)	Standard TAT
-01	F-35 SWD Monitor Well #1	10/24/2006	14:40	3	X		2			1		X					X	X					X			X		X
-02	F-35 SWD Monitor Well #2	10/24/2006	15:45	3	X		2			1		X					X	X					X			X		X
-03	G-35 SWD Monitor Well #1	10/25/2006	16:10	3	X		2			1		X					X	X					X			X		X
-04	G-35 SWD Monitor Well #2	10/25/2006	9:45	3	X		2			1		X					X	X					X			X		X

Special Instructions:

PLEASE Email RESULTS TO: kpope@riceswd.com; mfranks@riceswd.com
rozanne@valornet.com

Sample Containers Intact? Y N
Labels on container? Y N
Custody Seals: Containers / Cooler
Temperature Upon Receipt:

Laboratory Comments: 1.5

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	10-27-06	2:45			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
				10/27/06	2:45

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

ent: Rice Dp.

ite/ Time: 10/27/00 2:45

b ID #: 603270 15

tials: CK

Sample Receipt Checklist

					Client Initials
1	Temperature of container/ cooler?	Yes	No	1.5 °C	
2	Shipping container in good condition?	Yes	No		
3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
5	Chain of Custody present?	Yes	No		
6	Sample instructions complete of Chain of Custody?	Yes	No		
7	Chain of Custody signed when relinquished/ received?	Yes	No		
8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
9	Container label(s) legible and intact?	Yes	No	Not Applicable	
10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
11	Containers supplied by ELOT?	Yes	No		
12	Samples in proper container/ bottle?	Yes	No	See Below	
13	Samples properly preserved?	Yes	No	See Below	
14	Sample bottles intact?	Yes	No		
15	Preservations documented on Chain of Custody?	Yes	No		
16	Containers documented on Chain of Custody?	Yes	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 Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Vacuum F-35 SWD & G-35 SWD

Project Number: None Given

Location: T17S R35E Sec. 35 F&G- Lea County, NM

Lab Order Number: 6L07012

Report Date: 12/20/06

Rice Operating Co.	Project: Vacuum F-35 SWD & G-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
F-35 SWD Monitor Well #3	6L07012-01	Water	12/04/06 10:45	12-07-2006 10:50
G-35 SWD Monitor Well #3	6L07012-02	Water	12/04/06 12:20	12-07-2006 10:50

** The presence of toluene in Sample 6L07012-01 was confirmed by GC/MS. The spectrum also showed the presence of methyl ethyl ketone, (MEK). MEK is often found in plastic glues and/or primers used when installing PVC pipe.

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

Rice Operating Co.	Project: Vacuum F-35 SWD & G-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
F-35 SWD Monitor Well #3 (6L07012-01) Water									
Benzene	**0.000370**	0.00100	mg/L	1	EL61404	12/14/06	12/14/06	EPA 8021B	
Toluene	**0.0150**	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*128 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*93.2 %*	*80-120*		"	"	"	"	
G-35 SWD Monitor Well #3 (6L07012-02) Water									
Benzene	ND	0.00100	mg/L	1	EL61404	12/14/06	12/14/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*117 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*81.0 %*	*80-120*		"	"	"	"	

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

Rice Operating Co.	Project: Vacuum F-35 SWD & G-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
F-35 SWD Monitor Well #3 (6L07012-01) Water									
Total Alkalinity	**184**	2.00	mg/L	1	EL60807	12/07/06	12/07/06	EPA 310.1M	
Chloride	**80.1**	5.00	"	10	EL60801	12/07/06	12/07/06	EPA 300.0	
Total Dissolved Solids	**450**	10.0	"	1	EL60803	12/07/06	12/08/06	EPA 160.1	
Sulfate	**81.5**	5.00	"	10	EL60801	12/07/06	12/07/06	EPA 300.0	
G-35 SWD Monitor Well #3 (6L07012-02) Water									
Total Alkalinity	**262**	2.00	mg/L	1	EL60807	12/07/06	12/07/06	EPA 310.1M	
Chloride	**370**	12.5	"	25	EL60801	12/07/06	12/07/06	EPA 300.0	
Total Dissolved Solids	**994**	10.0	"	1	EL60803	12/07/06	12/08/06	EPA 160.1	
Sulfate	**41.9**	12.5	"	25	EL60801	12/07/06	12/07/06	EPA 300.0	

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

Rice Operating Co.	Project: Vacuum F-35 SWD & G-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
F-35 SWD Monitor Well #3 (6L07012-01) Water									
Calcium	**66.4**	4.05	mg/L	50	EL60805	12/08/06	12/11/06	EPA 6010B	
Magnesium	**12.5**	0.360	"	10	"	"	"	"	
Potassium	**3.24**	0.600	"	"	"	"	"	"	
Sodium	**78.4**	2.15	"	50	"	"	"	"	
G-35 SWD Monitor Well #3 (6L07012-02) Water									
Calcium	**119**	4.05	mg/L	50	EL60805	12/08/06	12/11/06	EPA 6010B	
Magnesium	**15.7**	0.360	"	10	"	"	"	"	
Potassium	**5.33**	0.600	"	"	"	"	"	"	
Sodium	**242**	2.15	"	50	"	"	"	"	

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

Rice Operating Co.	Project: Vacuum F-35 SWD & G-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL61404 - EPA 5030C (GC)										
Blank (EL61404-BLK1)				Prepared & Analyzed: 12/14/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*45.2*		*ug/l*	*40.0*		*113*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*34.5*		*"*	*40.0*		*86.2*	*80-120*			
LCS (EL61404-BS1)				Prepared & Analyzed: 12/14/06						
Benzene	0.0423	0.00100	mg/L	0.0500		84.6	80-120			
Toluene	0.0430	0.00100	"	0.0500		86.0	80-120			
Ethylbenzene	0.0426	0.00100	"	0.0500		85.2	80-120			
Xylene (p/m)	0.0962	0.00100	"	0.100		96.2	80-120			
Xylene (o)	0.0469	0.00100	"	0.0500		93.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*37.6*		*ug/l*	*40.0*		*94.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.8*		*"*	*40.0*		*82.0*	*80-120*			
Calibration Check (EL61404-CCV1)				Prepared: 12/14/06 Analyzed: 12/15/06						
Benzene	54.4		ug/l	50.0		109	80-120			
Toluene	55.1		"	50.0		110	80-120			
Ethylbenzene	59.3		"	50.0		119	80-120			
Xylene (p/m)	116		"	100		116	80-120			
Xylene (o)	58.7		"	50.0		117	80-120			
Surrogate: a,a,a-Trifluorotoluene	*47.9*		*"*	*40.0*		*120*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.0*		*"*	*40.0*		*100*	*80-120*			
Matrix Spike (EL61404-MS1)	**Source: 6L05006-10**			Prepared: 12/14/06 Analyzed: 12/18/06						
Benzene	0.0402	0.00100	mg/L	0.0500	ND	80.4	80-120			
Toluene	0.0407	0.00100	"	0.0500	ND	81.4	80-120			
Ethylbenzene	0.0487	0.00100	"	0.0500	ND	97.4	80-120			
Xylene (p/m)	0.0853	0.00100	"	0.100	ND	85.3	80-120			
Xylene (o)	0.0444	0.00100	"	0.0500	ND	88.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*32.6*		*ug/l*	*40.0*		*81.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.7*		*"*	*40.0*		*96.8*	*80-120*			

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

Rice Operating Co.	Project: Vacuum F-35 SWD & G-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL61404 - EPA 5030C (GC)										
Matrix Spike Dup (EL61404-MSD1)	**Source: 6L05006-10**			Prepared: 12/14/06 Analyzed: 12/18/06						
Benzene	0.0422	0.00100	mg/L	0.0500	ND	84.4	80-120	4.85	20	
Toluene	0.0446	0.00100	"	0.0500	ND	89.2	80-120	9.14	20	
Ethylbenzene	0.0464	0.00100	"	0.0500	ND	92.8	80-120	4.84	20	
Xylene (p/m)	0.102	0.00100	"	0.100	ND	102	80-120	17.8	20	
Xylene (o)	0.0513	0.00100	"	0.0500	ND	103	80-120	14.8	20	
Surrogate: a,a,a-Trifluorotoluene	*38.2*		*ug/l*	*40.0*		*95.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*37.7*		*"*	*40.0*		*94.2*	*80-120*			

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

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: Vacuum F-35 SWD & G-35 SWD
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL60801 - General Preparation (WetChem)										
Blank (EL60801-BLK1)				Prepared & Analyzed: 12/08/06						
Chloride	ND	0.500	mg/L							
Sulfate	0.623	0.500	"							B
LCS (EL60801-BS1)				Prepared & Analyzed: 12/08/06						
Sulfate	10.3	0.500	mg/L	10.0		103	80-120			
Chloride	10.0	0.500	"	10.0		100	80-120			
Calibration Check (EL60801-CCV1)				Prepared & Analyzed: 12/08/06						
Chloride	10.4		mg/L	10.0		104	80-120			
Sulfate	11.6		"	10.0		116	80-120			
Duplicate (EL60801-DUP1)	**Source: 6L07005-01**			Prepared & Analyzed: 12/08/06						
Sulfate	13.4	2.50	mg/L		13.4			0.00	20	
Chloride	129	2.50	"		130			0.772	20	
Matrix Spike (EL60801-MS1)	**Source: 6L07005-01**			Prepared & Analyzed: 12/08/06						
Sulfate	61.4	2.50	mg/L	50.0	13.4	96.0	80-120			
Chloride	189	2.50	"	50.0	130	118	80-120			
Batch EL60803 - Filtration Preparation										
Blank (EL60803-BLK1)				Prepared: 12/07/06 Analyzed: 12/08/06						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EL60803-DUP1)	**Source: 6L07005-01**			Prepared: 12/07/06 Analyzed: 12/08/06						
Total Dissolved Solids	266	10.0	mg/L		246			7.81	20	

Rice Operating Co.	Project: Vacuum F-35 SWD & G-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL60807 - *General Preparation* (WetChem)										
Blank (EL60807-BLK1)				Prepared & Analyzed: 12/07/06						
Total Alkalinity	ND	2.00	mg/L							
LCS (EL60807-BS1)				Prepared & Analyzed: 12/07/06						
Bicarbonate Alkalinity	186	2.00	mg/L	200		93.0	85-115			
Duplicate (EL60807-DUP1)	**Source: 6L07012-01**			Prepared & Analyzed: 12/07/06						
Total Alkalinity	182	2.00	mg/L		184			1.09	20	
Reference (EL60807-SRM1)				Prepared & Analyzed: 12/07/06						
Total Alkalinity	246		mg/L	250		98.4	90-110			

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

Rice Operating Co.	Project: Vacuum F-35 SWD & G-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL60805 - 6010B/No Digestion										
Blank (EL60805-BLK1)				Prepared: 12/08/06 Analyzed: 12/11/06						
Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							
Calibration Check (EL60805-CCV1)				Prepared: 12/08/06 Analyzed: 12/11/06						
Calcium	2.02		mg/L	2.00		101	85-115			
Magnesium	2.03		"	2.00		102	85-115			
Potassium	1.77		"	2.00		88.5	85-115			
Sodium	2.00		"	2.00		100	85-115			
Duplicate (EL60805-DUP1)	**Source: 6L07012-01**			Prepared: 12/08/06 Analyzed: 12/11/06						
Calcium	61.4	4.05	mg/L		66.4			7.82	20	
Magnesium	13.4	0.360	"		12.5			6.95	20	
Potassium	3.81	0.600	"		3.24			16.2	20	
Sodium	73.2	2.15	"		78.4			6.86	20	

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

Rice Operating Co.	Project: Vacuum F-35 SWD & G-35 SWD	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
B	Analyte is found in the associated blank as well as in the sample (CLP B-flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 12/20/2006

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.

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Kristin Farris Pope kpope@riceswd.com

Project Name: Vacuum F-35 SWD & G-35 SWD

Company Name: RICE Operating Company

Project #:

Company Address: 122 W. Taylor Street

Project Loc: T17S-R35E-Sec35 F&G – Lea County New Mexico

City/State/Zip: Hobbs, New Mexico 88240

PO #:

Telephone No: (505) 393-9174 Fax No: (505) 397-1471

Report Format: [X] Standard [ ] TRRP [ ] NPDES

Sampler Signature: Rozanne Johnson (505)631-9310 e-mail: rozanne@valornet.com

(lab use only)
ORDER #: 610702

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl (2) 40 ml glass vials	H_2SO_4	NaOH	$Na_2S_2O_3$	None (1) 1 Liter HDPE	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge	GW = Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	TOTAL: BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Total Dissolved Solids	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	F-35 SWD Monitor Well #3			12/4/2006	10:45		3	X		2				1		GW					X	X				X			X			X
02	G-35 SWD Monitor Well #3			12/4/2006	12:20		3	X		2				1		GW					X	X				X			X			X

Special Instructions:
Please email to : kpope@riceswd.com mfranks@riceswd.com rozanne@valornet.com FAX

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	12-7-06	10:50			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT: Cheree Wood	12/7/06	10:50

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered by Sampler/Client Rep. ?	Y	N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt: -2.0 °C
not frozen

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: RVE Op.

Date/ Time: 12/7/11 10:50

Lab ID #: ELO7012

Initials: CK

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	-2.0 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	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	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

February 12, 2007

Wayne Price
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: 2006 Annual Ground Water Monitoring Report
F-35 SWD, Sec 35, T17S, R35E, Unit "F"
NMOCD Case #: AP-59

Dear Mr. Wayne Price:

R.T. Hicks Consultants, Ltd is pleased to submit the 2006 Annual Ground Water Monitoring Report for the F-35 SWD site located in the Vacuum Salt Water Disposal System (SWD). This report consists of the following sections:

1. A table summarizing all laboratory results, depth to ground water and other pertinent data associated with ground water sampling at the site, including this past year.
2. Graphs showing chemical concentration vs. time for chloride and TDS.
3. Laboratory data sheets associated with the routine sampling for 2006.
4. Potentiometric surface map.

The Vadose Zone Remedy Plan was submitted to NMOCD on November 15, 2006. The Vadose Zone Remedy Plan is pending NMOCD approval.

Thank you for your consideration of this annual summary information. The attached CD contains an electronic copy of the annual report. If you have any questions, please contact us at 505-266-5004, or Kristin Farris Pope at ROC, 505-393-9174.

Sincerely,
R.T. Hicks Consultants, Ltd.

Randall T. Hicks
Principal

Copy: Hobbs NMOCD office; Rice Operating Company