QUARTERLY INJECTION REPORTS

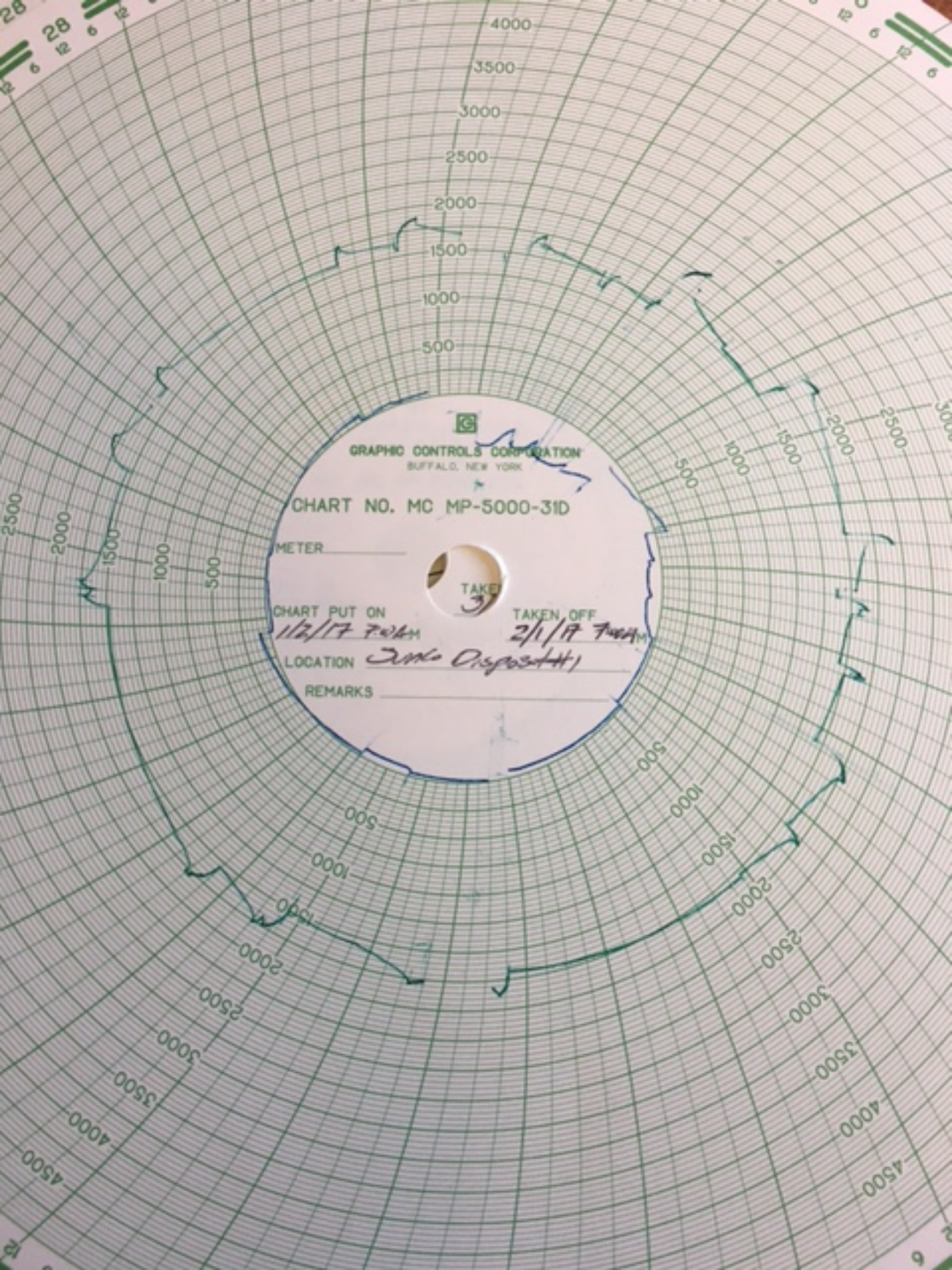
Chavez, Carl J, EMNRD

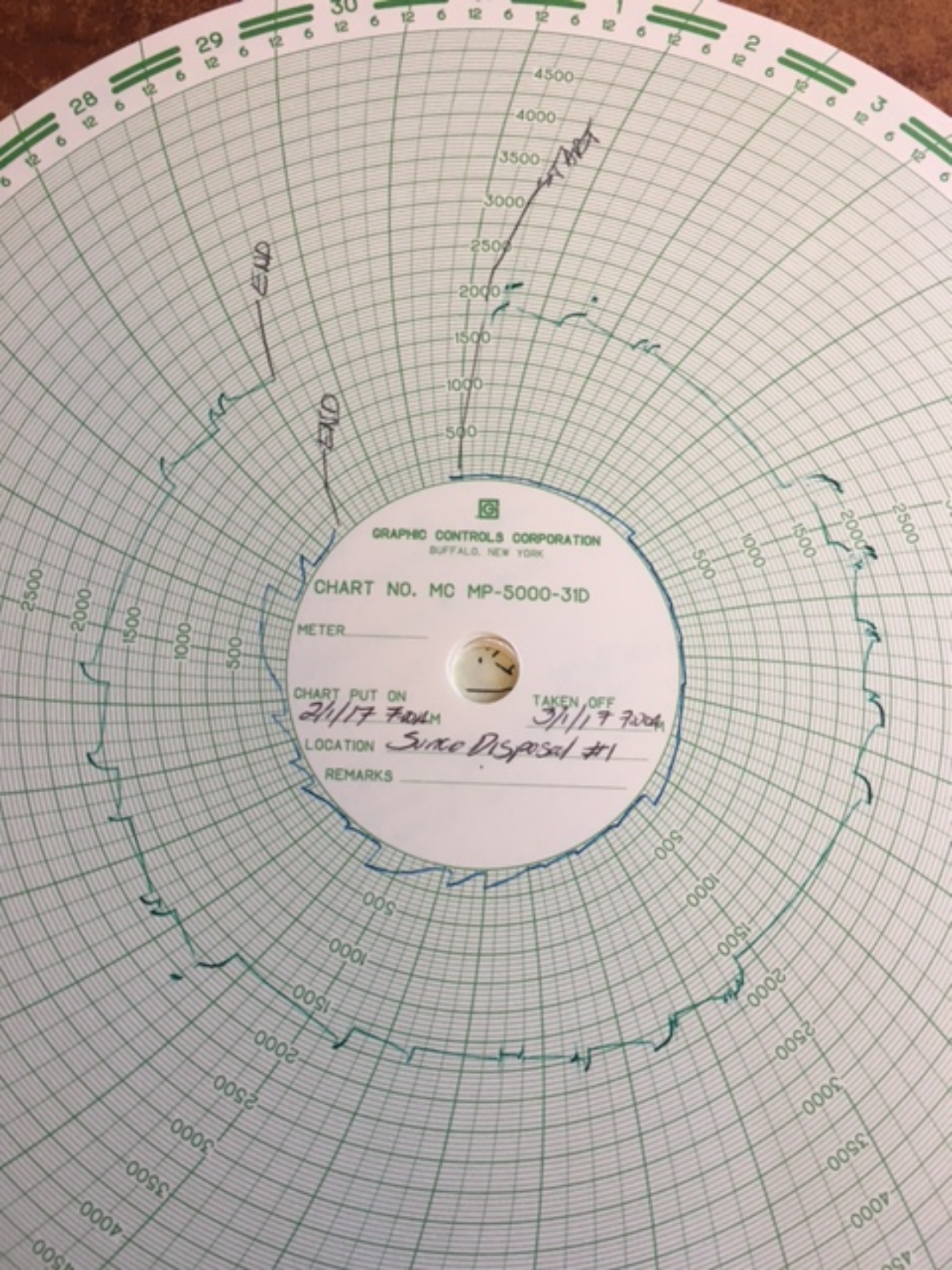
From: Philana Thompson <pthompson@merrion.bz>
Sent: Monday, August 28, 2017 5:06 PM
To: Chavez, Carl J, EMNRD
Subject: Fwd: 1st 2nd qrt
Attachments: IMG_9805.JPG; IMG_9806.JPG; IMG_9807.JPG; IMG_9808.JPG; IMG_9809.JPG; IMG_9810.JPG; IMG_9811.JPG

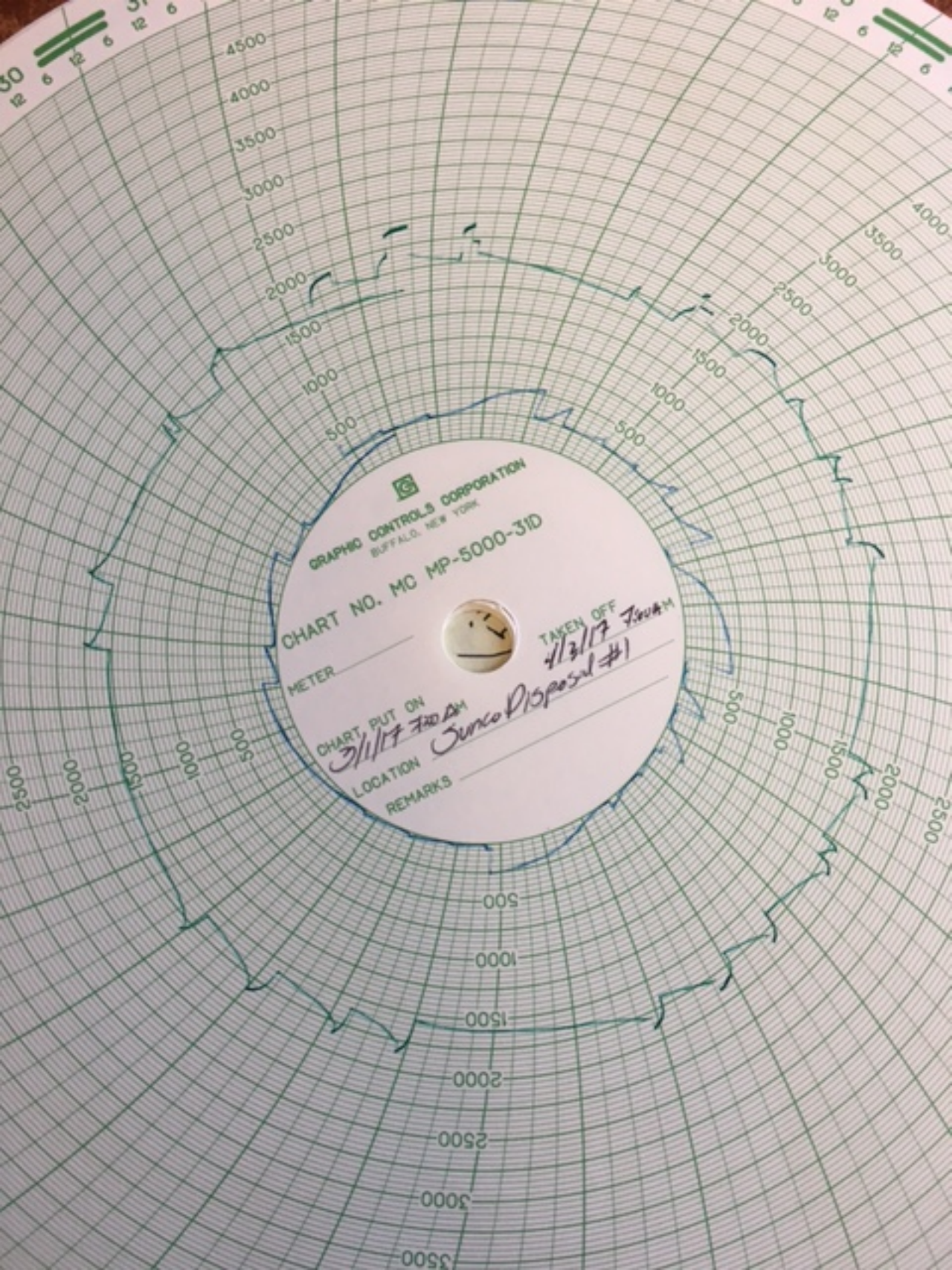
please let me know if you get these...It keeps rejecting the emails I am sending.
---------- Forwarded message ----------
From: **Philana Thompson** <pthompson@merrion.bz>
Date: Mon, Aug 28, 2017 at 4:57 PM
Subject: 1st 2nd qrt
To: Me <pthompson@merrion.bz>

Philana Thompson
Merrion Oil & Gas
Sent from my iPhone

--
Philana Thompson
Regulatory Compliance
Merrion Oil & Gas Corp
cell 505-486-1171
fax 505-324-5300


GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
CHART NO. MC MP-5000-31D
METER
TAKEN
CHART PUT ON
1/12/17 7:04AM
TAKEN OFF
2/1/17 7:04AM
LOCATION
REMARKS


GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
CHART NO. MC MP-5000-31D
METER
CHART PUT ON
2/1/17 7AM
TAKEN OFF
3/1/17 7AM
LOCATION Surco Disposal #1
REMARKS
4500
4000
3500
3000
2500
2000
1500
1000
500
30
29
28
2
3
12 6 12 6 12 6 12 6 12 6 12 6


GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
CHART NO. MC MP-5000-31D
METER
CHART PUT ON
3/1/17 7:10 AM
TAKEN OFF
4/3/17 7:00 AM
LOCATION Sunco Disposal #1
REMARKS

GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

CHART NO. MC MP-5000-31D

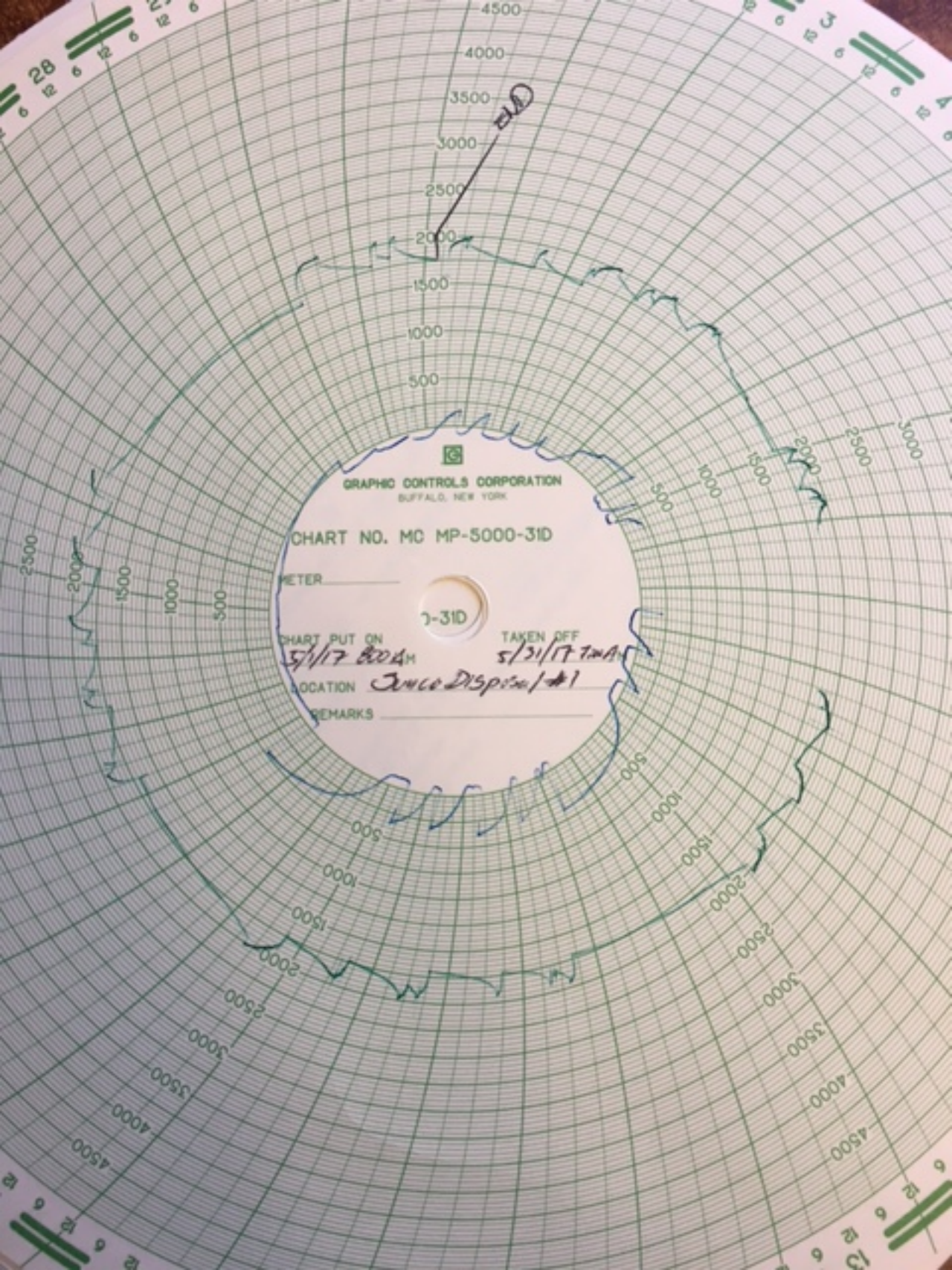
METER -31D

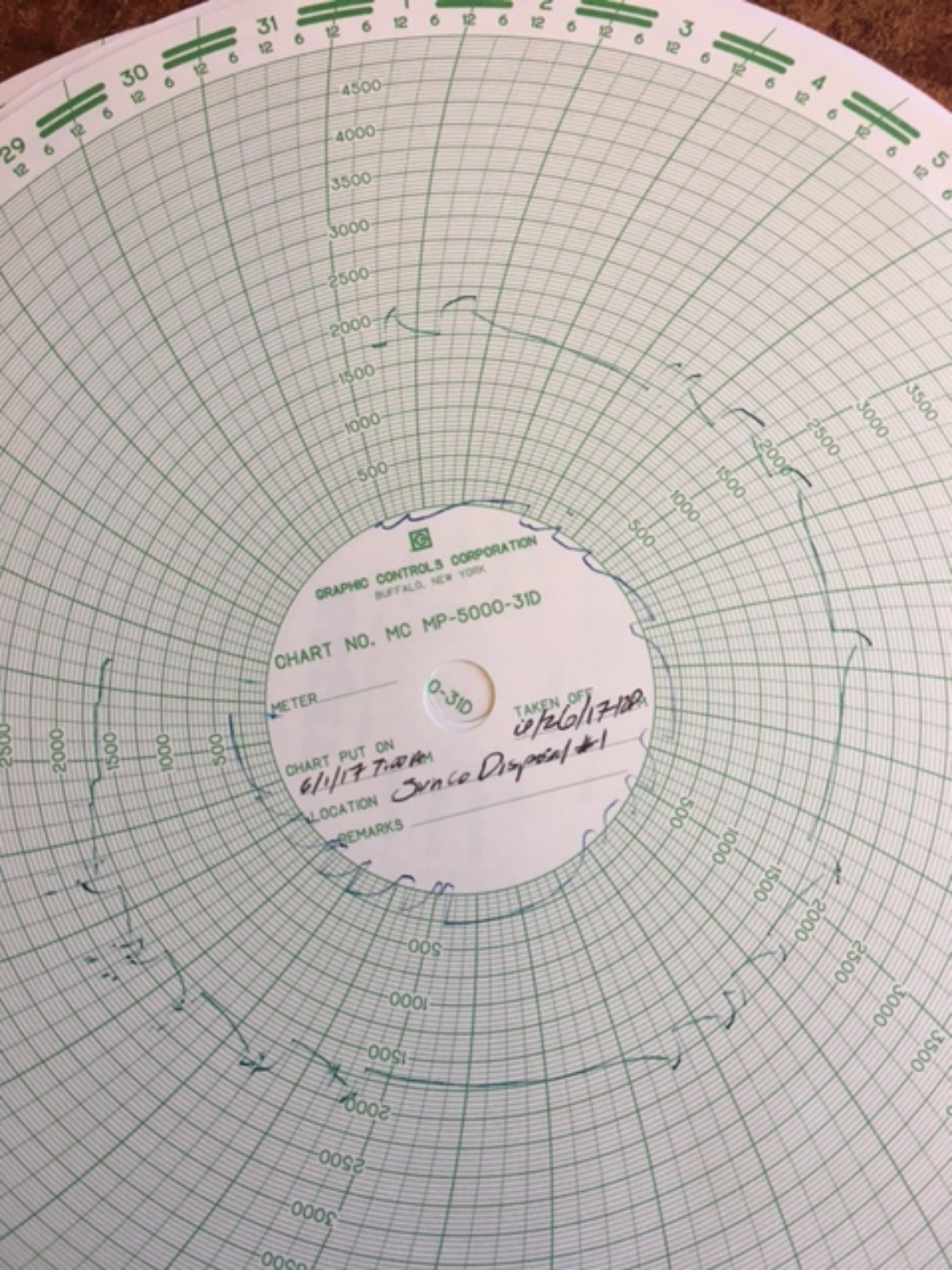
CHART PUT ON 4/13/17 7AM

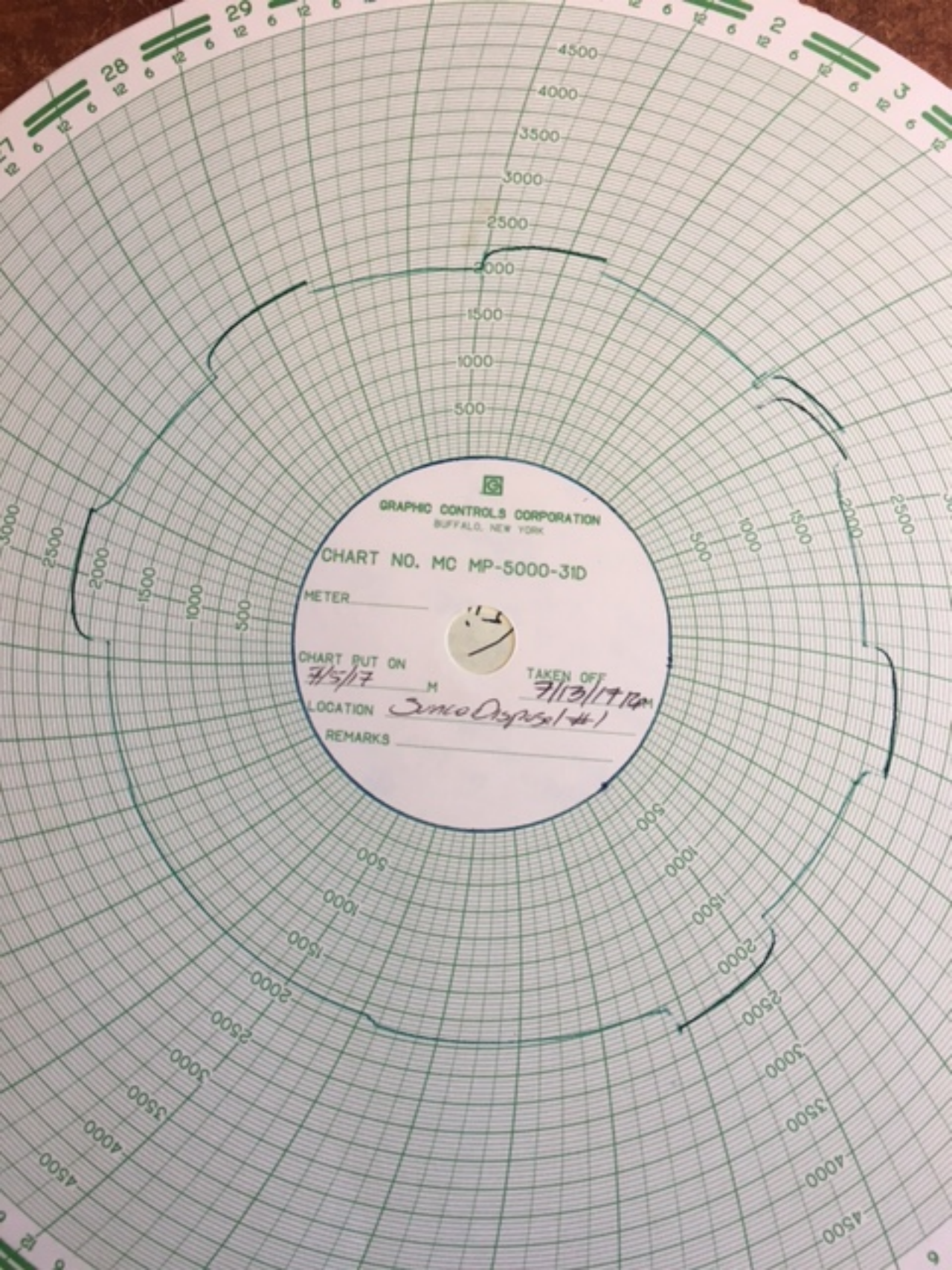
TAKEN OFF 5/1/17 7AM

LOCATION Sunco Disposal #1

REMARKS


GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
CHART NO. MC MP-5000-31D
METER
-31D
CHART PUT ON
5/1/17 8:00AM
TAKEN OFF
5/31/17 7AM
LOCATION Junco Disposal #1
REMARKS


GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
CHART NO. MC MP-5000-31D
METER
0-31D
CHART PUT ON
6/1/17 7:00 AM
TAKEN OFF
6/26/17 10:00 AM
LOCATION
Sunco Disposal #1
REMARKS


GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
CHART NO. MC MP-5000-31D
METER
CHART PUT ON
7/5/17 M
TAKEN OFF
7/13/17 12PM
LOCATION Jones Disposal #1
REMARKS

Chavez, Carl J, EMNRD

From: Philana Thompson <pthompson@merrion.bz>
Sent: Wednesday, August 9, 2017 4:22 PM
To: Chavez, Carl J, EMNRD; Jones, Brad A., EMNRD
Subject: 2017 2nd Quarter Reports UICI-5-0 & NM1-9
Attachments: 2nd QRT Sunco monthly report.pdf; 2017-6-13 Injection Sampling.pdf; 2017-6-13 Landfarm Sampling.pdf

Thank you,
Philana
--
Philana Thompson
Regulatory Compliance
Merrion Oil & Gas Corp
cell 505-486-1171
fax 505-324-5300

UICI-5-0
Agua Moss, LLC
Sunco Disposal #1 30-045-28653

2017
Quarterly
Injection Report

	Average Pressure (psig)	Maximum Pressure (psig)	Minimum Pressure (psig)	Average Flow (gpm)	Maxium Flow (gpm)	Minimum Flow (gpm)	Average Annular Pressure (psig)	Maximum Annular Pressure (psig)	Minimum Annular Pressure (psig)	Average Volume (bpd)	Maximum Volume (bpd)	Minimum Volume (bpd)	Volume (barrels)	Total Cumulative Volume (barrels)	
													Previous year	14433658	
Jan-2017	1756.818	2250	1500	20.1627451	38.47083333	6.5041667	0	0	0	691.2941176	1319	223	11752	14445410	
Feb-2017	1890	2250	1500	20.47960526	36.16666667	1.2541667	0	0	0	702.1578947	1240	43	13341	14458751	
Mar-2017	1817.391	2250	1600	16.76944444	45.96666667	4.2	0	0	0	574.952381	1576	144	12074	14470825	
												Previous Quarter		14470825	
Apr-2017	2182.5	2300	1850	57.60854167	92.925	35.904167	0	0	0	1975.15	3186	1231	39503	14510328	
May-2017	1975	2200	200	19.29242424	37.12916667	5.5708333	0	0	0	661.4545455	1273	191	14552	14524880	
Jun-2017	2069.545	2290	1700	26.95162037	90.53333333	5.8333333	0	0	0	924.0555556	3104	200	16633	14541513	
												Previous Quarter		14541513	
Jul-17	0	0	0	0	0	0	0	0	0	0	0	0	0	14541513	
Aug-17	0	0	0	0	0	0	0	0	0	0	0	0	0	14541513	
Sep-17	0	0	0	0	0	0	0	0	0	0	0	0	0	14541513	
												Previous Quarter		14541513	
Oct-2017	0	0	0	0	0	0	0	0	0	0	0	0	0	14541513	
Nov-2017	0	0	0	0	0	0	0	0	0	0	0	0	0	14541513	
Dec-2017	0	0	0	0	0	0	0	0	0	0	0	0	0	14541513	
												Total for year	**107855**	**14649368**	**Life Of well injected**

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 05, 2017

Heather Woods

Rule Engineering LLC
501 Airport Dr., Ste 205
Farmington, NM 87401
TEL: (505) 325-1055
FAX

RE: Sunco Disposal Well 1 OrderNo.: 1706623

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/13/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,



Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1706623**
Date Reported: **7/5/2017**

CLIENT: Rule Engineering LLC
Client Sample ID: S-4 (6/12/17)
Project: Sunco Disposal Well 1
Collection Date: 6/12/2017 10:30:00 AM
Lab ID: 1706623-001 **Matrix:** AQUEOUS **Received Date:** 6/13/2017 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY						Analyst: **JRR**	
Specific Gravity	1.009	0			1	6/16/2017 11:37:00 AM	R43561
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Fluoride	ND	0.50		mg/L	5	6/13/2017 11:26:57 AM	R43459
Chloride	11000	500	*	mg/L	1E	6/27/2017 3:07:57 PM	R43827
Bromide	14	10		mg/L	100	6/28/2017 4:47:09 AM	R43827
Phosphorus, Orthophosphate (As P)	3.4	2.5		mg/L	5	6/13/2017 11:26:57 AM	R43459
Sulfate	2000	50	*	mg/L	100	6/28/2017 4:47:09 AM	R43827
Nitrate+Nitrite as N	ND	20		mg/L	100	6/28/2017 4:59:33 AM	R43827
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **JRR**	
Conductivity	42000	50		µmhos/cm	10	6/21/2017 2:21:57 AM	R43705
SM2320B: ALKALINITY						Analyst: **JRR**	
Bicarbonate (As CaCO3)	1121	50.00		mg/L CaCO3	2.5	6/21/2017 2:00:55 AM	R43705
Carbonate (As CaCO3)	ND	5.000		mg/L CaCO3	2.5	6/21/2017 2:00:55 AM	R43705
Total Alkalinity (as CaCO3)	1121	50.00		mg/L CaCO3	2.5	6/21/2017 2:00:55 AM	R43705
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	21000	200	*D	mg/L	1	6/15/2017 3:53:00 PM	32279
SM4500-H+B: PH						Analyst: **JRR**	
pH	7.43		H	pH units	1	6/15/2017 6:04:38 PM	R43555
EPA METHOD 200.7: TOTAL METALS						Analyst: **pmf**	
Calcium	1100	100		mg/L	100	6/27/2017 2:31:49 PM	32417
Magnesium	53	5.0		mg/L	5	6/22/2017 8:08:12 PM	32417
Potassium	1100	100		mg/L	100	6/27/2017 2:31:49 PM	32417
Sodium	5600	100		mg/L	100	6/27/2017 2:31:49 PM	32417

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Wet Chemistry by Method 4500 CN E-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Reactive Cyanide	0.0703		0.00500	1	06/20/2017 15:16	WG991122

Wet Chemistry by Method 9034-9030B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Reactive Sulfide	0.199		0.0500	1	06/19/2017 12:38	WG990728

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
Corrosivity by pH	6.88	TS	1	06/16/2017 16:34	WG989423

Sample Narrative:

9040C L915964-01 WG989423: 6.88 at 10.4c

Wet Chemistry by Method D93/1010A

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	deg F			date / time	
Flashpoint	DNF at 170		1	06/21/2017 01:42	WG990892

1 Tc
2 Ss
3 Cn
4 Sr
5 Qc
6 Gl
7 Al
8 Sc

Method Blank (MB)

(MB) R3227150-1 06/20/17 15:11

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Reactive Cyanide	U		0.0018	0.00500

L916570-02 Original Sample (OS) • Duplicate (DUP)

(OS) L916570-02 06/20/17 15:32 • (DUP) R3227150-4 06/20/17 15:35

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Reactive Cyanide	ND	0.000	1	0		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3227150-2 06/20/17 15:12 • (LCSD) R3227150-3 06/20/17 15:13

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Reactive Cyanide	0.100	0.104	0.102	104	102	85-115			2	20

Method Blank (MB)

(MB) R3226738-1 06/19/17 12:35

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Reactive Sulfide	U		0.0065	0.0500

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3226738-2 06/19/17 12:36 • (LCSD) R3226738-3 06/19/17 12:36

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Reactive Sulfide	0.500	0.519	0.518	104	104	85-115			0	20

L916114-02 Original Sample (OS) • Duplicate (DUP)

(OS) L916114-02 06/16/17 16:34 • (DUP) WG989423-3 06/16/17 16:34

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
Corrosivity by pH	1.35	1.34	1	0.743	T8	1

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) WG989423-1 06/16/17 16:34 • (LCSD) WG989423-2 06/16/17 16:34

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	su	su	su	%	%	%			%	%
Corrosivity by pH	6.38	6.36	6.36	99.7	99.7	98.4-102			0.000	1

L917187-02 Original Sample (OS) • Duplicate (DUP)

(OS) L917187-02 06/21/17 01:42 • (DUP) R3227253-3 06/21/17 01:42

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	deg F	deg F		%		%
Flashpoint	DNF at 170	DNF at 170	1	0.000		10

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3227253-1 06/21/17 01:42 • (LCSD) R3227253-2 06/21/17 01:42

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	deg F	deg F	deg F	%	%	%			%	%
Flashpoint	82.0	80.7	80.9	98.0	99.0	96.0-104			0.000	10

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Rec.	Recovery.

Qualifier	Description
T8	Sample(s) received past/too close to holding time expiration.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1706623**

05-Jul-17

Client: Rule Engineering LLC

Project: Sunco Disposal Well 1

Sample ID	**MB-32417**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**32417**	RunNo:	**43729**					
Prep Date:	**6/21/2017**	Analysis Date:	**6/22/2017**	SeqNo:	**1377954**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID	**LCSLL-32417**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**32417**	RunNo:	**43729**					
Prep Date:		Analysis Date:	**6/22/2017**	SeqNo:	**1377955**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0	0.5000	0	99.4	50	150			
Magnesium	ND	1.0	0.5000	0	108	50	150			
Potassium	ND	1.0	0.5000	0	131	50	150			
Sodium	ND	1.0	0.5000	0	114	50	150			

Sample ID	**LCS-32417**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**32417**	RunNo:	**43729**					
Prep Date:	**6/21/2017**	Analysis Date:	**6/22/2017**	SeqNo:	**1377956**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	49	1.0	50.00	0	98.4	85	115			
Magnesium	52	1.0	50.00	0	103	85	115			
Potassium	50	1.0	50.00	0	99.5	85	115			
Sodium	51	1.0	50.00	0	102	85	115			

Sample ID	**1706623-001BMS**	SampType:	**MS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**S-4 (6/12/17)**	Batch ID:	**32417**	RunNo:	**43729**					
Prep Date:	**6/21/2017**	Analysis Date:	**6/22/2017**	SeqNo:	**1377993**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	93	5.0	50.00	53.09	80.5	70	130			

Sample ID	**1706623-001BMSD**	SampType:	**MSD**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**S-4 (6/12/17)**	Batch ID:	**32417**	RunNo:	**43729**					
Prep Date:	**6/21/2017**	Analysis Date:	**6/22/2017**	SeqNo:	**1377994**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	97	5.0	50.00	53.09	87.8	70	130	3.86	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1706623**

05-Jul-17

Client: Rule Engineering LLC

Project: Sunco Disposal Well 1

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R43459**	RunNo: **43459**
Prep Date:	Analysis Date: **6/13/2017**	SeqNo: **1369367** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R43459**	RunNo: **43459**
Prep Date:	Analysis Date: **6/13/2017**	SeqNo: **1369368** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.55	0.10	0.5000	0	109	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.6	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R43827**	RunNo: **43827**
Prep Date:	Analysis Date: **6/27/2017**	SeqNo: **1381049** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Bromide	ND	0.10								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R43827**	RunNo: **43827**
Prep Date:	Analysis Date: **6/27/2017**	SeqNo: **1381050** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.3	90	110			
Bromide	2.4	0.10	2.500	0	95.5	90	110			
Sulfate	9.4	0.50	10.00	0	94.1	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	94.6	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R43827**	RunNo: **43827**
Prep Date:	Analysis Date: **6/27/2017**	SeqNo: **1381917** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Bromide	ND	0.10								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1706623**

05-Jul-17

Client: Rule Engineering LLC

Project: Sunco Disposal Well 1

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R43827**	RunNo: **43827**
Prep Date:	Analysis Date: **6/27/2017**	SeqNo: **1381918** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.7	90	110			
Bromide	2.5	0.10	2.500	0	99.8	90	110			
Sulfate	9.8	0.50	10.00	0	98.1	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1706623**

05-Jul-17

Client: Rule Engineering LLC

Project: Sunco Disposal Well 1

Sample ID **mb-1**	SampType: **mblk**	TestCode: **SM2320B: Alkalinity**							
Client ID: **PBW**	Batch ID: **R43705**	RunNo: **43705**							
Prep Date:	Analysis Date: **6/20/2017**	SeqNo: **1376590**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID **lcs-1**	SampType: **lcs**	TestCode: **SM2320B: Alkalinity**							
Client ID: **LCSW**	Batch ID: **R43705**	RunNo: **43705**							
Prep Date:	Analysis Date: **6/20/2017**	SeqNo: **1376591**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.00	20.00	80.00	0	97.5	90	110			

Sample ID **mb-2**	SampType: **mblk**	TestCode: **SM2320B: Alkalinity**							
Client ID: **PBW**	Batch ID: **R43705**	RunNo: **43705**							
Prep Date:	Analysis Date: **6/20/2017**	SeqNo: **1376614**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID **lcs-2**	SampType: **lcs**	TestCode: **SM2320B: Alkalinity**							
Client ID: **LCSW**	Batch ID: **R43705**	RunNo: **43705**							
Prep Date:	Analysis Date: **6/20/2017**	SeqNo: **1376615**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.28	20.00	80.00	0	97.9	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1706623**

05-Jul-17

Client: Rule Engineering LLC

Project: Sunco Disposal Well 1

Sample ID	**MB-32279**	SampType:	**MBLK**	TestCode:	**SM2540C MOD: Total Dissolved Solids**					
Client ID:	**PBW**	Batch ID:	**32279**	RunNo:	**43539**					
Prep Date:	**6/14/2017**	Analysis Date:	**6/15/2017**	SeqNo:	**1371252**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	**LCS-32279**	SampType:	**LCS**	TestCode:	**SM2540C MOD: Total Dissolved Solids**					
Client ID:	**LCSW**	Batch ID:	**32279**	RunNo:	**43539**					
Prep Date:	**6/14/2017**	Analysis Date:	**6/15/2017**	SeqNo:	**1371253**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1030	20.0	1000	0	103	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: RULE ENGINEERING LL Work Order Number: **1706623** RcptNo: 1

Received By: **Anne Thorne** 6/13/2017 7:55:00 AM

Completed By: **Ashley Gallegos** 6/13/2017 8:49:15 AM

Reviewed By: ENM 06/13/17

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	~~Yes~~ ☑	No ☑ SRC	
9. Was preservative added to bottles?	Yes ☑	~~No~~ ☑ SRC	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 2, 2 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? yes
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: SRC

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks: For metals analysis: Added 1 mL HNO_3 to -001B for acceptable pH. Held for 24 hrs prior to analysis. 06/13/17 @ 0925 SRC. For corr analysis: Added 6 pellets of NaOH for acceptable pH. SRC 06/13/17 to -001C

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Rule Engineering LLC

Mailing Address: 501 Airport Dr. Ste 205
Farmington, NM 87401

Phone #: (505) 716-2787

email or Fax#: hwoods@ruleengineering.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name:
Sunco Disposal Well #1

Project #:

Project Manager:
Heather Woods

Sampler: Heather Woods
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1706623	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	See Remarks	ACT			Air Bubbles (Y or N)
6/12/17	1030	Water	S-4 (6/12/17)	(2) 500mL Plastic - Non		-001												X	X			
				(1) 500mL Plastic - HNO_3																		
				(1) 500mL Plastic - NaOH																		
				(1) 500mL Plastic - Zinc Acetate + NaOH																		
				(1) 125mL Plastic - H_2SO_4																		

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/12/17	1730	Heath M. Woods	Mindy Walt	6/12/17	1730
Date:	Time:	Relinquished by:	Received by:	Date	Time
6/12/17	1817	Mindy Walt		06/13/17	0755

Remarks: Analyze for: pH, Eh, specific conductantes, specific gravity, and cations/anions including flouride, calcium, potassium, magnesium, sodium bicarbonate, carbonate, Chloride, sulfate, TDS, cation/anion balance and bromide. Rates per Andy. Direct bill to Agua Moss.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

For Sunco Landfarm:

TPH for treatment zone samples have ranged from DRO of 200 to 500 mg/kg and GRO of 1,000 to 2,500 mg/kg.

Chlorides for all samples have ranged from 10 to 900 mg/kg.

BTEX for the vadose zone samples is typically low. I need the detection limits for benzene, toluene, and ethylbenzene below 0.01 mg/kg. I need the detection limits for xylenes below 0.01 mg/kg or as low as you can get them since that is unrealistic.

TPH detection limits for the vadose zone samples should be as close as you can get to 0.1 mg/kg (which I know is also unrealistic).

For Sunco Disposal Well #1:

The sample from last quarter exceeded the maximum contaminant level of 17,000 mg/L for chloride and 1,100 mg/L for sulfate. If you can extend the maximum contaminant level by dilution or other method, please do so. Please refer to lab order 1612861 for additional info on typical concentrations for this water.

Please call with any questions.

Many Thanks,

Heather

UICI-5-0
Agua Moss, LLC
Sunco Disposal #1 30-045-28653

2015
Quarterly
Injection Report

	Average Pressure (psig)	Maximum Pressure (psig)	Minimum Pressure (psig)	Average Flow (gpm)	Maxium Flow (gpm)	Minimum Flow (gpm)	Average Annular Pressure (psig)	Maximum Annular Pressure (psig)	Minimum Annular Pressure (psig)	Average Volume (bpd)	Maximum Volume (bpd)	Minimum Volume (bpd)	Volume (barrels)	Total Cumulative Volume (barrels)	
													Previous year	13471572	
Jan-2015	1674.545	1750	1600	18.70277778	32.2875	4.725	0	0	0	641.2381	1107	162	13466	13485038	
Feb-2015	1678.5	1750	1600	15.855	26.36666667	7.2041667	0	0	0	543.6	904	247	10872	13495910	
Mar-2015	1638.636	1750	1600	17.79034091	32.725	5.075	0	0	0	609.9545	1122	174	13419	13509329	
													Previous Quarter	13509329	
Apr-2015	#DIV/0!	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13509329	
May-2015	#DIV/0!	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13509329	
Jun-2015	#DIV/0!	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13509329	
													Previous Quarter	13509329	
Jul-15	#DIV/0!	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13509329	
Aug-15	#DIV/0!	0	0	0	0	0	0	0	0	#DIV/0!	0	0	0	13509329	
Sep-15	#DIV/0!	0	0	0	0	0	0	0	0	#DIV/0!	0	0	0	13509329	
													Previous Quarter	13509329	
Oct-2015	#DIV/0!	0	0	0	0	0	0	0	0	#DIV/0!	0	0	0	13509329	
Nov-2015	#DIV/0!	0	0	0	0	0	0	0	0	#DIV/0!	0	0	0	13509329	
Dec-2015	#DIV/0!	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13509329	
												Total for year	**37757**	**13547086**	**Life Of well injected**

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April 23, 2015 Number: 07117-0027

Ms. Philana Thompson
Regulatory Compliance
Agua Moss
P.O. Box 600
Farmington, New Mexico 87499 Phone: (505) 324-5336

RE: FIRST QUARTER INJECTED FLUIDS SAMPLING AND ANALYTICAL RESULTS, AGUA MOSS, SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Thompson:

Enclosed please find the Table 1, Summary of Analytical Results, analytical results, and field notes for the injected fluids located at the Agua Moss Facility in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico. Activities included sample collection and analysis, documentation and reporting, in alignment with the analyses and procedures that were in accordance with the Agua Moss, LLC Sunco Disposal Well No. 1 Discharge Permit UICI-005.

If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully submitted,
ENVIROTECH, INC.

Greg Crabtree, PE
Environmental Manager
gcrabtree@envirotech-inc.com

Enclosures: Table 1, Summary of Analytical Results
Analytical Results
Field Notes

Cc: Client File Number: 07117

Table 1, Summary of Analytical Results
First Quarter Injected Fluids Sampling
Agua Moss
San Juan County, New Mexico
Project No. 07117-0027

Contaminant of Concern	Units	Sample Location
		Injection Fluid (4/10/15)
pH*	(s.u.)	6.9
ORP*	mV	-121.4
Specific Conductance*	mS	35.41
Temperature*	°F	65.75
Specific Gravity	ratio	1.003
Conductivity @ 25 °C	umhos/cm	34000
Total Dissolved Solids @ 180 °C	mg/L	21800
Sodium Absorption Ratio	ratio	61.5
Total Alkalinity as CaCO3	mg/L	2900
Total Hardness as CaCO3	mg/L	7833
Bicarbonate as CaCO3	mg/L	2900
Carbonate as CaCO3	mg/L	<10
Hydroxide as CaCO3	mg/L	<10
Nitrate Nitrogen	mg/L	<10
Nitrite Nitrogen	mg/L	<10
Chloride	mg/L	13300
Fluoride	mg/L	<10
Phosphate	mg/L	<50
Sulfate	mg/L	<100
Iron	mg/L	0.18
Calcium	mg/L	133
Magnesium	mg/L	34.6
Potassium	mg/L	46.2
Sodium	mg/L	3080
Bromide	mg/L	27.6
* Field Measurement		

Table 1, Summary of Analytical Results
First Quarter Injected Fluids Sampling
Agua Moss
San Juan County, New Mexico
Project No. 07117-0027

Contaminant of Concern	Units	Sample Location
		Injection Fluid (4/10/15)
Flash Point	°C	>95
Reactivity		negative
Arsenic	mg/L	<0.01
Barium	mg/L	21.2
Cadmium	mg/L	<0.01
Chromium	mg/L	<0.01
Lead	mg/L	<0.01
Mercury	mg/L	<0.0002
Selinium	mg/L	<0.01
Silver	mg/L	<0.01
Benzene	mg/L	7.67
Carbon Tetrachloride	mg/L	<0.05
Chlorobenzene	mg/L	<0.05
1,2-Dichloroethane	mg/L	<0.25
1,1-Dichloroethene	mg/L	<0.05
2-Butanone (MEK)	mg/L	<0.5
Tetrachloroethene	mg/L	<0.05
Trichloroethene	mg/L	<0.05
Vinyl Chloride	mg/L	<0.05
1,4-Dichlorobenzene	mg/L	<0.1
2,4-Dinitrotoluene	mg/L	<0.1
Hexachlorobenzene	mg/L	<0.1
Hexachloro-1,3-butadiene	mg/L	<0.1
Hexachloroethane	mg/L	<0.1
Nitrobenzene	mg/L	<0.1
Pyridine	mg/L	<0.1
3&4-Methyl Phenol	mg/L	<0.1
2-Methylphenol	mg/L	0.13
Pentachlorophenol	mg/L	<0.1
2,4,5-Trichlorophenol	mg/L	<0.1
2,4,6-Trichlorophenol	mg/L	<0.1

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Analytical Laboratory

Analytical Report

Report Summary

Client: Agua Moss LLC

Chain Of Custody Number:

Samples Received: 4/10/2015 2:36:00PM

Job Number: 07117-0027

Work Order: P504035

Project Name/Location: 1st Quarter Injection Fluid

Entire Report Reviewed By: _____ Date: 4/16/15

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 4/16/15 3:05 pm

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

Agua Moss LLC	Project Name:	1st Quarter Injection Fluid	
PO Box 600	Project Number:	07117-0027	**Reported:**
Farmington NM, 87499	Project Manager:	Isaac Garcia	16-Apr-15 15:07

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Injection Fluid	P504035-01A	Aqueous	04/10/15	04/10/15	Amber, 1L
	P504035-01B	Aqueous	04/10/15	04/10/15	Amber, 1L
	P504035-01C	Aqueous	04/10/15	04/10/15	Poly, 1000mL
	P504035-01D	Aqueous	04/10/15	04/10/15	Poly, 1000mL
	P504035-01E	Aqueous	04/10/15	04/10/15	Poly 125mL
	P504035-01F	Aqueous	04/10/15	04/10/15	Poly 500mL
	P504035-01G	Aqueous	04/10/15	04/10/15	Voa vial, 40mL, HCl
	P504035-01H	Aqueous	04/10/15	04/10/15	Voa vial, 40mL, HCl
	P504035-01I	Aqueous	04/10/15	04/10/15	Voa vial, 40mL, HCl
	P504035-01J	Aqueous	04/10/15	04/10/15	Poly 250mL; HNO3

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Analytical Laboratory

Agua Moss LLC	Project Name:	1st Quarter Injection Fluid	
PO Box 600	Project Number:	07117-0027	**Reported:**
Farmington NM, 87499	Project Manager:	Isaac Garcia	16-Apr-15 15:07

Injection Fluid

P504035-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TCLP Metals									
Arsenic	ND	0.01	mg/L	1	1516016	04/15/15	04/15/15	EPA 6010C	
Barium	**21.2**	0.05	mg/L	1	1516016	04/15/15	04/15/15	EPA 6010C	
Cadmium	ND	0.01	mg/L	1	1516016	04/15/15	04/15/15	EPA 6010C	
Chromium	ND	0.01	mg/L	1	1516016	04/15/15	04/15/15	EPA 6010C	
Lead	ND	0.01	mg/L	1	1516016	04/15/15	04/15/15	EPA 6010C	
Selenium	ND	0.01	mg/L	1	1516016	04/15/15	04/15/15	EPA 6010C	
Silver	ND	0.01	mg/L	1	1516016	04/15/15	04/15/15	EPA 6010C	
Cation/Anion Analysis									
pH @7.6°C	**7.08**		pH Units	1	1516003	04/13/15 10:55	04/13/15 10:55	150.1/4500H	H1
Electrical Conductivity	**34000**		umhos/cm	1	1516003	04/13/15 10:55	04/13/15 10:55	EPA 120.1	H1
Total Dissolved Solids	**21800**	10.0	mg/L	1	1516005	04/13/15	04/13/15	160.1/2540C	
Sodium Absorption Ratio	**61.5**		N/A	1	1516020	04/15/15	04/15/15	[CALC]	
Total Alkalinity as CaCO3	**2900**	10.0	mg/L	1	1516008	04/13/15	04/13/15	Hach Method 8203	
Bicarbonate as CaCO3	**2900**	10.0	mg/L	1	1516008	04/13/15	04/13/15	Hach Method 8203	
Carbonate as CaCO3	ND	10.0	mg/L	1	1516008	04/13/15	04/13/15	Hach Method 8203	
Hydroxide as CaCO3	ND	10.0	mg/L	1	1516008	04/13/15	04/13/15	Hach Method 8203	
Nitrate-N	ND	10.0	mg/L	100	1516004	04/13/15 11:07	04/13/15 13:34	EPA 300.0	H2
Nitrite-N	ND	10.0	mg/L	100	1516004	04/13/15 11:07	04/13/15 13:34	EPA 300.0	H2
Bromide	**27.6**	10.0	mg/L	100	1516004	04/13/15	04/13/15	EPA 300.0	
Chloride	**13300**	100	mg/L	100	1516004	04/13/15	04/13/15	EPA 300.0	
Fluoride	ND	10.0	mg/L	100	1516004	04/13/15	04/13/15	EPA 300.0	
o-Phosphate	ND	50.0	mg/L	100	1516004	04/13/15 11:07	04/13/15 13:34	EPA 300.0	H2
Sulfate	ND	100	mg/L	100	1516004	04/13/15	04/13/15	EPA 300.0	
Iron	**0.18**	0.01	mg/L	1	1516016	04/15/15	04/15/15	EPA 6010C	
Calcium	**133**	0.01	mg/L	1	1516016	04/15/15	04/15/15	EPA 6010C	
Magnesium	**34.6**	0.01	mg/L	1	1516016	04/15/15	04/15/15	EPA 6010C	
Potassium	**46.2**	0.01	mg/L	1	1516016	04/15/15	04/15/15	EPA 6010C	
Sodium	**3080**	0.01	mg/L	1	1516016	04/15/15	04/15/15	EPA 6010C	

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Analytical Laboratory

Agua Moss LLC	Project Name:	1st Quarter Injection Fluid	
PO Box 600	Project Number:	07117-0027	**Reported:**
Farmington NM, 87499	Project Manager:	Isaac Garcia	16-Apr-15 15:07

Injection Fluid

P504035-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Waste Characteristic									
Flash Point	>95		°C	1	1516027	04/16/15	04/16/15	ASTM D93-10a	
Reactivity	Negative		N/A	1	1516027	04/16/15	04/16/15		
Wet Chemistry									
Specific Gravity	1.003		N/A	1	1516009	04/13/15	04/13/15	STD Meth 2710F	
TCLP Mercury by EPA 7470A									
Mercury	ND	0.0002	mg/L	1	1516019	04/15/15	04/16/15	EPA 7470A	

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Agua Moss LLC	Project Name:	1st Quarter Injection Fluid	
PO Box 600	Project Number:	07117-0027	**Reported:**
Farmington NM, 87499	Project Manager:	Isaac Garcia	16-Apr-15 15:07

TCLP Metals - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1516016 - Metal Water/TCLP (EPA 1311) Digestion EPA 3015A										
Blank (1516016-BLK1)				Prepared & Analyzed: 15-Apr-15						
Arsenic	ND	0.01	mg/L							
Barium	ND	0.05	"							
Cadmium	ND	0.01	"							
Chromium	ND	0.01	"							
Lead	ND	0.01	"							
Selenium	ND	0.01	"							
Silver	ND	0.01	"							
Duplicate (1516016-DUP1)		Source: P504038-01		Prepared & Analyzed: 15-Apr-15						
Arsenic	ND	0.01	mg/L		ND				30	
Barium	65.9	0.05	"		65.6			0.389	30	
Cadmium	ND	0.01	"		ND				30	
Chromium	0.02	0.01	"		0.02			8.04	30	
Lead	ND	0.01	"		ND				30	
Selenium	ND	0.01	"		ND				30	
Silver	ND	0.01	"		ND				30	
Matrix Spike (1516016-MS1)		Source: P504038-01		Prepared & Analyzed: 15-Apr-15						
Arsenic	0.27		mg/L	0.250	0.007	103	75-125			
Barium	60.8		"	5.00	56.1	94.3	75-125			
Cadmium	0.23		"	0.250	0.00009	91.6	75-125			
Chromium	0.47		"	0.500	0.02	90.2	75-125			
Lead	0.44		"	0.500	0.003	87.7	75-125			
Selenium	0.10		"	0.100	0.006	92.8	75-125			
Silver	0.09		"	0.100	0.0002	88.4	75-125			

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Agua Moss LLC	Project Name:	1st Quarter Injection Fluid	
PO Box 600	Project Number:	07117-0027	**Reported:**
Farmington NM, 87499	Project Manager:	Isaac Garcia	16-Apr-15 15:07

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1516004 - Anion Extraction EPA 300.0										
Blank (1516004-BLK1)				Prepared & Analyzed: 13-Apr-15						
Nitrate-N	ND	0.10	mg/L							
Nitrite-N	ND	0.10	"							
Bromide	ND	0.10	"							
Chloride	ND	1.00	"							
Fluoride	ND	0.10	"							
o-Phosphate	ND	0.50	"							
Sulfate	ND	1.00	"							
LCS (1516004-BS1)				Prepared & Analyzed: 13-Apr-15						
Nitrate-N	4.79	0.10	mg/L	5.00		95.8	90-110			
Nitrite-N	5.05	0.10	"	5.00		101	90-110			
Bromide	4.75	0.10	"	5.00		95.0	90-110			
Chloride	50.9	1.00	"	50.0		102	90-110			
Fluoride	5.06	0.10	"	5.00		101	90-110			
o-Phosphate	24.1	0.50	"	25.0		96.5	90-110			
Sulfate	49.8	1.00	"	50.0		99.6	90-110			
Matrix Spike (1516004-MS1)	Source: P504035-01			Prepared & Analyzed: 13-Apr-15						
Nitrate-N	483	10.0	mg/L	500	ND	96.5	80-120			
Nitrite-N	503	10.0	"	500	ND	101	80-120			
Bromide	512	10.0	"	500	27.6	97.0	80-120			
Chloride	18400	100	"	5000	13300	103	80-120			
Fluoride	517	10.0	"	500	ND	103	80-120			
o-Phosphate	2440	50.0	"	2500	ND	97.5	80-120			
Sulfate	5040	100	"	5000	ND	101	80-120			
Matrix Spike Dup (1516004-MSD1)	Source: P504035-01			Prepared & Analyzed: 13-Apr-15						
Nitrate-N	484	10.0	mg/L	500	ND	96.8	80-120	0.290	20	
Nitrite-N	505	10.0	"	500	ND	101	80-120	0.516	20	
Bromide	512	10.0	"	500	27.6	96.8	80-120	0.117	20	
Chloride	18300	100	"	5000	13300	99.4	80-120	0.862	20	
Fluoride	517	10.0	"	500	ND	103	80-120	0.0387	20	
o-Phosphate	2440	50.0	"	2500	ND	97.7	80-120	0.254	20	
Sulfate	5050	100	"	5000	ND	101	80-120	0.238	20	

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Agua Moss LLC	Project Name:	1st Quarter Injection Fluid	
PO Box 600	Project Number:	07117-0027	**Reported:**
Farmington NM, 87499	Project Manager:	Isaac Garcia	16-Apr-15 15:07

TCLP Mercury by EPA 7470A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1516019 - Mercury Water/TCLP Digestion KMNO4										
Blank (1516019-BLK1)				Prepared: 15-Apr-15 Analyzed: 16-Apr-15						
Mercury	ND	0.0002	mg/L							
LCS (1516019-BS1)				Prepared: 15-Apr-15 Analyzed: 16-Apr-15						
Mercury	0.002	0.0002	mg/L	0.00229		103	80-120			
Matrix Spike (1516019-MS1)	Source: P504035-01			Prepared: 15-Apr-15 Analyzed: 16-Apr-15						
Mercury	ND	0.0002	mg/L	0.00229	ND		75-125			SPK1
Matrix Spike Dup (1516019-MSD1)	Source: P504035-01			Prepared: 15-Apr-15 Analyzed: 16-Apr-15						
Mercury	ND	0.0002	mg/L	0.00229	ND		75-125		15	SPK1

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Agua Moss LLC	Project Name:	1st Quarter Injection Fluid	
PO Box 600	Project Number:	07117-0027	**Reported:**
Farmington NM, 87499	Project Manager:	Isaac Garcia	16-Apr-15 15:07

Notes and Definitions

SPK1	The spike recovery is outside of quality control limits.
H2	Sample was analyzed after regulatory hold-time exceeded for target analyte.
H1	Sample was received after regulatory hold-time exceeded for target analyte.
FP1	>95
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

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Client: Agua Moss

Project: 1st Quarter Injection Fluid sampling

Sampler: P. Garcia

Phone:

Email(s): Isaac G.

Project Manager: Cory Crabtree

RUSH? [X] 1d [ ] 3d

Page 1 of 1

Lab Use Only	Analysis and Method										lab Only	
Lab WO# P504035	GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0	Cations / Anions, Sparg. Gas by 14	TCLP and 1311P	RCI	Reactivity Sulfide	Reactivity Cyanide		Lab Number	Correct Cont/Prsrv (s) Y/N
Job Number 07117-0027												

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative												
Injection Fluid	4/10/15	1:40	A	1-500 ml/poly/cool					X						1	
				2 3 40ml / 1-250	amber VOA poly	cool HCL HNO3				X					1	
				1-125/poly/cool							X				1	
				1-Liter/poly/cool								X			1	
				1-Liter/poly/cool									X		1	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	4/10/15	14:36	[signature]	4/10/15	1436
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only

**Received on Ice (Y) / N

T1 1.5 T2 16.9 T3 20.1

AVG Temp °C

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

[ ] Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing info:

envirotech Analytical Laboratory

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865

Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fx (800) 362-1879

ANALYTICAL REPORT

April 15, 2015

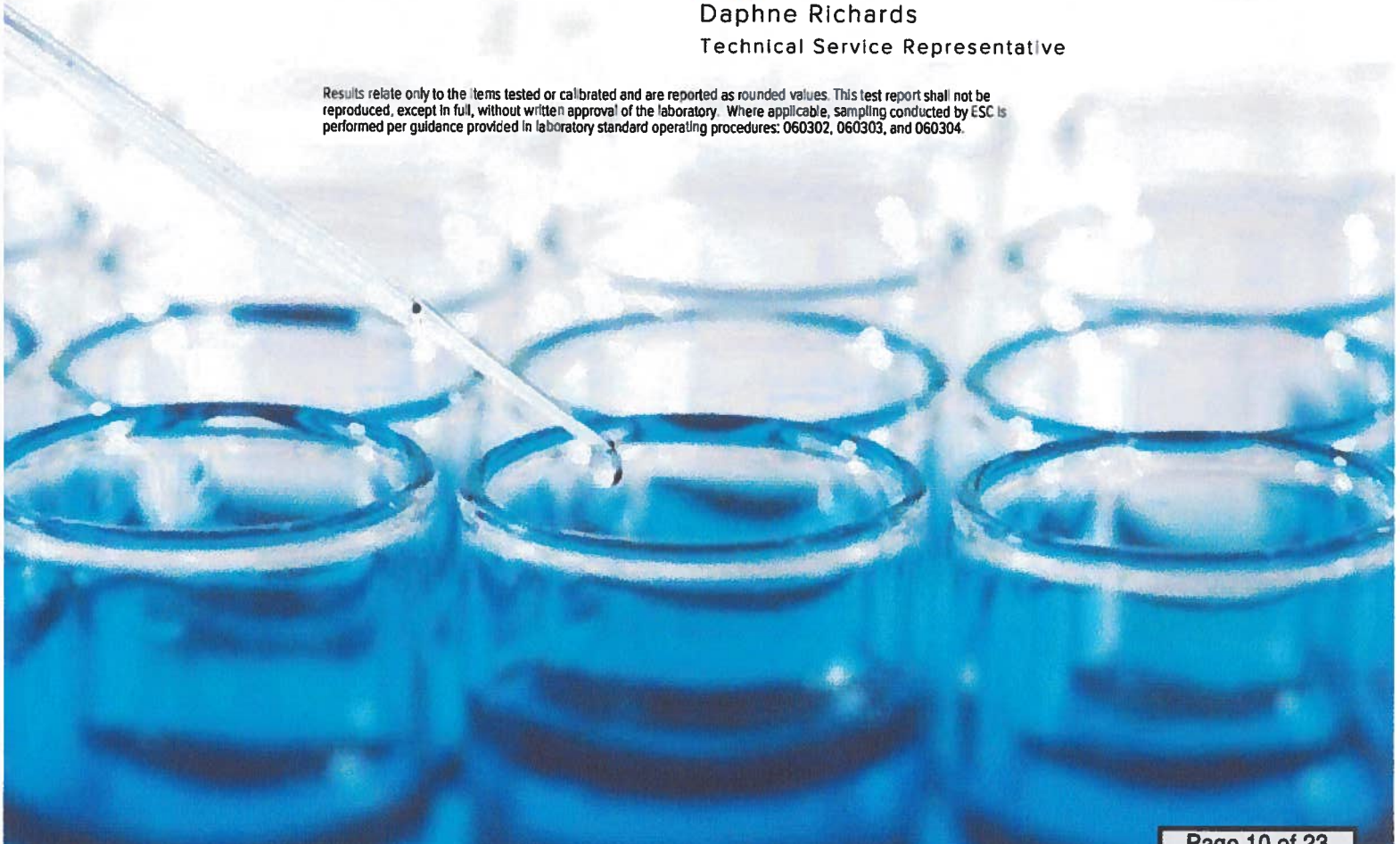
EnviroTech- NM

Sample Delivery Group:	L758699
Samples Received:	04/11/2015
Project Number:	07117-0027
Description:	1st Quarter Injection Fluid Sampling
Site:	P504035
Report To:	Lynn Cook 5796 US. Highway 64 Farmington, NM 87401

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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INJECTION FLUID L758699-01 WW

Collected by: I. Garcia
Collected date/time: 04/10/15 13:40
Received date/time: 04/11/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Preparation by Method 1311	WG781700	1	04/13/15 11:49	04/13/15 15:06	LJN
Preparation by Method 1311	WG781701	1	04/13/15 11:38	04/13/15 15:06	LJN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG781730	1	04/14/15 17:32	04/15/15 07:42	ADF
Volatile Organic Compounds (GC/MS) by Method 8260B	WG781992	1	04/14/15 12:42	04/14/15 12:42	MCB
Wet Chemistry by Method 9012B/SW846 7.3.2	WG781589	1	04/14/15 11:35	04/14/15 14:26	MCG
Wet Chemistry by Method 9034/9030B	WG781590	1	04/14/15 11:40	04/14/15 14:59	AS

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne R Richards

Daphne Richards
Technical Service Representative

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		4/13/2015 11:38:19 AM	WG781701
TCLP ZHE Extraction	-		4/13/2015 11:49:23 AM	WG781700

Wet Chemistry by Method 9012B/SW846 7.3.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Reactive CN (SW846 7.3.3.2)	ND		0.125	1	04/14/2015 14:26	WG781589

Wet Chemistry by Method 9034/9030B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Reactive Sulf.(SW846 7.3.4.1)	ND		25.0	1	04/14/2015 14:59	WG781590

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Benzene	7.67	V	0.0500	0.50	1	04/14/2015 12:42	WG781992
Carbon tetrachloride	ND		0.0500	0.50	1	04/14/2015 12:42	WG781992
Chlorobenzene	ND		0.0500	100	1	04/14/2015 12:42	WG781992
Chloroform	ND		0.250	6	1	04/14/2015 12:42	WG781992
1,2-Dichloroethane	ND		0.0500	0.50	1	04/14/2015 12:42	WG781992
1,1-Dichloroethene	ND		0.0500	0.70	1	04/14/2015 12:42	WG781992
2-Butanone (MEK)	ND	J4	0.500	200	1	04/14/2015 12:42	WG781992
Tetrachloroethene	ND		0.0500	0.70	1	04/14/2015 12:42	WG781992
Trichloroethene	ND		0.0500	0.50	1	04/14/2015 12:42	WG781992
Vinyl chloride	ND		0.0500	0.20	1	04/14/2015 12:42	WG781992
(S) Toluene-d8	*104*		*88.5-111*	*114*		*04/14/2015 12:42*	WG781992
(S) Dibromofluoromethane	*102*		*78.3-121*	*125*		*04/14/2015 12:42*	WG781992
(S) a,a,a-Trifluorotoluene	*103*		*85.0-114*	*114*		*04/14/2015 12:42*	WG781992
(S) 4-Bromofluorobenzene	*99.7*		*71.0-126*	*128*		*04/14/2015 12:42*	WG781992

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		0.100	7.50	1	04/15/2015 07:42	WG781730
2,4-Dinitrotoluene	ND		0.100	0.13	1	04/15/2015 07:42	WG781730
Hexachlorobenzene	ND		0.100	0.13	1	04/15/2015 07:42	WG781730
Hexachloro-1,3-butadiene	ND		0.100	0.50	1	04/15/2015 07:42	WG781730
Hexachloroethane	ND		0.100	3	1	04/15/2015 07:42	WG781730
Nitrobenzene	ND		0.100	2	1	04/15/2015 07:42	WG781730
Pyridine	ND		0.100	5	1	04/15/2015 07:42	WG781730
3&4-Methyl Phenol	ND		0.100	400	1	04/15/2015 07:42	WG781730
2-Methylphenol	0.130		0.100	200	1	04/15/2015 07:42	WG781730
Pentachlorophenol	ND		0.100	100	1	04/15/2015 07:42	WG781730
2,4,5-Trichlorophenol	ND		0.100	400	1	04/15/2015 07:42	WG781730
2,4,6-Trichlorophenol	ND		0.100	2	1	04/15/2015 07:42	WG781730
(S) 2-Fluorophenol	*34.7*		*10.0-77.9*	*87*		*04/15/2015 07:42*	WG781730
(S) Phenol-d5	*27.9*		*5.00-70.1*	*67*		*04/15/2015 07:42*	WG781730
(S) Nitrobenzene-d5	*60.0*		*21.8-123*	*120*		*04/15/2015 07:42*	WG781730
(S) 2-Fluorobiphenyl	*73.8*		*29.5-131*	*122*		*04/15/2015 07:42*	WG781730
(S) 2,4,6-Tribromophenol	*74.2*		*11.2-130*	*148*		*04/15/2015 07:42*	WG781730
(S) p-Terphenyl-d14	*79.0*		*29.3-137*	*149*		*04/15/2015 07:42*	WG781730

Method Blank (MB)

(MB) 04/14/15 14:21

Analyte	MB Result	MB Qualifier	MB RDL
	mg/l		mg/l
Reactive CN (SW846 7.3.3.2)	ND		0.125

L758628-01 Original Sample (OS) • Duplicate (DUP)

(OS) 04/14/15 14:22 • (DUP) 04/14/15 14:23

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Reactive CN (SW846 7.3.3.2)	ND	ND	1	0.00		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/14/15 13:50 • (LCSD) 04/14/15 13:51

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Reactive CN (SW846 7.3.3.2)	0.100	0.104	0.100	104	100	90.0-110			3.92	20

Method Blank (MB)

(MB) 04/14/15 14:59

Analyte	MB Result	MB Qualifier	MB RDL
	mg/l		mg/l
Reactive Sulf.(SW846 7.3.4.1)	ND		25.0

L758628-01 Original Sample (OS) • Duplicate (DUP)

(OS) 04/14/15 14:59 • (DUP) 04/14/15 14:59

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Reactive Sulf.(SW846 7.3.4.1)	ND	ND	1	0.00		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/14/15 14:59 • (LCSD) 04/14/15 14:59

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Reactive Sulf.(SW846 7.3.4.1)	100	93.9	99.9	94.0	99.9	70.0-130			6.19	20

Method Blank (MB)

(MB) 04/14/15 10:51

Analyte	MB Result	MB Qualifier	MB RDL
	mg/l		mg/l
Benzene	ND		0.0500
Carbon tetrachloride	ND		0.0500
Chlorobenzene	ND		0.0500
Chloroform	ND		0.250
1,2-Dichloroethane	ND		0.0500
1,1-Dichloroethene	ND		0.0500
2-Butanone (MEK)	ND		0.500
Tetrachloroethene	ND		0.0500
Trichloroethene	ND		0.0500
Vinyl chloride	ND		0.0500
(S) Toluene-d8	*106*		*88.5-111*
(S) Dibromofluoromethane	*107*		*78.3-121*
(S) a,a,a-Trifluorotoluene	*104*		*85.0-114*
(S) 4-Bromofluorobenzene	*98.5*		*71.0-126*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/14/15 09:38 • (LCSD) 04/14/15 09:56

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Benzene	0.0250	0.0247	0.0260	98.6	104	74.8-121			5.47	20
Carbon tetrachloride	0.0250	0.0259	0.0287	104	115	70.2-123			10.2	20
Chlorobenzene	0.0250	0.0217	0.0238	87.0	95.1	78.1-119			8.90	20
Chloroform	0.0250	0.0253	0.0269	101	108	76.0-121			6.19	20
1,2-Dichloroethane	0.0250	0.0277	0.0299	111	120	68.8-124			7.63	20
1,1-Dichloroethene	0.0250	0.0268	0.0284	107	114	67.8-129			5.90	20
2-Butanone (MEK)	0.125	0.195	0.194	156	155	55.0-149	J4	J4	0.420	20
Tetrachloroethene	0.0250	0.0216	0.0230	86.5	92.0	72.6-126			6.12	20
Trichloroethene	0.0250	0.0234	0.0250	93.8	100	77.7-118			6.48	20
Vinyl chloride	0.0250	0.0234	0.0262	93.5	105	65.9-128			11.6	20
(S) Toluene-d8				*109*	*100*	*88.5-111*				
(S) Dibromofluoromethane				*107*	*109*	*78.3-121*				
(S) a,a,a-Trifluorotoluene				*105*	*101*	*85.0-114*				
(S) 4-Bromofluorobenzene				*96.5*	*104*	*71.0-126*				

L757979-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 04/14/15 12:24 • (MS) 04/14/15 13:00 • (MSD) 04/14/15 13:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	1.25	ND	1.30	1.25	104	99.8	1	54.3-133			4.34	20
Carbon tetrachloride	1.25	ND	1.41	1.36	113	109	1	55.7-134			3.99	20
Chlorobenzene	1.25	ND	1.13	1.13	90.4	90.7	1	67.0-125			0.400	20.3
Chloroform	1.25	ND	1.32	1.30	106	104	1	63.0-129			1.80	20
1,2-Dichloroethane	1.25	ND	1.38	1.37	111	110	1	60.0-126			0.650	20
1,1-Dichloroethene	1.25	ND	1.43	1.40	115	112	1	51.1-140			2.56	20.2
2-Butanone (MEK)	6.25	ND	7.21	7.06	115	113	1	22.4-138			2.06	27
Tetrachloroethene	1.25	ND	1.10	1.12	87.9	89.4	1	53.0-139			1.68	20
Trichloroethene	1.25	ND	1.20	1.21	95.8	96.6	1	44.1-149			0.750	20
Vinyl chloride	1.25	ND	1.42	1.39	114	111	1	47.8-137			2.07	20
(S) Toluene-d8					*107*	*105*		*88.5-111*				
(S) Dibromofluoromethane					*112*	*109*		*78.3-121*				
(S) a,a,a-Trifluorotoluene					*102*	*106*		*85.0-114*				
(S) 4-Bromofluorobenzene					*98.6*	*99.7*		*71.0-126*				

L758699-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 04/14/15 12:42 • (MS) 04/14/15 13:37 • (MSD) 04/14/15 13:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	1.25	7.67	8.95	8.32	102	52.3	1	54.3-133		V	7.24	20
Carbon tetrachloride	1.25	ND	1.35	1.35	108	108	1	55.7-134			0.160	20
Chlorobenzene	1.25	ND	1.15	1.12	91.8	89.4	1	67.0-125			2.68	20.3
Chloroform	1.25	ND	1.29	1.33	103	107	1	63.0-129			3.21	20
1,2-Dichloroethane	1.25	ND	1.37	1.40	110	112	1	60.0-126			1.94	20
1,1-Dichloroethene	1.25	ND	1.35	1.35	108	108	1	51.1-140			0.280	20.2
2-Butanone (MEK)	6.25	ND	7.00	7.00	112	112	1	22.4-138			0.0800	27
Tetrachloroethene	1.25	ND	1.20	1.15	95.6	92.2	1	53.0-139			3.61	20
Trichloroethene	1.25	ND	1.22	1.18	97.6	94.5	1	44.1-149			3.27	20
Vinyl chloride	1.25	ND	1.38	1.36	111	109	1	47.8-137			1.88	20
(S) Toluene-d8					*103*	*107*		*88.5-111*				
(S) Dibromofluoromethane					*103*	*107*		*78.3-121*				
(S) a,a,a-Trifluorotoluene					*104*	*103*		*85.0-114*				
(S) 4-Bromofluorobenzene					*99.9*	*97.1*		*71.0-126*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) 04/15/15 02:37

Analyte	MB Result	MB Qualifier	MB RDL
	mg/l		mg/l
1,4-Dichlorobenzene	ND		0.100
2,4-Dinitrotoluene	ND		0.100
Hexachlorobenzene	ND		0.100
Hexachloro-1,3-butadiene	ND		0.100
Hexachloroethane	ND		0.100
Nitrobenzene	ND		0.100
Pyridine	ND		0.100
2-Methylphenol	ND		0.100
3&4-Methyl Phenol	ND		0.100
Pentachlorophenol	ND		0.100
2,4,5-Trichlorophenol	ND		0.100
2,4,6-Trichlorophenol	ND		0.100
(S) Nitrobenzene-d5	*48.6*		*21.8-123*
(S) 2-Fluorobiphenyl	*59.0*		*29.5-131*
(S) p-Terphenyl-d14	*66.4*		*29.3-137*
(S) Phenol-d5	*29.3*		*5.00-70.1*
(S) 2-Fluorophenol	*38.2*		*10.0-77.9*
(S) 2,4,6-Tribromophenol	*70.8*		*11.2-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/15/15 01:27 • (LCSD) 04/15/15 01:50

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
1,4-Dichlorobenzene	0.0250	0.0132	0.0133	52.9	53.3	21.0-89.4			0.710	32.6
2,4-Dinitrotoluene	0.0250	0.0187	0.0186	74.9	74.6	31.2-105			0.440	22
Hexachlorobenzene	0.0250	0.0183	0.0190	73.4	76.1	38.5-116			3.62	20.1
Hexachloro-1,3-butadiene	0.0250	0.0138	0.0154	55.2	61.7	16.1-104			11.2	31.2
Hexachloroethane	0.0250	0.0128	0.0133	51.3	53.1	16.5-89.8			3.50	30.7
Nitrobenzene	0.0250	0.0152	0.0146	60.9	58.4	31.4-106			4.11	25.7
Pyridine	0.0250	0.00604	0.00811	24.2	32.4	13.5-58.9			29.3	32.5
2-Methylphenol	0.0250	0.0130	0.0132	51.9	52.9	26.4-86.9			1.91	26.5
3&4-Methyl Phenol	0.0250	0.0141	0.0132	56.3	52.9	27.9-92.0			6.31	27
Pentachlorophenol	0.0250	0.00925	0.00811	37.0	32.4	10.0-97.4			13.1	35.1
2,4,5-Trichlorophenol	0.0250	0.0189	0.0179	75.7	71.6	34.9-112			5.51	23.9
2,4,6-Trichlorophenol	0.0250	0.0181	0.0176	72.4	70.3	29.8-107			3.01	24.1
(S) Nitrobenzene-d5				*55.2*	*59.4*	*21.8-123*				
(S) 2-Fluorobiphenyl				*72.0*	*65.0*	*29.5-131*				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/15/15 01:27 • (LCSD) 04/15/15 01:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
(S) p-Terphenyl-d14				*65.7*	*66.8*	*29.3-137*				
(S) Phenol-d5				*28.9*	*25.5*	*5.00-70.1*				
(S) 2-Fluorophenol				*38.2*	*31.1*	*10.0-77.9*				
(S) 2,4,6-Tribromophenol				*73.7*	*77.0*	*11.2-130*				

L757979-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 04/15/15 04:35 • (MS) 04/15/15 04:58 • (MSD) 04/15/15 05:22

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,4-Dichlorobenzene	0.250	ND	0.154	0.134	61.5	53.7	1	14.0-104			13.6	36.4
2,4-Dinitrotoluene	0.250	ND	0.198	0.191	79.3	76.4	1	16.2-135			3.74	20.6
Hexachlorobenzene	0.250	ND	0.202	0.202	80.8	80.8	1	31.9-135			0.0500	20
Hexachloro-1,3-butadiene	0.250	ND	0.167	0.149	66.6	59.6	1	15.7-109			11.1	37.6
Hexachloroethane	0.250	ND	0.138	0.131	55.0	52.5	1	10.4-105			4.74	40
Nitrobenzene	0.250	ND	0.166	0.152	66.4	60.9	1	23.1-121			8.56	29
Pyridine	0.250	ND	0.0886	0.0826	35.4	33.0	1	10.0-77.8			6.93	38.8
2-Methylphenol	0.250	ND	0.140	0.130	56.2	52.1	1	10.0-133			7.47	40
3&4-Methyl Phenol	0.250	ND	0.144	0.136	57.6	54.4	1	17.4-100			5.86	27.7
Pentachlorophenol	0.250	ND	0.114	0.125	45.5	50.1	1	10.0-108			9.59	40
2,4,5-Trichlorophenol	0.250	ND	0.186	0.180	74.2	72.0	1	30.6-120			2.99	33.8
2,4,6-Trichlorophenol	0.250	ND	0.177	0.167	70.6	66.8	1	19.1-114			5.60	29.9
(S) Nitrobenzene-d5					*62.0*	*55.8*		*21.8-123*				
(S) 2-Fluorobiphenyl					*70.6*	*66.3*		*29.5-131*				
(S) p-Terphenyl-d14					*72.6*	*68.8*		*29.3-137*				
(S) Phenol-d5					*30.7*	*28.6*		*5.00-70.1*				
(S) 2-Fluorophenol					*44.1*	*43.4*		*10.0-77.9*				
(S) 2,4,6-Tribromophenol					*87.2*	*79.1*		*11.2-130*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
J4	The associated batch QC was outside the established quality control range for accuracy.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

[1] Cp
[2] Tc
[3] Ss
[4] Cn
[5] Sr
[6] Qc
[7] Gl
[8] Al
[9] Sc

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [14] Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
Canada	1461.01	DOD	1461.01
EPA–Crypto	TN00003	USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



EnviroTech- NM

5796 US. Highway 64
Farmington, NM 87401

Billing Information:

Doris Moore
5796 US. Highway 64
Farmington, NM 87401

Report to: Tim & Lynn

Email To: Tim & Lynn

Project Description: 1st Quarter Injection Fluid Sampling

City/State Collected:

Phone: 505-632-0615
Fax:

Client Project # 07117-0027

Lab Project #

Collected by (print): I. Garcia

Site/Facility ID # P504035

P.O. # 142018

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
X Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ___Yes
FAX? ___No ___Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TCLP Sem. VOCs 8270 2x1L Amber	TCLP VOCs 8260 3x40 mL VOA +HCl	Reactive Cyanide 1L Poly	Reactive Sulfide 1L Poly
Injection Fluid		WW		4/10/15	1340	7	X	X	X	X

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____

Flow _____ Other _____

Remarks: 6304 3739 2049

	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	4/10/15	1700	FedEx
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____

Temp: 3.1 °C Bottles Received: 7

Date: 4/11/15 Time: 09:00

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L758699

B075

Acctnum: ENVIROFNM
Template:
Prelogin:
TSR: 288 - Daphne Richards
PB:
Shipped Via:

Rem./Contaminant	Sample # (lab only)
	01

Hold #

Condition: (lab use only) OK JWS

COC Seal Intact: ___Y ___N ___NA

pH Checked: NCF:

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ENVIROTECH INC.
5796 HIGHWAY 64, FARMINGTON, NM

Date: 4/10/15 Project No: 07117-0027

Project Name: Agua Moss Injection Fluid sampling Chain of Custody No: _____

Location: Agua Moss

Project Manager: Greg Crabtree Sampler: Isaac Garcia

WATER DATA

SAMPLE ID	TIME	pH	COND (mS)	TEMP. °F	ORP (mV)
Injection Fluids	1:43	6.90	35.41	65.75	-121.4

Sunco Disposal #1

1st Quarter 2014 Report

April 30th 2014

Agua Moss, LLC

PO Box 600

Farmington, NM 87499

Permit UICI-005

API 30-045-28653

Submitted By:

Philana Thompson

Regulatory Compliance Specialist

Merrion Oil & Gas

610 Reilly Ave

Farmington, NM 87401

505-486-1171 cell

505-324-5336 offc

pthompson@merrion.bz

Appendices

Appendix A

Monthly Injection/disposal volumes

MAX and Average injection PSI

Appendix B

Chemical Analyses data

Landfarm sampling data

Appendix C

MIT

Well head Charts

BH Test

Appendix D

2014 Morning Reports

2014 Pond Inspections

2014 Landfarm inspection

Appendix E

Misc Sundries

FOT

UICI-5-0
Agua Moss, LLC
Sunco Disposal #1 30-045-28653

2014
Quarterly
Injection Report

	Average Pressure (psig)	Maximum Pressure (psig)	Minimum Pressure (psig)	Average Flow (gpm)	Maxium Flow (gpm)	Minimum Flow (gpm)	Average Annular Pressure (psig)	Maximum Annular Pressure (psig)	Minimum Annular Pressure (psig)	Average Volume (bpd)	Maximum Volume (bpd)	Minimum Volume (bpd)	Volume (barrels)	Total Cumulative Volume (barrels)	
													Previous year	13214274	
Jan-2014	1278.261	1400	550	0.91875	1.079167	0.7583333	250	250	250	31.5	37	26	63	13214337	
Feb-2014	1255	0	0	19.63889	33.54167	2.5083333	33.33333	50	25	673.3333	1150	86	6060	13220397	
Mar-2014	1795	1900	1550	23.31146	26.04583	20.3	120	250	50	799.25	893	696	3197	13223594	
													Previous Quarter	13223594	
Apr-2014	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594	
May-2014	#DIV/0!	2150	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594	
Jun-2014	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594	
													Previous Quarter	13223594	
Jul-14	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594	
Aug-14	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594	
Sep-14	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594	
													Previous Quarter	13223594	
Oct-2014	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594	
Nov-2014	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594	
Dec-2014	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	13223594	
												Total for year	**9320**	**13232914**	**Life Of well injected**

envirotech

April 16, 2013

Project Number: 07117-0010

Ms. Philana Thompson
Regulatory Compliance
Agua Moss
345 CR 350
Farmington, New Mexico 87401

Phone: (505) 324-5336

RE: FIRST QUARTER INJECTED FLUIDS SAMPLING AND ANALYTICAL RESULTS, AGUA MOSS, SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Thompson:

Please find enclosed the analytical results, field notes, and Table 1, Summary of Analytical Results, for the injected fluids located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico. Activities included sample collection and analysis, documentation and reporting in alignment with the analyses and procedures that were requested.

If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.

Toni McKnight, EIT
Environmental Project Manager
tmcknight@envirotech-inc.com

Enclosure: Table 1, Summary of Analytical Results
Analytical Results
Field Notes

Cc: Client File Number: 07117

Table 1, Summary of Analytical Results
Fourth Quarter Injected Fluids Sampling
Agua Moss
San Juan County, New Mexico
Project No. 07117-0010
March 2013

Contaminant of Concern	Units	Sample Location
		Injection Facility
pH*	(s.u.)	7.05
ORP*	mV	-195.4
Specific Conductance*	mS	42.31
Specific Gravity	ratio	1.03
Temperature*	°C	14.61
Conductivity @ 25 °C	umhos/cm	58500
Total Dissolved Solids @ 180 °C	mg/L	45200
Sodium Absorption Ratio	ratio	185
Total Alkalinity as CaCO3	mg/L	9500
Total Hardness as CaCO3	mg/L	1480
Bicarbonate as CaCO3	mg/L	9500
Carbonate as CaCO3	mg/L	<0.10
Hydroxide as CaCO3	mg/L	<0.10
Nitrate Nitrogen	mg/L	<100
Nitrite Nitrogen	mg/L	<100
Chloride	mg/L	39300
Fluoride	mg/L	<100
Phosphate	mg/L	<100
Sulfate	mg/L	<100
Iron	mg/L	9.89
Calcium	mg/L	344
Magnesium	mg/L	150
Potassium	mg/L	67
Sodium	mg/L	16300
Bromide	mg/L	<100
* Field Measurement		

envirotech
Analytical Laboratory

Analytical Report

Report Summary

Client: Agua Moss LLC

Chain Of Custody Number: 15336

Samples Received: 3/26/2013 2:15:00PM

Job Number: 07117-0010

Work Order: P303094

Project Name/Location: 1st Quarter Injection Fluid

Entire Report Reviewed By: _____ Date: 4/3/13

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 4/1/13 10:48 am

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

Agua Moss LLC	Project Name:	1st Quarter Injection Fluid	
PO Box 600	Project Number:	07117-0010	**Reported:**
Farmington NM, 87499	Project Manager:	Etech	03-Apr-13 09:31

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Injection Fluid	P303094-01A	Aqueous	03/26/13	03/26/13	Poly 500mL
	P303094-01B	Aqueous	03/26/13	03/26/13	Poly 500mL

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Analytical Laboratory

Agua Moss LLC	Project Name:	1st Quarter Injection Fluid	
PO Box 600	Project Number:	07117-0010	**Reported:**
Farmington NM, 87499	Project Manager:	Etech	03-Apr-13 09:31

Injection Fluid

P303094-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis									
pH	**7.14**		pH Units	1	1313018	26-Mar-13	26-Mar-13	EPA 150.1	
Electrical Conductivity	**58500**		umhos/cm	1	1313018	26-Mar-13	26-Mar-13	EPA 120.1	
Total Dissolved Solids	**45200**		mg/L	1	1313024	27-Mar-13	27-Mar-13	EPA 160.1	
Sodium Absorption Ratio	**185**		N/A	1	1313026	28-Mar-13	28-Mar-13	[CALC]	
Total Alkalinity as CaCO3	**9500**	0.10	mg/L	10	1313031	28-Mar-13	28-Mar-13	Hach Method 8203	
Total Hardness as CaCO3	**1480**	6.62	mg/L	100	[CALC]	27-Mar-13	27-Mar-13	[CALC]	
Bicarbonate as CaCO3	**9500**	0.10	mg/L	10	1313031	28-Mar-13	28-Mar-13	Hach Method 8203	
Carbonate as CaCO3	ND	0.10	mg/L	10	1313031	28-Mar-13	28-Mar-13	Hach Method 8203	
Hydroxide as CaCO3	ND	0.10	mg/L	10	1313031	28-Mar-13	28-Mar-13	Hach Method 8203	
Nitrate-N	ND	100	mg/L	100	1313013	26-Mar-13	27-Mar-13	EPA 300.0	
Nitrite-N	ND	100	mg/L	100	1313013	26-Mar-13	27-Mar-13	EPA 300.0	
Bromide	ND	100	mg/L	100	1313013	26-Mar-13	27-Mar-13	EPA 300.0	
Chloride	**39300**	100	mg/L	100	1313013	26-Mar-13	27-Mar-13	EPA 300.0	
Fluoride	ND	100	mg/L	100	1313013	26-Mar-13	27-Mar-13	EPA 300.0	
o-Phosphate	ND	100	mg/L	100	1313013	26-Mar-13	27-Mar-13	EPA 300.0	
Sulfate	ND	100	mg/L	100	1313013	26-Mar-13	27-Mar-13	EPA 300.0	
Iron	**9.89**	1.00	mg/L	100	1313023	27-Mar-13	27-Mar-13	EPA 6010C	
Calcium	**344**	1.00	mg/L	100	1313023	27-Mar-13	27-Mar-13	EPA 6010C	
Magnesium	**150**	1.00	mg/L	100	1313023	27-Mar-13	27-Mar-13	EPA 6010C	
Potassium	**67.0**	1.00	mg/L	100	1313023	27-Mar-13	27-Mar-13	EPA 6010C	
Sodium	**16300**	1.00	mg/L	100	1313023	27-Mar-13	27-Mar-13	EPA 6010C	
Wet Chemistry									
Specific Gravity	**1.03**		N/A	1	1313041	29-Mar-13	29-Mar-13	STD Meth 2710F	

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Analytical Laboratory

Agua Moss LLC	Project Name:	1st Quarter Injection Fluid	
PO Box 600	Project Number:	07117-0010	**Reported:**
Farmington NM, 87499	Project Manager:	Etech	03-Apr-13 09:31

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1313013 - Anion Extraction EPA 300.0										
Blank (1313013-BLK1)				Prepared & Analyzed: 26-Mar-13						
Nitrate-N	ND	10.0	mg/L							
Nitrite-N	ND	10.0	"							
Chloride	ND	10.0	"							
Bromide	ND	10.0	"							
Fluoride	ND	10.0	"							
o-Phosphate	ND	10.0	"							
Sulfate	ND	10.0	"							

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Agua Moss LLC	Project Name:	1st Quarter Injection Fluid	
PO Box 600	Project Number:	07117-0010	**Reported:**
Farmington NM, 87499	Project Manager:	Etech	03-Apr-13 09:31

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

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CHAIN OF CUSTODY RECORD

15336

Client:	Project Name / Location:
Agua Moss	1st Quarter Injection Fluid
Email results to:	Sampler Name: Toni McKnight
Client Phone No.:	Client No.: 07117-0010

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative $HgCl_2$	Preservative HCl	Preservative ✓	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	Bromide	Specific Gravity		Sample Cool	Sample Intact
Injection Fluid	3/26/13	1345	P303914-01	2-500mL			Cool					✓						✓	✓		X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Toni McKnight	3/26/13	14:15		3/26/13	1415
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix

Soil ☐ Solid ☐ Sludge ☐ Aqueous ☒ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

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san juan reproduction 578-129

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ENVIROTECH INC.
5796 HIGHWAY 64, FARMINGTON, NM

Date: March 26, 2013 Project No: 07117-0010

Project Name: 1st Quarter Injection Fluid Chain of Custody No: 15336

Location: Agua Moss Facility, Farmington, NM

Project Manager: Toni McKnight Sampler: Toni McKnight

WATER DATA

SAMPLE ID	TIME	pH	COND (mS)	TEMP. °F	ORP (mV)
Injection Fluid	13:43	7.05	42.31	14.61°C	-195.4

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August 6, 2013

Project Number: 07117-0010

Ms. Philana Thompson
Regulatory Compliance
Agua Moss
345 CR 350
Farmington, New Mexico 87401

Phone: (505) 324-5336

RE: SECOND QUARTER INJECTED FLUIDS SAMPLING AND ANALYTICAL RESULTS, AGUA MOSS, SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Thompson:

Please find enclosed the analytical results, field notes, and Table 1, Summary of Analytical Results, for the injected fluids located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico. Activities included sample collection and analysis, documentation and reporting in alignment with the analyses and procedures that were requested.

If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.

for Tiffany McIntosh

Toni McKnight, EIT
Environmental Project Manager
tmcknight@envirotech-inc.com

Enclosure: Table 1, Summary of Analytical Results
Analytical Results
Field Notes

Cc: Client File Number: 07117

Table 1, Summary of Analytical Results
Second Quarter Injected Fluids Sampling
Agua Moss
San Juan County, New Mexico
Project No. 07117-0010
July 2013

Contaminant of Concern	Units	Sample Location
		Injection Facility
pH*	(s.u.)	6.25
ORP*	mV	-98.6
Specific Conductance*	mS	65.391
pH	(s.u.)	7.53
Specific Gravity	ratio	1.024
Temperature*	°C	27.06
Conductivity @ 25 °C	umhos/cm	65600
Total Dissolved Solids @ 180 °C	mg/L	43900
Sodium Absorption Ratio	ratio	28.0
Total Alkalinity as CaCO3	mg/L	784
Total Hardness as CaCO3	mg/L	954
Bicarbonate as CaCO3	mg/L	784
Carbonate as CaCO3	mg/L	<10
Hydroxide as CaCO3	mg/L	<10
Nitrate Nitrogen	mg/L	<100
Nitrite Nitrogen	mg/L	<100
Chloride	mg/L	28000
Fluoride	mg/L	<100
Phosphate	mg/L	<100
Sulfate	mg/L	<100
Iron	mg/L	0.71
Calcium	mg/L	246
Magnesium	mg/L	82.9
Potassium	mg/L	32.0
Sodium	mg/L	4090
Bromide	mg/L	<100
* Field Measurement		

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Analytical Report

Report Summary

Client: Agua Moss LLC

Chain Of Custody Number: 15684

Samples Received: 6/19/2013 2:40:00PM

Job Number: 07117-0012

Work Order: P306096

Project Name/Location: 2nd Qtr Sampling

Entire Report Reviewed By: _____ Date: 6/26/13

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

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Analytical Laboratory

Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	26-Jun-13 12:10

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Injection Fluid	P306096-01A	Aqueous	06/19/13	06/19/13	Poly 500mL
	P306096-01B	Aqueous	06/19/13	06/19/13	Poly 500mL

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	26-Jun-13 12:10

Injection Fluid

P306096-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis									
pH	**7.53**		pH Units	1	1325031	19-Jun-13	19-Jun-13	EPA 150.1	
Electrical Conductivity	**65600**		umhos/cm	1	1325031	19-Jun-13	19-Jun-13	EPA 120.1	
Total Dissolved Solids	**43900**		mg/L	1	1325046	20-Jun-13	20-Jun-13	EPA 160.1	
Sodium Absorption Ratio	**28.0**		N/A	1	1326025	26-Jun-13	26-Jun-13	[CALC]	
Total Alkalinity as CaCO3	**784**	10.0	mg/L	1	1325040	20-Jun-13	20-Jun-13	Hach Method 8203	
Total Hardness as CaCO3	**954**	0.07	mg/L	1	[CALC]	20-Jun-13	23-Jun-13	[CALC]	
Bicarbonate as CaCO3	**784**	10.0	mg/L	1	1325040	20-Jun-13	20-Jun-13	Hach Method 8203	
Carbonate as CaCO3	ND	10.0	mg/L	1	1325040	20-Jun-13	20-Jun-13	Hach Method 8203	
Hydroxide as CaCO3	ND	10.0	mg/L	1	1325040	20-Jun-13	20-Jun-13	Hach Method 8203	
Nitrate-N	ND	100	mg/L	100	1325023	19-Jun-13	19-Jun-13	EPA 300.0	
Nitrite-N	ND	100	mg/L	100	1325023	19-Jun-13	19-Jun-13	EPA 300.0	
Bromide	ND	100	mg/L	100	1326008	24-Jun-13	24-Jun-13	EPA 300.0	
Chloride	**28000**	100	mg/L	100	1325023	19-Jun-13	19-Jun-13	EPA 300.0	
Fluoride	ND	100	mg/L	100	1325023	19-Jun-13	19-Jun-13	EPA 300.0	
o-Phosphate	ND	100	mg/L	100	1325023	19-Jun-13	19-Jun-13	EPA 300.0	
Sulfate	ND	100	mg/L	100	1325023	19-Jun-13	19-Jun-13	EPA 300.0	
Iron	**0.71**	0.01	mg/L	1	1325052	20-Jun-13	23-Jun-13	EPA 6010C	
Calcium	**246**	0.01	mg/L	1	1325052	20-Jun-13	23-Jun-13	EPA 6010C	
Magnesium	**82.9**	0.01	mg/L	1	1325052	20-Jun-13	23-Jun-13	EPA 6010C	
Potassium	**32.0**	0.01	mg/L	1	1325052	20-Jun-13	23-Jun-13	EPA 6010C	
Sodium	**4090**	0.01	mg/L	1	1325052	20-Jun-13	23-Jun-13	EPA 6010C	
Wet Chemistry									
Specific Gravity	**1.024**		N/A	1	1325041	20-Jun-13	20-Jun-13	STD Meth 2710F	

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	26-Jun-13 12:10

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1325023 - Anion Extraction EPA 300.0										
Blank (1325023-BLK1)				Prepared & Analyzed: 19-Jun-13						
Nitrate-N	ND	1.00	mg/L							
Nitrite-N	ND	1.00	"							
Chloride	ND	1.00	"							
Fluoride	ND	1.00	"							
o-Phosphate	ND	1.00	"							
Sulfate	ND	1.00	"							
Duplicate (1325023-DUP1)		**Source: P306082-01**		Prepared & Analyzed: 19-Jun-13						
Nitrate-N	ND	1.00	mg/L		ND				30	
Nitrite-N	ND	1.00	"		ND				30	
Chloride	46.9	1.00	"		47.0			0.0852	30	
Fluoride	ND	1.00	"		ND				30	
o-Phosphate	1.11	1.00	"		1.17			5.70	30	
Sulfate	220	1.00	"		220			0.0427	30	

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	Reported:
Farmington NM, 87499	Project Manager:	Toni McKnight	26-Jun-13 12:10

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1326008 - Anion Extraction EPA 300.0										
Blank (1326008-BLK1)				Prepared & Analyzed: 24-Jun-13						
Bromide	ND	1.00	mg/L							
Duplicate (1326008-DUP1)		Source: P306096-01		Prepared & Analyzed: 24-Jun-13						
Bromide	ND	100	mg/L		ND				30	

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	26-Jun-13 12:10

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

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CHAIN OF CUSTODY RECORD

15684

Client: Agua Moss	Project Name / Location: 2nd Qtr Sampling
Email results to: T. McKnight	Sampler Name: T. McIntosh / T. McKnight
Client Phone No.:	Client No.: 07117-0012

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative HNO3	Preservative HCl	Preservative cool	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	cation/anion	bromide	specific gravity	Sample Cool	Sample Intact
Injection Fluid	6/19/13	1312	P3060096-01	2-500mL poly			X											X	X	X	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Tiffany McIntosh	6/19/13	1440	William Joe	6/19/13	14:40
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix

Soil ☐ Solid ☐ Sludge ☐ Aqueous ☑ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

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ENVIROTECH INC.
5796 HIGHWAY 64, FARMINGTON, NM

Date: 6/19/13 Project No: 07117-0010

Project Name: 2nd Qtr Sampling Event Chain of Custody No: 15684

Location: Agua Moss

Project Manager: T. McKnight Sampler: T. McKnight

WATER DATA

SAMPLE ID	TIME	pH	COND (mS)	TEMP. °F °C	ORP (mV)
injection fluid	1315	6.25	65.391	27.06	-98.6

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November 27, 2013

Project Number: 07117-0013

Ms. Philana Thompson
Regulatory Compliance
Agua Moss
Post Office Box 600
Farmington, New Mexico 87401

Phone: (505) 324-5336

RE: THIRD QUARTER INJECTED FLUIDS SAMPLING AND ANALYTICAL RESULTS, AGUA MOSS, SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Thompson:

On September 25, 2013, Envirotech personnel arrived on site at the Agua Moss facility located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico in order to sample the injected fluids. Upon arrival, construction activities were taking place and the injected fluids area was closed. Therefore, a sample was unable to be taken this quarter for analysis.

If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.

Tiffany Mcintosh for
Toni McKnight, EIT
Environmental Project Manager
tmcknight@envirotech-inc.com

Cc: Client File Number: 07117

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January 23, 2014

Project Number: 07117-0017

Ms. Philana Thompson
Regulatory Compliance
Agua Moss
345 CR 350
Farmington, New Mexico 87401

Phone: (505)-324-5336

RE: FOURTH QUARTER INJECTED FLUIDS SAMPLING AND ANALYTICAL RESULTS, AGUA MOSS, SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Thompson:

On December 11, 2013, Envirotech personnel arrived on site at the Agua Moss facility located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico in order to sample the injected fluids. Please find enclosed the ***Analytical Results***, ***Field Notes*** and ***Table 1, Summary of Analytical Results***. Activities included sample collection and analysis, documentation and reporting in alignment with the analytes and procedures that were requested.

If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.

Toni McKnight, EIT
Environmental Project Manager
tmcknight@envirotech-inc.com

Enclosure: Table 1, Summary of Analytical Results
Analytical Results
Field Notes

Cc: Client File Number: 07117

Table 1, Summary of Analytical Results
Fourth Quarter Injected Fluids Sampling
Agua Moss
San Juan County, New Mexico
Project No. 07117-0017
December 2013

Contaminant of Concern	Units	Sample Location
		Injection Facility
pH*	(s.u.)	6.52
ORP*	mV	50.6
Specific Conductance*	mS	21.355
Specific Gravity	ratio	1.006
Temperature*	°C	2.34
Conductivity @ 25 °C	umhos/cm	19300
Total Dissolved Solids @ 180 °C	mg/L	139000
Sodium Absorption Ratio (SAR)	ratio	157
Total Alkalinity as CaCO3	mg/L	1700
Total Hardness as CaCO3	mg/L	367
Bicarbonate as CaCO3	mg/L	1700
Carbonate as CaCO3	mg/L	<1000
Hydroxide as CaCO3	mg/L	<1000
Nitrate Nitrogen	mg/L	<4.00
Nitrite Nitrogen	mg/L	<2.00
Chloride	mg/L	7070
Fluoride	mg/L	<2.00
o-Phosphate	mg/L	<40.0
Sulfate	mg/L	218
Iron	mg/L	8.82
Calcium	mg/L	85.9
Magnesium	mg/L	37.1
Potassium	mg/L	60.1
Sodium	mg/L	6900
Bromide	mg/L	10.6
pH	(s.u.)	6.46

* Field Measurement

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Analytical Laboratory

Analytical Report

Report Summary

Client: Agua Moss LLC

Chain Of Custody Number: 16288

Samples Received: 12/11/2013 1:35:00PM

Job Number: 07117-0017

Work Order: P312053

Project Name/Location: 4th Quarter Sampling
Injection Fluids

Entire Report Reviewed By: _____ Date: 12/20/13

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

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Agua Moss LLC	Project Name:	4th Quarter Sampling Injection Fluids	
PO Box 600	Project Number:	07117-0017	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	20-Dec-13 11:33

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Injection Fluid	P312053-01A	Aqueous	12/11/13	12/11/13	Poly 500mL
	P312053-01B	Aqueous	12/11/13	12/11/13	Poly 500mL

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Agua Moss LLC	Project Name:	4th Quarter Sampling Injection Fluids	
PO Box 600	Project Number:	07117-0017	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	20-Dec-13 11:33

Injection Fluid

P312053-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis									
pH @19.5°C	**6.46**		pH Units	1	1350027	12/12/13 07:49	12/12/13 08:35	EPA 150.1	
Electrical Conductivity	**19300**		umhos/cm	1	1350027	12/12/13 07:49	12/12/13 08:35	EPA 120.1	
Total Dissolved Solids	**139000**		mg/L	1	1351008	12/16/13	12/17/13	EPA 160.1	
Sodium Absorption Ratio	**157**		N/A	1	1350034	12/12/13	12/19/13	[CALC]	
Total Alkalinity as CaCO3	**1700**	1000	mg/L	100	1350033	12/12/13	12/12/13	Hach Method 8203	
Total Hardness as CaCO3	**367**	0.07	mg/L		[CALC]	12/12/13	12/12/13	[CALC]	
Bicarbonate as CaCO3	**1700**	1000	mg/L	100	1350033	12/12/13	12/12/13	Hach Method 8203	
Carbonate as CaCO3	ND	1000	mg/L	100	1350033	12/12/13	12/12/13	Hach Method 8203	
Hydroxide as CaCO3	ND	1000	mg/L	100	1350033	12/12/13	12/12/13	Hach Method 8203	
Nitrate-N	ND	4.00	mg/L	20	1350026	12/12/13 07:47	12/13/13 16:34	EPA 300.0	CCV4, H2
Nitrite-N	ND	2.00	mg/L	20	1350026	12/12/13 07:47	12/13/13 16:34	EPA 300.0	CCV4, H2
Bromide	**10.6**	2.00	mg/L	20	1350026	12/12/13	12/13/13	EPA 300.0	CCV4, H2
Chloride	**7070**	20.0	mg/L	20	1350026	12/12/13	12/13/13	EPA 300.0	CCV4, H2
Fluoride	ND	2.00	mg/L	20	1350026	12/12/13	12/13/13	EPA 300.0	CCV4, H2
o-Phosphate	ND	40.0	mg/L	20	1350026	12/12/13 07:47	12/13/13 16:34	EPA 300.0	CCV4, H2
Sulfate	**218**	80.0	mg/L	20	1350026	12/12/13	12/13/13	EPA 300.0	CCV4, H2
Iron	**8.82**	0.01	mg/L	1	1350031	12/12/13	12/12/13	EPA 6010C	
Calcium	**85.9**	0.01	mg/L	1	1350031	12/12/13	12/12/13	EPA 6010C	
Magnesium	**37.1**	0.01	mg/L	1	1350031	12/12/13	12/12/13	EPA 6010C	
Potassium	**60.1**	0.01	mg/L	1	1350031	12/12/13	12/12/13	EPA 6010C	
Sodium	**6900**	0.01	mg/L	1	1350031	12/12/13	12/12/13	EPA 6010C	
Wet Chemistry									
Specific Gravity	**1.006**		N/A	1	1350041	12/13/13	12/13/13	STD Meth 2710F	

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Agua Moss LLC	Project Name:	4th Quarter Sampling Injection Fluids	
PO Box 600	Project Number:	07117-0017	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	20-Dec-13 11:33

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1350026 - Anion Extraction EPA 300.0										
Blank (1350026-BLK1)				Prepared: 12-Dec-13 Analyzed: 13-Dec-13						
Nitrate-N	ND	0.20	mg/L							
Nitrite-N	ND	0.10	"							
Bromide	ND	0.10	"							
Chloride	ND	1.00	"							
Fluoride	ND	0.10	"							
o-Phosphate	ND	2.00	"							
Sulfate	ND	4.00	"							
LCS (1350026-BS1)				Prepared: 12-Dec-13 Analyzed: 13-Dec-13						
Nitrate-N	4.99	0.20	mg/L	5.00		99.9	90-110			
Nitrite-N	5.32	0.10	"	5.00		106	90-110			
Bromide	4.79	0.10	"	5.00		95.8	90-110			
Chloride	49.1	1.00	"	50.0		98.2	90-110			
Fluoride	5.33	0.10	"	5.00		107	90-110			
o-Phosphate	24.7	2.00	"	25.0		99.0	90-110			
Sulfate	50.0	4.00	"	50.0		100	90-110			
Matrix Spike (1350026-MS1)	**Source: P312053-01**			Prepared: 12-Dec-13 Analyzed: 13-Dec-13						
Nitrate-N	100	4.00	mg/L	100	ND	100	80-120			
Nitrite-N	103	2.00	"	100	ND	103	80-120			
Bromide	106	2.00	"	100	10.6	95.1	80-120			
Chloride	7380	20.0	"	1000	7070	31.1	80-120			SPK1
Fluoride	100	2.00	"	100	ND	100	80-120			
o-Phosphate	491	40.0	"	500	ND	98.2	80-120			
Sulfate	1200	80.0	"	1000	218	98.3	80-120			
Matrix Spike Dup (1350026-MSD1)	**Source: P312053-01**			Prepared: 12-Dec-13 Analyzed: 13-Dec-13						
Nitrate-N	108	4.00	mg/L	100	ND	108	80-120	7.38	20	
Nitrite-N	112	2.00	"	100	ND	112	80-120	7.94	20	
Bromide	113	2.00	"	100	10.6	103	80-120	6.94	20	
Chloride	7230	20.0	"	1000	7070	15.7	80-120	2.11	20	SPK1
Fluoride	108	2.00	"	100	ND	108	80-120	7.89	20	
o-Phosphate	531	40.0	"	500	ND	106	80-120	7.81	20	
Sulfate	1260	80.0	"	1000	218	104	80-120	4.63	20	

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Agua Moss LLC	Project Name:	4th Quarter Sampling Injection Fluids	
PO Box 600	Project Number:	07117-0017	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	20-Dec-13 11:33

Notes and Definitions

SPK1	The spike recovery for this QC sample is outside of control limits.
H2	Sample was analyzed after regulatory hold-time exceeded for target analyte.
CCV4	CCV recovery was below method acceptance 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

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CHAIN OF CUSTODY RECORD

16288

Client:	Project Name / Location:
Agua Moss	Injection Fluids 4th Quarter Sampling
Email results to:	Sampler Name:
T. McIntosh / T. McKnight	T. McIntosh
Client Phone No.:	Client No.:
	07117-0017

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative			ANALYSIS / PARAMETERS															
					HNO_3	HCl	cool	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	cation/anion	Bromide	Specific Gravity	Sample Cool	Sample Intact
Injection Fluid	12/11/13	1020	P312053-01	2-500 mL poly			X											X	X	X	✓	✓

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Tiffany McIntosh	12/11/13	1335		12/11/13	1335
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix

Soil ☐ Solid ☐ Sludge ☐ Aqueous ☑ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

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ENVIROTECH INC.
5796 HIGHWAY 64, FARMINGTON, NM

Date: 12/11/13 Project No: 07117-0017

Project Name: 4th Quarter Sampling Chain of Custody No: 16288

Location: Aqua Moss

Project Manager: Toni McKnight Sampler: Tiffany McIntosh

WATER DATA

SAMPLE ID	TIME	pH	COND (mS) µS	TEMP °F °C	ORP (mV)	DO mg/L
Injection Fluid	1020	6.52	21355	2.34	50.6	10.45

FIRST QUARTER LANDFARM SOIL SAMPLING AND ANALYSIS REPORT

SITE NAME:

AGUA MOSS LANDFARM
CELL #1 AND CELL #2
SECTION 2, TOWNSHIP 29 NORTH, RANGE 12 WEST
SAN JUAN COUNTY, NEW MEXICO

SUBMITTED TO:

MS. PHILANA THOMPSON
AGUA MOSS
345 CR 350
FARMINGTON, NEW MEXICO 87401

SUBMITTED BY:

ENVIROTECH, INC
5796 HIGHWAY 64
FARMINGTON, NEW MEXICO 87401
(505) 632-0615

PROJECT NUMBER 07117-0009
MARCH 2013

LANDFARM SOIL SAMPLING AND ANALYSIS REPORT AGUA MOSS LANDFARM CELL #1 AND CELL #2 SECTION 2, TOWNSHIP 29 NORTH, RANGE 12 WEST SAN JUAN COUNTY, NEW MEXICO

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Figure 2, Sampling Grid Diagram

Tables: Table 1, Summary of Analytical Results

Appendices: Appendix A, Analytical Results

INTRODUCTION

Envirotech, Inc. of Farmington, New Mexico, was contracted by Agua Moss to provide sampling and analysis services for the Agua Moss Farmington-NM-01-0009 Landfarm located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico; see ***Figure 1, Vicinity Map***. Activities included sample collection, analysis, documentation and reporting.

ACTIVITIES PERFORMED

Envirotech personnel performed soil sampling activities on March 25, 2013, at the Agua Moss Landfarm. Envirotech personnel divided Cell #1 into four (4) grids and Cell #2 into two (2) sections (North and South) with eight (8) grids per section, for a total of 16 grids. These sampling areas will be referred to as C1 - (1 to 4), C2N – (1 to 8), and C2S – (1 to 8); see ***Figure 2, Sampling Grid Diagram***. Random sample locations were determined by "Out of Hat" drawing.

After determining random sample locations, using a hand auger, one (1) sample was collected from Cell #1 and designated as C1. One (1) sample was collected from each of the North and South sections of Cell #2 and designated as C2N and C2S; see ***Figure 2, Sampling Grid Diagram*** and ***Appendix B, Field Notes***. Each soil sample was collected two (2) to three (3) feet below native ground surface in each of the sampling grids for vadose zone monitoring. All boreholes and sampling points were backfilled with impermeable bentonite material as stated in NMOCD Permit NM-01-0009. Soil samples were collected into four (4)-ounce glass jars, capped headspace free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for total petroleum hydrocarbons (TPH) using USEPA Methods 418.1 and 8015, and for benzene and total BTEX using USEPA Method 8021.

SUMMARY

Sampling and analysis services were performed for the Agua Moss Farmington-NM-01-0009 Landfarm located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico. Services were conducted in accordance with the Agua Moss Landfarm permit NM-01-0009.

Samples collected from the vadose zone returned results that were non-detect (ND) for all constituents analyzed, except for the C2S sample collected in Cell 2. C2S returned a result of 27 ppm for TPH using USEPA Method 418.1, but was ND for all other constituents analyzed; see ***Table 1, Summary of Analytical Results*** and ***Appendix A, Analytical Results***. The results of this sampling indicate that contaminants have not leached into the vadose zone.

STATEMENT OF LIMITATIONS

Envirotech, Inc. has completed sampling and analysis services for Agua Moss Farmington-NM-01-0009 Landfarm located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico. The work and services provided by Envirotech, Inc. were in accordance with the New Mexico Oil Conservation Division standards. All observations and conclusions provided here are based on the information and current site conditions found at the site.

The undersigned has conducted this service at the above referenced site; this work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,

ENVIROTECH, INC.

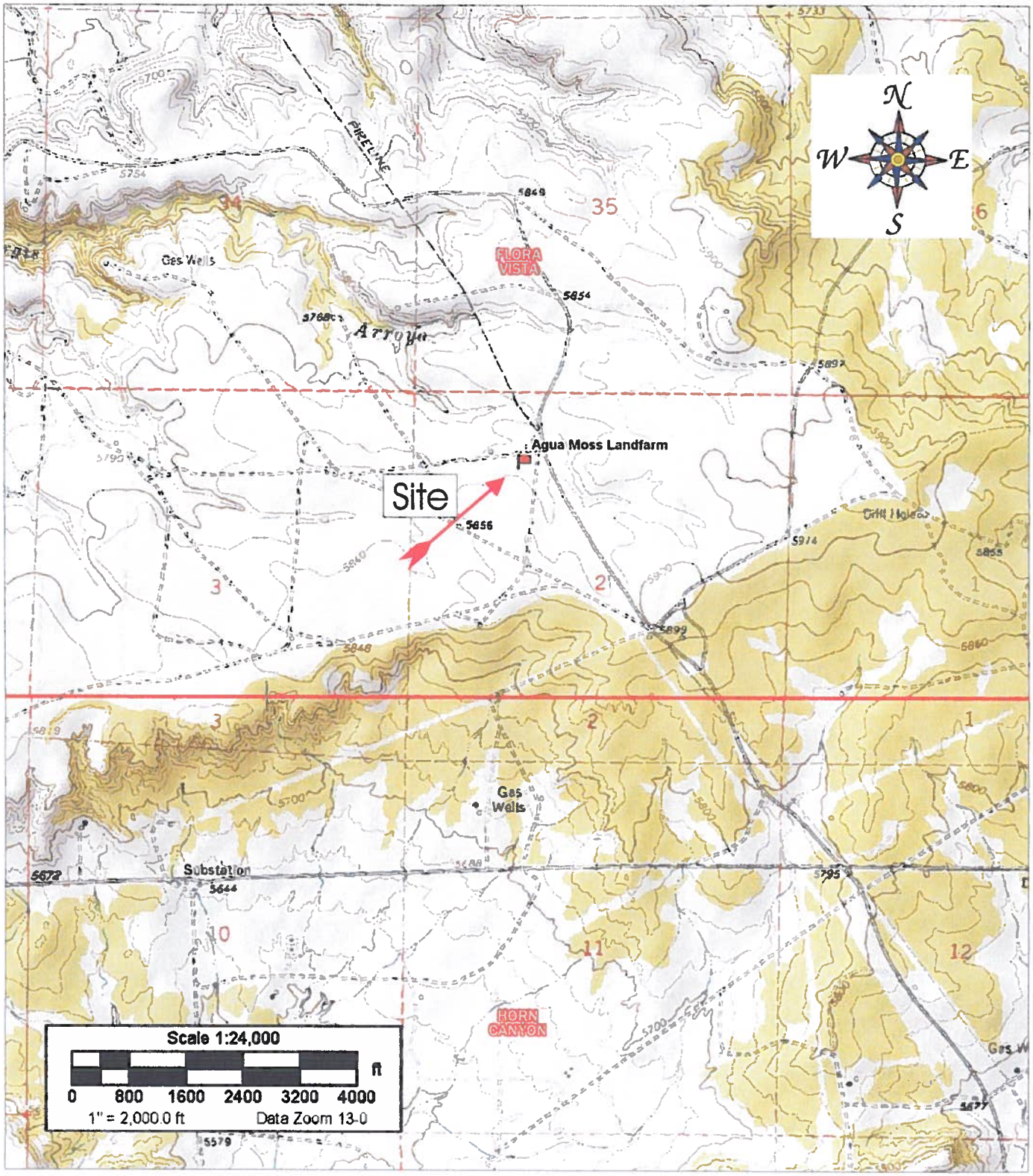
Toni McKnight, EIT
Environmental Project Manager
tmcknight@envirotech-inc.com

Reviewed by:

Gregory W. Crabtree, P.E.
Environmental Manager
gcrabtree@envirotech-inc.com

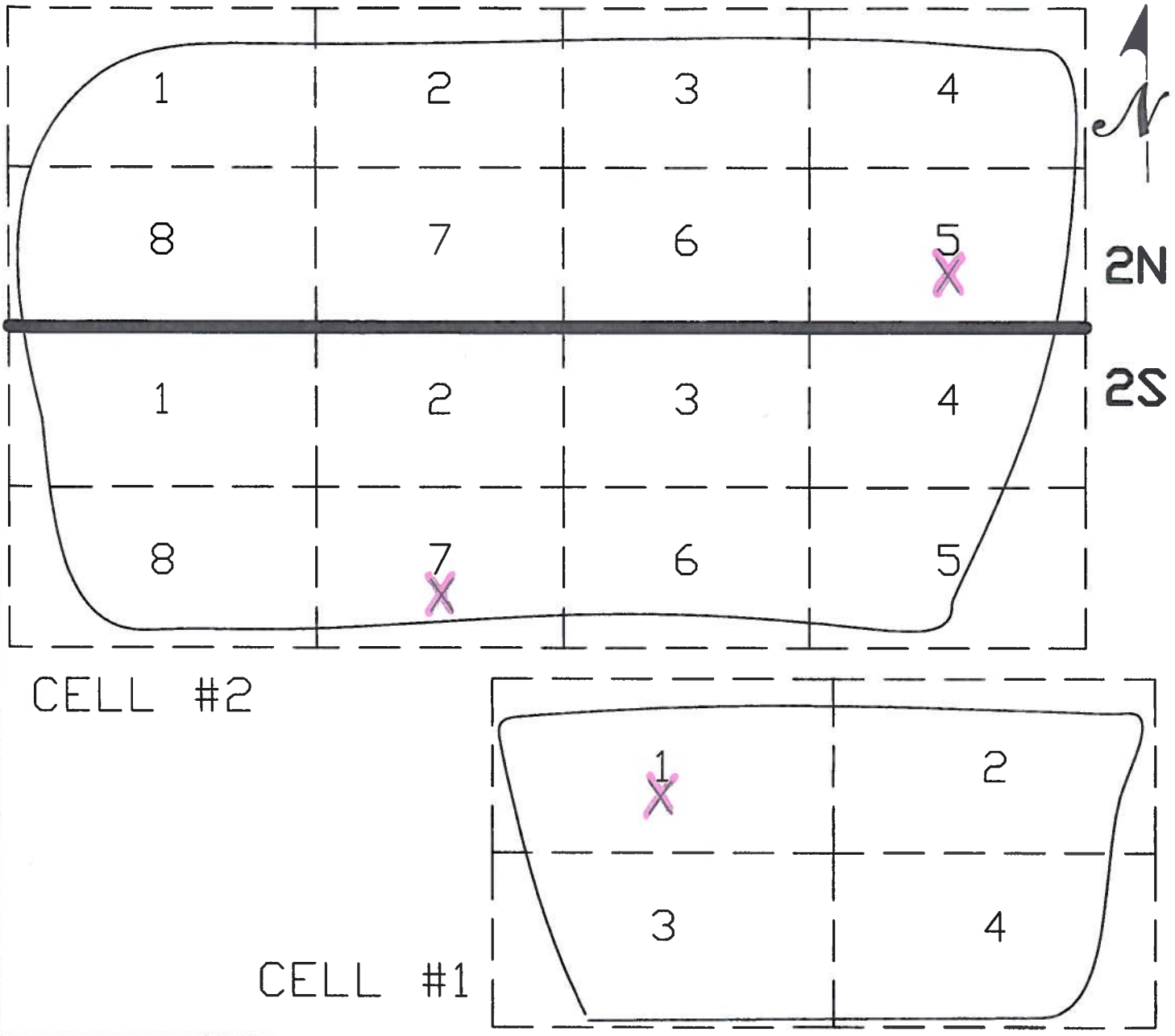
FIGURES

Figure 1, Vicinity Map
Figure 2, Sampling Grid Diagram



Source: Flora Vista, New Mexico 7.5 Minute U.S.G.S. Topographic Quadrangle Map
Scale: 1:24,000 1" = 2000'

Agua Moss 1st Quarter Sampling Landfarm Cell #1 and #2 San Juan County, New Mexico	envirotech ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64 Farmington, New Mexico 87401 505.632.0615	Vicinity Map Figure #1
PROJECT Number:07117-0009 Date Drawn: 3/29/13		DRAWN BY: Tiffany McIntosh PROJECT MANAGER: Greg Crabtree



LEGEND

LAND FARM BOUNDARY

GRID BOUNDARY

SAMPLING POINTS

SAMPLING GRID DIAGRAM
AGUA MOSS LANDFARM
SECTION 2, TOWNSHIP 29N, RANGE 12W
SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 2	REV
PROJECT NO07117-0009		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	TLM	4-1-13	BASE DRWN		

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TABLES

Table 1, Summary of Analytical Results

Table 1, Summary of Analytical Results
Agua Moss
Landfarm Sampling Report
Permit NM-01-0009
Section 2, Township 29 North, Range 12 West
San Juan County, New Mexico
Project Number 07117-0009

Date	Sample Description	Grid Number	Latitude/Longitude	USEPA Method 418.1 TPH (ppm)	USEPA Method 8015 TPH (ppm)	USEPA Method 8021	
						Benzene (ppm)	BTEX (ppm)
NA	NMOCD Standards	NA	NA	2500	1000	0.2	50
3/25/2013	Cell 1	1	36.758345, -108.071737	ND	ND	ND	ND
3/25/2013	Cell 2 N	5	36.759023, -108.071268	ND	ND	ND	ND
3/25/2013	Cell 2 S	7	36.758624, -108.072310	27.0	ND	ND	ND

*Values in **BOLD** above OCD Rule 53.G Specific Requirements Applicable to Landfarms, Treatment Zone Closure Performance Standards

*ND - Parameter not detected

APPENDIX A

Analytical Results

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Analytical Report

Report Summary

Client: Agua Moss LLC

Chain Of Custody Number: 15331

Samples Received: 3/25/2013 10:30:00AM

Job Number: 07117-0009

Work Order: P303088

Project Name/Location: Agua Moss Landfarm Cell 1 & 2

Entire Report Reviewed By: _____ Date: 3/27/13

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

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Agua Moss LLC	Project Name:	Agua Moss Landfarm Cell 1 & 2	
PO Box 600	Project Number:	07117-0009	**Reported:**
Farmington NM, 87499	Project Manager:	Etech	27-Mar-13 11:40

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
C1	P303088-01A	Soil	03/25/13	03/25/13	Glass Jar, 4 oz.
C2N	P303088-02A	Soil	03/25/13	03/25/13	Glass Jar, 4 oz.
C2S	P303088-03A	Soil	03/25/13	03/25/13	Glass Jar, 4 oz.

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Agua Moss LLC	Project Name:	Agua Moss Landfarm Cell 1 & 2	
PO Box 600	Project Number:	07117-0009	**Reported:**
Farmington NM, 87499	Project Manager:	Etech	27-Mar-13 11:40

C1

P303088-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
Toluene	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
Ethylbenzene	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
p,m-Xylene	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
o-Xylene	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
Total BTEX	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
Surrogate: Bromochlorobenzene		*85.7 %*	*80-120*		*1313011*	*26-Mar-13*	*26-Mar-13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*91.3 %*	*80-120*		*1313011*	*26-Mar-13*	*26-Mar-13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*90.4 %*	*80-120*		*1313011*	*26-Mar-13*	*26-Mar-13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.0	mg/kg	1	1313010	26-Mar-13	27-Mar-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	5.0	mg/kg	1	1313010	26-Mar-13	27-Mar-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	5.0	mg/kg	1	1313010	26-Mar-13	27-Mar-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	ND	20.0	mg/kg	1	1313016	26-Mar-13	26-Mar-13	EPA 418.1	

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Agua Moss LLC	Project Name:	Agua Moss Landfarm Cell 1 & 2	
PO Box 600	Project Number:	07117-0009	**Reported:**
Farmington NM, 87499	Project Manager:	Etech	27-Mar-13 11:40

C2N

P303088-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
Toluene	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
Ethylbenzene	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
p,m-Xylene	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
o-Xylene	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
Total BTEX	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
Surrogate: Bromochlorobenzene		*91.7 %*	*80-120*		*1313011*	*26-Mar-13*	*26-Mar-13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*88.8 %*	*80-120*		*1313011*	*26-Mar-13*	*26-Mar-13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*86.6 %*	*80-120*		*1313011*	*26-Mar-13*	*26-Mar-13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.0	mg/kg	1	1313010	26-Mar-13	27-Mar-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	5.0	mg/kg	1	1313010	26-Mar-13	27-Mar-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	5.0	mg/kg	1	1313010	26-Mar-13	27-Mar-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	ND	20.0	mg/kg	1	1313016	26-Mar-13	26-Mar-13	EPA 418.1	

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Analytical Laboratory

Agua Moss LLC	Project Name:	Agua Moss Landfarm Cell 1 & 2	
PO Box 600	Project Number:	07117-0009	**Reported:**
Farmington NM, 87499	Project Manager:	Etech	27-Mar-13 11:40

C2S

P303088-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
Toluene	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
Ethylbenzene	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
p,m-Xylene	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
o-Xylene	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
Total BTEX	ND	50.0	ug/L	1	1313011	26-Mar-13	26-Mar-13	EPA 8021B	
Surrogate: Bromochlorobenzene		*92.2 %*	*80-120*		*1313011*	*26-Mar-13*	*26-Mar-13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*88.8 %*	*80-120*		*1313011*	*26-Mar-13*	*26-Mar-13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*86.3 %*	*80-120*		*1313011*	*26-Mar-13*	*26-Mar-13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.0	mg/kg	1	1313010	26-Mar-13	27-Mar-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	5.0	mg/kg	1	1313010	26-Mar-13	27-Mar-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	5.0	mg/kg	1	1313010	26-Mar-13	27-Mar-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**27.0**	20.0	mg/kg	1	1313016	26-Mar-13	26-Mar-13	EPA 418.1	

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Agua Moss LLC	Project Name:	Agua Moss Landfarm Cell 1 & 2	
PO Box 600	Project Number:	07117-0009	**Reported:**
Farmington NM, 87499	Project Manager:	Etech	27-Mar-13 11:40

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1313011 - Purge and Trap EPA 5030A										
Blank (1313011-BLK1)				Prepared & Analyzed: 26-Mar-13						
Benzene	ND	49.9	ug/L							
Toluene	ND	49.9	"							
Ethylbenzene	ND	49.9	"							
p,m-Xylene	ND	49.9	"							
o-Xylene	ND	49.9	"							
Total BTEX	ND	49.9	"							
Surrogate: Bromochlorobenzene	*44.8*		"	*50.0*		*89.6*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*47.0*		"	*50.0*		*94.0*	*80-120*			
Surrogate: Fluorobenzene	*45.9*		"	*50.0*		*91.9*	*80-120*			
Duplicate (1313011-DUP1)	**Source: P303090-01**			Prepared & Analyzed: 26-Mar-13						
Benzene	ND	50.0	ug/L		ND				30	
Toluene	ND	50.0	"		ND				30	
Ethylbenzene	ND	50.0	"		ND				30	
p,m-Xylene	ND	50.0	"		ND				30	
o-Xylene	ND	50.0	"		ND				30	
Surrogate: Bromochlorobenzene	*50.3*		"	*50.0*		*101*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*50.3*		"	*50.0*		*101*	*80-120*			
Surrogate: Fluorobenzene	*49.7*		"	*50.0*		*99.5*	*80-120*			
Matrix Spike (1313011-MS1)	**Source: P303090-01**			Prepared & Analyzed: 26-Mar-13						
Benzene	50.8		ug/L	50.0	0.17	101	39-150			
Toluene	50.6		"	50.0	0.47	100	46-148			
Ethylbenzene	50.4		"	50.0	0.18	100	32-160			
p,m-Xylene	101		"	100	0.61	100	46-148			
o-Xylene	50.5		"	50.0	0.44	100	46-148			
Surrogate: Bromochlorobenzene	*49.3*		"	*50.0*		*98.6*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*49.5*		"	*50.0*		*99.0*	*80-120*			
Surrogate: Fluorobenzene	*49.5*		"	*50.0*		*98.9*	*80-120*			

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Analytical Laboratory

Agua Moss LLC	Project Name:	Agua Moss Landfarm Cell 1 & 2	
PO Box 600	Project Number:	07117-0009	**Reported:**
Farmington NM, 87499	Project Manager:	Etech	27-Mar-13 11:40

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1313010 - GRO/DRO Extraction EPA 3550C										
Blank (1313010-BLK1)				Prepared & Analyzed: 26-Mar-13						
Gasoline Range Organics (C6-C10)	ND	5.0	mg/kg							
Diesel Range Organics (C10-C28)	ND	5.0	"							
GRO and DRO Combined Fractions	ND	5.0	"							
Duplicate (1313010-DUP1)		Source: P303090-01		Prepared & Analyzed: 26-Mar-13						
Gasoline Range Organics (C6-C10)	ND	5.0	mg/kg		ND				30	
Diesel Range Organics (C10-C28)	ND	5.0	"		ND				30	
Matrix Spike (1313010-MS1)		Source: P303090-01		Prepared & Analyzed: 26-Mar-13						
Gasoline Range Organics (C6-C10)	278	5.3	mg/kg	263	ND	106	75-125			
Diesel Range Organics (C10-C28)	268	5.3	"	263	ND	102	75-125			

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Analytical Laboratory

Agua Moss LLC	Project Name:	Agua Moss Landfarm Cell 1 & 2	
PO Box 600	Project Number:	07117-0009	**Reported:**
Farmington NM, 87499	Project Manager:	Etech	27-Mar-13 11:40

Total Petroleum Hydrocarbons by 418.1 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1313016 - 418 Freon Extraction										
Blank (1313016-BLK1)				Prepared & Analyzed: 26-Mar-13						
Total Petroleum Hydrocarbons	ND	20.0	mg/kg							
Duplicate (1313016-DUP1)		Source: P303090-01		Prepared & Analyzed: 26-Mar-13						
Total Petroleum Hydrocarbons	41.9	20.0	mg/kg		33.7			21.6	30	
Matrix Spike (1313016-MS1)		Source: P303090-01		Prepared & Analyzed: 26-Mar-13						
Total Petroleum Hydrocarbons	1890	20.0	mg/kg	2000	33.7	93.0	80-120			

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Analytical Laboratory

Agua Moss LLC	Project Name:	Agua Moss Landfarm Cell 1 & 2	
PO Box 600	Project Number:	07117-0009	**Reported:**
Farmington NM, 87499	Project Manager:	Etech	27-Mar-13 11:40

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

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CHAIN OF CUSTODY RECORD

15331

Client:	Project Name / Location:
Agua Moss	Agua Moss Landfarm Cell 1&2
Email results to:	Sampler Name:
T. McIntosh, T. McKnight	T. McIntosh
Client Phone No.:	Client No.:
	07117-0009

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative: $HgCl_2$	Preservative: HCl	Preservative: COOL	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
~~Cell 1 #1~~ C1	3/25/13	9:15	P303088-01	1-4 oz jar			✓	✓	✓							✓					X	X
~~Cell 2N #5~~ CON	3/25/13	9:30	P303088-02	1-4oz jar			✓	✓	✓							✓					X	X
~~Cell 2S #7~~ CAS	3/25/13	9:45	P303088-03	1-4oz jar			✓	✓	✓							✓					X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Tiffany McIntosh	3/25/13	1030	William Jones	3/25/13	10:30
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix

Soil ☑ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

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Analytical Laboratory

5795 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 • laboratory@envirotech-inc.com

san juan reproduction 578-129

envirotech

August 16, 2013

Project Number: 07117-0012

Ms. Philana Thompson
Regulatory Compliance
Agua Moss
Post Office Box 600
345 CR 350
Farmington, New Mexico 87401

Phone (505)-324-5336

RE: LANDFARM SAMPLING AND ANALYSIS REPORT, AGUA MOSS LANDFARM, SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Thompson:

Please find enclosed the Landfarm Sampling and Analysis Report for the Agua Moss Landfarm located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico.

If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.

Toni McKnight, EIT
Environmental Project Manager
tmcknight@envirotech-inc.com

Enclosure: Landfarm Sampling and Analysis Report

Cc: Client File Number: 07117

SECOND QUARTER LANDFARM SOIL SAMPLING AND ANALYSIS REPORT

SITE NAME:

AGUA MOSS LANDFARM
CELL #1 AND CELL #2
SECTION 2, TOWNSHIP 29 NORTH, RANGE 12 WEST
SAN JUAN COUNTY, NEW MEXICO

SUBMITTED TO:

MS. PHILANA THOMPSON
AGUA MOSS
POST OFFICE BOX 600
345 CR 350
FARMINGTON, NEW MEXICO 87401

SUBMITTED BY:

ENVIROTECH, INC
5796 HIGHWAY 64
FARMINGTON, NEW MEXICO 87401
(505) 632-0615

PROJECT NUMBER 07117-0012
JULY 2013

LANDFARM SOIL SAMPLING
AND ANALYSIS REPORT
AGUA MOSS LANDFARM
CELL #1 AND CELL #2
SECTION 2, TOWNSHIP 29 NORTH, RANGE 12 WEST
SAN JUAN COUNTY, NEW MEXICO

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Appendices: Appendix A, Analytical Results

INTRODUCTION

Envirotech, Inc. of Farmington, New Mexico, was contracted by Agua Moss to provide sampling and analysis services for the Agua Moss Farmington-NM-01-0009 Landfarm located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico; see ***Figure 1, Vicinity Map***. Activities included sample collection, analysis, documentation and reporting.

ACTIVITIES PERFORMED

Envirotech personnel performed soil sampling activities on June 19, 2013, at the Agua Moss Landfarm. Envirotech personnel divided Cell #1 into four (4) grids and Cell #2 into two (2) sections (North and South) with eight (8) grids per section, for a total of 16 grids. These sampling areas will be referred to as C1 - (1 to 4), C2N – (1 to 8), and C2S – (1 to 8); see ***Figure 2, Sampling Grid Diagram***. Random sample locations were determined by "Out of Hat" drawing.

After determining random sample locations, four (4) samples were collected, using a hand auger, from Cell #1 and designated as C1-3.1, C1-3.2, C1-4.1, and C1-4.4. Four (4) samples were collected from each of the North and South sections of Cell #2. The North section samples were designated as C2N-2, C2N-4, C2N-5, and C2N-8. The South section samples were designated as C2S-1, C2S-2, C2S-4, and C2S-6; see ***Figure 2, Sampling Grid Diagram***. Each soil sample was collected two (2) to three (3) feet below native ground surface in each of the sampling grids for vadose zone monitoring. All boreholes and sampling points were backfilled with impermeable bentonite material as stated in New Mexico Oil Conservation Division (NMOCD) Permit NM-01-0009. Soil samples were collected into four (4)-ounce glass jars, capped headspace free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for total petroleum hydrocarbons (TPH) using USEPA Methods 418.1 and 8015, for benzene and total BTEX using USEPA Method 8021, and for chlorides using USEPA Method 300.1.

For treatment zone monitoring, three (3) four (4)-point composite samples were collected, using a hand shovel, one (1) sample from each cell: Cell #1, Cell #2 North, and Cell #2 South. The samples were designated as Cell 1-Comp, Cell 2N-Comp, and Cell 2S-Comp. Each composite sample was collected from four (4) discrete samples collected from zero (0) to six (6) inches below ground surface (BGS). In Cell #1, the discrete samples were collected from areas C1-1.1, C1-3.1, C1-3.2, and C1-4.4. In Cell #2 North the discrete samples were collected from areas C2N-3, C2N-5, C2N-6, and C2N-7. In Cell #2 South the discrete samples were collected from areas C2S-4, C2S-5, C2S-7, and C2S-8; see ***Figure 2, Sampling Grid Diagram*** and ***Appendix B, Field Notes***. Soil samples were homogenized thoroughly, and collected into four (4)-ounce glass jars, capped headspace free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Methods 418.1 and 8015 and for chlorides using USEPA Method 300.1.

SUMMARY

Sampling and analysis services were performed for the Agua Moss Farmington-NM-01-0009 Landfarm located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico. Services were conducted in accordance with the Agua Moss Landfarm permit NM-01-0009.

Samples collected from the vadose zone returned results that were below the regulatory standard for all constituents analyzed, except for the C2N sample collected in Cell 5. C2N-5 returned a result of 24300 ppm for TPH using USEPA Method 418.1, but was below regulatory standards for all other constituents analyzed; see ***Table 1, Summary of Analytical Results*** and ***Appendix A, Analytical Results***. The results of this sampling indicate that contaminants have not leached into the vadose zone.

Treatment zone sampling results demonstrated significant levels of TPH (Method 418.1) above the closure standard of 2500 mg/kg (OCD Rule 53.G Specific Requirements Applicable to Landfarms, Treatment Zone Closure Performance Standards) in Cell 1 and Cell 2. Gasoline range organics (GRO) and diesel range organics (DRO) (Method 8015) were below regulatory standards in the treatment zone samples. Chloride concentrations were below closure standards for Cell 1 and Cell 2 with an average of 378 mg/kg; see ***Table 1, Summary of Analytical Results*** and ***Appendix A, Analytical Results***.

STATEMENT OF LIMITATIONS

Envirotech, Inc. has completed sampling and analysis services for Agua Moss Farmington-NM-01-0009 Landfarm located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico. The work and services provided by Envirotech, Inc. were in accordance with the New Mexico Oil Conservation Division standards. All observations and conclusions provided here are based on the information and current site conditions found at the site.

The undersigned has conducted this service at the above referenced site; this work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,

ENVIROTECH, INC.

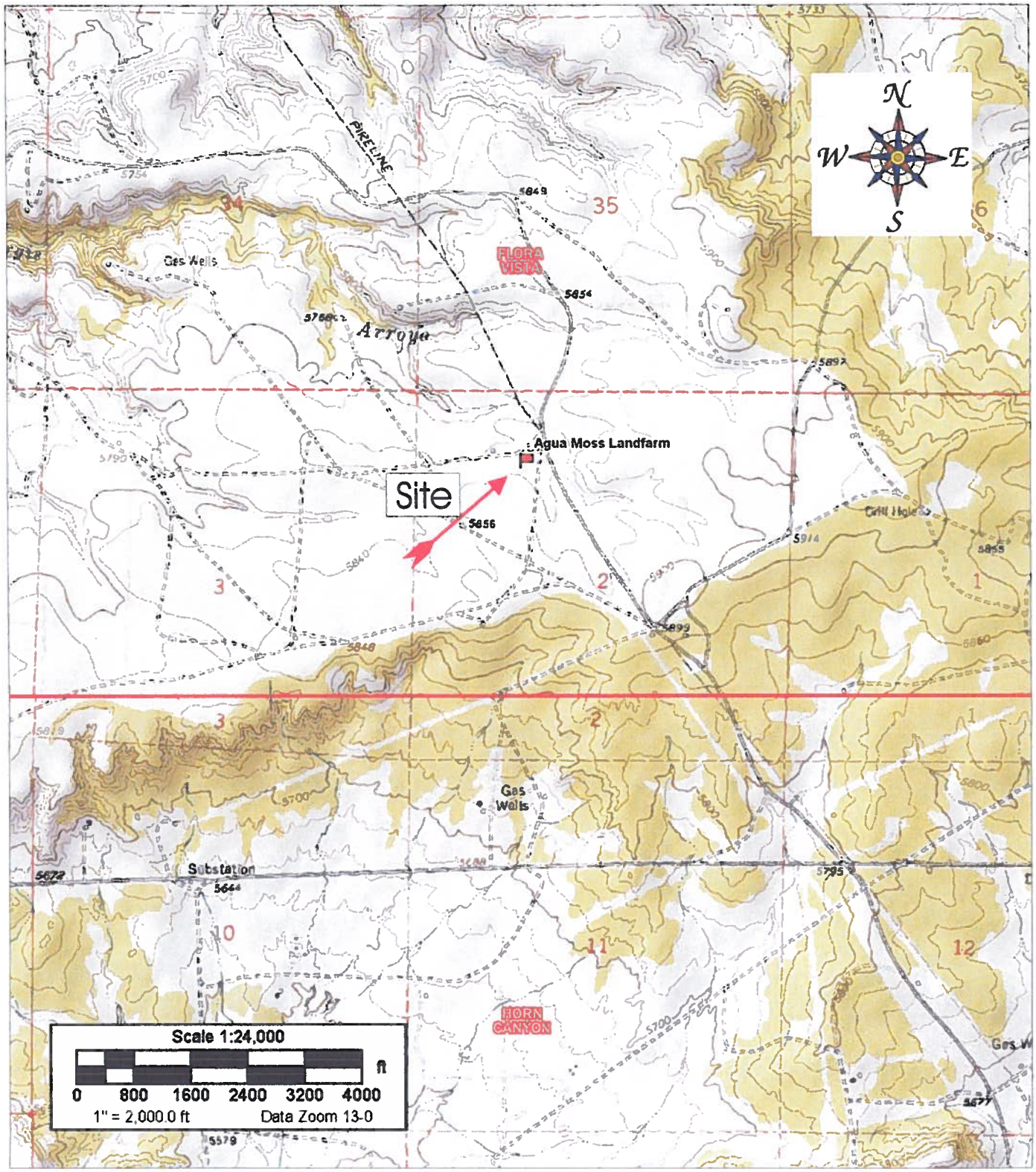
Toni McKnight, EIT
Environmental Project Manager
tmcknight@envirotech-inc.com

Reviewed by:

Gregory W. Crabtree, P.E.
Environmental Manager
gcrabtree@envirotech-inc.com

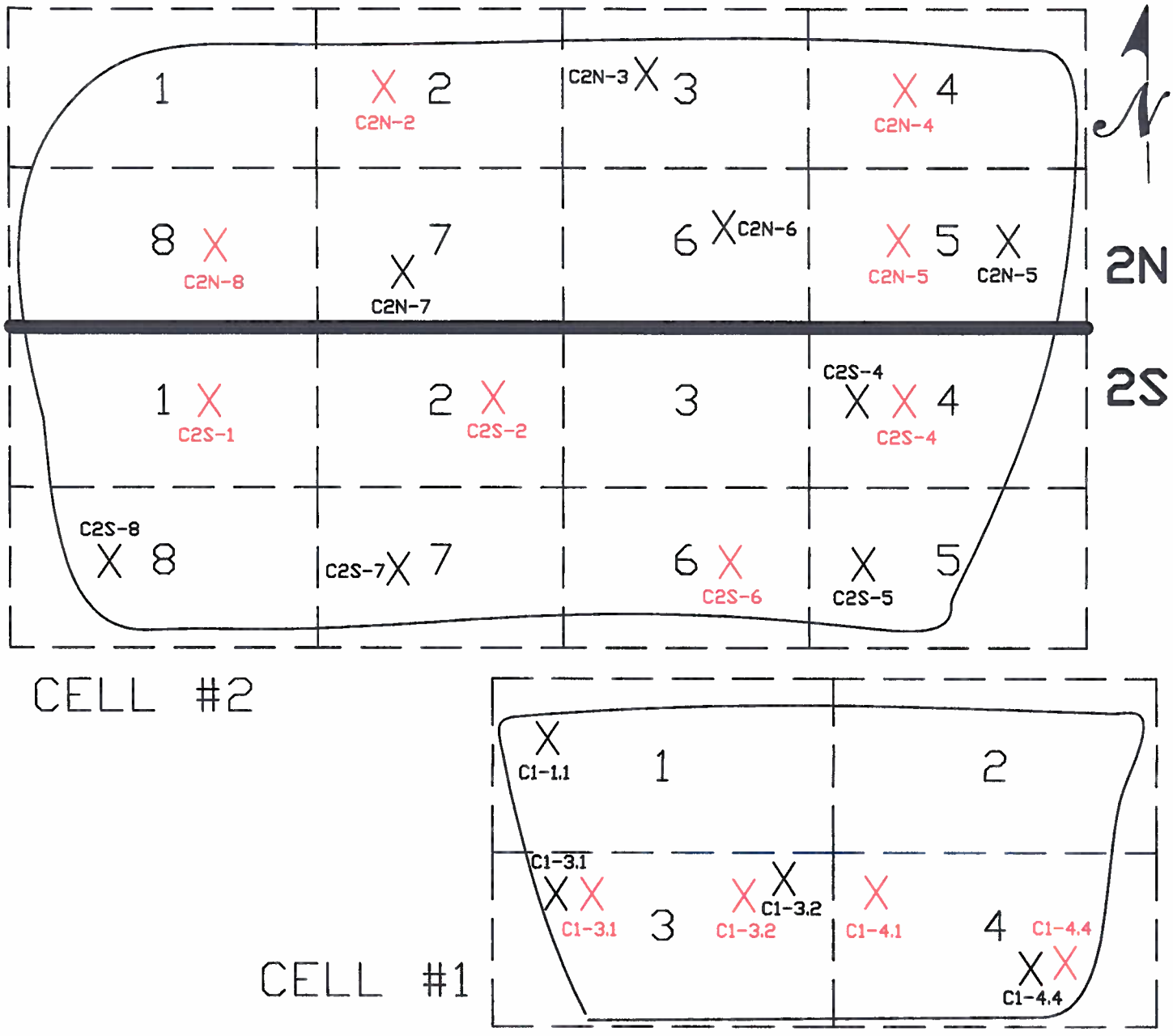
FIGURES

Figure 1, Vicinity Map
Figure 2, Sampling Grid Diagram



Source: Flora Vista, New Mexico 7.5 Minute U.S.G.S. Topographic Quadrangle Map
Scale: 1:24,000 1" = 2000'

Agua Moss 2nd Quarter Sampling Landfarm Cell #1 and #2 San Juan County, New Mexico	envirotech ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64 Farmington, New Mexico 87401 505.632.0615	Vicinity Map Figure #1
PROJECT Number:07117-0012 Date Drawn: 7/25/13		DRAWN BY: Tiffany McIntosh PROJECT MANAGER: Greg Crabtree



LEGEND

- LAND FARM BOUNDARY
- GRID BOUNDARY
- X — VADOSE ZONE SAMPLING POINTS
- X — TREATMENT ZONE SAMPLING POINTS

SAMPLING GRID DIAGRAM
SECOND QUARTER
AGUA MOSS LANDFARM
SECTION 2, TOWNSHIP 29N, RANGE 12W
SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 2	REV
PROJECT NO07117-0012		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	TLM	7-25-13	BASE DRWN		

envirotech
5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615

TABLES

Table 1, Summary of Analytical Results

Table 1, Summary of Analytical Results
Agua Moss
Landfarm Sampling Report
Permit NM-01-0009
Section 2, Township 29 North, Range 12 West
San Juan County, New Mexico
Project Number 07117-0012

Date	Sample Description	Grid Number	Latitude/Longitude	USEPA Method 418.1 TPH (ppm)	USEPA Method 8015 TPH (ppm)	Chlorides (ppm)	USEPA Method 8021	
							Benzene (ppm)	BTEX (ppm)
NA	NMOCD Standards	NA	NA	2500	1000	1000	0.2	50
6/19/2013	Cell 1	3.1	36° 45' 29.59", -108° 4' 18.44"	79.9	ND	568	ND	ND
6/19/2013	Cell 1	3.2	36° 45' 29.67", -108° 4' 17.82"	79.9	ND	832	ND	0.08
6/19/2013	Cell 1	4.1	36° 45' 29.61", -108° 4' 17.36"	132	ND	655	ND	ND
6/19/2013	Cell 1	4.4	36° 45' 29.00", -108° 4' 16.97"	168	ND	608	ND	ND
6/19/2013	Cell 1-Comp.	TZ	NA	**16500**	11.2	ND	NS	NS
6/19/2013	Cell 2N	2	36° 45' 33.00", -108° 4' 20.85"	264	ND	403	ND	ND
6/19/2013	Cell 2N	4	36° 45' 33.25", -108° 4' 16.72"	28.0	ND	461	ND	ND
6/19/2013	Cell 2N	5	36° 45' 32.33", -108° 4' 16.67"	**24300**	83.1	448	ND	ND
6/19/2013	Cell 2N	8	36° 45' 31.97", -108° 4' 22.73"	839	ND	119	ND	ND
6/19/2013	Cell 2N-Comp.	TZ	NA	**19000**	8.07	591	NS	NS
6/19/2013	Cell 2S	1	36° 45' 31.38", -108° 4' 22.29"	212	ND	426	ND	ND
6/19/2013	Cell 2S	2	36° 45' 31.74", -108° 4' 20.61"	108	ND	194	ND	ND
6/19/2013	Cell 2S	4	36° 45' 32.12", -108° 4' 16.60"	600	ND	498	ND	ND
6/19/2013	Cell 2S	6	36° 45' 31.28", -108° 4' 19.09"	63.9	ND	21.1	ND	ND
6/19/2013	Cell 2S-Comp.	TZ	NA	**17100**	6.19	544	NS	NS

*Values in **BOLD** above OCD Rule 53.G Specific Requirements
Applicable to Landfarms, Treatment Zone Closure Performance Standards

*ND - Parameter not detected
*TZ - Treatment Zone

*NS - Not Sampled

APPENDIX A

Analytical Results

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Analytical Laboratory

Analytical Report

Report Summary

Client: Agua Moss LLC

Chain Of Custody Number: 15683

Samples Received: 6/19/2013 2:40:00PM

Job Number: 07117-0012

Work Order: P306095

Project Name/Location: 2nd Qtr Sampling

Entire Report Reviewed By: _____ Date: 6/24/13

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

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Analytical Laboratory

Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:49

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
C2N	P306095-01A	Soil	06/19/13	06/19/13	Glass Jar, 4 oz.
C2S	P306095-02A	Soil	06/19/13	06/19/13	Glass Jar, 4 oz.
C1	P306095-03A	Soil	06/19/13	06/19/13	Glass Jar, 4 oz.
C2N-8	P306095-04A	Soil	06/19/13	06/19/13	Glass Jar, 4 oz.
C2N-2	P306095-05A	Soil	06/19/13	06/19/13	Glass Jar, 4 oz.
C2N-4	P306095-06A	Soil	06/19/13	06/19/13	Glass Jar, 4 oz.
C2N-5	P306095-07A	Soil	06/19/13	06/19/13	Glass Jar, 4 oz.

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Analytical Laboratory

Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:49

C2N

P306095-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**8.07**	4.97	mg/kg	1	1325032	19-Jun-13	21-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	4.97	mg/kg	1	1325032	19-Jun-13	21-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	**8.07**	4.97	mg/kg	1	1325032	19-Jun-13	21-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**19000**	20.0	mg/kg	1	1325051	21-Jun-13	21-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**591**	9.99	mg/kg	1	1325045	20-Jun-13	20-Jun-13	EPA 300.0	

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Analytical Laboratory

Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:49

C2S

P306095-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**6.19**	5.00	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	5.00	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	**6.19**	5.00	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**17100**	20.0	mg/kg	1	1325051	21-Jun-13	21-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**544**	9.99	mg/kg	1	1325045	20-Jun-13	20-Jun-13	EPA 300.0	

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Analytical Laboratory

Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:49

C1

P306095-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**5.56**	4.99	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	**5.64**	4.99	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	**11.2**	4.99	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**16500**	20.0	mg/kg	1	1325051	21-Jun-13	21-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	ND	9.99	mg/kg	1	1325045	20-Jun-13	20-Jun-13	EPA 300.0	

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Analytical Laboratory

Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:49

C2N-8

P306095-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Surrogate: Bromochlorobenzene		*95.2 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*96.1 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*93.5 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	4.99	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.99	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**839**	20.0	mg/kg	1	1325051	21-Jun-13	21-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**119**	9.99	mg/kg	1	1325045	20-Jun-13	20-Jun-13	EPA 300.0	

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Analytical Laboratory

Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:49

C2N-2

P306095-05 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Surrogate: Bromochlorobenzene		*97.4 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*97.2 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*94.7 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	5.00	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	5.00	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**264**	20.0	mg/kg	1	1325051	21-Jun-13	21-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**403**	9.99	mg/kg	1	1325045	20-Jun-13	20-Jun-13	EPA 300.0	

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Analytical Laboratory

Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:49

C2N-4

P306095-06 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Surrogate: Bromochlorobenzene		*88.4 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*90.9 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*88.8 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	4.98	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.98	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**28.0**	20.0	mg/kg	1	1325051	21-Jun-13	21-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**461**	9.98	mg/kg	1	1325045	20-Jun-13	20-Jun-13	EPA 300.0	

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:49

C2N-5

P306095-07 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Surrogate: Bromochlorobenzene		*95.4 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*96.6 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*93.7 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**16.4**	4.98	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	**66.6**	4.98	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	**83.1**	4.98	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**24300**	20.0	mg/kg	1	1325051	21-Jun-13	21-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**448**	10.0	mg/kg	1	1325045	20-Jun-13	20-Jun-13	EPA 300.0	

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:49

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1325020 - Purge and Trap EPA 5030A										
Blank (1325020-BLK1)				Prepared & Analyzed: 19-Jun-13						
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: Bromochlorobenzene	*47.4*		*ug/L*	*50.0*		*94.8*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*50.0*		*"*	*50.0*		*100*	*80-120*			
Surrogate: Fluorobenzene	*49.8*		*"*	*50.0*		*99.5*	*80-120*			
Duplicate (1325020-DUP1)	**Source: P306087-01**			Prepared: 19-Jun-13 Analyzed: 20-Jun-13						
Benzene	ND	0.30	mg/kg		ND				30	
Toluene	ND	0.30	"		ND				30	
Ethylbenzene	ND	0.30	"		ND				30	
p,m-Xylene	ND	0.30	"		ND				30	
o-Xylene	ND	0.30	"		ND				30	
Surrogate: Bromochlorobenzene	*53.8*		*ug/L*	*50.0*		*108*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*50.7*		*"*	*50.0*		*101*	*80-120*			
Surrogate: Fluorobenzene	*50.4*		*"*	*50.0*		*101*	*80-120*			
Matrix Spike (1325020-MS1)	**Source: P306087-01**			Prepared: 19-Jun-13 Analyzed: 20-Jun-13						
Benzene	51.5		ug/L	50.0	0.26	102	39-150			
Toluene	51.7		"	50.0	0.61	102	46-148			
Ethylbenzene	51.6		"	50.0	0.30	103	32-160			
p,m-Xylene	103		"	100	0.58	102	46-148			
o-Xylene	51.7		"	50.0	0.54	102	46-148			
Surrogate: Bromochlorobenzene	*52.8*		*"*	*50.0*		*106*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*51.1*		*"*	*50.0*		*102*	*80-120*			
Surrogate: Fluorobenzene	*51.3*		*"*	*50.0*		*103*	*80-120*			

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:49

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1325032 - GRO/DRO Extraction EPA 3550C										
Blank (1325032-BLK1)				Prepared: 19-Jun-13 Analyzed: 21-Jun-13						
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							
Diesel Range Organics (C10-C28)	ND	4.99	"							
GRO and DRO Combined Fractions	ND	4.99	"							
Duplicate (1325032-DUP1)	Source: P306095-01			Prepared: 19-Jun-13 Analyzed: 21-Jun-13						
Gasoline Range Organics (C6-C10)	8.41	4.96	mg/kg		8.07			4.08	30	
Diesel Range Organics (C10-C28)	ND	4.96	"		ND				30	
Matrix Spike (1325032-MS1)	Source: P306095-01			Prepared: 19-Jun-13 Analyzed: 21-Jun-13						
Gasoline Range Organics (C6-C10)	174		mg/L	250	7.67	66.4	75-125			SPK1
Diesel Range Organics (C10-C28)	262		"	250	4.17	103	75-125			

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:49

Total Petroleum Hydrocarbons by 418.1 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1325051 - 418 Freon Extraction										
Blank (1325051-BLK1)				Prepared & Analyzed: 21-Jun-13						
Total Petroleum Hydrocarbons	ND	20.0	mg/kg							
Duplicate (1325051-DUP1)		Source: P306095-01		Prepared & Analyzed: 21-Jun-13						
Total Petroleum Hydrocarbons	19000	20.0	mg/kg		19000			0.120	30	
Matrix Spike (1325051-MS1)		Source: P306095-01		Prepared & Analyzed: 21-Jun-13						
Total Petroleum Hydrocarbons	21000	20.0	mg/kg	2000	19000	100	80-120			

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:49

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1325045 - Anion Extraction EPA 300.0										
Blank (1325045-BLK1)				Prepared & Analyzed: 20-Jun-13						
Chloride	ND	9.91	mg/kg							
Duplicate (1325045-DUP1)		Source: P306095-01		Prepared & Analyzed: 20-Jun-13						
Chloride	615	9.97	mg/kg		591			3.97	30	

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:49

Notes and Definitions

SPK1	The spike recovery for this QC sample is outside of control 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

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CHAIN OF CUSTODY RECORD

15683

Client: Agua Moss	Project Name / Location: 2nd Qtr Sampling
Email results to: T. McKnight	Sampler Name: T. McIntosh / T. McKnight
Client Phone No.:	Client No.: 07117-0012

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative HNO_3	Preservative HCl	Preservative cool	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE 300.1				Sample Cool	Sample Intact
C2N	6/19/13	1215	P306095-01	1-4oz jar			X	X								X	X				X	X
C2S		1110	P306095-02					X								X	X				X	X
C1		1258	P306095-03					X								X	X				X	X
C2N-8		1005	P306095-04					X	X							X	X				X	X
C2N-2		1006	P306095-05					X	X							X	X				X	X
C2N-4		1150	P306095-06					X	X							X	X				X	X
C2N-5		1155	P306095-07					X	X							X	X				X	X

	Date	Time		Date	Time
Relinquished by: (Signature) Tiffany McIntosh	6/19/13	1440	Received by: (Signature) William Joe	6/19/13	14:40
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix: Soil ☑ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐

☐ Sample(s) dropped off after hours to secure drop off area.

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san juan reproduction 578-129

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Analytical Report

Report Summary

Client: Agua Moss LLC

Chain Of Custody Number: 15685

Samples Received: 6/19/2013 2:40:00PM

Job Number: 07117-0012

Work Order: P306097

Project Name/Location: 2nd Qtr Sampling

Entire Report Reviewed By: _____ Date: 6/24/13

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	Reported:
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:53

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
C2S-1	P306097-01A	Solid	06/19/13	06/19/13	Glass Jar, 4 oz.
C2S-2	P306097-02A	Solid	06/19/13	06/19/13	Glass Jar, 4 oz.
C2S-6	P306097-03A	Solid	06/19/13	06/19/13	Glass Jar, 4 oz.
C2S-4	P306097-04A	Soil	06/19/13	06/19/13	Glass Jar, 4 oz.
C1-3.1	P306097-05A	Soil	06/19/13	06/19/13	Glass Jar, 4 oz.
C1-3.2	P306097-06A	Soil	06/19/13	06/19/13	Glass Jar, 4 oz.
C1-4.1	P306097-07A	Soil	06/19/13	06/19/13	Glass Jar, 4 oz.
C1-4.4	P306097-08A	Soil	06/19/13	06/19/13	Glass Jar, 4 oz.

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:53

C2S-1

P306097-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Surrogate: Bromochlorobenzene		*96.6 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*97.1 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*94.4 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	4.99	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.99	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**212**	20.0	mg/kg	1	1325051	21-Jun-13	21-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**426**	9.99	mg/kg	1	1325045	20-Jun-13	20-Jun-13	EPA 300.0	

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:53

C2S-2

P306097-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Surrogate: Bromochlorobenzene		*93.8 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*97.2 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*94.7 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	4.99	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.99	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**108**	20.0	mg/kg	1	1325051	21-Jun-13	21-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**194**	10.0	mg/kg	1	1325045	20-Jun-13	20-Jun-13	EPA 300.0	

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:53

C2S-6

P306097-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Surrogate: Bromochlorobenzene		*87.3 %*		*80-120*	*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*92.3 %*		*80-120*	*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*90.5 %*		*80-120*	*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	5.00	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	5.00	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**63.9**	20.0	mg/kg	1	1325051	21-Jun-13	21-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**21.1**	10.0	mg/kg	1	1325045	20-Jun-13	20-Jun-13	EPA 300.0	

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:53

C2S-4

P306097-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Surrogate: Bromochlorobenzene		*92.3 %*		*80-120*	*1325020*	*19-Jun-13*	*24-Jun-13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*92.5 %*		*80-120*	*1325020*	*19-Jun-13*	*24-Jun-13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*90.0 %*		*80-120*	*1325020*	*19-Jun-13*	*24-Jun-13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	5.00	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	5.00	mg/kg	1	1325032	19-Jun-13	23-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**600**	20.0	mg/kg	1	1325051	21-Jun-13	21-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**498**	9.98	mg/kg	1	1325045	20-Jun-13	20-Jun-13	EPA 300.0	

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:53

C1-3.1

P306097-05 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Surrogate: Bromochlorobenzene		*90.7 %*		*80-120*	*1325020*	*19-Jun-13*	*24-Jun-13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*88.5 %*		*80-120*	*1325020*	*19-Jun-13*	*24-Jun-13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*86.5 %*		*80-120*	*1325020*	*19-Jun-13*	*24-Jun-13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.97	mg/kg	1	1325032	19-Jun-13	24-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	4.97	mg/kg	1	1325032	19-Jun-13	24-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.97	mg/kg	1	1325032	19-Jun-13	24-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**79.9**	20.0	mg/kg	1	1325051	21-Jun-13	21-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**568**	9.98	mg/kg	1	1325045	20-Jun-13	20-Jun-13	EPA 300.0	

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:53

C1-3.2

P306097-06 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
p,m-Xylene	**0.07**	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Total Xylenes	**0.07**	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Total BTEX	**0.08**	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Surrogate: Bromochlorobenzene		*89.3 %*	*80-120*		*1325020*	*19-Jun-13*	*24-Jun-13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*92.9 %*	*80-120*		*1325020*	*19-Jun-13*	*24-Jun-13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*91.2 %*	*80-120*		*1325020*	*19-Jun-13*	*24-Jun-13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg	1	1325032	19-Jun-13	24-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	4.98	mg/kg	1	1325032	19-Jun-13	24-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.98	mg/kg	1	1325032	19-Jun-13	24-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**79.9**	20.0	mg/kg	1	1325051	21-Jun-13	21-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**832**	9.99	mg/kg	1	1325045	20-Jun-13	20-Jun-13	EPA 300.0	

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:53

C1-4.1

P306097-07 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1325020	19-Jun-13	24-Jun-13	EPA 8021B	
Surrogate: Bromochlorobenzene		*95.4 %*	*80-120*		*1325020*	*19-Jun-13*	*24-Jun-13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*97.9 %*	*80-120*		*1325020*	*19-Jun-13*	*24-Jun-13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*95.2 %*	*80-120*		*1325020*	*19-Jun-13*	*24-Jun-13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1325032	19-Jun-13	24-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	4.99	mg/kg	1	1325032	19-Jun-13	24-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.99	mg/kg	1	1325032	19-Jun-13	24-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**132**	20.0	mg/kg	1	1325051	21-Jun-13	21-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**655**	9.98	mg/kg	1	1325045	20-Jun-13	20-Jun-13	EPA 300.0	

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:53

C1-4.4

P306097-08 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1325020	19-Jun-13	23-Jun-13	EPA 8021B	
Surrogate: Bromochlorobenzene		*94.6 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*95.8 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*93.5 %*	*80-120*		*1325020*	*19-Jun-13*	*23-Jun-13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg	1	1325032	19-Jun-13	24-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	4.98	mg/kg	1	1325032	19-Jun-13	24-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.98	mg/kg	1	1325032	19-Jun-13	24-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**168**	20.0	mg/kg	1	1325051	21-Jun-13	21-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**608**	10.0	mg/kg	1	1325045	20-Jun-13	20-Jun-13	EPA 300.0	

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:53

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1325020 - Purge and Trap EPA 5030A										
Blank (1325020-BLK1)				Prepared & Analyzed: 19-Jun-13						
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: Bromochlorobenzene	*47.4*		*ug/L*	*50.0*		*94.8*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*50.0*		*"*	*50.0*		*100*	*80-120*			
Surrogate: Fluorobenzene	*49.8*		*"*	*50.0*		*99.5*	*80-120*			
Duplicate (1325020-DUP1)	**Source: P306087-01**			Prepared: 19-Jun-13 Analyzed: 20-Jun-13						
Benzene	ND	0.30	mg/kg		ND				30	
Toluene	ND	0.30	"		ND				30	
Ethylbenzene	ND	0.30	"		ND				30	
p,m-Xylene	ND	0.30	"		ND				30	
o-Xylene	ND	0.30	"		ND				30	
Surrogate: Bromochlorobenzene	*53.8*		*ug/L*	*50.0*		*108*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*50.7*		*"*	*50.0*		*101*	*80-120*			
Surrogate: Fluorobenzene	*50.4*		*"*	*50.0*		*101*	*80-120*			
Matrix Spike (1325020-MS1)	**Source: P306087-01**			Prepared: 19-Jun-13 Analyzed: 20-Jun-13						
Benzene	51.5		ug/L	50.0	0.26	102	39-150			
Toluene	51.7		"	50.0	0.61	102	46-148			
Ethylbenzene	51.6		"	50.0	0.30	103	32-160			
p,m-Xylene	103		"	100	0.58	102	46-148			
o-Xylene	51.7		"	50.0	0.54	102	46-148			
Surrogate: Bromochlorobenzene	*52.8*		*"*	*50.0*		*106*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*51.1*		*"*	*50.0*		*102*	*80-120*			
Surrogate: Fluorobenzene	*51.3*		*"*	*50.0*		*103*	*80-120*			

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	Reported:
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:53

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1325032 - GRO/DRO Extraction EPA 3550C										
Blank (1325032-BLK1)				Prepared: 19-Jun-13 Analyzed: 21-Jun-13						
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							
Diesel Range Organics (C10-C28)	ND	4.99	"							
GRO and DRO Combined Fractions	ND	4.99	"							
Duplicate (1325032-DUP1)	Source: P306095-01			Prepared: 19-Jun-13 Analyzed: 21-Jun-13						
Gasoline Range Organics (C6-C10)	8.41	4.96	mg/kg		8.07			4.08	30	
Diesel Range Organics (C10-C28)	ND	4.96	"		ND				30	
Matrix Spike (1325032-MS1)	Source: P306095-01			Prepared: 19-Jun-13 Analyzed: 21-Jun-13						
Gasoline Range Organics (C6-C10)	174		mg/L	250	7.67	66.4	75-125			SPK1
Diesel Range Organics (C10-C28)	262		"	250	4.17	103	75-125			

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:53

Total Petroleum Hydrocarbons by 418.1 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1325051 - 418 Freon Extraction										
Blank (1325051-BLK1)				Prepared & Analyzed: 21-Jun-13						
Total Petroleum Hydrocarbons	ND	20.0	mg/kg							
Duplicate (1325051-DUP1)		Source: P306095-01		Prepared & Analyzed: 21-Jun-13						
Total Petroleum Hydrocarbons	19000	20.0	mg/kg		19000			0.120	30	
Matrix Spike (1325051-MS1)		Source: P306095-01		Prepared & Analyzed: 21-Jun-13						
Total Petroleum Hydrocarbons	21000	20.0	mg/kg	2000	19000	100	80-120			

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:53

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1325045 - Anion Extraction EPA 300.0										
Blank (1325045-BLK1)				Prepared & Analyzed: 20-Jun-13						
Chloride	ND	9.91	mg/kg							
Duplicate (1325045-DUP1)		Source: P306095-01		Prepared & Analyzed: 20-Jun-13						
Chloride	615	9.97	mg/kg		591			3.97	30	

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Agua Moss LLC	Project Name:	2nd Qtr Sampling	
PO Box 600	Project Number:	07117-0012	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	24-Jun-13 15:53

Notes and Definitions

SPK1	The spike recovery for this QC sample is outside of control 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

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CHAIN OF CUSTODY RECORD

15685

Client:	Project Name / Location:
Agua Moss	2nd Qtr Sampling
Email results to:	**Sampler Name:**
T. McKnight	T. McIntosh / T. McKnight
Client Phone No.:	**Client No.:**
	07117-0012

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE 300.1				Sample Cool	Sample Intact
					HNO_3	HCl	cool															
C25-1	6/19/13	1045	P3060097-01	1-4oz jar			X	X	X							X	X				X	X
C25-2		1052	P3060097-02					X	X							X	X				X	X
C25-6		1130	P3060097-03					X	X							X	X				X	X
C25-4		1125	P3060097-04					X	X							X	X				X	X
C1-3.1		1231	P3060097-05					X	X							X	X				X	X
C1-3.2		1245	P3060097-06					X	X							X	X				X	X
C1-4.1		1240	P3060097-07					X	X							X	X				X	X
C1-4.4		1225	P3060097-08					X	X							X	X				X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Tiffany McIntosh	6/19/13	1440	Miriam Joe	6/19/13	14:40
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix

Soil ☑ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

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san juan reproduction 578-129

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November 27, 2013

Project Number: 07117-0014

Ms. Philana Thompson
Regulatory Compliance
Agua Moss
Post Office Box 600
345 CR 350
Farmington, New Mexico 87401

Phone (505)-324-5336

RE: LANDFARM SAMPLING AND ANALYSIS REPORT, AGUA MOSS LANDFARM, SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Thompson:

Please find enclosed the Landfarm Sampling and Analysis Report for the Agua Moss Landfarm located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico.

If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.

Tiffany McIntosh for

Toni McKnight, EIT
Environmental Project Manager
tmcknight@envirotech-inc.com

Enclosure: Landfarm Sampling and Analysis Report

Cc: Client File Number: 07117

THIRD QUARTER LANDFARM SOIL SAMPLING AND ANALYSIS REPORT

SITE NAME:

AGUA MOSS LANDFARM
CELL #1 AND CELL #2
SECTION 2, TOWNSHIP 29 NORTH, RANGE 12 WEST
SAN JUAN COUNTY, NEW MEXICO

SUBMITTED TO:

MS. PHILANA THOMPSON
AGUA MOSS
POST OFFICE BOX 600
345 CR 350
FARMINGTON, NEW MEXICO 87401

SUBMITTED BY:

ENVIROTECH, INC
5796 HIGHWAY 64
FARMINGTON, NEW MEXICO 87401
(505) 632-0615

PROJECT NUMBER 07117-0014
SEPTEMBER 2013

LANDFARM SOIL SAMPLING
AND ANALYSIS REPORT
AGUA MOSS LANDFARM
CELL #1 AND CELL #2
SECTION 2, TOWNSHIP 29 NORTH, RANGE 12 WEST
SAN JUAN COUNTY, NEW MEXICO

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INTRODUCTION

Envirotech, Inc. of Farmington, New Mexico, was contracted by Agua Moss to provide sampling and analysis services for the Agua Moss Farmington-NM-01-0009 Landfarm located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico; see ***Figure 1, Vicinity Map***. Activities included sample collection, analysis, documentation and reporting.

ACTIVITIES PERFORMED

Envirotech personnel performed soil sampling activities on September 25, 2013, at the Agua Moss Landfarm. Soil sampling activities were conducted in accordance with the 3rd quarter requirements pursuant to the Aqua Moss Landfarm permit NM-01-0009. Envirotech personnel divided Cell #1 into four (4) grids and Cell #2 into two (2) sections (North and South) with eight (8) grids per section, for a total of 16 grids. These sampling areas will be referred to as C1 - (1 to 4), C2N – (1 to 8), and C2S – (1 to 8); see ***Figure 2, Sampling Grid Diagram***. Random sample locations were determined by "Out of Hat" drawing.

Three (3) samples were collected, at random: one (1) from Cell #1 and two (2) from Cell #2. The samples were designated as C1-1, C2N-2 and C2S-6; see ***Figure 2, Sampling Grid Diagram***. Each soil sample was collected, using a hand-auger, three (3) feet below native ground surface in each of the sampling grids for vadose zone monitoring. All boreholes and sampling points were backfilled with impermeable bentonite material as stated in New Mexico Oil Conservation Division (NMOCD) Permit NM-01-0009. Soil samples were collected into four (4)-ounce glass jars, capped headspace free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for total petroleum hydrocarbons (TPH) using USEPA Methods 418.1 and 8015 and for benzene and total BTEX using USEPA Method 8021.

SUMMARY

Sampling and analysis services were performed for the Agua Moss Farmington-NM-01-0009 Landfarm located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico. Services were conducted in accordance with the 3rd quarter sampling plan of the Agua Moss Landfarm permit NM-01-0009.

Samples collected from the vadose zone returned results that were below the regulatory standard for all constituents analyzed; see ***Table 1, Summary of Analytical Results*** and ***Appendix A, Analytical Results***. The results of this sampling indicate that contaminants have not leached into the vadose zone.

STATEMENT OF LIMITATIONS

Envirotech, Inc. has completed sampling and analysis services for Agua Moss Farmington-NM-01-0009 Landfarm located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico. The work and services provided by Envirotech, Inc. were in accordance with the New Mexico Oil Conservation Division (NMOCD) standards. All observations and conclusions provided here are based on the information and current site conditions found at the site.

The undersigned has conducted this service at the above referenced site; this work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,

ENVIROTECH, INC.

Tiffany Mcintosh for

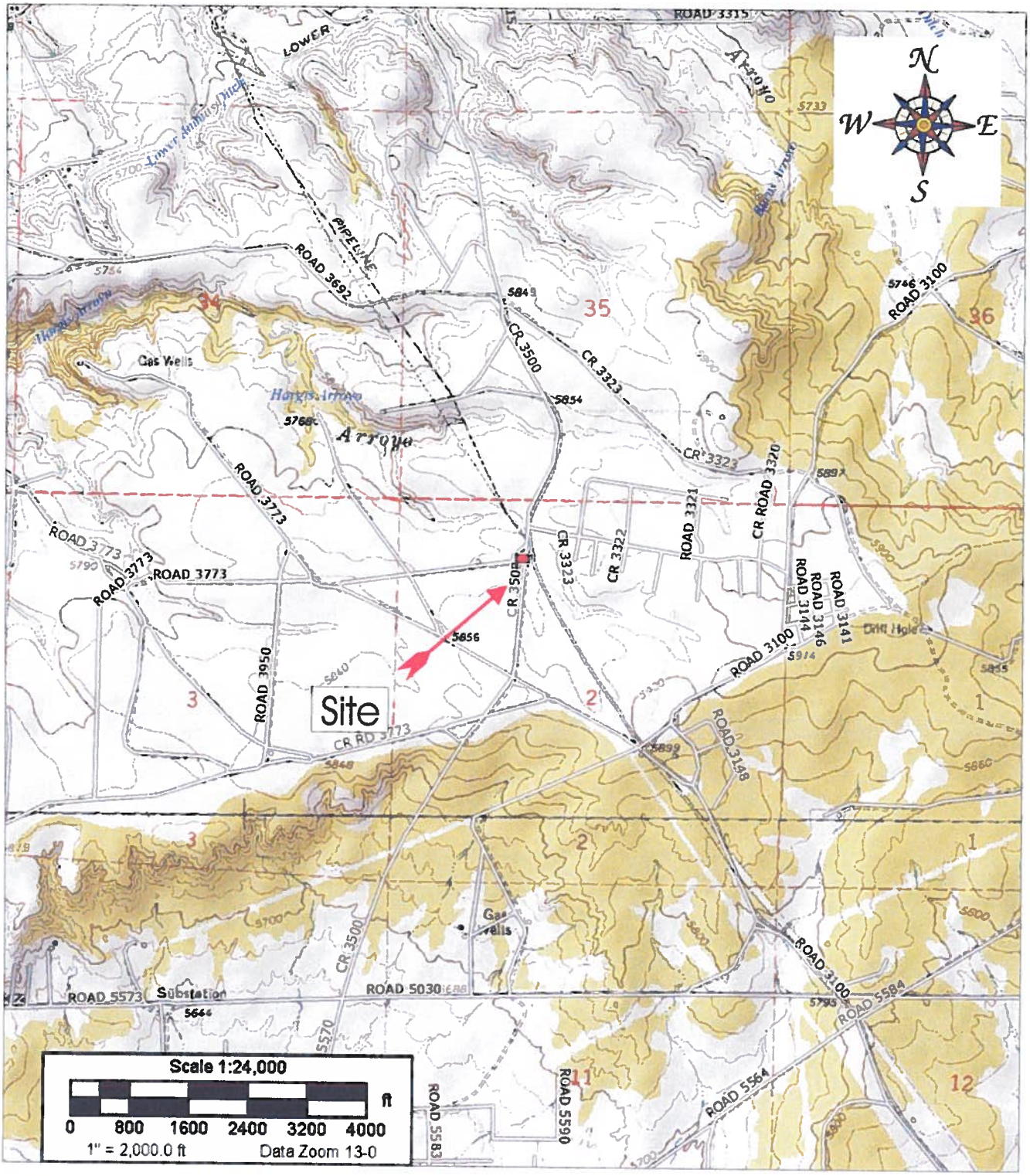
Toni McKnight, EIT
Environmental Project Manager
tmcknight@envirotech-inc.com

Reviewed by:

Gregory W. Crabtree, P.E.
Environmental Manager
gcrabtree@envirotech-inc.com

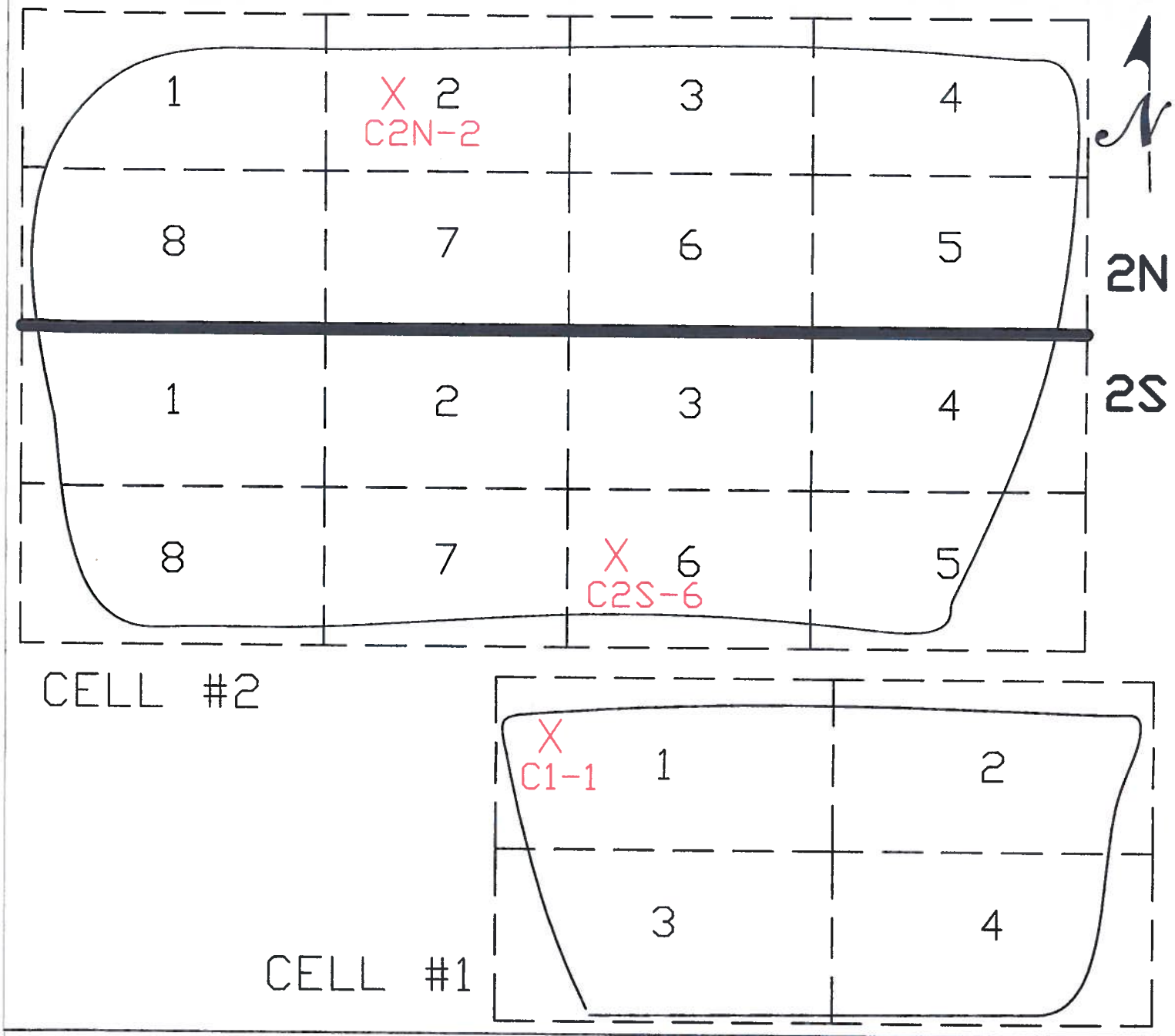
FIGURES

Figure 1, Vicinity Map
Figure 2, Sampling Grid Diagram



Source: Flora Vista, New Mexico, Aztec, New Mexico 87410 7.5 Minute U.S.G.S. Topographic Quadrangle Map
Scale: 1:24,000 1" = 2000'

Quarterly Landfarm Sampling Agua Moss Landfarm Section 2, Township 29, Range 12 West San Juan County, New Mexico	envirotech ENVIRONMENTAL SCIENTISTS & ENGINEERS	Vicinity Map	
PROJECT: 07117-0014 / Date Drawn: 6/27/12	5796 U.S. HIGHWAY 64 Farmington, New Mexico 87401 505.632.0615	Figure 1	DRAWN BY: Christopher Arrigo / PROJECT MANAGER: Greg Crabtree



LEGEND

LAND FARM BOUNDARY

GRID BOUNDARY

X VADOSE ZONE SAMPLING POINTS

SAMPLING GRID DIAGRAM
THIRD QUARTER
AGUA MOSS LANDFARM
SECTION 2, TOWNSHIP 29N, RANGE 12W
SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 2	REV
PROJECT NO07117-0014		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	JKA	10/10/13	BASE DRWN		

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5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615

TABLES

Table 1, Summary of Analytical Results

Table 1, Summary of Analytical Results
Agua Moss
Landfarm Sampling Report
Permit NM-01-0009
Section 2, Township 29 North, Range 12 West
San Juan County, New Mexico
Project Number 07117-0014

Date	Sample Description	Grid Number	Latitude/Longitude	USEPA Method 418.1 TPH (ppm)	USEPA Method 8015 TPH (ppm)	USEPA Method 8021	
						Benzene (ppm)	BTEX (ppm)
NA	NMOCD Standards	NA	NA	2500	1000	0.2	50
9/25/2013	Cell 1-1 (C1-1)	1	36° 45' 29.80", -108° 4' 18.5"	244	31.5	ND	ND
9/25/2013	Cell 2 North-2 (C2N-2)	2	36° 45' 32.7", -108° 4' 20.4"	232	49.2	ND	ND
9/25/2013	Cell 2 South-6 (C2S-6)	6	36° 45' 31.3", -108° 4' 18.7"	59.9	40.4	ND	ND

*Values in **BOLD** above OCD Rule 53.G Specific Requirements
Applicable to Landfarms, Treatment Zone Closure Performance Standards

*ND - Parameter *NS - Not Sampled
*TZ - Treatment Zone

APPENDIX A

Analytical Results

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Analytical Laboratory

Analytical Report

Report Summary

Client: Agua Moss LLC

Chain Of Custody Number: 16156

Samples Received: 9/26/2013 11:55:00AM

Job Number: 07117-0014

Work Order: P309118

Project Name/Location: 3rd Qtr Landfarm Monitoring

Entire Report Reviewed By: _____ Date: 10/5/13

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

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Analytical Laboratory

Agua Moss LLC	Project Name:	3rd Qtr Landfarm Monitoring	
PO Box 600	Project Number:	07117-0014	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	05-Oct-13 12:22

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
C2N-2	P309118-01A	Soil	09/26/13	09/26/13	Glass Jar, 4 oz.
C1-1	P309118-02A	Soil	09/26/13	09/26/13	Glass Jar, 4 oz.
C2S-6	P309118-03A	Soil	09/26/13	09/26/13	Glass Jar, 4 oz.

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Analytical Laboratory

Agua Moss LLC	Project Name:	3rd Qtr Landfarm Monitoring	
PO Box 600	Project Number:	07117-0014	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	05-Oct-13 12:22

C2N-2

P309118-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
Surrogate: Bromochlorobenzene		*96.9 %*	*80-120*		*1340004*	*09/30/13*	*10/01/13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*95.1 %*	*80-120*		*1340004*	*09/30/13*	*10/01/13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*94.3 %*	*80-120*		*1340004*	*09/30/13*	*10/01/13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1340004	09/30/13	10/04/13	EPA 8015D	
Diesel Range Organics (C10-C28)	**49.2**	30.0	mg/kg	1	1340003	09/30/13	10/02/13	EPA 8015D	
GRO and DRO Combined Fractions	**49.2**	5.00	mg/kg		[CALC]	09/30/13	10/04/13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**232**	20.0	mg/kg	1	1340009	10/01/13	10/01/13	EPA 418.1	

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Analytical Laboratory

Agua Moss LLC	Project Name:	3rd Qtr Landfarm Monitoring	
PO Box 600	Project Number:	07117-0014	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	05-Oct-13 12:22

C1-1

P309118-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
Surrogate: Bromochlorobenzene		*97.2 %*	*80-120*		*1340004*	*09/30/13*	*10/01/13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*93.2 %*	*80-120*		*1340004*	*09/30/13*	*10/01/13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*92.7 %*	*80-120*		*1340004*	*09/30/13*	*10/01/13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1340004	09/30/13	10/04/13	EPA 8015D	
Diesel Range Organics (C10-C28)	**31.5**	29.9	mg/kg	1	1340003	09/30/13	10/03/13	EPA 8015D	
GRO and DRO Combined Fractions	**31.5**	5.00	mg/kg		[CALC]	09/30/13	10/04/13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**244**	20.0	mg/kg	1	1340009	10/01/13	10/01/13	EPA 418.1	

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Analytical Laboratory

Agua Moss LLC	Project Name:	3rd Qtr Landfarm Monitoring	
PO Box 600	Project Number:	07117-0014	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	05-Oct-13 12:22

C2S-6

P309118-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1340004	09/30/13	10/01/13	EPA 8021B	
Surrogate: Bromochlorobenzene		*98.3 %*	*80-120*		*1340004*	*09/30/13*	*10/01/13*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*97.5 %*	*80-120*		*1340004*	*09/30/13*	*10/01/13*	*EPA 8021B*	
Surrogate: Fluorobenzene		*96.8 %*	*80-120*		*1340004*	*09/30/13*	*10/01/13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1340004	09/30/13	10/04/13	EPA 8015D	
Diesel Range Organics (C10-C28)	**40.4**	29.9	mg/kg	1	1340003	09/30/13	10/03/13	EPA 8015D	
GRO and DRO Combined Fractions	**40.4**	5.00	mg/kg		[CALC]	09/30/13	10/04/13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**59.9**	20.0	mg/kg	1	1340009	10/01/13	10/01/13	EPA 418.1	

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Agua Moss LLC	Project Name:	3rd Qtr Landfarm Monitoring	
PO Box 600	Project Number:	07117-0014	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	05-Oct-13 12:22

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1340004 - Purge and Trap EPA 5030A										
Blank (1340004-BLK1)				Prepared: 30-Sep-13 Analyzed: 01-Oct-13						
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: Bromochlorobenzene	*43.7*		*ug/L*	*50.0*		*87.4*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*47.9*		"	*50.0*		*95.9*	*80-120*			
Surrogate: Fluorobenzene	*46.6*		"	*50.0*		*93.3*	*80-120*			
Duplicate (1340004-DUP1)	**Source: P309118-01**			Prepared: 30-Sep-13 Analyzed: 01-Oct-13						
Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	"		ND				30	
Ethylbenzene	ND	0.05	"		ND				30	
p,m-Xylene	ND	0.05	"		ND				30	
o-Xylene	ND	0.05	"		ND				30	
Surrogate: Bromochlorobenzene	*49.2*		*ug/L*	*50.0*		*98.4*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*48.8*		"	*50.0*		*97.7*	*80-120*			
Surrogate: Fluorobenzene	*48.5*		"	*50.0*		*97.0*	*80-120*			
Matrix Spike (1340004-MS1)	**Source: P309118-01**			Prepared: 30-Sep-13 Analyzed: 01-Oct-13						
Benzene	48.7		ug/L	50.0	0.28	96.9	39-150			
Toluene	48.5		"	50.0	0.58	95.8	46-148			
Ethylbenzene	48.3		"	50.0	0.41	95.7	32-160			
p,m-Xylene	96.7		"	100	0.69	96.0	46-148			
o-Xylene	49.0		"	50.0	0.46	97.2	46-148			
Surrogate: Bromochlorobenzene	*48.1*		"	*50.0*		*96.2*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*46.3*		"	*50.0*		*92.6*	*80-120*			
Surrogate: Fluorobenzene	*46.4*		"	*50.0*		*92.8*	*80-120*			

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Agua Moss LLC	Project Name:	3rd Qtr Landfarm Monitoring	
PO Box 600	Project Number:	07117-0014	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	05-Oct-13 12:22

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1340003 - DRO Extraction EPA 3550C										
Blank (1340003-BLK1)				Prepared: 30-Sep-13 Analyzed: 02-Oct-13						
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg							
Duplicate (1340003-DUP1)		Source: P309118-01		Prepared: 30-Sep-13 Analyzed: 03-Oct-13						
Diesel Range Organics (C10-C28)	36.9	29.9	mg/kg		49.2			28.5	30	
Matrix Spike (1340003-MS1)		Source: P309118-01		Prepared: 30-Sep-13 Analyzed: 03-Oct-13						
Diesel Range Organics (C10-C28)	391		mg/L	250	46.9	137	75-125			SPK1

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Analytical Laboratory

Agua Moss LLC	Project Name:	3rd Qtr Landfarm Monitoring	
PO Box 600	Project Number:	07117-0014	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	05-Oct-13 12:22

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1340004 - Purge and Trap EPA 5030A										
Blank (1340004-BLK1)				Prepared: 30-Sep-13 Analyzed: 04-Oct-13						
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							
Duplicate (1340004-DUP1)		Source: P309118-01		Prepared: 30-Sep-13 Analyzed: 04-Oct-13						
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg		ND				30	
Matrix Spike (1340004-MS1)		Source: P309118-01		Prepared: 30-Sep-13 Analyzed: 04-Oct-13						
Gasoline Range Organics (C6-C10)	0.43		mg/L	0.450	0.02	91.8	75-125			

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Analytical Laboratory

Agua Moss LLC	Project Name:	3rd Qtr Landfarm Monitoring	
PO Box 600	Project Number:	07117-0014	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	05-Oct-13 12:22

Total Petroleum Hydrocarbons by 418.1 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1340009 - 418 Freon Extraction										
Blank (1340009-BLK1)				Prepared & Analyzed: 01-Oct-13						
Total Petroleum Hydrocarbons	ND	20.0	mg/kg							
Duplicate (1340009-DUP1)		Source: P309118-01		Prepared & Analyzed: 01-Oct-13						
Total Petroleum Hydrocarbons	288	20.0	mg/kg		232			21.6	30	
Matrix Spike (1340009-MS1)		Source: P309118-01		Prepared & Analyzed: 01-Oct-13						
Total Petroleum Hydrocarbons	2620	20.0	mg/kg	2000	232	119	80-120			

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Analytical Laboratory

Agua Moss LLC	Project Name:	3rd Qtr Landfarm Monitoring	
PO Box 600	Project Number:	07117-0014	**Reported:**
Farmington NM, 87499	Project Manager:	Toni McKnight	05-Oct-13 12:22

Notes and Definitions

SPK1	The spike recovery for this QC sample is outside of control 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

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CHAIN OF CUSTODY RECORD

16156

Client:	Project Name / Location:
Agua Moss	3rd Qtr Landfarm Monitoring
Email results to:	Sampler Name:
tmcknight@envirotech-inc.com	T. McKnight
Client Phone No.:	Client No.:
	07117-0014

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative HNO3	Preservative HCl	Preservative Cool	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	TPH 4/9.1			Sample Cool	Sample Intact
C2N-2	9/26/13	10:23	P309118-01	1-4oz			✓	✓	✓									✓			X	X
C1-1	9/26/13	9:50	P309118-02	1-4oz			✓	✓	✓									✓			X	X
C25-6	9/26/13	10:06	P309118-03	1-4oz			✓	✓	✓									✓			X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Toni McKnight	9/26/13	11:55	Miriam [illegible]	9/26/13	11:55
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix

Soil ☒ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

envirotech
Analytical Laboratory

5795 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 • laboratory@envirotech-inc.com

san juan reproduction 578-129

envirotech

January 23, 2014

Project Number: 07117-0016

Ms. Philana Thompson
Regulatory Compliance
Agua Moss
Post Office Box 600
345 CR 350
Farmington, New Mexico 87401

Phone (505)-324-5336

RE: LANDFARM SAMPLING AND ANALYSIS REPORT, AGUA MOSS LANDFARM, SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Thompson:

Please find enclosed the Landfarm Sampling and Analysis Report for the Agua Moss Landfarm located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico.

If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.

Toni McKnight, EIT
Environmental Project Manager
tmcknight@envirotech-inc.com

Enclosure: Landfarm Sampling and Analysis Report

Cc: Client File Number: 07117

FOURTH QUARTER LANDFARM SOIL SAMPLING AND ANALYSIS REPORT

SITE NAME:

AGUA MOSS LANDFARM
CELL #1 AND CELL #2
SECTION 2, TOWNSHIP 29 NORTH, RANGE 12 WEST
SAN JUAN COUNTY, NEW MEXICO

SUBMITTED TO:

MS. PHILANA THOMPSON
AGUA MOSS
POST OFFICE BOX 600
345 CR 350
FARMINGTON, NEW MEXICO 87401

SUBMITTED BY:

ENVIROTECH, INC
5796 HIGHWAY 64
FARMINGTON, NEW MEXICO 87401
(505) 632-0615

PROJECT NUMBER 07117-0016
DECEMBER 2013

LANDFARM SOIL SAMPLING AND ANALYSIS REPORT AGUA MOSS LANDFARM CELL #1 AND CELL #2 SECTION 2, TOWNSHIP 29 NORTH, RANGE 12 WEST SAN JUAN COUNTY, NEW MEXICO

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Appendix B, Field Notes

INTRODUCTION

Envirotech, Inc. of Farmington, New Mexico, was contracted by Agua Moss to provide sampling and analysis services for the Agua Moss Farmington-NM-01-0009 Landfarm located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico; see ***Figure 1, Vicinity Map***. Activities included sample collection, analysis, documentation and reporting.

ACTIVITIES PERFORMED

Envirotech personnel performed soil sampling activities on December 11, 2013, at the Agua Moss Landfarm. Soil sampling activities were conducted in accordance with the 4th quarter requirements pursuant to the Aqua Moss Landfarm permit NM-01-0009. Envirotech personnel divided Cell #1 into four (4) grids and Cell #2 into two (2) sections (North and South) with eight (8) grids per section, for a total of 16 grids. These sampling areas will be referred to as C1 - (1 to 4), C2N – (1 to 8), and C2S – (1 to 8); see ***Figure 2, Sampling Grid Diagram***. Random sample locations were determined by "Out of Hat" drawing.

Three (3) samples were collected, at random: one (1) from Cell #1 and two (2) from Cell #2. The samples were designated as C1-3.2, C2N-7, and C2S-4; see ***Figure 2, Sampling Grid Diagram*** and ***Appendix B, Field Notes***. Each soil sample was collected, using a hand-auger, three (3) feet below native ground surface in each of the sampling grids for vadose zone monitoring. All boreholes and sampling points were backfilled with impermeable bentonite material as stated in New Mexico Oil Conservation Division (NMOCD) Permit NM-01-0009. Soil samples were collected into two (2) four (4)-ounce glass jars, capped headspace free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for total petroleum hydrocarbons (TPH) using USEPA Methods 418.1 and 8015, for benzene and total BTEX using USEPA Method 8021, for chlorides using USEPA Method 300.1, for Water Quality Control Commission (WQCC) Metals except uranium using USEPA Method 6010C, and for major cation/anions.

For treatment zone monitoring, three (3) four (4)-point composite samples were collected, using a hand shovel, one (1) sample from each cell: Cell #1, Cell #2 North and Cell #2 South. The samples were designated as Cell 1-Comp, Cell 2N-Comp and Cell 2S-Comp. Each composite sample was collected from four (4) discrete samples collected from zero (0) to six (6) inches below ground surface (BGS). In Cell #1, the discrete samples were collected from areas C1-1.2, C1-2.1, C1-3.1 and C1-4.4. In Cell #2 North the discrete samples were collected from areas C2N-1, C2N-3, C2N-5 and C2N-7. In Cell #2 South the discrete samples were collected from areas C2S-1, C2S-3, C2S-5 and C2S-8; see ***Figure 2, Sampling Grid Diagram*** and ***Appendix B, Field Notes***. Soil samples were homogenized thoroughly, and collected into four (4)-ounce glass jars, capped headspace free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Methods 418.1 and 8015 and for chlorides using USEPA Method 300.1.

SUMMARY

Sampling and analysis services were performed for the Agua Moss Farmington-NM-01-0009 Landfarm located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico. Services were conducted in accordance with the 4th quarter sampling plan of the Agua Moss Landfarm permit NM-01-0009.

Samples collected from the vadose zone returned results that were below the regulatory standard for all constituents analyzed; see ***Table 1, Summary of Analytical Results*** and ***Appendix A, Analytical Results***. The results of this sampling indicate that contaminants have not leached into the vadose zone.

Treatment zone sampling results demonstrated significant levels of TPH (Method 418.1) above the closure standard of 2500 mg/kg (OCD Rule 53.G Specific Requirements Applicable to Landfarms, Treatment Zone Closure Performance Standards) in Cell 1 and Cell 2 North. Cell 2 South returned results slightly below 2500 mg/kg for TPH using USEPA Method 418.1. Gasoline range organics (GRO) and diesel range organics (DRO) (Method 8015) were above the closure standards of 1000 mg/kg (OCD Rule 53.G Specific Requirements Applicable to Landfarms, Treatment Zone Closure Performance Standards) in the treatment zone samples for Cell 1 and Cell 2 North. Cell 2 South returned results below 1000 mg/kg for TPH using USEPA Method 8015. Chloride concentrations were below the closure standard of 1000 mg/kg (OCD Rule 53.G Specific Requirements Applicable to Landfarms, Treatment Zone Closure Performance Standards) for Cell 1, Cell 2 North and Cell 2 South, with an average of 230 mg/kg; see ***Table 1, Summary of Analytical Results*** and ***Appendix A, Analytical Results***.

STATEMENT OF LIMITATIONS

Envirotech, Inc. has completed sampling and analysis services for Agua Moss Farmington-NM-01-0009 Landfarm located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico. The work and services provided by Envirotech, Inc. were in accordance with the New Mexico Oil Conservation Division (NMOCD) standards. All observations and conclusions provided here are based on the information and current site conditions found at the site.

The undersigned has conducted this service at the above referenced site; this work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,

ENVIROTECH, INC.

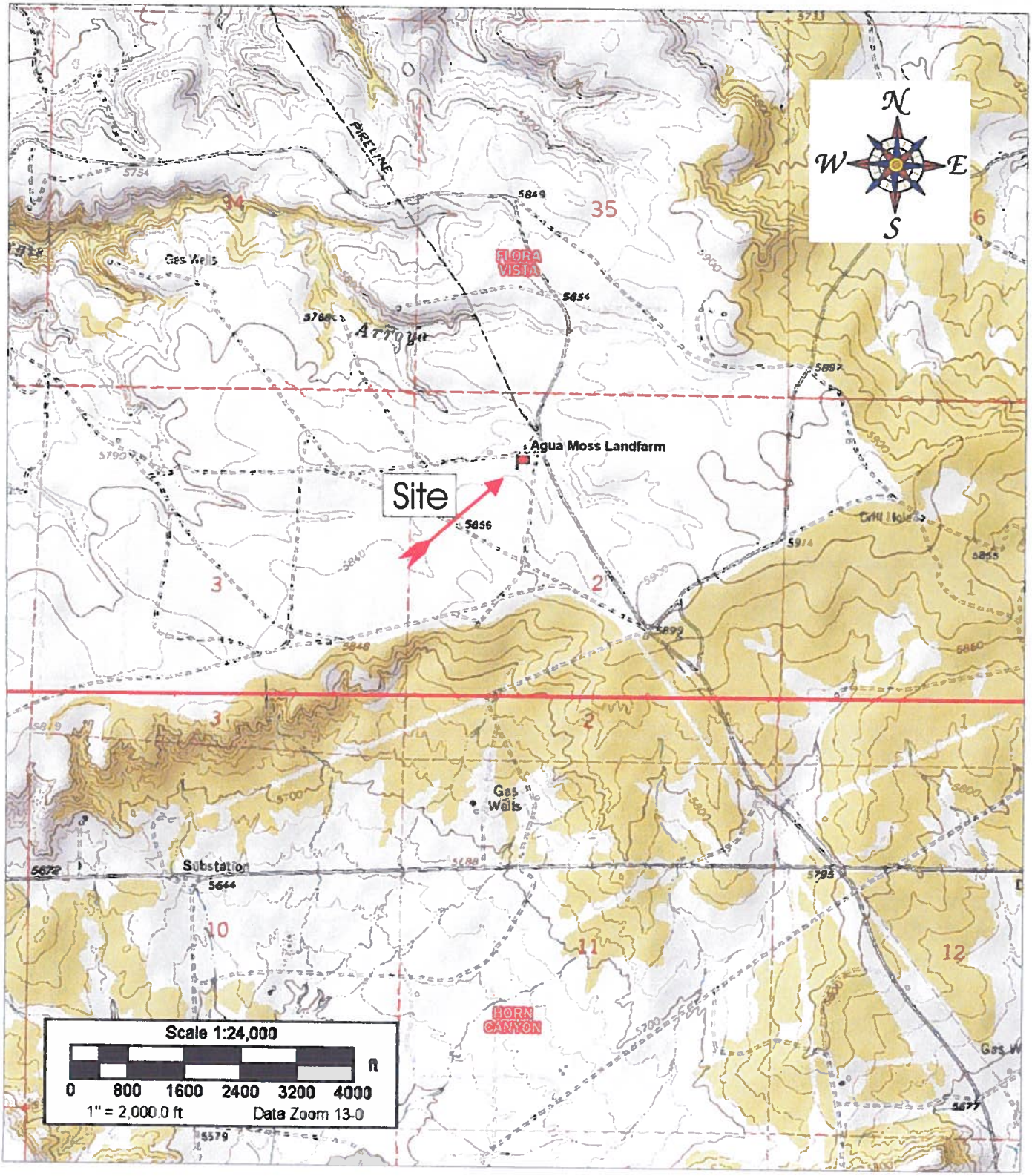
Toni McKnight, EIT
Environmental Project Manager
tmcknight@envirotech-inc.com

Reviewed by:

Gregory W. Crabtree, P.E.
Environmental Manager
gcrabtree@envirotech-inc.com

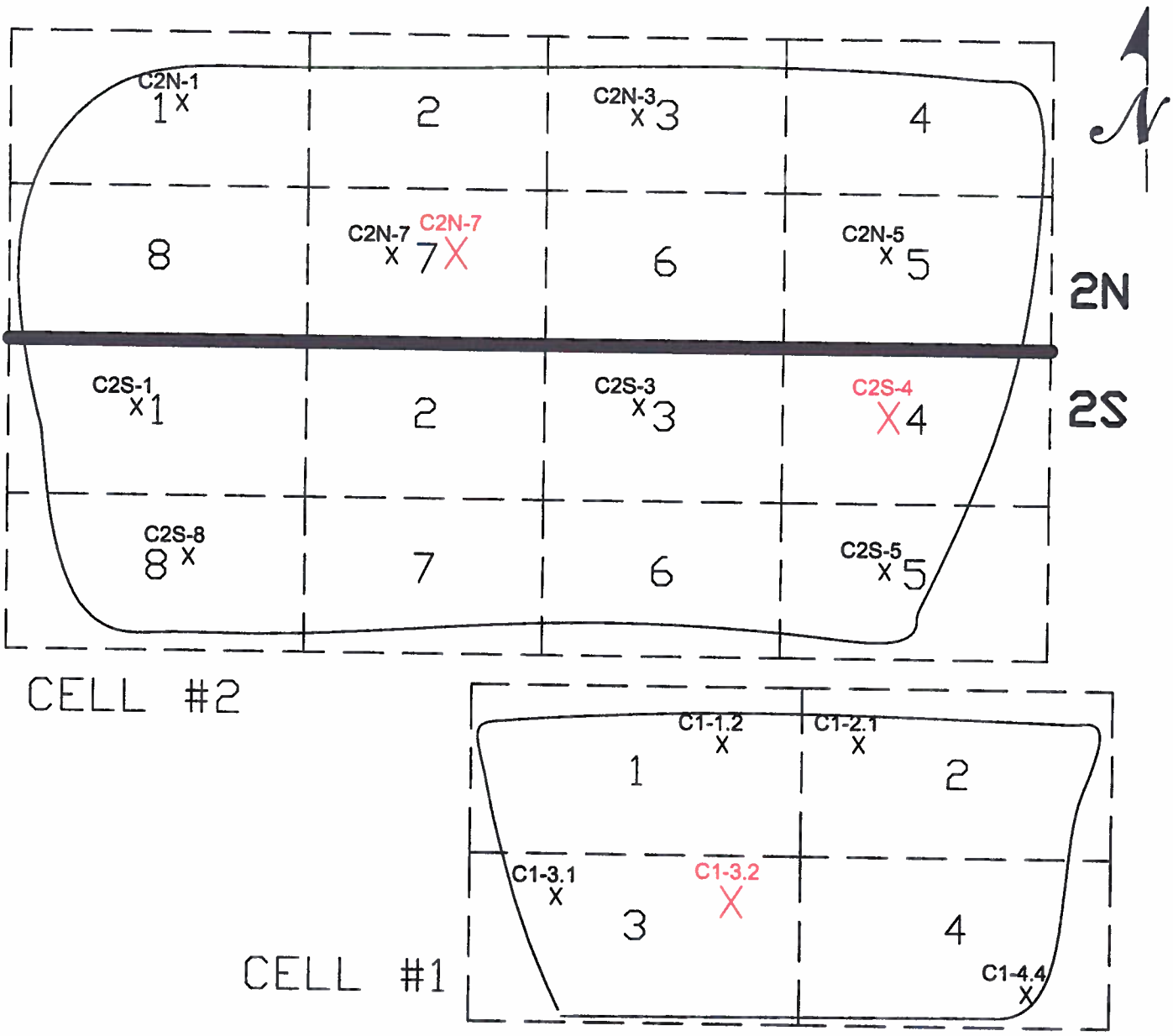
FIGURES

Figure 1, Vicinity Map
Figure 2, Sampling Grid Diagram



Source: Flora Vista, New Mexico 7.5 Minute U.S.G.S. Topographic Quadrangle Map
Scale: 1:24,000 1" = 2000'

Agua Moss 4th Quarter Sampling Landfarm Cell #1 and #2 San Juan County, New Mexico	envirotech ENVIRONMENTAL SCIENTISTS & ENGINEERS	Vicinity Map
		Figure #1
PROJECT Number:07117-0016 Date Drawn: 12/26/13	5796 U.S. HIGHWAY 64 Farmington, New Mexico 87401 505.632.0615	DRAWN BY: Tiffany McIntosh PROJECT MANAGER: Greg Crabtree



LEGEND

———	LAND FARM BOUNDARY
— — —	GRID BOUNDARY
X	VADOSE ZONE SAMPLING POINTS
C1-1.1 X	TREATMENT ZONE SAMPLING

SAMPLING GRID DIAGRAM
FOURTH QUARTER
AGUA MOSS LANDFARM
SECTION 2, TOWNSHIP 29N, RANGE 12W
SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 2	REV
PROJECT NO. 07117		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	TM	3/12/13	BASE DRWN		

envirotech
5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615

TABLES

Table 1, Summary of Analytical Results

Table 1, Summary of Analytical Results
Agua Moss
Landfarm Sampling Report
Permit NM-01-0009
Section 2, Township 29 North, Range 12 West
San Juan County, New Mexico
Project Number 07117-0016

Date	Sample Description	Grid Number	Latitude/Longitude	USEPA Method 418.1 TPH (ppm)	USEPA Method 8015 TPH (ppm)	Chlorides (ppm)	USEPA Method 8021	
							Benzene (ppm)	BTEX (ppm)
NA	NMOCD Standards	NA	NA	2500	1000	1000	0.2	50
12/11/2013	Cell 1-10 (C1-3.2)	10	36° 45' 29.31", -108° 4' 17.80"	63.9	ND	143	ND	ND
12/11/2013	Cell 2 North-7 (C2N-7)	7	36° 45' 32.57", -108° 4' 20.01"	256	49.0	530	ND	ND
12/11/2013	Cell 2 South-4 (C2S-4)	4	36° 45' 31.87", -108° 4' 17.12"	63.8	ND	460	ND	ND
12/11/2013	Cell 1-Composite	TZ	NA	**22300**	**2320**	12.0	NS	NS
12/11/2013	Cell 1 (C1-1.2)	1	36° 45' 30.29", -108° 4' 17.91"	NA	NA	NA	NA	NA
12/11/2013	Cell 1 (C1-2.1)	2	36° 45' 30.39", -108° 4' 17.37"	NA	NA	NA	NA	NA
12/11/2013	Cell 1 (C1-3.1)	3	36° 45' 29.47", -108° 4' 18.54"	NA	NA	NA	NA	NA
12/11/2013	Cell 1 (C1-4.4)	4	36° 45' 29.01", -108° 4' 17.03"	NA	NA	NA	NA	NA
12/11/2013	Cell 2N-Composite	TZ	NA	**9020**	**1530**	485	NS	NS
12/11/2013	Cell 2N (C2N-1)	1	36° 45' 32.99", -108° 4' 22.27"	NA	NA	NA	NA	NA
12/11/2013	Cell 2N (C2N-3)	3	36° 45' 33.15", -108° 4' 18.91"	NA	NA	NA	NA	NA
12/11/2013	Cell 2N (C2N-5)	5	36° 45' 32.44", -108° 4' 17.27"	NA	NA	NA	NA	NA
12/11/2013	Cell 2N (C2N-7)	7	36° 45' 32.28", -108° 4' 21.00"	NA	NA	NA	NA	NA
12/11/2013	Cell 2S-Composite	TZ	NA	2150	759	194	NS	NS
12/11/2013	Cell 2S (C2S-1)	1	36° 45' 31.62", -108° 4' 22.53"	NA	NA	NA	NA	NA
12/11/2013	Cell 2S (C2S-3)	3	36° 45' 31.76", -108° 4' 19.12"	NA	NA	NA	NA	NA
12/11/2013	Cell 2S (C2S-5)	5	36° 45' 31.23", -108° 4' 17.42"	NA	NA	NA	NA	NA
12/11/2013	Cell 2S (C2S-8)	8	36° 45' 30.94", -108° 4' 22.10"	NA	NA	NA	NA	NA

*Values in **BOLD** above OCD Rule 53.G Specific Requirements
Applicable to Landfarms, Treatment Zone Closure Performance Standards

*ND - Parameter not detected
*TZ - Treatment Zone

*NS - Not Sampled

APPENDIX A

Analytical Results

envirotech
Analytical Laboratory

Analytical Report

Report Summary

Client: Agua Moss LLC

Chain Of Custody Number: 16287

Samples Received: 12/11/2013 1:35:00PM

Job Number: 07117-0016

Work Order: P312054

Project Name/Location: 4th Quarter Sampling

Entire Report Reviewed By: _____ Date: 12/19/13

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 12/19/13 10:14 am

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

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envirotech-inc.com
laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
C1-3.2	P312054-01A	Soil	12/11/13	12/11/13	Glass Jar, 4 oz.
	P312054-01B	Soil	12/11/13	12/11/13	Glass Jar, 4 oz.
C2N-7	P312054-02A	Soil	12/11/13	12/11/13	Glass Jar, 4 oz.
	P312054-02B	Soil	12/11/13	12/11/13	Glass Jar, 4 oz.
C2S-4	P312054-03A	Soil	12/11/13	12/11/13	Glass Jar, 4 oz.
	P312054-03B	Soil	12/11/13	12/11/13	Glass Jar, 4 oz.
C1 Composite	P312054-04A	Soil	12/11/13	12/11/13	Glass Jar, 4 oz.
C2N Composite	P312054-05A	Soil	12/11/13	12/11/13	Glass Jar, 4 oz.
C2S Composite	P312054-06A	Soil	12/11/13	12/11/13	Glass Jar, 4 oz.

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

C1-3.2

P312054-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
Surrogate: Bromochlorobenzene		*105 %*		*80-120*	*1350038*	*12/13/13*	*12/17/13*	*EPA 8021B*	
Surrogate: 1,3-Dichlorobenzene		*99.9 %*		*80-120*	*1350038*	*12/13/13*	*12/17/13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1350037	12/13/13	12/16/13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.99	mg/kg		[CALC]	12/13/13	12/17/13	EPA 8015D	
Total Metals by 6010									
Arsenic	**6.44**	1.02	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Barium	**764**	5.09	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Cadmium	ND	1.02	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Chromium	**5.70**	1.02	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	B
Copper	**2.85**	1.02	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Iron	**4990**	1.02	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	B
Lead	ND	1.02	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Manganese	**81.1**	1.02	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Mercury	ND	1.02	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Selenium	ND	1.02	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Silver	ND	1.02	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Zinc	**13.2**	1.02	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	B

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

C1-3.2

P312054-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**63.9**	20.0	mg/kg	1	1351005	12/16/13	12/16/13	EPA 418.1	
Cation/Anion Analysis									
pH @18.8°C	**8.29**		pH Units	1	1351001	12/16/13	12/17/13	EPA 9045D	
Electrical Conductivity	**1280**		umhos/cm	1	1351001	12/16/13	12/17/13	EPA 120.1	
Total Dissolved Solids	**1960**		mg/L	1	1351008	12/16/13	12/17/13	EPA 160.1	
Sodium Absorption Ratio	**1.26**		N/A	1	1351028	12/18/13	12/18/13	[CALC]	
Total Alkalinity as CaCO3	**159**	0.01	mg/L	1	1351018	12/17/13	12/17/13	Hach Method 8203	
Total Hardness as CaCO3	**76.6**	0.07	mg/L		[CALC]	12/16/13	12/18/13	[CALC]	
Bicarbonate as CaCO3	**159**	0.01	mg/L	1	1351018	12/17/13	12/17/13	Hach Method 8203	
Carbonate as CaCO3	ND	0.01	mg/L	1	1351018	12/17/13	12/17/13	Hach Method 8203	
Hydroxide as CaCO3	ND	0.01	mg/L	1	1351018	12/17/13	12/17/13	Hach Method 8203	
Nitrate-N	ND	1.00	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
Nitrite-N	ND	1.00	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
Chloride	**143**	9.95	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
Fluoride	**22.7**	1.00	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
o-Phosphate	ND	4.98	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
Sulfate	**1230**	19.9	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
Iron	ND	0.01	mg/L	1	1351010	12/16/13	12/18/13	EPA 6010C	
Calcium	**17.7**	0.01	mg/L	1	1351010	12/16/13	12/18/13	EPA 6010C	
Magnesium	**7.89**	0.01	mg/L	1	1351010	12/16/13	12/18/13	EPA 6010C	
Potassium	**0.64**	0.01	mg/L	1	1351010	12/16/13	12/18/13	EPA 6010C	
Sodium	**25.4**	0.01	mg/L	1	1351010	12/16/13	12/18/13	EPA 6010C	

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

C2N-7

P312054-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
Surrogate: Bromochlorobenzene		*101 %*		*80-120*	*1350038*	*12/13/13*	*12/17/13*	*EPA 8021B*	
Surrogate: 1,3-Dichlorobenzene		*98.6 %*		*80-120*	*1350038*	*12/13/13*	*12/17/13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8015D	
Diesel Range Organics (C10-C28)	**49.0**	29.9	mg/kg	1	1350037	12/13/13	12/16/13	EPA 8015D	
GRO and DRO Combined Fractions	**49.0**	5.00	mg/kg		[CALC]	12/13/13	12/17/13	EPA 8015D	
Total Metals by 6010									
Arsenic	**4.51**	0.96	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Barium	**518**	4.82	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Cadmium	**2.27**	0.96	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Chromium	**15.3**	0.96	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	B
Copper	**8.74**	0.96	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Iron	**12200**	0.96	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Lead	**8.91**	0.96	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	B
Manganese	**219**	0.96	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Mercury	ND	0.96	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Selenium	ND	0.96	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Silver	**1.72**	0.96	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Zinc	**33.6**	0.96	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

C2N-7

P312054-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**256**	20.0	mg/kg	1	1351005	12/16/13	12/16/13	EPA 418.1	
Cation/Anion Analysis									
pH @18.9°C	**8.31**		pH Units	1	1351001	12/16/13	12/17/13	EPA 9045D	
Electrical Conductivity	**1210**		umhos/cm	1	1351001	12/16/13	12/17/13	EPA 120.1	
Total Dissolved Solids	**2160**		mg/L	1	1351008	12/16/13	12/17/13	EPA 160.1	
Sodium Absorption Ratio	**2.84**		N/A	1	1351028	12/18/13	12/18/13	[CALC]	
Total Alkalinity as CaCO3	**115**	0.01	mg/L	1	1351018	12/17/13	12/17/13	Hach Method 8203	
Total Hardness as CaCO3	**54.1**	0.07	mg/L		[CALC]	12/16/13	12/18/13	[CALC]	
Bicarbonate as CaCO3	**115**	0.01	mg/L	1	1351018	12/17/13	12/17/13	Hach Method 8203	
Carbonate as CaCO3	ND	0.01	mg/L	1	1351018	12/17/13	12/17/13	Hach Method 8203	
Hydroxide as CaCO3	ND	0.01	mg/L	1	1351018	12/17/13	12/17/13	Hach Method 8203	
Nitrate-N	**1.42**	1.00	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
Nitrite-N	ND	1.00	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
Chloride	**530**	9.96	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
Fluoride	**5.27**	1.00	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
o-Phosphate	ND	4.98	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
Sulfate	**481**	19.9	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
Iron	**0.11**	0.01	mg/L	1	1351010	12/16/13	12/18/13	EPA 6010C	
Calcium	**11.9**	0.01	mg/L	1	1351010	12/16/13	12/18/13	EPA 6010C	
Magnesium	**5.93**	0.01	mg/L	1	1351010	12/16/13	12/18/13	EPA 6010C	
Potassium	**0.89**	0.01	mg/L	1	1351010	12/16/13	12/18/13	EPA 6010C	
Sodium	**48.1**	0.01	mg/L	1	1351010	12/16/13	12/18/13	EPA 6010C	

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

C2S-4

P312054-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8021B	
Surrogate: Bromochlorobenzene		*108 %*		*80-120*	*1350038*	*12/13/13*	*12/17/13*	*EPA 8021B*	
Surrogate: 1,3-Dichlorobenzene		*104 %*		*80-120*	*1350038*	*12/13/13*	*12/17/13*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1350037	12/13/13	12/16/13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.99	mg/kg		[CALC]	12/13/13	12/17/13	EPA 8015D	
Total Metals by 6010									
Arsenic	**2.81**	1.01	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Barium	**351**	5.05	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Cadmium	**1.28**	1.01	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Chromium	**8.26**	1.01	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	B
Copper	**5.02**	1.01	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Iron	**7570**	1.01	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Lead	**7.36**	1.01	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	B
Manganese	**139**	1.01	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Mercury	**4.01**	1.01	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Selenium	ND	1.01	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Silver	**1.32**	1.01	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	
Zinc	**20.9**	1.01	mg/kg	1	1350035	12/13/13	12/16/13	EPA 6010C	

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

C2S-4

P312054-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**63.8**	20.0	mg/kg	1	1351005	12/16/13	12/16/13	EPA 418.1	
Cation/Anion Analysis									
pH @18.8°C	**8.58**		pH Units	1	1351001	12/16/13	12/17/13	EPA 9045D	
Electrical Conductivity	**1060**		umhos/cm	1	1351001	12/16/13	12/17/13	EPA 120.1	
Total Dissolved Solids	**1760**		mg/L	1	1351008	12/16/13	12/17/13	EPA 160.1	
Sodium Absorption Ratio	**2.66**		N/A	1	1351028	12/18/13	12/18/13	[CALC]	
Total Alkalinity as CaCO3	**120**	0.01	mg/L	1	1351018	12/17/13	12/17/13	Hach Method 8203	
Total Hardness as CaCO3	**47.1**	0.07	mg/L		[CALC]	12/16/13	12/18/13	[CALC]	
Bicarbonate as CaCO3	**120**	0.01	mg/L	1	1351018	12/17/13	12/17/13	Hach Method 8203	
Carbonate as CaCO3	ND	0.01	mg/L	1	1351018	12/17/13	12/17/13	Hach Method 8203	
Hydroxide as CaCO3	ND	0.01	mg/L	1	1351018	12/17/13	12/17/13	Hach Method 8203	
Nitrate-N	**2.15**	0.99	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
Nitrite-N	ND	0.99	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
Chloride	**460**	9.94	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
Fluoride	**22.0**	0.99	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
o-Phosphate	ND	4.97	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
Sulfate	**336**	19.9	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	
Iron	ND	0.01	mg/L	1	1351010	12/16/13	12/18/13	EPA 6010C	
Calcium	**9.03**	0.01	mg/L	1	1351010	12/16/13	12/18/13	EPA 6010C	
Magnesium	**5.96**	0.01	mg/L	1	1351010	12/16/13	12/18/13	EPA 6010C	
Potassium	**1.30**	0.01	mg/L	1	1351010	12/16/13	12/18/13	EPA 6010C	
Sodium	**42.0**	0.01	mg/L	1	1351010	12/16/13	12/18/13	EPA 6010C	

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

C1 Composite

P312054-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8015D	
Diesel Range Organics (C10-C28)	**2320**	29.9	mg/kg	1	1350037	12/13/13	12/16/13	EPA 8015D	
GRO and DRO Combined Fractions	**2320**	4.99	mg/kg		[CALC]	12/13/13	12/17/13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**22300**	199	mg/kg	10	1351005	12/16/13	12/16/13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**12.0**	9.98	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

C2N Composite

P312054-05 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**6.68**	4.98	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8015D	
Diesel Range Organics (C10-C28)	**1520**	30.0	mg/kg	1	1350037	12/13/13	12/16/13	EPA 8015D	
GRO and DRO Combined Fractions	**1530**	4.98	mg/kg		[CALC]	12/13/13	12/17/13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**9020**	200	mg/kg	10	1351005	12/16/13	12/16/13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**485**	9.99	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

C2S Composite

P312054-06 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1350038	12/13/13	12/17/13	EPA 8015D	
Diesel Range Organics (C10-C28)	**759**	30.0	mg/kg	1	1350037	12/13/13	12/16/13	EPA 8015D	
GRO and DRO Combined Fractions	**759**	5.00	mg/kg		[CALC]	12/13/13	12/17/13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**2150**	199	mg/kg	10	1351005	12/16/13	12/16/13	EPA 418.1	
Cation/Anion Analysis									
Chloride	**194**	9.85	mg/kg	1	1351007	12/16/13	12/16/13	EPA 300.0	

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1350038 - Purge and Trap EPA 5030A										
Blank (1350038-BLK1)				Prepared: 13-Dec-13 Analyzed: 14-Dec-13						
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	*52.3*		*ug/L*	*50.0*		*105*	*80-120*			
Surrogate: Bromochlorobenzene	*54.3*		"	*50.0*		*109*	*80-120*			
Duplicate (1350038-DUP1)	**Source: P312058-01**			Prepared: 13-Dec-13 Analyzed: 14-Dec-13						
Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	"		ND				30	
Ethylbenzene	ND	0.05	"		ND				30	
p,m-Xylene	ND	0.05	"		ND				30	
o-Xylene	ND	0.05	"		ND				30	
Surrogate: 1,3-Dichlorobenzene	*53.4*		*ug/L*	*50.0*		*107*	*80-120*			
Surrogate: Bromochlorobenzene	*55.6*		"	*50.0*		*111*	*80-120*			
Matrix Spike (1350038-MS1)	**Source: P312058-01**			Prepared: 13-Dec-13 Analyzed: 14-Dec-13						
Benzene	35.6		ug/L	50.0	ND	71.1	39-150			
Toluene	55.4		"	50.0	ND	111	46-148			
Ethylbenzene	55.3		"	50.0	ND	111	32-160			
p,m-Xylene	109		"	100	ND	109	46-148			
o-Xylene	54.7		"	50.0	ND	109	46-148			
Surrogate: 1,3-Dichlorobenzene	*57.0*		"	*50.0*		*114*	*80-120*			
Surrogate: Bromochlorobenzene	*58.1*		"	*50.0*		*116*	*80-120*			

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1350037 - DRO Extraction EPA 3550C										
Blank (1350037-BLK1)				Prepared & Analyzed: 13-Dec-13						
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg							
Duplicate (1350037-DUP1)	Source: P312058-01			Prepared & Analyzed: 13-Dec-13						
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg		ND				30	
Matrix Spike (1350037-MS1)	Source: P312058-01			Prepared & Analyzed: 13-Dec-13						
Diesel Range Organics (C10-C28)	198	31.6	mg/kg	263	ND	75.3	75-125			

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1350038 - Purge and Trap EPA 5030A										
Blank (1350038-BLK1)				Prepared: 13-Dec-13 Analyzed: 14-Dec-13						
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg							
Duplicate (1350038-DUP1)	Source: P312058-01			Prepared: 13-Dec-13 Analyzed: 14-Dec-13						
Gasoline Range Organics (C6-C10)	5.89	4.99	mg/kg		ND				30	
Matrix Spike (1350038-MS1)	Source: P312058-01			Prepared: 13-Dec-13 Analyzed: 14-Dec-13						
Gasoline Range Organics (C6-C10)	0.61		mg/L	0.450	0.06	122	75-125			

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

Total Metals by 6010 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1350035 - Metal Solid Digestion EPA 3051A										
Blank (1350035-BLK1)				Prepared: 13-Dec-13 Analyzed: 16-Dec-13						
Arsenic	ND	0.98	mg/kg							
Barium	ND	4.89	"							
Cadmium	ND	0.98	"							
Chromium	1.92	0.98	"							
Copper	ND	0.98	"							
Iron	723	0.98	"							
Lead	3.90	0.98	"							
Manganese	3.57	0.98	"							
Mercury	ND	0.98	"							
Selenium	ND	0.98	"							
Silver	ND	0.98	"							
Zinc	1.89	0.98	"							
Duplicate (1350035-DUP1)		**Source: P312052-01**		Prepared: 13-Dec-13 Analyzed: 16-Dec-13						
Arsenic	1.38	0.94	mg/kg		2.66			63.4	30	D1
Barium	49.0	4.70	"		50.9			3.82	30	
Cadmium	ND	0.94	"		ND				30	
Chromium	2.82	0.94	"		2.82			0.0983	30	B
Copper	ND	0.94	"		ND				30	
Iron	3090	0.94	"		3340			7.73	30	B
Lead	5.29	0.94	"		1.50			112	30	B, D1
Manganese	66.6	0.94	"		88.2			27.9	30	
Mercury	ND	0.94	"		ND				30	
Selenium	ND	0.94	"		1.14				30	
Silver	ND	0.94	"		1.25				30	
Zinc	17.7	0.94	"		17.2			3.29	30	B
Matrix Spike (1350035-MS1)		**Source: P312052-01**		Prepared: 13-Dec-13 Analyzed: 16-Dec-13						
Arsenic	0.26		mg/L	0.250	0.03	92.8	75-125			
Barium	6.45		"	5.00	0.50	119	75-125			
Cadmium	0.26		"	0.250	0.004	102	75-125			
Chromium	0.56		"	0.500	0.03	107	75-125			
Copper	0.55		"	0.500	0.008	109	75-125			
Iron	33.3		"	0.500	33.0	65.3	75-125			SPK1
Lead	0.61		"	0.500	0.01	118	75-125			
Manganese	0.97		"	0.250	0.87	37.4	75-125			SPK1
Mercury	0.10		"	0.100	0.009	93.3	75-125			
Selenium	0.10		"	0.100	0.01	85.4	75-125			

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

Total Metals by 6010 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1350035 - Metal Solid Digestion EPA 3051A										
Matrix Spike (1350035-MS1)	**Source: P312052-01**			Prepared: 13-Dec-13		Analyzed: 16-Dec-13				
Silver	0.11		mg/L	0.100	0.01	93.4	75-125			
Zinc	0.69		"	0.500	0.17	104	75-125			

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

Total Petroleum Hydrocarbons by 418.1 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1351005 - 418 Freon Extraction										
Blank (1351005-BLK1)				Prepared & Analyzed: 16-Dec-13						
Total Petroleum Hydrocarbons	ND	20.0	mg/kg							
Duplicate (1351005-DUP1)		Source: P312054-01		Prepared & Analyzed: 16-Dec-13						
Total Petroleum Hydrocarbons	59.8	19.9	mg/kg		63.9			6.57	30	
Matrix Spike (1351005-MS1)		Source: P312054-01		Prepared & Analyzed: 16-Dec-13						
Total Petroleum Hydrocarbons	482		mg/L	500	16.0	93.2	80-120			

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1351007 - Anion Extraction EPA 300.0										
Blank (1351007-BLK1)				Prepared & Analyzed: 16-Dec-13						
Nitrate-N	ND	0.99	mg/kg							
Nitrite-N	ND	0.99	"							
Chloride	ND	9.94	"							
Fluoride	ND	0.99	"							
o-Phosphate	ND	4.97	"							
Sulfate	ND	19.9	"							
LCS (1351007-BS1)				Prepared & Analyzed: 16-Dec-13						
Nitrate-N	53.3	0.99	mg/kg	49.7		107	90-110			
Nitrite-N	56.3	0.99	"	49.7		113	90-110			SPK1
Chloride	524	9.93	"	497		106	90-110			
Fluoride	57.4	0.99	"	49.7		116	90-110			SPK1
o-Phosphate	264	4.97	"	248		106	90-110			
Sulfate	537	19.9	"	497		108	90-110			
Matrix Spike (1351007-MS1)	**Source: P312052-01**			Prepared & Analyzed: 16-Dec-13						
Nitrate-N	51.0	1.00	mg/kg	49.9	1.43	99.5	80-120			
Nitrite-N	52.0	1.00	"	49.9	ND	104	80-120			
Chloride	558	9.97	"	499	87.2	94.4	80-120			
Fluoride	50.1	1.00	"	49.9	1.12	98.3	80-120			
o-Phosphate	143	4.99	"	249	ND	57.4	80-120			SPK1
Sulfate	537	19.9	"	499	52.8	97.2	80-120			
Matrix Spike Dup (1351007-MSD1)	**Source: P312052-01**			Prepared & Analyzed: 16-Dec-13						
Nitrate-N	50.9	0.99	mg/kg	49.4	1.43	100	80-120	0.214	20	
Nitrite-N	53.2	0.99	"	49.4	ND	108	80-120	2.38	20	
Chloride	556	9.87	"	494	87.2	95.1	80-120	0.273	20	
Fluoride	48.2	0.99	"	49.4	1.12	95.4	80-120	3.90	20	
o-Phosphate	144	4.94	"	247	ND	58.2	80-120	0.448	20	SPK1
Sulfate	606	19.7	"	494	52.8	112	80-120	12.0	20	

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Agua Moss LLC	Project Name:	4th Quarter Sampling	
PO Box 600	Project Number:	07117-0016	**Reported:**
Farmington NM, 87499	Project Manager:	Tiffany McIntosh	19-Dec-13 11:39

Notes and Definitions

SPK1	The spike recovery for this QC sample is outside of control limits.
D1	Duplicates or Matrix Spike Duplicates Relative Percent Difference exceeds 30%.
B	Analyte is found in the associated blank.
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

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CHAIN OF CUSTODY RECORD

16287

Client: Agua Moss	Project Name / Location: 4th Quarter Sampling
Email results to: T. McKnight / T. McIntosh	Sampler Name: T. McIntosh
Client Phone No.:	Client No.: 07117-0016

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative HNO_3	Preservative HCl	Preservative cool	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE 300.1	Major cation/anions (General Chem. except Uranium)	WQCC Metals except Uranium		Sample Cool	Sample Intact
C1-3.2	12/11/13	1000	P312054-01	2-4oz jars			X	X	X							X	X	X	X		✓	✓
C2N-7	"	1147	P312054-02	"			"	X	X							X	X	X	X		✓	✓
C2S-4	"	1210	P312054-03	"			"	X	X							X	X	X	X		✓	✓
C1 composite	"	1040	P312054-04	1-4oz jar			"	X								X	X				✓	✓
C2N composite	"	1115	P312054-05	"			"	X								X	X			Se, Ag, Cu	✓	✓
C2S composite	"	1127	P312054-06	"			"	X								X	X			As, Ba, Cd, Cr, Pb, Hg, Ag, Cu, Fe, Mn, Zn per TCLP 12/12/13	✓	✓

	Date	Time		Date	Time
Relinquished by: (Signature) Tiffany McIntosh	12/11/13	1335	Received by: (Signature)	12/11/13	1335
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix: Soil ☑ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

envirotech Analytical Laboratory

5795 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 • laboratory@envirotech-inc.com

san juan reproduction 578-129

APPENDIX B

Field Notes

C1-3.2

ENVIROTECH Inc.

5796 US HWY. 64, FARMINGTON, NM 87401
(505) 632-0615

PIT No: _____
C.O.C #: 16287

FIELD REPORT: REMEDIATION FACILITY CLOSURE VERIFICATION

JOB No: _____
PAGE No: ___ of ___

FACILITY LOCATION: Agua Moss
SOURCE LOCATION: _____
SOURCE LOCATION: _____
SOURCE LOCATION: _____
FACILITY CLASSIFICATION: Landfarm PIT TYPE: _____

DATE STARTED: 12/11/13
DATE FINISHED: _____

ENVIRONMENTAL SPECIALIST: _____

SOIL REMEDIATION: QUANTITY: 2-4oz jars # OF COMP. SAMPLES: ____
DIMENSIONS: _____
VISIBLE OBSERVATIONS: _____
SAMPLING PLAN: _____

FIELD NOTES & REMARKS: FACILITY CENTER LOCATED APPROX _____ YARDS _____ FROM WELLHEAD.

DEPTH TO GROUNDWATER:
NEAREST WATER SOURCE/TYPE:
NEAREST SURFACE WATER:
MAX TPH PER NMOCD:

C1-3.2

No. OF 5-POINT COMPOSITE SAMPLES: YARDAGE--#
0-200=1
201-400=2
401-1000=3
>1000=E

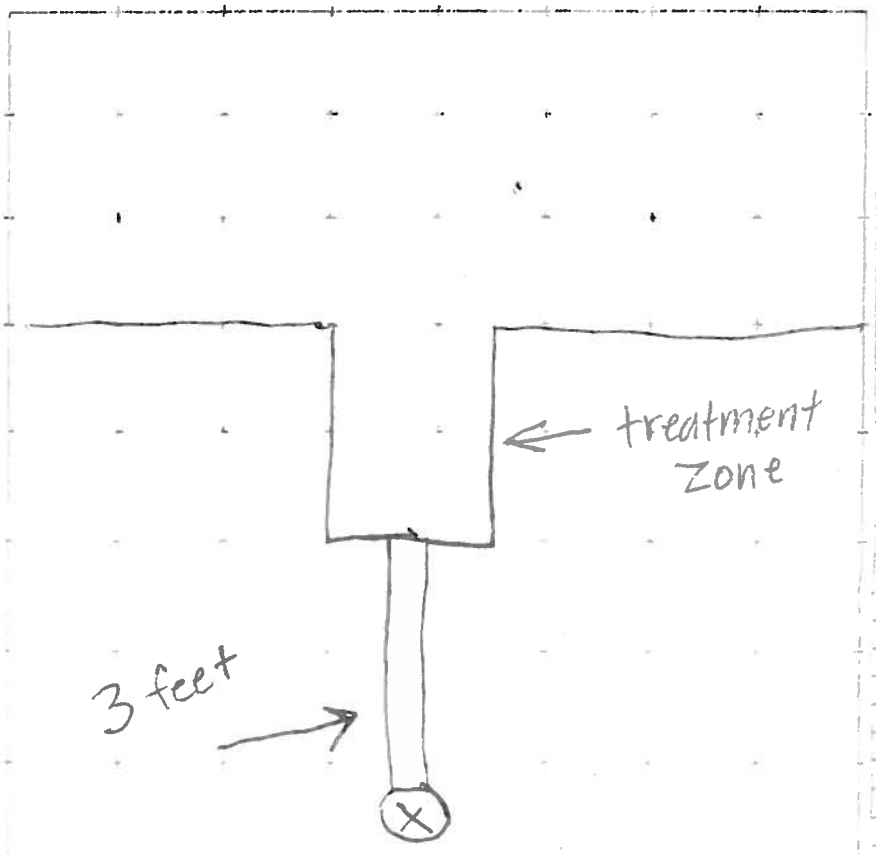
GPS: 36.758141°N
108.07616 0°W

Time: 10:00

Description: beneath snow cover brown soil, some rock

FACILITY DIAGRAM

GRID SCALE:



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)

LAB RESULTS

SAMPLE ID	ANALYSIS REQUESTED	TIME

NORTH

WELLHEAD

SURFACE FLOW DIR

ESTIMATED GROUNDWATER FLOW DIR

C2N-7

ENVIROTECH Inc.

5796 US HWY. 64, FARMINGTON, NM 87401
(505) 632-0615

PIT No: _____
C.O.C #: 16287

FIELD REPORT: REMEDIATION FACILITY CLOSURE VERIFICATION

JOB No: _____
PAGE No: ____ of ____

FACILITY LOCATION: Agua Moss
SOURCE LOCATION: _____
SOURCE LOCATION: _____
SOURCE LOCATION: _____
FACILITY CLASSIFICATION: Land Farm PIT TYPE: _____

DATE STARTED: 12/11/13
DATE FINISHED: _____

ENVIRONMENTAL SPECIALIST: _____

SOIL REMEDIATION: QUANTITY: 2-4 oz jars # OF COMP. SAMPLES: ____
DIMENSIONS: _____
VISIBLE OBSERVATIONS: _____
SAMPLING PLAN: _____

FIELD NOTES & REMARKS: FACILITY CENTER LOCATED APPROX _____ YARDS _____ FROM WELLHEAD.

DEPTH TO GROUNDWATER:
NEAREST WATER SOURCE/TYPE:
NEAREST SURFACE WATER:
MAX TPH PER NMOCD:

No. OF 5-POINT COMPOSITE SAMPLES: YARDAGE--#
0-200=1
201-400=2
401-1000=3
>1000=5

C2N-7

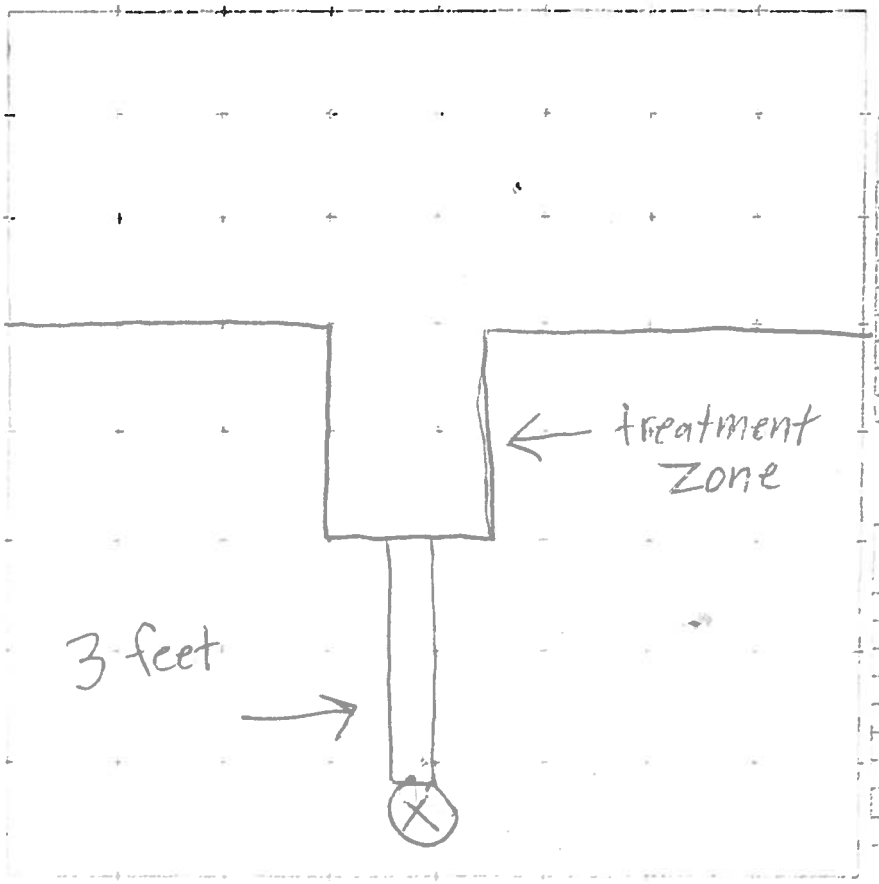
GPS: 36.759048°N
-108.072225°W

Time: 1147

Description: beneath snow cover
brownish brown soil

FACILITY DIAGRAM

GRID SCALE:



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)

LAB RESULTS

SAMPLE ID	ANALYSIS REQUESTED	TIME	RESULTS

NORTH

WELLHEAD

SURFACE FLOW DIR

ESTIMATED GROUNDWATER FLOW DIR

C2S-4

ENVIROTECH Inc.

5796 US HWY. 64, FARMINGTON, NM 87401
(505) 632-0615

PIT No: _____
C.O.C #: 16287

FIELD REPORT: REMEDIATION FACILITY CLOSURE VERIFICATION

JOB No: _____
PAGE No: ____ of ____

FACILITY LOCATION: Agua Moss
SOURCE LOCATION: _____
SOURCE LOCATION: _____
SOURCE LOCATION: _____
FACILITY CLASSIFICATION: Landfarm PIT TYPE: _____

DATE STARTED: 12/11/13
DATE FINISHED: _____

ENVIRONMENTAL SPECIALIST: _____

SOIL REMEDIATION: QUANTITY: 2-4 oz jars # OF COMP. SAMPLES: ____
DIMENSIONS: _____
VISIBLE OBSERVATIONS: _____
SAMPLING PLAN: _____

FIELD NOTES & REMARKS: FACILITY CENTER LOCATED APPROX _____ YARDS _____ FROM WELLHEAD.

DEPTH TO GROUNDWATER:
NEAREST WATER SOURCE/TYPE:
NEAREST SURFACE WATER:
MAX TPH PER NMOCD:

C2S-4

GPS: 36.758852°N
108.071422°W

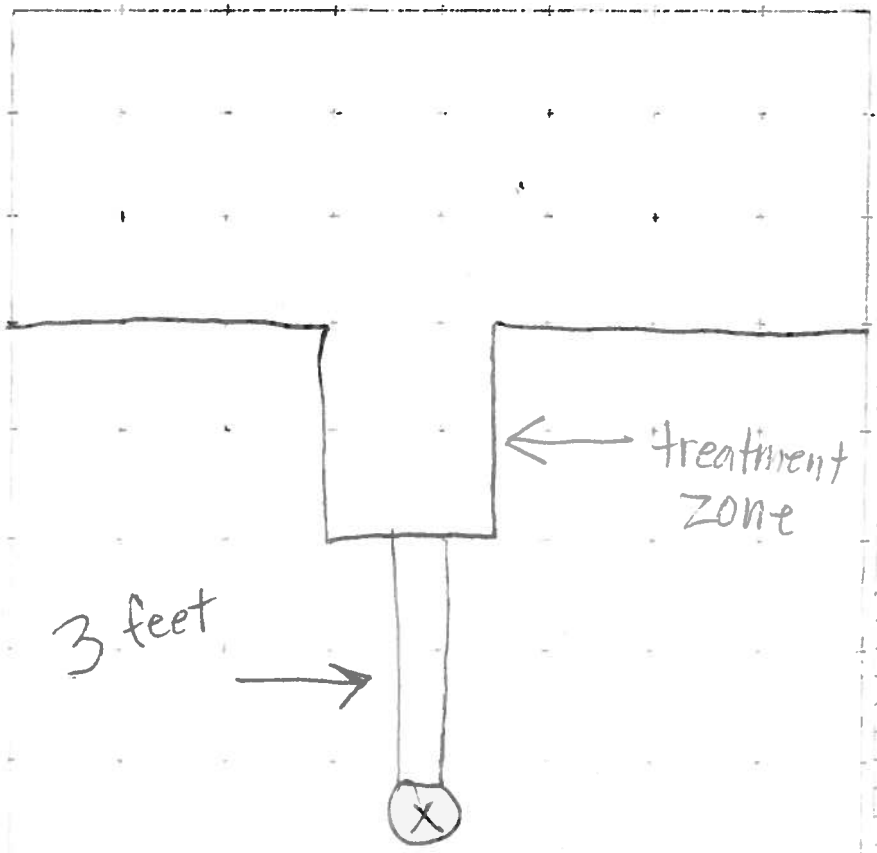
Time: 1210

Description: beneath snow cover
medium brown soil w/ some rocks

No. OF 5-POINT COMPOSITE SAMPLES: YARDAGE--#
0-200=1
201-400=2
401-1000=3
>1000=3

FACILITY DIAGRAM

GRID SCALE:



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)

LAB RESULTS

SAMPLE ID	ANALYSIS REQUESTED	RESULT DUE

NORTH

WELLHEAD

SURFACE FLOW DIR

ESTIMATED GROUNDWATER FLOW DIR

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC NM 87410
(505) 334-6178 FAX: (505) 334-6170
http://emnrd.state.nm.us/ocd/District III/3district.htm

BRADENHEAD TEST REPORT

(submit 1 copy to above address)

Date of Test 12-17-13 Operator Agua Moss API #30-0 45-28653

Property Name Sunco Disp. Well No. 1 Location: Unit E Section 2 Township 29 Range 12

Well Status (Shut-In or Producing) Initial PSI: Tubing 100 Intermediate N/A Casing 75 (450 Gauge / Chart) Bradenhead 0

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

PRESSURE

Testing	Bradenhead BH	Bradenhead Int	Bradenhead Csg	INTERM Int	INTERM Csg
TIME					
5 min	0		450		
10 min	0		450		
15 min	0		450		
20 min					
25 min					
30 min					

FLOW CHARACTERISTICS

	BRADENHEAD	INTERMEDIATE
Steady Flow		
Surges		
Down to Nothing	/ vacuum	
Nothing		
Gas		
Gas & Water		
Water		

DIST. 3

If bradenhead flowed water, check all of the descriptions that apply below:

OIL CONS. DIV.

CLEAR____ FRESH____ SALTY____ SULFUR____ BLACK____

RCVD DEC 17 '13

5 MINUTE SHUT-IN PRESSURE BRADENHEAD 0 INTERMEDIATE N/A

REMARKS: Well on vacuum for 2 minutes then closed for rest of 15 minute test.

By [signature]

(Position)

Witness Monica Kuehling Retest when set up

E-mail address ____

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

MECHANICAL INTEGRITY TEST REPORT

(TA OR UIC)

Date of Test 12-17-13 Operator Agua Moss API # 30-045-28653

Property Name Sunco Disposal Well # 1 Location: Unit E Sec 2 Twn 29 Rge 12

Land Type:
State ____
Federal ____
Private ✓
Indian ____

Well Type:
Water Injection ____
Salt Water Disposal ✓
Gas Injection ____
Producing Oil/Gas ____
Pressure obervation ____

Temporarily Abandoned Well (Y/N): ____ TA Expires: ____

DIST. 3
OIL CONS. DIV.
RCVD DEC 17 '13

Casing Pres. 0
Bradenhead Pres. 0
Tubing Pres. 1700
Int. Casing Pres. N/A

Tbg. SI Pres. ____
Tbg. Inj. Pres. ____

Max. Inj. Pres. ____

Pressured annulus up to 500 psi. for 30 mins. Test passed/failed

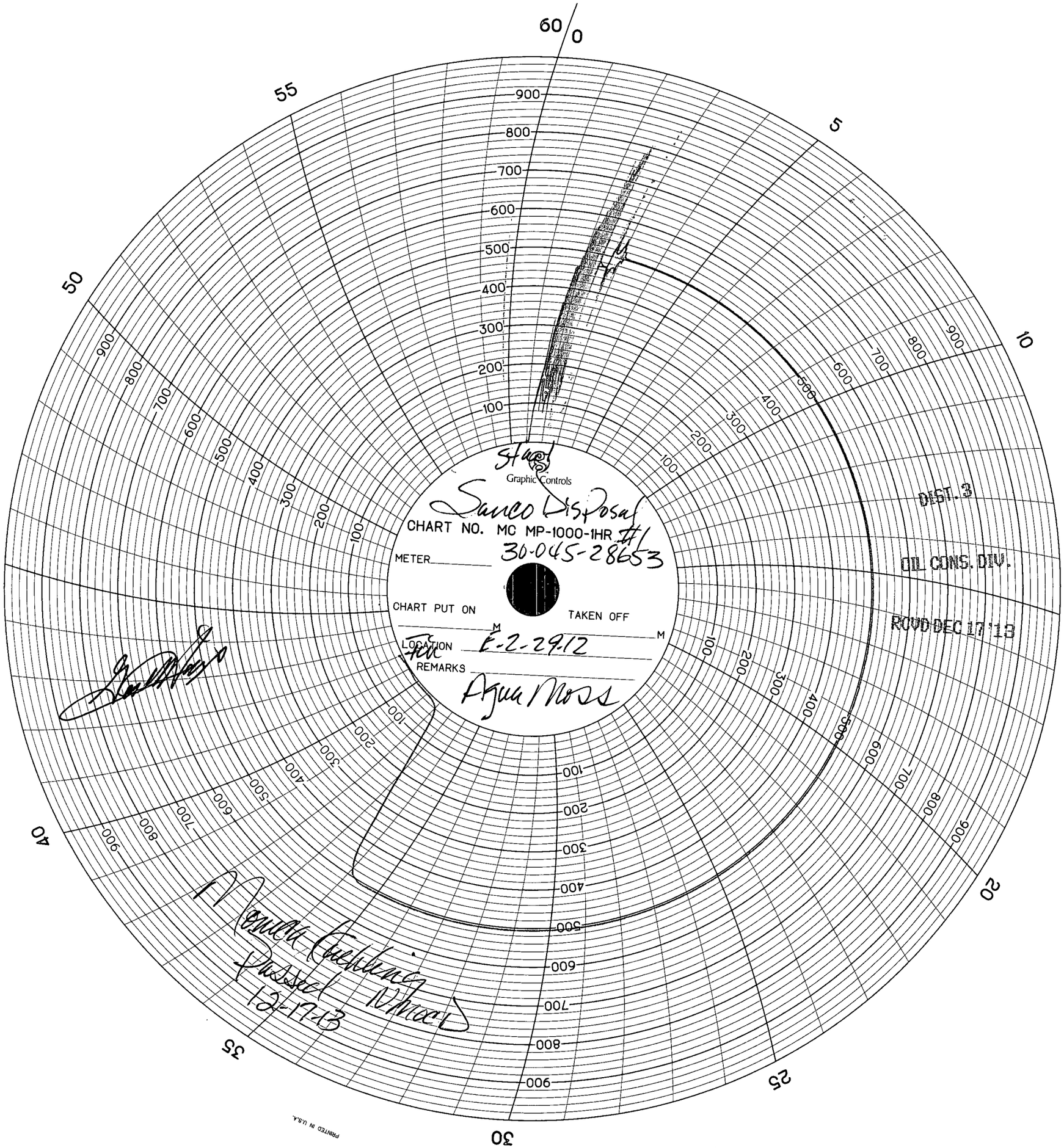
REMARKS: Packer set at 4282 - Well held steady & fell last 10 minutes - lost 3 lbs -

By _____ Witness Monica Kuehling
(Operator Representative) (NMOCD)

(Position)

Revised 02-11-02

AV


Graphic Controls
Sanco Disposal
CHART NO. MC MP-1000-1HR
30-045-28653
METER
CHART PUT ON
TAKEN OFF
LOCATION E-2-29-12
REMARKS
Agua Moss
DIST. 3
OIL CONS. DIV.
RCVD DEC 17 '13
PRINTED IN U.S.A.

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC NM 87410
(505) 334-6178 FAX: (505) 334-6170
http://emnrd.state.nm.us/ocd/District III/3distric.htm

BRADENHEAD TEST REPORT

(submit 1 copy to above address)

Date of Test 12-17-13 Operator Agua Moss API #30-0 45-28653

Property Name Sunco Dist. Well No. 1 Location: Unit E Section 2 Township 29 Range 12

Well Status (Shut-In or Producing) Initial PSI: Tubing 1700 Intermediate N/A Casing 75 450 Gauge Bradenhead 0 Check

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

PRESSURE

Testing	Bradenhead BH	Bradenhead Int	Bradenhead Csg	INTERM Int	INTERM Csg
TIME					
5 min	0		450		
10 min	0		450		
15 min	0		450		
20 min					
25 min					
30 min					

FLOW CHARACTERISTICS

	BRADENHEAD	INTERMEDIATE
Steady Flow		
Surges		
Down to Nothing	/ vacuum	
Nothing		
Gas		
Gas & Water		
Water		

DIST. 3

If bradenhead flowed water, check all of the descriptions that apply below:

OIL CONS. DIV.

CLEAR____ FRESH____ SALTY____ SULFUR____ BLACK____

RCVD DEC 17 '13

5 MINUTE SHUT-IN PRESSURE BRADENHEAD 0 INTERMEDIATE N/A

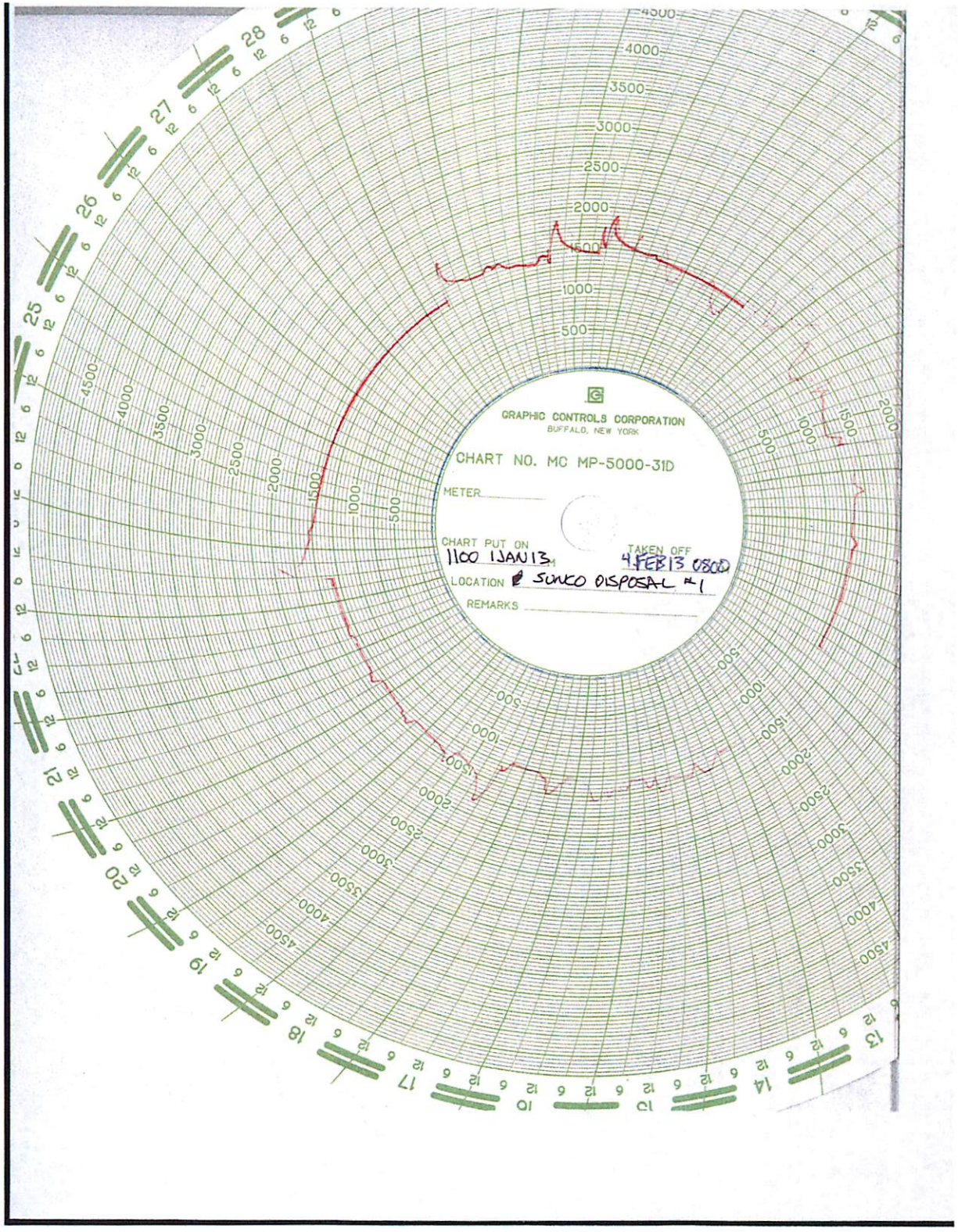
REMARKS: Well on vacuum for 2 minutes then closed for rest of 15 minute test.

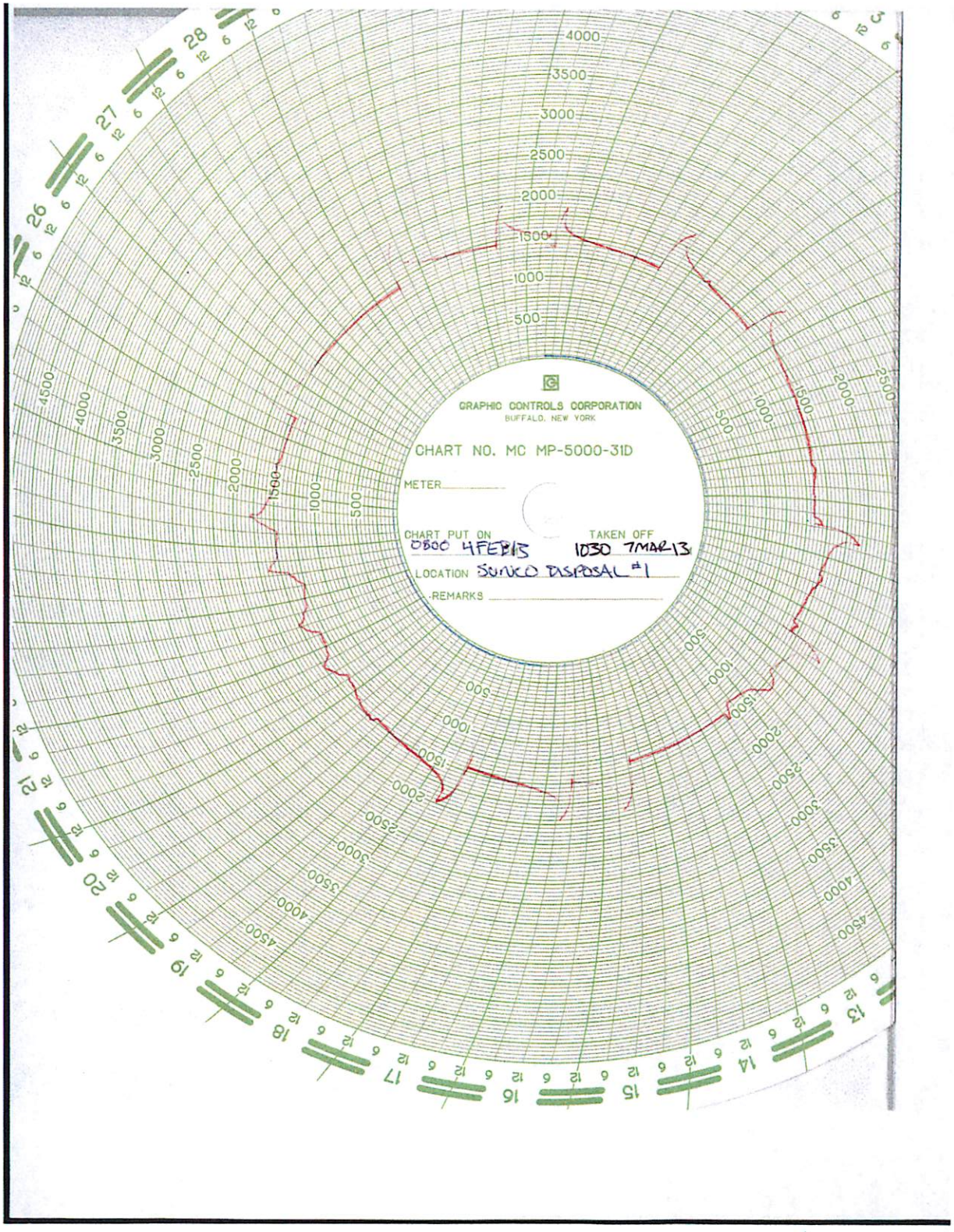
By _____

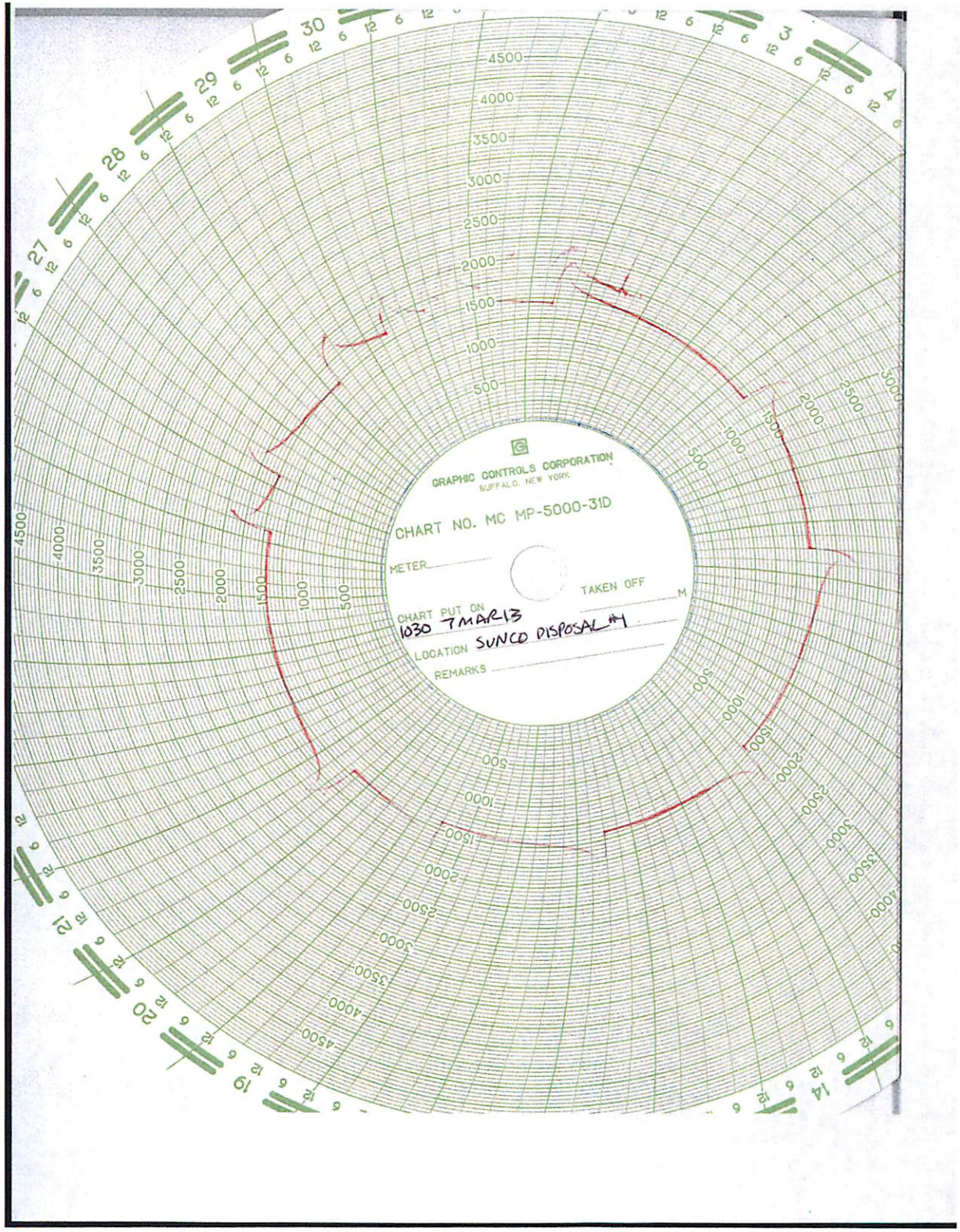
Witness Monica Kuehling Tested when set up

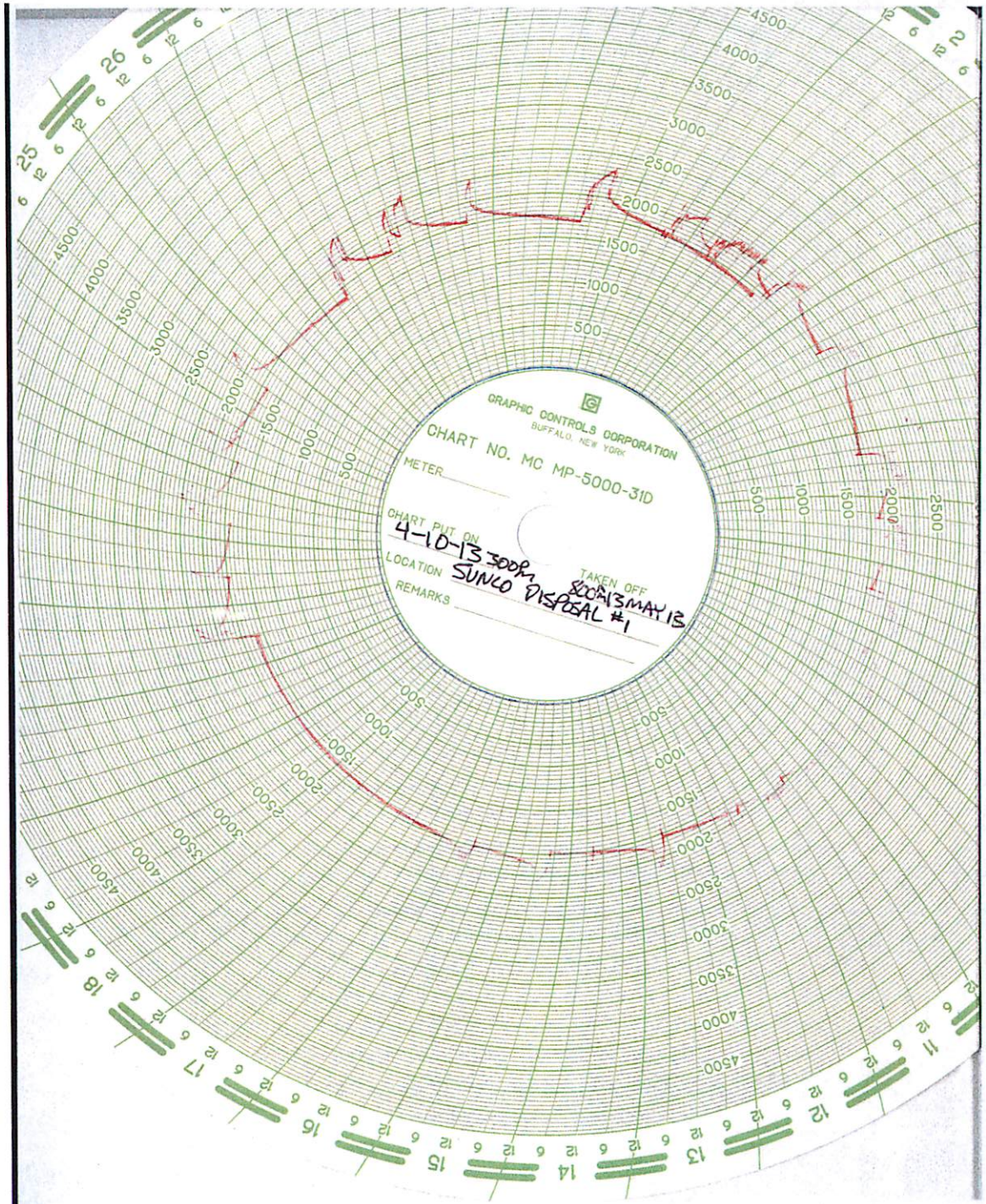
(Position)

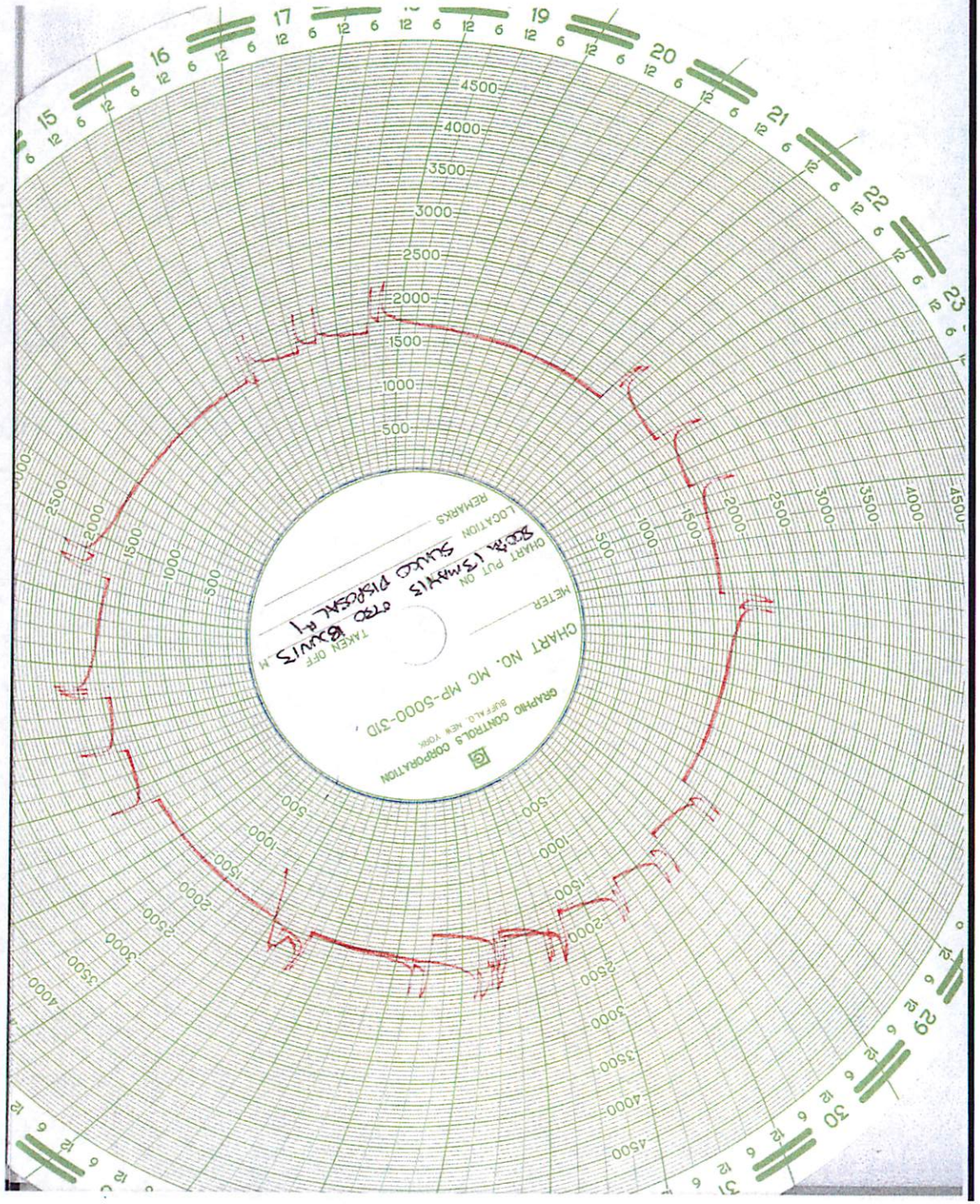
E-mail address _____

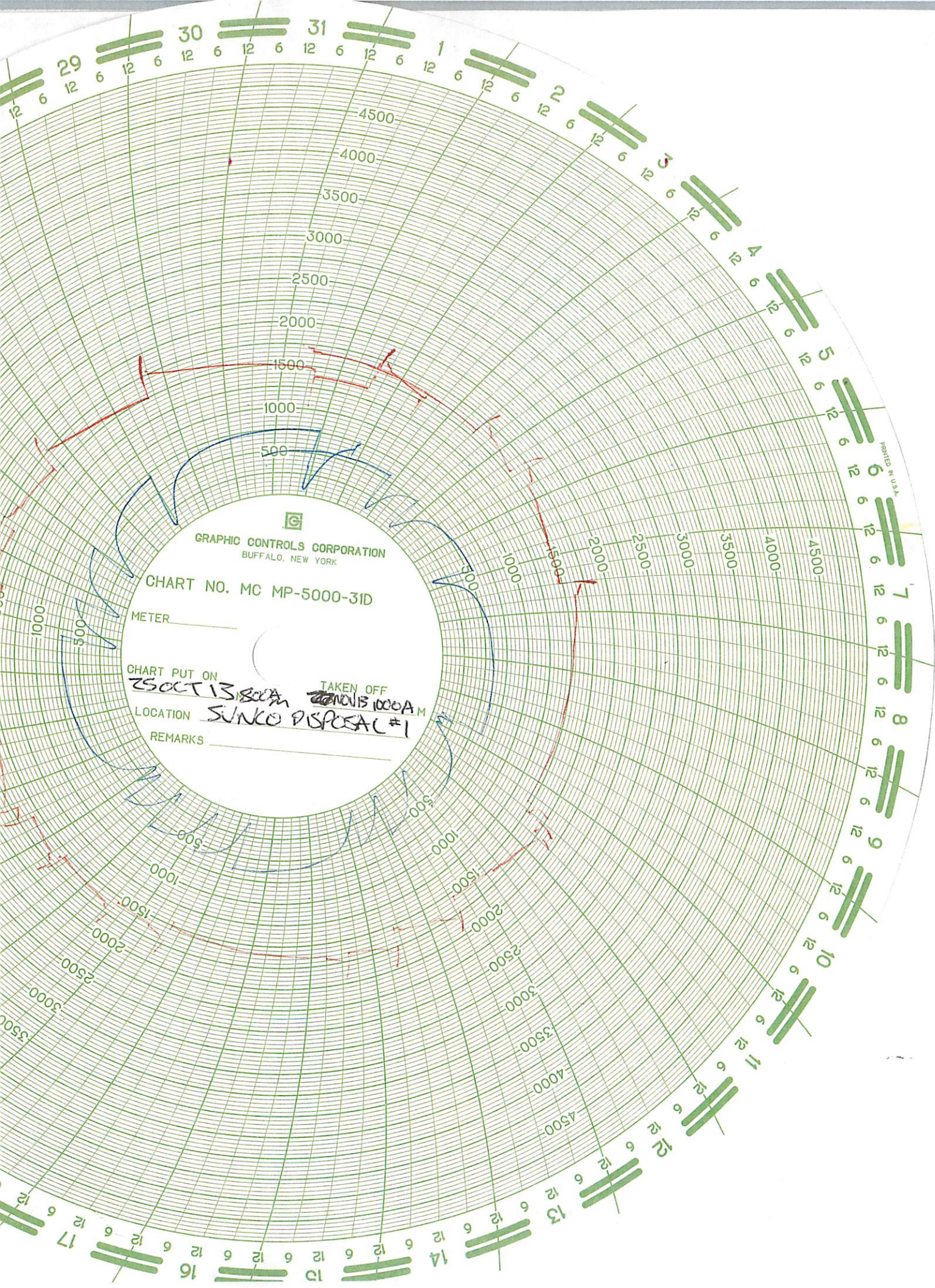

GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
CHART NO. MC MP-5000-31D
METER
CHART PUT ON
1100 1JAN13
TAKEN OFF
4 FEB13 0800
LOCATION SUNCO DISPOSAL #1
REMARKS

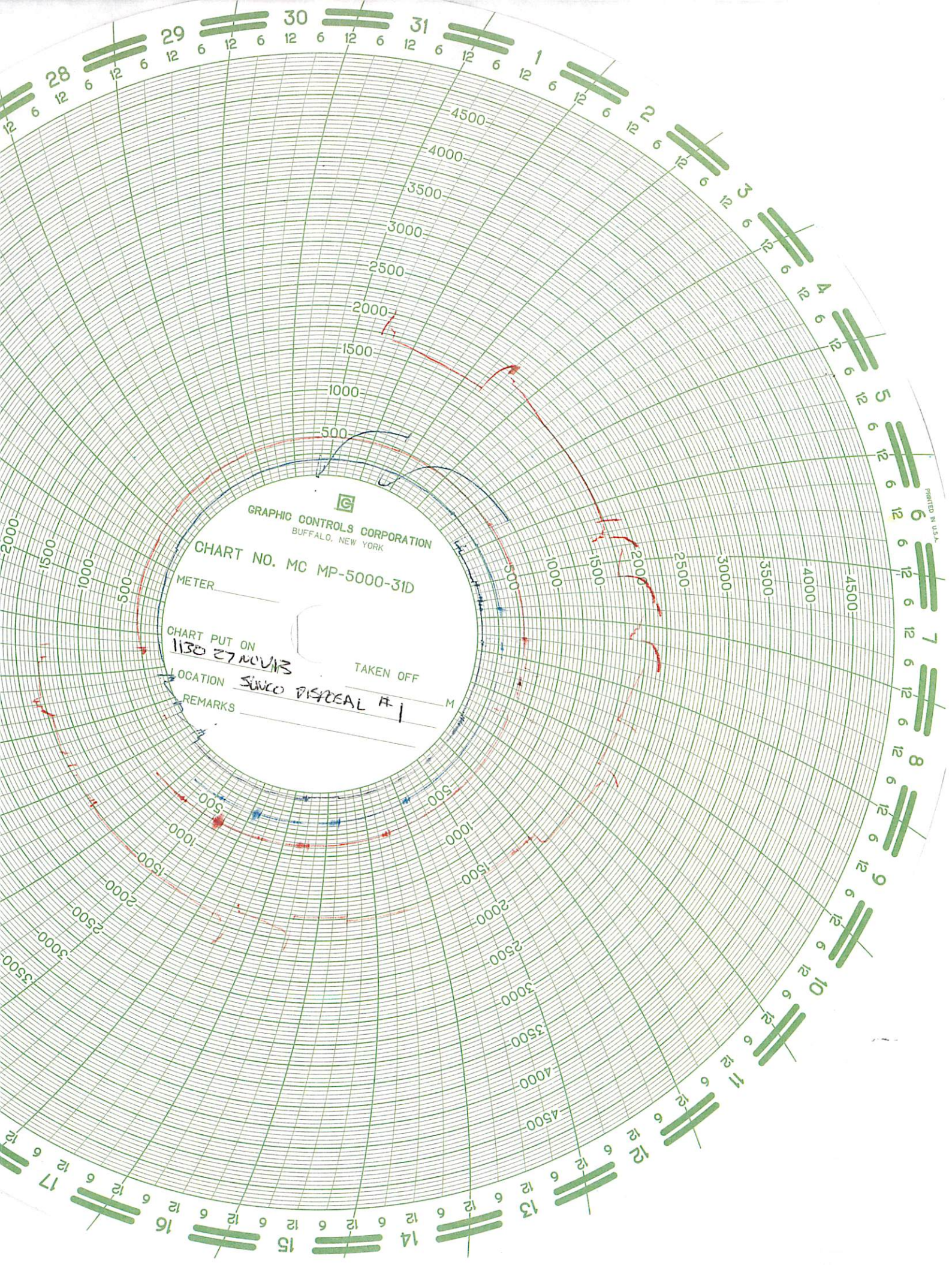

GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
CHART NO. MC MP-5000-31D
METER
CHART PUT ON
0800 4FEB13
TAKEN OFF
1030 7MAR13
LOCATION SUNOCO DISPOSAL #1
REMARKS


GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
CHART NO. MC MP-5000-31D
METER
TAKEN OFF
CHART PUT ON
1030 7MAR13
LOCATION SUNCO DISPOSAL #4
REMARKS


GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
CHART NO. MC MP-5000-31D
METER
CHART PUT ON 4-10-13 3:00PM
TAKEN OFF 5:00PM 5-13-13
LOCATION SUNCO DISPOSAL #1
REMARKS


GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
CHART NO. MC MP-5000-3D
METER
CHART PUT ON
TAKEN OFF
LOCATION
REMARKS


GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
CHART NO. MC MP-5000-31D
METER
CHART PUT ON
25OCT13 800AM
TAKEN OFF
26NOV13 1000AM
LOCATION SUNCO DISPOSAL #1
REMARKS
PRINTED IN U.S.A.


GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
CHART NO. MC MP-5000-31D
METER
CHART PUT ON
1130 27 NOV 85
TAKEN OFF
LOCATION SUNCO DISPOSAL #1
REMARKS
PRINTED IN U.S.A.

Total Injected	Avg Vol	Avg Flow
1/1/2013	530	15.45833333
1/2/2013		
1/3/2013		
1/4/2013	241	7.029166667
1/5/2013		
1/6/2013		
1/7/2013	191	5.570833333
1/8/2013		
1/9/2013		
1/10/2013		
1/11/2013	230	6.708333333
1/12/2013		
1/13/2013		
1/14/2013		
1/15/2013		
1/16/2013		
1/17/2013		
1/18/2013	495	14.4375
1/19/2013		
1/20/2013		
1/21/2013		
1/22/2013		
1/23/2013	516	15.05
1/24/2013		
1/25/2013		
1/26/2013		
1/27/2013		
1/28/2013		
1/29/2013	235	6.854166667
1/30/2013	62	1.808333333
1/31/2013	258	7.525

2/1/2013	357	10.4125
2/2/2013		
2/3/2013		
2/4/2013	228	6.65
2/5/2013		
2/6/2013	518	15.10833333
2/7/2013		
2/8/2013	316	9.216666667
2/9/2013		
2/10/2013		
2/11/2013		
2/12/2013	536	15.63333333
2/13/2013		
2/14/2013	421	12.27916667
2/15/2013		
2/16/2013		
2/17/2013		
2/18/2013	549	16.0125
2/19/2013	375	10.9375
2/20/2013		
2/21/2013	555	16.1875
2/22/2013		
2/23/2013		
2/24/2013		
2/25/2013		
2/26/2013	413	12.04583333
2/27/2013	286	8.341666667
2/28/2013		

3/1/2013	400	11.66666667
3/2/2013		
3/3/2013		
3/4/2013	410	11.95833333
3/5/2013		
3/6/2013	303	8.8375
3/7/2013	1	0.029166667
3/8/2013	467	13.62083333
3/9/2013		
3/10/2013		
3/11/2013		
3/12/2013	467	13.62083333
3/13/2013		
3/14/2013		
3/15/2013	471	13.7375
3/16/2013		
3/17/2013		
3/18/2013		
3/19/2013	365	10.64583333
3/20/2013		
3/21/2013		
3/22/2013	368	10.73333333
3/23/2013		
3/24/2013		
3/25/2013	297	8.6625
3/26/2013		
3/27/2013	643	18.75416667
3/28/2013		
3/29/2013		
3/30/2013		
3/31/2013		

4/1/2013	389	11.34583333
4/2/2013	459	13.3875
4/3/2013		
4/4/2013	810	23.625
4/5/2013	680	19.83333333
4/6/2013	915	26.6875
4/7/2013	954	27.825
4/8/2013	1027	29.95416667
4/9/2013	36	1.05
4/10/2013	1200	35
4/11/2013	1235	36.02083333
4/12/2013	826	24.09166667
4/13/2013	668	19.48333333
4/14/2013		
4/15/2013	1119	32.6375
4/16/2013	1015	29.60416667
4/17/2013	1186	34.59166667
4/18/2013	1265	36.89583333
4/19/2013	1200	35
4/20/2013	1254	36.575
4/21/2013		
4/22/2013	323	9.420833333
4/23/2013		
4/24/2013	338	9.858333333
4/25/2013	228	6.65
4/26/2013		
4/27/2013		
4/28/2013		
4/29/2013		
4/30/2013	538	15.69166667

5/1/2013	180	5.25
5/2/2013	1054	30.74166667
5/3/2013	299	8.720833333
5/4/2013	352	10.26666667
5/5/2013		
5/6/2013	658	19.19166667
5/7/2013	808	23.56666667
5/8/2013	232	6.766666667
5/9/2013		
5/10/2013	826	24.09166667
5/11/2013		
5/12/2013		
5/13/2013	594	17.325
5/14/2013	244	7.116666667
5/15/2013	291	8.4875
5/16/2013		
5/17/2013	190	5.541666667
5/18/2013		
5/19/2013		
5/20/2013	167	4.870833333
5/21/2013	161	4.695833333
5/22/2013	458	13.35833333
5/23/2013		
5/24/2013	650	18.95833333
5/25/2013		
5/26/2013		
5/27/2013		
5/28/2013	176	5.133333333
5/29/2013	61	1.779166667
5/30/2013	324	9.45
5/31/2013		

6/1/2013		
6/2/2013		
6/3/2013	368	10.73333333
6/4/2013	236	6.883333333
6/5/2013	162	4.725
6/6/2013		
6/7/2013	419	12.22083333
6/8/2013		
6/9/2013		
6/10/2013	261	7.6125
6/11/2013	350	10.20833333
6/12/2013	250	7.291666667
6/13/2013	318	9.275
6/14/2013	1130	32.95833333
6/15/2013		
6/16/2013		
6/17/2013	244	7.116666667
6/18/2013	382	11.14166667
6/19/2013	249	7.2625
6/20/2013	325	9.479166667
6/21/2013	763	22.25416667
6/22/2013		
6/23/2013		
6/24/2013	486	14.175
6/25/2013	343	10.00416667
6/26/2013		
6/27/2013	681	19.8625
6/28/2013	247	7.204166667
6/29/2013		
6/30/2013		

AVG	306.4444	8.937962963		414	12.075		381.0909	11.11515152		802.9545	23.41950758		406.5789	11.85855263		400.7778	11.68935185
MAX	530	15.45833333		555	16.1875		643	18.75416667		1265	36.89583333		1054	30.74166667		1130	32.95833333
MIN	62	1.8083333		228	6.6500000		1	0.0291667		36	1.0500000		61	1.7791667		162	4.7250000
Total for month	2758			4554			4192			17665			7725			7214	

Total Inj	Avg Vol	Avg Flow
7/1/2013	344	10.03333333
7/2/2013	91	2.654166667
7/3/2013	83	2.420833333
7/4/2013	221	6.445833333
7/5/2013	395	11.52083333
7/6/2013		
7/7/2013		
7/8/2013	272	7.933333333
7/9/2013		
7/10/2013	357	10.4125
7/11/2013		
7/12/2013	266	7.758333333
7/13/2013		
7/14/2013		
7/15/2013		
7/16/2013	535	15.60416667
7/17/2013	301	8.779166667
7/18/2013	289	8.429166667
7/19/2013		
7/20/2013		
7/21/2013		
7/22/2013	243	7.0875
7/23/2013	376	10.96666667
7/24/2013	122	3.558333333
7/25/2013	320	9.333333333
7/26/2013		
7/27/2013		
7/28/2013		
7/29/2013	550	16.04166667
7/30/2013		
7/31/2013	315	9.1875

8/1/2013	278	8.108333333
8/2/2013	252	7.35
8/3/2013		
8/4/2013		
8/5/2013	221	6.445833333
8/6/2013	145	4.229166667
8/7/2013	349	10.17916667
8/8/2013	174	5.075
8/9/2013		
8/10/2013		
8/11/2013		
8/12/2013	207	6.0375
8/13/2013		
8/14/2013		
8/15/2013	764	22.28333333
8/16/2013		
8/17/2013		
8/18/2013		
8/19/2013		
8/20/2013	423	12.3375
8/21/2013		
8/22/2013		
8/23/2013	174	5.075
8/24/2013		
8/25/2013		
8/26/2013	221	6.445833333
8/27/2013	348	10.15
8/28/2013	326	9.508333333
8/29/2013		
8/30/2013	669	19.5125
8/31/2013		

9/1/2013		
9/2/2013	476	13.88333333
9/3/2013	238	6.941666667
9/4/2013	430	12.54166667
9/5/2013		
9/6/2013	373	10.87916667
9/7/2013		
9/8/2013		
9/9/2013		
9/10/2013		
9/11/2013	498	14.525
9/12/2013	249	7.2625
9/13/2013	265	7.729166667
9/14/2013		
9/15/2013		
9/16/2013		
9/17/2013	61	1.779166667
9/18/2013	33	0.9625
9/19/2013	668	19.48333333
9/20/2013	310	9.041666667
9/21/2013		
9/22/2013		
9/23/2013	407	11.87083333
9/24/2013	339	9.8875
9/25/2013	753	21.9625
9/26/2013		
9/27/2013		
9/28/2013		
9/29/2013		
9/30/2013	331	9.654166667

10/1/2013	190	5.541666667
10/2/2013	296	8.633333333
10/3/2013		
10/4/2013	261	7.6125
10/5/2013		
10/6/2013		
10/7/2013	724	21.11666667
10/8/2013		
10/9/2013	603	17.5875
10/10/2013	249	7.2625
10/11/2013	551	16.07083333
10/12/2013		
10/13/2013		
10/14/2013	247	7.204166667
10/15/2013	315	9.1875
10/16/2013		
10/17/2013	463	13.50416667
10/18/2013	159	4.6375
10/19/2013		
10/20/2013		
10/21/2013	509	14.84583333
10/22/2013		
10/23/2013	350	10.20833333
10/24/2013	392	11.43333333
10/25/2013		
10/26/2013		
10/27/2013		
10/28/2013	304	8.866666667
10/29/2013	319	9.304166667
10/30/2013		
10/31/2013	211	6.154166667

11/1/2013		
11/2/2013		
11/3/2013		
11/4/2013	661	19.27916667
11/5/2013		
11/6/2013	421	12.27916667
11/7/2013	354	10.325
11/8/2013	196	5.716666667
11/9/2013		
11/10/2013		
11/11/2013	195	5.6875
11/12/2013	217	6.329166667
11/13/2013	213	6.2125
11/14/2013	570	16.625
11/15/2013		
11/16/2013		
11/17/2013		
11/18/2013	385	11.22916667
11/19/2013	308	8.983333333
11/20/2013	353	10.29583333
11/21/2013		
11/22/2013	359	10.47083333
11/23/2013		
11/24/2013		
11/25/2013		
11/26/2013	310	9.041666667
11/27/2013	446	13.00833333
11/28/2013		
11/29/2013	807	23.5375
11/30/2013		

12/1/2013		
12/2/2013	932	27.18333333
12/3/2013	2178	63.525
12/4/2013	1517	44.24583333
12/5/2013	197	5.745833333
12/6/2013	497	14.49583333
12/7/2013		
12/8/2013		
12/9/2013		
12/10/2013		
12/11/2013		
12/12/2013	169	4.929166667
12/13/2013	473	13.79583333
12/14/2013		
12/15/2013		
12/16/2013	110	3.208333333
12/17/2013	130	3.791666667
12/18/2013	256	7.466666667
12/19/2013		
12/20/2013		
12/21/2013		
12/22/2013		
12/23/2013		
12/24/2013		
12/25/2013		
12/26/2013		
12/27/2013		
12/28/2013		
12/29/2013		
12/30/2013		
12/31/2013		

298.8235	8.715686275	
550	16.04166667	
83	2.4208333	
5080		

325.0714	9.48125	
764	22.28333333	
145	4.2291667	
4551		

362.0667	10.56027778	
753	21.9625	
33	0.9625000	
5431		

361.3529	10.53946078	
724	21.11666667	
159	4.6375000	
6143		

386.3333	11.26805556	
807	23.5375	
195	5.6875000	
5795		

645.9	18.83875	
2178	63.525	
110	3.2083333	
6459		

WH	AP
1/1/13	1850
1/2/13	1700
1/3/13	1500
1/4/13	1800
1/5/13	
1/6/13	
1/7/13	1750
1/8/13	1550
1/9/13	1450
1/10/13	1500
1/11/13	1750
1/12/13	
1/13/13	
1/14/13	1500
1/15/13	1450
1/16/13	1500
1/17/13	1500
1/18/13	1850
1/19/13	
1/20/13	
1/21/13	1500
1/22/13	1500
1/23/13	1900
1/24/13	1750
1/25/13	1600
1/26/13	
1/27/13	
1/28/13	1500
1/29/13	1700
1/30/13	1600
1/31/13	1800
	1630.435 AVG
	1450 MIN
	1900 MAX

WH	AP
2/1/13	1800
2/2/13	
2/3/13	
2/4/13	1800
2/5/13	1600
2/6/13	1900
2/7/13	1600
2/8/13	1850
2/9/13	
2/10/13	
2/11/13	1500
2/12/13	1900
2/13/13	1700
2/14/13	1900
2/15/13	1700
2/16/13	
2/17/13	
2/18/13	1900
2/19/13	1900
2/20/13	1600
2/21/13	1950
2/22/13	1750
2/23/13	
2/24/13	
2/25/13	1500
2/26/13	1850
2/27/13	1850
2/28/13	1600
	1757.5 AVG
	1500 MIN
	1950 MAX

WH	AP
3/1/13	1900
3/2/13	
3/3/13	
3/4/13	1900
3/5/13	1700
3/6/13	1800
3/7/13	1600
3/8/13	1950
3/9/13	
3/10/13	
3/11/13	1500
3/12/13	1900
3/13/13	1700
3/14/13	1500
3/15/13	1925
3/16/13	
3/17/13	
3/18/13	1500
3/19/13	1900
3/20/13	1700
3/21/13	1550
3/22/13	1900
3/23/13	
3/24/13	
3/25/13	1850
3/26/13	1700
3/27/13	1925
3/28/13	1700
3/29/13	1500
3/30/13	
3/31/13	
	1742.857 AVG
	1500 MIN
	1950 MAX

WH	AP
4/1/13	1725
4/2/13	1800
4/3/13	1600
4/4/13	1900
4/5/13	1800
4/6/13	1900
4/7/13	1900
4/8/13	1950
4/9/13	1800
4/10/13	2000
4/11/13	2100
4/12/13	2150
4/13/13	2150
4/14/13	
4/15/13	2200
4/16/13	2150
4/17/13	2200
4/18/13	2200
4/19/13	2250
4/20/13	2200
4/21/13	
4/22/13	2100
4/23/13	1800
4/24/13	1950
4/25/13	1900
4/26/13	1800
4/27/13	
4/28/13	
4/29/13	1600
4/30/13	2050
	1968.269 AVG
	1600 MIN
	2250 MAX

WH	AP
5/1/13	1900
5/2/13	2100
5/3/13	1900
5/4/13	2100
5/5/13	
5/6/13	2100
5/7/13	2150
5/8/13	2000
5/9/13	1800
5/10/13	2150
5/11/13	
5/12/13	
5/13/13	1950
5/14/13	1900
5/15/13	2100
5/16/13	1700
5/17/13	1900
5/18/13	
5/19/13	
5/20/13	2000
5/21/13	1900
5/22/13	2050
5/23/13	1700
5/24/13	2150
5/25/13	
5/26/13	
5/27/13	1800
5/28/13	1800
5/29/13	1900
5/30/13	2050
5/31/13	1700
	1950 AVG
	1700 MIN
	2150 MAX

	WH	AP	
6/1/13			
6/2/13			
6/3/13	2000	50	
6/4/13	2050	50	
6/5/13	1550	50	
6/6/13	1600	50	
6/7/13	1900	50	
6/8/13			
6/9/13			
6/10/13	1900	50	
6/11/13	2050	50	
6/12/13	1900	50	
6/13/13	1950	50	
6/14/13	2200	50	
6/15/13			
6/16/13			
6/17/13	2000	50	
6/18/13	2000	50	
6/19/13	2000	50	
6/20/13	2000	50	
6/21/13	2200	50	
6/22/13			
6/23/13			
6/24/13	2100	50	
6/25/13	2000	50	
6/26/13	1800	50	
6/27/13	2000	50	
6/28/13	1900	50	
6/29/13			
6/30/13			
	1955	50	AVG
	1550	50	MIN
	2200	50	MAX

	WH	AP	
7/1/13	1900	50	
7/2/13	1800	50	
7/3/13	1800	50	
7/4/13	1900	50	
7/5/13	2000	50	
7/6/13			
7/7/13			
7/8/13	2000	50	
7/9/13	1700	50	
7/10/13	1600	50	
7/11/13	1500	50	
7/12/13	1800	50	
7/13/13			
7/14/13			
7/15/13	1500	92	
7/16/13	1900	65	
7/17/13	1800	55	
7/18/13	1900	100	
7/19/13	1600	150	
7/20/13			
7/21/13			
7/22/13	1800	55	
7/23/13	1850	50	
7/24/13	1650	130	
7/25/13	1850	45	
7/26/13	1600	155	
7/27/13			
7/28/13			
7/29/13	1850	40	
7/30/13	1600	160	
7/31/13	1700	130	
	1765.217	75.08696	AVG
	1500	40	MIN
	2000	160	MAX

	WH	AP	
8/1/13	1700	135	
8/2/13	1800	75	
8/3/13			
8/4/13			
8/5/13	1800	55	
8/6/13	1600	110	
8/7/13	1650	115	
8/8/13	1600	120	
8/9/13	1600	170	
8/10/13			
8/11/13			
8/12/13	1600	130	
8/13/13	1500	150	
8/14/13	1500	160	
8/15/13	1850	85	
8/16/13	1600	180	
8/17/13			
8/18/13			
8/19/13	1600	200	
8/20/13	1700	130	
8/21/13	1500	125	
8/22/13	1500	100	
8/23/13	1700	60	
8/24/13			
8/25/13			
8/26/13	1600	150	
8/27/13	1600	120	
8/28/13	1650	120	
8/29/13	1600	130	
8/30/13	1900	65	
8/31/13			
	1643.182	122.0455	AVG
	1500	55	MIN
	1900	200	MAX

	WH	AP	
9/1/13			
9/2/13	1850	120	
9/3/13	1700	150	
9/4/13	1850	90	
9/5/13	1600	200	
9/6/13	1850	80	
9/7/13			
9/8/13			
9/9/13	1500	200	
9/10/13	1450	220	
9/11/13	1850	100	
9/12/13	1800	140	
9/13/13	1850	80	
9/14/13			
9/15/13			
9/16/13	1500	220	
9/17/13	1500	210	
9/18/13	1500	210	
9/19/13	1700	195	
9/20/13	1750	195	
9/21/13			
9/22/13			
9/23/13	1600	220	
9/24/13	1650	200	
9/25/13	1900	75	
9/26/13	1600	180	
9/27/13	1450	220	
9/28/13			
9/29/13			
9/30/13	1750	80	
	1676.19	161.1905	AVG
	1450	75	MIN
	1900	220	MAX

	WH	AP	
10/1/13	1650	100	
10/2/13	1750	110	
10/3/13	1600	230	
10/4/13	1600	160	
10/5/13			
10/6/13			
10/7/13	1850	30	
10/8/13	1650	230	
10/9/13	1850	50	
10/10/13	1850	40	
10/11/13	1850	50	
10/12/13			
10/13/13			
10/14/13	1600	175	
10/15/13	1650	175	
10/16/13	1600	260	
10/17/13	1800	170	
10/18/13	1650	190	
10/19/13			
10/20/13			
10/21/13	1800	60	
10/22/13	1600	140	
10/23/13	1800	80	
10/24/13	1850	120	
10/25/13	1600	160	
10/26/13			
10/27/13			
10/28/13	1650	150	
10/29/13	1650	180	
10/30/13	1600	320	
10/31/13	1650	150	
	1702.174	144.7826	AVG
	1600	30	MIN
	1850	320	MAX

	WH	AP	
11/1/13	1600	210	
11/2/13			
11/3/13			
11/4/13	1850	45	
11/5/13	1600	320	
11/6/13	1650	170	
11/7/13	1850	110	
11/8/13	1650	230	
11/9/13			
11/10/13			
11/11/13	1600	280	
11/12/13	1600	280	
11/13/13	1650	150	
11/14/13	1850	50	
11/15/13	1600	250	
11/16/13			
11/17/13			
11/18/13	1700	170	
11/19/13	1650	250	
11/20/13	1850	75	
11/21/13	1600	250	
11/22/13	1850	50	
11/23/13			
11/24/13			
11/25/13	1450	350	
11/26/13	1650	110	
11/27/13	1850	40	
11/28/13	1600	80	
11/29/13	1800	50	
11/30/13			
	1690.476	167.619	AVG
	1450	40	MIN
	1850	350	MAX

	WH	AP	
12/1/13			
12/2/13	1950	50	
12/3/13	2050	50	
12/4/13	2050	50	
12/5/13	1900	50	
12/6/13	1900	50	
12/7/13			
12/8/13			
12/9/13	1600	100	
12/10/13	1450	120	
12/11/13	1400	150	
12/12/13	1650	50	
12/13/13	1800	50	
12/14/13			
12/15/13			
12/16/13	1650	50	
12/17/13	1700	0	
12/18/13	1600	0	
12/19/13	1500	50	
12/20/13	1450	100	
12/21/13			
12/22/13			
12/23/13	1450	150	
12/24/13	1450	150	
12/25/13			
12/26/13	1400	150	
12/27/13	1400	150	
12/28/13			
12/29/13			
12/30/13	1400	200	
12/31/13	1400	250	
	1626.19	93.80952	AVG
	1400	0	MIN
	2050	250	MAX

CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
JAN 2 1	MERRION	VINE COM 1	CARL MERILATT	M&R	3365	SID	733 734 4100	40	
2	MERRION	RED FERN 3	CARL MERILATT	M&R	3365	SID	734 4100	120	
3	MERRION	BLACKSHAWL 1	CARL MERILATT	M&R	3365	SID	735 736 4100	80	
4	MERRION	POSSIBLE DREAM 1	CARL MERILATT	M&R	3365	SID	737 4100	80	320
JAN 4 5	MERRION	VINE COM 1	STEVEN DUNN	M&R	3349	JOHNNY	738 4100	80	
6	MERRION	KATY 2	STEVEN DUNN	M&R	3349	JOHNNY	739 4100	80	
7	MERRION	KATHERINE PIERCE COM 1	STEVEN DUNN	M&R	3349	JOHNNY	740 4100	80	240
JAN 8 8	MERRION	KATY 1	CARL MERILATT	M&R	3358	FRANDORA	741 4100	160 R	
9	MERRION	VINE COM 1	CARL MERILATT	M&R	3358	FRANDORA	742 4100	60	
10	MERRION	CHUCKY 2	CARL MERILATT	M&R	3358	FRANDORA	743 4100	60	280
JAN 10 11	MERRION	VINE COM 1 POSSIBLE DREAM 1	CARL MERILATT	M&R	3362	FRANDORA	744 745 4100	80	
12	MERRION	PANTHER #1	CARL MERILATT	M&R	3382	FRANDORA	746 4100	80	
13	MERRION	BLACKSHAWL #1	CARL MERILATT	M&R	3382	FRANDORA	747 4100	80	
14	MERRION	HEIGHTS COM 1	CARL MERILATT	M&R	3382	FRANDORA	748 4100	60	300
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

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CROUCH MESA FACICITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 JAN 16	MERRION RILEY	VINE COM 1 CHUCKY 2	CARL MERILATT	M&R	3384	FAUSTINA	749 750 4100	50	
2 JAN 17	~~KINDERHOOK TOPS~~	HALLIBURTON YARD	TREVEN WETHINGTON	RILEY	17002	DARRELL	554 4525	80	
3	MERRION	PIEDRA VISTA #12	CARL MERILATT	M&R	3385	WILLIAM	751 4100	80	110
4 JAN 18	MERRION	BLACKSHAWL COM #1	CARL MERILATT	M&R	3369	SHANE.	752 4100	80	
5	MERRION	POSSIBLE DREAM 1 VINE COM #1	CARL MERILATT	M&R	3369	SHANE	754 753 4100	80	160
6 JAN 22	MERRION	POSSIBLE DREAM 1 VINE COM 1	CARL MERILATT	M&R	3362	FRANDERA	755 756 4100	80	
7	KEY ENERGY	KEY YARD	WESLEY HERERA	KEY	59657	LAWERENCE	758 4100	40	
8	MERRION	RED FERN #3	CARL MERILATT	M&R	3362	FRANDERA	757 4100	240 (1)	360
9 JAN 23	WESTERN REFINING	WAREHOUSE	WALTER MCREYNOLDS	HYDRI PURE	30	HERMAN	759 4575	70	
10	MERRION	VINE COM 1 CHUCKY 2	CARL MERILATT	M&R	3367	F.ANDORA	760 761 4100	70	
11	MERRION	KATY 1	CARL MERILATT	M&R	3362	FRANDERA	762 4100	80	150
12 JAN 25	CONOCO	HERERRA ROAD FACILITY	JONATHAN SANDOVAL	M&R	3392	JAMES	763 4525	12	
13 JAN 28	MERRION	VINE COM 1 CHUCKY 2 KATY 1	CARL MERILATT	M&R	3384	FAUSTINA	764 ~~765~~ 766 4100	80	
14	WESTERN REFINING	WARE HOUSE	WALTER MCREYNOLDS	HYDRI PURE	30	DARREN	767 4525	160 (2)	240
15 JAN 29	OIL & GAS	FLORA VISTA STORE	IVAYLON	KEY	05959	LAWRENCE	768 4525	35	
16 JAN 30	MERIDON	VINE COM 1 BLACKSHAWL 1	CARL MERILATT	M&R	3362	FRANDERA	769 770 4100	80	
17	~~BRAINARD~~ MERRION	BLACKSHAWL 1	CARL MERILATT	M&R	3362	FRANDERA	771 4100	70	
18	MERRION	RED FERN 3	CARL MERILATT	M&R	3362	FRANDERA	772 4100	80	
19	MERRION	CARNAHAN #2	CARL MERILATT	M&R	3362	FRANDERA	773 4100	80	
20	CONOCO	HERERRA ROAD FACILITY	JONATHAN SANDOVAL	M&R	3392	JAMES	774 4525	50	360
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 FEB 1	MERRION	CHUCKY 2 / KATY 1	CARL MERILATT	M&R	3362	FRANDORA	775 776 4100	80	
2 [redacted]	MERRION	KATY #1	CARL MERILATT	M&R	3362	FRANDORA	777 4100	80	
3 FEB 4	SYNERGY	MADRID #111	DARREL BAYS	TR1	5	LEE	778 ~~779~~ 780 4100	240 (3)	
4 FEB 5	KEY YARD	[redacted] YARD	[redacted] WESLEY	KEY	59657	LAWRENCE	781 4100	40	
5	MERRION	KATY #1	CARL MERILATT	M&R	3362	FRANDORA	782 4100	80	120
6 FEB 6	SYNERGY	MADRID #112	DARREL BAYS	TR1	5	LEE	783 4100	80	
7	SYNERGY	MADRID #111	DARREL BAYS	TR1	5	LEE	784 4100	80	
8	SYNERGY	MADRID #111	DARREL BAYS	TR1	5	LEE	785 4100	80	
9	SYNERGY	MADRID #112	DARREL BAYS	TR1	5	LEE	786 4100	80	320
10 FEB 7	SYNERGY	MADRID 112	DARREL BAYS	TR1	5	LEE	787 4100	80	
11	SYNERGY	MADRID 112	DARREL BAYS	TR1	5	LEE	788 4100	80	
12	SYNERGY	MADRID 111	DARREL BAYS	TR1	5	LEE	789 4100	80	
13	MERRION	POSSIBLE DREAM #1 BLACKSHAWL #1	CARL MERILATT	M&R	3388	DIANE	790 791 4100	80	
14	MERRION	BLACKSHAWL #1	CARL MERILATT	M&R	5353	JONATHAN	792 4100	80	400
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 FEB 11	MERRION	POSSIBLE DREAM 1 VINE COM 1	CARL MERILATT	M&R	3362	FRANDERA	793 794 4100	80	
2	SYNERGY	MADRID #111	DARREL BAYS	TR1	5	LEE	795 4100	80	
3	MERRION	BLACKSHAWL #1	CARL MERILATT	M&R	3362	FRANDERA	796 4100	80	
4	SYNERGY	MADRID #111	DARREL BAYS	TR1	5	LEE	797 4100	80	
5	SYNERGY	MADRID #112	DARREL BAYS	TR1	5	LEE	798 4100	80	
6	MERRION	RED FERN #3	CARL MERILATT	M&R	3362	FRANDERA	799 4100	80	480
7 FEB 13	SYNERGY	MADRID #111	DARREL BAYS	TR1	5	LEE	800 4100	80	
8	SYNERGY	MADRID #111	DARREL BAYS	TR1	5	LEE	801 4100	80	
9	SYNERGY	MADRID #112	DARREL BAYS	TR1	5	LEE	802 4100	80	
10	MERRION	VINE COM #1 KATY #1	CARL MERILATT	M&R	3392	JAMES	803 804 4100	80	320
11 FEB 14	SYNERGY	MADRID #111	DARREL BAYS	TR1	5	LEE	805 4100	80	
12	SYNERGY	MADRID #112	DARREL BAYS	TR1	5	LEE	806 4100	80	
13	SYNERGY	MADRID #112	DARREL BAYS	TR1	5	LEE	807 4100	80	240
14 FEB 15	SYNERGY	MADRID #111	DARREL BAYS	TR1	5	LEE	808 4100	80	
15	MERRION	RED FERN 3 VINE COM 1	CARL MERILATT	M&R	3362	HUBERT	809 810 4100	80	
16	MERRION	BLACKSHAWL 1	CARL MERILATT	M&R	3362	HUBERT	811 4100	80	
17	MERRION	POSSIBLE DREAM 1	CARL MERILATT	M&R	3362	HUBERT	812 4100	80	
18	SYNERGY	MADRID #111	DARREL BAYS	TR1	5	LEE	813 4100	80	
19	MERRION	PIEDRA VISTA #12	CARL MERILATT	M&R	3362	HUBERT	814 4100	80	480
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 FEB 18	SYNERGY	MADRID #111	DARREL BAYS	TRI	5	LEE	815 4100	80
2	HOLCOMB	CARNAHAN com #1	BRYCE BASHER	WLW	118	TERRY	816 4100	80
3	HOLCOMB	CARNAHAN com #14	BRYCE BASHER	WLW	118	TERRY	817 4100	80
4 FEB 19	MERRION	POSSIBLE DREAM 1 VINE com 1	CARL MERILATT	M&R	3384	FAUSTINA	818 819 4100	80
5	SYNERGY	MADRID #112	DARREL BAYS	TRI	5	LEE	820 4100	80
6	SYNERGY	MADRID #111	DARREL BAYS	TRI	5	LEE	821 4100	80
7	SYNERGY	MADRID #112	DARREL BAYS	TRI	5	LEE	822 4100	80
8	MERRION	BLACKSHAWL #1	CARL MERILATT	M&R	3384	FAUSTINA	823 4100	80
9	KEY	YARD	WESLEY HERERA	KEY	05959	LAWRENCE	824 4100	40
10	SYNERGY	A. GROSS #1	RANDY	TRI	5	LEE	825 4100	80 520
11 FEB 21	MERRION	VINE com 1 CHUCKY 2	CARL MERILATT	M&R	3362	FRANDORA	826 827 4100	80
12	MERRION	KATY #1	CARL MERILATT	M&R	3362	FRANDORA	828 4100	160 (2)
13 FEB 22	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	829 4100	80
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 FEB 25	MERRION	KATY #1 CHUCKY #2	CARL MERILATT	M&R	3379	DELVIN	830 831 4100	80
2	MERRION	VINE COM 1 BLACKSHAVL COM 1	CARL MERILATT	M&R	3379	DELVIN	832 833 4100	80
3	ENTERPRISE	MARK MADDOX #1M	KEN, RUNNEL SEALE	FOUTZ & BERSCM	448	WILLIAM	834 4525	10
4	WESTERN R.	WAREHOUSE	WALTER MCREYNOLDS	HYDRO PURE	22	HERMAN	835 4525	50
5 FEB 26	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	836 4100	80
6	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	837 4100	80
7	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	838 4100	80
8	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	839 4100	80
9 FEB 27	MERRION	POSSIBLE DREAM 1 VINE COM 1	CARL MERILATT	M&R	3367	FRANDRA	840 841 4100	80
10	SYNERGY	MADRID 117	DARRELL BAYS	TRI	5	LEE	842 4100	80
11	MERRION	BLACKSHAVL COM 1	CARL MERILATT	M&R	3367	FRANDRA	843 4100	80
12	SYNERGY	MADRID #111	DARREL BAYS	TRI	5	LEE	844 4100	80
13 FEB 28	KEY	YARD	WESLEY	KEY	5959	LAURENCE	845 4100	40
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 MAR 1	MERRION	VINE COM 1 PIEDRA VISTA #17	CARL MERILATT	M&R	3367	FRANDORA	846 847 4116	80	
2	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	848 4100	80	
3	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	849 4100	80	
4	MERRION	CHUCKY #2	CARL MERILATT	M&R	3367	FRANDORA	850 4100	60	
5	MERRION	KATY #1	CARL MERILATT	M&R	3367	FRANDORA	851 4100	60	
6	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	852 4100	80	440
7 MAR 4	MERRION	VINE COM 1	CARL MERILATT	M&R	3368	JERRY	853 4100	70	
8	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	854 4100	80	
9	MERRION	RED FERNS	CARL MERILATT	M&R	3368	JERRY	855 4100	80	
10	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	856 4100	80	
11	MERRION	BLACKSHAWL COM 1	CARL MERILATT	M&R	3368	JERRY	858 4100	80	
12	MERRION	POSSIBLE DREAM 1	CARL MERILATT	M&R	3368	JERRY	857 4100	80	470
13 MAR 5	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	859 4100	80	
14	MERRION	VINE COM 1 RED FERNS	CARL MERILATT STEVE CALKINS	M&R	3379	DELVIN	860 861 4100	80	
15	MERRION	KATY 1 / CHUCKY 2	CARL MERILATT	M&R	3379	DELVIN	862 863 4100	80	
16	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	868 4100	80	
17	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	864 4100	80	400
18 MAR 6	KINDER MORGAN	ICE CANYON #17	JOEL MUNIZ	M&R	3328	HUBERT	865 4525	10	
19 MAR 7	MERRION	POSSIBLE DREAM 1 VINE COM 1	CARL MERILATT	M&R	3401	FRANDORA	866 867 4100	80	
20	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	869 4100	80	
21	MERRION	RED FERNS BLACKSHAWL COM 1	CARL MERILATT	M&R	3401	FRANDORA	870 871 4100	80	
22	KEY	YARD	WESLEY	KEY	05959	LAWRENCE	872 4100	40	280
23 MAR 8	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	873 4100	80	
24	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	874 4100	80	
25	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	875 4100	80	

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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 MAR 11	MERRION	VINE COM 1 POSSIBLE DREAM 1	CARL MERILATT	M&R	3370	FRANDORA	876 877 4100	80	
2 MAR 12	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	878 4100	80	
3	MERRION	OSBORN #7	TIM MERILATT	M&R	3392	JAMES	879 4100	80	
4	MERRION	OSBORN #7	TIM MERILATT	M&R	3348	SWELLING	880 4100	60	
5	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	881 4100	80	
6	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	882 4100	50	
7	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	883 4100	80	460
8 MAR 13	KEY	YARD	WESLEY	KEY	05959	LAWRENCE	884 4100	40	
9 MAR 15	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	885 4100	80	
10	MERRION	VINE COM 1 POSSIBLE DREAM 1	CARL MERILATT	M&R	3367	FRANDORA	886 887 4100	80	
11	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	888 4160	80	
12	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	889 4100	80	
13	MERRION	PANTHER #1 PIEDRA VISTA #12	CARL MERILATT	M&R	3367	FRANDORA	890 891 4100	80	
14	MERRION	PANTHER #1	CARL MERILATT	M&R	3367	FRANDORA	892 4102	80	480
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 MAR 18	HELCOMB	CARNAHAN COM #1	BRYCE BASHER	WW	118	TERRY	893 4110	80	
2	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	894 4100	80	
3	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	895 4100	80	240
4 MAR 19	MERRION	BLACKSHAWL #1	TIM MERILATT	M&R	3392	JAMES	896 4100	80	
5	MERRION	PANTHER #1 BLACKSHAWL #1	TIM MERILATT	M&R	3392	JAMES	897 898 4100	80	160
6 MAR 21	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	899 4100	80	
7	MERRION	VINE COM #1 CHUCKY #2	CARL MERILATT	M&R	3568	JERRY	900 901 4100	80	
8	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	902 4100	80	
9	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	903 4100	80	
10 MAR 22	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	904 4100	80	
11	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	905 4100	80	
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 25 MAR	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	906 4100	80	
2	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	907 4100	80	
3	SYNERGY	MADRID #117	D. BAYS	TRI	5	LEE	908 4100	80	
4	MERRION	KATY #1	C. MERILATT	M&R	3369	J. EVERETT	909 4100	80	
5	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	910 4100	80	
6	MERRION	CHUCKY #2 VINE COM #1	CARL MERILATT	M&R	3369	J. EVERETT	911 912 4100	80	480
7 26 MAR	M&G	HARDIE #68	DAVID HANSON	WW	118	TERRY	913 4100	80	
8 27 MAR	MERRION	VINE COM 1 PANTHER 1	TIM MERILATT	M&R	3367	BRANDON	915 916 4100	80	
9	MERRION	BLACKSHAWL #1	C. MERILATT	M&R	3367	BRANDON	917 4100	80	160
10 29 MAR	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	918 4100	80	
11	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	919 4100	80	
12	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	920 4100	80	
13	MERRION	PIEDRA VISTA #17	TIM MERILATT	M&R	3392	JAMES	921 4100	40	
14	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	922 4100	80	
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
APR 1	KEY	YARD	WESLEY	KEY	05959	LAWRENCE	923 4100	40	
2	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	924 4100	80	
3	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	925 4100	80	
4	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	926 4100	80	280
APR 2 5	MERRION	PANTHER 1 VINE COM 1	C. MERILATT	M&R	5579	BRANDON	927 928 4100	80	
6	MERRION	KATY #1	C. MERILATT	M&R	5379	BRANDON	929 4100	80	
7	SYNERGY	DUFF #105	DARRELL BAYS	TRI	5	LEE	931 4100	80	
8	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	930 4100	80	
9	SYNERGY	DUFF #105	DARRELL BAYS	TRI	5	LEE	932 4100	80	400
APR 3 10	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	933 4100	80	
11	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	934 4100	160	320
APR 4 12	KEY	YARD	WESLEY	KEY	05959	LAWRENCE	935 4100	40	
13	MERRION	VINE COM #1 PANTHER #1	TIM MERILATT	M&R	5392	JAMES	937 936 4100	80	
14	SYNERGY	CRAWFORD #103	DARRELL BAYS	TRI	5	LEE	938 4100	80	
15	MERRION	BLACKSHAWL #1	CARL MERILATT	M&R	3392	JAMES	939 4100	80	
16	SYNERGY	CRAWFORD #102	DARRELL BAYS	TRI	5	LEE	940 4100	80	
17	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	941 4100	80	
18	MERRION	RED FERN #3 POSSIBLE DREAM #1	TIM MERILATT	~~SYNE~~ M&R	5392	JAMES	942 943 4100	80	520
APR 5 19	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	214-702	RICKY	944 4525	100	
20	KINDER MORGAN	YA #6	GRANT GIBONS	RW	28-4	RONALD	946 4525	210 (2)	
21	KINDER MORGAN	YA #6	GRANT GIBONS	RW	28-1	RICHARD	945 4525	210 (2)	
22	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	217-708	ROGER	947 4525	200 (2)	
23	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	214/702	DARRICK	948 4525	100	820
24 Apr 6	Kinder Morgan	YA #6	Grant Gibons	Dawn	365/609	Malcom	950 4525	130	
25	Kinder Morgan	YA #6	Grant Gibons	Dawn	~~[illegible]~~ 409/615	Andre	949 4525	130	

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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 Apr 6	MERRION	FARMINGTON C COM #1	CARL MERILATT	M&R	3362	FRANDORA	954 955 4100	80
2	KINDER MORGAN	YA #6	GRANT GIBBONS	RW	281 T1	RICHARD	956 4525	105
3	MERRION	KATY #1	CARL MERILATT	M&R	3362	FRANDORA	957 4100	80
4	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	217-708	ROGER	951 4525	200 (E)
5	MERRION	CHUCKY #2	CARL MERILATT	M&R	3362	FRANDORA	952 4100	80
6	KINDER MORGAN	YA #6	GRANT LIBONS	RW	282	NICK	953 4525	270 (E) 23.805
7 APR 7	kinder morgan	YA #6	Grant Gibbons	DAWN	409/615	Eric	959 4525	130
8	kinder morgan	YA #6	Grant Gibbons	DAWN	365/609	Andre	958 4525	130
9	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	214-702	DARRICK	960 4525	270 (E)
10	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	409-615	ERIC	961 4525	130
11	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	406-600	REBEL	962 4525	270 (E)
12	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	365-609	ERNEST	963 4525	260 (E)
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 APR 8	KINDER MORGAN	YA #6	GRANT GIBONS	RW	28-2	NICK	964 4525	110
2	MERRION	VINE COM 1 POSSIBLE DREAM 1	CARL MERILATT	M&R	3362	FRANDORA	965 966 4100	80
3	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	967 4100	80
4	KINDER MORLAN	YA #6	GRANT GIBONS	M&R	3370/4353	ALLEN	968 4525	115
5	KINDER MORGAN	YA #6	GRANT GIBONS	M&R	3374-4341	DEAN	969 4525	110
6	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	970 4100	80
7	MERRION	BLAKESHAW COM #1	CARL MERILATT	M&R	3362	FRANDORA	971 4100	80
8	SYNERGY	A. GROSS #1	DARREL BAYS	TRI	5	LEE	972 4100	80
9	MERRION	PANTHER #1	CARL MERILATT	M&R	3362	FRANDORA	973 4100	80
10	M&G	HARDIE #68	DAVID HANSON	WW	118	TERRY	974 4100	80
11	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	975 4100	80
APR 9 12	Kinder Morgan	YA #6	Grant Gibons	RW	28-2	Nick Chavis	976 4525	110
13	KINDER MORLAN	DC #13	GRANT GIBONS	RW	28-6 T12	NATHAN	977 4525	60
14	EMIT TECH.	2040 ASHTON ST.	DUSTIN	HYDROPURE	22	HERMAN	978 4525	80
15	KINDER MORLAN	YA #6	GRANT GIBONS	DAWN	717-708	ROGER	979 4525	110
16	MERRION	FARMINGTON COM #1	CARL MERILATT	M&R	3362	FRANDORA	980 4100	50
17 APR 10	MERRION	KATY #1	CARL MERILATT	M&R	3362	FRANDORA	981 4100	80
18	Merrion	Vine Com #1/Chucky #2	Carl Merilatt	M&R	3362	Frandora	983 985 4100	80
19	Kinder Morgan	YA #6	Grant Gibons	Dawn	333-706	Marvin	984 4525	110
20	Holicomb	Carnehan #1	Bryce Basher	WW	118	Terry	985 4100	80
21	Conoco	Herrera RH Facility	Jonathon Sandoval	M&R	3390	James	986 4525	60
22	Western Refining	Warehouse	Walter McReynolds	Hydro pure	26	Ted	984 4525	150
23	Kinder Morgan	YA #6	Grant Gibons	Dawn	409-615	Dennis	988 4525	110
24	Kinder Morgan	YA #6	Grant Gibons	Dawn	410-613	Rebel	987 4525	110
25	Kinder Morgan	YA #6	Grant Gibons	Dawn	309-709	Traci	990 4525	110

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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 APR 10	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	284	REGINA	991 4525	70
2	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	254-711	BILL	992 4525	110
3 APR 11	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	214-702	ROGER	1002 4525	120
4	KINDER MORLAN	YB #6	GRANT G.	RW	28-8	RONALD	1001 4525	100
5	KINDER MORLAN	YB #6	GRANT G.	RW	28-2	NICK	993 4525	220 (2)
6	KINDER MORGAN	YA #6	GRANT G.	DAWN	233-706	MARVIN	999 4525	220 (2)
7	KINDER MORLAN	YA #6	GRANT G.	DAWN	406-617	REBEL	1000 4525	220 (2)
8	KINDER MORLAN	YB #6	JIMMY HALE	M&R	3333-4334	WILLIAM	998 4525	140
9	KINDER MORGAN	YB #6	JIMMY HALF	M&R	3387-4356	TIM	997 4525	160
10	KINDER MORLAN	YB #6	GRANT GIBONS	M&R	3374-4532	JAMES	994 4525	140
11	KINDER MORGAN	YB #6	GRANT G.	M&R	3370-4353	ALLEN	995 4525	140
12	KINDER MORGAN	YA #6	GRANT G.	DAWN	365-609	PETE	1003 4525	120
13	Kinder Morgan	YB # 6	Grant G.	RW	28-9	W. Switzer	1004 4525	100
14	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	996 1111	80
15	Kinder Morgan	YA # 6	Grant G.	Dawn	284	Regina	1005 4525	70
16	KINDER MORGAN	YA #6	GRANT G.	DAWN	209-709	ARACELI	1006 4525	110
17 APR 12	KINDER MORGAN	YA #6	GRANT G.	DAWN	233-706	MARVIN	1010 4525	220 (2)
18	KINDER MORLAN	YA #6	GRANT G.	DAWN	365-609	PETE	1011 4525	220 (2)
19	KINDER MORLAN	YG #6	GRANT G.	RW	28-9	W. SWITZER	1007 4525	100
20	KINDER MORLAN	MOQUI PLANT	GRANT G.	RW	28-2	NICK	1008 4525	135
21	SYNERGY	MADRID #111	DARREL BAYS	TRI	5	LEE	1009 4100	80
22	KINDER MORLAN	YA #6	GRANT G	DAWN	254-764	BILL	1013 4525	220 (2)
23	SYNERGY	MATRID #117	DARRELL BAYS	TRI	5	LEE	1012 4100	160
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 APR 13	KINDER MORGAN	MCELMO DOME GPIZ	GRANT G.	M&R	3394	CHRIS	1014 4525	80
2	KINDER MORGAN	MCELMO DOME GPIZ	GRANT G	M&R	3374	JASPER	1015 4525	160
3	KINDER MORGAN	MCELMO DOME GPIZ	GRANT G	M&R	3357-4356	MIKE	1016 4525	160
4	KINDER MORGAN	MCELMO DOME GPIZ	GRANT G	M&R	3335	KEVIN.	1017 4525	80
5	KINDER MORGAN	MCELMO DOME GPIZ	GRANT G	M&R	2326-4369	DAVID	1018 4525	130
6	KINDER MORGAN	MCELMO DOME GPIZ	GRANT G	M&R	2318-4358	MYRON	1019 4525	170
7	KINDER MORGAN	MCELMO DOME GPIZ	GRANT G	M&R	3386	JAMES	1020 4525	80
8	KINDER MORGAN	MCELMO DOME GPIZ	GRANT G	M&R	3367	FRANDCRA	1021 4525	80
9	KINDER MORGAN	MCELMO DOME GPIZ	GRANT G	M&R	3349	SHANE	1022 4525	80
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ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 APR 15	SYNERGY	MADRID #111	DARREL BAYS	TRI	5	LEE	1023 4100	160 (2)
2	KINDER MORGAN	YG #2	GRANT GIBONS	RW	28-9	W. SWITZER	1024 4525	100
3	KINDER MORGAN	~~YG #2~~ YG #2	GRANT GIBONS	RW	28-7	R. WARD	1025 4525	110
4	KINDER MORGAN	YB #6	JIMMY HALE	M & R	3401-4332	JOHNNY.	1026 4525	280 (2)
5	KINDER MORGAN	YB #6	JIMMY HALE	M & R	3374-4341	DEAN	1027 4525	320 (2)
6	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1028 4100	80
7 APR 16	KINDER MORGAN	YG #2	GRANT GIBONS	RW	28-7 T-11	R WARD	1029 4525	110
8	KINDER MORGAN	YB #6	GRANT GIBONS	RW	28-9	W. SWITZER	1030 4525	100
9	MERRION	PANTHER #1	CARL MERILATT	M & R	3362	FRANDRA	1031 4100	80
10	MERRION	VINE COM 1 POSSIBLE DREAM 1	CARL MERILATT	M & R	3362	FRANDORA	1032 1033 4100	80
11	KINDER MORGAN	YG #2	DAVE RUMDELL	DAWN	365-609	PETE	1034 4525	220
12	KINDER MORGAN	YG #2	DAVE RUMDELL	DAWN	233-706	MARVIN	1035 4525	220
13	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	214-707	ROGER	1036 4525	110
14	MERRION	RED FERN 3	CARL MERILATT	M & R	3362	FRANDORA	1037 4100	80
15	KINDER MORGAN	HB #6	GRANT GIBONS	DAWN	356-601	MIKE	1038 4525	120
16	KINDER MORGAN	HB #6	GRANT GIBONS	DAWN	387-607	DONALD	1039 4525	130
17 APR 17	KINDER MORGAN	HB #6	GRANT GIBONS	RW	28-9	W. SWITZER	1040 4525	200 (2)
18	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	214-706	ROGER	1041 4525	220 (2)
19	KEY	YARD	WESLEY H.	KEY	21727	LAWRENCE	1042 4100	40
20	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1043 4100	80
21	KINDER MORGAN	YG #2	DAVE RUNDELL	DAWN	365-609	PETE	1044 4525	110
22	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	264-703	DANNY	1045 4525	200 (2)
23	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1046 4100	80
24	KINDER MORGAN	YG #2 / YA #6	GRANT GIBONS	~~DAWN~~ DAWN	~~233-706~~	MARVIN	1047 1048 4525	~~110~~ 110
25	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	365-609	PETE	1049 4525	110
	KINDER MORGAN	YA #6	GRANT GIBONS	DAWN	233-706	MARVIN	1050 4525	110

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ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 APR 18	KINDER MORGAN	YA # 6	GRANT GIBONS	DAWN	214-707	ROGER	1051 4525	110
2	MERRION	CHUCKY # 2 VINE COM # 1	TIM MERIATT	M&R	3401	JOHNNY	1057 1053 4100	80
3	KINDER MORGAN	YA # 6	GRANT GIBONS	DAWN	233-706	MARVIN	1055 4525	110
4	KINDER MORGAN	YA # 6	GRANT GIBONS	DAWN	365-609	PETE	1054 4525	110
5	Kinder Morgan	YA # 6	Grant Gibons	Dawn	264-703	Danny	1056 4525	100
6	Emit Technologies	Yard	Dustin Berry	HydroPure	25	James	1057 1585	80
7	Kinder Morgan	YG # 2	Jimmy Hale	M&R	3401-4353	Johnny	1058 4525	140
8	Kinder Morgan	Yellow Jack YG # 2	Jimmy Hale	M&R	3374	Albert	1059 4525	140
9	Kinder Morgan	YG # 2	Dave Rundell	Dawn	365-609	Pete	1060 4525	110
10	Kinder Morgan	YG # 2	Dave Rundell	Dawn	233-706	Marvin	1061 4525	110
11	Kinder Morgan	YG # 2	Kenny Comigy	SSS	915-915	Daryl	1062 4525	120
12	Kinder Morgan	YG # 2	Kenny Comigy	SSS	815	Mike	1063 4525	120
13	Kinder Morgan	YG # 2	Kenny Comigy	SSS	756-TP08	Tex	1064 4525	120
14	Kinder Morgan	YG # 2	Kenny Comigy	SSS	907-TP10	David	1065 4525	120
15	Kinder Morgan	YG # 2	Kenny Comigy	SSS	759	Leon	1066 4525	60
16	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
17	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
18	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
19	KINDER MORLAN	YG # 2	KENNY CORNILY	SSS	577 TP06	JORGE	1067 4525	120
20	KINDER MORLAN	YG # 2	KENNY CORNILY	SSS	677	THOMAS	1068 4525	60 80 1730
21 19 APR	KINDER MORLAN	YA # 6	GRANT GIBONS	DAWN	264-703	DANNY	1069 4525	100
22	SYNERGY	MADRID # 111	DARRELL BAYS	TRI	5	LEE	1070 4100	80
23	KINDER MORLAN	YG # 2	GRANT GIBONS	RW	28-6 T12	NATHAN	1071 4525	105
24	SYNERGY	MADRID # 112	DARRELL BAYS	TRI	5	LEE	1072 4100	160
25	KINDER MORLAN	YG # 2	GRANT GIBONS	M&R	3401-4353	JOHNNY	1073 4525	140

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ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 APR 19	KINDER MORGAN	YB #2	GRANT GIBONS	M&R	3364-4332	PATRICK	1074 4525	140
2	KEY	YARD	WESLEY	KEY	21727	LAWRENCE	1075 4160	40
3	KINDER MORGAN	YB #6	GRANT GIBONS	RW	286 T12	NATHAN	1076 4525	105
4	KINDER MORGAN	YB #2	KENNY CORNISH	555	577-TP06	JOYCE.	1077 4525	260
5	KINDER MORGAN	YB #2	KENNY CORNISH	555	915-TP15	DARYL	1078 4525	120
6	KINDER MORGAN	YB #2	KENNY CORNISH	555	665	MIKE	1079 4525	120
7	KINDER MORGAN	YB #2	STAN MATHIS	555	603	JOHN	1080 4525	110
8 APR 20	Kinder Morgan	YB #6	Kenny Cornish	555	915-P15	Eric	1081 4525	115
9	Kinder Morgan	YB #6	Kenny Cornish	555	665-P-10	Mike S.	1082 4523	120
10	Kinder Morgan	YB #6	Kenny Cornish	555	834/P9	Tilbert	1083 4525	100
11	Kinder Morgan	YB #6	Kenny Cornish	555	904/P3	Lula	1084 4525	100
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 APR 22	MERRION	KATY # 1	CARL MERILATT	M&R	3362	FRANDORA	1085 4100	80	
2	MERRION	VINE COM # 1 CHUCKY # 2	CARL M.	M&R	3362	FRANDORA	1086 1087 4100	80	160
3 APR 23	SYNERGY	MADRID # 111	DARRELL BAYS	TRI	5	LEE	1088 4100	160 (2)	
4	SYNERGY	MADRID # 112	DARRELL B.	TRI	5	LEE	1089 4100	80	240
5 APR 24	MERRION	RED FERN # 3	CARL MERILATT	M&R	3323	CURTIS	1090 4100	80	
6	SYNERGY	MADRID # 111	DARRELL B.	TRI	5	LEE	1091 4100	80	
7	MERRION	VINE COM 1 POSSIBLE DREAM 1	CARL M.	M&R	3362	FRANDORA	1092 1093 4100	80	240
8 APR 25	KINDER MORGAN	DC-13	KENNY KORNACEE	DAWN	233-706	MARVIN	1094 4525	100	
9	KINDER MORGAN	DC-13	KENNY K.	DAWN	234-703	ERWIN	1095 4525	140 (2)	
10	MERRION	BLACKSHAWL COM 1	CARL MERILATT	M&R	3362	FRANDORA	1096 4100	80	
11	KINDER MORGAN	DC-13	KENNY K.	SSS	577-TP06	JORGE	1097 4525	100	
12	KINDER MORGAN	DC-13	KENNY K.	SSS	815-TP10	MIKE	1098 4525	90	
13	KINDER MORGAN	DC-13	KENNY K.	SSS	907-P18	ANDY	1099 4525	95	
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CROUCH MESA

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 30 APR	SYNERGY	MADRID # 112	DARRELL BAYS	TRI	5	LEE	1100 4100	80
2	KEY	YARD	WESLEY H.	KEY	59657	LAWRENCE	1101 4100	60
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 MAY 1	KINDER MORLAN	GP 20-21	GRANT GIBONS	DAWN	307-44A	DARRICK	1102 4525	230 (E)
2	KINDER MORLAN	GP 20-21	GRANT GIBONS	DAWN	214-702	ROGER	1103 4525	200 (E)
3 MAY 2	MERRION	UNE COM 1 POSSIBLE DREAM 1	CARL MERICATT	M&R	3362	FRANDORA	1104 1105 4100	80
4	KINDER MORGAN	GP 20-21	GRANT G.	DAWN	214-702	ROGER	1106 4525	200 (E)
5	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1107 4100	80
6	K.M.	GP 20-21	GRANT G.	DAWN	307-44A	DARRICK	1108 4525	240 (E)
7	K.M.	GP 20-21	GRANT G.	DAWN	282-708	ROCKY	1109 4525	200 (E)
8	SYNERGY	MADRID #111	DARRELL B.	TRI	5	LEE	1111 4100	80
9	MERRION	RED FERN 3	CARL M.	M&R	3362	FRANDORA	1110 4100	160 (E)
10	K.M.	GP 20-21	GRANT G.	DAWN	217-712	MARVIN	1112 4525	100
11 MAY 3	MERRION	PANTHER #2	CARL MERILATT	M&R	3362	FRANDORA	1113 4100	80
12	K.M.	GP 20-21	GRANT G.	M&R	3364-4353	MIKE	1114 4525	140
13	K.M.	GP 20-21	GRANT G.	DAWN	214-702	ROGER	1115 4525	200 (E)
14	K.M.	GP 20-21	GRANT G.	M&R	3350	BRIAN	1116 4525	80
15	K.M.	GP 20-21	GRANT G.	DAWN	282-708	ROCKY	1117 4525	200 (E)
16	K.M.	GP 20-21	GRANT G.	DAWN	406-44A	DARRICK	1118 4525	250 (E)
17	OIL & GAS	FLORA VISTA	WAYLON	KEY	05959	LAWRENCE	1119 4525	45
18	K.M.	GP 20-21	GRANT G.	DAWN	233-706	MARVIN	1120 4525	200 (E)
19	K.M.	GP 20-21	GRANT G.	M&R	3364-4353	MIKE	1121 4525	100
20	K.M.	GP 20-21	GRANT G.	M&R	3370-4332	ALLEN	1122 4525	100
21 MAY 5	BAYLESS	TRINITY #1	JOHN THOMAS	M&R	3363	BRANDON	1123 4100	80
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 MAY 6	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1124 4100	80	
2	SYNERGY	MADRID #111	DARRELL B.	TRI	5	LEE	1126 4100	80	
3	MERRION	PANTHER #2	CARL MERIATT	M&R	3362	FRANDORA	1125 4100	80	
4	MERRION	VINE COM 1 POSSIBLE DREAM 1	CARL M.	M&R	3362	FRANDORA	1127 1128 4100	80	
5	KINDER MORGAN	GP 20-21	GRANT GIBONS	DAWN	282-708	BILLY	1129 4525	100	
6	K.M.	GP 20-21	GRANT G.	DAWN	406-44A	DARRICK	1130 4525	120	
7	MERRION	PANTHER 1	CARL M.	M&R	3362	FRANDORA	1131 4100	80	
8	SYNERGY	MADRID #111	DARRELL B.	TRI	5	LEE	1132 4100	80	
9	K.M.	GP 20-21	GRANT G.	DAWN	214-702	ROGER	1133 4525	80	480 300
10 MAY 7	K.M.	GP 20-21	GRANT G.	DAWN	214-702	ROGER	1135 4525	100	
11	MERRION	RED FERN 3	CARL M.	M&R	3362	FRANDORA	1136 4100	80	
12	K.M.	GP 20-21	GRANT G.	DAWN	282-708	BILLY	1137 4525	220 (2)	
13	K.M.	GP 20-21	GRANT G.	DAWN	406-44A	DARRICK	1138 4525	250 (2)	
14	MERRION	PANTHER #2	CARL M.	M&R	3368	JERRY	1139 4100	160 (2)	
15 MAY 8	K.M.	GP 20-21	GRANT G.	DAWN	214-702	ROGER	1140 4525	100	
16	SYNERGY	MADRID #111	DARRELL B.	TRI	5	LEE	1141 4100	80	
17	MERRION	KATY #1	CARL M.	M&R	3362	FRANDORA	1142 4100	80	
18	SYNERGY	MADRID #112	DARRELL B.	TRI	5	LEE	1143 4100	80	
19 MAY 9	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1144 4100	80	
20 MAY 10	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1145 4100	80	
21	MERRION	VINE COM #1 POSSIBLE DREAM #1	CARL M.	M&R	3362	FRANDORA	1146 1147 4100	80	
22	K.M.	GP 20-21	GRANT G.	DAWN	214-702	ROGER	1148 4525	240 (2)	
23	K.M.	GP 20-21	GRANT G.	DAWN	282-708	BILLY	1149 4525	200 (2)	
24	M&G	HARDIE #68	DAVID HANSON	WW	118	TERRY	1150 4100	80	
25	SYNERGY	MADRID #112	D BAYS	TRI	5	LEE	1151 4100	80	

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ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 MAY 10	HOLCOMB	CARNAHAN #1	BRYCE BASHER	WW	118	TERRY	1152 4100	80
2	SYNERGY	CRAWFORD #103	D. BAYS	TRI	5	LEE	1169 4100	80
3	SYNERGY	CRAFURD #102	D. BAYS	TRI	5	LEE	1153 4100	80
4	MERRION	RED FERN 3	CARL M.	M&R	33672	FRANDORA	1154 4100	80
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 MAY 13	KINDER MORGAN	GP 20-21	GRANT GIBONS	DAWN	217-712	ROGER	1155 4525	200 (E)
2	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1156 4100	80
3	K.M.	GP 20-21	GRANT G.	DAWN	282-708	BILLY	1157 4525	110
4	K.M.	GP 20-21	GRANT G.	DAWN	406-44A	DARRICK	1158 4525	130
5 MAY 14	K.M.	GP 20-21	GRANT G.	DAWN	217-712	ROGER	1161 4525	210 (E)
6	K.M.	GP 20-21	GRANT G.	DAWN	406-44A	DARRICK	1159 4525	130
7	K.M.	GP 20-21	GRANT G.	DAWN	282-708	BILLY	1160 4525	210 (E)
8	MERRION	POSSIBLE DREAM 1 VINE COM 1	CARL MERLATT	MAR	3362	FRANDORA	1162 1163 4100	80
9	MERRION	PANTHER #1	CARL M.	MAR	3362	FRANRRA	1164 4100	80
10	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1165 4100	80
11 MAY 15	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1166 4100	80
12	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1167 4100	80
13	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1168 4100	160 (E)
14 MAY 16	MERRION	VINE COM #1 CHUCKY #2	CARL M.	MAR	3379	DOUG	1171 1170 4100	80
15	MERRION	KATY #1	CARL M.	MAR	3379	DOUG	1172 4100	80
16 MAY 17	K.M.	46 #2	GRANT G.	DAWN	287	JAMES	1173 4525	110
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 MAY 20	MERRION	CHUCKY 2 VINE COM 1	CARL MERILATT	M&R	3366	BRIAN	1174 1175 4100	80
2 MAY 21	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1176 4100	60
3	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1177 4100	80
4	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1178 4100	80
5 MAY 22	MERRION	VINE COM 1 POSSIBLE DREAM 1	C. MERILATT	M&R	3362	FRANDORA	1179 1180 4100	80
6	MERRION	PANTHER 2	C. MERILATT	M&R	3362	FRANDORA	1181 4100	160 (R)
7	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1183 4100	80
8	MERRION	PANTHER #1	C. MERILATT	M&R	3362	FRANDORA	1184 4100	80
9	MERRION	RED FERN 3	C. MERILATT	M&R	3362	FRANDORA	1182 4100	80
10	MERRION	BLACKSHAWL 1	C. MERILATT	M&R	3362	FRANDORA	1185 4100	80
11 MAY 24	MERRION	VINE COM 1 PIEDRA VISTA #12	C. MERILATT	M&R	3362	FRANDORA	1186 1187 4100	70
12	M&G	HARDIE #68	DAVID HANSON	WW	118	TERRY	1189 4100	80
13	MERRION	PANTHER #2	C. MERILATT	M&R	3362	FRANDORA	1190 4100	80
14	HOLCOMB	CARNAHAN COM 1	BRYCE BASHER	WW	118	TERRY	1191 4100	80
15	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1188 4100	160 (R)
16	MERRION	CHUCKY 2 / KATY 1	CARL MERILATT	M&R	3362	FRANDORA	1193 1194 4100	80
17	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1192 4100	160 (R)
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 27 MAY	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1195 4100	80
2 28 MAY	MERRION	CHUCKY 2 VINE COM 1	CARL M.	M&R	3362	FRANDORA	1196 1197 4100	80
3	MERRION	PANTHER 2	CARL M.	M&R	3362	FRANDORA	1198 4100	80
4	MERRION	KATY #1	CARL M.	M&R	3362	FRANDORA	1199 4100	80
5 29 MAY	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1200 4100	80
6 30 MAY	MERRION	POSSIBLE DREAM 1 VINE COM 1	CARL M.	M&R	3362	FRANDORA	1201 1202 4100	80
7	MERRION	BLACKSHAWL 1	CARL M.	M&R	3362	FRANDORA	1203 4100	150 (2)
8	MERRION	PANTHER 2	CARL M.	M&R	3362	FRANDORA	1204 4100	80
9	MERRION	RED FERN 3	CARL M.	M&R	3323	CURTIS	1205 4100	80
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 3 JUN	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1206 4100	160 (2)	
2	MERRION	RED FERN 3	CARL MERILATT	M&R	3379	JOSEPH	1207 4100	80	
3	MERRION	BLACKSHAWL COM 1	CARL MERILATT	M&R	3360	DELVIN	1208 4100	80	
4	MERRION	VINE COM 1 PANTHER 1	CARL MERILATT	M&R	3352	MARILN	1209 1210 4100	80	400
4 5 JUN	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1211 4100	80	
6	SYNERGY	CRAWFORD #103	D. BAYS	TRI	5	LEE	1218 4100	80	
7	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1217 4100	80	240
5 8 JUN	MERRION	VINE COM 1 CHUCKY #2	CARL M.	M&R	3362	FRANDORA	1213 1214 4100	70	
9	MERRION	KATY #1	CARL M.	M&R	3362	FRANDORA	1215 4100	80	
10	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1216 4100	160 (2)	320
6 11 JUN	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1217 4100	80	
7 12 JUN	SYNERGY	MADRID #112	D. BAYS	TRI	5	LLYOD	1219 4100	80	
13	MERRION	VINE COM 1 PIEDRA VISTA 12	CARL M.	M&R	3362	FRANDORA	1220 1221 4100	80	
14	MERRION	BLACKSHAWL COM 1	CARL M.	M&R	3362	FRANDORA	1222 4100	80	
15	MERRION	POSSIBLE DREAM	CARL M.	M&R	3362	FRANDORA	1223 4100	80	
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 10 JUN	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1224 4100	80
2	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1225 4100	160 (2)
3	EMIT TECH	YARD	JASON	HYDRO PURE	26	TED	1226 4525	71
4 11 JUN	MERRION	VINE COM 1 RED FERN 3	CARL M.	M&R	3388	DIANE	1227 1228 4100	80
5	MERRION	PANTHER 1 POSSIBLE DREAM 1	CARL M.	M&R	3388	DIANE	1229 1230 4100	80
6	MERRION	BLACKSHAWL COM 1	CARL M.	M&R	3388	DIANE	1231 4100	80
7 12 JUN	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1232 4100	80
8	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1233 4100	80
9	ENTERPRISE	CHACO PLANT	JESSIE	KEY	65196-4300114	LAWRENCE	1234 4525	130
10 13 JUN	MERRION	VINE COM 1 CHUCKY 7	CARL M.	M&R	3367	FRANDORA	1235 1236 4100	80
11	MERRION	KATY 1	CARL M.	M&R	3367	FRANDORA	1237 4100	80
12	ENTERPRISE	CHACO PLANT	JESSIE	KEY	65196-1300114	LAWRENCE	1238 4525	130
13 14 JUN	HOLLCOMB	CARNAHAN COM 1	BRYCE BASHER	WW	106	DANIEL	1239 4100	80
14	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1240 4100	80
15	M&G	HARDIE #68	DAVID HANSON	WW	106	DANIEL	1241 4100	80
16	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1242 4100	80
17	ENTERPRISE	CHACO PLANT	RANDY SHIRLEY	DETRICK	401-501	SHANE	1243 4525	260 (3)
18	ENTERPRISE	CHACO PLANT	JOEL SHRADER	SSS	696	JOSEPH	1244 4525	160 (2)
19	ENTERPRISE	CHACO PLANT	JOEL SHRADER	WEST STATES	505	FRANK	1245 4525	160 (2)
20 16 Jun	Enterprise	Valverde plant	Randy Shirley	west states	505	Frank Martinez	1246 4525	140 (2)
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 17 JUN	MERRION	VINE COM 1 CHUCKY #2	TIM MERILATT	M&R	3401	JOHNNY	1247 1248 4100	80
2	MERRION	KATY #1	TIM M.	M&R	3401	JOHNNY	1249 4180	80
3	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1250 4100	80
4 18 JUN	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1251 4100	160 (2)
5	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1252 4100	80
6 19 JUN	MERRION	VINE COM 1 RED FERN #3	CARL M.	M&R	3394	KENNY	1253 1254 4100	80
7	MERRION	PANTHER 1	CARL M.	M&R	3394	KENNY	1255 4100	80
8	MERRION	BLACKSHAWL COM 1	CARL M.	M&R	3394	KENNY	1256 4100	80
9	MERRION	POSSIBLE DREAM 1	CARL M.	M&R	3394	KENNY	1257 4100	80
10 20 JUN	ENTERPRISE	CHACO PLANT	RANDY SHIRLEY	DETRICK	104	KEN	1258 4575	420 (3)
11 21 JUN	MERRION	CHUCKY #2 VINE COM 1	CARL M.	M&R	3362	FRANDORA	1259 1260 4100	80
12	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1262 4100	160 (2)
13	ENTERPRISE	CHACO PLANT	RANDY SHIRLEY	DETRICK	104	KEN	1261 4575	420 (3)
14	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1263 4100	160 (2)
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 24 JUN	ENTERPRISE	CHACO PLANT	RANDY SHIRLEY	PETRICK	104	KEN	1264 4525	390 (3)
2 25 JUN	MERRION	VINE COM CHUCKY 2	CARL MERIATT	M&R	3323	RACHEL	1266 1267 4160	40
3	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1265 4100	160 (2)
4	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1265 4100	80
5 26 JUN	SYNERGY	MADRID #111	D. BAYS	TRI	5	LLOYD	1269 4100	80
6	SYNERGY	MADRID 112	D. BAYS	TRI	5	LLOYD	1270 4100	80
7 27 JUN	SYNERGY	MADRID #111	D. BAYS	TRI	5	LEE	1275 4100	80
8	MERRION	BLACKSHAWL COM1	CARL M.	M&R	3367	FRANDORA	1271 4100	80
9	MERRION	RED FERN #3	CARL M.	M&R	3367	FRANDORA	1272 4100	160 (2)
10	MERRION	RED FERN 3 VINE COM 1	CARL M.	M&R	3367	FRANDORA	1273 1274 4100	80
11	KINDER MORGAN	HE #6	JAROD (RW)	RW	285 T5	SETH	1281 4525	135
12	COASTAL CHEM.	YARD	ALEX	KEY	01-05961	LAWRENCE	1282 4525	80
13	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1276 4100	80
14	KINDER MORGAN	HE #6	JAROD (RW)	RW	28-10	ROBERT	1277 4525	105
15 28 JUN	SYNERGY	MADRID #112	D. BAYS	TRI	5	LEE	1278 4100	160 (2)
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 JULY 1	MERRION	VINE COM 1 ~~POSSIBLE DREAM~~	CARL M.	M&R	3367	FRANDORA	1279 1280 4100	80	
2	SYNERGY	MADRID # 117	D. BAYS	TRI	5	LEE	1283 4100	80	
3	M&G	HARDIE 68	DAVID HANSON	WW	118	TERRY	1284 4100	80	
4	MERRION	PANTHER 1 BLACKSHAWL 1	C. MERICATT	M&R	3367	FRANDORA	1285 1286 4100	80	
5	MERRION	RED FERN 3	CARL M.	M&R	3367	FRANDORA	1287 4100	80	$60
6 JULY 2	SYNERGY	MADRID # 117	D. BAYS	TRI	5	LEE	1288 4100	80	
7 JULY 3	~~MERRION~~	~~KATY # 1~~	~~M&R~~ CARL M.	M&R	3385	TIM	1289 4100	80	
8	MERRION	CHUCKY 2 VINE COM 1	CARL M.	M&R	3385	TIM	1295 1296 4100	80	
9 JULY 4	HOLCOMB	CARNAHAN COM 14	BRYCE BASHER	WW	118	TERRY	1290 4100	80	
10	HOLCOMB	CARNAHAN COM 1	BRYCE BASHER	WW	118	TERRY	1291 4100	80	
11 JULY 5	MERRION	PIEDRA VISTA 12 VINE COM 1	CARL M.	M&R	3367	FRANDORA	1292 1293 4100	80	
12	SYNERGY	MADRID # 117	DARRELL BAYS	TRI	5	LEE	1296 4100	80	
13	MERRION	RED FERN 3	CARL M.	M&R	3367	FRANDORA	1297 4100	80	
14	SYNERGY	MADRID # 111	DARRELL BAYS	TRI	5	LEE	1298 4100	80	
15	MERRION	BLACKSHAWL COM 1	CARL M.	M&R	3367	FRANDORA	1299 4100	80	
16	MERRION	PANTHER 1 POSSIBLE DREAM 1	CARL M.	M&R	3367	FRANDORA	1301 1300 4100	80	
17	MERRION	BLACKSHAWL COM 1 PANTHER 1	CARL M.	M&R	3367	FRANDORA	1302 1303 4100	80	
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 8 JUL 13	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1304 4100	160
2 9 JUL 13	SYNERGY	CRAWFORD #103	DARRELL BAYS	TRI	5	LEE	1305 4100	80
3	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1306 4100	80
4	MERRION	POSSIBLE DREAM 1 VINE COM 1	CARL MERILATT	M&R	3362	FRADORA	1307 1308 4100	80
5 10 JUL 13	MERRION	BLACKSHAWL 1	CARL MERILATT	M&R	3362	FRANDORA	1309 4100	80
6	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1310 4100	80
7 11 JUL 13	MERRION	KATY #1 CHUCKY #2	CARL MERILATT	M&R	3325	S. WELLING	1311 1312 4100	80
8 12 JUL 13	SYNERGY	MADRID 111	DARRELL BAYS	TRI	5	LEE	1313 4100	80
9	SYNERGY	MADRID 112	DARRELL BAYS	TRI	5	LEE	1314 4100	80
10	M&G	HARDIE 68	DAVID HANSON	WW	118 [redacted]	TERRY	1315 4100	80
11	WESTERN R.	WAREHOUSE	WALTER MEREDITH	HYDRO PURE	35	DARREN	1316 4525	80
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
15 1 JUL	MERRION	VINE COMM 1 CHUCKY #2	CARL MERILATT	M&R	3362	FRANDERA	1317 1318 4100	75	
2	MERRION	KATY #1	CARL MERILATT	M&R	3362	FRANDERA	1319 4100	80	155
16 3 JUL	MERRION	BLACKSHAWL COM 1	CARL MERILATT	M&R	3362	FRANDERA	1320 4100	80	
4	SYNERGY	MADRID #112	DARRELL DAYS	TRI	5	LEE	1321 4100	160 (2)	
5	SYNERGY	MADRID #111	DARRELL DAYS	TRI	5	LEE	1322 4100	80	320
17 6 JUL	SYNERGY	MADRID #111	DARRELL DAYS	TRI	5	LEE	1323 4100	240 (3)	
7	WESTERN REFINING	WAREHOUSE	WALTER MCREYNOLDS	HYDRO PURE	26	TED	1324 4525	40	
8	MERRION	VINE COMM 1 PANTHER 1	CARL MERILATT	M&R	5377	DIANE	1325 1326 4100	80	320 40
18 9 JUL	~~MERRION~~	RED FERN 3	CARL MERILATT	M&R	3350	BRIAN	1331 4100	80	
10	WEST STATES	TRUNK H	LEWIS MUNOS	WEST STATES	510	DANIEL	1327 4101	252 (4)	80 232
K 11 JUL	MERRION	VINE COMM 1 KATY #1 / CHUCKY 2	CARL MERILATT	M&R	5343	DOUG	1328 29/30 4100	80	
12	WILLIAMS	IGNACIO PLANT	MATT WEBRE	RILEY	12024	SAM RAY	557 4525	30	
13	MERRION	PIEDRA VISTA #12	CARL MERILATT	M&R	3362	TIM	1338 4100	60	
14	SYNERGY	MADRID #112	DARRELL DAYS	TRI	5	LLOYD	1339 4100	80	
15	SYNERGY	MADRID #111	DARRELL DAYS	TRI	5	LLOYD	1340 4100	80	300 30
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 22 JUL	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1332 4100	160 (R)	
2	M&G	HARDIE 68	DAVID HANSON	WW	118	TERRY	1333 4100	80	
3	HILLCMB	CARNAHAN #1	BRYCE BASHER	WW	118	TERRY	1334 4100	80	320
4 23 JUL	MERRION	VINE COM 1 CHUCKY #2	CARL MERILATT	M&R	3388	DIANE	1335 1336 4100	80	
5	MERRION	KATY #1	CARL MERILATT	M&R	3388	DIANE	1337 4100	80	
6	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1341 4100	160 (R)	320
7 25 JUL	WESTERN R.	WAREHOUSE	WALTER MCDEYNULDS	HYDRO PURE	30	HERMAN	1349 4525	40	
8	MERRION	POSSIBLE DREAM 1 VINE COM 1	CARL MERILATT	M&R	3362	FRANDERA	1342 1343 4100	80	
9	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1344 4100	80	
10	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1345 4100	80	240 40
11 26 JUL	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1346 4100	80	
12	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1347 4100	160 (R)	
13	MERRION	BLACKHAWK COM 1 PANTHER 1	CARL MERILATT	M&R	3323	RACHEL	1348 1350 4100	80	320
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ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 29 JUL	MERRION	POSSIBLE DREAM 1 VINE COM 1	CARL MERILATT	M&R	3353	JONATHAN	1351 1352 4100	80	
2	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1353 4100	80	
3	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1354 4100	80	
4	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1355 4100	80	320
5 30 JUL	LT ENVIRONMENTAL	14 CR 5860	BROOKE HERBE	M&R	3327	DANIEL	1362 4525	5	
6	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1356 4100	80	
7	MERRION	PIONEER COMP.	TIM MERILATT	M&R	3323	RACHEL	1357 4100	80	
8	MERRION	RED FERN #3	TIM MERILATT	M&R	3353	JONATHAN	1358 4100	80	240 5
9 31 JUL	M&G	HARDIE #68	DAVID HANSON	WW	118	TERRY	1365 4100	80	
10	KINDER MORGAN	WHITE ROCK	MIKE MCALLEN	M&R	3381	SOPHIA	1364 4525	5	
11	M&G	HARDIE #67	DAVID HANSON	WW	118	TERRY	1363 4100	80	
12	MERRION	VINE COM 1 PANTHER 1	CARL MERILATT	M&R	3367	FRANCISCA	1366 1367 4100	80	
13	MERRION	CHUCKY #2 KATY #1	CARL MERILATT	M&R	3367	FRANCISCA	1359 1360 4100	80	
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ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 1 AUG	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1361 4100	160 (2)	160
2 2 AUG	MERRION	BLACKSHAWL COM 1 VINE COM 1	CARL MERILATT	M&R	3323	STEVEN	1369 1368 4100	80	
3	MERRION	RED FERN 3	CARL MERILATT	M&R	3323	STEVEN	1370 4100	80	
4	MERRION	POSSIBLE DREAM 1	CARL MERILATT	M&R	3323	STEVEN	1371 4100	80	240
5 5 AUG	MERRION	KATY #1 CHUCKY 2	CARL MERILATT	M&R	3343	DOUG	1376 1377 4100	80	
6	MERRION	KATY #1 VINE COM 1	CARL MERILATT	M&R	3343	DOUG	1372 1373 4100	80	160
7 6 AUG	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1383 4100	80	
8	MERRION	BLACKSHAWL COM 1	CARL MERILATT	M&R	3323	RACHEL	1382 4100	80	
9	MERRION	POSSIBLE DREAM 1 PANTHER 1	CARL MERILATT	M&R	3323	RACHEL	1379 1380 4100	80	
10	SYNERGY	MADRID #111	DARREL BAYS	TRI	5	LEE	1378 4100	80	
11	MERRION	RED FERN 3 VINE COM 1	CARL MERILATT	M&R	3323	RACHEL	1374 1375 4100	80	
12	CHEVRON	SHIOTONI CDP #5 SHIOTONI #10/SHIOTONI #11	RICK GIBSON	M&R	3365	TIM	1386 87/88 4100	75	
13	D > SIMMONS	LITTLE NANCY FED 323	MONTY R	DAWN	217	ERNISTINE	1381 4100	90	565
14 7 AUG	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1384 4100	160 (3)	
15	EMIT TECH	YARD	MYRON KUEHLER	HYDRO-PURE	22	JAMES	1398 4575	80	80 160
16 8 AUG	MERRION	CHUCKY 2 VINE COM 1	CARL MERILATT	M&R	3358	DIANE	1359 1390 4100	80	
17	MERRION	KATY #1	CARL MERILATT	M&R	3358	DIANE	1391 4100	80	160
18 9 AUG	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1355 4100	80	
19	SYNERGY	CRAWFORD #103	DARRELL BAYS	TRI	5	LEE	1397 4100	80	160
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 12 AUG	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1394 4100	160 (D)
2	WESTERN R.	WAREHOUSE	WALTER MYRENNIS	HYDRO-PURE	22	TED	1403 4525	60
3 14 AUG	MERRION	POSSIBLE DREAM 1 PANTHER 1	CARL MERILATT	M&R	3364	TIM	1404 1405 4100	80
4	MERRION	KATY #1	CARL MERILATT	M&R	3364	TIM	1406 4100	80
5	MERRION	BLACKSHAVE COM 1 VINE COM 1	CARL MERILATT	M&R	3364	TIM	1395 1396 4100	80
6 15 AUG	M&B	HARDIE 68	DAVID HANSON	WLW	166	DANIEL	1397 4100	80
7	HULCOMB	CARNIVAN COM 1	BRYCE CASHIER	WLW	166	DANIEL	1407 4100	80
8	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LLOYD	1398 4100	160 (E)
9	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LLOYD	1399 4100	80
10 16 AUG	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1400 4100	80
11	MERRION	VINE COM 1 PIERPAVISTA #12	CARL MERILATT	M&R	3359	STEVEN	1401 1402 4100	80
12	SYNERGY	MADRID #112	~~DARRELL BAYS~~	TRI	5	LEE	1405 4100	80
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 19 AUG	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1409 4100	160 (E)
2	SYNERLY	MADRID #117	D. BAYS	TRI	5	LEE.	1410 4100	80 240
3 20 AUG	KINDER MORLAN	DC-2	KENNY	RW	267 T11	KEVIN	1418 4525	110
4	KINDER MORLAN	DC-2	KENNY	RW	28-9	W. SWITZER	1419 4525	100 210
5 21 AUG	WESTSTATES	YARD	LAUREN BITSUE	WEST STATES	510	DANIEL	1414 4101	47
6 22 AUG	MERRION	VINE COM 1 PANTHER 1	CARL MERILATT	M&R	3367	FRANDERA	1411 1412 4100	80
7	MERRION	BLACKHAWL COM 1	CARL MERILATT	M&R	3367	FRANDERA	1413 4100	80 160
8 23 AUG	MERRION	POSSIBLE DREAM 1	CARL MERILATT	M&R	3367	FRANDERA	1416 4100	80
9	SYNERLY	MADRID #111	D. BAYS	TRI	5	LEE	1417 4100	160 (E)
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12 22 AUG	SYNERLY.	MADRID #117	D. BAYS	TRI	5	LEE	1415 4100	80
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 26 AUG	MERRION	POSSIBLE DREAM 1	TIM MERILATT	M&R	3375	SHANE	1429 ~~4500~~ 4100	70	
2	WESTERN R.	WAREHOUSE	WALTER MCRAYNOLDS	HARD PURE	22	TED	1430 4525	80	
3	MERRION	VINE COM 1 PANTHER 1	CARL MERILATT	M&R	3384	SHANE	1432 1431 4100	80	
4	LMIT TECH	~~ADDISON~~ YARD	MYRON KUEHLER	HARD PURE	22	TED	1433 4525	80	150 160
5 27 AUG	KINDER MORGAN	OLE CANYON #2	JARED ZION	RW	28-15	RONALD	1420 4525	100	
6	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1421 4100	80	
7	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1422 4100	80	
8	KINDER MORGAN	DC-15	TOM / JARED ZION	RW	28-1	JAMES	1425 4525	105	160 205
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 28 AUG	MERRION	KATY #1	CARL MERILATT	M&R	3367	FRANDERA	1423 4100	80
2 29 AUG	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	1425 4100	240(3)
3	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1426 4100	80
4 30 AUG	HOLCUMB	CARNAHAN 1	BRYCE BASHER	WW	118	TERRY	1428 4100	80
5	M&B	HARDIE 68	DAVID HANSON	WW	118	TERRY	1427 4100	80
6	MERRION	VINE COM 1 POSSIBLE DREAM 1	CARL MERILATT	M&R	3367	FRANDERA	1434 1435 4100	80
7	MERRION	PANTHER 1 PIEDRA VISTA #12	CARL MERILATT	M&R	3367	FRANDERA	1436 1437 4100	80
8	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LLYOD	1438 4100	80
9	MERRION	RED FERN 3	CARL MERILATT	M&R	3367	FRANDERA	1439 4100	160(2)
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1	SYNERGY	MADRID #111	DARRELL BAYS	TR1	5	LEE	1440 4100	160 (F)
2	SYNERGY	MADRID #117	DARRELL BAYS	TR1	5	LEE	1441 4100	160 (F)
3	MERRION	VINE COM 1 POSSIBLE DREAM 1	CARL MERILATT	M&R	3367	FRANDORA	1442 1443 4100	80
4	MERRION	PANTHER #1	CARL MERILATT	M&R	3367	FRANDORA	1444 4100	160 (F)
5	SYNERGY	MADRID #111	DARRELL BAYS	TR1	5	LEE	1445 4100	80
6	SYNERGY	MADRID #117	DARRELL BAYS	TR1	5	LEE	1446 4100	80
7	MERRION	RED FERN 3	CARL MERILATT	M&R	3367	FRANDORA	1447 4100	160 (F)
8	WESTERN	WAREHOUSE	WALTER MCREYNOLDS	HYDRL PURE	35	TED	1448 4575	80
9	CHEVRON	BLANCO #1	LARRY WALKER	KEY	05959	LAWRENCE	1456 4101	80
10	WESTERN R.	WAREHOUSE	WALTER MCREYNOLDS	HYDR PURE	35	TED	1449 4575	75
11	MERRION	KATY #1	CARL MERILATT	M&R	3367	FRANDORA	1450 4100	80
12	SYNERGY	MADRID 111	DARRELL BAYS	TR1	5	LEE	1451 4100	160 (F)
13	SYNERGY	MADRID 117	DARRELL BAYS	TR1	5	LEE	1452 4100	80
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 9 SEPT	MERRION	CHUCKY #2	TIM MERILATT	M&R	3362	JEREMY	1462 4100	40
2	MERRION	KATY #1 VINE COM 1	CARL MERILATT	M&R	3335	RONIN	1453 1454 4100	80 120
3 11 SEPT	MERRION	VINE COM 1 POSSIBLE DREAM	CARL MERILATT	M&R	3362	FRANDORA	1458 1459 4100	80
4	MERRION	KATY #1	CARL MERILATT	M&R	3362	FRANDORA	1460 4100	50
5	WESTERN REFINING	WAREHOUSE	WALTER MCREYNOLDS	HYDRO PURE	34	KANNARD	1455 4525	80
6	MERRION	PANTHER 1	CARL MERILATT	M&R	3362	FRANDORA	1461 4100	80
7	MERRION	BLACKSHAWL COM1	CARL MERILATT	M&R	3362	FRANDORA	1464 4100	80
8	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1463 4100	160 (E)
9	MERRION	RED FERN #3	CARL MERILATT	M&R	3362	FRANDORA	1465 4100	80 530 80
10 12 SEPT	ENTERPRISE	CHACO PLANT	RANDY SHIRLEY	PETRICKS	106	MICHAEL	1466 4525	140 (E)
11 13 SEPT	WESTERN R	WAREHOUSE	WALTER MCREYNOLDS	HYDRO PURE	9	DARREN	1467 4525	200 (E)
12	MERRION	CHUCKY #2	CARL MERILATT	M&R	3362	FRANDORA	1468 4100	60
13	MERRION	VINE COM 1 PIEDRA VISTA #12	CARL MERILATT	M&R	3362	FRANDORA	1469 1470 4100	70
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Cpoveda Mesa Facility

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 Sept 16	Synergy	Madrid III	Darrell Bays	TRI	5	Lloyd Driver	1482 4100	80
2 Sept 17	Marrion	Katy #1	Tim Merilatt	MAR	323	Jason Bizzel	1473 4100	80
3	Synergy	Madrid 112	Darrell Bays	TRI	5	Lee Crane	1471 4100	80
4	Synergy	Madrid III	Darrell Bays	TRI	5	Lee Crane	1474 4100	160 (2)
5 Sept 18	Synergy	Madrid III	Darrell Bays	TRI	5	Lloyd Driver	1475 4100	160 (2)
6	Synergy	Madrid 112	Darrell Bays	TRI	5	Lloyd Driver	1476 4100	160 (2)
7 Sept 19	Marrion	Possible Dream	Tim Merilatt	MAR	3368	Frandora Nelson	1477 4100	40
8	Merrion	Vine Conn #1	Tim Merilatt	MAR	3362	Frandora Nelson	1478 4100	40
9	Merrion	Possible Dream	Tim Merilatt	MAR	3362	Frandora Nelson	1479 4100	45
10	Merrion	Panther 1	Carl Merilatt	MAR	3362	Frandora Nelson	1480 4100	35
11	Merrion	Blackshawl 1	Carl Merilatt	MAR	3362	Frandora Nelson	1481 4100	160 (2)
12	Merrion	Red Fern 3	Carl Merilatt	MAR	3362	Frandora Nelson	1483 4100	80
13 Sept 20	Synergy	Madrid III	Darrell Bays	TRI	5	Lloyd Driver	1484 4100	160 (2)
14	Synergy	Madrid 112	Darell Bays	TRI	5	Lloyd Driver	1485 4100	160 (2)
15	Coastal Chemical	Coastal Chemical	Alex	Key	01-05559	Lorenzo Deschene	1488 4525	160 (2)
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Crouch Mesa

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 Sept 23	Marron	Vine Com 1	Carl Merrill	MHR	3362	Rachel Scott	1486 4100	40
2	Marron	Red Fern #3	Carl Merrill	MHR	3362	Rachel Scott	1487 4100	120
3	Marron	Blackshawl Com #1	Carl Merrill	MHR	3362	Rachel Scott	1489 4100	80
4	Marron	Panther 1	Carl Merrill	MHR	3367	Rachel Scott	1490 4100	80
5	Marron	Possible Dream Com #1	Carl Merrill	MHR	3362	Rachel Scott	1491 4100	40
6 Sept 24	WESTERN	WAREHOUSE	WALTER MOFFETT	THRC HRE	35	JAMES	1492 4525	60
7	KIMZEY AIRPLAIN	EC-14	SIMMS HALE	555	579-111	MIKE	1493 4525	120
8	STANERLY	MADRID #112	DARRELL GAYS	T121	5	LEE	1494 4100	80
9 Sept 25	STANERLY	MADRID #111	DARRELL GAYS	T121	5	LEE	1495 4100	80
10 Sept 27	MERRILL	RED FERN 3	CARL MERRILL	MHR	2319	SHALANE	1496 4100	80
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 SEPT 30	MERRION	PANTHER #1	CARL MERILATT	M&R	3362	FRANDORA	1497 4166	80
2	KINDER MORGAN	DC-15	JARED ZICK	RW	T8-9/T9	ALFRED	1498 4575	110
3	SYNERGY	MADRID #111	DARRELL BAYS	TIRI	5	LLYOD	1499 4166	80
4	SYNERGY	MADRID #112	DARRELL BAYS	TIRI	5	LLYOD	1500 4166	110 (R)
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 OCT	MERRION	POSSIBLE DREAM 1	CARL MERLATT	MIR	3312	FRANCRA	1501 4100	80
2	MERRION	BLACKSHAW COM 1	CARL MERLATT	MIR	3312	FRANCRA	1502 4100	80
3	CHEVRON	NIM COM MIA	STEVE ICHEN	KLY	65959	LAWRENCE	1503 4101	80
4	SYNERGY	MAYRID #111	DARRELL BAYS	TRI	5	LEE	1504 4100	80
5	SYNERGY	MAYRID #112	DARRELL BAYS	TRI	5	LEE	1505 4100	80
6 OCT	KINDER MORGAN	DC-15	DAVE RUNDELL	RW	28-10	ROBERT	1506 4525	105
3 OCT	KINDER MORGAN	DC-15	DAVE RUNDELL	RW	28-10	ROBERT	1507 4525	105
8	EMIT TECH	YARD/SHOP	JASON MARTINDALE	HAYRE PURE	34	KANNARD	1508 4525	72
9	MERRION	VINE COM 1 CHUCKY #2	CARL MERLATT	MIR	3312	FRANCRA	1509 1510 4100	80
10	MERRION	KATY #1	CARL MERLATT	MIR	3312	FRANCRA	1511 4100	80
11 4 OCT	SYNERGY	MAYRID #111	DARRELL BAYS	TRI	5	LEE	1512 4100	160 (2)
12	KINDER MORGAN	DC-15	DAVE RUNDELL	RW	28-7 T11	NATHAN	1513 4525	100
13	KINDER MORGAN	DC-15	DAVE RUNDELL	RW	28-10	ROBERT	1514 4525	105
14	KINDER MORGAN	DC-14	DAVE RUNDELL	RW	28-1 T1	JAIR	1515 4525	185 (2)
15	SYNERGY	A CROSS #1	RANDY	TRI	5	LEE	1516 4100	80
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 7 OCT	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	1517 4100	80
2	MERRION	VINE COM 1 CHUCKY 2	CARL MERILATT	M&R	3362	FRANDRA	1518 1519 4100	80
3	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1520 4100	80
4 8 OCT	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LLYOD	1521 4100	160 (R)
5	KINDER MORGAN	HA-5	MARK	RW	284 TH	KEVIN	1533 4525	100
6	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LLOYD	1522 4100	160 (R)
7 9 OCT	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1523 4100	80
8	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	1524 4100	160 (R)
9	MERRION	RED FERN 3	CARL MERILATT	M&R	3362	FRANDRA	1525 4100	160 (R)
10 10 OCT	MERRION	BLACKSHAWL 1	CARL MERILATT	M&R	3362	FRANDRA	1526 4100	160 (R)
11	MERRION	PANTHER 1 POSSIBLE DREAM 1	CARL MERILATT	M&R	3362	FRANDRA	1527 1528 4100	80
12 11 OCT	ENTERPRISE	CHACO PLANT	RANDY SHIRLEY	WEST STATES	501	DAN	1529 4525	320 (1)
13	ENTERPRISE	CHACO PLANT	JOEL SCHAFFER RANDY SHIRLEY	SSS	779	BRIAN	1530 4525	320 (1)
14	MERRION	VINE COM 1 CHUCKY 2	CARL MERILATT	M&R	3362	FRANDRA	1531 1532 4100	80
15	MERRION	POSSIBLE DREAM 1 MESAVISTA #12/HEIGHTS #1E	CARL MERILATT	M&R	3362	FRANDRA	1534 35/36 4100	80
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 14 OCT	SYNERGY	MADRID #111	DARREL BAYS	TRI	5	~~LEE~~ LLOYD	1537 4100	160 (A)
2	SYNERGY	MADRID #112	DARREL BAYS	TRI	5	LLYCD	1538 4100	160 (A)
3	MERRION	CHUCKY 2 VINE COM 1	CARL MERICATT	M&R	3360	DELVIN	1539 1540 4100	80
4 15 OCT	WESTERN R.	WAREHOUSE	WALTER MCREYNOLDS	HYDRL PURE	9	RICHARD	1541 4525	50
5 16 OCT	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1542 4100	80
6 17 OCT	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1543 4100	160 (B)
7	MERRION	VINE COM 1 POSSIBLE DREAM 1	CARL MERICATT	M&R	3375	SHANE	1544 1545 4100	80
8	CHEVRON	SOUTHERN UTE 17 SWD	BILL WILSON	KEY	05959	LAWRENCE	1548 4101	80
9	CHEVRON	S. UTE 17 SWD	BILL WILSON	KEY	59657	RICKY	1549 4101	80
10	MERRION	PANTHER 1 BLACKHAWK 1	CARL MERICATT	M&R	3375	SHANE	1546 1547 4100	80
11	MERRION	BLACKHAWK COM 1 RED FERN 3	CARL MERICATT	M&R	3375	SHANE	1547/1551 [illegible] 4100	80
12	SYNERGY	MATRID #112	DARRELL BAYS	TRI	5	LEE	1550 4100	160 (B)
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CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 21 OCT	MERRION	VINE COM 1 POSSIBLE PREAM 1 ~~CARL MERILATT~~	CARL MERILATT	M&R	3362	FRANDERA	1552 1553 4100	80
2	SYNERGY	MADRID #111	DARREL BAYS	TRI	5	LEE	1554 4100	80
3	MERRION	RED FERN 3	CARL MERILATT	M&R	3362	FRANDERA	1555 4100	80
4	SYNERGY	MADRID #112	DARELL BAYS	TRI	5	LEE	1556 4100	80
5	MERRION	BLACKSHAWL COM 1	CARL MERILATT	M&R	3362	FRANDERA	1557 4100	80
6	MERRION	PANTHER 1	CARL MERILATT	M&R	3362	FRANDERA	1558 4100	80
7 23 OCT	MERRION	VINE COM CHUCKY 2	CARL MERILATT	M&R	3385	RACHEL	1560 1561 4100	80
8	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1559 4100	160 (2)
9	KINDER MORLAN	HA-5	DAVE RUNDELL	RW	28-1C	ROBERT	1562 4525	100
10	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1563 4100	80
11	KINDER MORLAN	HA-5	DAVE RUNDELL	RW	28-6 T12	NATHAN	1564 4525	100
12 24 OCT	SYNERGY	MADRID #112	DARREL BAYS	TRI	5	LEE	1565 4100	80
13	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1566 4100	80
14	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1567 4100	80
15 25 OCT	MERRION	VINE COM 1 POSSIBLE PREAM 1	TIM MERILATT	M&R	3385	RACHEL	1578 1579 4100	80
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san juan reproduction 567-43

CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 28 OCT	SYNERGY	MADRID #111	DARRELL BAYS	TR1	5	LEE	1568 4100	160
2	SYNERGY	MADRID #112	DARRELL BAYS	TR1	5	LEE	1569 4100	80
3	MERRION	RED FERN 3	CARL MERIATT	M&R	3367	FRANDERA	1570 4100	80
4	MERRION	CHUCKY #2	CARL MERIATT	M&R	3367	FRANDERA	1571 4100	60
5 29 OCT	MERRION	VINE COM 1/REFERING ~~CARL MERIATT~~	CARL MERIATT ~~M&R~~	~~3367~~ M&R	~~3367~~	FRANDERA	1572 1573 4100	80
6	MERRION	POSSIBLE DREAM 1 CANTHER 1	CARL MERIATT	M&R	3367	FRANDERA	1574 1575 4100	80
7	MERRION	BLACKHAWK 1	CARL MERIATT	M&R	3367	FRANDERA	1576 4100	80
8 30 OCT	EMKT TECH	700 S. DUSTIN	JASON MARTINDALE	HYDRL PUMP	34	KANNARD	1577 4525	60
9 31 OCT	SYNERGY	MADRID #111	DARRELL BAYS	TR1	5	LEE	1577 4100	80
10	KINDER MORGAN	HA-5	DAVE RUNDELL	RW	28-4 T4	KEVIN	1580 4525	110
11	KINDER MORGAN	HA-5	DAVE RUNDELL	RW	28-7 T11	ALFRED	1581 4525	100
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san juan reproduction 567-43

CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 4 NOV	MERRION	RED FERN 5	CARL MERILATT	M&R	3362	FRANDORA	1582 4100	80
2	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1583 4100	160 (C)
3	MERRION	CHUCKY 2 VINE COM 1	CARL MERILATT	M&R	3362	FRANDORA	1584 1585 4100	80
4	MERRION	KATY #1	TIM MERILATT	M&R	3392	SHANE	1587 4100	160 (C)
5	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1586 4100	160 (C)
6 5 NOV	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1588 4100	160 (C)
7 6 NOV	MERRION	BLACKSHAWL COM 1	CARL MERILATT	M&R	3362	FRANDORA	1589 4100	160 (C)
8	MERRION	VINE COM 1 POSSIBLE DREAM 1	CARL MERILATT	M&R	3362	FRANDORA	1590 1591 4100	80
9	MERRION	RED FERN 5	CARL MERILATT	M&R	3362	FRANDORA	1593 4100	80
10 7 NOV	MERRION	PANTHER #1	CARL MERILATT	M&R	3362	FRANDORA	1594 4100	80
11	OIL & GAS	FLORA VISTA	WAYLON	KEY	01-05961	LAWRENCE	1595 4525	40
12	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1596 4100	240 (C)
13	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1597 4100	80
14 8 NOV	SYNERGY	CRAWFORD #103	DARRELL BAYS	TRI	5	LLYOD	1598 4100	160 (C)
15	MERRION	VINE COM 1 PIEDRA VISTA #12	CARL MERILATT	M&R	3365	SID	1599 1600 4100	80
16	MERRION	CHUCKY 2	CARL MERILATT	M&R	3365	SID	1601 4100	60
17	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LLYOD	1602 4100	80
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san juan reproduction 567-43

CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 11 NOV	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1603 4100	160 (2)
2	SYNERGY	MADRID #117	DARRELL BAYS	TRI	5	LEE	1604 4100	80
3 12 NOV	MERRION	VINE COM 1 CHUCKY 2	CARL MERILATT	M&R	3362	FRANDERA	1605 1606 4100	80
4	NUBLE	VALENCE 33-16	CODY MUNKERS	M&R	3327	MICHELLE	1607 4100	80
5 13 NOV	SYNERGY	CRAWFORD #102	DARRELL BAYS	TRI	5	LEE	1608 4100	80
6	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1609 4100	80
7	NUBLE	VALENCE 33-16	CODY MUNKERS	M&R	3327	MICHELLE	1610 4100	80
8	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1611 4100	80
9 14 NOV	MERRION	PANTHER 1	TIM MERILATT	M&R	3371	HUBERT	1612 4100	70
10	MERRION	POSSIBLE DREAM 1	TIM MERILATT	M&R	3371	HUBERT	1613 4100	70
11	MERRION	BLACKHAWK COM 1	TIM MERILATT	M&R	3371	HUBERT	1614 4100	80
12	MERRION	RED FERN 3	CARL MERILATT	M&R	3371	HUBERT	1616 4100	80
13	MERRION	KATY 1	CARL MERILATT	M&R	3394	STEVEN	1615 4100	240 (3)
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san juan reproduction 567-43

CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 18 NOV	MERRION	RED FERN 3	CARL MERILATT	M&R	3362	FRANDORA	1617 4100	160 (R)
2	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1618 4100	160 (R)
3	MERRION	PANTHER 1 POSSIBLE DREAM 1	CARL MERILATT	M&R	3362	FRANDORA	1619 1620 4100	80
4	MERRION	BLACKSHAWL 1	CARL MERILATT	M&R	3362	FRANDORA	1621 4100	80
5	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1622 4100	80
6 19 NOV	MERRION	BLACKSHAWL #1	CARL MERILATT	M&R	3362	FRANDORA	1623 4100	80
7 20 NOV	MERRION	KATY 1	CARL MERILATT	M&R	3362	FRANDORA	1624 4100	80
8	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1625 4100	160 (R)
9	MERRION	CHUCKY #2	CARL MERILATT	M&R	3362	FRANDORA	1627 4100	60
10	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1626 4100	80
11 22 NOV	MERRION	RED FERN 3	TIM MERILATT	M&R	3323	JASON	1630 4100	80
12	WESTERN R.	WAREHOUSE	WALTER MCREYNOLDS	HYDRO PURE	35	JANICE	1628 4525	80
13	NOBLE	VALENCE 33-16	COPY MUNKERS	M&R	3323	JASON	1629 4100	80
14	MERRION	BLACKSHAWL #1	TIM MERILATT	M&R	3323	JASON	1632 4100	80
15	MERRION	POSSIBLE DREAM 1 PANTHER 2	TIM MERILATT	M&R	3323	JASON	1633 1634 4100	80
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san juan reproduction 567-43

CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 26 NOV	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LLYOD	1635 4100	160 (E)
2	WESTERN R.	WAREHOUSE	WALTER McREYNOLDS	HYDRO PURE	22	HANARD	1636 4525	80
3	MERRION	POSSIBLE DREAM 1	CARL MERILATT	M&R	3362	FRANDORA	1637 4100	80
4	MERRION	RED FERN 3	CARL MERILATT	M&R	3362	FRANDORA	1638 4100	160 (E)
5	MERRION	BLACKSHAWL COM 1	CARL MERILATT	M&R	3362	FRANDORA	1639 4100	80
6 27 NOV	ENTERPRISE	CHACO PLANT	JOEL SCHRODER	WEST STATES	501	FRANK	1640 4525	80
7	MERRION	CHUCKY #2 KATY 1	CARL MERILATT	M&R	3362	FRANDORA	1642 1643 4100	80
8	ENTERPRISE	CHACO PLANT	RANDY SHIRLEY	WEST STATES	514	DAN	1641 4525	160 (E)
9	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LLYOD	1644 4100	80
10 29 NOV	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1645 4100	160 (E)
11	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1648 4100	160 (E)
12	HOLCOMB	CARNAHAN COM 1	BRYCE BASHER	WW	118	DANIEL	1647 4100	80
13	M&G	HARDIE 68	DAVID HANSON	WW	118	DANIEL	1649 4100	80
14	ENTERPRISE	CHACO PLANT	RANDY SHIRLEY	WEST STATES	501	FRANK	1646 4525	240 (E)
15	ENTERPRISE	CHACO PLANT	RANDY SHIRLEY	WEST STATES	514	DAN	1650 4525	160 (E)
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san juan reproduction 567-43

CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS	
1 DEC	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1651 4100	160 (E)	
2	BOOTS SMITH OIL	TRANSWESTERN PIPELINE	JOE SKAINS	M&R	2328-4369	MYRON	1652 4525	130	
3	"	"	"	M&R	3367-4353	ALLEN	1653 4525	280 (E)	
4	"	"	"	M&R	2301-4376	RICK	1654 4525	260 (E)	
5	"	"	"	M&R	3387-4332	MIKE	1655 4525	280 (E)	
6	"	"	"	M&R	3340-4341	DEAN	1656 4525	320 (E)	
7	"	"	"	M&R	2318-4358	GLEN	1657 4525	240 (E)	
8	"	"	"	M&R	3365	SID	1658 4525	160 (E)	
9	"	"	"	M&R	3401-4346	JOHNNY	1659 4525	160	
10	MERRION	CHUCKY #2	CARL MERILATT	M&R	3362	FRANDORA	1660 4100	60	
11	BOOTS SMITH OIL	TRANSWESTERN PIPELINE	JOSH CLARK	M&R	5588	DIANE	1661 4525	160 (E)	
12	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1662 4100	160 (E)	
13	BOOTS SMITH OIL	TRANSWESTERN PIPELINE	JOE SKAINS	M&R	3369-4334	J. EVERETT	1663 4525	280 (E)	
14	"	"	"	M&R	3389-4357	KENNY	1664 4525	160	
15	MERRION	FARMINGTON BLOOMFIELD	CARL MERILATT	M&R	3362	FRANDORA	1665 4100	70	450 2430
16 DEC	BOOTS SMITH OIL	TRANSWESTERN PIPELINE	JOE SKAINS	M&R	2318-4358	GLEN	1666 4525	240 (E)	
17	"	"	"	M&R	3367-4353	ALLEN	1667 4525	280 (E)	
18	"	"	"	M&R	3401-4346	JOHNNY	1668 4525	320 (E)	
19	"	"	"	M&R	2301-4376	RICK	1669 4525	260 (E)	
20	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1670 4100	80	
21	BOOT SMITH OIL	TRANSWESTERN PIPELINE	JOE SKAINS	M&R	2326	JAMES	1671 4525	260 (E)	
22	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1672 4100	160 (E)	
23	BOOTS SMITH OIL	TRANSWESTERN PIPELINE	JOE SKAINS	M&R	3369-4334	JASON	1673 4525	280 (E)	
24	"	"	"	M&R	3340-4341	DEAN	1674 4525	320 (E)	
25	"	"	"	M&R	3389-4357	KENNY	1675 4525	160	240 2120

san juan reproduction 567-43

CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
1 4 DEC	BOOT SMITH OIL	TRANSWESTERN APELINE	JOE SKAINS	M&R	2318-4358	GLEN	1676 4525	120
2	BOOT SMITH OIL	"	"	M&R	2526-4369	JAMES	1677 4525	260 (2)
3	"	"	"	M&R	2301	RICK	1678 4525	260 (2)
4	"	"	"	M&R	3367-4353	ALLEN	1679 4525	280 (2)
5	ENERVEST	HARMSWAY 30-29	STEVE SOUTHERN	M&R	3363	BRANDON	1680 4100	80
6	BOOT SMITH OIL	TRANSWESTERN APELINE	JOE SKAINS	M&R	3401-4346	JOHNNY	1681 4525	240 (2)
7	MERRION	PANTHER 1 POSSIBLE DREAM 1	CARL MERLATT	M&R	3362	FRANDORA	1682 1683 4100	80
8	BOOT SMITH OIL	TRANSWESTERN PIPELINE	JOE SKAINS	M&R	3387-4352	MIKE	1684 4525	140
9	MERRION	BLACKSHAWL COM 1	CARL MERLATT	M&R	3362	FRANDORA	1685 ~~4525~~ 4100	140
10	ENERVEST	SANDROCK SOUTH	CODY MUNKERS	M&R	3363	BRANDON	1687 4100	80
11	MERRION	RED FERN 3	CARL MERLATT	M&R	3362	FRANDORA	1688 4100	80
12 5 DEC	EMIT TECH.	YARD	JOSHUA CASTILLO	HYDRO PURE	35	TED	1699 4525	80
13 6 DEC	STANLEY	MAIN "111	DARRELL GATES	TRI	5	CLYDE	1689 4100	80
14	STANLEY	MAIN "112	DARRELL GATES	TRI	5	CLYDE	1690 4100	80
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san juan reproduction 567-43

CROUCH MESA FACILITY

ENTRY	CUSTOMER	LOCATION	ORDERED BY	DELIVERED BY	TRUCK #	DRIVER	TICKET #	BBLS
9 DEC 1	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1691 4100	160
10 DEC 2	M&G	HARDIE 68	DAVID HANSON	WW	116	CRAIG	1692 4100	80
3	SYNERGY	CRAWFORD #103	DARRELL BAYS	TRI	5	LEE	1694 4100	80
4	HOLCOMB	CARNAHAN COM 1	BRYCE BASHER	WW	116	CRAIG	1693 4100	80
5	MERRION	KATY #1	CARL MERILATT	M&R	3325	ERIC	1695 4100	80
11 DEC 6	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LLYOD	1696 4100	240 (3)
7	MERRION	BLACKSHAWL COM 1	CARL MERILATT	M&R	3325	ERIC	1697 4100	80
8	MERRION	RED FERN 3	CARL MERILATT	M&R	3352	DOUG	1698 4100	80
12 DEC 9	MERRION	CHUCKY 2/PANTHER 1	CARL MERILATT	M&R	3343	JOE	1700 1701 4100	80
10	MERRION	POSSIBLE DREAM 1	TIM MERILATT	M&R	3327	MICHELLE	1702 4100	80
11	SYNERGY	MADRID #111	DARRELL BAYS	TRI	5	LEE	1703 4100	80
12	SYNERGY	MADRID #112	DARRELL BAYS	TRI	5	LEE	1704 4100	80
13 DEC	ENERVEST	LANGENDORF #3	CHESTER DEAL	C&J	WT02/TT01	TRACY	1705 4100	260 (4)
14	TNT	DISPOSAL	TONY LEE	C&J	194	MICHELLE	1706 4100	80
15	ENERVEST	LANGENDORF #3	STEVE SOUTHERN	C&J	194	MICHELLE	1707 4100	80
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san juan reproduction 567-43

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

WELL API NO.
30-045-28653

5. Indicate Type of Lease
STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☐ Other SWD Class I

7. Lease Name or Unit Agreement Name
Sunco Disposal

8. Well Number
1

2. Name of Operator
Agua Moss, LLC

9. OGRID Number
247130

3. Address of Operator
PO Box 600 Farmington, NM 87499

10. Pool name or Wildcat
SWD MV

4. Well Location
Unit Letter E : 1595 feet from the North line and 1005 feet from the West line
Section 2 Township 29N Range 12W NMPM County San Juan

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
5859' GL

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☒	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
CLOSED-LOOP SYSTEM	☐						
OTHER:	☐			OTHER:			☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Verbal approval to proceed received by Charlie Perrin 2/21/2014
2/24/2014 MIRU PU/SL set tbg plug look for communication between tbg & csg.
2/25/2014 NUWH, retest, found tbg leak, unseat tbg hanger and found leak in the bottom connection of hanger & landing sub. Replaced hanger, redressed sub, landed tbg, retested tbg- held ok. NUWH, tested tbg & csg- held ok with no communication, RDMO PU. 2/26/14 MIRU SL, TIH to 4281', pulled tbg plug, conducted MIT- held ok.RDMO SL.

OIL CONS. DIV DIST. 3
MAR 21 2014

Spud Date: | Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [signature] TITLE Regulatory Compliance Specalist DATE 3/19/14

Type or print name Philana Thompson E-mail address: pthompson@merrion.bz PHONE: 505-486-1171

For State Use Only

APPROVED BY: [signature] TITLE Deputy Oil & Gas Inspector, District #3 DATE 3/21/14

Conditions of Approval (if any):
FV

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
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1000 Rio Brazos Rd., Aztec, NM 87410
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State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

WELL API NO.
30-045-28653

5. Indicate Type of Lease
STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
Sunco Disposal

1. Type of Well: Oil Well ☐ Gas Well ☐ Other SWD Class I

8. Well Number
1

2. Name of Operator
Agua Moss, LLC

9. OGRID Number
247130

3. Address of Operator
PO Box 600 Farmington, NM 87499

10. Pool name or Wildcat
SWD MV

4. Well Location
Unit Letter E : 1595 feet from the North line and 1005 feet from the West line
Section 2 Township 29N Range 12W NMPM County San Juan

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
5859' GL

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

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PERFORM REMEDIAL WORK	☒	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
CLOSED-LOOP SYSTEM	☐						
OTHER:	☐			OTHER:	☐		

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

MIRU Isolate and fix communication between tbg and annulus. Verbal approval to proceed received by Charlie Perrin 2/21/2014

RCVD FEB 26 '14
OIL CONS. DIV.
DIST. 3

Spud Date: Rig Release Date:

I hereby certify that the information above is ~~true~~ and complete to the best of my knowledge and belief.

SIGNATURE [signature] TITLE Regulatory Compliance Specalist DATE 2/24/14

Type or print name Philana Thompson E-mail address: pthompson@merrion.bz PHONE: 505-486-1171

For State Use Only

APPROVED BY: [signature] TITLE SUPERVISOR DISTRICT # 3 DATE FEB 2 8 2014

Conditions of Approval (if any): AV

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
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State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

WELL API NO.
30-045-28653

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STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

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Sunco Disposal

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SWD MV

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5859' GL

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☒	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
CLOSED-LOOP SYSTEM	☐						
OTHER:	☐			OTHER:			☐

RCVD FEB 26 '14
OIL CONS. DIV.
DIST. 3

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

2/3/14 MIRU HWS Rig #12 RU pump/pit mix in with 640 sx barite, 9 cans of flowzan, for a total of 150 bbls 15.1 ppg w/ 54 vic
2/4/14 TBG 1300 PSIG, CSG 450 PSIG, MIX 10BBLS 3% KCL W/ 15 GAL HEC, PMP 6BBL Pull DWN TBG, displaced W/ 18 BBLS BARITE 15.1PPG MUD, Let well set for 15 MINS, still flowing back W/ 120# ON TBG, PMP a total of 21 BBLS TO KILL TBG, NDWH, PULLED 80K ON DONUT, stacked tbg string out, NU BOP/HYDRILL pressure test pipe ram & hydrill TO 1400#, PUT 1300# ON CSG, released on/off tool, killed well W/ 106.56 BBLS watching water returns until loss of circ, watch well no flow, LAY DOWN 135 JTS 2 7/8, swap tbg trailers out, TIH W/ NEW T-2 ON/OFF TOOL & 62 JTS NEW L-80 LINED TBG (1998.26)
2/5/14 Csg 0, Tbg 0, PU TIH w/ 73 jts 2 7/8" lined tbg, Latch on/off tool, MIRU Slick line, Run 1.51"6 GR to 4630', Run 1.906" GR to tag 1.87 F nipple @ 4281', Run & Set 1.87" plug in F nipple,RD Slick line, Attempt to get off on/off tool, Set down 5k tighten string and release on/off tool, TOH w tbg, Check seals on on/off tool (good) TIH w/ tbg checking connections, Role tbg/csg w/ 91 bbls produced wt, drain and secure well.
2/6/14 SICP 0#, SITP 0#, Pmpd 80bbls pkr fld dwn csg, Latched back on to pkr on/off tool,Tst csg to 500# for 30 mns held, NDBOP, Landed tbg w/ 8000# tension, NUWD, RDMO PU/Equipe, Flwd tbg back, started @ 1300#, good flow, picked up flow after 10 mins to very strong flow, Flowed back 120bbls total, SI tbg @ 420#, Job Complete, RD HWS Rig #12

Spud Date: Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [signature] TITLE Regulatory Compliance Specalist DATE 2/24/14

Type or print name Philana Thompson E-mail address: pthompson@merrion.bz PHONE: 505-486-1171

For State Use Only

APPROVED BY: [signature] TITLE Deputy Oil & Gas Inspector, District #3 DATE 3/17/14

Conditions of Approval (if any): AV

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

WELL API NO. 30-045-28653	
5. Indicate Type of Lease STATE ☐ FEE ☒	
6. State Oil & Gas Lease No.	
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) 1. Type of Well: Oil Well ☐ Gas Well ☐ Other SWD Class I	7. Lease Name or Unit Agreement Name Sunco Disposal
	8. Well Number 1
2. Name of Operator Agua Moss, LLC	9. OGRID Number 247130
3. Address of Operator PO Box 600 Farmington, NM 87499	10. Pool name or Wildcat SWD-MV
4. Well Location Unit Letter ___E___ : ___1595___ feet from the __North_____ line and ___1005_____ feet from the __West_____ line Section 2 Township 29N Range 12W NMPM County San Juan	
11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 5859' GL	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☒	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
CLOSED-LOOP SYSTEM	☐						
OTHER:	☐			OTHER:	☐		

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Agua Moss, LLC proposes to run coil tbg inside the tbg string to open obstructions. Then set a plug in the packer, J out of the packer, lay down the tbg string and replace w/ new tbg. It appeared that the plastic lining is coming Loose, the string still has full mechanical integrity.

Verbal approval was given by Charlie Perin with the Aztec OCD office 12/17/2013

OIL CONS. DIV DIST. 3

DEC 19 2013

Spud Date: Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [signature] TITLE Regulatory Compliance Spec DATE 12/18/2013

Type or print name Philana Thompson E-mail address: pthompson@merrion.bz PHONE: 505-486-1171

For State Use Only

APPROVED BY: [signature] TITLE Deputy Oil & Gas Inspector, District #3 DATE 12/19/13

Conditions of Approval (if any):

AV

30-045-28653

AGUA MOSS, LLC

TEST PLAN FOR PRESSURE FALL-OFF TEST (FOT)

Well Information			
Well:	Sunco Disposal 1	Field:	Mesaverde SWD
Location:	1595' fnl & 1005' fwl S2, T29N, R12W San Juan Co. New Mexico	Elevations:	5859' GL 5872' RKB
		Depths:	4706' KB PBTD 4760' KB TD
		Engineer:	J. Ryan Davis (505.324.5335)
API:	30-045-28653	Date:	December 11, 2013
Surface Casing:	8-5/8" @ 209' KB w/ 150sx, Circ to surface	Production Casing:	5-1/2" @ 4750' KB w/ 230 sx stage 1, 515 sx stage 2, circ 25 sx to surf, DV tool @ 2244' KB
Tubulars:	2-7/8" 6.5# EUE (Plastic Coated) @ 4282' KB	Packer:	Arrow XL-W retrievable seal bore @ 4282' KB
Perforations (MV)	4350-4460' KB 2 spf (2000 gals 15% HCL, Frac w/ 100,000# 20/40		
Additional Perforations			
Perforations (MV)	None		

Version 2 (updated 12/10/2013) – Procedure subject to change based on changing well conditions.

DIST. 3

OIL CONS. DIV.
RCVD DEC 17 '13

Proposed Test Schedule:

Date	Event	Remarks
Monday, December 16th 2013	Check conditions, Perform MIT and Begin injection	TD, Fill, Restrictions and hang Gauge
Wednesday, December 18th 2013	End Injection and Begin FOT	Shut In and monitor
Saturday, December 21st 2013	72 hrs	Could be gauges at this point

Test Considerations:

V.1 The triplex pump at the facility is capable of maintaining a constant rate of 1440 bpd against the anticipated injection pressures.

V.2 The injection rate of 1440 bpd will be sufficient to produce valid test data. During normal injection at 3000 bpd the surface pressure build up is approx. 700 psi with a mirrored fall off over a three day period.

V.3 The normal waste liquid will be used during the FOT due to the cost effectiveness and availability.

V.4 The total volume of fluid needed for the FOT is 3000 bbls.

a) A total of 4000 bbls will be onsite prior to starting the injection for the FOT and water will continue to be hauled to facility in the case that more fluid is needed during the injection period.

b) Lowering the Injection rate will be considered if well conditions merit a change or storage of fluid becomes a constraint.

V.5 The gauges will be RIH and the injection period will be a minimum of 50 hrs to ensure radial flow and stabilization. A total of 15 hrs was calculated using the EPA Region 6 UIC Pressure Falloff Testing Guideline design calculations found on pg A-4. The fall off portion will be a minimum of 72 hrs justified by this being the time frame used on the previous FOT.

V.6 There will be adequate storage capacity for waste water for the duration of the FOT.

V.7 There is one offset well completed in the Point Lookout disposal formation. The McGrath #4 is a class II disposal operated by ConocoPhillips approx 1.25 miles to the north west of the Sunco #1. The last injection on the McGrath #4 was March 2013 and the well is currently shut in with injection activity during the FOT very unlikely.

V.8 Crown valve is currently in-place on the Sunco #1 wellhead. The gauges will be RIH through a lubricator prior to the injection period.

V.9 A shut-in valve is located on the injection riser approx 3-feet from the wellhead. This valve can be shut quickly to reduce erratic pressure response and minimize the wellbore storage.

V.10 Prior to the FOT a gauge ring will be run through the tubing to ensure no restrictions in the tubing and slickline will also be used to tag up and determine wellbore fill. Test parameters will be adjusted accordingly or the needed the repairs will be made to remedy the situation.

V.11 Surface readout gauges will not be used in the FOT data collection due to cost and the fact Key performed the 2010 FOT with tandem memory down hole gauges with successful data collection. The gauges used will be latest available technology from Teftiller, Inc which will meet or exceed the pressure range, accuracy and resolution requirements. The gauges will be setup on auto resolution capture based on pressure change. Each gauge will be setup with a different auto resolution range to ensure all data is captured accurately.

V.12 A test log will be kept during the test and submitted with the FOT results. The log will include key events with date and times.

- Gauge ring run
- Tag depth
- Gauge activation
- Gauges on bottom
- Injection start
- Injection stop
- Well isolation
- Pressure stabilization
- End of Fall Off

V.13 Surface pressures will be recorded continuously using a chart recorder during the FOT. If any abnormal surface pressure change occurs the test validity will be questioned and the test will be aborted if deemed invalid.

V.14 The memory gauges being used for the FOT have auto resolution capability that changes the resolution based on rate of pressure change. First gauge will be configured to obtain data every 15 seconds and adjust to every one minute. The second gauge will be configured to obtain data every 30 seconds and adjust to every two minutes. Memory capacity is 35 day and 69 days respectfully. The minimum 15 second resolution was used during the 2010 FOT and proved to be acceptable. The length of the fall off portion is based on the 2010 FOT, 72 hours proved to be adequate.

V.15 The tri-plex injection pump at the facility that is normally used for injection will be used for the FOT. It is a positive displacement pump running at a constant RPM which will ensure constant injection rate during the FOT. A constant injection rate of 1440 bpd will be sufficient to create a 100 psi differential between final injection pressure and shut-in pressure.

Fall Off Test Procedure:

Prepare Well for Fall Off Test

1. Arrange for adequate injection fluid storage
2. Accumulate 4000 bbls of produced water
3. MIRU wireline
4. RIH w/ Gauge ring to SN
5. POOH w/ Gauge ring and PU impression block (or something to run thru SN)
6. RIH tag and record fill depth
7. If no restrictions exist and fill is below the perfs continue on to FOT. Otherwise remediate problem or adjust FOT procedure before continuing.

Conduct Fall Off Test

8. POOH pick up pressure gauges
9. RIH and hang gauges off @ 4405' KB
10. Begin injection, (125 bph) 1440 bwpd, Record time
11. Inject for 50 hrs, total of 3000 bbls. Record start and stop time
    a. Ensure injection pressures have stabilized before proceeding
12. S/D injection pump and close valve @ wellhead, Record time
    a. Once surface pressure stabilizes record start time of fall off
13. Record pressure data for 72 hrs, Record start and stop time
14. POOH making gradient stops @ 4000', 3000', 2000', 1000' and surface
15. Secure well and bleed pressure off lubricator
16. R/D wireline
17. Put well back into service for normal operation.

1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised March 12, 2007

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**
ENTERPRISE FIELD SERIVCES, LLC, 614 Reilly Ave, Farmington, NM 87401 Pay Key Code: AQI2598 AFE P20379

2. **Originating Site:**
Mark Maddox #1M new well tie

3. **Location of Material (Street Address, City, State or ULSTR):**
UL J, S15-T32N-R11W, San Juan County

4. **Source and Description of Waste:**
Hydrostatic test water from municipal source for pressure testing new well-tie pipeline.

Estimated Volume 10 bbls. yd^3 / bbls Known Volume (to be entered by the operator at the end of the haul) _____ yd^3 / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Runell Seale Runell Seale, DATE: 2-12-13, representative or authorized agent for Enterprise Field Services, LLC
Generator Signature

Do herby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ *Monthly* ☐ *Weekly* ☒ *Per Load*

☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Runell Seale, representative for Enterprise Field Services LLC authorize Auga Moss to complete
Generator Signature

the required testing/sign the Generator Waste Testing Certification.

I, _____, representative for _____ do hereby certify that
Representative/Agent Signature

representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. **Transporter:** Unknown

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Agua Moss Crouch Mesa SWD #NM-01-0009**

Address of Facility: **345 CR 350, Farmington, NM 87401**

Method of Treatment and/or Disposal:

☐ Evaporation ☒ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status: ☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: CHRIS MORGAN TITLE: _____ DATE: 2-25-13

SIGNATURE: _____ TELEPHONE NO.: 505-334-6186 Fax 505-334-5410
Surface Waste Management Facility Authorized Agent

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised March 12, 2007

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**
Kinder Morgan, 17801 Hwy 491, Cortez CO. 81321

2. **Originating Site:**
YA-6

3. **Location of Material (Street Address, City, State or ULSTR):**
Sec: 13 Township: 37N Range 18W, Meridian N

4. **Source and Description of Waste:**

Estimated Volume 7000 yd³ / (bbls) Known Volume (to be entered by the operator at the end of the haul) _____ yd³ / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, _____, representative or authorized agent for Kinder Morgan do hereby
Generator Signature
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. ***Operator Use Only: Waste Acceptance Frequency*** ☐ ***Monthly*** ☐ ***Weekly*** ☐ ***Per Load***

☐ *RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)*

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, _____, representative for Kinder Morgan authorize AGUA MOSS to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, _____, representative for _____ do hereby certify that
Representative/Agent Signature
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. **Transporter:**

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: AGUA MOSS CROUCH MESA SWD #NM-01-0009

Address of Facility: #345 CR350 Aztec, NM 87410

Method of Treatment and/or Disposal:

☐ Evaporation ☒ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: CHRIS MORGAN TITLE: LEAD TECHNITION DATE: 4-5-13

SIGNATURE: _____ TELEPHONE NO.: 505-334-6186
Surface Waste Management Facility Authorized Agent
FX 505-334-5410

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised March 12, 2007

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**
Kinder Morgan, 17801 Hwy 491, Cortez CO. 81321

2. **Originating Site:**
YA-6

3. **Location of Material (Street Address, City, State or ULSTR):**
Sec: 13 Township: 37N Range 18W, Meridian N

4. **Source and Description of Waste:**

Estimated Volume 2000 yd³ / (bbls) Known Volume (to be entered by the operator at the end of the haul) _____ yd³ / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, L. [signature], representative or authorized agent for Kinder Morgan do hereby
Generator Signature
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ *Monthly* ☐ *Weekly* ☐ *Per Load*

☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.13 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, L. [signature], representative for Kinder Morgan authorize AGUA MOSS to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, _____, representative for _____ do hereby certify that
Representative/Agent Signature
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. **Transporter:**

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: AGUA MOSS CROUCH MESA SWD #NM-01-0009

Address of Facility: #345 CR350 Aztec, NM 87410

Method of Treatment and/or Disposal:

☐ Evaporation ☒ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ APPROVED ☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: CHRIS MORGAN TITLE: LEAD TECHNITION DATE: 4-5-13

SIGNATURE: _____ TELEPHONE NO.: 505-334-6186
Surface Waste Management Facility Authorized Agent
FX 505-334-5410

District I
1625 N. French Dr., Hobbs, NM 88240
District II
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Oil Conservation Division
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Santa Fe, NM 87505

Form C-138
Revised March 12, 2007

*Surface Waste Management Facility Operator and Generator shall maintain and make this Documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
KINDER MORGAN CO2 CO, 17801 HWY-491, CORTEZ, CO. 81321

2. Originating Site:

LOCATION, DC-13

3. Location of Material (Street Address, City, State or ULSTR):
QQ, TRK. 69//SEC. 9//TWNSHIP. 40// R. 18W/M. N

4. Source and Description of Waste:

Estimated Volume _____ yd^3 / bbls Known Volume (to be entered by the operator at the end of the haul) _____ yd^3 / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, D J Moore, representative or authorized agent for KINDER MORGAN do hereby
Generator Signature
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. ***Operator Use Only: Waste Acceptance Frequency*** ☐ ***Monthly*** ☐ ***Weekly*** ☐ ***Per Load***

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, D J Moore, representative for KINDER MORGAN authorize [redacted] to complete
Generator Signature AQUA MOSS
the required testing/sign the Generator Waste Testing Certification.

I, _____, representative for _____ do hereby certify that
Representative/Agent Signature
Representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

6.Transporter: RW TRUCKING

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **AQUA MOSS CROUCH MESA SWD #NM-01-009**

Address of Facility: **# #345 CR350, AZTEC, NEW MEXICO, 87410**

Method of Treatment and/or Disposal:

☐ Evaporation ☒ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: CHRIS MORGAN TITLE: ~~Admin Specialist~~ LEAD TECHNITION DATE: 9 APR 13

SIGNATURE: _____ TELEPHONE NO.: ~~[redacted]~~ 505 334 6186
Surface Waste Management Facility Authorized Agent

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
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Oil Conservation Division
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Santa Fe, NM 87505

Form C-138
Revised March 12, 2007

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REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
KINDER MORGAN CO2 CO, 17801 HWY-491, CORTEZ, CO. 81321

2. Originating Site:

LOCATION, GP-20/21

3. Location of Material (Street Address, City, State or ULSTR):
QQ, LOT3//SEC. 34//TWP. 37N// R. 18W/Mer. N

4. Source and Description of Waste:

Estimated Volume _____ yd^3 / bbls Known Volume (to be entered by the operator at the end of the haul) _____ yd^3 / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, _____, representative or authorized agent for KINDER MORGAN do hereby
Generator Signature
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. ***Operator Use Only: Waste Acceptance Frequency*** ☐ ***Monthly*** ☐ ***Weekly*** ☐ ***Per Load***

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, _____, representative for KINDER MORGAN authorize [redacted] to complete
Generator Signature AQUA MOSS
the required testing/sign the Generator Waste Testing Certification.

I, _____, representative for _____ do hereby certify that
Representative/Agent Signature
Representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

6.Transporter: DAWN TRUCKING

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **AQUA MOSS CROUCH MESA SWD #NM-01-009**

Address of Facility: **# #345 CR350, AZTEC, NEW MEXICO, 87410**

Method of Treatment and/or Disposal:

☐ Evaporation ☒ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status: ☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: CHRISTOPHER MORGAN TITLE: [redacted] DATE: 1 MAY 13

SIGNATURE: _____ TELEPHONE NO.: [redacted] 505 334-6186
Surface Waste Management Facility Authorized Agent

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised August 1, 2011

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**
Williams Four Corners LLC., 188 Country Road 4900, Bloomfield, NM 87413

1. **Originating Site:**
Ignacio Gas Plant

2. **Location of Material (Street Address, City, State or ULSTR):**
Unit L, Section 36, Township 34N, Range 9W

3. **Source and Description of Waste:**
Source/Description: Wash water from Recompressor Building pressure cleaning/mixture of water (95%) with small volume of soap and lube oil (5%)

Estimated Volume 30 yd^3 / bbls Known Volume (to be entered by the operator at the end of the haul) _____ yd^3 / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Matt Webre, representative or authorized agent for Williams Four Corners LLC do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ *Monthly* ☐ *Weekly* ☐ *Per Load*

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, _____, representative for _____ do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

6. **Transporter:**

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Agua Moss Permit # UIC1-005

Address of Facility: # 345 CR 350, Aztec, NM 87410

Method of Treatment and/or Disposal:

☐ Evaporation ☒ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: CHRIS MORGAN TITLE: LEAD TECH DATE: 18JUL13

SIGNATURE: _____ TELEPHONE NO.: _____

Surface Waste Management Facility Authorized Agent

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised August 1, 2011

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
National Oilwell Varco 14 County Road 5860 Farmington, NM

2. Originating Site:

14 County Road 5860 Farmington, NM

3. Location of Material (Street Address, City, State or ULSTR):
14 County Road 5860 Farmington, NM

4. Source and Description of Waste:
Wastewater collected from the floor drains and sump in a warehouse. The wastewater is derived from cleaning off downhole tools and hardware after drilling.

Estimated Volume 7 BBLS yd^3 / bbls Known Volume (to be entered by the operator at the end of the haul) _____ yd^3 / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Meghan MacEachern, representative or authorized agent for National Oilwell Varco do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ *Monthly* ☐ *Weekly* ☐ *Per Load*

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, _____, representative for _____ do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. Transporter:
M & R Trucking

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Agua Moss, LLC

Address of Facility: 3782 Provo, Bloomfield, New Mexico 87413

Method of Treatment and/or Disposal:

☐ Evaporation ☒ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status: ☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: CHRIS TITLE: LEAD TECH DATE: 7-29-13

SIGNATURE: _____ TELEPHONE NO.: 505 334-6186

Surface Waste Management Facility Authorized Agent

1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

1220 South St. Francis Dr.
Santa Fe, NM 87505

documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:** KINDER MORGAN CO_2 17801 Hwy 491 CORTEZ, CO 81321

2. **Originating Site:** McElmo Dome and Doe Canyon Deep reservoirs in SW Colorado

3. **Location of Material (Street Address, City, State or ULSTR):**

4. **Source and Description of Waste:**
Produced water from wellbore being produced into Drilling pits, drawn down by vac truck.
Estimated Volume ____ yd³ (bbls) OPEN Known Volume (to be entered by the operator at the end of the haul) ____ yd³ (bbls) OPEN

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I. STANSON MANNIS, representative or authorized agent for KINDER MORGAN CO_2

do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ *Monthly* ☐ *Weekly* ☐ *Per Load*

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I. _____, representative for _____ do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. **Transporter:** M&R TRUCKING SSS RW TRUCKING

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: AGUA MOSS CROUCH MESA FACILITY PERMIT #NM-47130

Address of Facility: CR 350 #345 AZTEC, NM 87410

Method of Treatment and/or Disposal:

☐ Evaporation ☒ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status: ☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: CHRIS TITLE: LEAD TECH DATE: 2013

SIGNATURE: _____ TELEPHONE NO.: _____

Surface Waste Management Facility Authorized Agent

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised August 1, 2011

"Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: Western Refining Wholesale 3303 N. first st.
2. Originating Site: Western Refining Wholesale SE NW SEC T. 30T29N R13W
3. Location of Material (Street Address, City, State or ULSTR): 3303 North first street, Bloomfield, N.M.
4. Source and Description of Waste: Storm water accumulated from Recent Rain Events. no odor or visible sheen present.

Estimated Volume 160 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 160 yd³ / bbls

GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

5. I, Walter McReynolds, representative or authorized agent for Western Refining Wholesale do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ *Monthly* ☐ *Weekly* ☐ *Per Load*

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, _____, representative for _____ do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. Transporter:

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: AGUA MOSS CROUCH MESA FACILITY PERMIT #NM-247130

Address of Facility: CO. RD 350 #345 AZTEC, NM 87410

Method of Treatment and/or Disposal:

☐ Evaporation ☒ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status: ☐ APPROVED ☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: CHRIS TITLE: LEAD TECH DATE: 2013

SIGNATURE: _____ TELEPHONE NO.: 8334-6186

Surface Waste Management Facility Authorized Agent

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised August 1, 2011

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
Oil + Gas Equipment 8 Road 350

2. Originating Site:
8 Road 350 Flora Vista New Mexico 87415

3. Location of Material (Street Address, City, State or ULSTR):
From Repaired Valves on production units

4. Source and Description of Waste:

Estimated Volume OPEN yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) yd³ / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Tom Lewis, representative or authorized agent for Oil + Gas Equip do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ *Monthly* ☐ *Weekly* ☐ *Per Load*

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, _____, representative for _____ do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. Transporter:

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: AGUA MOSS CROUCH MESA FACILITY PERMIT #NM-247130

Address of Facility: Co. RD 350 #345 AZTEC, NM 87410

Method of Treatment and/or Disposal:

☐ Evaporation ☒ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ APPROVED ☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: CHRIS MORGAN TITLE: LEAD TECH DATE: 2013

SIGNATURE: _____ TELEPHONE NO.: (505) 334-6186
Surface Waste Management Facility Authorized Agent

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised March 12, 2007

*Surface Waste Management Facility Operator and Generator shall maintain and make this Documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
KINDER MORGAN CO2 CO, 17801 HWY-491, CORTEZ, CO. 81321

2. Originating Site:

LOCATION, YB-6

3. Location of Material (Street Address, City, State or ULSTR):
QQ, NWNW//SEC. 24//TWNSHIP. 37N// R. 18W/M. N

4. Source and Description of Waste:

Estimated Volume _____ yd^3 / bbls Known Volume (to be entered by the operator at the end of the haul) _____ yd^3 / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, _____, representative or authorized agent for KINDER MORGAN do hereby
Generator Signature
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. ***Operator Use Only: Waste Acceptance Frequency*** ☐ ***Monthly*** ☐ ***Weekly*** ☐ ***Per Load***

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Jimmy Hale, representative for KINDER MORGAN authorize JFJ/IEI to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, _____, representative for _____ do hereby certify that
Representative/Agent Signature
Representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

6.Transporter: RW TRUCKING

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **AQUA MOSS CROUCH MESA SWD #NM-01-009**

Address of Facility: **# #345 CR350, AZTEC, NEW MEXICO, 87410**

Method of Treatment and/or Disposal:

☐ Evaporation ☒ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: Jimmy Hale TITLE: Admin. Specialist DATE: _____

SIGNATURE: Jimmy Hale TELEPHONE NO.: 505-632-1782
Surface Waste Management Facility Authorized Agent

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised March 12, 2007

*Surface Waste Management Facility Operator and Generator shall maintain and make this Documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
KINDER MORGAN CO2 CO, 17801 HWY-491, CORTEZ, CO. 81321

2. Originating Site:

LOCATION, DC-13

3. Location of Material (Street Address, City, State or ULSTR):
QQ, TRK. 69//SEC. 9//TWNSHIP. 40// R. 18W/M. N

4. Source and Description of Waste:

Estimated Volume _____ yd^3 / bbls Known Volume (to be entered by the operator at the end of the haul) _____ yd^3 / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, _____, representative or authorized agent for KINDER MORGAN do hereby
Generator Signature
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. ***Operator Use Only: Waste Acceptance Frequency*** ☐ ***Monthly*** ☐ ***Weekly*** ☐ ***Per Load***

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, _____, representative for KINDER MORGAN authorize JFJ/IEI to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, _____, representative for _____ do hereby certify that
Representative/Agent Signature
Representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

6.Transporter: RW TRUCKING

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: AQUA MOSS CROUCH MESA SWD #NM-01-009

Address of Facility: **# #345 CR350, AZTEC, NEW MEXICO, 87410**

Method of Treatment and/or Disposal:

☐ Evaporation ☒ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☐ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: _____ TITLE: Admin. Specialist DATE: _____

SIGNATURE: _____ TELEPHONE NO.: 505-632-1782
Surface Waste Management Facility Authorized Agent

SUNCO TRUCKING COMPANY
WATER AND OILFIELD HEAVY HAULING P.O. BOX 443, FARMINGTON, NM 87499 (505) 327-0416

RECEIVED
OIL CON. DIVISION
97 JAN 15 AM 8 [illegible]

Jan 9, 1997

Roger Anderson
Environmental Bureau Chief
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

Denny Foust
Deputy Oil & Gas Inspector
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

Dear Sirs:

Please find attached our Quarterly Injection Well Report for Sunco Disposal.
The following explanation is needed concerning Flow Rate and Annular Pressures.

On Flow Rates: The average was based on a 16 hour days / days in the month .
Also there were many days when there was no pump activity.

On Annular Pressures: The non-continuous injection pump activity severely effects the backside pressure. So the Averages are based on pressures indicated prior to injection.

The Injection Water Analysis is also provided . If you require additional information, please contact me at (505) 334-6186

Best Regards:

Michael Talovich
Disposal Manager
Sunco Trucking

cc: H. Stone

SUNCO DISPOSAL
P.O. BOX 443
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 1996	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN													
FEB													
MAR													
APR													
MAY													
JUN													
JUL													
AUG													
SEP													
OCT	2040	1800	1920	2788	0	1394	46,071	512,520	1,915,325	1200	0	600	0
NOV	2040	1800	1920	3810	0	1905	46,762	562,081	1,962,170	720	0	360	0
DEC	2040	1800	1920	2818	0	1825	56,562	618,670	2,019,090	540	0	270	6,480

CERTIFICATION Michael Jackson DATE 1-9-97

ANAITAS
ENVIRONMENTAL LABS

December 9, 1996

Mike Talovich
Sunco Trucking
708 S. Tucker Ave.
Farmington, NM 87401

Dear Mr. Talovich:

Enclosed are the analytical results for the water sample received at Anaitas, Inc. on November 9, 1996. The sample was analyzed for BTEX, Halogenated Volatile Organic Compounds, RCRA Metals, and General Water Quality, as requested.

Tests were conducted in accordance with Standard Methods For The Examination Of Water And Wastewater Analysis, 18th edition and the "EPA 600 Series For The Examination Of Water and Wastes," as amended. The analysis for halogenated organics was subcontracted to Evergreen Analytical Laboratory.

If you have any questions or comments concerning any information in this report, please contact me at your convenience.

Sincerely,

Dr. Denise A. Bohemier
Lab Manager

807 SOUTH CARLTON • FARMINGTON, NM 87401• (505) 326-2395 PH • 326-2486 FAX

ANAITAS ENVIRONMENTAL LABS

PURGEABLE AROMATICS

Sunco Disposal

Project ID:	Injection Well	Report Date:	11/19/96
Sample ID:	Injection Well #1	Date Sampled:	11/07/96
Lab ID:	5584	Date Received:	11/07/96
Sample Matrix:	Water	Date Analyzed:	11/12/96
Preservative:	Cool, HCl		
Condition:	Intact		

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	43.2	5.00
Toluene	123	5.00
Ethylbenzene	8.70	5.00
m,p-Xylenes	182	10.0
o-Xylene	61.8	5.00

Total BTEX	**419**

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	103	88 - 110%
Bromofluorobenzene	106	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments: Discharge side of pump.

Analyst

Review

Purgeable Aromatics

Matrix Spike Analysis

Lab ID:	5584Spk	Report Date:	11/19/96
Sample Matrix:	Water	Date Sampled:	11/07/96
Preservative:	Cool, HCl	Date Received:	11/07/96
Condition:	Intact	Date Analyzed:	11/12/96

Target Analyte	Spike Added (ug/L)	Original Conc. (ug/L)	Spiked Sample Conc. (ug/L)	% Recovery	Acceptance Limits (%)
Benzene	100	43.2	136	93%	39 -150
Toluene	100	123	214	91%	46 - 148
Ethylbenzene	100	8.70	108	100%	32 - 160
m,p-Xylenes	200	182	374	96%	NE
o-Xylene	100	61.8	157	95%	NE

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Spike acceptance range not established by the EPA.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	100	88 - 110%
Bromofluorobenzene	106	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Purgeable Aromatics

Duplicate Analysis

Lab ID:	5584Dup	Report Date:	11/19/96
Sample Matrix:	Water	Date Sampled:	11/07/96
Preservative:	Cool, HCl	Date Received:	11/07/96
Condition:	Intact	Date Analyzed:	11/12/96

Target Analyte	Original Conc. (ug/L)	Duplicate Conc. (ug/L)	Acceptance Range (ug/L)
Benzene	43.2	45.1	35.0 - 53.3
Toluene	123	129	102 - 150
Ethylbenzene	ND	ND	NA
m,p-Xylenes	182	186	NE
o-Xylene	61.8	62.6	NE

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Duplicate acceptance range not established by the EPA.

	Surrogate	Percent Recovery	Acceptance Limits
Quality Control:	Trifluorotoluene	103	88 - 110%
	Bromofluorobenzene	99	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

ANAITAS ENVIRONMENTAL LABS

Chlorinated Volatile Organic Compounds

EPA Method 8010

Sunco Disposal

Project ID:	Injection Well #1	Report Date:	12/09/96
Sample ID:	NA	Date Sampled:	11/07/96
Lab ID:	5584	Date Received:	11/07/96
Sample Matrix:	Water	Date Analyzed:	11/15/96
Preservative:	Cool, HCl		

Analyte	Concentration (µg/L)	Detection Limit (µg/L)
Bromodichloromethane	ND	0.40
Bromoform	ND	0.40
Bromomethane	ND	0.40
Carbon Tetrachloride	ND	0.40
Chlorobenzene	ND	0.40
Chloroethane	ND	0.40
2-Chloroethyl vinyl ether	ND	0.40
Chloroform	ND	0.40
Chloromethane	ND	0.40
Dibromochloromethane	ND	0.40
1,2-Dichlorobenzene	ND	0.40
1,3-Dichlorobenzene	ND	0.40
1,4-Dichlorobenzene	ND	0.40
Dichlorodifluoromethane	ND	0.40
1,1-Dichloroethane	ND	0.40
1,2-Dichloroethane	ND	0.20
1,1-Dichloroethene	ND	0.40
trans-1,2-Dichloroethene	ND	0.40
Dichloromethane	ND	0.40
1,2-Dichloropropane	ND	0.40
cis-1,3-Dichloropropene	ND	0.20
trans-1,3-Dichloropropene	ND	0.20
Tetrachoroethene	ND	0.20
1,1,2,2-Tetrachloroethane	ND	0.50
1,1,1-Trichloroethane	ND	0.20
1,1,2-Trichloroethane	ND	0.20
Trichloroethene	ND	0.20
Trichlorofluoromethane	ND	0.40
Vinyl Chloride	ND	0.40

Surrogate Recovery (1-Chloro-2-fluorobenzene): 107% 70% - 130% (QC Limits)

Review

ANAITAS ENVIRONMENTAL LABS

General Water Quality
Sunco Disposal

Project ID:	Injection Well	Date Reported:	11/20/96
Sample ID:	Injection Well #1	Date Sampled:	11/07/96
Laboratory ID:	5584	Time Sampled:	10:30
Sample Matrix:	Water	Date Received:	11/07/96

Parameter		Analytical Result	Units
General	Lab pH	8.2	s.u.
	Lab Conductivity @ 25° C	26,600	µmhos/cm
	Total Dissolved Solids @ 180°C	17,500	mg/L
	Total Dissolved Solids (Calc)	15,800	mg/L
Anions	Total Alkalinity as $CaCO_3$	2,300	mg/L
	Bicarbonate Alkalinity as $CaCO_3$	2,300	mg/L
	Carbonate Alkalinity as $CaCO_3$	NA	mg/L
	Hydroxide Alkalinity as $CaCO_3$	NA	mg/L
	Chloride	7,220	mg/L
	Sulfate	502	mg/L
	Nitrate + Nitrite - N	NA	
	Nitrate - N	NA	
	Nitrite - N	NA	
Cations	Total Hardness as $CaCO_3$	522	mg/L
	Calcium	130	mg/L
	Magnesium	48.4	mg/L
	Potassium	380	mg/L
	Sodium	6,100	mg/L

Data Validation			Acceptance Level
	Cation/Anion Difference	4.64	+/- 5 %
	TDS (180):TDS (calculated)	1.1	1.0 - 1.2

Reference U.S.E.P.A. 600/4-79-020, Methods for Chemical Analysis of Water and Wastes, 1983. Standard Methods For The Examination Of Water And Wastewater, 18th ed., 1992.

Review

ANAITAS ENVIRONMENTAL LABS

TCLP Metals Analysis

Sunco Disposal

Project ID:	Injection Well #1	Date Reported:	12/09/96
Sample ID:	NA	Date Sampled:	11/07/96
Laboratory ID:	5584	Date Received:	11/07/96
Sample Matrix:	Water	Date Digested:	11/14/96

Parameter		Analytical Result (mg/L)	Regulatory Limit (mg/L)
Trace Metals			
	Arsenic	< 0.002	5.0
	Barium	4.33	100
	Cadmium	0.06	1.0
	Chromium	0.62	5.0
	Lead	0.50	5.0
	Mercury	< 0.001	0.2
	Selenium	< 0.05	1.0
	Silver	0.10	5.0
General	Percent Solids	0	%

Reference: Method 1311: Toxicity Characteristic Leaching Procedure; Method 7000: Mehods for Determination of Metals; Test Methods for Evaluating Solid Wates, SW-846, United States Environmental Protection Agency, Final Update I, July, 1992.

Review

General Water Quality
Quality Control Report

Sunco Disposal

Report Date: 11/20/96

Parameter	Analytical Result	Certified Value	Acceptance Range	Units
Laboratory pH	9.13	9.08	8.88 - 9.28	s.u.
Conductivity	1152	1280	1000 - 1470	µmhos/cm
Total Dissolved Solids	950	959	834 - 1080	mg/L
Total Alkalinity	216	209	186 - 232	mg/L
Chloride	95.0	95.0	88.4 - 102	mg/L
Sulfate	140	149	128 - 170	mg/L
Total Hardness	219	208	179 - 237	mg/L
Calcium	63.8	60.3	51.9 - 68.7	mg/L
Magnesium	NA	NA	NA	mg/L
Potassium	130	146	124 - 168	mg/L
Sodium	160	158	134 - 182	mg/L

Reference: U.S.E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination Of Water And Wastewater, 18th ed., 1992.

Comments:

Review

PURGEABLE AROMATICS

Quality Control Report

Method Blank Analysis

Sample hydrocarbon: Water
Lab ID: MB35381

Report Date: 11/19/96
Date Analyzed: 11/12/96

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	98	88 - 110%
Bromofluorobenzene	92	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Quality Control Report

Sunco Disposal

Date Reported: 12/09/96

Target Analyte	QC Sample ID	Concentration (µg/L)	Certified Concentration (µg/L)	Acceptance Limits
Arsenic	Spex 19	8.63	10.0	8.50 - 11.5
Barium	Spex 7	875	1000	850 - 1150
Cadmium	ERA 9966	137	145	119 - 171
Chromium	Spex 19	5.43	5.00	4.25 - 5.75
Lead	ERA 9966	388	395	374 - 466
Mercury	EMS	5.36	5.00	4.50 - 5.50
Selenium	Spex 19	9.86	10.0	8.50 - 11.5
Silver	ERA 9966	137	153	125 - 181

Reference: Method 1311: Toxicity Characteristic Leaching Procedure; Method 7000: Mehods for Determination of Metals; Test Methods for Evaluating Solid Wates, SW-846, United States Environmental Protection Agency, Final Update I, July, 1992.

Review

#1 In Service
SUNCO TRUCKING
BIG A WELL SERVICE

P.O. Drawer 3337, 700 S. Tucker, Farmington, New Mexico 87499
(505) 327-4961 • **24-Hour Dispatch (505) 325-6892** • (505) 327-0416

RECEIVED
APR 14 1997
OIL CONSERVATION DIVISION

April 9, 1997

Roger Anderson
Environmental Bureau Chief
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

Denny Foust
Deputy Oil & Gas Inspector
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

Dear Sirs:

Please find attached our Quarterly Injection Well Report for Sunco Disposal.
The following explanation is needed concerning Flow Rate and Annular Pressures.

On Flow Rates: The average was based on a 16 hour days / days in the month .
Also there were many days when there was no pump activity.

On Annular Pressures: The non-continuous injection pump activity severely effects the backside pressure. So the Averages are based on pressures indicated prior to injection.

The Injection Water Analysis is also provided . If you require additional information, please contact me at (505) 334-6186

Best Regards:

Michael Talovich
Disposal Manager
Sunco Trucking

cc: H. Stone

SUNCO DISPOSAL
P.O. BOX 443
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 1997	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2040	1800	1920	3,869	1,121	2,318	71,882	71,882	2,090,972	360	0	270	1,440
FEB	1980	1800	1920	2,687	0	1,927	53,978	125,860	2,144,950	540	0	270	48
MAR	1980	1800	1920	3,194	977	2,008	62,270	188,130	2,207,220	480	0	240	240
APR													
MAY													
JUN													
JUL													
AUG													
SEP													

CERTIFICATION Michael Wade DATE 4-9-97

ANAITAS
ENVIRONMENTAL LABS

April 3, 1997

Mike Talovich
Sunco Trucking
PO Box 3235
Farmington, NM 87499

Dear Mr. Talovich,

Enclosed are the analytical results for the sample received at Anaitas Environmental Lab, on March 7, 1996. The sample was analyzed according to your parameter list.

Tests were conducted in accordance with Standard Methods For The Examination Of Water And Wastewater Analysis, 18th ed. and the "EPA 600 Series For The Examination Of Water and Wastes," as amended.

If you have any questions or comments concerning any information in this report, please contact me at your convenience.

Sincerely,

Dr. Denise A. Bohemier
Lab Manager

807 SOUTH CARLTON • FARMINGTON, NM 87401 • (505) 326-2395 PH • 326-2486 FAX

ANAITAS ENVIRONMENTAL LABS

CHAIN OF CUSTODY

Page _____ of _____.

807 S. CARLTON • FARMINGTON, NM 87401 • (505) 326-2395

PROJECT MANAGER: _____
Analytica Lab I.D.: _____

Company: Sunco
Address: _____

Phone: _____
Fax: _____

Bill To: _____
Company: _____
Address: _____

Sample ID	Date	Time	Matrix	Lab ID	ORGANIC ANALYSES: BTEX 8010	WATER ANALYSES: GEN H2O QUALITY	METALS: RCRA 14	COMMENTS
INJ WELL	3/7/97	10:00	H2O		X	X	X	

Project Information	Sample Receipt
Proj. #:	No. Containers: 5
Proj. Name:	Custody Seals: Y / N / NA
P. O. No:	Received Intact: Y
Shipped Via:	Received Cold: Y

Required Turnaround Time (Prior Authorization Required for Rush)

Sampled By:	Relinquished By:	Relinquished By:
Signature: Michael Taylor Date:	Signature: Date:	Signature: Date:
Company: Time:	Company: Time:	Company: Time:
Received By:	**Received By:**	**Received By:**
Signature: Date:	Signature: Date:	Signature: Date: 2-7-97
Company: Time:	Company: Time:	Company: Time: Anitas 10:10

Please Fill Out Thoroughly.

Shaded areas for lab use only.

White/Yellow: Analytica
Pink: Client

ANAITAS ENVIRONMENTAL LABS

PURGEABLE AROMATICS

Sunco Disposal, Inc.

Project ID:	Injection Well	Report Date:	03/19/97
Sample ID:	Inj Well #1	Date Sampled:	03/07/97
Lab ID:	6355	Date Received:	03/07/97
Sample Matrix:	Water	Date Analyzed:	03/14/97
Preservative:	Cool		
Condition:	Intact		

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	184	50.0
Toluene	1,030	50.0
Ethylbenzene	273	50.0
m,p-Xylenes	2,640	100
o-Xylene	848	50.0
Total BTEX	**4,970**	

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	108	88 - 110%
Bromofluorobenzene	111	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

ANAITAS ENVIRONMENTAL LABS

General Water Quality

Sunco Disposal, Inc.

Project ID:	Injection Well	Date Reported:	04/03/97
Sample ID:	Inj Well #1	Date Sampled:	03/07/97
Laboratory ID:	6355	Time Sampled:	10:00
Sample Matrix:	Water	Date Received:	03/07/97

Parameter		Analytical Result	Units
General	Lab pH	7.1	s.u.
	Lab Conductivity @ 25° C	30,600	µmhos/cm
	Total Dissolved Solids @ 180°C	19,300	mg/L
	Total Dissolved Solids (Calc)	17,100	mg/L
Anions	Total Alkalinity as $CaCO_3$	2,700	mg/L
	Bicarbonate Alkalinity as $CaCO_3$	2,700	mg/L
	Carbonate Alkalinity as $CaCO_3$	NA	mg/L
	Hydroxide Alkalinity as $CaCO_3$	NA	mg/L
	Chloride	8,400	mg/L
	Sulfate	< 10	mg/L
	Nitrate + Nitrite - N	NA	
	Nitrate - N	NA	
	Nitrite - N	NA	
Cations	Total Hardness as $CaCO_3$	520	mg/L
	Calcium	88.2	mg/L
	Magnesium	72.9	mg/L
	Potassium	330	mg/L
	Sodium	6,600	mg/L

Data Validation			Acceptance Level
	Cation/Anion Difference	2.51	+/- 5 %
	TDS (180):TDS (calculated)	1.1	1.0 - 1.2

Reference U.S.E.P.A. 600/4-79-020, Methods for Chemical Analysis of Water and Wastes, 1983.
Standard Methods For The Examination Of Water And Wastewater, 18th ed., 1992.



Review

ANAITAS ENVIRONMENTAL LABS

TCLP Metals Analysis

Sunco Disposal

Project ID:	Injection Well	Date Reported:	04/01/97
Sample ID:	Inj Well #1	Date Sampled:	03/07/97
Laboratory ID:	6355	Date Received:	03/07/97
Sample Matrix:	Water	Date TCLP:	03/10/97

Parameter		Analytical Result (mg/L)	Regulatory Limit (mg/L)
Trace Metals			
	Arsenic	0.006	5.0
	Barium	15.4	100
	Cadmium	0.07	1.0
	Chromium	0.61	5.0
	Lead	0.79	5.0
	Mercury	< 0.001	0.2
	Selenium	< 0.05	1.0
	Silver	< 0.05	5.0
General	Percent Solids	0	%

Reference: Method 1311: Toxicity Characteristic Leaching Procedure; Method 7000: Methods for Determination of Metals; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Final Update I, July, 1992.

Review

ANAITAS ENVIRONMENTAL LABS

Chlorinated Volatile Organic Compounds

EPA Method 8010

Sunco Disposal

Project ID:	Injection Well	Report Date:	04/03/97
Sample ID:	Inj. Well #1	Date Sampled:	03/07/97
Lab ID:	6355	Date Received:	03/07/97
Sample Matrix:	Water	Date Analyzed:	03/14/97
Preservative:	Cool		

Analyte	Concentration (µg/L)	Detection Limit (µg/L)
Bromodichloromethane	ND	0.40
Bromoform	ND	0.40
Bromomethane	ND	0.40
Carbon Tetrachloride	ND	0.40
Chlorobenzene	ND	0.42
Chloroethane	ND	0.40
2-Chloroethyl vinyl ether	ND	0.40
Chloroform	2.2	0.40
Chloromethane	6.2	0.40
Dibromochloromethane	ND	0.40
1,2-Dichlorobenzene	ND	0.40
1,3-Dichlorobenzene	ND	0.40
1,4-Dichlorobenzene	ND	0.40
Dichlorodifluoromethane	ND	0.40
1,1-Dichloroethane	ND	0.40
1,2-Dichloroethane	ND	0.20
1,1-Dichloroethene	ND	0.40
trans-1,2-Dichloroethene	ND	0.40
Dichloromethane	ND	0.40
1,2-Dichloropropane	ND	0.40
cis-1,3-Dichloropropene	ND	0.20
trans-1,3-Dichloropropene	ND	0.20
Tetrachloroethene	ND	0.20
1,1,2,2-Tetrachloroethane	ND	0.54
1,1,1-Trichloroethane	ND	0.20
1,1,2-Trichloroethane	ND	0.20
Trichloroethene	ND	0.20
Trichlorofluoromethane	ND	0.40
Vinyl Chloride	ND	0.40

Surrogate Recovery (1-Chloro-2-fluorobenzene): 87% 70% - 130% (QC Limits)

Review

PURGEABLE AROMATICS

Quality Control Report

Method Blank Analysis

Sample Matrix:	Water	Report Date:	03/19/97
Lab ID:	MB35503	Date Analyzed:	03/14/97

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	104	88 - 110%
Bromofluorobenzene	92	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Purgeable Aromatics

Matrix Spike Analysis

Lab ID:	6374Spk	Report Date:	03/19/97
Sample Matrix:	Water	Date Sampled:	03/11/97
Preservative:	Cool	Date Received:	03/11/97
Condition:	Intact	Date Analyzed:	03/14/97

Target Analyte	Spike Added (ug/L)	Original Conc. (ug/L)	Spiked Sample Conc. (ug/L)	% Recovery	Acceptance Limits (%)
Benzene	10	ND	10.5	104%	39 -150
Toluene	10	ND	10.4	101%	46 - 148
Ethylbenzene	10	ND	10.5	105%	32 - 160
m,p-Xylenes	20	ND	20.9	102%	NE
o-Xylene	10	ND	10.6	105%	NE

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Spike acceptance range not established by the EPA.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	107	88 - 110%
Bromofluorobenzene	106	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Purgeable Aromatics

Duplicate Analysis

Lab ID:	6355Dup	Report Date:	03/19/97
Sample Matrix:	Water	Date Sampled:	03/07/97
Preservative:	Cool	Date Received:	03/07/97
Condition:	Intact	Date Analyzed:	03/14/97

Target Analyte	Original Conc. (ug/L)	Duplicate Conc. (ug/L)	Acceptance Range (ug/L)
Benzene	184	188	151 - 221
Toluene	1,030	1,030	846 - 1,220
Ethylbenzene	273	278	181 - 370
m,p-Xylenes	2,640	2,650	NE
o-Xylene	848	820	NE

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Duplicate acceptance range not established by the EPA.

	Surrogate	Percent Recovery	Acceptance Limits
Quality Control:	Trifluorotoluene	97	88 - 110%
	Bromofluorobenzene	99	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

General Water Quality
Quality Control Report

Sunco Disposal, Inc.

Report Date: 04/03/97

Parameter	Analytical Result	Certified Value	Acceptance Range	Units
Laboratory pH	9.19	9.08	8.88 - 9.28	s.u.
Conductivity	1166	1280	1000 - 1470	µmhos/cm
Total Dissolved Soli	980	959	834 - 1080	mg/L
Total Alkalinity	225	209	186 - 232	mg/L
Chloride	95.0	95.0	88.4 - 102	mg/L
Sulfate	156	149	128 - 170	mg/L
Total Hardness	280	278	239 - 317	mg/L
Calcium	64.1	60.6	52.1 - 69.1	mg/L
Magnesium	NA	NA	NA	mg/L
Potassium	140	146	124 - 164	mg/L
Sodium	150	158	134 - 182	mg/L

Reference: U.S.E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination Of Water And Wastewater, 18th ed., 1992.

Comments:

Review

Quality Control Report

Sunco Disposal

Date Reported: 04/01/97

Target Analyte	QC Sample ID	Concentration (µg/L)	Certified Concentration (µg/L)	Acceptance Limits
Arsenic	ERA 9969	86.8	82.4	61.8 - 97.2
Barium	Spex 7	9.23	10.0	9.00 - 11.0
Cadmium	WP35C2	349	401	349 - 454
Chromium	WP35C2	883	880	767 - 985
Lead	ERA 9969	408	476	390 - 562
Mercury	ERA 9973	11.2	12.9	9.68 - 16.1
Selenium	ERA 9969	117	106	79.5 - 125
Silver	WP35C4	305	340	298 - 391

Reference: Method 1311: Toxicity Characteristic Leaching Procedure; Method 7000: Mehods for Determination of Metals; Test Methods for Evaluating Solid Wates, SW-846, United States Environmental Protection Agency, Final Update I, July, 1992.

Review

#1 In Service
SUNCO TRUCKING
BIG A WELL SERVICE

P.O. Drawer 3337, 700 S. Tucker, Farmington, New Mexico 87499
(505) 327-4961 • **24-Hour Dispatch (505) 325-6892** • (505) 327-0416

RECEIVED
NOV 17 1997

November 10, 1997

Roger Anderson
Environmental Bureau Chief
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

Denny Foust
Deputy Oil & Gas Inspector
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

Dear Sirs:

Please find attached our Quarterly Injection Well Report for Sunco Disposal.
The following explanation is needed concerning Flow Rate and Annular Pressures.

On Flow Rates: The average was based on a 16 hour days / days in the month .
Also there were many days when there was no pump activity.

On Annular Pressures: The noncontinuous injection pump activity had severely effected the backside pressures . So on a letter dated March 20,1997 NMOCD granted Sunco a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarters report.

For this quarters analysis we ran the Volatile Organic twice this is why you are receiving this Report late.

If you require additional information,
please contact me at (505) 334-6186

Best Regards:

Michael Talovich
Disposal Manager
Sunco Trucking

cc: H. Stone

Inter·Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

Michael Talovich
Sunco Trucking
708 S. Tucker
Farmington, NM 87401

7 October 1997

Mr. Talovich:

Enclosed, please find the reports for the samples received by our laboratory for analysis on September 9, 1997.

I apologize for the delay in receiving your results and any inconveniences it may have caused.

If you have any questions about the results of these analyses, please don't hesitate to call me at your convenience.

Sincerely,

Sharon Williams
Organics Lab Supervisor

Enclosures
xc: File

Inter-Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

Sunco Trucking

Case Narrative

On September 9, 1997, five samples were submitted to Inter-Mountain Laboratories - Farmington for analysis.The samples were identified by project "Disposal Plant". The samples were analyzed for the parameters indicated on the accompanying Chain of Custody document # 50111.

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analyses of the samples reported herein are found in Test Methods For Evaluation of Solid Waste, SW-846, USEPA, 1986, and Methods For Chemical Analysis of Water and Wastes, EPA-600/4-79-020, USEPA, 1983.

Quality control reports appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this package, please feel free to call at your convenience.

Sincerely,

Sharon Williams
Organic Lab Supervisor

imi
Inter- Mountain
Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSES / PARAMETERS
SUNCO TRUCKING	DISPOSAL PLANT	

Sampler: (Signature)	Chain of Custody Tape No.
Michael Talovich MICHAEL TALOVICH	

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	See attached				Remarks
INJECTION PUMP	9-9-97	9:30AM		H_2O	5	✓				
										One VOA is broken
										cool + intact

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Michael Talovich	9-9-97	10:40AM	Chris Raynes	9-9-97	1040
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)	Date	Time

Inter-Mountain Laboratories, Inc.

1633 Terra Avenue
Sheridan, Wyoming 82801
Telephone (307) 672-8945

1701 Phillips Circle
Gillette, Wyoming 82716
Telephone (307) 682-8945

2506 West Main Street
Farmington, NM 87401
Telephone (505) 326-4737

1160 Research Drive
Bozeman, Montana 59718
Telephone (406) 586-8450

Route 3, Box 256
College Station, TX 77845
Telephone (409) 776-8945

01-50111

Inter·Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

Client: Sunco Trucking
Project: Disposal Plant
Sample ID: Injection Pump
Lab ID: 0397G01949
Matrix: Water
Condition: Cool/Intact

Date Received: 09/09/97
Date Reported: 10/07/97
Date Sampled: 09/09/97
Time Sampled: 0930

Parameter	Analytical Result	Units		Units	PQL	Method	Analysis Date	Time	Init.
General Parameters									
PH	7.7	s.u.			0.1	EPA 150.1	09/09/97	1600	AP
Electrical Conductivity	26,800	µmhos/cm			10	EPA 120.1	09/09/97	1600	AP
Solids - Total Dissolved	22,952	mg/L			10	EPA 160.1	10/06/97	1415	AP
Solids - Total Dissolved	17,644				N/A	N/A	09/09/97	1600	BJ
Solids-Total	17	mg/L			10	N/A	09/09/97	1600	BJ
Alkalinity (CaCO3)	1,839	mg/L			1	EPA 310.1	09/19/97	0845	AP
Hardness (CaCO3)	534	mg/L			0.2	Calculation			
Major Anions									
Bicarbonate (HCO3)	2,244	mg/L	37	meq/L	1	EPA 310.1	09/19/97	0845	AP
Carbonate (CO3)	<1	mg/L	<0.01	meq/L	1	EPA 310.1	09/19/97	0845	AP
Hydroxide (OH)	<1	mg/L	<0.01	meq/L	1	EPA 310.1	09/19/97	084	AP
Chloride	8,716.5	mg/L	245.9	meq/L	1	EPA 300.0	09/12/97	0900	AP
Nitrogen - Nitrate/Nitrit	55.7	mg/L	2.1	meq/L	0.05	EPA 353.2	09/10/97	0830	AP
Sulfate	520.0	mg/L	10.8	meq/L	5	EPA 300.0	09/12/97	0900	AP
Major Cations									
Calcium	143.34	mg/L	7.15	meq/L	0.2	EPA 200.7	09/26/97	1731	ST
Magnesium	42.81	mg/L	3.52	meq/L	0.2	EPA 200.7	09/26/97	1731	ST
Potassium	593.57	mg/L	15.18	meq/L	0.2	EPA 200.7	09/26/97	1731	ST
Sodium	6,524.55	mg/L	283.82	meq/L	0.2	EPA 200.7	09/26/97	1731	ST
Cation / Anion Balance QC Information									
Anion Sum	293	meq/L			0.01	Calculation			
Cation Sum	310	meq/L			0.01	Calculation			
Cation/Anion Balance	3	percent			0.01	Calculation			
Total Metals									
Arsenic	<0.005	mg/L			0.005	EPA 206.3	10/02/97	1635	AL
Barium	6.24	mg/L			0.01	EPA 200.7	09/23/97	1200	MS
Cadmium	0.012	mg/L			0.004	EPA 200.7	09/24/97	1200	MS
Chromium	0.03	mg/L			0.01	EPA 200.7	09/24/97	1200	MS
Lead	<0.05	mg/L			0.05	EPA 239.2	09/24/97	1200	MS
Mercury	<0.001	mg/L			0.001	EPA 245.1	10/03/97		AP
Selenium	<0.005	mg/L			0.005	EPA 270.3	09/30/97	1200	AL
Silver	0.02	mg/L			0.01	EPA 200.7	09/29/97	1200	MS

Reference: EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.

Reviewed By: _____

Wes Harvey, Laboratory Manager

Inter·Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL CONCENTRATION

Client:	**Sunco Trucking**		
Project:	Disposal Plant	Date Reported:	10/07/97
Sample ID:	Injection Pump	Date Sampled:	09/09/97
Laboratory ID:	0397G01949	Date Received:	09/09/97
Sample Matrix:	Water	Date Analyzed:	10/02/97

Parameter	Result	Detection Limit	Regulatory Level	Units
Arsenic	<0.005	0.005	5	mg/L
Barium	6.24	0.01	100	mg/L
Cadmium	0.012	0.004	1	mg/L
Chromium	0.03	0.01	5	mg/L
Lead	<0.05	0.05	5	mg/L
Mercury	<0.001	0.001	0.2	mg/L
Selenium	<0.005	0.005	1	mg/L
Silver	0.02	0.01	5	mg/L

ND- Analyte not detected at stated detection level.

References: Method 1311: Toxicity Characteristic Leaching Procedure, SW-846, Rev. 0, July 1992.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, Rev. 1, July 1992.

Comments:

Reported By: _____ Reviewed: _____

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

SUNCO TRUCKING

Project ID:	Disposal Plant	Report Date:	09/11/97
Sample ID:	Injection Pump	Date Sampled:	09/09/97
Lab ID:	0397G01949	Time Sampled:	9:30am
Sample Matrix:	Water	Date Received:	09/09/97
Condition:	Cool/Intact	Date Extracted:	NA
		Date Analyzed:	09/10/97

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	39.6	10.0
Toluene	114	10.0
Ethylbenzene	198	10.0
m,p-Xylenes	ND	10.0
o-Xylene	46.3	10.0

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	101%	70%-130%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc.

1160 Research Drive
Bozeman, Montana 59718

EPA METHOD 8240
VOLATILE ORGANIC COMPOUNDS

Client: **SUNCO TRUCKING**
Sample ID: Injection Pump
Project ID: Disposal Plant
Lab ID: B974734 0397G01949
Matrix: Water

Date Reported: 09/16/97
Date Sampled: 09/09/97
Date Received: 09/11/97
Date Extracted: 09/11/97
Date Analyzed: 09/11/97

Parameter	Result	PQL	Units
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
2-Butanone (MEK)	ND	20	ug/L
2-Hexanone	ND	5.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L
Acetone	1500	20	ug/L
Benzene	37	5.0	ug/L
Bromodichloromethane	6.9	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon Disulfide	ND	5.0	ug/L
Carbon Tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	11	5.0	ug/L
Chloromethane	ND	5.0	ug/L
cis-1,3-Dichloropropene	ND	5.0	ug/L
Dibromochloromethane	5.5	5.0	ug/L
Ethylbenzene	7.3	5.0	ug/L
m,p-Xylene	130	5.0	ug/L
Methylene chloride	ND	20	ug/L
o-Xylene	47	5.0	ug/L
Styrene	ND	5.0	ug/L
Tetrachloroethene (PCE)	ND	5.0	ug/L
Toluene	140	5.0	ug/L

Continued

Inter·Mountain Laboratories, Inc.

1160 Research Drive
Bozeman, Montana 59718

EPA METHOD 8240
VOLATILE ORGANIC COMPOUNDS

Client:	**SUNCO TRUCKING**		Date Reported:	09/16/97
Sample ID:	Injection Pump		Date Sampled:	09/09/97
Project ID:	Disposal Plant		Date Received:	09/11/97
Lab ID:	B974734	0397G01949	Date Extracted:	09/11/97
Matrix:	Water		Date Analyzed:	09/11/97

Parameter	Result	PQL	Units
Continued			
trans-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,3-Dichloropropene	ND	5.0	ug/L
Trichloroethene (TCE)	ND	5.0	ug/L
Vinyl Chloride	ND	5.0	ug/L
Xylenes (total)	180	5.0	ug/L

QUALITY CONTROL - Surrogate Recovery	%	QC Limits
1,2-Dichloroethane-d4	97	80 - 120
Bromofluorobenzene	100	86 - 115
Toluene-d8	102	88 - 110

ND - Not Detected at Practical Quantitation Level (PQL)

Reference: Method 8260A Gas Chromatography/Mass Spectrometry for Volatile Organics, Test Methods for Evaluating Solid Wastes, SW-846, Final Update II, United States Environmental Protection Agency, September 1994.

Analyst E.D. **Reviewed**

Inter·Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

QUALITY CONTROL/QUALITY ASSURANCE

VOLATILE AROMATIC HYDROCARBONS

KNOWN ANALYSIS

Client: **Sunco Trucking**
Project: Disposal Plant

Date Reported: 09/10/97
Date Analyzed: 09/10/97

Parameter	Found Result (ppb)	Known Result (ppb)	Percent Recovery	Acceptance Limits
Benzene	3.7	4.0	**92%**	70 - 130%
Toluene	4.0	4.0	**100%**	70 - 130%
Ethylbenzene	3.9	4.0	**99%**	70 - 130%
m+p - Xylene	7.5	8.0	**94%**	70 - 130%
o - Xylene	4.1	4.0	**102%**	70 - 130%

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Bromofluorobenzene	106%	75-125%

Reference: Method 5030, Purge and Trap; Method 602, Purgeable Aromatics; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, USEPA, October 1984.

Comments:

Analyst _____

Reviewed by _____

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

QUALITY CONTROL/QUALITY ASSURANCE

QUALITY CONTROL REPORT

METHOD BLANK ANALYSIS

Sample Matrix: Water
Lab ID: Method Blank

Report Date: 09/11/97
Date Analyzed: 09/10/97

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	ND	0.2
Toluene	ND	0.2
Ethylbenzene	ND	0.2
m,p-Xylenes	ND	0.2
o-Xylene	ND	0.2

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	102%	70-130%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

QUALITY CONTROL/QUALITY ASSURANCE
VOLATILE AROMATIC HYDROCARBONS

BLANK SPIKE ANALYSIS

Lab ID: Method Blank
Sample Matrix: Water
Condition: Cool/Intact

Report Date: 09/11/97
Date Analyzed: 09/10/97

Target Analyte	Blank Spike Concentration (ppb)	Method Blank Concentration (ppb)	Spike Added (ppb)	% Recovery	Acceptance Limits (%)
Benzene	18.68	ND	20.0	93%	70-130
Toluene	20.32	ND	20.0	102%	70-130
Ethylbenzene	20.13	ND	20.0	101%	70-130
m,p-Xylenes	37.99	ND	40.0	95%	70-130
o-Xylene	20.73	ND	20.0	104%	70-130

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	110%	70 -130%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

QUALITY CONTROL/QUALITY ASSURANCE
VOLATILE AROMATIC HYDROCARBONS

DUPLICATE ANALYSIS

Lab ID: 0397G01949
Sample Matrix: Water
Condition: Cool/Intact

Report Date: 09/11/97
Date Analyzed: 09/10/97

Target Analyte	Duplicate Concentration (ppb)	Original Concentration (ppb)	% Difference
Benzene	33.7	39.6	16.1
Toluene	113	114	0.9
Ethylbenzene	165	198	18.2
m,p-Xylenes	ND	ND	NA
o-Xylene	47.0	46.3	1.5

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	104%	70 -130%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Known Analysis

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

Client:	**Sunco Trucking**	Date Reported:	10/07/97
Project:	Disposal Plant	Date Analyzed:	10/02/97
Sample Matrix:	Water	Date Received:	09/09/97

Known Analysis

Parameter	Found Result	Known Result	Percent Recovery	Units
Arsenic	0.010	0.010	**99%**	mg/L
Barium	1.02	1.00	**102%**	mg/L
Cadmium	1.030	1.000	**103%**	mg/L
Chromium	1.04	1.00	**104%**	mg/L
Lead	1.04	1.00	**104%**	mg/L
Mercury	0.008	0.008	**96%**	mg/L
Selenium	0.010	0.010	**100%**	mg/L
Silver	0.45	0.50	**90%**	mg/L

References:

Method 1311: Toxicity Characteristic Leaching Procedure, SW-846, Rev. 0, July 1992.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, Rev. 1, July 1992.

Comments:

Reported by _____

Reviewed by _____

Inter·Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Spike Analysis / Blank Analysis

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

Client:	**Sunco Trucking**	Date Reported:	10/03/97
Project:	Disposal Plant	Date Analyzed:	10/02/97
Sample Matrix:	Water	Date Received:	09/09/97

Spike Analysis

Parameter	Spike Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery
Arsenic	0.020	<0.005	0.025	**80%***
Barium	7.27	6.24	1.00	**103%**
Cadmium	0.950	0.012	1.000	**94%**
Chromium	0.98	0.03	1.00	**95%**
Lead	1.07	<0.05	1.00	**107%**
Mercury	0.025	<0.001	0.025	**99%**
Selenium	0.022	<0.005	0.025	**88%**
Silver	0.62	0.02	1.00	**60%***

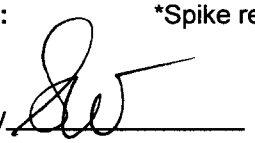
Method Blank Analysis

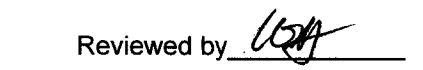
Parameter	Result	Detection Limit	Units
Arsenic	**ND**	0.005	mg/L
Barium	**ND**	0.01	mg/L
Cadmium	**ND**	0.004	mg/L
Chromium	**ND**	0.01	mg/L
Lead	**ND**	0.05	mg/L
Mercury	**ND**	0.001	mg/L
Selenium	**ND**	0.005	mg/L
Silver	**ND**	0.01	mg/L

References: Method 1311: Toxicity Characteristic Leaching Procedure, SW-846, Rev. 0, July 1992.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, Rev. 1, July 1992.

Comments: *Spike recoveries low due to matrix interferences.

Reported by 

Reviewed by 

Inter·Mountain Laboratories, Inc.

1160 Research Drive
Bozeman, Montana 59718

QUALITY ASSURANCE / QUALITY CONTROL

Inter·Mountain Laboratories, Inc.

1160 Research Drive
Bozeman, Montana 59718

LAB QA/QC
EPA METHOD 8240
METHOD BLANK

Date Analyzed: **09/11/97**
Lab ID: MBW97240
Matrix: Water
Date Extracted: 09/11/97

Parameter	Result	PQL	Units
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
2-Butanone (MEK)	ND	20	ug/L
2-Hexanone	ND	5.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L
Acetone	ND	20	ug/L
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon Disulfide	ND	5.0	ug/L
Carbon Tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
cis-1,3-Dichloropropene	ND	5.0	ug/L
Dibromochloromethane	ND	5.0	ug/L
Ethylbenzene	ND	5.0	ug/L
m,p-Xylene	ND	5.0	ug/L
Methylene chloride	ND	20	ug/L
o-Xylene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
Tetrachloroethene (PCE)	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,3-Dichloropropene	ND	5.0	ug/L
Trichloroethene (TCE)	ND	5.0	ug/L

Continued

Inter·Mountain Laboratories, Inc.

1160 Research Drive
Bozeman, Montana 59718

LAB QA/QC
EPA METHOD 8240
METHOD BLANK

Date Analyzed: **09/11/97**
Lab ID: MBW97240
Matrix: Water
Date Extracted: 09/11/97

Parameter	Result	PQL	Units
Continued			
Vinyl Chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

QUALITY CONTROL - Surrogate Recovery	%	QC Limits
1,2-Dichloroethane-d4	91	80 - 120
Bromofluorobenzene	89	86 - 115
Toluene-d8	98	88 - 110

ND - Not Detected at Practical Quantitation Level (PQL)

Analyst E.O. **Reviewed**

Inter·Mountain Laboratories, Inc.
1160 Research Drive
Bozeman, Montana 59718

LAB QA/QC
EPA METHOD 8240
BLANK SPIKE / BLANK SPIKE DUPLICATE SUMMARY

Date Analyzed: **09/11/97**
Lab ID: BSW97254
Matrix: Water
Date Extracted: 09/11/97

Original Sample Parameters

Parameter	Spike Added (ug/L)	Sample Result (ug/L)	Spike Result (ug/L)	BS Recovery %	QC Limits Rec.
1,1-Dichloroethene	50	0	48	96	75 - 145
Benzene	50	0	49	98	71 - 120
Chlorobenzene	50	0	50	100	76 - 127
Toluene	50	0	48	96	71 - 127
Trichloroethene (TCE)	50	0	52	104	75 - 130

Duplicate Sample Parameters

Parameter	Spike Added (ug/L)	BSD Result (ug/L)	BSD Recovery %	RPD %	QC Limits RPD	QC Limits Rec.
1,1-Dichloroethene	50	49	98	2	14	75 - 145
Benzene	50	51	102	4	14	71 - 120
Chlorobenzene	50	51	102	2	11	76 - 127
Toluene	50	50	100	4	13	71 - 127
Trichloroethene (TCE)	50	52	104	0	13	75 - 130

Note: Spike Recoveries are calculated using zero for Sample result if Sample result was less than PQL (Practical Quantitation Level).

Spike Recovery: 0 out of 10 outside QC limits.
RPD: 0 out of 5 outside QC limits.

Analyst E.O. **Reviewed**

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Michael Talovich
Sunco Trucking
708 S. Tucker
Farmington, NM 87401

7 November 1997

Mr. Talovich:

Enclosed please find the report for the sample received by our laboratory for analysis on October 21, 1997.

If you have any questions about the results of these analyses, please don't hesitate to call me at your convenience.

Sincerely,

Sharon Williams
Organics Lab Supervisor

Enclosures
xc: File

imi
Inter- Mountain
Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSES / PARAMETERS
SUNCO TRUCKING		
Sampler: (Signature)	**Chain of Custody Tape No.**	

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	8240				Remarks
SUNCO DISPOSAL	10-21-97	1300		WATER	2	✓				
										cool & intact

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
MICHAEL TALOVICH	10-21-97	1300	Billy Ragsdale	10-21-97	1300
Relinquished by: (Signature)	**Date**	**Time**	**Received by: (Signature)**	**Date**	**Time**
Relinquished by: (Signature)	**Date**	**Time**	**Received by laboratory: (Signature)**	**Date**	**Time**

Inter-Mountain Laboratories, Inc.

1633 Terra Avenue
Sheridan, Wyoming 82801
Telephone (307) 672-8945

1701 Phillips Circle
Gillette, Wyoming 82716
Telephone (307) 682-8945

2506 West Main Street
Farmington, NM 87401
Telephone (505) 326-4737

1160 Research Drive
Bozeman, Montana 59718
Telephone (406) 586-8450

Route 3, Box 256
College Station, TX 77845
Telephone (409) 776-8945

01-50586

Inter·Mountain Laboratories, Inc.

1160 Research Drive
Bozeman, Montana 59718

EPA METHOD 8240
VOLATILE ORGANIC COMPOUNDS

Client: **SUNCO TRUCKING**
Sample ID: SUNCO DISPOSAL
Project ID: Disposal Plant
Lab ID: B975266 G02473
Matrix: Water

Date Reported: 11/04/97
Date Sampled: 10/21/97
Date Received: 10/23/97
Date Extracted: 10/28/97
Date Analyzed: 10/28/97

Parameter	Result		PQL	Units
1,1,1-Trichloroethane	ND		5.0	ug/L
1,1,2,2-Tetrachloroethane	ND		5.0	ug/L
1,1,2-Trichloroethane	ND		5.0	ug/L
1,1-Dichloroethane	ND		5.0	ug/L
1,1-Dichloroethene	ND		5.0	ug/L
1,2-Dichloroethane	ND		5.0	ug/L
1,2-Dichloropropane	ND		5.0	ug/L
2-Butanone (MEK)	250		20	ug/L
2-Hexanone	ND		5.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND		5.0	ug/L
Acetone	3600	D1	20	ug/L
Benzene	91		5.0	ug/L
Bromodichloromethane	ND		5.0	ug/L
Bromoform	ND		5.0	ug/L
Bromomethane	ND		5.0	ug/L
Carbon Disulfide	47		5.0	ug/L
Carbon Tetrachloride	ND		5.0	ug/L
Chlorobenzene	ND		5.0	ug/L
Chloroethane	ND		5.0	ug/L
Chloroform	7.0		5.0	ug/L
Chloromethane	ND		5.0	ug/L
cis-1,3-Dichloropropene	ND		5.0	ug/L
Dibromochloromethane	ND		5.0	ug/L
Ethylbenzene	43		5.0	ug/L
m,p-Xylene	230		5.0	ug/L
Methylene chloride	ND		20	ug/L
o-Xylene	130		5.0	ug/L
Styrene	ND		5.0	ug/L
Tetrachloroethene (PCE)	ND		5.0	ug/L
Toluene	170	D1	5.0	ug/L

Continued

Inter·Mountain Laboratories, Inc.

1160 Research Drive
Bozeman, Montana 59718

EPA METHOD 8240
VOLATILE ORGANIC COMPOUNDS

Client: **SUNCO TRUCKING**
Sample ID: SUNCO DISPOSAL
Project ID: Disposal Plant
Lab ID: B975266 G02473
Matrix: Water

Date Reported: 11/04/97
Date Sampled: 10/21/97
Date Received: 10/23/97
Date Extracted: 10/28/97
Date Analyzed: 10/28/97

Parameter	Result	PQL	Units
Continued			
trans-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,3-Dichloropropene	ND	5.0	ug/L
Trichloroethene (TCE)	ND	5.0	ug/L
Vinyl Chloride	ND	5.0	ug/L
Xylenes (total)	360	5.0	ug/L

QUALITY CONTROL - Surrogate Recovery	%	QC Limits
1,2-Dichloroethane-d4	108	80 - 120
Bromofluorobenzene	106	86 - 115
Toluene-d8	99	88 - 110

ND - Not Detected at Practical Quantitation Level (PQL)
D1 - Dilution factor of 5 for quantitation.

Reference: Method 8260A Gas Chromatography/Mass Spectrometry for Volatile Organics, Test Methods for Evaluating Solid Wastes, SW-846, Final Update II, United States Environmental Protection Agency, September 1994.

Analyst E.D. **Reviewed** SK

Inter·Mountain Laboratories, Inc.

1160 Research Drive
Bozeman, Montana 59718

LAB QA/QC
EPA METHOD 8240
INSTRUMENT BLANK

Date Analyzed: **10/28/97**
Lab ID: IBW97301
Matrix: Water
Date Extracted: 10/28/97

Parameter	Result	PQL	Units
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon Tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
cis-1,3-Dichloropropene	ND	5.0	ug/L
Dibromochloromethane	ND	5.0	ug/L
Ethylbenzene	ND	5.0	ug/L
m,p-Xylene	ND	5.0	ug/L
Methylene chloride	ND	20	ug/L
o-Xylene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
Tetrachloroethene (PCE)	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,3-Dichloropropene	ND	5.0	ug/L
Trichloroethene (TCE)	ND	5.0	ug/L
Vinyl Chloride	ND	5.0	ug/L
2-Butanone (MEK)	ND	20	ug/L
Carbon Disulfide	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
2-Hexanone	ND	5.0	ug/L

Continued

Inter-Mountain Laboratories, Inc.

1160 Research Drive
Bozeman, Montana 59718

LAB QA/QC
EPA METHOD 8240
INSTRUMENT BLANK

Date Analyzed: **10/28/97**
Lab ID: IBW97301
Matrix: Water
Date Extracted: 10/28/97

Parameter	Result	PQL	Units
Continued			
4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L
Acetone	ND	20	ug/L

QUALITY CONTROL - Surrogate Recovery	%	QC Limits
Bromofluorobenzene	92	86 - 115
1,2-Dichloroethane-d4	101	80 - 120
Toluene-d8	100	88 - 110

ND - Not Detected at Practical Quantitation Level (PQL)

Analyst E.D.

Reviewed

Inter·Mountain Laboratories, Inc.

1160 Research Drive
Bozeman, Montana 59718

LAB QA/QC
EPA METHOD 8240
MATRIX SPIKE

Date Analyzed: **10/28/97**
Lab ID: 0597H05210 SK1 1-48617
Matrix: Water
Date Extracted: 10/28/97

Parameter	Spike Added (ug/L)	Sample Result (ug/L)	Spike Result (ug/L)	MS Recovery %	QC Limits Rec.
1,1-Dichloroethene	50	0	58	116	75 -145
Benzene	50	0	52	104	71 -120
Chlorobenzene	50	0	46	92	76 -127
Toluene	50	0	54	108	71 -127
Trichloroethene (TCE)	50	0	43	86	75 -130

QUALITY CONTROL - Surrogate Recovery	%	QC Limits
Bromofluorobenzene	88	86 -115
1,2-Dichloroethane-d4	99	80 -120
Toluene-d8	98	88 -110

Note: Spike Recoveries are calculated using zero for Sample result if Sample result was less than PQL (Practical Quantitation Level).

Spike Recovery: 0 out of 5 outside QC limits.

Analyst E.D.

Reviewed SK

Inter·Mountain Laboratories, Inc.

1160 Research Drive
Bozeman, Montana 59718

LAB QA/QC
EPA METHOD 8240
BLANK SPIKE / BLANK SPIKE DUPLICATE SUMMARY

Date Analyzed: **10/28/97**
Lab ID: BSW97301
Matrix: Water
Date Extracted: 10/28/97

Original Sample Parameters

Parameter	Spike Added (ug/L)	Sample Result (ug/L)	Spike Result (ug/L)	BS Recovery %	QC Limits Rec.
1,1-Dichloroethene	50	0	61	122	75 - 145
Benzene	50	0	56	112	71 - 120
Chlorobenzene	50	0	49	98	76 - 127
Toluene	50	0	58	116	71 - 127
Trichloroethene (TCE)	50	0	49	98	75 - 130

Duplicate Sample Parameters

Parameter	Spike Added (ug/L)	BSD Result (ug/L)	BSD Recovery %	RPD %	QC Limits RPD	QC Limits Rec.
1,1-Dichloroethene	50	62	124	2	14	75 - 145
Benzene	50	58	116	4	14	71 - 120
Chlorobenzene	50	50	100	2	11	76 - 127
Toluene	50	58	116	0	13	71 - 127
Trichloroethene (TCE)	50	56	112	13	13	75 - 130

Note: Spike Recoveries are calculated using zero for Sample result if Sample result was less than PQL (Practical Quantitation Level).

Spike Recovery: 0 out of 10 outside QC limits.
RPD: 0 out of 5 outside QC limits.

Analyst T.E.D. **Reviewed**

#1 In Service
SUNCO TRUCKING
BIG A WELL SERVICE

P.O. Drawer 3337, 700 S. Tucker, Farmington, New Mexico 87499
(505) 327-4961 • **24-Hour Dispatch (505) 325-6892** • (505) 327-0416

RECEIVED
JUL 18 1997
Environmental Bureau
Oil Conservation Division

July 16 , 1997

Roger Anderson
Environmental Bureau Chief
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

RECEIVED
JUL 18 1997
Environmental Bureau
Oil Conservation Division

Denny Foust
Deputy Oil & Gas Inspector
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

Dear Sirs:

Please find attached our Quarterly Injection Well Report for Sunco Disposal.
The following explanation is needed concerning Flow Rate and Annular Pressures.

On Flow Rates: The average was based on a 16 hour days / days in the month .
Also there were many days when there was no pump activity.

On Annular Pressures: The non-continuous injection pump activity had severely effected the backside pressures . So on a letter dated March 20,1997 NMOCD granted Sunco a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarters report.

The Injection Water Analysis is also provided . If you require additional information, please contact me at (505) 334-6186

Best Regards:

Michael Talovich
Disposal Manager
Sunco Trucking

cc: H. Stone

SUNCO DISPOSAL
P.O. BOX 443
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 1997	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2040	1800	1920	3,869	1,121	2,318	71,882	71,882	2,090,972	360	0	270	1,440
FEB	1980	1800	1920	2,687	0	1,927	53,978	125,860	2,144,950	540	0	270	48
MAR	1980	1800	1920	3,194	977	2,008	62,270	188,130	2,207,220	480	0	240	240
APR	1980	1800	1920	2805	0	1,768	53,047	241,177	2,260,267	540	0	0	320
MAY	1980	1800	1920	2757	0	1,863	57,777	298,954	2,318,044	0	0	0	0
JUN	1890	1740	1860	2465	0	1,119	33,579	332,533	2,351,623	0	0	0	160
JUL													
AUG													
SEP													

CERTIFICATION _____ DATE 7-16-97

ANAITAS
ENVIRONMENTAL LABS

July 9, 1997

Mike Talovich
Sunco Trucking
PO Box 3235
Farmington, NM 87499

Dear Mr. Talovich,

Enclosed are the analytical results for the samples received at Anaitas Environmental Lab, on June 6, 1997. The sample was analyzed for BTEX, RCRA Metals, General Water Quality, and Volatile Halocarbons as per the chain of custody.

BTEX analysis was performed on the sample according to EPA Method 602, using a Hewlett-Packard 5890 gas chromatograph equipped with an OI Analytical purge and trap (model 4560) and a photoionization detector. Detectable levels of btex analytes were found in the samples, as reported. Volatile halocarbon analysis was subcontracted.

Tests for general water quality parameters were conducted in accordance with Standard Methods For The Examination Of Water And Wastewater, 18th edition and the "EPA 600 Series For The Examination Of Water and Wastes."

Metals were analyzed according to Method 1311, Toxicity Characteristic Leaching Procedure and Method 7000, Methods for Determination of Metals as outlined in Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Final Update I, July, 1992.

If you have any questions or comments concerning any information in this report, please contact me at your convenience.

Sincerely,

Dr. Denise A. Bohemier
Lab Manager

807 SOUTH CARLTON • FARMINGTON, NM 87401• (505) 326-2395 PH • 326-2486 FAX

2194

ANAITAS ENVIRONMENTAL LABS

807 S. CARLTON • FARMINGTON, NM 87401 • (505) 326-2395

CHAIN OF CUSTODY

Page _____ of _____

PROJECT MANAGER: _____
Analytica Lab I.D.: _____

Company: Sunco
Address: _____

Phone: 334-6186
Fax: _____

Bill To: _____
Company: _____
Address: _____

Sample ID	Date	Time	Matrix	Lab ID	ORGANIC ANALYSES: BTEX 8010	WATER ANALYSES: Gen H2O	WATER ANALYSES: RCRA Metals	METALS	COMMENTS
Inj. Sunco Well									

Project Information	Sample Receipt
Proj. #: 3	No. Containers: 6
Proj. Name: Quarterly	Custody Seals: Y / N / NA
P. O. No:	Received Intact: Yes
Shipped Via: Hand	Received Cold: Yes

Required Turnaround Time (Prior Authorization Required for Rush)

Sampled By:	Relinquished By:	Relinquished By:
Signature: Michael [illegible] Date: 6-6-97	Signature: Michael [illegible] Date: 6-6-97	Signature: Date:
Company: SUNCO Time: 2:30pm	Company: SUNCO Time: 2:30pm	Company: Time:
Received By:	**Received By:**	**Received By:**
Signature: Date:	Signature: Date:	Signature: [illegible] Date: 6/6/97
Company: Time:	Company: Time:	Company: Time: 1430

Please Fill Out Thoroughly.

Shaded areas for lab use only.

White/Yellow: Analytica
Pink: Client

ANAITAS ENVIRONMENTAL LABS

PURGEABLE AROMATICS

Sunco Disposal, Inc.

Project ID:	Injection Well	Report Date:	06/11/97
Sample ID:	Injection Well #1	Date Sampled:	06/06/97
Lab ID:	7021	Date Received:	06/06/97
Sample Matrix:	Water	Date Analyzed:	06/10/97
Preservative:	Cool		
Condition:	Intact		

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	50.0
Toluene	64.6	50.0
Ethylbenzene	ND	50.0
m,p-Xylenes	171	100
o-Xylene	ND	50.0
Total BTEX	**235**	

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	94	88 - 110%
Bromofluorobenzene	101	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

ANAITAS ENVIRONMENTAL LABS

General Water Quality

Sunco Disposal, Inc.

Project ID:	Quarterly Monitoring	Date Reported:	07/09/97
Sample ID:	Injection Well	Date Sampled:	06/06/97
Laboratory ID:	7021	Time Sampled:	NA
Sample Matrix:	Water	Date Received:	06/06/97

Parameter		Analytical Result	Units
General	Lab pH	8.1	s.u.
	Lab Conductivity @ 25° C	34,700	µmhos/cm
	Total Dissolved Solids @ 180°C	23,300	mg/L
	Total Dissolved Solids (Calc)	22,200	mg/L
Anions	Total Alkalinity as $CaCO_3$	2,480	mg/L
	Bicarbonate Alkalinity as $CaCO_3$	2,480	mg/L
	Carbonate Alkalinity as $CaCO_3$	NA	mg/L
	Hydroxide Alkalinity as $CaCO_3$	NA	mg/L
	Chloride	11,300	mg/L
	Sulfate	490	mg/L
	Nitrate + Nitrite - N	NA	
	Nitrate - N	NA	
	Nitrite - N	NA	
Cations	Total Hardness as $CaCO_3$	480	mg/L
	Calcium	108	mg/L
	Magnesium	51.0	mg/L
	Potassium	520	mg/L
	Sodium	8,190	mg/L

Data Validation			Acceptance Level
	Cation/Anion Difference	0.01	+/- 5 %
	TDS (180):TDS (calculated)	1.1	1.0 - 1.2

Reference U.S.E.P.A. 600/4-79-020, Methods for Chemical Analysis of Water and Wastes, 1983.
Standard Methods For The Examination Of Water And Wastewater, 18th ed., 1992.

Review

ANAITAS ENVIRONMENTAL LABS

TCLP Metals Analysis

Sunco Disposal

Project ID:	Injection Well	Date Reported:	04/01/97
Sample ID:	Inj Well #1	Date Sampled:	06/06/97
Laboratory ID:	7021	Date Received:	06/06/97
Sample Matrix:	Water	Date TCLP:	06/12/97

Parameter		Analytical Result (mg/L)	Regulatory Limit (mg/L)
Trace Metals			
	Arsenic	0.006	5.0
	Barium	4.75	100
	Cadmium	0.06	1.0
	Chromium	< 0.05	5.0
	Lead	0.39	5.0
	Mercury	< 0.001	0.2
	Selenium	< 0.05	1.0
	Silver	< 0.05	5.0
General	Percent Solids	0	%

Reference: Method 1311: Toxicity Characteristic Leaching Procedure; Method 7000: Methods for Determination of Metals; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Final Update I, July, 1992.



Review

ANAITAS ENVIRONMENTAL LABS

Chlorinated Volatile Organic Compounds

EPA Method 8010

Sunco Disposal

Project ID:	Injection Well	Report Date:	07/09/97
Sample ID:	Inj. Well #1	Date Sampled:	06/06/97
Lab ID:	7021	Date Received:	06/06/97
Sample Matrix:	Water	Date Analyzed:	06/16/97
Preservative:	Cool, HCl		

Analyte	Concentration (µg/L)	Detection Limit (µg/L)
Bromodichloromethane	2.5	0.40
Bromoform	11	0.40
Bromomethane	ND	0.40
Carbon Tetrachloride	ND	0.40
Chlorobenzene	ND	0.42
Chloroethane	ND	0.40
2-Chloroethyl vinyl ether	ND	0.40
Chloroform	17.0	0.40
Chloromethane	3.4	0.40
Dibromochloromethane	7.9	0.40
1,2-Dichlorobenzene	ND	0.40
1,3-Dichlorobenzene	ND	0.40
1,4-Dichlorobenzene	ND	0.40
Dichlorodifluoromethane	ND	0.40
1,1-Dichloroethane	ND	0.40
1,2-Dichloroethane	ND	0.20
1,1-Dichloroethene	ND	0.40
trans-1,2-Dichloroethene	ND	0.40
Dichloromethane	1.6	0.40
1,2-Dichloropropane	ND	0.40
cis-1,3-Dichloropropene	ND	0.20
trans-1,3-Dichloropropene	ND	0.20
Tetrachloroethene	ND	0.20
1,1,2,2-Tetrachloroethane	ND	0.54
1,1,1-Trichloroethane	ND	0.20
1,1,2-Trichloroethane	ND	0.20
Trichloroethene	ND	0.20
Trichlorofluoromethane	ND	0.40
Vinyl Chloride	ND	0.40

Surrogate Recovery (1-Chloro-2-fluorobenzene): 107% 70% - 130% (QC Limits)

Review

PURGEABLE AROMATICS

Quality Control Report

Method Blank Analysis

Sample Matrix:	Water	Report Date:	06/11/97
Lab ID:	MB35591	Date Analyzed:	06/10/97

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	97	88 - 110%
Bromofluorobenzene	94	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Purgeable Aromatics

Matrix Spike Analysis

Lab ID:	6971Spk	Report Date:	06/11/97
Sample Matrix:	Water	Date Sampled:	05/29/97
Preservative:	Cool, HgCl2	Date Received:	05/29/97
Condition:	Intact	Date Analyzed:	06/10/97

Target Analyte	Spike Added (ug/L)	Original Conc. (ug/L)	Spiked Sample Conc. (ug/L)	% Recovery	Acceptance Limits (%)
Benzene	10	ND	9.06	91%	39 -150
Toluene	10	ND	9.36	94%	46 - 148
Ethylbenzene	10	ND	9.43	94%	32 - 160
m,p-Xylenes	20	ND	18.6	93%	NE
o-Xylene	10	ND	9.43	94%	NE

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Spike acceptance range not established by the EPA.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	90	88 - 110%
Bromofluorobenzene	93	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Purgeable Aromatics

Duplicate Analysis

Lab ID:	7021Dup	Report Date:	06/11/97
Sample Matrix:	Water	Date Sampled:	06/06/97
Preservative:	Cool	Date Received:	06/06/97
Condition:	Intact	Date Analyzed:	06/10/97

Target Analyte	Original Conc. (ug/L)	Duplicate Conc. (ug/L)	Acceptance Range (ug/L)
Benzene	ND	ND	NA
Toluene	64.6	58.3	49.4 - 73.5
Ethylbenzene	ND	ND	NA
m,p-Xylenes	171	165	NE
o-Xylene	ND	ND	NE

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Duplicate acceptance range not established by the EPA.

	Surrogate	Percent Recovery	Acceptance Limits
Quality Control:	Trifluorotoluene	98	88 - 110%
	Bromofluorobenzene	102	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

General Water Quality
Quality Control Report

Sunco Disposal, Inc.

Report Date: 07/09/97

Parameter	Analytical Result	Certified Value	Acceptance Range	Units
Laboratory pH	9.02	9.09	8.89 - 9.29	s.u.
Conductivity	1743	1770	1500 - 2040	µmhos/cm
Total Dissolved Solids	1280	1320	1150 - 1490	mg/L
Total Alkalinity	250	237	211 - 263	mg/L
Chloride	208	207	193 - 221	mg/L
Sulfate	216	220	189 - 251	mg/L
Total Hardness	275	278	239 - 317	mg/L
Calcium	156	151	130 - 172	mg/L
Magnesium	NA	NA	NA	mg/L
Potassium	190	193	164 - 222	mg/L
Sodium	173	158	134 - 182	mg/L

Reference: U.S.E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination Of Water And Wastewater, 18th ed., 1992.

Comments:

Review

Quality Control Report

Sunco Disposal

Date Reported: 07/09/97

Target Analyte	QC Sample ID	Concentration (µg/L)	Certified Concentration (µg/L)	Acceptance Limits
Arsenic	ERA 9973	47.6	52.9	39.7 - 62.4
Barium	WS038	2260	2002	1700 - 2300
Cadmium	WP35C2	351	401	349 - 454
Chromium	ERA 9973	286	271	222 - 320
Lead	ERA 9973	310	306	251 - 361
Mercury	WP037	0.461	0.494	0.266 - 0.729
Selenium	ERA 9973	215	203	152 - 240
Silver	ERA 9973	86.4	99.4	81.5 - 117

Reference: Method 1311: Toxicity Characteristic Leaching Procedure; Method 7000: Mehods for Determination of Metals; Test Methods for Evaluating Solid Wates, SW-846, United States Environmental Protection Agency, Final Update I, July, 1992.

Review

#1 In Service
SUNCO TRUCKING
BIGA WELL SERVICE

P.O. Drawer 3337, 700 S. Tucker, Farmington, New Mexico 87499
(505) 327-4961 • **24-Hour Dispatch (505) 325-6892** • (505) 327-0416

RECEIVED
JAN - 9 1998
OIL CONSERVATION DIVISION

January 8, 1998

Roger Anderson
Environmental Bureau Chief
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

Denny Foust
Deputy Oil & Gas Inspector
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

Dear Sirs:

Please find attached our Quarterly Injection Well Report for Sunco Disposal.
The following explanation is needed concerning Flow Rate and Annular Pressures.

On Flow Rates: The average was based on a 16 hour days / days in the month .
Also there were many days when there was no pump activity.

On Annular Pressures: The non-continuous injection pump activity had severely effected the backside pressures . So on a letter dated March 20,1997 NMOCD granted Sunco a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarters report.

The Injection Water Analysis is also provided . If you require additional information, please contact me at (505) 334-6186

Best Regards,

Michael Talovich
Disposal Manager
Sunco Trucking

cc: H. Stone

SUNCO DISPOSAL
P.O. BOX 443
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 1997	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2040	1800	1920	3,869	1,121	2,318	71,882	71,882	2,090,972	360	0	270	1,440
FEB	1980	1800	1920	2,687	0	1,927	53,978	125,860	2,144,950	540	0	270	48
MAR	1980	1800	1920	3,194	977	2,008	62,270	188,130	2,207,220	480	0	240	240
APR	1980	1800	1920	2805	0	1,768	53,047	241,177	2,260,267	540	0	0	320
MAY	1980	1800	1920	2757	0	1,863	57,777	298,954	2,318,044	0	0	0	0
JUN	1890	1740	1860	2465	0	1,119	33,579	332,533	2,351,623	0	0	0	160
JUL	1860	1740	1800	2720	0	1097	33,995	372,268	2,385,618	0	0	0	160
AUG	1920	1800	1860	2864	0	1559	48,315	420,583	2,433,933	0	0	0	1,120
SEP	1950	1800	1875	2881	0	1862	55,860	476,443	2,489,793	0	0	0	0
OCT	1950	1740	1845	3017	0	1,754	54,367	530,810	2,544,160	0	0	0	1,920
NOV	1980	1800	1890	2740	896	1,955	58,642	589,452	2,602,802	0	0	0	5,480
DEC	1980	1800	1890	2878	0	2,072	64,223	653,675	2,667,025	0	0	0	2,000

CERTIFICATION _____ DATE 1-8-98

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Michael Talovich
Sunco Trucking
708 S. Tucker
Farmington, NM 87401

5 January 1998

Mr. Talovich:

Enclosed, please find the reports for the samples received by our laboratory for analysis on December 8, 1997.

If you have any questions about the results of these analyses, please don't hesitate to call me at your convenience.

Sincerely,

Sharon Williams
Organics Lab Supervisor

Enclosures
xc: File

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Sunco Trucking

Case Narrative

On December 8, 1997, eight water samples were submitted to Inter-Mountain Laboratories - Farmington for analysis. The samples were received cool and intact. The samples were identified by project "Disposal Plant", and were analyzed for the parameters indicated on the accompanying Chain of Custody document # 50880.

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analysis of the samples reported herein are found in Test Methods For Evaluation of Solid Waste, SW-846, USEPA, 1986, and Methods For Chemical Analysis of Water and Wastes, EPA-600/4-79-020, USEPA, 1983.

Quality control reports appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this package, please feel free to call at your convenience.

Sincerely,

Sharon Williams
Organics Lab Supervisor

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL CONCENTRATION

Client:	**Sunco Trucking**		
Project:	Disposal Plant	Date Reported:	01/02/98
Sample ID:	Injection Pump	Date Sampled:	12/08/97
Laboratory ID:	0397G02866	Date Received:	12/08/97
Sample Matrix:	Water	Date Analyzed:	01/02/98

Parameter	Result	Detection Limit	Regulatory Level	Units
Arsenic	<0.005	0.005	5	mg/L
Barium	5.55	0.01	100	mg/L
Cadmium	<0.004	0.004	1	mg/L
Chromium	2.22	0.01	5	mg/L
Lead	<0.05	0.05	5	mg/L
Mercury	<0.001	0.001	0.2	mg/L
Selenium	<0.005	0.005	1	mg/L
Silver	0.02	0.01	5	mg/L

ND- Analyte not detected at stated detection level.

References: Method 1311: Toxicity Characteristic Leaching Procedure, SW-846, Rev. 0, July 1992.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, Rev. 1, July 1992.

Comments:

Reported By: _____ Reviewed: _____

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Client: Sunco Trucking
Project: Disposal Plant
Sample ID: Injection Pump
Lab ID: 0397G02866
Matrix: Water
Condition: Cool/Intact

Date Received: 12/08/97
Date Reported: 12/29/97
Date Sampled: 12/08/97
Time Sampled: 1430

Parameter	Analytical Result	Units		Units	PQL	Method	Analysis Date	Time	Init.
General Parameters									
PH	9.0	s.u.			0.1	EPA 150.1	12/08/97	0940	BJ
Electrical Conductivity	32,100	µmhos/cm			10	EPA 120.1	12/08/97	0940	BJ
Solids - Total Dissolved	26,400	mg/L			10	EPA 160.1	12/09/97	0910	BJ
Solids - Total Dissolved (Calc)	17,800	mg/L			10	Calculation	12/09/97	0910	BJ
Solids-Total	<10	mg/L			10	EPA 160.3	12/09/97	1610	BJ
Alkalinity (CaCO3)	4,260	mg/L			1	EPA 310.1	12/12/97	0942	BJ
Hardness (CaCO3)	286	mg/L			1	Calculation	12/29/97	1530	JG
Major Anions									
Bicarbonate (HCO3)	1,570	mg/L	25.8	meq/L	1	EPA 310.1	12/12/97	0942	BJ
Carbonate (CO3)	1,790	mg/L	59.5	meq/L	1	EPA 310.1	12/12/97	0942	BJ
Hydroxide (OH)	<1	mg/L	<0.01	meq/L	1	EPA 310.1	12/12/97	0942	BJ
Chloride	8,000	mg/L	226	meq/L	1	EPA 325.3	12/18/97	0900	AP
Nitrogen - Nitrate/Nitrit	7.26	mg/L	0.28	meq/L	0.05	EPA 353.2	12/12/97	0849	SH
Sulfate	494	mg/L	10.3	meq/L	5	EPA 375.3	12/15/97	0810	AP
Major Cations									
Calcium	27.3	mg/L	1.36	meq/L	0.2	EPA 200.7	12/23/97	1300	ST
Magnesium	53.0	mg/L	4.36	meq/L	0.2	EPA 200.7	12/23/97	1300	ST
Potassium	350	mg/L	8.96	meq/L	0.2	EPA 200.7	12/23/97	1300	ST
Sodium	6,340	mg/L	276	meq/L	0.2	EPA 200.7	12/23/97	1300	ST
Cation/Anion Balance QC Information n									
Anion Sum			321	meq/L	N/A	Calculation	12/29/97	1530	JG
Cation Sum			290	meq/L	N/A	Calculation	12/29/97	1530	JG
Cation/Anion Balance			5.04	%	N/A	Calculation	12/29/97	1530	JG

Reference: EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.
EPA - "Methods for the Determination of Inorganic Substances in Environmental Samples", United States Environmental Protection Agency, EPA 600/R-93/100 August, 1993.

Reviewed By: John Green

John Green, Water Lab Supervisor

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

SUNCO TRUCKING

Project ID:	Disposal Plant	Report Date:	12/12/97
Sample ID:	Injection Pump	Date Sampled:	12/08/97
Lab ID:	0397G02866	Time Sampled:	2:00pm
Sample Matrix:	Water	Date Received:	12/08/97
Condition:	Cool/Intact	Date Extracted:	NA
		Date Analyzed:	12/09/97

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	170	40.0
Toluene	464	40.0
Ethylbenzene	57.0	40.0
m,p-Xylenes	472	40.0
o-Xylene	234	40.0

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	103%	70%-130%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

QUALITY CONTROL/QUALITY ASSURANCE

VOLATILE AROMATIC HYDROCARBONS

KNOWN ANALYSIS

Client: Sunco Trucking
Project: Disposal Plant

Date Reported: 12/12/97
Date Analyzed: 12/10/97

Parameter	Found Result (ppb)	Known Result (ppb)	Percent Recovery	Acceptance Limits
Benzene	4.4	4.0	110%	70 - 130%
Toluene	4.0	4.0	99%	70 - 130%
Ethylbenzene	4.1	4.0	103%	70 - 130%
m+p - Xylene	9.1	8.0	114%	70 - 130%
o - Xylene	4.4	4.0	110%	70 - 130%

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	96%	75-125%

Reference: Method 5030, Purge and Trap; Method 602, Purgeable Aromatics; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, USEPA, October 1984.

Comments:

Analyst _____ Reviewed by _____

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

QUALITY CONTROL/QUALITY ASSURANCE
QUALITY CONTROL REPORT

METHOD BLANK ANALYSIS

Sample Matrix: Water
Lab ID: Method Blank

Report Date: 12/12/97
Date Analyzed: 12/10/97

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	ND	0.2
Toluene	ND	0.2
Ethylbenzene	ND	0.2
m,p-Xylenes	ND	0.2
o-Xylene	ND	0.2

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	89%	70-130%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

QUALITY CONTROL/QUALITY ASSURANCE
VOLATILE AROMATIC HYDROCARBONS

BLANK SPIKE ANALYSIS

Lab ID: Blank Spike
Sample Matrix: Water
Condition: Cool/Intact

Report Date: 12/12/97
Date Analyzed: 12/10/97

Target Analyte	Blank Spike Concentration (ppb)	Method Blank Concentration (ppb)	Spike Added (ppb)	% Recovery	Acceptance Limits (%)
Benzene	20.11	ND	20.0	101%	70-130
Toluene	17.65	ND	20.0	88%	70-130
Ethylbenzene	18.96	ND	20.0	95%	70-130
m,p-Xylenes	41.13	ND	40.0	103%	70-130
o-Xylene	19.58	ND	20.0	98%	70-130

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	94%	70 -130%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

QUALITY CONTROL/QUALITY ASSURANCE
VOLATILE AROMATIC HYDROCARBONS

DUPLICATE ANALYSIS

Lab ID: 0397G02770
Sample Matrix: Water
Condition: Cool/Intact

Report Date: 12/12/97
Date Analyzed: 12/10/97

Target Analyte	Duplicate Concentration (ppb)	Original Concentration (ppb)	% Difference
Benzene	ND	ND	NA
Toluene	4.6	4.1	11.5
Ethylbenzene	ND	ND	NA
m,p-Xylenes	2.7	2.8	3.6
o-Xylene	3.4	3.5	2.9

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Bromofluorobenzene	119%	70 -130%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Known Analysis

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

Client:	**Sunco Trucking**	Date Reported:	01/02/98
Project:	Disposal Plant	Date Analyzed:	01/02/98
Sample Matrix:	Water	Date Received:	12/08/97

Known Analysis

Parameter	Found Result	Known Result	Percent Recovery	Units
Arsenic	0.011	0.010	**110%**	mg/L
Barium	1.01	1.00	**101%**	mg/L
Cadmium	1.020	1.000	**102%**	mg/L
Chromium	1.03	1.00	**103%**	mg/L
Lead	0.99	1.00	**99%**	mg/L
Mercury	0.009	0.008	**106%**	mg/L
Selenium	0.011	0.010	**110%**	mg/L
Silver	1.01	1.00	**101%**	mg/L

References: Method 1311: Toxicity Characteristic Leaching Procedure, SW-846, Rev. 0, July 1992.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, Rev. 1, July 1992.

Comments:

Reported by _____

Reviewed by _____

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Spike Analysis / Blank Analysis

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

Client:	**Sunco Trucking**	Date Reported:	01/02/98
Project:	Disposal Plant	Date Analyzed:	01/02/98
Sample Matrix:	Water	Date Received:	12/08/97

Spike Analysis

Parameter	Spike Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery
Arsenic	0.028	<0.005	0.025	**114%**
Barium	0.87	0.04	1.00	**83%***
Cadmium	0.840	<0.004	1.000	**84%***
Chromium	0.98	<0.01	1.00	**98%**
Lead	0.72	<0.05	1.00	**72%***
Mercury	0.028	<0.001	0.025	**111%**
Selenium	0.026	<0.005	0.025	**104%**
Silver	0.18	<0.01	0.20	**90%**

Method Blank Analysis

Parameter	Result	Detection Limit	Units
Arsenic	**ND**	0.005	mg/L
Barium	**ND**	0.01	mg/L
Cadmium	**ND**	0.004	mg/L
Chromium	**ND**	0.01	mg/L
Lead	**ND**	0.05	mg/L
Mercury	**ND**	0.001	mg/L
Selenium	**ND**	0.005	mg/L
Silver	**ND**	0.01	mg/L

References: Method 1311: Toxicity Characteristic Leaching Procedure, SW-846, Rev. 0, July 1992.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, Rev. 1, July 1992.

Comments:

Reported by _____ Reviewed by _____

Quanterra
Environmental
Services

Quanterra Incorporated
4955 Yarrow Street
Arvada, Colorado 80002

303 421-6611 Telephone
303 431-7171 Fax

ANALYTICAL RESULTS

FOR

INTER-MOUNTAIN LABORATORIES, INC.

QUANTERRA NO. 058360

DECEMBER 23, 1997

Prepared by: _____

Julia A. Potter

Quanterra
Environmental Services

I. OVERVIEW

On December 10, 1997, Quanterra Environmental Services, Denver laboratory received one water sample from Inter-Mountain Laboratories, Inc..

This report presents the analytical results as well as supporting information to aid in the evaluation and interpretation of the data and is arranged in the following order:

I. Overview
II. Sample Description Information/Analytical Test Requests
III. Analytical Results
IV. Quality Control Report
    A. Standard Quanterra QC
    B. Matrix Specific QC

Standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. All laboratory QC samples analyzed in conjunction with the samples in this project were within established control limits.

Quanterra
Environmental Services

SAMPLE DESCRIPTION INFORMATION
for
Inter-Mountain Laboratories, Inc.

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
058360-0001-SA	Injection Pump	WATER	08 DEC 97	14:30	10 DEC 97

Quanterra
Environmental Services

III. ANALYTICAL RESULTS

The analytical results for this project are presented in the following data tables. The results are presented by sample, by test, with tests reported in the following order: GC/MS, Chromatography, Metals and Inorganics.

Each data table includes sample identification information, and when available and appropriate, dates sampled, received, authorized, prepared and analyzed. The authorization date is the date when the project was defined by the client such that laboratory work could begin. The date prepared is typically the date an extraction or digestion was initiated. For volatile organic compounds in water, the date prepared is the date the screening of the sample was performed.

Datasheets contain a listing of the parameters measured in each test, the analytical results and Quanterra's Denver laboratory reporting limit. Reporting limits are adjusted to reflect dilution of the sample, when appropriate. Solid and soil samples are reported on a "Dry weight" basis, i.e. correction is made for moisture content.

In addition, surrogate recovery data is presented for all GC/MS analyses. The surrogate recovery is an indication of the effect of the sample matrix on the performance of the method. The results from Quanterra's Denver Laboratory Standard QA/QC Program, which generates data independent of matrix effects, are given in Section IV.

Quanterra
Environmental Services

Halogenated Volatile Organics
Method 8010

Client Name: Inter-Mountain Laboratories, Inc.
Client ID: *Injection Pump*
Lab ID: 058360-0001-SA
Matrix WATER Sampled: 08 DEC 97 Prepared: NA
Authorized: 10 DEC 97 Received: 10 DEC 97 Analyzed: 12 DEC 97

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
trans-1,2-Dichloroethene	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
EDB (1,2-Dibromoethane)	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0

Surrogate	Recovery		Limits
4-Chlorotoluene	89	%	84-123

Dilution factor is 1.0. All results and limits are corrected for dilution.

ND = Not Detected

Reported By: Dan Appelhans Approved By: Maria E. Mattingly

Quanterra
Environmental Services

IV. QUALITY CONTROL REPORT

The Quanterra laboratories operate under a rigorous QA/QC program designed to ensure the generation of scientifically valid, legally defensible data by monitoring every aspect of laboratory operations. Routine QA/QC procedures include the use of approved methodologies, independent verification of analytical standards, use of duplicate Laboratory Control Samples to assess the precision and accuracy of the methodology on a routine basis, and a rigorous system of data review.

A. Standard Quanterra QC

The standard laboratory QC package is designed to:

1. establish a strong, cost-effective QC program that ensures the generation of scientifically valid, legally defensible data,

2. assess the laboratory's performance of the analytical method using control limits generated with a well-defined matrix,

3. establish clear-cut guidelines for acceptability of analytical data so that QC decisions can be made immediately at the bench, and

4. provide a standard set of reportables which assures the client of the quality of his data.

The Quanterra QC program is based upon monitoring the precision and accuracy of an analytical method by analyzing a set of Duplicate Control Samples (DCS) at frequent, well-defined intervals. Each DCS is a well-characterized matrix which is spiked with target compounds at 5-100 times the reporting limit, depending upon the methodology being monitored. The purpose of the DCS is not to duplicate the sample matrix, but rather to provide an interference-free,

homogeneous matrix from which to gather data to establish control limits. These limits are used to determine whether data generated by the laboratory on any given day is in control.

Control limits for accuracy (percent recovery) are based on the average, historical percent recovery +/- 3 standard deviation units. Control limits for precision (relative percent difference) range from 0 (identical duplicate DCS results) to the average, historical relative percent difference + 3 standard deviation units. These control limits are fairly narrow based on the consistency of the matrix being monitored and are updated on a quarterly basis.

For each batch of samples analyzed, an additional control measure is taken in the form of a Single Control Sample (SCS). The SCS consists of a control matrix that is spiked with surrogate compounds appropriate to the method being used. In cases where no surrogate is available, (e.g., metals or conventional analyses) a single DCS serves as the control sample. An SCS is prepared for each sample lot for which the DCS pair are not analyzed. The recovery of the SCS is charted in exactly the same manner as described for the DCS, and provides a daily check on the performance of the method.

Accuracy for DCS and SCS is measured by Percent Recovery.

$$\% \text{ Recovery} = \frac{\text{Measured Concentration}}{\text{Actual Concentration}} \text{ X } 100$$

Precision for DCS is measured by Relative Percent Difference (RPD).

$$\text{RPD} = \frac{|\text{ Measured Concentration DCS1 - Measured Concentration DCS2 }|}{(\text{Measured Concentration DCS1 + Measured Concentration DCS2})/2} \text{ X } 100$$

All samples analyzed concurrently by the same test are assigned the same QC lot number. Projects which contain numerous samples, analyzed over several days, may have multiple QC lot numbers associated with each test. The QC information which follows includes a listing of the

QC lot numbers associated with each of the samples reported, DCS and SCS (where applicable) recoveries from the QC lots associated with the samples, and control limits for these lots. The QC data is reported by test code, in the order that the tests are reported in the analytical results section of this report.

B. Matrix Specific QC

With this project, additional QC was requested in the form of duplicate sample analyses and/or spiked sample analyses. The use of an actual sample as the QC matrix is termed "matrix specific" QC.

Matrix specific QC is valuable in assessing the affect of the sample matrix on the performance of the analytical method. QC limits for accuracy and precision were assigned from data generated by laboratory historical data on similar sample matrices. However, these limits should be considered advisory due to the variability of the matrix at different sampling sites.

The results of the duplicate and/or spike sample analyses follow. For matrix spike analyses, the matrix specific QC results contain the analytical results from both analyses along with the spike level and percent recovery. The percent recovery calculation is not performed if the spike level is less than or equal to 25% of the value in the sample.

For duplicate analyses, the results from both the analyses are reported along with the relative percent difference.

Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Organics by Chromatography

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
058360-0001-SA	AQUEOUS	601-A2	12 DEC 97-F	12 DEC 97-F

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Organics by Chromatography
Project: 058360

Category: 601-A2 Halogenated Volatile Organics
Matrix: AQUEOUS Date Analyzed: 12 DEC 97
QC Run: 12 DEC 97-F
Concentration Units: ug/L

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) LCS	Accuracy(%) Limits
1,1-Dichloroethane	5.00	2.92	58	47-132
Chloroform	5.00	4.00	80	58-128
Bromodichloromethane	10.0	7.42	74	42-172
Trichloroethene	5.00	3.33	67	65-134
Chlorobenzene	5.00	4.54	91	53-128

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

Quanterra
Environmental Services

SINGLE CONTROL SAMPLE REPORT
Organics by Chromatography

Analyte	Concentration Spiked	Measured	Accuracy(%) SCS	Limits
Category: 601-A2				
Matrix: AQUEOUS				
QC Lot: 12 DEC 97-F QC Run: 12 DEC 97-F				
Concentration Units: ug/L				
4-Chlorotoluene	20.0	19.8	99	84-123

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

Quanterra
Environmental Services

METHOD BLANK REPORT
Organics by Chromatography

Test: 8010-A
Matrix: WATER
QC Lot: 12 DEC 97-F QC Run: 12 DEC 97-F

Analyte	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
trans-1,2-Dichloroethene	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
EDB (1,2-Dibromoethane)	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0

Quanterra
Environmental Services

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Organics by Chromatography
Project: 058360

Category: 601-A2 Halogenated Volatile Organics
Matrix: AQUEOUS
Sample: 058341-0011
MS Run: 12 DEC 97-F
Units: ug/L

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS	Amount Spiked MSD	% Recovery MS	% Recovery MSD	Recov. Accep. Limits	RPD MS-MSD	RPD Accept Limits
1,1-Dichloroethane	ND	2.86	2.74	5.00	5.00	57	55	47-132	4.3	15
Chloroform	ND	3.48	3.46	5.00	5.00	70	69	58-128	0.5	15
Bromodichloromethane	ND	7.70	7.46	10.0	10.0	77	75	42-172	3.2	15
Trichloroethene	ND	3.23	3.25	5.00	5.00	65	65	65-134	0.6	15
Chlorobenzene	ND	4.36	3.98	5.00	5.00	87	80	53-128	9.1	15

ND = Not Detected

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

imL
Inter- Mountain
Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSES / PARAMETERS
SUNCO DISPOSAL	DISPOSAL PLANT	
Sampler: (Signature)	**Chain of Custody Tape No.**	

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	Seal attached				Remarks
INJECTION PUMP	12-8-97	2:30Pm		H_2O	8	✓				
										Trip blank included
										cool + intact

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	12-8-97	1505 ~~2:30Pm~~	Chris Raynes	12-8-97	1505
Relinquished by: (Signature)	**Date**	**Time**	**Received by: (Signature)**	**Date**	**Time**
Relinquished by: (Signature)	**Date**	**Time**	**Received by laboratory: (Signature)**	**Date**	**Time**

Inter-Mountain Laboratories, Inc.

1633 Terra Avenue
Sheridan, Wyoming 82801
Telephone (307) 672-8945

1701 Phillips Circle
Gillette, Wyoming 82716
Telephone (307) 682-8945

2506 West Main Street
Farmington, NM 87401
Telephone (505) 326-4737

1160 Research Drive
Bozeman, Montana 59718
Telephone (406) 586-8450

Route 3, Box 256
College Station, TX 77845
Telephone (409) 776-8945

01-50880

#1 In Service
SUNCO TRUCKING
BIG A WELL SERVICE

P.O. Drawer 3337, 700 S. Tucker, Farmington, New Mexico 87499
(505) 327-4961 • **24-Hour Dispatch (505) 325-6892** • (505) 327-0416

April 10, 1998

Roger Anderson
Environmental Bureau Chief
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

Denny Foust
Deputy Oil & Gas Inspector
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

Dear Sirs:

Please find attached our Quarterly Injection Well Report for Sunco Disposal.
The following explanation is needed concerning Flow Rate and Annular Pressures.

On Flow Rates: The average was based on a 16 hour days / days in the month .
Also there were many days when there was no pump activity.

On Annular Pressures: The non-continuous injection pump activity had severely effected the backside pressures . So on a letter dated March 20,1997 NMOCD granted Sunco a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarters report.

The Injection Water Analysis is also provided . If you require additional information, please contact me at (505) 334-6186

Best Regards:

Michael Talovich
Disposal Manager
Sunco Trucking

cc: H. Stone

SUNCO DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 1998	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	1940	1740	1920	2,863	808	2,044	63,358	63,358	2,730,383	0	0	0	5,040
FEB	1940	1740	1920	2,736	1,177	1,809	50,641	113,999	2,781,024	0	0	0	0
MAR	1950	1740	1920	2,495	1,339	1,750	54,262	168,261	2,835,286	0	0	0	2,680
APR													
MAY													
JUN													
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													

CERTIFICATION Michael O'Neill DATE 4-9-98

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Michael Talovich
Sunco Trucking
708 S. Tucker
Farmington, NM 87401

March 30, 1998

Mr. Talovich:

Enclosed, please find the reports for the sample received by our laboratory for analysis on March 10, 1998.

If you have any questions about the results of these analyses, please don't hesitate to call me at your convenience.

We appreciate your business!

Sincerely,

Sharon Williams
Organics Lab Supervisor

Enclosures
xc: File

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

SUNCO TRUCKING

Case Narrative

On March 10, 1998, one sample was submitted to Inter-Mountain Laboratories - Farmington for analysis. The sample was identified by project "Injection Pump", and was analyzed for the parameters indicated on the accompanying Chain of Custody document #51877.

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analyses of the sample reported herein are found in Test Methods For Evaluation of Solid Waste, SW-846, USEPA, 1986, and Methods For Chemical Analysis of Water and Wastes, EPA-600/4-79-020, USEPA, 1983.

Quality control reports appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this package, please feel free to call at your convenience.

Sincerely,

Sharon Williams
Organics Lab Supervisor

Inter·Mountain Laboratories, Inc.

1701 Phillips Circle
Gillette, Wyoming 82718

CASE NARRATIVE

Client: SUNCO TRUCKING
Project: Injection Plant Received on: 03/12/98
Set ID: 0598H01037 # samples: 1

Suites: 8260 Standard

Samples were received for analysis at Inter-Mountain Laboratories (IML), Gillette, Wyoming. Enclosed are the results of these analyses.

No targeted analytes were found in the water sample, however high levels of aromatic compounds were observed. Such as Benzene, Toluene, and m,p-xylene.

Limits of detection for each instrument/analysis are determined by sample matrix effects, instrument performance under standard conditions, and dilution requirements to maintain chromatography output within calibration ranges. Quantitations have been calculated on an as received basis.

Quality Control reports have been included for your information and use. These reports appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this package, please contact me at (800) 828-1413.

Ed Dutt

IML-Gillette

CHAIN OF CUSTODY RECORD

Inter- Mountain Laboratories, Inc.

Client/Project Name	Project Location	ANALYSES / PARAMETERS
SUNCO TRUCKING	INJECTION PUMP	
Sampler: (Signature) Michael Toland	**Chain of Custody Tape No.**	

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	Dry Diesel Plant Fuel				Remarks
Injection Pump	3/10/98	1500		H_2O	8					
					CR					
										Cool-on ice, intact, hand delivered

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Michael Toland	3-10-98	1530			
Relinquished by: (Signature)	**Date**	**Time**	**Received by: (Signature)**	**Date**	**Time**
Relinquished by: (Signature)	**Date**	**Time**	**Received by laboratory: (Signature)**	**Date**	**Time**
			Chris Rayner	3-10-98	1530

Inter-Mountain Laboratories, Inc.

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11183 State Hwy. 30
College Station, TX 77845
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51677

Inter-Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

Client: Sunco Trucking
Project: Injection Plant
Sample ID: Injection Pump
Lab ID: 0398G01127
Matrix: Water
Condition: Cool/Intact

Date Received: 03/10/98
Date Reported: 03/30/98
Date Sampled: 03/10/98
Time Sampled: 1500

Parameter	Analytical Result	Units		Units	PQL	Method	Analysis Date	Time	Init.
General Parameters									
PH	8.1	s.u.			0.1	EPA 150.1	03/10/98	1600	AP
Electrical Conductivity	30,000	µmhos/cm			10	EPA 120.1	03/10/98	1600	AP
Solids - Total Dissolved	17,800	mg/L			10	EPA 160.1	03/11/98	0930	BJ
Solids - Total Dissolved (Calc)	16,697	mg/L			10	Calculation	03/30/98	0930	JG
Solids-Total	20,100	mg/L			10	EPA 160.3	03/17/98	0830	BJ
Alkalinity (CaCO3)	1,660	mg/L			1	EPA 310.1	03/18/98	0930	BJ
Hardness (CaCO3)	605	mg/L			1	Calculation	03/30/98	0930	JG
Major Anions									
Bicarbonate (HCO3)	2,030	mg/L	33.3	meq/L	1	EPA 310.1	03/18/98	0930	BJ
Carbonate (CO3)	<1	mg/L	<0.01	meq/L	1	EPA 310.1	03/18/98	0930	BJ
Hydroxide (OH)	<1	mg/L	<0.01	meq/L	1	EPA 310.1	03/18/98	0930	BJ
Chloride	9,210	mg/L	260	meq/L	1	EPA 300.0	03/11/98	1300	AP
Nitrogen - Nitrate/Nitrite	0.12	mg/L			0.05	EPA 353.2	03/24/98	1255	SH
Sulfate	121	mg/L	2.52	meq/L	5	EPA 300.0	03/11/98	1300	AP
Major Cations									
Calcium	160	mg/L	7.98	meq/L	0.2	EPA 200.7	03/12/98	0900	ST
Magnesium	50.0	mg/L	4.11	meq/L	0.2	EPA 200.7	03/12/98	0900	ST
Potassium	220	mg/L	5.63	meq/L	0.2	EPA 200.7	03/12/98	0900	ST
Sodium	5,940	mg/L	258	meq/L	0.2	Calculation	03/12/98	0900	ST
Cation / Anion Balance QC Information									
Anion Sum			296	meq/L	0.01	Calculation	03/30/98	0930	JG
Cation Sum			276	meq/L	0.01	Calculation	03/30/98	0930	JG
Cation/Anion Balance			3.40	%	0.01	Calculation	03/30/98	0930	JG

Reference: EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.
EPA - "Methods for the Determination of Inorganic Substances in Environmental Samples", United States Environmental Protection Agency, EPA 600/R-93/100 August, 1983.

Reviewed By: _____

John Green, Water Lab Supervisor

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

Sunco Trucking

Project ID:	Injection Plant	Report Date:	03/20/98
Sample ID:	Injection Pump	Date Sampled:	03/10/98
Lab ID:	0398G01127	Date Received:	03/10/98
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	03/16/98

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	107	0.2
Toluene	226	0.2
Chlorobenzene	ND	0.2
Ethylbenzene	41.2	0.2
m,p-Xylenes	472	0.2
o-Xylene	99.8	0.2
1,3-Dichlorobenzene	24.5	0.2
1,4-Dichlorobenzene	ND	0.2
1,2-Dichlorobenzene	20.4	0.2

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	91.9%	70 -130%

Reference: Method 5030, Purge and Trap; Method 602, Purgeable Aromatics; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, USEPA, October 1984.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL CONCENTRATION

Client:	**Sunco Trucking**		
Project:	Injection Pump	Date Reported:	03/20/98
Sample ID:	Injection Pump	Date Sampled:	03/10/98
Laboratory ID:	0398G01127	Date Received:	03/10/98
Sample Matrix:	Water	Date Analyzed:	03/19/98

Parameter	Result	Detection Limit	Regulatory Level	Units
Arsenic.....	<0.005	0.005	5	mg/L
Barium.....	2.44	0.01	100	mg/L
Cadmium.....	<0.004	0.004	1	mg/L
Chromium.....	0.06	0.01	5	mg/L
Lead.....	<0.05	0.05	5	mg/L
Mercury.....	<0.001	0.001	0.2	mg/L
Selenium.....	<0.005	0.005	1	mg/L
Silver.....	<0.01	0.01	5	mg/L

ND- Analyte not detected at stated detection level.

References: Method 1311: Toxicity Characteristic Leaching Procedure, SW-846, Rev. 0, July 1992.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, Rev. 1, July 1992.

Comments:

Reported By: _____ Reviewed: _____

Inter·Mountain Laboratories, Inc.

1701 Phillips Circle
Gillette, Wyoming 82718

EPA METHOD 8260
VOLATILE ORGANIC COMPOUNDS

Client: **SUNCO TRUCKING**
Sample ID: Injection Pump
Project ID: Injection Plant
Lab ID: B981037
Matrix: Water

Date Reported: 03/27/98
Date Sampled: 03/10/98
Date Received: 03/12/98
Date Extracted: 03/24/98
Date Analyzed: 03/24/98

Parameter	Result	PQL	Units
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,2-Dibromoethane (EDB)	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon Tetrachloride	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
cis-1,3-Dichloropropene	ND	5.0	ug/L
Dibromochloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
Methylene chloride	ND	20	ug/L
Tetrachloroethene (PCE)	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
Trichloroethene (TCE)	ND	5.0	ug/L
Vinyl Chloride	ND	5.0	ug/L

Continued

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Known Analysis

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

Client:	**Sunco Trucking**	Date Reported:	03/20/98
Project:	Injection Pump	Date Analyzed:	03/19/98
Sample Matrix:	Water	Date Received:	03/10/98

Known Analysis

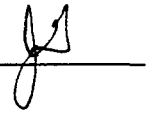
Parameter	Found Result	Known Result	Percent Recovery	Units
Arsenic	0.009	0.010	**90%**	mg/L
Barium	0.98	1.00	**98%**	mg/L
Cadmium	1.060	1.000	**106%**	mg/L
Chromium	1.06	1.00	**106%**	mg/L
Lead	1.10	1.00	**110%**	mg/L
Mercury	0.004	0.004	**100%**	mg/L
Selenium	0.010	0.010	**100%**	mg/L
Silver	2.11	2.00	**106%**	mg/L

References: Method 1311: Toxicity Characteristic Leaching Procedure, SW-846, Rev. 0, July 1992.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, Rev. 1, July 1992.

Comments:

Reported by 

Reviewed by 

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Spike Analysis / Blank Analysis

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

Client:	**Sunco Trucking**	Date Reported:	03/20/98
Project:	Injection Pump	Date Analyzed:	03/19/98
Sample Matrix:	Water	Date Received:	03/10/98

Spike Analysis

Parameter	Spike Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery
Arsenic	N/A	N/A	N/A	**N/A**
Barium	1.91	0.95	1.00	**96%**
Cadmium	0.890	0.070	1.000	**82%***
Chromium	0.96	<0.01	1.00	**96%**
Lead	N/A	N/A	N/A	**N/A**
Mercury	0.005	<0.001	0.005	**90%**
Selenium	N/A	N/A	N/A	**N/A**
Silver	N/A	N/A	N/A	**N/A**

Method Blank Analysis

Parameter	Result	Detection Limit	Units
Arsenic	**ND**	0.005	mg/L
Barium	**ND**	0.01	mg/L
Cadmium	**ND**	0.004	mg/L
Chromium	**ND**	0.01	mg/L
Lead	**ND**	0.05	mg/L
Mercury	**ND**	0.001	mg/L
Selenium	**ND**	0.005	mg/L
Silver	**ND**	0.01	mg/L

References: Method 1311: Toxicity Characteristic Leaching Procedure, SW-846, Rev. 0, July 1992.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, Rev. 1, July 1992.

Comments: *Spike recovery failed to meet established QC limits due to matrix interference.
N/A= Data not available.

Reported by _____ Reviewed by _____

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Known Analysis
Purgeable Aromatics

Client: **Sunco Trucking**
Project: Injection Plant

Date Reported: 03/20/98
Date Analyzed: 03/16/98

Known Analysis

Parameter	Found Result (ppb)	Known Result (ppb)	Percent Recovery	Acceptance Limits
Benzene	19.3	20.0	**97%**	70-130%
Toluene	19.9	20.0	**99%**	70-130%
Chlorobenzene	20.8	20.0	**104%**	70-130%
Ethylbenzene	19.9	20.0	**99%**	70-130%
m+p-Xylene	40.5	40.0	**101%**	70-130%
o-Xylene	20.0	20.0	**100%**	70-130%
1,3-Dichlorobenzene	20.1	20.0	**100%**	70-130%
1,4-Dichlorobenzene	20.4	20.0	**102%**	70-130%
1,2-Dichlorobenzene	20.9	20.0	**104%**	70-130%

Quality Control: Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	107.9%	70-130%

Reference: Method 5030, Purge and Trap; Method 602, Purgeable Aromatics; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, USEPA, October 1984.

Comments:

Analyst _____

Reviewed by _____

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS
QUALITY CONTROL REPORT

Matrix Spike Analysis

Lab ID: 0398G01127
Sample Matrix: Water
Condition: Cool/Intact

Report Date: 03/20/98
Date Analyzed: 03/16/98

Target Analyte	Spiked Sample Result in ppb	Sample result in ppb	Spike Added (ppb)	% Recovery	Acceptance Limits (%)
Benzene	36.30	21.40	20.0	74.5%	70-130
Toluene	54.00	45.30	20.0	43.5%*	70-130
Chlorobenzene	19.99	ND	20.0	100.0%	70-130
Ethylbenzene	26.61	8.24	20.0	91.9%	70-130
m,p-Xylenes	108.58	94.60	40.0	69.9%*	70-130
o-Xylene	28.89	20.00	20.0	44.5%*	70-130
1,3-Dichlorobenzene	26.66	4.89	20.0	108.9%	70-130
1,4-Dichlorobenzene	18.18	ND	20.0	90.9%	70-130
1,2-Dichlorobenzene	18.10	4.08	20.0	70.1%	70-130

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Bromofluorobenzene	92.0%	70 -130%

Reference: Method 5030, Purge and Trap; Method 602, Purgeable Aromatics; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, USEPA, October 1984.

Comments: *Spike recovery failed to meet established QC limits due to matrix interferences.

Analyst

Review

Inter·Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS
QUALITY CONTROL REPORT

Method Blank Analysis

Sample Matrix: Water
Lab ID: Method Blank
Report Date: 03/20/98
Date Analyzed: 03/16/98

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	ND	0.2
Toluene	ND	0.2
Chlorobenzene	ND	0.2
Ethylbenzene	ND	0.2
m,p-Xylenes	ND	0.2
o-Xylene	ND	0.2
1,3-Dichlorobenzene	ND	0.2
1,4-Dichlorobenzene	ND	0.2
1,2-Dichlorobenzene	ND	0.2

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	96.2%	70-130%

Reference: Method 5030, Purge and Trap; Method 602, Purgeable Aromatics; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, USEPA, October 1984.

Comments:

Analyst

Review

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS
QUALITY CONTROL REPORT

Duplicate Analysis

Lab ID: 0398G01127
Sample Matrix: Water
Condition: Cool/Intact

Report Date: 03/20/98
Date Analyzed: 03/16/98

Target Analyte	Duplicate Concentration (ppb)	Original Concentration (ppb)	% Difference
Benzene	101	107	5.8
Toluene	214	226	5.5
Chlorobenzene	ND	ND	NA
Ethylbenzene	38.4	41.2	7.0
m,p-Xylenes	455	472	3.7
o-Xylene	97.7	99.8	2.1
1,3-Dichlorobenzene	25.1	24.5	2.4
1,4-Dichlorobenzene	ND	ND	NA
1,2-Dichlorobenzene	20.1	20.4	1.5

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	89.9%	70 -130%

Reference: Method 5030, Purge and Trap; Method 602, Purgeable Aromatics; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, USEPA, October 1984.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc.

1701 Phillips Circle
Gillette, Wyoming 82718

EPA METHOD 8260
VOLATILE ORGANIC COMPOUNDS

Client: **SUNCO TRUCKING**
Sample ID: Injection Pump
Project ID: Injection Plant
Lab ID: B981037
Matrix: Water

Date Reported: 03/27/98
Date Sampled: 03/10/98
Date Received: 03/12/98
Date Extracted: 03/24/98
Date Analyzed: 03/24/98

Parameter	Result	PQL	Units

Continued

QUALITY CONTROL - Surrogate Recovery	%	QC Limits
1,2-Dichloroethane-d4	103	80 - 120
Bromofluorobenzene	108	86 - 115
Toluene-d8	104	88 - 110

ND - Not Detected at Practical Quantitation Level (PQL)

Reference: Method 8260A Gas Chromatography/Mass Spectrometry for Volatile Organics, Test Methods for Evaluating Solid Wastes, SW-846, Final Update II, United States Environmental Protection Agency, September 1994.

Analyst E.D.

Reviewed SW

#1 In Service
SUNCO TRUCKING
BIG A WELL SERVICE

P.O. Drawer 3337, 700 S. Tucker, Farmington, New Mexico 87499
(505) 327-4961 • **24-Hour Dispatch (505) 325-6892** • (505) 327-0416

2P

RECEIVED
JUL 29 1998
Environmental Bureau
Oil Conservation Division

July 15, 1998

Roger Anderson
Environmental Bureau Chief
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

Denny Foust
Deputy Oil & Gas Inspector
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

Dear Sirs:

Please find attached our Quarterly Injection Well Report for Sunco Disposal.
The following explanation is needed concerning Flow Rate and Annular Pressures.

On Flow Rates: The average was based on a 16 hour days / days in the month .
Also there were many days when there was no pump activity.

On Annular Pressures: The non-continuous injection pump activity had severely effected the backside pressures . So on a letter dated March 20,1997 NMOCD granted Sunco a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarters report.

CALLED D FOUST ON 9/9/98

The Injection Water Analysis is also provided . If you require additional information, please contact me at (505) 334-6186

Best Regards:

Michael Talovich
Disposal Manager
Sunco Trucking

cc: H. Stone

SUNCO DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 1998	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	1940	1740	1920	2,863	808	2,044	63,358	63,358	2,730,383	0	0	0	5,040
FEB	1940	1740	1920	2,736	1,177	1,809	50,641	113,999	2,781,024	0	0	0	0
MAR	1950	1740	1920	2,495	1,339	1,750	54,262	168,261	2,835,286	0	0	0	2,680
APR	1950	1740	1920	2,860	0	1,728	51,848	220,109	2,887,134	0	0	0	800
MAY	1950	1740	1920	2,698	0	1,494	46,303	266,412	2,933,437	0	0	0	0
JUN	1950	1740	1920	2,797	0	1,325	39,751	306,163	2,973,188	0	0	0	240
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													

CERTIFICATION Michael Jaloma DATE 7-20-98

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Michael Talovich
Sunco Trucking
708 S. Tucker
Farmington, NM 87401

July 2, 1998

Mr. Talovich:

Enclosed, please find the reports for the samples received by our laboratory for analysis on June 11, 1998. I apologize for the delay in receiving your results.

If you have any questions about the results of these analyses, please don't hesitate to call me at your convenience.

We appreciate your business!

Sincerely,

Sharon Williams
Organics Lab Supervisor

Enclosures
xc: File

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Client: Sunco Trucking
Project: Injection Plant
Sample ID: Injection Pump
Lab ID: 0398G03256
Matrix: Water
Condition: Cool/Intact

Date Received: 06/11/98
Date Reported: 06/29/98
Date Sampled: 06/11/98
Time Sampled: 1530

Parameter	Analytical Result	Units		Units	PQL	Method	Analysis Date	Time	Init.
General Parameters									
PH	8.0	s.u.			0.1	EPA 150.1	06/11/98	1600	BJ
Electrical Conductivity	33,200	µmhos/cm			10	EPA 120.1	06/11/98	1600	BJ
Solids - Total Dissolved	20,700	mg/L			10	EPA 160.1	06/17/98	0800	BJ
Solids - Total Dissolved (Calc)	18,675	mg/L			10	Calculation	06/17/98	0800	BJ
Solids-Total	21,000	mg/L			10	EPA 160.3	06/19/98	1000	BJ
Alkalinity (CaCO3)	1,910	mg/L			1	EPA 310.1	06/22/98	0800	AP
Hardness (CaCO3)	471	mg/L			1	Calculation	06/24/98	1000	AP
Major Anions									
Bicarbonate (HCO3)	2,320	mg/L	38.1	meq/L	1	EPA 310.1	06/22/98	0800	AP
Carbonate (CO3)	<1	mg/L	<0.01	meq/L	1	EPA 310.1	06/22/98	0800	AP
Hydroxide (OH)	<1	mg/L	<0.01	meq/L	1	EPA 310.1	06/22/98	0800	AP
Chloride	10,100	mg/L	286	meq/L	1	EPA 300.0	06/23/98	1000	AP
Nitrogen - Nitrate/Nitrite	0.22	mg/L			0.05	EPA 353.2	06/16/98	1019	SH
Sulfate	172	mg/L	3.59	meq/L	5	EPA 300.0	06/23/98	1000	AP
Major Cations									
Calcium	97	mg/L	4.83	meq/L	4	EPA 200.7	06/15/98	1428	ST
Magnesium	56	mg/L	4.59	meq/L	4	EPA 200.7	06/15/98	1428	ST
Potassium	859	mg/L	22.0	meq/L	4	EPA 200.7	06/15/98	1428	ST
Sodium	6,210	mg/L	270	meq/L	4	EPA 200.7	06/15/98	1430	ST
Cation / Anion Balance QC Information									
Anion Sum			328	meq/L	N/A	Calculation	06/26/98	1400	AP
Cation Sum			302	meq/L	N/A	Calculation	06/26/98	1400	AP
Cation/Anion Balance			4.16	%	N/A	Calculation	06/26/98	1400	AP

Reference: EPA - "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency, EPA 600/4-79-020, Revised March, 1983.
EPA - "Methods for the Determination of Inorganic Substances in Environmental Samples", United States Environmental Protection Agency, EPA 600/R-93/100, August, 1983.

Reviewed By: _____
John Green, Water Lab Supervisor

Inter-Mountain Laboratories, Inc.

1701 Phillips Circle
Gillette, Wyoming 82718

Client: IML - Farmington
Project: Sunco
Sample ID: Injection Plant - Pump
Lab ID: 0298W03007
Matrix: Water
Condition: Cool/Intact

Date Reported: 06/30/98
Date Sampled: 06/11/98
Date Received: 06/12/98
Date Analyzed: 06/22/98

Parameter	Analytical Result	PQL	Units
Method 8260			
1,1,1,2-Tetrachloroethane	ND	5	µg/L
1,1,1-Trichloroethane	ND	5	µg/L
1,1,2,2-Tetrachloroethane	ND	5	µg/L
1,1,2-Trichloroethane	ND	5	µg/L
1,1-Dichloroethane	ND	5	µg/L
1,1-Dichloroethene	ND	5	µg/L
1,1-Dichloropropene	ND	5	µg/L
1,2,3-Trichlorobenzene	ND	5	µg/L
1,2,4-Trichlorobenzene	ND	5	µg/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	5	µg/L
1,2-Dibromoethane	ND	5	µg/L
1,2-Dichlorobenzene	ND	5	µg/L
1,2-Dichloroethane	ND	5	µg/L
1,2-Dichloropropane	ND	5	µg/L
1,3-Dichlorobenzene	ND	5	µg/L
1,3-Dichloropropane	ND	5	µg/L
1,4-Dichlorobenzene	ND	5	µg/L
2,2-Dichloropropane	ND	5	µg/L
2-Chloroethylvinyl ether	ND	5	µg/L
2-Chlorotoluene	ND	5	µg/L
4-Chlorotoluene	ND	5	µg/L
Bromochloromethane	ND	5	µg/L
Bromodichloromethane	ND	5	µg/L
Bromoform	ND	5	µg/L
Bromomethane	ND	5	µg/L
Carbon Tetrachloride	ND	5	µg/L
Chlorobenzene	ND	5	µg/L
Chloroethane	ND	5	µg/L
Chloroform	ND	5	µg/L
Chloromethane	ND	5	µg/L
cis-1,2-Dichloroethene	ND	5	µg/L
cis-1,3-Dichloropropene	ND	5	µg/L
Dibromochloromethane	ND	5	µg/L
Dibromomethane	ND	5	µg/L
Dichlorodifluoromethane	ND	5	µg/L

ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: Method 8260, Gas Chromatography/Mass Spectrometry for Volatile Organics, Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Rev. 1, November 1992.

Reviewed By: JW

Inter·Mountain Laboratories, Inc.

1701 Phillips Circle
Gillette, Wyoming 82718

Client: IML - Farmington
Project: Sunco
Sample ID: Injection Plant - Pump
Lab ID: 0298W03007
Matrix: Water
Condition: Cool/Intact

Date Reported: 06/30/98
Date Sampled: 06/11/98
Date Received: 06/12/98
Date Analyzed: 06/22/98

Parameter	Analytical Result	PQL	Units
Hexachlorobutadiene	ND	5	µg/L
Methylene chloride	ND	20	µg/L
Tetrachloroethene (PCE)	ND	5	µg/L
trans-1,2-Dichloroethene	ND	5	µg/L
trans-1,3-Dichloropropene	ND	5	µg/L
trans-1,4-Dichloro-2-butene	ND	50	µg/L
Trichloroethene (TCE)	ND	5	µg/L
Trichlorofluoromethane	ND	5	µg/L
Vinyl Chloride	ND	5	µg/L

Quality Control - Surrogate Recovery	%	QC Limits
4-Bromofluorobenzene(SUR-8260)	96	86 - 115
Dichloroethane-d4 (SUR-8260)	133	80 - 120
Toluene-d8(SUR-8260)	96	88 - 110

ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: Method 8260, Gas Chromatography/Mass Spectrometry for Volatile Organics, Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Rev. 1, November 1992.

Reviewed By: JW

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL CONCENTRATION

Client:	**Sunco Disposal**		
Project:	Injection Pump	Date Reported:	06/26/98
Sample ID:	Injection Pump	Date Sampled:	06/11/98
Laboratory ID:	0398G03256	Date Received:	06/11/98
Sample Matrix:	Water	Date Analyzed:	06/25/98

Parameter	Result	Detection Limit	Regulatory Level	Units
Arsenic	<0.005	0.005	5	mg/L
Barium	3.94	0.01	100	mg/L
Cadmium	<0.004	0.004	1	mg/L
Chromium	0.016	0.01	5	mg/L
Lead	<0.05	0.05	5	mg/L
Mercury	<0.001	0.001	0.2	mg/L
Selenium	0.007	0.005	1	mg/L
Silver	<0.01	0.01	5	mg/L

References: Method 1311: Toxicity Characteristic Leaching Procedure, SW-846, Rev. 0, July 1992.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, Rev. 1, July 1992.

Comments:

Reported By: _____ Reviewed: _____

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Spike Analysis / Blank Analysis

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

Client:	**Sunco Disposal**	Date Reported:	06/26/98
Project:	Injection Pump	Date Analyzed:	06/25/98
Sample Matrix:	Water	Date Received:	06/11/98

Spike Analysis

Parameter	Spike Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery
Arsenic	N/A	N/A	N/A	**N/A**
Barium	1.18	0.12	1.00	**106%**
Cadmium	1.070	0.020	1.000	**105%**
Chromium	1.12	<0.01	1.00	**112%**
Lead	0.80	<0.05	1.00	**80%***
Mercury	0.005	<0.001	0.005	**106%**
Selenium	0.021	<0.005	0.025	**84%***
Silver	N/A	N/A	N/A	**N/A**

Method Blank Analysis

Parameter	Result	Detection Limit	Units
Arsenic	**ND**	0.005	mg/L
Barium	**ND**	0.01	mg/L
Cadmium	**ND**	0.004	mg/L
Chromium	**ND**	0.01	mg/L
Lead	**ND**	0.05	mg/L
Mercury	**ND**	0.001	mg/L
Selenium	**ND**	0.005	mg/L
Silver	**ND**	0.01	mg/L

References: Method 1311: Toxicity Characteristic Leaching Procedure, SW-846, Rev. 0, July 1992.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, Rev. 1, July 1992.

Comments: *Spike recovery failed to meet established QC limits due to matrix interferences.
N/A=Data not available.

Reported by _____

Reviewed by _____

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Known Analysis

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

Client:	**Sunco Disposal**	Date Reported:	06/26/98
Project:	Injection Pump	Date Analyzed:	06/25/98
Sample Matrix:	Water	Date Received:	06/11/98

Known Analysis

Parameter	Found Result	Known Result	Percent Recovery	Units
Arsenic	0.010	0.010	**100%**	mg/L
Barium	1.03	1.00	**103%**	mg/L
Cadmium	1.020	1.000	**102%**	mg/L
Chromium	0.99	1.00	**99%**	mg/L
Lead	1.00	1.00	**100%**	mg/L
Mercury	0.004	0.004	**100%**	mg/L
Selenium	0.009	0.010	**90%**	mg/L
Silver	1.04	1.00	**104%**	mg/L

References:

Method 1311: Toxicity Characteristic Leaching Procedure, SW-846, Rev. 0, July 1992.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, Rev. 1, July 1992.

Comments:

Reported by _____

Reviewed by _____

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

Client:	Sunco Trucking		
Project ID:	Injection Plant	Report Date:	06/24/98
Sample ID:	Injection Pump	Date Sampled:	06/11/98
Lab ID:	0398G03256	Date Received:	06/11/98
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	06/19/98

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	10.7	0.4
Toluene	29.0	0.4
Chlorobenzene	ND	0.4
Ethylbenzene	6.8	0.4
m,p-Xylenes	47.6	0.4
o-Xylene	41.9	0.4
1,3-Dichlorobenzene	29.0	0.4
1,4-Dichlorobenzene	ND	0.4
1,2-Dichlorobenzene	33.7	0.4

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	158.0%	70 -130%

Reference: Method 5030, Purge and Trap; Method 602, Purgeable Aromatics; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, USEPA, October 1984.

Comments: Surrogate failed to meet acceptance limits due to matrix affect.

Analyst

Review

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS
QUALITY CONTROL REPORT

Duplicate Analysis

Lab ID: 0398W03270
Sample Matrix: Water
Condition: Cool/Intact

Report Date: 06/24/98
Date Analyzed: 06/19/98

Target Analyte	Duplicate Concentration (ppb)	Original Concentration (ppb)	% Difference
Benzene	ND	ND	NA
Toluene	ND	ND	NA
Chlorobenzene	ND	ND	NA
Ethylbenzene	ND	ND	NA
m,p-Xylenes	ND	ND	NA
o-Xylene	ND	ND	NA
1,3-Dichlorobenzene	ND	ND	NA
1,4-Dichlorobenzene	ND	ND	NA
1,2-Dichlorobenzene	ND	ND	NA

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	72.6%	70 -130%

Reference: Method 5030, Purge and Trap; Method 602, Purgeable Aromatics; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, USEPA, October 1984.

Comments:

Analyst

Review

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS
QUALITY CONTROL REPORT

Matrix Spike Analysis

Lab ID: 0398W03270
Sample Matrix: Water
Condition: Cool/Intact

Report Date: 06/24/98
Date Analyzed: 06/19/98

Target Analyte	Spiked Sample Result in ng	Sample result in ng	Spike Added (ng)	% Recovery	Acceptance Limits (%)
Benzene	51.04	0.00	50.0	102.1%	70-130
Toluene	46.29	0.00	50.0	92.6%	70-130
Chlorobenzene	50.32	0.00	50.0	100.6%	70-130
Ethylbenzene	48.09	0.00	50.0	96.2%	70-130
m,p-Xylenes	100.40	0.00	100.0	100.4%	70-130
o-Xylene	45.97	0.00	50.0	91.9%	70-130
1,3-Dichlorobenzene	48.50	0.00	50.0	97.0%	70-130
1,4-Dichlorobenzene	47.90	0.00	50.0	95.8%	70-130
1,2-Dichlorobenzene	46.86	0.00	50.0	93.7%	70-130

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	92.6%	70 -130%

Reference: Method 5030, Purge and Trap; Method 602, Purgeable Aromatics; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, USEPA, October 1984.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS
QUALITY CONTROL REPORT

Method Blank Analysis

Sample Matrix: Water
Lab ID: Method Blank
Report Date: 06/24/98
Date Analyzed: 06/19/98

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	ND	0.2
Toluene	ND	0.2
Chlorobenzene	ND	0.2
Ethylbenzene	ND	0.2
m,p-Xylenes	ND	0.2
o-Xylene	ND	0.2
1,3-Dichlorobenzene	ND	0.2
1,4-Dichlorobenzene	ND	0.2
1,2-Dichlorobenzene	ND	0.2

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	81.0%	70-130%

Reference: Method 5030, Purge and Trap; Method 602, Purgeable Aromatics; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, USEPA, October 1984.

Comments:

Analyst

Review

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS
QUALITY CONTROL REPORT

Trip Blank Analysis

Sample Matrix: Water
Lab ID: Trip Blank
Report Date: 06/24/98
Date Analyzed: 06/19/98

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	ND	0.2
Toluene	ND	0.2
Chlorobenzene	ND	0.2
Ethylbenzene	ND	0.2
m,p-Xylenes	ND	0.2
o-Xylene	ND	0.2
1,3-Dichlorobenzene	ND	0.2
1,4-Dichlorobenzene	ND	0.2
1,2-Dichlorobenzene	ND	0.2

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	78.9%	70-130%

Reference: Method 5030, Purge and Trap; Method 602, Purgeable Aromatics; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, USEPA, October 1984.

Comments:

Analyst

Review

Inter-Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Known Analysis
Purgeable Aromatics

Client: Sunco Trucking
Project: Injection Plant

Date Reported: 06/24/98
Date Analyzed: 06/19/98

Known Analysis

Parameter	Found Result (ppb)	Known Result (ppb)	Percent Recovery	Acceptance Limits
Benzene	11.2	10.0	**112%**	70-130%
Toluene	10.9	10.0	**109%**	70-130%
Chlorobenzene	11.4	10.0	**114%**	70-130%
Ethylbenzene	11.2	10.0	**112%**	70-130%
m+p-Xylene	22.5	20.0	**113%**	70-130%
o-Xylene	10.6	10.0	**106%**	70-130%
1,3-Dichlorobenzene	11.1	10.0	**111%**	70-130%
1,4-Dichlorobenzene	11.2	10.0	**112%**	70-130%
1,2-Dichlorobenzene	10.6	10.0	**106%**	70-130%

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	103%	70-130%

Reference: Method 5030, Purge and Trap; Method 602, Purgeable Aromatics; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, USEPA, October 1984.

Comments:

Analyst _____

Reviewed by _____

imi
Inter- Mountain
Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSES / PARAMETERS
SUNCO / DISPOSAL	INJECTION PUMP	
Sampler: (Signature)	**Chain of Custody Tape No.**	

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	Dispose/plant list				Remarks
Injection Pump	6-11-98	~~1620~~ 1530 MR		H_2O	8					
										cool - ice, intact, hand delivered

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	6-11-98	1620			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)	Date	Time
			Billy Pogue	6-11-98	1620

Inter-Mountain Laboratories, Inc.

1633 Terra Avenue
Sheridan, Wyoming 82801
Telephone (307) 672-8945

1701 Phillips Circle
Gillette, Wyoming 82718
Telephone (307) 682-8945

2506 West Main Street
Farmington, NM 87401
Telephone (505) 326-4737

1160 Research Drive
Bozeman, Montana 59718
Telephone (406) 586-8450

11183 State Hwy. 30
College Station, TX 77845
Telephone (409) 776-8945

54591

#1 In Service
SUNCO TRUCKING
BIG A WELL SERVICE

P. O. Box 900, 5651 US Hwy. 64 ▪ Farmington, New Mexico 87499
(505) 327-4935 ▪ (505) 327-0416

Oct 22, 1998

OCT 28 1998

Roger Anderson
Environmental Bureau Chief
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

Denny Foust
Deputy Oil & Gas Inspector
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

Dear Sirs:

Please find attached our Quarterly Injection Well Report for Sunco Disposal.
The following explanation is needed concerning Flow Rate and Annular Pressures.

On Flow Rates: The average was based on a 16 hour days / days in the month .
Also there were many days when there was no pump activity.

On Annular Pressures: The non-continuous injection pump activity had severely effected the backside pressures . So on a letter dated March 20,1997 NMOCD granted Sunco a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarters report.

The Injection Water Analysis is also provided . If you require additional information, please contact me at (505) 334-6186

Best Regards:

Michael Talovich
Disposal Manager
Sunco Trucking

cc: H. Stone

SUNCO DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 1998	INJECTION PRESSURES			FLOW RATES			FLOW VOLUMES / DAY			ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	1940	1740	1920	2,863	808	2,044	63,358	63,358	2,730,383	0	0	0	5,040
FEB	1940	1740	1920	2,736	1,177	1,809	50,641	113,999	2,781,024	0	0	0	0
MAR	1950	1740	1920	2,495	1,339	1,750	54,262	168,261	2,835,286	0	0	0	2,680
APR	1950	1740	1920	2,860	0	1,728	51,848	220,109	2,887,134	0	0	0	800
MAY	1950	1740	1920	2,698	0	1,494	46,303	266,412	2,933,437	0	0	0	0
JUN	1950	1740	1920	2,797	0	1,325	39,751	306,163	2,973,188	0	0	0	240
JUL	1950	1740	1920	2,934	0	1,862	57,727	363,890	3,030,915	0	0	0	560
AUG	1980	1800	1930	2,763	961	1,798	55,726	419,616	3,086,641	0	0	0	2,040
SEP	1980	1740	1920	2,890	0	1,631	48,928	468,544	3,135,569	0	0	0	
OCT													
NOV													
DEC													

CERTIFICATION Michael Dalton DATE 10-23-98

Inter·Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

Michael Talovich
Sunco Trucking
708 S. Tucker
Farmington, NM 87401

October 13, 1998

Mr. Talovich:

Enclosed, please find the reports for the samples received by our laboratory for analysis on September 21, 1998.

If you have any questions about the results of these analyses, please don't hesitate to call me at your convenience.

We appreciate your business!

Sincerely,

Sharon Williams
Organics Lab Supervisor

Enclosures
xc: File

imi
Inter- Mountain
Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSES / PARAMETERS
SUNCO DISPOSAL	INJECTION PUMP	
Sampler: (Signature) Michael Thomas	**Chain of Custody Tape No.**	

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	See attached				Remarks
INJECTION PUMP	9-21-98	1345		H_2O	9	✓				
										Trip blank included
							CR			On ice intact hand del.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Michael Thomas	9-21-98	1442			
Relinquished by: (Signature)	**Date**	**Time**	**Received by: (Signature)**	**Date**	**Time**
Relinquished by: (Signature)	**Date**	**Time**	**Received by laboratory: (Signature)**	**Date**	**Time**
			Chris Rayner	9-21-98	1442

Inter-Mountain Laboratories, Inc.

1633 Terra Avenue
Sheridan, Wyoming 82801
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1701 Phillips Circle
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2506 West Main Street
Farmington, NM 87401
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Bozeman, Montana 59718
Telephone (406) 586-8450

11183 State Hwy. 30
College Station, TX 77845
Telephone (409) 776-8945

56721

Inter·Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

Client:	**Sunco Trucking**		
Project:	Injection Pump	Date Reported:	10/08/98
Sample ID:	Injection Pump	Date Sampled:	09/21/98
Laboratory ID:	0398G05565	Date Received:	09/21/98
Sample Matrix:	Water		
Condition:	Intact		

Analyte	Result	Units	PQL
Ignitability	95	° F	N/A
Corrosivity (pH)	7.8	s.u.	0.1
Reactive Cyanide	2.0	mg/L	1.0
Reactive Sulfide	ND	mg/L	10.0

ND - Analyte not detected at stated detection level.

References:

Analysis performed according to SW-846 "Test Methods for Evaluating Liquid/Solid Waste: Physical/Chemical Methods" United States Environmental Protection Agency 3rd Edition, final Update II, September, 1994.

ASTM Annual Book of Standards

Reported by: _____ Reviewed by: _____

Inter·Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL CONCENTRATION

Client:	**Sunco Trucking**		
Project:	Injection Pump	Date Reported:	10/06/98
Sample ID:	Injection Pump	Date Sampled:	09/21/98
Laboratory ID:	0398G05565	Date Received:	09/21/98
Sample Matrix:	Water	Date Analyzed:	10/02/98

Parameter	Result	Detection Limit	Regulatory Level	Units
Arsenic	<0.005	0.005	5	mg/L
Barium	6.17	0.01	100	mg/L
Cadmium	<0.004	0.004	1	mg/L
Chromium	<0.01	0.01	5	mg/L
Lead	<0.05	0.05	5	mg/L
Mercury	<0.001	0.001	0.2	mg/L
Selenium	<0.005	0.005	1	mg/L
Silver	<0.01	0.01	5	mg/L

References: Method 1311: Toxicity Characteristic Leaching Procedure, SW-846 "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods" 3rd Edition, Final Update III, December, 1996.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846 "Test Methods for Evaluating Solid Waste: Physical/ Chemical Methods" 3rd Edition, Final Update III, December, 1996.

Comments:

Reported By: _____ Reviewed: _____

Inter·Mountain Laboratories, Inc.

1701 Phillips Circle
Gillette, Wyoming 82718

Client: IML - Farmington
Project: Sunco
Sample ID: Injection Pump
Lab ID: 0298W05269
Matrix: Water
Condition: Cool/Intact

Date Reported: 10/01/98
Date Sampled: 09/21/98
Date Received: 09/23/98
Date Extracted: 09/21/98
Date Analyzed: 09/28/98

Parameter	Analytical Result	PQL	MCL	Units
METHOD 1311 TCLP Volatiles				
1,1-Dichloroethene	ND	0.02	0.7	mg/L
1,2-Dichloroethane	ND	0.02	0.5	mg/L
1,4-Dichlorobenzene	ND	0.02	7.5	mg/L
2-Butanone (MEK)	ND	0.1	200	mg/L
Benzene	ND	0.02	0.5	mg/L
Carbon Tetrachloride	ND	0.02	0.5	mg/L
Chlorobenzene	ND	0.02	100	mg/L
Chloroform	ND	0.02	6.0	mg/L
Tetrachloroethene (PCE)	ND	0.02	0.7	mg/L
Trichloroethene (TCE)	ND	0.02	0.5	mg/L
Vinyl Chloride	ND	0.02	0.2	mg/L

Quality Control - Surrogate Recovery	%	QC Limits
Dichloroethane-d4 (SUR-8260)	97	80 - 120
Toluene-d8(SUR-8260)	101	88 - 110
4-Bromofluorobenzene(SUR-8260)	106	86 - 115

ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Rev. 1, November 1992.

Reviewed By: W. Lupp

Inter·Mountain Laboratories, Inc.

1701 Phillips Circle
Gillette, Wyoming 82718

Client: IML - Farmington
Project: Sunco
Sample ID: Injection Pump
Lab ID: 0298W05269
Matrix: Water
Condition: Cool/Intact

Date Reported: 10/01/98
Date Sampled: 09/21/98
Date Received: 09/23/98
Date Extracted: 09/24/98
Date Analyzed: 09/29/98

Parameter	Analytical Result	PQL	MCL	Units
METHOD 1311- TCLP Semi-Volatile				
1,4-Dichlorobenzene	ND	20	7.5	µg/L
2,4,5-Trichlorophenol	ND	20	400	µg/L
2,4,6-Trichlorophenol	ND	20	2.0	µg/L
2,4-Dinitrotoluene	ND	20	0.13	µg/L
Hexachlorobenzene	ND	20	0.13	µg/L
Hexachlorobutadiene	ND	20	0.50	µg/L
Hexachloroethane	ND	20	3.0	µg/L
Nitrobenzene	ND	20	2.0	µg/L
o-Cresol	ND	20	200	µg/L
Pentachlorophenol	ND	100	100	µg/L
Pyridine	ND	20	5.0	µg/L
m,p-Cresol **	ND	20	200	µg/L

Quality Control - Surrogate Recovery	%	QC Limits
2-Fluorophenol(SUR-8270)	61	21 - 110
Phenol-d6(SUR-8270)	62	10 - 94
Nitrobenzene-d5(SUR-8270)	73	35 - 114
2-Fluorobiphenyl(SUR-8270)	72	43 - 116
2,4,6-Tribromophenol(SUR-8270)	102	10 - 123
Terphenyl-d14(SUR-8270)	82	33 - 141

ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: Test Methods for Evaluating Solid Waste, SW-846, U.S.E.P.A., Third Edition, Final Update II, 1994.

Reviewed By: JW

Inter·Mountain Laboratories, Inc.
1701 Phillips Circle
Gillette, Wyoming 82718

QUALITY ASSURANCE/QUALITY CONTROL

Inter·Mountain Laboratories, Inc.

1701 Phillips Circle
Gillette, Wyoming 82718

SEMIVOLATILE ANALYSIS
QUALITY ASSURANCE/QUALITY CONTROL REPORT
WATER BLANK SPIKE/BLANK SPIKE DUPLICATE RECOVERY

Date Extracted 09/24/98

Date Analyzed 09/29/98

Compound	Conc Spike	Sample Result	Conc. MS	% Rec	Conc. MSD	% Rec	RPD	QC Limits RPD	QC Limits Recovery
Pentachlorophenol	200	0	151	76	157	79	4	50	9-103
Phenol	200	0	89	45	80	40	11	42	12-89
2-Chlorophenol	200	0	139	70	125	63	11	40	27-123
4-Chloro-3-Methylphenol	200	0	136	68	137	69	1	42	23-97
4-Nitrophenol	200	0	90	45	105	53	15	50	10-80
1,2,4-Trichlorobenzene	100	0	58	58	56	56	4	28	39-98
Acenaphthene	100	0	76	76	76	76	0	31	46-118
2,4-Dinitrotoluene	100	0	67	67	66	66	2	38	24-96
Pyrene	100	0	81	81	78	78	4	31	26-127
N-Nitroso-Di-n-Proplylamine	100	0	87	87	81	81	7	38	41-116
1,4-Dichlorobenzene	100	0	61	61	52	52	16	28	36-97

Inter·Mountain Laboratories, Inc.

1701 Phillips Circle
Gillette, Wyoming 82718

EPA Method 8270
Semi-Volatile Organic Compounds

QC Method Blank Report

Lab ID:	MB9867B	**Date Reported:**	10/01/98
File ID:	09299803.D	**Date Extracted:**	09/24/98
Matrix:	Water	**Date Analyzed:**	09/29/98

Parameter	Analytical Result	PQL	Units
Method 8270			
1,2,4-Trichlorobenzene	ND	20	ug/L
1,2-Dichlorobenzene	ND	20	ug/L
1,3-Dichlorobenzene	ND	20	ug/L
1,4-Dichlorobenzene	ND	20	ug/L
1-Methylnaphthalene	ND	20	ug/L
2,4,5-Trichlorophenol	ND	20	ug/L
2,4,6-Trichlorophenol	ND	20	ug/L
2,4-Dichlorophenol	ND	20	ug/L
2,4-Dimethylphenol	ND	20	ug/L
2,4-Dinitrophenol	ND	100	ug/L
2,6-Dinitrotoluene	ND	20	ug/L
2-Chloronaphthalene	ND	20	ug/L
2-Chlorophenol	ND	20	ug/L
2-Methylnaphthalene	ND	20	ug/L
2-Methylphenol (o-Cresol)	ND	20	ug/L
2-Nitroaniline	ND	100	ug/L
2-Nitrophenol	ND	20	ug/L
2,4-Dinitrotoluene	ND	20	ug/L
3,3'-dichlorobenzidine	ND	40	ug/L
4,6-dinitro-2-methylphenol	ND	100	ug/L
4-Bromophenyl phenyl ether	ND	20	ug/L
4-Chloro-3-methylphenol	ND	40	ug/L
4-Chloroanilin	ND	40	ug/L
4-Chlorophenyl phenyl ether	ND	20	ug/L
4-Methylphenol/3-Methylphe	ND	20	ug/L
4-Nitroanaline	ND	40	ug/L
4-Nitrophenol	ND	40	ug/L
7,12-Dimethylbenz(a)anthra	ND	20	ug/L
Acenaphthalene	ND	20	ug/L
Acenaphthene	ND	20	ug/L
Analin	ND	20	ug/L
Anthracene	ND	20	ug/L
Azobenzene	ND	20	ug/L
Benzidine	ND	20	ug/L
Benzo(a)pyrene	ND	20	ug/L
Benzo(b)fluoranthene	ND	20	ug/L
Benzo(g,h,l)perylene	ND	20	ug/L

EPA Method 8270
Semi-Volatile Organic Compounds

QC Method Blank Report

Lab ID:	MB9867B	**Date Reported:**	10/01/98
File ID:	09299803.D	**Date Extracted:**	09/24/98
Matrix:	Water	**Date Analyzed:**	09/29/98

Parameter	Analytical Result	PQL	Units
Method 8270			
Benzo(k)fluoranthene	ND	20	ug/L
Benzyl Alcohol	ND	40	ug/L
Benzoic Acid	ND	100	ug/L
bis(2-Chloroehtoxy)methane	ND	20	ug/L
bis(2-Chloroethyl)ether	ND	20	ug/L
bis(2-Chloroisopropyl)ether	ND	20	ug/L
bis(2-ethylhexl)phthalate	ND	20	ug/L
Butylbenzylphthalate	ND	20	ug/L
Carbozole	ND	20	ug/L
Chrysene	ND	20	ug/L
Dibenz(a,h)anthracene	ND	20	ug/L
Dibenz(a,j)acridine	ND	20	ug/L
Dibenzofuran	ND	20	ug/L
Diethylphthalate	ND	40	ug/L
Dimethyphthalate	ND	80	ug/L
Di-n-butylphthalte	ND	20	ug/L
Di-n-octylphthalate	ND	20	ug/L
Fluoranthene	ND	20	ug/L
Fluorene	ND	20	ug/L
Hexachlorobenzene	ND	20	ug/L
Hexachlorobutadiene	ND	20	ug/L
Hexachlorocyclopentadiene	ND	20	ug/L
Hexachloroethane	ND	20	ug/L
Indene	ND	20	ug/L
Indeno(1,2,3-cd)pyrene	ND	20	ug/L
Isophorone	ND	20	ug/L
Naphthalene	ND	20	ug/L
Nitrobenzene	ND	20	ug/L
N-Nitroso-di-n-propylamine	ND	20	ug/L
N-Nitrosodimethylamine	ND	20	ug/L
N-Nitrosodiphenylamine/Dip	ND	20	ug/L
Pentachlorophenol	ND	100	ug/L
Phenanthrene	ND	20	ug/L
Phenol	ND	20	ug/L
Pyrene	ND	20	ug/L
Pyridine	ND	20	ug/L
Quinoline	ND	20	ug/L

Inter·Mountain Laboratories, Inc.

1701 Phillips Circle
Gillette, Wyoming 82718

Client: IML - Farmington
Project: Sunco
Sample ID: Trip Blank
Lab ID: 0298W05270
Matrix: Water
Condition: Cool/Intact

Date Reported: 10/01/98
Date Sampled: NG
Date Received: 09/23/98
Date Extracted: 09/21/98
Date Analyzed: 09/28/98

Parameter	Analytical Result	PQL	MCL	Units
METHOD 1311 TCLP Volatiles				
1,1-Dichloroethene	ND	0.02	0.7	mg/L
1,2-Dichloroethane	ND	0.02	0.5	mg/L
1,4-Dichlorobenzene	ND	0.02	7.5	mg/L
2-Butanone (MEK)	ND	0.1	200	mg/L
Benzene	ND	0.02	0.5	mg/L
Carbon Tetrachloride	ND	0.02	0.5	mg/L
Chlorobenzene	ND	0.02	100	mg/L
Chloroform	ND	0.02	6.0	mg/L
Tetrachloroethene (PCE)	ND	0.02	0.7	mg/L
Trichloroethene (TCE)	ND	0.02	0.5	mg/L
Vinyl Chloride	ND	0.02	0.2	mg/L

Quality Control - Surrogate Recovery	%	QC Limits
Dichloroethane-d4 (SUR-8260)	93	80 - 120
Toluene-d8(SUR-8260)	101	88 - 110
4-Bromofluorobenzene(SUR-8260)	103	86 - 115

ND - Parameter not detected at stated Practical Quantitation Limit.

Reference: Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Rev. 1, November 1992.

Reviewed By: _____

Inter·Mountain Laboratories, Inc.

1701 Phillips Circle
Gillette, Wyoming 82718

EPA Method 8270
Semi-Volatile Organic Compounds

QC Method Blank Report

Lab ID:	MB9867B	**Date Reported:**	10/01/98
File ID:	09299803.D	**Date Extracted:**	09/24/98
Matrix:	Water	**Date Analyzed:**	09/29/98

QC Surrogate Recovery	% Recovery	QC Limits
2-Fluorophenol	56	21-110
Phenol-d6	46	10-94
Nitrobenzene-d5	63	35-114
2-Fluorobiphenyl	63	43-116
2,4,6-Tribromophenol	89	10-123
Terphenyl-d14	76	33-141

ND-Parameter not detected at the stated Practical Quantitation Limit

Inter·Mountain Laboratories, Inc

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Spike Analysis / Blank Analysis

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

Client:	**Sunco Trucking**	Date Reported:	10/06/98
Project:	Injection Pump	Date Analyzed:	10/02/98
Sample Matrix:	Water	Date Received:	09/21/98

Spike Analysis

Parameter	Spike Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery
Arsenic	N/A	N/A	N/A	**N/A**
Barium	0.96	<0.01	1.00	**96%**
Cadmium	0.930	<0.004	1.000	**93%**
Chromium	0.96	<0.01	1.00	**96%**
Lead	0.98	<0.05	1.00	**98%**
Mercury	N/A	N/A	N/A	**N/A**
Selenium	0.035	0.015	0.025	**100%**
Silver	N/A	N/A	N/A	**N/A**

Method Blank Analysis

Parameter	Result	Detection Limit	Units
Arsenic	**ND**	0.005	mg/L
Barium	**ND**	0.01	mg/L
Cadmium	**ND**	0.004	mg/L
Chromium	**ND**	0.01	mg/L
Lead	**ND**	0.05	mg/L
Mercury	**ND**	0.001	mg/L
Selenium	**ND**	0.005	mg/L
Silver	**ND**	0.01	mg/L

References: Method 1311: Toxicity Characteristic Leaching Procedure, SW-846, Rev. 0, July 1992.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, Rev. 1, July 1992.

Comments: N/A=Data not available.

Reported by _____ Reviewed by _____

JUSTIS #1 In Service
SUNCO TRUCKING
BIG A WELL SERVICE

Key Four Corners, Inc.

P. O. Box 900, 5651 US Hwy. 64 • Farmington, New Mexico 87499
(505) 327-4935 • (505) 327-0416

RECEIVED
FEB 1999
Environmental Bureau
Oil Conservation Division

January 27, 1999

Roger Anderson
Environmental Bureau Chief
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

Denny Foust
Deputy Oil & Gas Inspector
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

Dear Sirs:

Please find attached our Quarterly Injection Well Report for Key Disposal.
The following explanation is needed concerning Flow Rate and Annular Pressures.

On Flow Rates: The average was based on a 16 hour days / days in the month .
Also there were many days when there was no pump activity.

On Annular Pressures: The non-continuous injection pump activity had severely effected the backside pressures . So on a letter dated March 20,1997 NMOCD granted Sunco/ Key a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarters report.

The Injection Water Analysis is also provided . If you require additional information, please contact me at the Facility 334-6186 or the New Crouch Office at 334- 6416

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: H. Stone

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 1998	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	1940	1740	1920	2,863	808	2,044	63,358	63,358	2,730,383	0	0	0	5,040
FEB	1940	1740	1920	2,736	1,177	1,809	50,641	113,999	2,781,024	0	0	0	0
MAR	1950	1740	1920	2,495	1,339	1,750	54,262	168,261	2,835,286	0	0	0	2,680
APR	1950	1740	1920	2,860	0	1,728	51,848	220,109	2,887,134	0	0	0	800
MAY	1950	1740	1920	2,698	0	1,494	46,303	266,412	2,933,437	0	0	0	0
JUN	1950	1740	1920	2,797	0	1,325	39,751	306,163	2,973,188	0	0	0	240
JUL	1950	1740	1920	2,934	0	1,862	57,727	363,890	3,030,915	0	0	0	560
AUG	1980	1800	1930	2,763	961	1,798	55,726	419,616	3,086,641	0	0	0	2,040
SEP	1980	1740	1920	2,890	0	1,631	48,928	468,544	3,135,569	0	0	0	240
OCT	1950	1740	1920	2,880	511	1,837	56,972	525,516	3,192,541	0	0	0	640
NOV	1980	1740	1920	2,916	0	1,891	56,734	582,250	3,249,275	0	0	0	5,740
DEC	1980	1750	1920	3,000	0	2,261	70,064	652,314	3,319,339	0	0	0	7,520

CERTIFICATION Michael Thomas DATE 1-29-99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

January 19, 1999

Mr. Mike Talovich
Key Energy Services, Inc. (505) 327-0416
P.O. Box 900
Farmington, New Mexico 87499

Project No.: 98065-02

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injection Well". One water sample identified as "Injection Pump" was collected from the designated location by Key Energy Services personnel on 01/04/99, and received by the Envirotech laboratory on 01/04/99 for Hazardous Waste Characterization analysis (Volatile and Semi-volatile Organics, Trace Metals, Reactivity, Corrosivity, and Ignitability).

The sample was documented on Envirotech Chain of Custody No. 6489 and assigned Laboratory No. E446 for tracking purposes.

The sample was analyzed on 01/05/99 through 01/14/99 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Stacy W. Sendler

Stacy W. Sendler
Environmental Scientist/Laboratory Manager

enclosure

SWS/sws 98065-02.lb1/wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy Services	Project #:	98065-02
Sample ID:	Injection Pump	Date Reported:	01-05-99
Lab ID#:	E446	Date Sampled:	01-04-99
Sample Matrix:	Water	Date Received:	01-04-99
Preservative:	Cool	Date Analyzed:	01-05-99
Condition:	Cool and Intact	Chain of Custody:	6489

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 8.42**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.
Comments:	**Injection Well.**

Analyst

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Key Energy Services	Project #:	98065-02
Sample ID:	Injection Pump	Date Reported:	01-12-99
Laboratory Number:	E446	Date Sampled:	01-04-99
Chain of Custody:	6489	Date Received:	01-04-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-11-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0825**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**98%**
	Bromofluorobenzene	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy Services	Project #:	98065-02
Sample ID:	Injection Pump	Date Reported:	01-14-99
Laboratory Number:	E446	Date Sampled:	01-04-99
Chain of Custody:	6489	Date Received:	01-04-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-14-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**0.367**	**0.020**	**200**
p,m-Cresol	**0.544**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**0.070**	**0.020**	**400**
Pentachlorophenol	**1.230**	**0.020**	**100**

ND - *Parameter not detected at the stated detection limit.*

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy Services	Project #:	98065-02
Sample ID:	Injection Pump	Date Reported:	01-13-99
Laboratory Number:	E446	Date Sampled:	01-04-99
Chain of Custody:	6489	Date Received:	01-04-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-12-99
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**0.422**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**1.419**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**95%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key energy Services	Project #:	98065-02
Sample ID:	Injection Pump	Date Reported:	01-12-99
Laboratory Number:	E446	Date Sampled:	01-04-99
Chain of Custody:	6489	Date Received:	01-04-99
Sample Matrix:	Water	Date Analyzed:	01-11-99
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**ND**	**0.0001**	**5.0**
Barium	**2.38**	**0.001**	**21**
Cadmium	**0.0027**	**0.0001**	**0.11**
Chromium	**0.126**	**0.0001**	**0.60**
Lead	**0.0815**	**0.0001**	**0.75**
Mercury	**ND**	**0.0001**	**0.025**
Selenium	**ND**	**0.0001**	**5.7**
Silver	**ND**	**0.0001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-12-99
Laboratory Number:	01-11-TCV-Blank	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-11-99
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples E446 and E479 - E480.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	01-12-99
Laboratory Number:	01-11-TV-MB	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-11-99
Condition:	N/A	Date Extracted:	N/A
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**99%**
	Bromofluorobenzene	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples E446 and E479 - E480.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-12-99
Laboratory Number:	E446	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-11-99
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	ND	ND	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0825	0.0835	0.0001	1.2%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples E446 and E479 - E480.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	01-12-99
Laboratory Number:	E446	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-11-99
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	ND	0.050	0.0495	0.0001	99%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0825	0.050	0.1323	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples E446 and E479 - E480.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-14-99
Laboratory Number:	01-14-TCA-Blank	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-14-99
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples E446 and E479 - E480.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	01-14-99
Laboratory Number:	01-12-TCA-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	01-12-99
Condition:	Cool & Intact	Date Analyzed:	01-14-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples E446 and E479 - E480.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-14-99
Laboratory Number:	E446	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	01-14-99
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	0.367	0.364	0.020	1.0%
p,m-Cresol	0.544	0.533	0.040	2.0%
2,4,6-Trichlorophenol	ND	ND	0.020	0.0%
2,4,5-Trichlorophenol	0.070	0.069	0.020	1.1%
Pentachlorophenol	1.230	1.220	0.020	0.8%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	30.0%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples E446 and E479 - E480.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-13-99
Laboratory Number:	01-12-TBN-Blank	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	01-12-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples E446 and E479 - E480.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	01-13-99
Laboratory Number:	01-12-TBN-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool and Intact	Date Analyzed:	01-12-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples E446 and E479 - E480.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-13-99
Laboratory Number:	E446	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	01-12-99
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**0.422**	**0.418**	**1.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**1.419**	**1.406**	**0.9%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples E446 and E479 - E480.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	01-11-TCM QA/QC	Date Reported:	01-12-99
Laboratory Number:	E446	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	01-11-99
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Barium	ND	ND	0.001	2.38	2.38	0.2%	0% - 30%
Cadmium	ND	ND	0.0001	0.0027	0.0026	3.7%	0% - 30%
Chromium	ND	ND	0.0001	0.1255	0.1251	0.0%	0% - 30%
Lead	ND	ND	0.0001	0.0815	0.0819	0.5%	0% - 30%
Mercury	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.0001	ND	ND	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.1000	ND	0.0999	99.9%	80% - 120%
Barium	1.000	2.38	3.37	99.7%	80% - 120%
Cadmium	0.0500	0.0027	0.0526	99.8%	80% - 120%
Chromium	0.0500	0.1255	0.1752	99.8%	80% - 120%
Lead	0.1000	0.0815	0.181	99.9%	80% - 120%
Mercury	0.0250	ND	0.0249	99.6%	80% - 120%
Selenium	0.1000	ND	0.0998	99.8%	80% - 120%
Silver	0.0500	ND	0.0498	99.6%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 7060B, 7081, 7131A, 7191, 7470A, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples E441, E446, E458 and E479 - E480.**

Analyst

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CHAIN OF CUSTODY RECORD

6489

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
KEY ENERGY SERVICES	INJECTION WELL	
Sampler: M. TALOVICH	Client No. 98065-02	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP WO-4P						Remarks
INJECTION PUMP	1-4-99	945	E446	WATER	6	✓						

	Date	Time		Date	Time
Relinquished by: (Signature)	1-4-99	1010	Received by: (Signature)	1.4.99	10:10
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

Key Four Corners, Inc.

P. O. Box 900, 5651 US Hwy. 64 • Farmington, New Mexico 87499
(505) 327-4935 • (505) 327-0416

MAY 2 1

May 19, 1999

First Quarter 1999

Roger Anderson
Environmental Bureau Chief
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

Denny Foust
Deputy Oil & Gas Inspector
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Sirs:

Please find attached our Quarterly Injection Well Report for Key Disposal.
The following explanation is needed concerning Flow Rate and Annular Pressures.

On Flow Rates: The average was based on a 16 hour days / days in the month .
Also there were many days when there was no pump activity.

On Annular Pressures: The non-continuous injection pump activity had severely effected the backside pressures . So on a letter dated March 20,1997 NMOCD granted Sunco/ Key a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarters report.

The Injection Water Analysis is also provided . If you require additional information, please contact me at the Facility 334-6186 or the New Crouch Office at 334- 6416

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: H. Stone

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 1999	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2040	1800	1920	4,020	904	2,148	66,589	66,589	3,385,928	0	0	0	7,200
FEB	2040	1860	1950	2,923	1,259	2,110	59,096	125,685	3,445,024	0	0	0	4280
MAR	2050	1860	1950	2,939	1,237	1,873	58,065	183,750	3,503,089	0	0	0	7,000
APR													
MAY													
JUN													
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													

CERTIFICATION Michael Tabor DATE 5-19-99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

April 23, 1999

Mr. Mike Talovich
Key Energy Services, Inc. (505) 327-0416
P.O. Box 900
Farmington, New Mexico 87499

Project No.: 98065-02

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Crouch Mesa". One water sample identified as "Disposal Injection Pump" was collected from the designated location by Key Energy designated personnel on 04/13/99, and received by the Envirotech laboratory on 04/13/99 for Hazardous Waste Characterization analysis (Volatile and Semi-volatile Organics, Trace Metals, Reactivity, Corrosivity, and Ignitability).

The sample was documented on Envirotech Chain of Custody No. 6837 and assigned Laboratory No. F016 for tracking purposes.

The sample was analyzed on 04/14/99 through 04/22/99 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Stacy W. Sendler
Environmental Scientist/Laboratory Manager

enclosure

SWS/sws 98065-02.lb1/wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy Service	Project #:	806502
Sample ID:	Disposal Injection Pump	Date Reported:	04-20-99
Laboratory Number:	F016	Date Sampled:	04-13-99
Chain of Custody:	6837	Date Received:	04-13-99
Sample Matrix:	Soil	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-20-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**0.960**	**0.020**	**200**
p,m-Cresol	**0.668**	**0.040**	**200**
2,4,6-Trichlorophenol	**0.394**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**0.635**	**0.020**	**400**
Pentachlorophenol	**3.44**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Crouch Mesa.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy Service	Project #:	806502
Sample ID:	Disposal Injection Pump	Date Reported:	04-20-99
Laboratory Number:	F016	Date Sampled:	04-13-99
Chain of Custody:	6837	Date Received:	04-13-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-20-99
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**0.021**	**0.020**	**3.0**
Nitrobenzene	**0.248**	**0.020**	**2.0**
Hexachlorobutadiene	**0.238**	**0.020**	**0.5**
2,4-Dinitrotoluene	**0.024**	**0.020**	**0.13**
HexachloroBenzene	**0.044**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Crouch Mesa.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy Service	Project #:	806502
Sample ID:	Disposal Injection Pump	Date Reported:	04-22-99
Laboratory Number:	F016	Date Sampled:	04-13-99
Chain of Custody:	6837	Date Received:	04-13-99
Sample Matrix:	Water	Date Analyzed:	04-22-99
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**ND**	**0.0001**	**5.0**
Barium	**2.47**	**0.001**	**21**
Cadmium	**0.0006**	**0.0001**	**0.11**
Chromium	**0.157**	**0.0001**	**0.60**
Lead	**0.0914**	**0.0001**	**0.75**
Mercury	**ND**	**0.0001**	**0.025**
Selenium	**ND**	**0.0001**	**5.7**
Silver	**ND**	**0.0001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Crouch Mesa.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Key Energy Service	Project #:	806502
Sample ID:	Disposal Injection Pump	Date Reported:	04-20-99
Laboratory Number:	F016	Date Sampled:	04-13-99
Chain of Custody:	6837	Date Received:	04-13-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-19-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**0.153**	**0.0001**	**0.2**
1,1-Dichloroethene	**0.0031**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0749**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**0.0106**	**0.0001**	**0.5**
Benzene	**0.0431**	**0.0001**	**0.5**
1,2-Dichloroethane	**0.0024**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**0.0050**	**0.0005**	**0.7**
Chlorobenzene	**0.0024**	**0.0003**	**100**
1,4-Dichlorobenzene	**0.0003**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**98%**
	Bromofluorobenzene	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Crouch Mesa.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-20-99
Laboratory Number:	04-19-TCV	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-19-99
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample F016.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-20-99
Laboratory Number:	F016	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-19-99
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	0.153	0.153	0.0001	0.0%
1,1-Dichloroethene	0.0031	0.0031	0.0001	0.0%
2-Butanone (MEK)	0.0749	0.0749	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	0.0106	0.0106	0.0001	0.0%
Benzene	0.0431	0.0431	0.0001	0.0%
1,2-Dichloroethane	0.0024	0.0024	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	0.0050	0.0050	0.0005	0.0%
Chlorobenzene	0.0024	0.0024	0.0003	0.0%
1,4-Dichlorobenzene	0.0003	0.0003	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample F016.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	04-20-99
Laboratory Number:	F016	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-19-99
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	0.153	0.050	0.202	0.0001	100%	28-163
1,1-Dichloroethene	0.0031	0.050	0.0525	0.0001	99%	43-143
2-Butanone (MEK)	0.0749	0.050	0.124	0.0001	100%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	0.0106	0.050	0.0597	0.0001	99%	43-143
Benzene	0.0431	0.050	0.0929	0.0001	100%	39-150
1,2-Dichloroethane	0.0024	0.050	0.0518	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	0.0050	0.050	0.0544	0.0005	99%	26-162
Chlorobenzene	0.0024	0.050	0.0518	0.0003	99%	38-150
1,4-Dichlorobenzene	0.0003	0.050	0.0497	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample F016.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-20-99
Laboratory Number:	04-20-TCA-Blank	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-20-99
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample F016.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	04-20-99
Laboratory Number:	04-19-TCA-MB	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	04-20-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample F016.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-20-99
Laboratory Number:	F016	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	04-20-99
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**0.960**	**0.950**	**0.020**	**1.0%**
p,m-Cresol	**0.668**	**0.655**	**0.040**	**2.0%**
2,4,6-Trichlorophenol	**0.394**	**0.390**	**0.020**	**1.0%**
2,4,5-Trichlorophenol	**0.635**	**0.628**	**0.020**	**1.1%**
Pentachlorophenol	**3.44**	**3.42**	**0.020**	**0.8%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample F016.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-20-99
Laboratory Number:	04-20-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	04-20-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample F016.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	04-20-99
Laboratory Number:	04-19-TBN-MB	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool and Intact	Date Analyzed:	04-20-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample F016.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-20-99
Laboratory Number:	F016	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	04-20-99
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**0.021**	**0.021**	**0.0%**	**0.020**
Nitrobenzene	**0.248**	**0.246**	**0.9%**	**0.020**
Hexachlorobutadiene	**0.238**	**0.236**	**1.1%**	**0.020**
2,4-Dinitrotoluene	**0.024**	**0.023**	**3.0%**	**0.020**
HexachloroBenzene	**0.044**	**0.044**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample F016.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	04-22-TCM QA/QC	Date Reported:	04-22-99
Laboratory Number:	F016	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	04-22-99
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Barium	ND	ND	0.001	2.47	2.46	0.4%	0% - 30%
Cadmium	ND	ND	0.0001	0.0006	0.0006	0.0%	0% - 30%
Chromium	ND	ND	0.0001	0.157	0.158	0.4%	0% - 30%
Lead	ND	ND	0.0001	0.0914	0.0912	0.2%	0% - 30%
Mercury	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.0001	ND	ND	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.1000	ND	0.0996	99.6%	80% - 120%
Barium	1.000	2.47	3.46	99.7%	80% - 120%
Cadmium	0.0500	0.0006	0.0505	99.8%	80% - 120%
Chromium	0.0500	0.157	0.207	99.9%	80% - 120%
Lead	0.1000	0.0914	0.191	99.8%	80% - 120%
Mercury	0.0250	ND	0.0249	99.6%	80% - 120%
Selenium	0.1000	ND	0.0997	99.7%	80% - 120%
Silver	0.0500	ND	0.0499	99.8%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 7060B, 7081, 7131A, 7191, 7470A, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples F016, E964 - E965 and E976 - E977.**

Analyst

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CHAIN OF CUSTODY RECORD

6837

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Key Energy Service	Crouch Mesa	
Sampler: M. TALOVICH	Client No. 806502	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o H+P						Remarks
Disposal Injection Pump	4-13-99	1325	F016	water	6	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	4-13-99	1345	[signature]	4.13.99	13 41
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

Key Four Corners, Inc.

P. O. Box 900, 5651 US Hwy. 64 ▪ Farmington, New Mexico 87499
(505) 327-4935 ▪ (505) 327-0416

RECEIVED
AUG 20 1999
OIL CONSERVATION DIVISION

July 20, 1999 Second Quarter 1999

Roger Anderson
Environmental Bureau Chief
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

Denny Foust
Deputy Oil & Gas Inspector
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Sirs:

Please find attached our Quarterly Injection Well Report for Key Disposal.
The following explanation is needed concerning Flow Rate and Annular Pressures.

On Flow Rates: The average was based on a 16 hour days / days in the month .
Also there were many days when there was no pump activity.

On Annular Pressures: The non-continuous injection pump activity had severely effected the backside pressures . So on a letter dated March 20,1997 NMOCD granted Sunco/ Key a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarters report.

The Injection Water Analysis is also provided . If you require additional information, please contact me at the Facility 334-6186 or the New Crouch Office at 334- 6416

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: H. Stone

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 1999	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2040	1800	1920	4,020	904	2,148	66,589	66,589	3,385,928	0	0	0	7,200
FEB	2040	1800	1920	2,923	1,259	2,110	59,096	125,685	3,445,024	0	0	0	4,280
MAR	2050	1860	1950	2,939	1,237	1,873	58,065	183,750	3,503,089	0	0	0	7,000
APR	2070	1860	1965	2,950	978	2,044	65,540	249,290	3,568,629	0	0	0	6,840
MAY	2070	1860	1965	2,975	702	2,053	63,462	312,752	3,632,091	0	0	0	3,640
JUN	2070	1860	1965	2,962	1,097	1,935	' 58,042	370,794	3,690,133	0	0	0	1,520
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													

CERTIFICATION Michael Pollard DATE 8-16-99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

July 31, 1999

Mr. Mike Talovich
Key Energy Services, Inc. (505) 327-0416
P.O. Box 900
Farmington, New Mexico 87499

Project No.: 98065-00

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Key Disposal Injection Well". One water sample was collected from the designated location by Key Energy Services personnel on 07/09/99, and received by the Envirotech laboratory on 07/12/99 for Hazardous Waste Characterization analysis (Volatile and Semi-volatile Organics, Trace Metals, Reactivity, Corrosivity, and Ignitability).

The sample was documented on Envirotech Chain of Custody No. 7162 and assigned Laboratory No. F657 for tracking purposes.

The sample was analyzed on 07/12/99 through 07/31/99 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Stacy W. Sendler
Environmental Scientist/Laboratory Manager

enclosure

SWS/sws 98065-00.lb1/wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy Service	Project #:	806500
Sample ID:	Injection Well	Date Reported:	07-12-99
Lab ID#:	F657	Date Sampled:	07-09-99
Sample Matrix:	Water	Date Received:	07-12-99
Preservative:	Cool	Date Analyzed:	07-12-99
Condition:	Cool and Intact	Chain of Custody:	7162

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.32**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **Key Disposal.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Key Energy Services	Project #:	806500
Sample ID:	Injection Well	Date Reported:	07-23-99
Laboratory Number:	F657	Date Sampled:	07-09-99
Chain of Custody:	7162	Date Received:	07-12-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-23-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	0.0487	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	0.0069	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	0.0007	0.0003	0.5
Tetrachloroethene	0.0022	0.0005	0.7
Chlorobenzene	0.0038	0.0003	100
1,4-Dichlorobenzene	0.0042	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	98%
	Bromofluorobenzene	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Key Disposal.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy Services	Project #:	806500
Sample ID:	Injection Well	Date Reported:	07-20-99
Laboratory Number:	F657	Date Sampled:	07-09-99
Chain of Custody:	7162	Date Received:	07-12-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-19-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**0.037**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Key Disposal.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy Services	Project #:	806500
Sample ID:	Injection Well	Date Reported:	07-20-99
Laboratory Number:	F657	Date Sampled:	07-09-99
Chain of Custody:	7162	Date Received:	07-12-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-19-99
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Key Disposal.**

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Environmental Services Laboratory

Date: *29-Jul-99*

CLIENT:	Pinnacle Laboratories	**Client Sample ID:**	907038-01
Lab Order:	9907084	**Tag Number:**	
Project:	907038/ENV/Key Energy Service	**Collection Date:**	7/9/99
Lab ID:	9907084-01A	**Matrix:**	AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
MERCURY		**SW 7470 / EPA 245.**				Analyst: **btn**
Mercury, TCLP	ND	0.0002		mg/L	1	7/21/99
ICP METALS		**SW 6010 / EPA 200.**				Analyst: **btn**
Arsenic, TCLP	ND	0.05		mg/L	1	7/23/99
Barium, TCLP	1.7	0.05		mg/L	1	7/23/99
Cadmium, TCLP	0.09	0.05		mg/L	1	7/23/99
Chromium, TCLP	ND	0.05		mg/L	1	7/23/99
Lead, TCLP	0.2	0.05		mg/L	1	7/23/99
Selenium, TCLP	ND	0.05		mg/L	1	7/23/99
Silver, TCLP	ND	0.05		mg/L	1	7/23/99

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-23-99
Laboratory Number:	07-23-TV-Blank	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-23-99
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**100%**
	Bromofluorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples F657 and F698.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-23-99
Laboratory Number:	F657	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	07-23-99
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	ND	ND	0.0001	0.0%
Chloroform	0.0487	0.0487	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0069	0.0069	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	0.0007	0.0007	0.0003	0.0%
Tetrachloroethene	0.0022	0.0022	0.0005	0.0%
Chlorobenzene	0.0038	0.0038	0.0003	0.0%
1,4-Dichlorobenzene	0.0042	0.0042	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples F657 and F698.**

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	07-23-99
Laboratory Number:	F657	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	07-23-99
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	ND	0.050	0.0495	0.0001	99%	47-132
Chloroform	0.0487	0.050	0.0985	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0069	0.050	0.0567	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	0.0007	0.050	0.0501	0.0003	99%	35-146
Tetrachloroethene	0.0022	0.050	0.0516	0.0005	99%	26-162
Chlorobenzene	0.0038	0.050	0.0532	0.0003	99%	38-150
1,4-Dichlorobenzene	0.0042	0.050	0.0536	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples F657 and F698.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-20-99
Laboratory Number:	07-19-TCA-Blank	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-19-99
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	**98 %**
	2,4,6-tribromophenol	**99 %**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples F657 and F698.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	07-20-99
Laboratory Number:	07-15-TCA-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	07-15-99
Condition:	Cool & Intact	Date Analyzed:	07-19-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples F657 and F698.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-20-99
Laboratory Number:	F657	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	07-19-99
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**0.037**	**0.036**	**0.020**	**1.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples F657 and F698.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-20-99
Laboratory Number:	07-19-TBN-Blank	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	07-19-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples F657 and F698.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	07-20-99
Laboratory Number:	07-15-TBN-MB	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool and Intact	Date Analyzed:	07-19-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples F657 and F698.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-20-99
Laboratory Number:	F657	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	07-19-99
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples F657 and F698.**

Analyst

Review

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CLIENT: Pinnacle Laboratories
Work Order: 9907084
Project: 907038/ENV/Key Energy Service

QC SUMMARY REPORT

Method Blank

Sample ID: **MBlank**	Batch ID: **648**	Test Code: **Mercury**	Units: **mg/L**	Analysis Date **7/21/99**	Prep Date: **7/20/99**
Client ID:	**9907084**	Run ID: **MERC_990721A**		SeqNo: **18188**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.0002									

Sample ID: **MB-662**	Batch ID: **662**	Test Code: **ICPMET**	Units: **mg/L**	Analysis Date **7/23/99**	Prep Date: **7/22/99**
Client ID:	**9907084**	Run ID: **ICP_990723B**		SeqNo: **18474**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.005									
Barium	ND	0.005									
Cadmium	ND	0.002									
Chromium, 200.7	ND	0.005									
Copper, 200.7	ND	0.005									
Hardness	ND	0.33									
Iron	ND	0.01									
Lead	ND	0.005									
Manganese	ND	0.005									
Selenium	ND	0.005									
Silver	ND	0.005									
Zinc, 200.7	ND	0.005									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Environmental Services Laboratory

Date: *29-Jul-99*

CLIENT: Pinnacle Laboratories
Work Order: 9907084
Project: 907038/ENV/Key Energy Service

QC SUMMARY REPORT
Sample Duplicate

Sample ID: **9907090-01A DUP** Batch ID: **648** Test Code: **Mercury** Units: **mg/L** Analysis Date **7/21/99** Prep Date: **7/20/99**
Client ID: **9907084** Run ID: **MERC_990721A** SeqNo: **18200**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.0002	0	0	0.0%	0	0	0	0.0%	20	

Sample ID: **9907101-01A DUP** Batch ID: **662** Test Code: **ICPMET** Units: **mg/L** Analysis Date **7/23/99** Prep Date: **7/22/99**
Client ID: **9907084** Run ID: **ICP_990723B** SeqNo: **18467**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.005	0	0	0.0%	0	0	0	0.0%	20	
Barium	ND	0.005	0	0	0.0%	0	0	0	0.0%	20	
Cadmium	ND	0.002	0	0	0.0%	0	0	0	0.0%	20	
Chromium, 200.7	ND	0.005	0	0	0.0%	0	0	0	0.0%	20	
Copper, 200.7	ND	0.005	0	0	0.0%	0	0	0	0.0%	20	
Hardness	20.31	0.33	0	0	0.0%	0	0	20.36	0.2%	20	
Iron	.06132	0.01	0	0	0.0%	0	0	0.06552	6.6%	20	
Lead	ND	0.005	0	0	0.0%	0	0	0	0.0%	20	
Manganese	ND	0.005	0	0	0.0%	0	0	0	0.0%	20	
Selenium	ND	0.005	0	0	0.0%	0	0	0	0.0%	20	
Silver	ND	0.005	0	0	0.0%	0	0	0	0.0%	20	
Zinc, 200.7	.006049	0.005	0	0	0.0%	0	0	0.007443	20.7%	20	T

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories
Work Order: 9907084
Project: 907038/ENV/Key Energy Service

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **9907090-01A MS**	Batch ID: **648**	Test Code: **Mercury**	Units: **mg/L**	Analysis Date **7/21/99**	Prep Date: **7/20/99**
Client ID:	**9907084**	Run ID:	**MERC_990721A**	SeqNo:	**18201**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	.00198	0.0002	0.002	0	99.0%	75	125	0			

Sample ID: **9907090-01A MSD**	Batch ID: **648**	Test Code: **Mercury**	Units: **mg/L**	Analysis Date **7/21/99**	Prep Date: **7/20/99**
Client ID:	**9907084**	Run ID:	**MERC_990721A**	SeqNo:	**18202**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	.00196	0.0002	0.002	0	98.0%	75	125	0.00198	1.0%	20	

Sample ID: **9907101-01A MS**	Batch ID: **662**	Test Code: **ICPMET**	Units: **mg/L**	Analysis Date **7/23/99**	Prep Date: **7/22/99**
Client ID:	**9907084**	Run ID:	**ICP_990723B**	SeqNo:	**18468**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	.9976	0.005	1	0	99.8%	80	120	0			
Barium	.9201	0.005	1	0	92.0%	80	120	0			
Cadmium	.9917	0.002	1	0	99.2%	80	120	0			
Chromium, 200.7	.9963	0.005	1	0	99.6%	80	120	0			
Copper, 200.7	.9443	0.005	1	0	94.4%	80	120	0			
Hardness	85.33	0.33	66.2	20.36	98.1%	80	120	0			
Iron	10.15	0.01	10	0.06552	100.9%	80	120	0			
Lead	.9712	0.005	1	0	97.1%	80	120	0			
Manganese	.9739	0.005	1	0	97.4%	80	120	0			
Selenium	.9475	0.005	1	0	94.8%	80	120	0			
Silver	.9776	0.005	1	0	97.8%	80	120	0			
Zinc, 200.7	.9911	0.005	1	0.007443	98.4%	80	120	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories
Work Order: 9907084
Project: 907038/ENV/Key Energy Service

QC SUMMARY REPORT
Sample Matrix Spike Duplicate

Sample ID: **9907101-01A MSD** Batch ID: **662** Test Code: **ICPMET** Units: **mg/L** Analysis Date **7/23/99** Prep Date: **7/22/99**
Client ID: **9907084** Run ID: **ICP_990723B** SeqNo: **18469**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	.9949	0.005	1	0	99.5%	80	120	0.9976	0.3%	20	
Barium	.9181	0.005	1	0	91.8%	80	120	0.9201	0.2%	20	
Cadmium	.8988	0.002	1	0	89.9%	80	120	0.9917	9.8%	20	
Chromium, 200.7	.9044	0.005	1	0	90.4%	80	120	0.9963	9.7%	20	
Copper, 200.7	.9426	0.005	1	0	94.3%	80	120	0.9443	0.2%	20	
Hardness	84.95	0.33	66.2	20.36	97.6%	80	120	85.33	0.4%	20	
Iron	10.09	0.01	10	0.06552	100.2%	80	120	10.15	0.6%	20	
Lead	.8804	0.005	1	0	88.0%	80	120	0.9712	9.8%	20	
Manganese	.9683	0.005	1	0	96.8%	80	120	0.9739	0.6%	20	
Selenium	.8575	0.005	1	0	85.7%	80	120	0.9475	10.0%	20	
Silver	.9771	0.005	1	0	97.7%	80	120	0.9776	0.0%	20	
Zinc, 200.7	.8996	0.005	1	0.007443	89.2%	80	120	0.9911	9.7%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories
Work Order: 9907084
Project: 907038/ENV/Key Energy Service

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS	Batch ID: 648	Test Code: Mercury	Units: mg/L	Analysis Date 7/21/99	Prep Date: 7/20/99
Client ID:	9907084	Run ID: MERC_990721A		SeqNo: 18189	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	.00085	0.0002	0.001	0	85.0%	80	120	0			

Sample ID: LCS-662	Batch ID: 662	Test Code: ICPMET	Units: mg/L	Analysis Date 7/23/99	Prep Date: 7/22/99
Client ID:	9907084	Run ID: ICP_990723B		SeqNo: 18473	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	.9936	0.005	1	0	99.4%	80	120	0			
Barium	.9037	0.005	1	0	90.4%	80	120	0			
Cadmium	.999	0.002	1	0	99.9%	80	120	0			
Chromium, 200.7	.9975	0.005	1	0	99.8%	90	110	0			
Copper, 200.7	.9309	0.005	1	0	93.1%	90	110	0			
Hardness	64.78	0.33	66.2	0	97.9%	80	120	0			
Iron	10.05	0.01	10	0	100.5%	80	120	0			
Lead	.9683	0.005	1	0	96.8%	80	120	0			
Manganese	.9662	0.005	1	0	96.6%	80	120	0			
Selenium	.9499	0.005	1	0	95.0%	80	120	0			
Silver	.9709	0.005	1	0	97.1%	80	120	0			
Zinc, 200.7	.9874	0.005	1	0	98.7%	90	110	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Environmental Services Laboratory

Date: *29-Jul-99*

CLIENT: Pinnacle Laboratories
Work Order: 9907084
Project: 907038/ENV/Key Energy Service

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **ICV** Batch ID: **648** Test Code: **Mercury** Units: **mg/L** Analysis Date **7/21/99** Prep Date: **7/20/99**

Client ID: **9907084** Run ID: **MERC_990721A** SeqNo: **18203**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	.00206	0.0002	0.002	0	103.0%	90	110	0			

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories
Work Order: 9907084
Project: 907038/ENV/Key Energy Service

QC SUMMARY REPORT

Minerals ICV for ICP

Sample ID: CCVHI	Batch ID: 662	Test Code: ICPMET	Units: mg/L	Analysis Date 7/23/99	Prep Date:
Client ID: 9907084	Run ID: ICP_990723B			SeqNo: 18471	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hardness	166.1	0.33	165	0	100.7%	90	110	0			

Sample ID: CCVLOW	Batch ID: 662	Test Code: ICPMET	Units: mg/L	Analysis Date 7/23/99	Prep Date:
Client ID: 9907084	Run ID: ICP_990723B			SeqNo: 18472	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	.5151	0.005	0.5	0	103.0%	90	110	0			
Barium	.487	0.005	0.5	0	97.4%	90	110	0			
Cadmium	.5157	0.002	0.5	0	103.1%	90	110	0			
Chromium, 200.7	.5162	0.005	0.5	0	103.2%	95	105	0			
Copper, 200.7	.504	0.005	0.5	0	100.8%	95	105	0			
Iron	.5092	0.01	0.5	0	101.8%	90	110	0			
Lead	.5211	0.005	0.5	0	104.2%	90	110	0			
Manganese	.502	0.005	0.5	0	100.4%	90	110	0			
Selenium	.5066	0.005	0.5	0	101.3%	90	110	0			
Silver	.499	0.005	0.5	0	99.8%	90	110	0			
Zinc, 200.7	.5097	0.005	0.5	0	101.9%	95	105	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CHAIN OF CUSTODY RECORD

7162

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Key Energy Services	Key Disposal	
Sampler: M. TALOVICH	Client No. 98065-00	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o herbs + pest.						Remarks
Injection well	7-9-99	1500	F657	H_2O	6	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Michael Talovich	7-12-99	0825	Christ Waeto	7-12-99	8:25
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

Key Energy Services, Inc.
Four Corners Division
P.O. Box 900
5651 US Highway 64
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

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NOV 18 1999
Environmental Bureau
Oil Conservation Division

November 10, 1999

Third Quarter 1999

Roger Anderson
Environmental Bureau Chief
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

Denny Foust
Deputy Oil & Gas Inspector
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Sirs:

Please find attached our Quarterly Injection Well Report for Key Disposal.
The following explanation is needed concerning Flow Rate and Annular Pressures.

On Flow Rates: The average was based on a 16 hour days / days in the month .
Also there were many days when there was no pump activity.

On Annular Pressures: The non-continuous injection pump activity had severely effected the backside pressures . So on a letter dated March 20,1997 NMOCD granted Sunco/ Key a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarters report.

The Injection Water Analysis is also provided . If you require additional information, please contact me at the Facility 334-6186 or the New Crouch Office at 334- 6416

Best Regards;

Michael Talovich
Disposal Manager
Key Energy Services

cc: H. Stone

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 1999	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2040	1800	1920	4,020	904	2,148	66,589	66,589	3,385,928	0	0	0	7,200
FEB	2040	1800	1920	2,923	1,259	2,110	59,096	125,685	3,445,024	0	0	0	4,280
MAR	2050	1860	1950	2,939	1,237	1,873	58,065	183,750	3,503,089	0	0	0	7,000
APR	2070	1860	1965	2,950	978	2,044	65,540	249,290	3,568,629	0	0	0	6,840
MAY	2070	1860	1965	2,975	702	2,053	63,462	312,752	3,632,091	0	0	0	3,640
JUN	2070	1860	1965	2,962	1,097	1,935	58,042	370,794	3,690,133	0	0	0	1,520
JUL	2050	1830	1940	2,965	1306	1,974	59,224	430,018	3,749,357	0	0	0	2,160
AUG	2070	1860	1965	3,030	1311	2,530	78,424	508,442	3,827,781	0	0	0	5,640
SEP	2070	1860	1965	3,029	582	1,916	57,481	565,923	3,885,262	0	0	0	4,720
OCT													
NOV													
DEC													

CERTIFICATION Michael Johnson DATE 11-10-99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

October 25, 1999

Mr. Mike Talovich
Key Energy Services, Inc.
P.O. Box 900
Farmington, New Mexico 87499

(505) 327-0416

Client No.: 98065-01
Job No.: 806501

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injection Pump". One water sample was collected by Key Energy Services personnel on 10/12/99, and delivered to the Envirotech laboratory on 10/12/99 for Hazardous Waste Characterization analysis (TCLP Volatiles, Semi-volatiles, Trace Metals, Ignitability, Reactivity and Corrosivity).

The sample was documented on Envirotech Chain of Custody No. 7429 and assigned Laboratory No. G181 (Injection Pump) for tracking purposes. The sample was analyzed 10/13/99 through 10/22/99 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Stacy W. Sendler
Environmental Scientist/Laboratory Manager

enclosure

SWS\sws\98065-01.lb5/wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy Services	Project #:	806501
Sample ID:	Injection Pump	Date Reported:	10-14-99
Lab ID#:	G181	Date Sampled:	10-12-99
Sample Matrix:	Water	Date Received:	10-12-99
Preservative:	Cool	Date Analyzed:	10-13-99
Condition:	Cool and Intact	Chain of Custody:	7429

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.53**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **Injection Pump.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Key Energy Services	Project #:	806501
Sample ID:	Injection Pump	Date Reported:	10-15-99
Laboratory Number:	G181	Date Sampled:	10-12-99
Chain of Custody:	7429	Date Received:	10-12-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-14-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**0.0439**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0357**	**0.0001**	**200**
Chloroform	**0.0731**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0304**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**98%**
	Bromofluorobenzene	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Pump.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy Services	Project #:	806501
Sample ID:	Injection Pump	Date Reported:	10-15-99
Laboratory Number:	G181	Date Sampled:	10-12-99
Chain of Custody:	7429	Date Received:	10-12-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-14-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**0.516**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Pump.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy Services	Project #:	806501
Sample ID:	Injection Pump	Date Reported:	10-15-99
Laboratory Number:	G181	Date Sampled:	10-12-99
Chain of Custody:	7429	Date Received:	10-12-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-14-99
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**0.096**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Pump.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy Services	Project #:	806501
Sample ID:	Injection Pump	Date Reported:	11-05-99
Laboratory Number:	G181	Date Sampled:	10-12-99
Chain of Custody:	7429	Date Received:	10-12-99
Sample Matrix:	Water	Date Analyzed:	11-04-99
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.138**	**0.001**	**5.0**
Barium	**7.84**	**0.001**	**21**
Cadmium	**0.040**	**0.001**	**0.11**
Chromium	**0.216**	**0.001**	**0.60**
Lead	**0.422**	**0.001**	**0.75**
Mercury	**0.0133**	**0.0005**	**0.025**
Selenium	**0.065**	**0.001**	**5.7**
Silver	**0.042**	**0.001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Pump.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-15-99
Laboratory Number:	10-14-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-14-99
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample G181.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-15-99
Laboratory Number:	G181	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	10-14-99
Condition:	N/A	Date Extracted:	NA

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	0.0439	0.0439	0.0001	0.0%
2-Butanone (MEK)	0.0357	0.0357	0.0001	0.0%
Chloroform	0.0731	0.0731	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0304	0.0304	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample G181.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	10-15-99
Laboratory Number:	G181	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	10-14-99
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	0.0439	0.050	0.0933	0.0001	99%	43-143
2-Butanone (MEK)	0.0357	0.050	0.0852	0.0001	99%	47-132
Chloroform	0.0731	0.050	0.123	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0304	0.050	0.0802	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample G181.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW.

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-15-99
Laboratory Number:	10-14-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-14-99
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	**98 %**
	2,4,6-tribromophenol	**99 %**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples G168 and G181.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	10-15-99
Laboratory Number:	10-11-TCA	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	10-11-99
Condition:	Cool & Intact	Date Analyzed:	10-14-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples G168 and G181.**

Analyst

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-15-99
Laboratory Number:	G168	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	10-14-99
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**0.078**	**0.077**	**0.020**	**1.1%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples G168 and G181.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-15-99
Laboratory Number:	10-14-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	10-14-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples G168 and G181.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	10-15-99
Laboratory Number:	10-11-TBN	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	10-11-99
Condition:	Cool and Intact	Date Analyzed:	10-14-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples G168 and G181.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-15-99
Laboratory Number:	G168	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	10-11-99
Condition:	N/A	Date Analyzed:	10-14-99
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples G168 and G181.**

Analyst

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	11-04-TCM QA/QC	Date Reported:	11-05-99
Laboratory Number:	G132	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	11-04-99
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**0.076**	**0.076**	**0.0%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**1.07**	**1.06**	**0.4%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**0.013**	**0.013**	**0.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.002**	**0.002**	**0.0%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**0.460**	**0.459**	**0.2%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.0005**	**ND**	**ND**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**0.076**	**0.577**	**100.2%**	**80% - 120%**
Barium	**1.00**	**1.07**	**2.06**	**99.7%**	**80% - 120%**
Cadmium	**0.250**	**0.013**	**0.264**	**100.4%**	**80% - 120%**
Chromium	**0.250**	**0.002**	**0.251**	**99.6%**	**80% - 120%**
Lead	**0.250**	**0.460**	**0.709**	**99.9%**	**80% - 120%**
Mercury	**0.125**	**ND**	**0.125**	**100.0%**	**80% - 120%**
Selenium	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**
Silver	**0.250**	**ND**	**0.251**	**100.4%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 7060B, 7081, 7131A, 7191, 7470A, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples G132, G168, G181, G191 and G243.**

Analyst

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CHAIN OF CUSTODY RECORD

7429

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Key Energy Services	Injection Pump	
Sampler: MIKE TALOVICH	Client No. 806501	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP Less Herbicides + Pests						Remarks
Injection Pump	10/12	1:15pm	G181	Water	4	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Michael Talovich	10-12-99	1350	Dena L. Ogden	10.12.99	1350
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

RECEIVED
JAN 2 1 2000
Environmental Bureau
Oil Conservation Division

Key Energy Services, Inc.
Four Corners Division
P.O. Box 900
5651 US Highway 64
Farmington, NM 87499
Phone: 505-327-4935
Fax: 505-327-4962

January 20 2000 Forth Quarter 1999

Roger Anderson
Environmental Bureau Chief
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

Denny Foust
Deputy Oil & Gas Inspector
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Sirs:

Please find attached our Quarterly Injection Well Report for Key Disposal.
The following explanation is needed concerning Flow Rate and Annular Pressures.

On Flow Rates: The average was based on a 16 hour days / days in the month .
Also there were many days when there was no pump activity.

On Annular Pressures: The non-continuous injection pump activity had severely effected the backside pressures . So on a letter dated March 20,1997 NMOCD granted Sunco/ Key a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarters report.

The Injection Water Analysis is also provided . If you require additional information, please contact me at the Facility 334-6186 or the New Crouch Office at 334- 6416

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: H. Stone Key Energy
D.Foust NMOCD

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 1999	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2040	1800	1920	4,020	904	2,148	66,589	66,589	3,385,928	0	0	0	7,200
FEB	2040	1800	1920	2,923	1,259	2,110	59,096	125,685	3,445,024	0	0	0	4,280
MAR	2050	1860	1950	2,939	1,237	1,873	58,065	183,750	3,503,089	0	0	0	7,000
APR	2070	1860	1965	2,950	978	2,044	65,540	249,290	3,568,629	0	0	0	6,840
MAY	2070	1860	1965	2,975	702	2,053	63,462	312,752	3,632,091	0	0	0	3,640
JUN	2070	1860	1965	2,962	1,097	1,935	58,042	370,794	3,690,133	0	0	0	1,520
JUL	2050	1830	1940	2,965	1306	1,974	59,224	430,018	3,749,357	0	0	0	2,160
AUG	2070	1860	1965	3,030	1311	2,530	78,424	508,442	3,827,781	0	0	0	5,640
SEP	2070	1860	1965	3,029	582	1,916	57,481	565,923	3,885,262	0	0	0	4,720
OCT	2070	1860	1965	2,969	1,374	2,033	63,029	628,952	3,948,291	0	0	0	5,520
NOV	2070	1860	1965	3,173	0	1,929	57,881	686,833	4,006,172	0	0	0	3,680
DEC	2070	1860	1965	2,885	0	2,017	62,534	749,367	4,068,706				5,640

CERTIFICATION Michael Johnson DATE 1-20-00

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

January 14, 2000

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-01
Job No.: 806501

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Key Disposal Well". One water sample was collected by Key Energy Service personnel on 1/11/00, and received by the Envirotech laboratory on 1/11/00 for Hazardous Waste Characterization analysis (TCLP Volatiles, Semi-volatiles, Trace Metals, Ignitability, Reactivity and Corrosivity).

The samples were documented on Envirotech Chain of Custody No. 7618 and assigned Laboratory No. G687 (Key Injection Well) for tracking purposes.

The samples were analyzed 1/12/00 through 1/13/00 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy Serv.	Project #:	806501
Sample ID:	Key Injection Well	Date Reported:	01-12-00
Lab ID#:	G687	Date Sampled:	01-11-00
Sample Matrix:	Water	Date Received:	01-11-00
Preservative:	Cool	Date Analyzed:	01-12-00
Condition:	Cool and Intact	Chain of Custody:	7618

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.55**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **Key Disposal Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Key Energy Serv.	Project #:	806501
Sample ID:	Key Injection Well	Date Reported:	01-13-00
Laboratory Number:	G687	Date Sampled:	01-11-00
Chain of Custody:	7618	Date Received:	01-11-00
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-12-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0476**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.104**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**98%**
	Bromofluorobenzene	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Key Disposal Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy Serv.	Project #:	806501
Sample ID:	Key Injection Well	Date Reported:	01-13-00
Laboratory Number:	G687	Date Sampled:	01-11-00
Chain of Custody:	7618	Date Received:	01-11-00
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-13-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**0.411**	**0.020**	**200**
p,m-Cresol	**0.798**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Key Disposal Well.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy Serv.	Project #:	806501
Sample ID:	Key Injection Well	Date Reported:	01-13-00
Laboratory Number:	G687	Date Sampled:	01-11-00
Chain of Custody:	7618	Date Received:	01-11-00
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-12-00
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Key Disposal Well.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy Serv.	Project #:	806501
Sample ID:	Key Injection Well	Date Reported:	01-13-00
Laboratory Number:	G687	Date Sampled:	01-11-00
Chain of Custody:	7618	Date Received:	01-11-00
Sample Matrix:	Water	Date Analyzed:	01-12-00
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**ND**	**0.001**	**5.0**
Barium	**1.08**	**0.001**	**21**
Cadmium	**ND**	**0.001**	**0.11**
Chromium	**ND**	**0.001**	**0.60**
Lead	**ND**	**0.001**	**0.75**
Mercury	**ND**	**0.001**	**0.025**
Selenium	**ND**	**0.001**	**5.7**
Silver	**ND**	**0.001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Key Disposal Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-13-00
Laboratory Number:	01-12-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-12-00
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample G687.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-13-00
Laboratory Number:	G687	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-12-00
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0476	0.0476	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.104	0.104	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample G687.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	01-13-00
Laboratory Number:	G687	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-12-00
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0476	0.050	0.0971	0.0001	99%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.104	0.050	0.154	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample G687.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-13-00
Laboratory Number:	01-13-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-13-00
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample G687.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	01-13-00
Laboratory Number:	01-12-TCA-MB	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	01-13-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample G687.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-13-00
Laboratory Number:	G687	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	01-13-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**0.411**	**0.407**	**0.020**	**1.0%**
p,m-Cresol	**0.798**	**0.782**	**0.040**	**2.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample G687.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-13-00
Laboratory Number:	01-12-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	01-12-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**95%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample G687.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	01-13-00
Laboratory Number:	01-12-TBN	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool and Intact	Date Analyzed:	01-12-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**101%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample G687.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-13-00
Laboratory Number:	G687	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	01-12-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample G687.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	01-12-TCM QA/QC	Date Reported:	01-13-00
Laboratory Number:	G687	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	01-12-00
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**1.08**	**1.10**	**1.9%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**ND**	**0.498**	**99.6%**	**80% - 120%**
Barium	**0.500**	**1.08**	**1.59**	**100.6%**	**80% - 120%**
Cadmium	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**
Chromium	**0.500**	**ND**	**0.498**	**99.6%**	**80% - 120%**
Lead	**0.500**	**ND**	**0.500**	**100.0%**	**80% - 120%**
Mercury	**0.050**	**ND**	**0.050**	**100.0%**	**80% - 120%**
Selenium	**0.500**	**ND**	**0.498**	**99.6%**	**80% - 120%**
Silver	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples G687.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

7618

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Key Energy Serv.	Key Disposal well	
Sampler: M. Talovich	Client No. 98065-01	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP RCRA 8 Metals, no Resolves						Remarks
Key Injection well	1-11-00	10:00	G687	H2O	5							

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Michael Talovich	1-11-00	10:15	Deanna L. Aguirre	1.11.00	10:11
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

RECEIVED
MAY 0 3 2000
Environmental Bureau
Oil Conservation Division

Key Energy Services, Inc.
Four Corners Division
P.O. Box 900
5651 US Highway 64
Farmington, NM 87499
Phone: 505-327-4935
Fax: 505-327-4962

May 1, 2000 First Quarter 2000

Roger Anderson
Environmental Bureau Chief
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

Denny Foust
Deputy Oil & Gas Inspector
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Sirs:

Please find attached our Quarterly Injection Well Report for Key Disposal.
The following explanation is needed concerning Flow Rate and Annular Pressures.

On Flow Rates: The average was based on a 16 hour days / days in the month .
Also there were many days when there was no pump activity.

On Annular Pressures: The non-continuous injection pump activity had severely effected the backside pressures . So on a letter dated March 20,1997 NMOCD granted Sunco/ Key a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarters report.

The Injection Water Analysis is also provided . If you require additional information, please contact me at the Facility 334-6186 or the New Crouch Office at 334- 6416

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: H. Stone Key Energy
D.Foust NMOCD

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2000	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2100	1860	1980	3,050	987	2,467	76,491	76,491	4,145,197	0	0	0	6,160
FEB	2080	1860	1970	2,935	1,044	2,202	63,868	140,359	4,209,065	0	0	0	7,840
MAR	2130	1860	1995	2,847	1,005	2,214	68,633	208,992	4,277,698	0	0	0	11,520
APR													
MAY													
JUN													
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													

CERTIFICATION _____ DATE 5-1-00

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

April 23, 2000

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-01
Job No.: 806501

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injection Well". One water sample was collected by Key Energy Service personnel on 4/17/00, and received by the Envirotech laboratory on 4/17/00 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 7786 and assigned Laboratory No. H112 (Inj. Well) for tracking purposes.

The sample was analyzed 4/19/00 - 4/21/00 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	806501
Sample ID:	Inj. Well	Date Reported:	04-20-00
Lab ID#:	H112	Date Sampled:	04-17-00
Sample Matrix:	Water	Date Received:	04-17-00
Preservative:	Cool	Date Analyzed:	04-19-00
Condition:	Cool and Intact	Chain of Custody:	7786

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 8.88**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.
Comments:	**Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Key Energy	Project #:	806501
Sample ID:	Inj. Well	Date Reported:	04-20-00
Laboratory Number:	H112	Date Sampled:	04-17-00
Chain of Custody:	7786	Date Received:	04-17-00
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-20-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0028**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0141**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**98%**
	Bromofluorobenzene	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy	Project #:	806501
Sample ID:	Inj. Well	Date Reported:	04-21-00
Laboratory Number:	H112	Date Sampled:	04-17-00
Chain of Custody:	7786	Date Received:	04-17-00
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-21-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy	Project #:	806501
Sample ID:	Inj. Well	Date Reported:	04-21-00
Laboratory Number:	H112	Date Sampled:	04-17-00
Chain of Custody:	7786	Date Received:	04-17-00
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-21-00
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**0.063**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy	Project #:	806501
Sample ID:	Inj. Well	Date Reported:	04-21-00
Laboratory Number:	H112	Date Sampled:	04-17-00
Chain of Custody:	7786	Date Received:	04-17-00
Sample Matrix:	Water	Date Analyzed:	04-21-00
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.109**	**0.001**	**5.0**
Barium	**6.07**	**0.001**	**21**
Cadmium	**0.051**	**0.001**	**0.11**
Chromium	**0.560**	**0.001**	**0.60**
Lead	**0.601**	**0.001**	**0.75**
Mercury	**0.004**	**0.001**	**0.025**
Selenium	**0.037**	**0.001**	**5.7**
Silver	**0.048**	**0.001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-20-00
Laboratory Number:	04-20-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-20-00
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample H112.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-20-00
Laboratory Number:	H112	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-20-00
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0028	0.0028	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0141	0.0139	0.0001	1.1%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample H112.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	04-20-00
Laboratory Number:	H112	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-20-00
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0028	0.050	0.0523	0.0001	99%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0141	0.050	0.0638	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample H112.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-21-00
Laboratory Number:	04-21-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-21-00
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	**98 %**
	2,4,6-tribromophenol	**99 %**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample H112.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	04-21-00
Laboratory Number:	04-21-TCA	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	04-21-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample H112.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-21-00
Laboratory Number:	H112	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	04-21-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample H112.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-21-00
Laboratory Number:	04-21-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	04-21-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**101%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample H112.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	04-21-00
Laboratory Number:	04-21-TBN	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool and Intact	Date Analyzed:	04-21-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample H112.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-21-00
Laboratory Number:	H112	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	04-21-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**0.063**	**0.063**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample H112.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	04-21-TCM QA/QC	Date Reported:	04-21-00
Laboratory Number:	H112	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	04-21-00
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**0.109**	**0.107**	**1.8%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**6.07**	**6.05**	**0.3%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**0.051**	**0.050**	**2.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.560**	**0.559**	**0.2%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**0.601**	**0.603**	**0.3%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**0.004**	**0.004**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**0.037**	**0.035**	**5.4%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**0.048**	**0.047**	**2.1%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**0.109**	**0.608**	**99.8%**	**80% - 120%**
Barium	**0.500**	**6.07**	**6.55**	**99.7%**	**80% - 120%**
Cadmium	**0.500**	**0.051**	**0.550**	**99.8%**	**80% - 120%**
Chromium	**0.500**	**0.560**	**1.58**	**149.1%**	**80% - 120%**
Lead	**0.500**	**0.601**	**1.10**	**99.9%**	**80% - 120%**
Mercury	**0.050**	**0.004**	**0.054**	**100.0%**	**80% - 120%**
Selenium	**0.500**	**0.037**	**0.536**	**99.8%**	**80% - 120%**
Silver	**0.500**	**0.048**	**0.546**	**99.6%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples H112 and H124 - H125.**

Analyst

Review

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Key Energy Services, Inc.
Four Corners Division
P.O. Box 900
5651 US Highway 64
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

AUG - 2 2000

July 31, 2000 Second Quarter 2000

Roger Anderson
Environmental Bureau Chief
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

Denny Foust
Deputy Oil & Gas Inspector
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Sirs:

Please find attached our Quarterly Injection Well Report for Key Disposal.
The following explanation is needed concerning Flow Rate and Annular Pressures.

On Flow Rates: The average was based on a 16 hour days / days in the month .
Also there were many days when there was no pump activity.

On Annular Pressures: The non-continuous injection pump activity had severely effected the backside pressures . So on a letter dated March 20,1997 NMOCD granted Sunco/ Key a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarters report.

The Injection Water Analysis is also provided . If you require additional information, please contact me at the Facility 334-6186 or the New Crouch Office at 334- 6416

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: H. Stone Key Energy
D.Foust NMOCD

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2000	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2100	1860	1980	3,050	987	2,467	76,491	76,491	4,145,197	0	0	0	6,160
FEB	2080	1860	1970	2,935	1,044	2,202	63,868	140,359	4,209,065	0	0	0	7,840
MAR	2130	1860	1995	2,847	1,005	2,214	68,633	208,992	4,277,698	0	0	0	11,520
APR	2160	1720	2040	3,040	1,219	2,416	72,468	281,460	4,350,016	0	0	0	10,400
MAY	2160	1860	2040	2,487	0	1,467	45,466	326,926	4,395,482	0	0	0	6,480
JUN	2160	1860	2040	2,942	741	2,077	62,298	389,224	4,457,780	0	0	0	2,520
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													

CERTIFICATION Michael McCarthy DATE 7-31-2000

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

July 26, 2000

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-4935
Fax: (505) 327-4962
Client No.: 98065-01
Job No.: 806501

Dear Mr.Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Farmington Facility". One water sample was collected by Key Energy Service personnel on 2/11/00, and received by the Envirotech laboratory on 2/11/00 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 7679 and assigned Laboratory No. G836 (Waste Water Tank) for tracking purposes.

The sample was analyzed 2/14/00 through 2/16/00 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy Services	Project #:	806501
Sample ID:	Injection Well	Date Reported:	07-22-00
Lab ID#:	H805	Date Sampled:	07-21-00
Sample Matrix:	Water	Date Received:	07-21-00
Preservative:	Cool	Date Analyzed:	07-22-00
Condition:	Cool and Intact	Chain of Custody:	8089

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 8.13**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Key Energy Services	Project #:	806501
Sample ID:	Injection Well	Date Reported:	07-25-00
Laboratory Number:	H805	Date Sampled:	07-21-00
Chain of Custody:	8089	Date Received:	07-21-00
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-24-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0259**	**0.0001**	**200**
Chloroform	**0.0152**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0055**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**0.0027**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**98%**
	Bromofluorobenzene	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy Services	Project #:	806501
Sample ID:	Injection Well	Date Reported:	07-25-00
Laboratory Number:	H805	Date Sampled:	07-21-00
Chain of Custody:	8089	Date Received:	07-21-00
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-24-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy Services	Project #:	806501
Sample ID:	Injection Well	Date Reported:	07-25-00
Laboratory Number:	H805	Date Sampled:	07-21-00
Chain of Custody:	8089	Date Received:	07-21-00
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-24-00
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy Services	Project #:	806501
Sample ID:	Injection Well	Date Reported:	07-22-00
Laboratory Number:	H805	Date Sampled:	07-21-00
Chain of Custody:	8089	Date Received:	07-21-00
Sample Matrix:	Water	Date Analyzed:	07-22-00
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.053**	**0.001**	**5.0**
Barium	**5.27**	**0.001**	**100**
Cadmium	**0.121**	**0.001**	**1.0**
Chromium	**0.110**	**0.001**	**5.0**
Lead	**0.162**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**0.026**	**0.001**	**1.0**
Silver	**0.015**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-25-00
Laboratory Number:	07-24-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-24-00
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample H805.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-25-00
Laboratory Number:	H805	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	07-24-00
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0259	0.0259	0.0001	0.0%
Chloroform	0.0152	0.0152	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0055	0.0055	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	0.0027	0.0027	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample H805.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	07-25-00
Laboratory Number:	H805	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	07-24-00
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0259	0.050	0.0754	0.0001	99%	47-132
Chloroform	0.0152	0.050	0.0649	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0055	0.050	0.0553	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	0.0027	0.050	0.0521	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample H805.**

Analyst

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-25-00
Laboratory Number:	07-24-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-24-00
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample H805.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-25-00
Laboratory Number:	H805	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	07-24-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample H805.**

Analyst

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-25-00
Laboratory Number:	07-24-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	07-24-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample H805.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-25-00
Laboratory Number:	H805	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	07-24-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample H805.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	07-22-TCM QA/QC	Date Reported:	07-22-00
Laboratory Number:	H805	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	07-22-00
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.053	0.052	1.9%	0% - 30%
Barium	ND	ND	0.001	5.27	5.24	0.6%	0% - 30%
Cadmium	ND	ND	0.001	0.121	0.120	0.8%	0% - 30%
Chromium	ND	ND	0.001	0.110	0.110	0.0%	0% - 30%
Lead	ND	ND	0.001	0.162	0.164	1.2%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	0.026	0.026	0.0%	0% - 30%
Silver	ND	ND	0.001	0.015	0.015	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.053	0.55	99.6%	80% - 120%
Barium	0.500	5.27	5.75	99.7%	80% - 120%
Cadmium	0.500	0.121	0.622	100.2%	80% - 120%
Chromium	0.500	0.110	0.609	99.8%	80% - 120%
Lead	0.500	0.162	0.661	99.8%	80% - 120%
Mercury	0.050	ND	0.049	98.0%	80% - 120%
Selenium	0.500	0.026	0.525	99.8%	80% - 120%
Silver	0.500	0.015	0.514	99.8%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for sample H805.**

Analyst

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CHAIN OF CUSTODY RECORD

08089

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Key Energy Services	Injection well 4400 Cell #1 ; #2	
Sampler: Mike Talovich	Client No.	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP Cr Hexavalent + Pb + Se	~~BTEX~~ 8021	8015 TPH				Remarks
Injection well	7-21-00	0930		H_2S	5	✓						
Cell #1 ~~Cell #2~~	7-21-00	0800		Soil	1		✓	✓				
Cell #2	1	1		1	1		✓	✓				

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Michael Talovich	7.21.00	10:15	Allen L. Adams	7.21.00	10:15
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

RECEIVED

OCT 3 0 2000

Environmental Bureau
Oil Conservation Division

Key Energy Services, Inc.
Four Corners Division
P.O. Box 900
5651 US Highway 64
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

October 25, 2000 Third Quarter

RECEIVED

OCT 3 0 2000

OIL CONSERVATION DIVISION

Martyne J. Kieling
Enviromental Geologist
New Mexico OCD
2040 South Pacheco
Santa Fe, New Mexico 87505

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little pump activity.

On Annular Pressures, the non-continuous pump activity had severely effected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186.

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Stone
Mr. Foust

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2000	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2100	1860	1980	3,050	987	2,467	76,491	76,491	4,145,197	0	0	0	6,160
FEB	2080	1860	1970	2,935	1,044	2,202	63,868	140,359	4,209,065	0	0	0	7,840
MAR	2130	1860	1995	2,847	1,005	2,214	68,633	208,992	4,277,698	0	0	0	11,520
APR	2160	1720	2040	3,040	1,219	2,416	72,468	281,460	4,350,016	0	0	0	10,400
MAY	2160	1860	2040	2,487	0	1,467	45,466	326,926	4,395,482	0	0	0	6,480
JUN	2160	1860	2040	2,942	741	2,077	62,298	389,224	4,457,780	0	0	0	2,520
JUL	2160	1860	2040	2,960	1,368	1,857	57,561	446,785	4,515,341	0	0	0	480
AUG	2160	1860	2040	2,749	1,055	1,936	60,028	500,81	4,575,369	0	0	0	2,520
SEP	2180	1920	2050	2,890	700	1,902	57,064	557,877	4,632,433	0	0	0	1,200
OCT													
NOV													
DEC													

CERTIFICATION _____ DATE 10-25-2000

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

October 19, 2000

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-01
Job No.: 806501

Dear Mr. Talovich,

Enclosed are the analytical results for the samples collected from the location designated as "Injection Well, Cell #1 and Cell #2". One water sample and two soil samples were collected by Key Energy Service designated personnel on 10/16/00, and received by the Envirotech laboratory on 10/16/00 for TCLP W/O Herbicides and Pesticides, BTEX per USEPA Method 8021 and Total Petroleum Hydrocarbons (TPH) per USEPA Method 8015.

The samples were documented on Envirotech Chain of Custody No. 9113 and 9114. The samples were assigned Laboratory Nos. 18397 (Injection Well), 18398 (Cell #1) and 18399 (Cell #2) for tracking purposes.

The samples were analyzed on 10/17/00 - 10/18/00 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M Walters

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy Services	Project #:	806501
Sample ID:	Injection Well	Date Reported:	10-17-00
Lab ID#:	18397	Date Sampled:	10-16-00
Sample Matrix:	Water	Date Received:	10-16-00
Preservative:	Cool	Date Analyzed:	10-17-00
Condition:	Cool and Intact	Chain of Custody:	9113

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 8.85**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.
Comments:	**Injection Well.**

Christine M Walters
Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Key Energy Service	Project #:	806501
Sample ID:	Injection Well	Date Reported:	10-18-00
Laboratory Number:	18397	Date Sampled:	10-16-00
Chain of Custody:	9113	Date Received:	10-16-00
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-18-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0107**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0045**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**98%**
	Bromofluorobenzene	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy Service	Project #:	806501
Sample ID:	Injection Well	Date Reported:	10-18-00
Laboratory Number:	18397	Date Sampled:	10-16-00
Chain of Custody:	9113	Date Received:	10-16-00
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-18-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**0.079**	**0.020**	**200**
p,m-Cresol	**0.115**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy Service	Project #:	806501
Sample ID:	Injection Well	Date Reported:	10-18-00
Laboratory Number:	18397	Date Sampled:	10-16-00
Chain of Custody:	9113	Date Received:	10-16-00
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-18-00
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy Services	Project #:	806501
Sample ID:	Injection Well	Date Reported:	10-17-00
Laboratory Number:	18397	Date Sampled:	10-16-00
Chain of Custody:	9113	Date Received:	10-16-00
Sample Matrix:	Water	Date Analyzed:	10-17-00
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.205**	**0.001**	**5.0**
Barium	**2.62**	**0.001**	**100**
Cadmium	**0.245**	**0.001**	**1.0**
Chromium	**0.304**	**0.001**	**5.0**
Lead	**0.401**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**0.082**	**0.001**	**1.0**
Silver	**0.271**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-18-00
Laboratory Number:	10-18-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-18-00
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 18397.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-18-00
Laboratory Number:	18397	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	10-18-00
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0107	0.0107	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0045	0.0045	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 18397.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	10-18-00
Laboratory Number:	18397	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	10-18-00
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0107	0.050	0.0602	0.0001	99%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0045	0.050	0.0543	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 18397.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-18-00
Laboratory Number:	10-18-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-18-00
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 18397.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	10-18-00
Laboratory Number:	10-17-TCA	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	10-18-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 18397.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-18-00
Laboratory Number:	18397	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	10-18-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**0.079**	**0.078**	**0.020**	**1.0%**
p,m-Cresol	**0.115**	**0.112**	**0.040**	**2.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 18397.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-18-00
Laboratory Number:	10-18-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	10-18-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 18397.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	10-18-00
Laboratory Number:	10-17-TBN	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool and Intact	Date Analyzed:	10-18-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 18397.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-18-00
Laboratory Number:	18397	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	10-18-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 18397.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	10-17-TCM QA/QC	Date Reported:	10-17-00
Laboratory Number:	18397	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	10-17-00
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**0.205**	**0.204**	**0.5%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**2.62**	**2.65**	**1.1%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**0.245**	**0.242**	**1.2%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.304**	**0.300**	**1.3%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**0.401**	**0.404**	**0.7%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**0.082**	**0.080**	**2.4%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**0.271**	**0.268**	**1.1%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**0.205**	**0.705**	**100.0%**	**80% - 120%**
Barium	**0.500**	**2.62**	**3.12**	**100.0%**	**80% - 120%**
Cadmium	**0.500**	**0.245**	**0.744**	**99.9%**	**80% - 120%**
Chromium	**0.500**	**0.304**	**0.801**	**99.6%**	**80% - 120%**
Lead	**0.500**	**0.401**	**0.900**	**99.9%**	**80% - 120%**
Mercury	**0.050**	**ND**	**0.049**	**98.0%**	**80% - 120%**
Selenium	**0.500**	**0.082**	**0.578**	**99.3%**	**80% - 120%**
Silver	**0.500**	**0.271**	**0.770**	**99.9%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for sample 18397.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

09113

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
KEY ENERGY Services	INJECTION well	

Sampler:	Client No.
M. THOMAS	98065 - 01

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP 26 Metals Resty						Remarks
INJECTION well	10-16-00	13:30	18397	H2O	5	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10-16-00	14:10	[signature]	10-16-00	14:10
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

Key Energy Services, Inc.
Four Corners Division
P.O. Box 900
5651 US Highway 64
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

RECEIVED
JAN 29
OIL CONSERVATION DIVISION

January 24, 2001 Fourth Quarter

Martyne J. Kieling
Enviromental Geologist
New Mexico OCD
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little pump activity.

On Annular Pressures, the non-continuous pump activity had severely effected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186.

Best Regards,

Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Stone
Mr. Foust

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2000	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2100	1860	1980	3,050	987	2,467	76,491	76,491	4,145,197	0	0	0	6,160
FEB	2080	1860	1970	2,935	1,044	2,202	63,868	140,359	4,209,065	0	0	0	7,840
MAR	2130	1860	1995	2,847	1,005	2,214	68,633	208,992	4,277,698	0	0	0	11,520
APR	2160	1720	2040	3,040	1,219	2,416	72,468	281,460	4,350,016	0	0	0	10,400
MAY	2160	1860	2040	2,487	0	1,467	45,466	326,926	4,395,482	0	0	0	6,480
JUN	2160	1860	2040	2,942	741	2,077	62,298	389,224	4,457,780	0	0	0	2,520
JUL	2160	1860	2040	2,960	1,368	1,857	57,561	446,785	4,515,341	0	0	0	480
AUG	2160	1860	2040	2,749	1,055	1,936	60,028	500,81	4,575,369	0	0	0	2,520
SEP	2180	1920	2050	2,890	700	1,902	57,064	557,877	4,632,433	0	0	0	1,200
OCT	2180	1920	2050	3,058	1,457	2,357	73,069	630,946	4,705,502	0	0	0	6,640
NOV	2180	1920	2050	3,076	0	2,150	62,366	693,312	4,767,862	0	0	0	3,720
DEC	2180	1920	2050	3,159	0	2,661	79,857	773,169	4,847,719	0	0	0	6,320

CERTIFICATION Michael [signature] DATE 1-24-2001

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

GENE BULTER –

January 24, 2001

Mr. Mike Talovich → -334-6186
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-001
Job No.: 806501

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injection Well". One water sample was collected by Key Energy Service designated personnel on 1/16/01, and received by the Envirotech laboratory on 1/16/01 TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 8467. The sample was assigned Laboratory No. 19099 (Injection Well) for tracking purposes.

The sample was analyzed 1/17/01 through 1/23/01 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy Services	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	01-22-01
Lab ID#:	19099	Date Sampled:	01-16-01
Sample Matrix:	Water	Date Received:	01-16-01
Preservative:	Cool	Date Analyzed:	01-17-01
Condition:	Cool and Intact	Chain of Custody:	8467

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 8.45**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.
Comments:	**Injection Well.**

Christine M Walters
Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Key Energy Services	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	01-23-01
Laboratory Number:	19099	Date Sampled:	01-16-01
Chain of Custody:	8467	Date Received:	01-16-01
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-22-01
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.180**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.263**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**98%**
	Bromofluorobenzene	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy Services	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	01-23-01
Laboratory Number:	19099	Date Sampled:	01-16-01
Chain of Custody:	8467	Date Received:	01-16-01
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-23-01
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy Services	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	01-23-01
Laboratory Number:	19099	Date Sampled:	01-16-01
Chain of Custody:	8467	Date Received:	01-16-01
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-23-01
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**0.059**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**0.043**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**95%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy Services	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	01-22-01
Laboratory Number:	19099	Date Sampled:	01-16-01
Chain of Custody:	8467	Date Received:	01-16-01
Sample Matrix:	Water	Date Analyzed:	01-19-01
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**ND**	**0.001**	**5.0**
Barium	**1.06**	**0.001**	**100**
Cadmium	**ND**	**0.001**	**1.0**
Chromium	**0.012**	**0.001**	**5.0**
Lead	**0.033**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**ND**	**0.001**	**1.0**
Silver	**ND**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Well.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-23-01
Laboratory Number:	01-22-TCV	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-22-01
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**100%**
	Bromofluorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 19099.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-23-01
Laboratory Number:	19099	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-22-01
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.180	0.182	0.0001	1.5%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.263	0.260	0.0001	1.1%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 19099.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	01-23-01
Laboratory Number:	19099	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-22-01
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.180	0.050	0.229	0.0001	100%	47-132
Chloroform	ND	0.050	0.0500	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0490	0.0001	98%	43-143
Benzene	0.263	0.050	0.313	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0490	0.0001	98%	51-147
Trichloroethene	ND	0.050	0.0495	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0495	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0495	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0495	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 19099.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-23-01
Laboratory Number:	01-23-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-23-01
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	**98 %**
	2,4,6-tribromophenol	**99 %**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 19099.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	01-23-01
Laboratory Number:	01-22-TCA	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	01-23-01
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 19099.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-23-01
Laboratory Number:	19099	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	01-23-01
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 19099.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-23-01
Laboratory Number:	01-23-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	01-23-01
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 19099.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	01-23-01
Laboratory Number:	01-22-TBN	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool and Intact	Date Analyzed:	01-23-01
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 19099.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-23-01
Laboratory Number:	19099	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	01-23-01
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**0.059**	**0.058**	**0.9%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**0.043**	**0.043**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 19099.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	01-19-TCM QA/QC	Date Reported:	01-22-01
Laboratory Number:	19099	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	01-19-01
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**1.06**	**1.05**	**0.9%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.012**	**0.012**	**0.0%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**0.033**	**0.033**	**0.0%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**ND**	**0.498**	**99.6%**	**80% - 120%**
Barium	**0.500**	**1.06**	**1.55**	**99.4%**	**80% - 120%**
Cadmium	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**
Chromium	**0.500**	**0.012**	**0.51**	**99.8%**	**80% - 120%**
Lead	**0.500**	**0.033**	**0.53**	**99.8%**	**80% - 120%**
Mercury	**0.050**	**ND**	**0.049**	**98.0%**	**80% - 120%**
Selenium	**0.500**	**ND**	**0.497**	**99.4%**	**80% - 120%**
Silver	**0.500**	**ND**	**0.498**	**99.6%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for sample 19099.**

Analyst

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CHAIN OF CUSTODY RECORD

08467

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
KEY ENERGY Services	INJection well	
Sampler: MIKE TALOVICH	Client No. 98065-001	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP W/O H+P						Remarks
INJection well	1-16-01	1300	19099	H2O	5	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Michael Talovich	1-16-01	1330	Debra L. Oglesby	1-16-01	1330
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

Key Energy Services, Inc.
Four Corners Division
P.O. Box 900
5651 US Highway 64
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

RECEIVED
MAY 14 2001
OIL CONSERVATION DIVISION

May 10. 2001 First Quarter

Martyne J. Kieling
Enviromental Geologist
New Mexico OCD
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec. New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little pump activity.

On Annular Pressures, the non-continuous pump activity had severely effected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186.

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Stone
Mr. Foust

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2001	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2180	1920	2050	3,283	1,156	2,200	68,189	68,189	4,915,908	0	0	0	6,520
FEB	2160	1920	2050	3,001	426	1,898	53,122	121,311	4,969,030	0	0	0	4,320
MAR	2160	1920	2050	4,003	1,752	2,764	85,695	207,006	5,054,725	0	0	0	8,360
APR													
MAY													
JUN													
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													

CERTIFICATION Michael Johnson DATE 5-10-01

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

April 22, 2001

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-001
Job No.: 806501

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injection Well". One water sample was collected by Key Energy Service designated personnel on 4/16/01, and received by the Envirotech laboratory on 4/16/01 TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 9212. The sample was assigned Laboratory No. 19554 (Injection Well) for tracking purposes.

The sample was analyzed 4/16/01 through 4/19/01 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy Services	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	04-18-01
Lab ID#:	19554	Date Sampled:	04-16-01
Sample Matrix:	Water	Date Received:	04-16-01
Preservative:	Cool	Date Analyzed:	04-16-01
Condition:	Cool and Intact	Chain of Custody:	9212

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.73**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.
Comments:	**Injection Well.**

Christine M Walters
Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Key Energy Services	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	04-18-01
Laboratory Number:	19554	Date Sampled:	04-16-01
Chain of Custody:	9212	Date Received:	04-16-01
Sample Matrix:	Water	Date Extracted:	NA
Preservative:	Cool	Date Analyzed:	04-17-01
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0795**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.364**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy Services	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	04-19-01
Laboratory Number:	19554	Date Sampled:	04-16-01
Chain of Custody:	9212	Date Received:	04-16-01
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-19-01
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**0.125**	**0.020**	**200**
p,m-Cresol	**0.101**	**0.040**	**200**
2,4,6-Trichlorophenol	**0.029**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**0.224**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy Services	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	04-19-01
Laboratory Number:	19554	Date Sampled:	04-16-01
Chain of Custody:	9212	Date Received:	04-16-01
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-19-01
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**95%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy Services	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	04-18-01
Laboratory Number:	19554	Date Sampled:	04-16-01
Chain of Custody:	9212	Date Received:	04-16-01
Sample Matrix:	Water	Date Analyzed:	04-18-01
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**ND**	**0.001**	**5.0**
Barium	**1.87**	**0.001**	**100**
Cadmium	**ND**	**0.001**	**1.0**
Chromium	**0.011**	**0.001**	**5.0**
Lead	**0.027**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**ND**	**0.001**	**1.0**
Silver	**ND**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW.

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-18-01
Laboratory Number:	04-17-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-17-01
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	100%
	1,4-difluorobenzene	100%
	4-bromochlorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 19554.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-18-01
Laboratory Number:	19554	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-17-01
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0795	0.0795	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.364	0.364	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 19554.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	04-18-01
Laboratory Number:	19554	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-17-01
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0795	0.050	0.128	0.0001	99%	47-132
Chloroform	ND	0.050	0.0500	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0490	0.0001	98%	43-143
Benzene	0.364	0.050	0.413	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0490	0.0001	98%	51-147
Trichloroethene	ND	0.050	0.0495	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0495	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0495	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0495	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 19554.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-19-01
Laboratory Number:	04-19-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-19-01
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 19554.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-19-01
Laboratory Number:	19554	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	04-19-01
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	0.125	0.124	0.020	1.0%
p,m-Cresol	0.101	0.099	0.040	2.0%
2,4,6-Trichlorophenol	0.029	0.029	0.020	1.0%
2,4,5-Trichlorophenol	ND	ND	0.020	0.0%
Pentachlorophenol	0.224	0.222	0.020	0.8%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	30.0%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 19554.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-19-01
Laboratory Number:	04-19-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	04-19-01
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**95%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 19554.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-19-01
Laboratory Number:	19554	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	04-19-01
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 19554.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	04-18-TCM QA/QC	Date Reported:	04-18-01
Laboratory Number:	19554	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	04-18-01
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% 0.105	Acceptance 0.107
Arsenic	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Barium	ND	ND	0.001	1.87	1.85	1.1%	0% - 30%
Cadmium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.011	0.011	0.0%	0% - 30%
Lead	ND	ND	0.001	0.027	0.028	3.7%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	ND	0.498	99.6%	80% - 120%
Barium	0.500	1.87	2.35	99.2%	80% - 120%
Cadmium	0.500	ND	0.499	99.8%	80% - 120%
Chromium	0.500	0.011	0.510	99.8%	80% - 120%
Lead	0.500	0.027	0.526	99.8%	80% - 120%
Mercury	0.050	ND	0.049	98.0%	80% - 120%
Selenium	0.500	ND	0.498	99.6%	80% - 120%
Silver	0.500	ND	0.499	99.8%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for sample 19554.**

Analyst

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CHAIN OF CUSTODY RECORD

09212

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Key Energy Services	Injection well	
Sampler: Mike Talovich	Client No. 98065-001	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o H2S, +H2S+						Remarks
Injection well	4-16-01	0955	19554	Water	5	✓						

	Date	Time		Date	Time
Relinquished by: (Signature) Michael Talovich	4-16-01	1310	Received by: (Signature) Dawn L. Aguirre	4-16-01	1310
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

Key Energy Services, Inc.
Four Corners Division
P.O. Box 900
5651 US Highway 64
Farmington, NM 87499
Phone: 505-327-4935
Fax: 505-327-4962

OIL CONSERVATION DIV.
01 AUG -7 PM 2:56

August 2, 2001 Second Quarter

Martyne J. Kieling
Enviromental Geologist
New Mexico OCD
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little pump activity.

On Annular Pressures, the non-continuous pump activity had severely effected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186.

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Stone
Mr. Foust

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2001	INJECTION PRESSURE			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURE			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2180	1920	2050	3,283	1,156	2,200	68,189	68,189	4,915,908	0	0	0	6,520
FEB	2160	1920	2050	3,001	426	1,898	53,122	121,311	4,969,030	0	0	0	4,320
MAR	2160	1920	2050	4,003	1,752	2,764	85,695	207,006	5,054,725	0	0	0	8,360
APR	2160	1920	2050	4,100	1,043	2,454	73,606	280,612	5,128,331	0	0	0	4,200
MAY	2160	1920	2050	4,100	165	2,476	76,756	357,368	5,205,087	0	0	0	4,400
JUN	2070	1920	2000	2,974	766	1,514	45,426	402,794	5,250,513	0	0	0	3,400
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													

CERTIFICATION Michael O'Neill DATE 8-2-01

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

July 30, 2001

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-001

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injection Well". One water sample was collected by Key Energy Service designated personnel on 7/24/01, and received by the Envirotech laboratory on 7/24/01 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 9357 and assigned Laboratory No. 20442 (Injection Well) for tracking purposes.

The sample was analyzed on 7/26/01 - 07/27/01 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy Services	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	07-27-01
Lab ID#:	20442	Date Sampled:	07-24-01
Sample Matrix:	Water	Date Received:	07-24-01
Preservative:	Cool	Date Analyzed:	07-26-01
Condition:	Cool and Intact	Chain of Custody:	9357

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.29**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.
Comments:	**Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Key Energy Services	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	07-27-01
Laboratory Number:	20442	Date Sampled:	07-24-01
Chain of Custody:	9357	Date Received:	07-24-01
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-27-01
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0266**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0519**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**0.0041**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy Services	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	07-27-01
Laboratory Number:	20442	Date Sampled:	07-24-01
Chain of Custody:	9357	Date Received:	07-24-01
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-27-01
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy Services	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	07-27-01
Laboratory Number:	20442	Date Sampled:	07-24-01
Chain of Custody:	9357	Date Received:	07-24-01
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-27-01
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**0.099**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy Services	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	07-27-01
Laboratory Number:	20442	Date Sampled:	07-24-01
Chain of Custody:	9357	Date Received:	07-24-01
Sample Matrix:	Water	Date Analyzed:	07-26-01
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.021**	**0.001**	**5.0**
Barium	**12.1**	**0.001**	**100**
Cadmium	**0.020**	**0.001**	**1.0**
Chromium	**0.034**	**0.001**	**5.0**
Lead	**0.032**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**0.008**	**0.001**	**1.0**
Silver	**0.002**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-27-01
Laboratory Number:	07-27-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-27-01
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 20442.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-27-01
Laboratory Number:	20442	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	07-27-01
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0266	0.0266	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0519	0.0519	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	0.0041	0.0041	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 20442.**

Analyst

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	07-27-01
Laboratory Number:	20442	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	07-27-01
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0266	0.050	0.0756	0.0001	99%	47-132
Chloroform	ND	0.050	0.0500	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0490	0.0001	98%	43-143
Benzene	0.0519	0.050	0.1014	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0490	0.0001	98%	51-147
Trichloroethene	0.0041	0.050	0.0536	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0495	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0495	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0495	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 20442.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-27-01
Laboratory Number:	07-27-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-27-01
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 20442.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-27-01
Laboratory Number:	20442	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	07-27-01
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 20442.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-27-01
Laboratory Number:	07-27-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	07-27-01
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 20422.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-27-01
Laboratory Number:	20442	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	07-27-01
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**0.099**	**0.098**	**0.9%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 20422.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	07-27-TCM QA/QC	Date Reported:	07-27-01
Laboratory Number:	20442	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	07-26-01
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Difference	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**0.021**	**0.021**	**0.0%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**12.1**	**12.0**	**0.8%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**0.020**	**0.020**	**0.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.034**	**0.033**	**2.9%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**0.032**	**0.032**	**0.0%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**0.008**	**0.008**	**0.0%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**0.002**	**0.002**	**0.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**0.021**	**0.520**	**99.8%**	**80% - 120%**
Barium	**0.500**	**12.1**	**12.5**	**99.2%**	**80% - 120%**
Cadmium	**0.500**	**0.020**	**0.518**	**99.6%**	**80% - 120%**
Chromium	**0.500**	**0.034**	**0.532**	**99.6%**	**80% - 120%**
Lead	**0.500**	**0.032**	**0.530**	**99.6%**	**80% - 120%**
Mercury	**0.050**	**ND**	**0.049**	**98.0%**	**80% - 120%**
Selenium	**0.500**	**0.008**	**0.506**	**99.6%**	**80% - 120%**
Silver	**0.500**	**0.002**	**0.501**	**99.8%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for sample 20442.**

Analyst

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CHAIN OF CUSTODY RECORD

09357

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Key Energy Services	Injection well	
Sampler:	Client No. 98065-001	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o Metals or Pest						Remarks
Injection well	7-24-01	0800	20442	H_2O	5	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Michael Johnson	7-24-01	0928	Adrienne L. Agnew	7-24-01	9:25
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

Key Energy Services, Inc.
Four Corners Division
P.O. Box 900
5651 US Highway 64
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

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Environmental Bureau
Oil Conservation Division

November 12, 2001 Third Quarter

Martyne J. Kieling
Enviromental Geologist
New Mexico OCD
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little pump activity.

On Annular Pressures, the non-continuous pump activity had severely effected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186.

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Stone
Mr. Foust

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2001	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2180	1920	2050	3,283	1,156	2,200	68,189	68,189	4,915,908	0	0	0	6,520
FEB	2160	1920	2050	3,001	426	1,898	53,122	121,311	4,969,030	0	0	0	4,320
MAR	2160	1920	2050	4,003	1,752	2,764	85,695	207,006	5,054,725	0	0	0	8,360
APR	2160	1920	2050	4,100	1,043	2,454	73,606	280,612	5,128,331	0	0	0	4,200
MAY	2160	1920	2050	4,100	165	2,476	76,756	357,368	5,205,087	0	0	0	4,400
JUN	2070	1920	2000	2,974	766	1,514	45,426	402,794	5,250,513	0	0	0	3,400
JUL	2070	1920	2000	2,446	600	1,431	44,376	447,170	5,294,889	0	0	0	5,400
AUG	2100	1920	2010	2,975	848	1,849	57,307	504,477	5,352,196	0	0	0	4,720
SEP	2130	1920	2,025	3,037	1,240	2,570	77,106	581,583	5,429,302	0	0	0	2,720
OCT													
NOV													
DEC													

CERTIFICATION _____ DATE 11-12-2001

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

October 21, 2001

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-001

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injection Pump". One water sample was collected by Key Energy Service designated personnel on 10/11/01, and received by the Envirotech laboratory on 10/11/01 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 9582 and assigned Laboratory No. 21239 (Injection Pump) for tracking purposes.

The sample was analyzed on 10/17/01 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy Serv.	Project #:	98065-001
Sample ID:	Injection Pump	Date Reported:	10-17-01
Lab ID#:	21239	Date Sampled:	10-11-01
Sample Matrix:	Water	Date Received:	10-11-01
Preservative:	Cool	Date Analyzed:	10-17-01
Condition:	Cool and Intact	Chain of Custody:	9582

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.73**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **Injection Pump.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Key Energy Serv.	Project #:	98065-001
Sample ID:	Injection Pump	Date Reported:	10-17-01
Laboratory Number:	21239	Date Sampled:	10-11-01
Chain of Custody:	9582	Date Received:	10-11-01
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-17-01
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	0.0112	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	0.149	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	100%
	1,4-difluorobenzene	100%
	4-bromochlorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Pump.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy Serv.	Project #:	98065-001
Sample ID:	Injection Pump	Date Reported:	10-17-01
Laboratory Number:	21239	Date Sampled:	10-11-01
Chain of Custody:	9582	Date Received:	10-11-01
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-17-01
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Pump.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy Serv.	Project #:	98065-001
Sample ID:	Injection Pump	Date Reported:	10-17-01
Laboratory Number:	21239	Date Sampled:	10-11-01
Chain of Custody:	9582	Date Received:	10-11-01
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-17-01
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Pump.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy Serv.	Project #:	98065-001
Sample ID:	Injection Pump	Date Reported:	10-17-01
Laboratory Number:	21239	Date Sampled:	10-11-01
Chain of Custody:	9582	Date Received:	10-11-01
Sample Matrix:	Water	Date Analyzed:	10-17-01
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**ND**	**0.001**	**5.0**
Barium	**0.852**	**0.001**	**100**
Cadmium	**ND**	**0.001**	**1.0**
Chromium	**0.002**	**0.001**	**5.0**
Lead	**ND**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**ND**	**0.001**	**1.0**
Silver	**ND**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Pump.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-17-01
Laboratory Number:	10-17-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-17-01
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 21239.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-17-01
Laboratory Number:	21239	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	10-17-01
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0112	0.0111	0.0001	1.3%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.149	0.149	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 21239.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	10-17-01
Laboratory Number:	21239	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	10-17-01
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0112	0.050	0.0602	0.0001	98%	47-132
Chloroform	ND	0.050	0.0500	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0490	0.0001	98%	43-143
Benzene	0.149	0.050	0.198	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0490	0.0001	98%	51-147
Trichloroethene	ND	0.050	0.0495	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0495	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0495	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0495	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 21239.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-17-01
Laboratory Number:	10-17-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-17-01
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 21239.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-17-01
Laboratory Number:	21239	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	10-17-01
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 21239.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-17-01
Laboratory Number:	10-17-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	10-17-01
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 21239.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-17-01
Laboratory Number:	21239	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	10-17-01
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 21239.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	10-17-TCM QA/QC	Date Reported:	10-17-01
Laboratory Number:	21239	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	10-17-01
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Difference	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**0.852**	**0.850**	**0.2%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.002**	**0.002**	**0.0%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**ND**	**0.498**	**99.6%**	**80% - 120%**
Barium	**0.500**	**0.852**	**1.35**	**99.9%**	**80% - 120%**
Cadmium	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**
Chromium	**0.500**	**0.002**	**0.499**	**99.4%**	**80% - 120%**
Lead	**0.500**	**ND**	**0.498**	**99.6%**	**80% - 120%**
Mercury	**0.050**	**ND**	**0.049**	**98.0%**	**80% - 120%**
Selenium	**0.500**	**ND**	**0.497**	**99.4%**	**80% - 120%**
Silver	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for sample 21239.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

09582

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Key Energy Serv.	Injection Pump	

Sampler:	Client No.
Mitalovich	98065-001

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o Hexane Ext						Remarks
Injection Pump	10-11-01	10.00	21239	H2O	5	✓						

	Date	Time		Date	Time
Relinquished by: (Signature)	10-11-01	1350	Received by: (Signature)	10-11-01	1358
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

RECEIVED
FEB 0 5 2002
Environmental Bureau
Oil Conservation Division

Key Energy Services, Inc.
Four Corners Division
P.O. Box 900
5651 US Highway 64
Farmington, NM 87499
Phone: 505-327-4935
Fax: 505-327-4962

January 28, 2002 Fourth Quarter 2001

Martyne J. Kieling
Enviromental Geologist
New Mexico OCD
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little pump activity.

On Annular Pressures, the non-continuous pump activity had severely effected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186.

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Stone
Mr. Foust

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2001	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2180	1920	2050	3,283	1,156	2,200	68,189	68,189	4,915,908	0	0	0	6,520
FEB	2160	1920	2050	3,001	426	1,898	53,122	121,311	4,969,030	0	0	0	4,320
MAR	2160	1920	2050	4,003	1,752	2,764	85,695	207,006	5,054,725	0	0	0	8,360
APR	2160	1920	2050	4,100	1,043	2,454	73,606	280,612	5,128,331	0	0	0	4,200
MAY	2160	1920	2050	4,100	165	2,476	76,756	357,368	5,205,087	0	0	0	4,400
JUN	2070	1920	2000	2,974	766	1,514	45,426	402,794	5,250,513	0	0	0	3,400
JUL	2070	1920	2000	2,446	600	1,431	44,376	447,170	5,294,889	0	0	0	5,400
AUG	2100	1920	2010	2,975	848	1,849	57,307	504,477	5,352,196	0	0	0	4,720
SEP	2130	1920	2,025	3,037	1,240	2,570	77,106	581,583	5,429,302	0	0	0	2,720
OCT	2160	1920	2040	3,140	1,782	2,687	83,302	664,885	5,512,604	0	0	0	4,760
NOV	2160	1920	2040	4,189	1,912	3,132	93,963	758,848	5,606,567	0	0	0	6,240
DEC	2160	1920	2040	4,168	1,923	3,097	92,915	851,763	5,699,482	0	0	0	8,640

CERTIFICATION _____ DATE 1-28-02

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

January 21, 2002

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-001

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injection Well". One water sample was collected by Key Energy Service designated personnel on 01/15/02, and received by the Envirotech laboratory on 01/15/02 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 8908 and assigned Laboratory No. 21812 (Injection Well) for tracking purposes.

The sample was analyzed on 01/15/02 and 01/18/02 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	01-18-02
Lab ID#:	21812	Date Sampled:	01-15-02
Sample Matrix:	Water	Date Received:	01-15-02
Preservative:	Cool	Date Analyzed:	01-15-02
Condition:	Cool and Intact	Chain of Custody:	8908

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.87**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Key Energy	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	01-18-02
Laboratory Number:	21812	Date Sampled:	01-15-02
Chain of Custody:	8908	Date Received:	01-15-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-18-02
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	0.0137	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	0.107	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	100%
	1,4-difluorobenzene	100%
	4-bromochlorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	01-18-02
Laboratory Number:	21812	Date Sampled:	01-15-02
Chain of Custody:	8908	Date Received:	01-15-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-18-02
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	01-18-02
Laboratory Number:	21812	Date Sampled:	01-15-02
Chain of Custody:	8908	Date Received:	01-15-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-18-02
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy	Project #:	98065-001
Sample ID:	Injection Well	Date Reported:	01-18-02
Laboratory Number:	21812	Date Sampled:	01-15-02
Chain of Custody:	8908	Date Received:	01-15-02
Sample Matrix:	Water	Date Analyzed:	01-18-02
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.010**	**0.001**	**5.0**
Barium	**6.67**	**0.001**	**100**
Cadmium	**ND**	**0.001**	**1.0**
Chromium	**0.132**	**0.001**	**5.0**
Lead	**0.004**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**0.002**	**0.001**	**1.0**
Silver	**ND**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-18-02
Laboratory Number:	01-18-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-18-02
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 21812.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-18-02
Laboratory Number:	21812	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-18-02
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0137	0.0137	0.0001	0.2%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.107	0.106	0.0001	0.5%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 21812.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	01-18-02
Laboratory Number:	21812	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-18-02
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0137	0.050	0.0627	0.0001	98%	47-132
Chloroform	ND	0.050	0.0500	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0490	0.0001	98%	43-143
Benzene	0.107	0.050	0.156	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0490	0.0001	98%	51-147
Trichloroethene	ND	0.050	0.0495	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0495	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0495	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0495	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 21812.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-18-02
Laboratory Number:	01-18-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-18-02
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 21812.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-18-02
Laboratory Number:	21812	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	01-18-02
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 21812.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-18-02
Laboratory Number:	01-18-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	01-18-02
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 21812.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-18-02
Laboratory Number:	21812	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	01-18-02
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 21812.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	01-18-TCM QA/QC	Date Reported:	01-18-02
Laboratory Number:	21812	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	01-18-02
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Difference	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**0.010**	**0.010**	**0.0%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**6.67**	**6.65**	**0.3%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.132**	**0.130**	**1.5%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**0.004**	**0.004**	**0.0%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**0.002**	**0.002**	**0.0%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**0.010**	**0.509**	**99.8%**	**80% - 120%**
Barium	**0.500**	**6.67**	**7.17**	**100.0%**	**80% - 120%**
Cadmium	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**
Chromium	**0.500**	**0.132**	**0.631**	**99.8%**	**80% - 120%**
Lead	**0.500**	**0.004**	**0.503**	**99.8%**	**80% - 120%**
Mercury	**0.050**	**ND**	**0.049**	**98.0%**	**80% - 120%**
Selenium	**0.500**	**0.002**	**0.501**	**99.8%**	**80% - 120%**
Silver	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for sample 21812.**

Analyst

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CHAIN OF CUSTODY RECORD

08908

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
KEY ENERGY	INJECTION WELL	
Sampler: M. TALOVICH	Client No. 98065 -001	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o Metals + Acet						Remarks
INJECTION WELL	1-15-02	0800	21812	H_2O	5	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	1-15-02	0915		1-15-02	915
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	X		
Cool - Ice/Blue Ice	X		

RECEIVED
MAY 0 7 2002
Environmental Bureau
Oil Conservation Division

Key Energy Services, Inc.
Four Corners Division
5651 US Highway 64
P.O. Box 900
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

May 3, 2002 First Quarter 2002

Martyne J. Kieling
Enviromental Geologist
New Mexico OCD
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little pump activity.

On Annular Pressures, the non-continuous pump activity had severely effected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186.

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Stone
Mr. Foust

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2002	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2130	1920	2025	3,388	2,011	3,045	94,388	94,388	5,793,870	0	0	0	7,800
FEB	2130	1920	2025	4,283	1,122	3,301	92,426	186,418	5,886,296	0	0	0	4,760
MAR	2130	1920	2025	3,178	1,845	2,914	90,349	276,767	5,976,645	0	0	0	4,520
APR	2100	1860	1980	3,173	493	1,935	58,051	334,818	6,034,696	0	0	0	4,920
MAY													
JUN													
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													

CERTIFICATION _____ DATE 5-3-02

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

April 29, 2002

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-001
Job No.: 806501

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injection Pump". One water sample was collected by Key Energy Service designated personnel on 4/22/02, and received by the Envirotech laboratory on 4/22/02 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 9882. The sample was assigned Laboratory No. 22575 (Injection Pump) for tracking purposes.

The sample was analyzed 4/23/02 through 4/26/02 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	98065-001
Sample ID:	Injection Pump	Date Reported:	04-24-02
Lab ID#:	22575	Date Sampled:	04-22-02
Sample Matrix:	Water	Date Received:	04-22-02
Preservative:	Cool	Date Analyzed:	04-23-02
Condition:	Cool and Intact	Chain of Custody:	9882

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.25**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.
Comments:	**Injection Pump.**

Christine M Walters
Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Key Energy	Project #:	98065-001
Sample ID:	Injection Pump	Date Reported:	04-25-02
Laboratory Number:	22575	Date Sampled:	04-22-02
Chain of Custody:	9882	Date Received:	04-22-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-25-02
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0273**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0322**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Pump.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy	Project #:	98065-001
Sample ID:	Injection Pump	Date Reported:	04-26-02
Laboratory Number:	22575	Date Sampled:	04-22-02
Chain of Custody:	9882	Date Received:	04-22-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-26-02
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	0.403	0.020	200
p,m-Cresol	1.47	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	99%
	2,4,6-Tribromophenol	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Pump.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy	Project #:	98065-001
Sample ID:	Injection Pump	Date Reported:	04-26-02
Laboratory Number:	22575	Date Sampled:	04-22-02
Chain of Custody:	9882	Date Received:	04-22-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-26-02
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Pump.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy	Project #:	98065-001
Sample ID:	Injection Pump	Date Reported:	04-24-02
Laboratory Number:	22575	Date Sampled:	04-22-02
Chain of Custody:	9882	Date Received:	04-22-02
Sample Matrix:	Water	Date Analyzed:	04-24-02
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.030**	**0.001**	**5.0**
Barium	**6.08**	**0.001**	**100**
Cadmium	**0.011**	**0.001**	**1.0**
Chromium	**0.210**	**0.001**	**5.0**
Lead	**ND**	**0.001**	**5.0**
Mercury	**0.001**	**0.001**	**0.2**
Selenium	**0.012**	**0.001**	**1.0**
Silver	**0.001**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Pump.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-25-02
Laboratory Number:	04-25-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-25-02
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	100%
	1,4-difluorobenzene	100%
	4-bromochlorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 22575.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-25-02
Laboratory Number:	22575	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-25-02
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0273	0.0273	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0322	0.0322	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 22575.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	04-25-02
Laboratory Number:	22575	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-25-02
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0273	0.050	0.0763	0.0001	99%	47-132
Chloroform	ND	0.050	0.0500	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0490	0.0001	98%	43-143
Benzene	0.0322	0.050	0.0817	0.0001	99%	39-150
1,2-Dichloroethane	ND	0.050	0.0490	0.0001	98%	51-147
Trichloroethene	ND	0.050	0.0495	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0495	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0495	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0495	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 22575.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-26-02
Laboratory Number:	04-26-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-26-02
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 22575.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	04-26-02
Laboratory Number:	04-25-TCA	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	04-26-02
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	99%
	2,4,6-Tribromophenol	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 22575.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-26-02
Laboratory Number:	22575	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	04-26-02
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	0.403	0.399	0.020	1.0%
p,m-Cresol	1.47	1.44	0.040	2.0%
2,4,6-Trichlorophenol	ND	ND	0.020	0.0%
2,4,5-Trichlorophenol	ND	ND	0.020	0.0%
Pentachlorophenol	ND	ND	0.020	0.0%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	30.0%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 22575.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-26-02
Laboratory Number:	04-26-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	04-26-02
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 22575.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	04-26-02
Laboratory Number:	04-25-TBN	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool and Intact	Date Analyzed:	04-26-02
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 22575.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-26-02
Laboratory Number:	22575	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	04-26-02
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 22575.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	04-24-TCM QA/QC	Date Reported:	04-24-02
Laboratory Number:	22575	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	04-24-02
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Difference	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**0.030**	**0.030**	**0.0%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**6.08**	**6.05**	**0.5%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**0.011**	**0.011**	**0.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.210**	**0.208**	**1.0%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**0.001**	**0.001**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**0.012**	**0.012**	**0.0%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**0.001**	**0.001**	**0.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**0.030**	**0.529**	**99.8%**	**80% - 120%**
Barium	**0.500**	**6.08**	**6.50**	**98.8%**	**80% - 120%**
Cadmium	**0.500**	**0.011**	**0.510**	**99.8%**	**80% - 120%**
Chromium	**0.500**	**0.210**	**0.708**	**99.7%**	**80% - 120%**
Lead	**0.500**	**ND**	**0.498**	**99.6%**	**80% - 120%**
Mercury	**0.050**	**0.001**	**0.050**	**98.0%**	**80% - 120%**
Selenium	**0.500**	**0.012**	**0.510**	**99.6%**	**80% - 120%**
Silver	**0.500**	**0.001**	**0.500**	**99.8%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for sample 22575.**

Analyst

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CHAIN OF CUSTODY RECORD

09882

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
KEY ENERGY	INJECTION PUMP	
Sampler: MCTALOVICH	Client No. 98065-001	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o Metals + pest					Remarks
Injection Pump	4/12	1345	22575	H2O	5	✓					

	Date	Time		Date	Time
Relinquished by: (Signature)	4/12	14:12	Received by: (Signature)	4/22/02	14:1
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

Key Energy Services, Inc.
Four Corners Division
5651 US Highway 64
P.O. Box 900
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

July 30, 2002 Second Quarter 2002

Martyne J. Kieling
Enviromental Geologist
New Mexico OCD
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little pump activity.

On Annular Pressures, the non-continuous pump activity had severely effected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186.

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Stone
Mr. Foust

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2002	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2130	1920	2025	3,388	2,011	3,045	94,388	94,388	5,793,870	0	0	0	7,800
FEB	2130	1920	2025	4,283	1,122	3,301	92,426	186,418	5,886,296	0	0	0	4,760
MAR	2130	1920	2025	3,178	1,845	2,914	90,349	276,767	5,976,645	0	0	0	4,520
APR	2100	1860	1980	3,173	493	1,935	58,051	334,818	6,034,696	0	0	0	4,920
MAY	2100	1860	1980	3,036	681	1,765	54,722	389,595	6,089,418	0	0	0	1,680
JUN	2040	1860	1950	2,610	0	1,252	33,809	423,404	6,123,227	0	0	0	1,200
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													

CERTIFICATION Michael [illegible] DATE 7-30-02

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

July 25, 2002

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-004
Job No.: 806504

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as Injection Well . One Water sample was collected by Key Energy Service designated personnel on 07/22/02, and received by the Envirotech laboratory on 7/22/02 for analysis of TCLP w/o Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 10117. The sample was assigned Laboratory No. 23405 (Injection Well) for tracking purposes.

The sample was analyzed 7/24/02 and 7/25/02 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well	Date Reported:	07-24-02
Lab ID#:	23405	Date Sampled:	07-22-02
Sample Matrix:	Water	Date Received:	07-22-02
Preservative:	Cool	Date Analyzed:	07-24-02
Condition:	Cool and Intact	Chain of Custody:	10117

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.37**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well	Date Reported:	07-25-02
Laboratory Number:	23405	Date Sampled:	07-22-02
Chain of Custody:	10117	Date Received:	07-22-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-25-02
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.144**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0046**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well	Date Reported:	07-25-02
Laboratory Number:	23405	Date Sampled:	07-22-02
Chain of Custody:	10117	Date Received:	07-22-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-25-02
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**1.84**	**0.020**	**200**
p,m-Cresol	**1.27**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**99%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well	Date Reported:	07-25-02
Laboratory Number:	23405	Date Sampled:	07-22-02
Chain of Custody:	10117	Date Received:	07-22-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-25-02
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well	Date Reported:	07-24-02
Laboratory Number:	23405	Date Sampled:	07-22-02
Chain of Custody:	10117	Date Received:	07-22-02
Sample Matrix:	Water	Date Analyzed:	07-25-02
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.026**	**0.001**	**5.0**
Barium	**4.71**	**0.001**	**100**
Cadmium	**0.008**	**0.001**	**1.0**
Chromium	**0.176**	**0.001**	**5.0**
Lead	**0.087**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**0.010**	**0.001**	**1.0**
Silver	**ND**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-25-02
Laboratory Number:	07-25-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-25-02
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 23405.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-25-02
Laboratory Number:	23405	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	07-25-02
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.144	0.144	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0046	0.0049	0.0001	6.2%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 23405.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	07-25-02
Laboratory Number:	23405	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	07-25-02
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.144	0.050	0.193	0.0001	99%	47-132
Chloroform	ND	0.050	0.0500	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0490	0.0001	98%	43-143
Benzene	0.0046	0.050	0.0541	0.0001	99%	39-150
1,2-Dichloroethane	ND	0.050	0.0490	0.0001	98%	51-147
Trichloroethene	ND	0.050	0.0495	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0495	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0495	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0495	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 23405.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-25-02
Laboratory Number:	07-25-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-25-02
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	**98 %**
	2,4,6-tribromophenol	**99 %**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 23405.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-25-02
Laboratory Number:	23405	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	07-25-02
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**1.84**	**1.82**	**0.020**	**1.0%**
p,m-Cresol	**1.27**	**1.25**	**0.040**	**2.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 23405.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-25-02
Laboratory Number:	07-25-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	07-25-02
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 23405.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-25-02
Laboratory Number:	23405	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	07-25-02
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 23405.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	07-24-TCM QA/QC	Date Reported:	07-24-02
Laboratory Number:	23405	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	07-24-02
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Difference	Acceptance Range
Arsenic	ND	ND	0.001	0.026	0.026	0.0%	0% - 30%
Barium	ND	ND	0.001	4.71	4.70	0.2%	0% - 30%
Cadmium	ND	ND	0.001	0.008	0.008	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.176	0.173	1.7%	0% - 30%
Lead	ND	ND	0.001	0.087	0.088	1.1%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	0.010	0.010	0.0%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.026	0.525	99.8%	80% - 120%
Barium	0.500	4.71	5.20	99.8%	80% - 120%
Cadmium	0.500	0.008	0.507	99.8%	80% - 120%
Chromium	0.500	0.176	0.672	99.4%	80% - 120%
Lead	0.500	0.087	0.585	99.7%	80% - 120%
Mercury	0.050	ND	0.049	98.0%	80% - 120%
Selenium	0.500	0.010	0.509	99.8%	80% - 120%
Silver	0.500	ND	0.499	99.8%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for sample 23405.**

Analyst

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CHAIN OF CUSTODY RECORD

10117

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Key Energy	Injection well	
Sampler:	Client No.	
Mitalovich	98065-004	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o Heals + Pest						Remarks
Injection well	7-22-02	10:00	23405	H2O	5	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
M. Mitalovich	7-22-02	1025	Alan P. Graham	7-22-02	1025
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

RECEIVED
OCT 29 2002
Environmental Bureau
Oil Conservation Division

Key Energy Services, Inc.
Four Corners Division
5651 US Highway 64
P.O. Box 900
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

October 23, 2002 Third Quarter 2002

Martyne J. Kieling
Enviromental Geologist
New Mexico OCD
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little pump activity.

On Annular Pressures, the non-continuous pump activity had severely effected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186.

Best Regards:

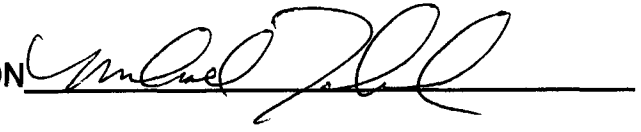
Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Stone
Mr. Foust

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2002	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2130	1920	2025	3,388	2,011	3,045	94,388	94,388	5,793,870	0	0	0	7,800
FEB	2130	1920	2025	4,283	1,122	3,301	92,426	186,418	5,886,296	0	0	0	4,760
MAR	2130	1920	2025	3,178	1,845	2,914	90,349	276,767	5,976,645	0	0	0	4,520
APR	2100	1860	1980	3,173	493	1,935	58,051	334,818	6,034,696	0	0	0	4,920
MAY	2100	1860	1980	3,036	681	1,765	54,722	389,595	6,089,418	0	0	0	1,680
JUN	2040	1860	1950	2,610	0	1,252	33,809	423,404	6,123,227	0	0	0	1,200
JUL	2040	1860	1950	2,599	0	1,168	36,226	459,630	615,945	0	0	0	1,440
AUG	1980	1800	1890	2,157	0	848	26,299	485,929	642,244	0	0	0	560
SEP	2040	1860	1950	2,678	0	1,138	34,151	520,080	676,395	0	0	0	2,640
OCT													
NOV													
DEC													

CERTIFICATION  DATE 10-23-02

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

October 17, 2002

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-004
Job No.: 806504

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Disposal". One water sample was collected by Key Energy Service designated personnel on 10/15/02, and received by the Envirotech laboratory on 10/15/02 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 10353. The sample was assigned Laboratory No. 24038 (Injection Pump) for tracking purposes.

The sample was analyzed on 10/16/02 and 10/17/02 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump	Date Reported:	10-16-02
Lab ID#:	24038	Date Sampled:	10-15-02
Sample Matrix:	Water	Date Received:	10-15-02
Preservative:	Cool	Date Analyzed:	10-16-02
Condition:	Cool and Intact	Chain of Custody:	10353

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 6.87**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **Disposal.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump	Date Reported:	10-16-02
Laboratory Number:	24038	Date Sampled:	10-15-02
Chain of Custody:	10353	Date Received:	10-15-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-16-02
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0725**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0935**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria

Parameter	Percent Recovery
Fluorobenzene	**100%**
1,4-difluorobenzene	**100%**
4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Disposal.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump	Date Reported:	10-17-02
Laboratory Number:	24038	Date Sampled:	10-15-02
Chain of Custody:	10353	Date Received:	10-15-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-17-02
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**99%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Disposal.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump	Date Reported:	10-17-02
Laboratory Number:	24038	Date Sampled:	10-15-02
Chain of Custody:	10353	Date Received:	10-15-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-17-02
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**104%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Disposal.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump	Date Reported:	10-16-02
Laboratory Number:	24038	Date Sampled:	10-15-02
Chain of Custody:	10353	Date Received:	10-15-02
Sample Matrix:	Water	Date Analyzed:	10-16-02
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.012**	**0.001**	**5.0**
Barium	**2.17**	**0.001**	**100**
Cadmium	**0.004**	**0.001**	**1.0**
Chromium	**0.009**	**0.001**	**5.0**
Lead	**0.006**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**0.005**	**0.001**	**1.0**
Silver	**ND**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Disposal.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-16-02
Laboratory Number:	10-16-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-16-02
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria

Parameter	Percent Recovery
Fluorobenzene	100%
1,4-difluorobenzene	100%
4-bromochlorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 24006 and 24038.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-16-02
Laboratory Number:	24006	Date Sampled:	N/A
Sample Matrix:	Liquid	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	10-16-02
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	ND	ND	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	ND	ND	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples 24006 and 24038.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	10-16-02
Laboratory Number:	24006	Date Sampled:	N/A
Sample Matrix:	Liquid	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	10-16-02
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99.0%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	98.8%	43-143
2-Butanone (MEK)	ND	0.050	0.0498	0.0001	99.6%	47-132
Chloroform	ND	0.050	0.0500	0.0001	99.9%	49-133
Carbon Tetrachloride	ND	0.050	0.0490	0.0001	98.0%	43-143
Benzene	ND	0.050	0.0498	0.0001	99.6%	39-150
1,2-Dichloroethane	ND	0.050	0.0490	0.0001	98.0%	51-147
Trichloroethene	ND	0.050	0.0495	0.0003	99.0%	35-146
Tetrachloroethene	ND	0.050	0.0495	0.0005	99.0%	26-162
Chlorobenzene	ND	0.050	0.0495	0.0003	99.0%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0495	0.0002	99.0%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples 24006 and 24038.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-17-02
Laboratory Number:	10-17-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-17-02
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 24006 and 24038.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	10-17-02
Laboratory Number:	10-14-TCA	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	10-17-02
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**99%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 24006 and 24038.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-17-02
Laboratory Number:	24006	Date Sampled:	N/A
Sample Matrix:	Liquid	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	10-17-02
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	ND	ND	0.020	0.0%
p,m-Cresol	ND	ND	0.040	0.0%
2,4,6-Trichlorophenol	ND	ND	0.020	0.0%
2,4,5-Trichlorophenol	ND	ND	0.020	0.0%
Pentachlorophenol	ND	ND	0.020	0.0%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	30.0%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 24006 and 24038.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-17-02
Laboratory Number:	10-17-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	10-17-02
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 24006 and 24038.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	10-17-02
Laboratory Number:	10-14-TBN	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool and Intact	Date Analyzed:	10-17-02
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**101%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 24006 and 24038.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-17-02
Laboratory Number:	24006	Date Sampled:	N/A
Sample Matrix:	Liquid	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	10-17-02
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 24006 and 24038.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	10-16-TCM QA/QC	Date Reported:	10-16-02
Laboratory Number:	24006	Date Sampled:	N/A
Sample Matrix:	Liquid	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	10-16-02
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Difference	Acceptance Range
Arsenic	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Barium	ND	ND	0.001	0.006	0.006	0.0%	0% - 30%
Cadmium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Chromium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Lead	ND	ND	0.001	0.001	0.001	0.0%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	ND	0.498	99.6%	80% - 120%
Barium	0.500	0.006	0.505	99.8%	80% - 120%
Cadmium	0.500	ND	0.499	99.8%	80% - 120%
Chromium	0.500	ND	0.498	99.6%	80% - 120%
Lead	0.500	0.001	0.500	99.8%	80% - 120%
Mercury	0.050	ND	0.049	98.0%	80% - 120%
Selenium	0.500	ND	0.498	99.6%	80% - 120%
Silver	0.500	ND	0.499	99.8%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples 24006 and 24038.**

Analyst

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CHAIN OF CUSTODY RECORD

10353

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Key Energy	Disposal	
Sampler: M. TALLOVICH	Client No. 98065-004	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/ MS Herb + Pest						Remarks
Injection Pump	10-15-02	1050	24038	H_2O	5	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
M. Tallovich	10-15-02	11:15	[signature]	10-15-02	11:15
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

RECEIVED
FEB 19 2003
Environmental Bureau
Oil Conservation Division

Key Energy Services, Inc.
Four Corners Division
5651 US Highway 64
P.O. Box 900
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

February 10, 2003 Fourth Quarter 2002

Martyne J. Kieling
Enviromental Geologist
New Mexico OCD
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little pump activity.

On Annular Pressures, the non-continuous pump activity had severely effected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186.

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Stone
Mr. Foust

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

January 30, 2003

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-004
Job No.: 806504

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injection B.F.". One water sample was collected by Key Energy Service designated personnel on 01/23/03, and received by the Envirotech laboratory on 01/23/03 for TCLP W/O Herbicides and Pesticides analysis.

The sample was documented on Envirotech Chain of Custody No. 10573. The sample was assigned Laboratory No. 24630 (Injection B.F.) for tracking purposes.

The sample was analyzed on 01/27/03 through 01/30/03 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection B.F.	Date Reported:	01-28-03
Lab ID#:	24630	Date Sampled:	01-23-03
Sample Matrix:	Water	Date Received:	01-23-03
Preservative:	Cool	Date Analyzed:	01-27-03
Condition:	Cool and Intact	Chain of Custody:	10573

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 8.19**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **Injection B. F.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection B.F.	Date Reported:	01-30-03
Laboratory Number:	24630	Date Sampled:	01-23-03
Chain of Custody:	10573	Date Received:	01-23-03
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-29-03
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0164**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0782**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit..

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection B.F.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection B.F.	Date Reported:	01-30-03
Laboratory Number:	24630	Date Sampled:	01-23-03
Chain of Custody:	10573	Date Received:	01-23-03
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-30-03
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**99%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection B.F.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection B.F.	Date Reported:	01-30-03
Laboratory Number:	24630	Date Sampled:	01-23-03
Chain of Custody:	10573	Date Received:	01-23-03
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-30-03
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection B.F.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection B. F.	Date Reported:	01-28-03
Laboratory Number:	24630	Date Sampled:	01-23-03
Chain of Custody:	10573	Date Received:	01-23-03
Sample Matrix:	Water	Date Analyzed:	01-28-03
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.016**	**0.001**	**5.0**
Barium	**0.894**	**0.001**	**100**
Cadmium	**0.004**	**0.001**	**1.0**
Chromium	**0.082**	**0.001**	**5.0**
Lead	**0.052**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**0.009**	**0.001**	**1.0**
Silver	**ND**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection B. F.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-30-03
Laboratory Number:	01-29-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-29-03
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	100%
	1,4-difluorobenzene	100%
	4-bromochlorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 24630, 24648.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-30-03
Laboratory Number:	24630	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-29-03
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0164	0.0165	0.0001	0.7%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0782	0.0775	0.0001	0.9%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples 24630, 24648.**

Analyst

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	01-30-03
Laboratory Number:	24630	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-29-03
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99.0%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	98.8%	43-143
2-Butanone (MEK)	0.0164	0.050	0.0662	0.0001	99.7%	47-132
Chloroform	ND	0.050	0.0500	0.0001	99.9%	49-133
Carbon Tetrachloride	ND	0.050	0.0490	0.0001	98.0%	43-143
Benzene	0.0782	0.050	0.1280	0.0001	99.8%	39-150
1,2-Dichloroethane	ND	0.050	0.0490	0.0001	98.0%	51-147
Trichloroethene	ND	0.050	0.0495	0.0003	99.0%	35-146
Tetrachloroethene	ND	0.050	0.0495	0.0005	99.0%	26-162
Chlorobenzene	ND	0.050	0.0495	0.0003	99.0%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0495	0.0002	99.0%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples 24630, 24648.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-30-03
Laboratory Number:	01-30-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-30-03
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 24630, 24648.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-30-03
Laboratory Number:	24630	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	01-30-03
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 24630, 24648.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-30-03
Laboratory Number:	01-30-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	01-30-03
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 24630, 24648.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-30-03
Laboratory Number:	24630	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	01-30-03
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 24630, 24648.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	01-28-TCM QA/QC	Date Reported:	01-28-03
Laboratory Number:	24630	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	01-28-03
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Difference	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**0.016**	**0.016**	**0.0%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**0.894**	**0.891**	**0.3%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**0.004**	**0.004**	**0.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.082**	**0.080**	**2.4%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**0.052**	**0.051**	**1.9%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**0.009**	**0.009**	**0.0%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**0.016**	**0.515**	**99.8%**	**80% - 120%**
Barium	**0.500**	**0.894**	**1.40**	**100.4%**	**80% - 120%**
Cadmium	**0.500**	**0.004**	**0.503**	**99.8%**	**80% - 120%**
Chromium	**0.500**	**0.082**	**0.580**	**99.7%**	**80% - 120%**
Lead	**0.500**	**0.052**	**0.550**	**99.6%**	**80% - 120%**
Mercury	**0.050**	**ND**	**0.049**	**98.0%**	**80% - 120%**
Selenium	**0.500**	**0.009**	**0.508**	**99.8%**	**80% - 120%**
Silver	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples 24630, 24648.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

10573

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Key Energy	Injection B.F.	
Sampler:	Client No.	
McTaggart	98065-004	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP/ No Heels to Pit						Remarks
Injection B.F.	1/23/03	11Am	24630	H2O	5	X						

	Date	Time		Date	Time
Relinquished by: (Signature)	1-23-03	1:40 Pm	Received by: (Signature)	1-23-03	1340
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

Key Energy Services, Inc.
Four Corners Division
5651 US Highway 64
P.O. Box 900
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

RECEIVED
MAY 12 2003
Environmental Bureau
Oil Conservation Division

May 7, 2003 First Quarter 2003

Martyne J. Kieling
Enviromental Geologist
New Mexico OCD
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little pump activity.

On Annular Pressures, the non-continuous pump activity had severely effected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186.

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Lewis KEY
Mr. Foust NMOCD

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2003	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2040	1860	1950	2,193	0	1,266	39,293	39,293	6,993,795	0	0	0	3,200
FEB	2040	1850	1945	1,426	481	1,077	30,148	69,441	7,023,943	0	0	0	3,680
MAR	1890	1740	1820	1,203	0	920	28,532	97,973	7,052,475	0	0	0	3,880
APR													
MAY													
JUN													
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													

CERTIFICATION  DATE 5-7-03

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

May 1, 2003

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-004
Job No.: 806504

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injectin Pump A.F.". One water sample was collected by Key Energy Service designated personnel on 4/25/03, and received by the Envirotech laboratory on 4/25/03 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 10850. The sample was assigned Laboratory No. 25469 (Injection Pump A.F.) for tracking purposes.

The sample was analyzed on 4/29/03 and 4/30/03 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump A.F.	Date Reported:	04-30-03
Lab ID#:	25469	Date Sampled:	04-25-03
Sample Matrix:	Water	Date Received:	04-25-03
Preservative:	Cool	Date Analyzed:	04-29-03
Condition:	Cool and Intact	Chain of Custody:	10850

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 6.98**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **Injection Pump A.F.**

Christine M Walters
Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump A.F.	Date Reported:	04-30-03
Laboratory Number:	25469	Date Sampled:	04-25-03
Chain of Custody:	10850	Date Received:	04-25-03
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-30-03
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0729**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0282**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Pump A.F.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump A.F.	Date Reported:	04-30-03
Laboratory Number:	25469	Date Sampled:	04-25-03
Chain of Custody:	10850	Date Received:	04-25-03
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-30-03
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	0.132	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	99%
	2,4,6-Tribromophenol	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Pump A.F.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump A.F.	Date Reported:	04-30-03
Laboratory Number:	25469	Date Sampled:	04-25-03
Chain of Custody:	10850	Date Received:	04-25-03
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-30-03
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**0.037**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**0.063**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**102%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Pump A.F.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump A.F.	Date Reported:	04-30-03
Laboratory Number:	25469	Date Sampled:	04-25-03
Chain of Custody:	10850	Date Received:	04-25-03
Sample Matrix:	Water	Date Analyzed:	04-30-03
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.057**	**0.001**	**5.0**
Barium	**22.1**	**0.001**	**100**
Cadmium	**0.090**	**0.001**	**1.0**
Chromium	**1.52**	**0.001**	**5.0**
Lead	**1.67**	**0.001**	**5.0**
Mercury	**0.002**	**0.001**	**0.2**
Selenium	**0.033**	**0.001**	**1.0**
Silver	**ND**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Pump A.F.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-30-03
Laboratory Number:	04-30-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-30-03
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	100%
	1,4-difluorobenzene	100%
	4-bromochlorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 25469.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-30-03
Laboratory Number:	25469	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-30-03
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0729	0.0730	0.0001	0.2%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0282	0.0283	0.0001	0.2%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 25469.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	04-30-03
Laboratory Number:	25469	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-30-03
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99.0%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	98.8%	43-143
2-Butanone (MEK)	0.0729	0.050	0.123	0.0001	99.8%	47-132
Chloroform	ND	0.050	0.0500	0.0001	99.9%	49-133
Carbon Tetrachloride	ND	0.050	0.0490	0.0001	98.0%	43-143
Benzene	0.0282	0.050	0.0780	0.0001	99.7%	39-150
1,2-Dichloroethane	ND	0.050	0.0490	0.0001	98.0%	51-147
Trichloroethene	ND	0.050	0.0495	0.0003	99.0%	35-146
Tetrachloroethene	ND	0.050	0.0495	0.0005	99.0%	26-162
Chlorobenzene	ND	0.050	0.0495	0.0003	99.0%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0495	0.0002	99.0%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 25469.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-30-03
Laboratory Number:	04-30-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-30-03
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 25469.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-30-03
Laboratory Number:	25469	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	04-30-03
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	ND	ND	0.020	0.0%
p,m-Cresol	0.132	0.129	0.040	2.0%
2,4,6-Trichlorophenol	ND	ND	0.020	0.0%
2,4,5-Trichlorophenol	ND	ND	0.020	0.0%
Pentachlorophenol	ND	ND	0.020	0.0%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	30.0%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 25469.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-30-03
Laboratory Number:	04-30-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	04-30-03
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 25469.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-30-03
Laboratory Number:	25469	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	04-30-03
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**0.037**	**0.036**	**0.9%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**0.063**	**0.063**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 25469.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	04-30-TCM QA/QC	Date Reported:	04-30-03
Laboratory Number:	25469	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	04-30-03
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Difference	Acceptance Range
Arsenic	ND	ND	0.001	0.057	0.055	3.5%	0% - 30%
Barium	ND	ND	0.001	22.1	22.0	0.5%	0% - 30%
Cadmium	ND	ND	0.001	0.090	0.091	1.1%	0% - 30%
Chromium	ND	ND	0.001	1.52	1.50	1.3%	0% - 30%
Lead	ND	ND	0.001	1.67	1.65	1.2%	0% - 30%
Mercury	ND	ND	0.001	0.002	0.002	0.0%	0% - 30%
Selenium	ND	ND	0.001	0.033	0.033	0.0%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.057	0.555	99.6%	80% - 120%
Barium	0.500	22.1	22.5	99.6%	80% - 120%
Cadmium	0.500	0.090	0.590	100.0%	80% - 120%
Chromium	0.500	1.52	2.00	99.0%	80% - 120%
Lead	0.500	1.67	2.16	99.5%	80% - 120%
Mercury	0.050	0.002	0.051	98.1%	80% - 120%
Selenium	0.500	0.033	0.532	99.8%	80% - 120%
Silver	0.500	ND	0.499	99.8%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples 25469, 25474.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

10850

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Key Energy	Injection Pump A.F	

Sampler:	Client No.
MITALOVICH	98065-004

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP / NO H2S						Remarks
Injection Pump A.F.	4/25/03	3Pm	25469 ~~10850~~ A	H2O	5	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Michael Talovich	4/25/03	3:20 Pm		4/25/03	3:20 PM
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

Key Energy Services, Inc.
Four Corners Division
5651 US Highway 64
P.O. Box 900
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

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Environmental Bureau
Oil Conservation Division

AUG 1 2003

July 29, 2003 Second Quarter 2003

Martyne J. Kieling
Enviromental Geologist
New Mexico OCD
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little or no pump activity.

On Annular Pressures, the non-continuous pump activity had severely effected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186.

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Lewis KEY
Mr. Foust NMOCD

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2003	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2040	1860	1950	2,193	0	1,266	39,293	39,293	6,993,795	0	0	0	3,200
FEB	2040	1850	1945	1,426	481	1,077	30,148	69,441	7,023,943	0	0	0	3,680
MAR	1890	1740	1820	1,203	0	920	28,532	97,973	7,052,475	0	0	0	3,880
APR	1860	1680	1770	1,156	0	651	19,555	117,528	7,072,030	0	0	0	1,840
MAY	2040	1680	1860	2,170	0	617	19,138	136,666	7,091,168	0	0	0	1,840
JUN	2010	1770	1890	2,133	0	299	8,974	145,640	7,100,142	0	0	0	960
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													

CERTIFICATION Michael J. [illegible] DATE 7-29-03

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

July 22, 2003

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-004
Job No.: 806504

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injectin Pump A.F.". One water sample was collected by Key Energy Service designated personnel on 7/18/03, and received by the Envirotech laboratory on 7/18/03 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 11156. The sample was assigned Laboratory No. 26117 (Injection Pump) for tracking purposes.

The sample was analyzed on 7/21/03 and 7/22/03 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump	Date Reported:	07-21-03
Lab ID#:	26117	Date Sampled:	07-18-03
Sample Matrix:	Water	Date Received:	07-18-03
Preservative:	Cool	Date Analyzed:	07-21-03
Condition:	Cool and Intact	Chain of Custody:	11156

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 6.75**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **Injection Pump AF.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump	Date Reported:	07-21-03
Laboratory Number:	26117	Date Sampled:	07-18-03
Chain of Custody:	11156	Date Received:	07-18-03
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-21-03
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0211**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0531**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Pump AF.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump	Date Reported:	07-21-03
Laboratory Number:	26117	Date Sampled:	07-18-03
Chain of Custody:	11156	Date Received:	07-18-03
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-21-03
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**99%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Pump AF.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump	Date Reported:	07-21-03
Laboratory Number:	26117	Date Sampled:	07-18-03
Chain of Custody:	11156	Date Received:	07-18-03
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-21-03
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Pump AF.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump	Date Reported:	07-22-03
Laboratory Number:	26117	Date Sampled:	07-18-03
Chain of Custody:	11156	Date Received:	07-18-03
Sample Matrix:	Water	Date Analyzed:	07-22-03
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.002**	**0.001**	**5.0**
Barium	**0.984**	**0.001**	**100**
Cadmium	**ND**	**0.001**	**1.0**
Chromium	**0.003**	**0.001**	**5.0**
Lead	**0.001**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**0.001**	**0.001**	**1.0**
Silver	**ND**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Pump AF.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-21-03
Laboratory Number:	07-21-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-21-03
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	100%
	1,4-difluorobenzene	100%
	4-bromochlorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 26117.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-21-03
Laboratory Number:	26117	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	07-21-03
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0211	0.0212	0.0001	0.7%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0531	0.0511	0.0001	3.6%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 26117.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	07-21-03
Laboratory Number:	26117	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	07-21-03
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0497	0.0001	99.3%	28-163
1,1-Dichloroethene	ND	0.050	0.0499	0.0001	99.8%	43-143
2-Butanone (MEK)	0.0211	0.050	0.0709	0.0001	99.7%	47-132
Chloroform	ND	0.050	0.0500	0.0001	99.9%	49-133
Carbon Tetrachloride	ND	0.050	0.0497	0.0001	99.4%	43-143
Benzene	0.0531	0.050	0.1030	0.0001	99.9%	39-150
1,2-Dichloroethane	ND	0.050	0.0496	0.0001	99.2%	51-147
Trichloroethene	ND	0.050	0.0497	0.0003	99.3%	35-146
Tetrachloroethene	ND	0.050	0.0497	0.0005	99.3%	26-162
Chlorobenzene	ND	0.050	0.0498	0.0003	99.6%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0497	0.0002	99.4%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 26117.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-21-03
Laboratory Number:	07-21-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-21-03
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 26117.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-21-03
Laboratory Number:	26117	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	07-21-03
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 26117.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-21-03
Laboratory Number:	07-21-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	07-21-03
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 26117.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-21-03
Laboratory Number:	26117	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	07-21-03
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 26117.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	N/A	Project #:	N/A
Sample ID:	07-22-TCM QA/QC	Date Reported:	07-22-03
Laboratory Number:	26117	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	07-22-03
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Difference	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**0.002**	**0.002**	**0.0%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**0.984**	**0.982**	**0.2%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.003**	**0.003**	**0.0%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**0.001**	**0.001**	**0.0%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**0.001**	**0.001**	**0.0%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**0.002**	**0.501**	**99.8%**	**80% - 120%**
Barium	**0.500**	**0.984**	**1.48**	**99.7%**	**80% - 120%**
Cadmium	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**
Chromium	**0.500**	**0.003**	**0.502**	**99.8%**	**80% - 120%**
Lead	**0.500**	**0.001**	**0.500**	**99.8%**	**80% - 120%**
Mercury	**0.050**	**ND**	**0.050**	**100.0%**	**80% - 120%**
Selenium	**0.500**	**0.001**	**0.500**	**99.8%**	**80% - 120%**
Silver	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples 26117, 26128.**

Analyst

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CHAIN OF CUSTODY RECORD

11156

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Key Energy	Injection Pump AF	

Sampled	Client No.	No. of Containers	TCLP no H2P						Remarks
M.T.	98065-004								

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix								
Injection Pump	7/18/03	10:00	26117	Water	5	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-18-03	10:15	Christine M Walters	7/18/03	10:15
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

Key Energy Services, Inc.
Four Corners Division
5651 US Highway 64
P.O. Box 900
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

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OIL CONSERVATION
DIVISION

November 13, 2003 Third Quarter 2003

Martyne J. Kieling
Enviromental Geologist
New Mexico OCD
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little or no pump activity.

On Annular Pressures, the non-continuous pump activity had severely effected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186. Email at mtalovich@keyenergy.com

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Putman KEY
Mr. Foust NMOCD

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2003	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2040	1860	1950	2,193	0	1,266	39,293	39,293	6,993,795	0	0	0	3,200
FEB	2040	1850	1945	1,426	481	1,077	30,148	69,441	7,023,943	0	0	0	3,680
MAR	1890	1740	1820	1,203	0	920	28,532	97,973	7,052,475	0	0	0	3,880
APR	1860	1680	1770	1,156	0	651	19,555	117,528	7,072,030	0	0	0	1,840
MAY	2040	1680	1860	2,170	0	617	19,138	136,666	7,091,168	0	0	0	1,840
JUN	2010	1770	1890	2,133	0	299	8,974	145,640	7,100,142	0	0	0	960
JUL	2040	1680	1860	2,232	0	609	18,875	164,521	7,119,017	0	0	0	2,400
AUG	1980	1740	1860	2,137	0	550	17,022	181,543	7,136,039	0	0	0	1,000
SEP	2040	1740	1890	2,232	0	945	28,331	209,874	7,164,370	0	0	0	4,160
OCT													
NOV													
DEC													

CERTIFICATION Michael Jackson DATE 11-13-03

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

November 3, 2003

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-004
Job No.: 806504

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injection Well". One water sample was collected by Key Energy Service designated personnel on 10/28/03, and received by the Envirotech laboratory on 7/28/03 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 11504. The sample was assigned Laboratory No. 26991 (Injection Well) for tracking purposes.

The sample was analyzed on 10/28/03 – 10/30/03 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M Walters

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well	Date Reported:	10-28-03
Lab ID#:	26991	Date Sampled:	10-28-03
Sample Matrix:	Water	Date Received:	10-28-03
Preservative:	Cool	Date Analyzed:	10-28-03
Condition:	Cool and Intact	Chain of Custody:	11504

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 6.74**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.
Comments:	**Injection Well.**

Christine M Walters
Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well	Date Reported:	10-29-03
Laboratory Number:	26991	Date Sampled:	10-28-03
Chain of Custody:	11504	Date Received:	10-28-03
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-29-03
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0507**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0140**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well	Date Reported:	10-30-03
Laboratory Number:	26991	Date Sampled:	10-28-03
Chain of Custody:	11504	Date Received:	10-28-03
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-30-03
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**0.057**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**99%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well	Date Reported:	10-30-03
Laboratory Number:	26991	Date Sampled:	10-28-03
Chain of Custody:	11504	Date Received:	10-28-03
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-30-03
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well	Date Reported:	10-29-03
Laboratory Number:	26991	Date Sampled:	10-28-03
Chain of Custody:	11504	Date Received:	10-28-03
Sample Matrix:	Water	Date Analyzed:	10-29-03
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.006**	**0.001**	**5.0**
Barium	**0.316**	**0.001**	**100**
Cadmium	**0.002**	**0.001**	**1.0**
Chromium	**0.001**	**0.001**	**5.0**
Lead	**0.002**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**0.002**	**0.001**	**1.0**
Silver	**ND**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-29-03
Laboratory Number:	10-29-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-29-03
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	100%
	1,4-difluorobenzene	100%
	4-bromochlorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 26959, 26991.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-29-03
Laboratory Number:	26959	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	10-29-03
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0459	0.0457	0.0001	0.5%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0263	0.0262	0.0001	0.6%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples 26959, 26991.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	10-29-03
Laboratory Number:	26959	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	10-29-03
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99.0%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	98.8%	43-143
2-Butanone (MEK)	0.0459	0.050	0.0957	0.0001	99.8%	47-132
Chloroform	ND	0.050	0.0500	0.0001	100.0%	49-133
Carbon Tetrachloride	ND	0.050	0.0495	0.0001	99.0%	43-143
Benzene	0.0263	0.050	0.0761	0.0001	99.7%	39-150
1,2-Dichloroethane	ND	0.050	0.0490	0.0001	98.0%	51-147
Trichloroethene	ND	0.050	0.0495	0.0003	99.0%	35-146
Tetrachloroethene	ND	0.050	0.0495	0.0005	99.0%	26-162
Chlorobenzene	ND	0.050	0.0495	0.0003	99.0%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0495	0.0002	99.0%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples 26959, 26991.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-30-03
Laboratory Number:	10-30-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-30-03
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	**98 %**
	2,4,6-tribromophenol	**99 %**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 26959, 26991.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	10-30-03
Laboratory Number:	10-29-TCA	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	10-30-03
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**99%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 26959, 26991.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-30-03
Laboratory Number:	26959	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	10-30-03
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**0.167**	**0.165**	**0.020**	**1.0%**
p,m-Cresol	**0.112**	**0.110**	**0.040**	**2.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 26959, 26991.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-30-03
Laboratory Number:	10-30-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	10-30-03
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**95%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 26959, 26991.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	10-30-03
Laboratory Number:	10-29-TBN	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool and Intact	Date Analyzed:	10-30-03
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 26959, 26991.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-30-03
Laboratory Number:	26959	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	10-30-03
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**0.033**	**0.033**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 26959, 26991.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	N/A	Project #:	N/A
Sample ID:	10-28-TCM QA/QC	Date Reported:	10-29-03
Laboratory Number:	26959	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	10-29-03
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Difference	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**0.002**	**0.002**	**0.0%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**0.827**	**0.824**	**0.4%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**0.001**	**0.001**	**0.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.002**	**0.002**	**0.0%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**0.003**	**0.003**	**0.0%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**0.001**	**0.001**	**0.0%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**0.002**	**0.501**	**99.8%**	**80% - 120%**
Barium	**0.500**	**0.827**	**1.32**	**99.5%**	**80% - 120%**
Cadmium	**0.500**	**0.001**	**0.500**	**99.8%**	**80% - 120%**
Chromium	**0.500**	**0.002**	**0.502**	**100.0%**	**80% - 120%**
Lead	**0.500**	**0.003**	**0.502**	**99.8%**	**80% - 120%**
Mercury	**0.050**	**ND**	**0.050**	**100.0%**	**80% - 120%**
Selenium	**0.500**	**0.001**	**0.500**	**99.8%**	**80% - 120%**
Silver	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples 26959, 26991.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

11504

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Key Energy	Injection well	
Sampler: Mitkovich	Client No. 98065-004	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP with NO Headspace						Remarks
Injection well	10-28-03	8Pm	26991	H2O	4	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Michael Mitkovich	10-28-03	9:10 am	Glenn E. Appleman	10-28-03	09:10
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

PO # 71911

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

Key Energy Services, Inc.
Four Corners Division
5651 US Highway 64
P.O. Box 900
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

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JAN 2 8 2004
Environmental Bureau
Oil Conservation Division

January 27, 2004 Fourth Quarter 2003

Martine J. Kieling
Enviromental Geologist
New Mexico OCD
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little or no pump activity.

On Annular Pressures, the non-continuous pump activity had severely affected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186. Email at mtalovich@keyenergy.com

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Putman KEY
Mr. Foust NMOCD

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2003	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
JAN	2040	1860	1950	2,193	0	1,266	39,293	39,293	6,993,795	0	0	0	3,200
FEB	2040	1850	1945	1,426	481	1,077	30,148	69,441	7,023,943	0	0	0	3,680
MAR	1890	1740	1820	1,203	0	920	28,532	97,973	7,052,475	0	0	0	3,880
APR	1860	1680	1770	1,156	0	651	19,555	117,528	7,072,030	0	0	0	1,840
MAY	2040	1680	1860	2,170	0	617	19,138	136,666	7,091,168	0	0	0	1,840
JUN	2010	1770	1890	2,133	0	299	8,974	145,640	7,100,142	0	0	0	960
JUL	2040	1680	1860	2,232	0	609	18,875	164,521	7,119,017	0	0	0	2,400
AUG	1980	1740	1860	2,137	0	550	17,022	181,543	7,136,039	0	0	0	1,000
SEP	2040	1740	1890	2,232	0	945	28,331	209,874	7,164,370	0	0	0	4,160
OCT	2040	1740	1890	2,185	0	896	27,766	237,640	7,192,136	0	0	0	2,920
NOV	2040	1770	1905	2,210	0	971	29,115	266,755	7,221,251	0	0	0	5,320
DEC	2070	1800	1935	2,162	0	970	30,079	296,683	7,251,330	0	0	0	5,720

CERTIFICATION _____ DATE 1-27-04

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

January 21, 2004

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-004
Job No.: 806504

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injection Well". One water sample was collected by Key Energy Service designated personnel on 1/19/04, and received by the Envirotech laboratory on 1/20/04 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 11747. The sample was assigned Laboratory No. 27577 (Injection Well B.F.) for tracking purposes.

The sample was analyzed 1/20/04 and 1/21/04 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well B.F.	Date Reported:	01-21-04
Lab ID#:	27577	Date Sampled:	01-19-04
Sample Matrix:	Water	Date Received:	01-20-04
Preservative:	Cool	Date Analyzed:	01-20-04
Condition:	Cool and Intact	Chain of Custody:	11747

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 8.35**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.
Comments:	**Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well B.F.	Date Reported:	01-21-04
Laboratory Number:	27577	Date Sampled:	01-19-04
Chain of Custody:	11747	Date Received:	01-20-04
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-21-04
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.233**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.354**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well B.F.	Date Reported:	01-21-04
Laboratory Number:	27577	Date Sampled:	01-19-04
Chain of Custody:	11747	Date Received:	01-20-04
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-21-04
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**99%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well B.F.	Date Reported:	01-21-04
Laboratory Number:	27577	Date Sampled:	01-19-04
Chain of Custody:	11747	Date Received:	01-20-04
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-21-04
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**93%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well B.F.	Date Reported:	01-21-04
Laboratory Number:	27577	Date Sampled:	01-19-04
Chain of Custody:	11747	Date Received:	01-20-04
Sample Matrix:	Water	Date Analyzed:	01-21-04
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.002**	**0.001**	**5.0**
Barium	**0.131**	**0.001**	**100**
Cadmium	**ND**	**0.001**	**1.0**
Chromium	**0.001**	**0.001**	**5.0**
Lead	**0.002**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**0.001**	**0.001**	**1.0**
Silver	**ND**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-21-04
Laboratory Number:	11-21-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-21-04
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 27577.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-21-04
Laboratory Number:	27577	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-21-04
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.233	0.234	0.0001	0.7%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.354	0.349	0.0001	1.2%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 27577.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	01-21-04
Laboratory Number:	27577	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-21-04
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0497	0.0001	99.4%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	98.8%	43-143
2-Butanone (MEK)	0.233	0.050	0.282	0.0001	99.9%	47-132
Chloroform	ND	0.050	0.0499	0.0001	99.7%	49-133
Carbon Tetrachloride	ND	0.050	0.0497	0.0001	99.4%	43-143
Benzene	0.354	0.050	0.403	0.0001	99.9%	39-150
1,2-Dichloroethane	ND	0.050	0.0498	0.0001	99.6%	51-147
Trichloroethene	ND	0.050	0.0497	0.0003	99.4%	35-146
Tetrachloroethene	ND	0.050	0.0498	0.0005	99.6%	26-162
Chlorobenzene	ND	0.050	0.0499	0.0003	99.8%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0497	0.0002	99.4%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 27577.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-21-04
Laboratory Number:	01-21-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-21-04
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	**98 %**
	2,4,6-tribromophenol	**99 %**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 27570, 27577.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-21-04
Laboratory Number:	27570	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	01-16-04
Condition:	Cool & Intact	Date Analyzed:	01-21-04
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 27570, 27577.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-21-04
Laboratory Number:	01-21-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	01-21-04
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 27570, 27577.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-21-04
Laboratory Number:	27570	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	01-16-04
Condition:	N/A	Date Analyzed:	01-21-04
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 27570, 27577.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	N/A	Project #:	N/A
Sample ID:	01-21-TCM QA/QC	Date Reported:	01-21-04
Laboratory Number:	27577	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	01-21-04
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Difference	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**0.002**	**0.002**	**0.0%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**0.131**	**0.133**	**1.5%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.001**	**0.001**	**0.0%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**0.002**	**0.002**	**0.0%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**0.001**	**0.001**	**0.0%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**0.002**	**0.501**	**99.8%**	**80% - 120%**
Barium	**0.500**	**0.131**	**0.630**	**99.8%**	**80% - 120%**
Cadmium	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**
Chromium	**0.500**	**0.001**	**0.500**	**99.8%**	**80% - 120%**
Lead	**0.500**	**0.002**	**0.501**	**99.8%**	**80% - 120%**
Mercury	**0.050**	**ND**	**0.050**	**100.0%**	**80% - 120%**
Selenium	**0.500**	**0.001**	**0.500**	**99.8%**	**80% - 120%**
Silver	**0.500**	**ND**	**0.500**	**100.0%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for sample 27577.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

11747

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
KEY Energy	Injection well	

Sampler:	Client No.
M. TAVOVICH	98065-004

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP No Herbs or Pest						Remarks
Injection well BF	1-19-04	1445	27577	H_2O	4	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
M. Tavovich	1-20-04	0830	Glenn L. Appleman	1-20-04	0830
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

PO # 114596

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

Key Energy Services, Inc.
Four Corners Division
5651 US Highway 64
P.O. Box 900
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

RECEIVED
MAY 07 2004
Environmental Bureau
Oil Conservation Division

May 6, 2004 First Quarter 2004

Martine J. Kieling
Enviromental Geologist
New Mexico OCD
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little or no pump activity.

On Annular Pressures, the non-continuous pump activity had severely affected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186. Email at mtalovich@keyenergy.com

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Putman KEY
Mr. Foust NMOCD

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2004	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
									7,251,330				
JAN	2070	1800	1935	2,110	0	1,454	45,065	45,065	7,296,395	0	0	0	4,080
FEB	2070	1800	1935	2,219	0	1,164	33,757	78,822	7,330,152	0	0	0	5,080
MAR	2100	1830	1965	2,243	0	1,762	54,630	133,452	7,384,782	0	0	0	2,840
APR													
MAY													
JUN													
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													

CERTIFICATION Michael J. Clark DATE 5-6-04

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

April 26, 2004

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-004
Job No.: 806504

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injection Well A.F.". One water sample was collected by Key Energy Service designated personnel on 4/20/04, and received by the Envirotech laboratory on 4/20/04 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 12022. The sample was assigned Laboratory No. 28427 (Injection Well A.F.) for tracking purposes.

The sample was analyzed 4/20/04 and 4/23/04 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well A.F.	Date Reported:	04-20-04
Lab ID#:	28427	Date Sampled:	04-20-04
Sample Matrix:	Water	Date Received:	04-20-04
Preservative:	Cool	Date Analyzed:	04-20-04
Condition:	Cool and Intact	Chain of Custody:	12022

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 8.04**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **Injection Well A.F.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well A.F.	Date Reported:	04-23-04
Laboratory Number:	28427	Date Sampled:	04-20-04
Chain of Custody:	12022	Date Received:	04-20-04
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-23-04
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0485**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0528**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well A.F.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well A.F.	Date Reported:	04-23-04
Laboratory Number:	28427	Date Sampled:	04-20-04
Chain of Custody:	12022	Date Received:	04-20-04
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-23-04
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**0.076**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**99%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Well A.F.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well A.F.	Date Reported:	04-23-04
Laboratory Number:	28427	Date Sampled:	04-20-04
Chain of Custody:	12022	Date Received:	04-20-04
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	04-23-04
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well A.F.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Well A.F.	Date Reported:	04-20-04
Laboratory Number:	28427	Date Sampled:	04-20-04
Chain of Custody:	12022	Date Received:	04-20-04
Sample Matrix:	Water	Date Analyzed:	04-20-04
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**ND**	**0.001**	**5.0**
Barium	**0.047**	**0.001**	**100**
Cadmium	**ND**	**0.001**	**1.0**
Chromium	**ND**	**0.001**	**5.0**
Lead	**ND**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**ND**	**0.001**	**1.0**
Silver	**ND**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Well A.F.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-23-04
Laboratory Number:	04-23-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-23-04
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples 28427.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-23-04
Laboratory Number:	28427	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-23-04
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	**ND**	**ND**	**0.0001**	**0.0%**
1,1-Dichloroethene	**ND**	**ND**	**0.0001**	**0.0%**
2-Butanone (MEK)	**0.0485**	**0.0481**	**0.0001**	**0.7%**
Chloroform	**ND**	**ND**	**0.0001**	**0.0%**
Carbon Tetrachloride	**ND**	**ND**	**0.0001**	**0.0%**
Benzene	**0.0528**	**0.0524**	**0.0001**	**0.7%**
1,2-Dichloroethane	**ND**	**ND**	**0.0001**	**0.0%**
Trichloroethene	**ND**	**ND**	**0.0003**	**0.0%**
Tetrachloroethene	**ND**	**ND**	**0.0005**	**0.0%**
Chlorobenzene	**ND**	**ND**	**0.0003**	**0.0%**
1,4-Dichlorobenzene	**ND**	**ND**	**0.0002**	**0.0%**

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples 28427.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	04-23-04
Laboratory Number:	28427	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-23-04
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0499	0.0001	99.8%	28-163
1,1-Dichloroethene	ND	0.050	0.0498	0.0001	99.6%	43-143
2-Butanone (MEK)	0.0485	0.050	0.0983	0.0001	99.8%	47-132
Chloroform	ND	0.050	0.0499	0.0001	99.7%	49-133
Carbon Tetrachloride	ND	0.050	0.0497	0.0001	99.4%	43-143
Benzene	0.0528	0.050	0.1026	0.0001	99.8%	39-150
1,2-Dichloroethane	ND	0.050	0.0498	0.0001	99.6%	51-147
Trichloroethene	ND	0.050	0.0497	0.0003	99.4%	35-146
Tetrachloroethene	ND	0.050	0.0497	0.0005	99.4%	26-162
Chlorobenzene	ND	0.050	0.0499	0.0003	99.8%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0497	0.0002	99.4%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples 28427.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-23-04
Laboratory Number:	04-23-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-23-04
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	**98 %**
	2,4,6-tribromophenol	**99 %**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 28427.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-23-04
Laboratory Number:	28427	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	04-23-04
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**0.076**	**0.075**	**0.020**	**1.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 28427.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-23-04
Laboratory Number:	04-23-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	04-23-04
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 28427.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-23-04
Laboratory Number:	28427	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	04-23-04
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 28427.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	N/A	Project #:	N/A
Sample ID:	04-00-TCM QA/QC	Date Reported:	04-20-04
Laboratory Number:	28427	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	04-20-04
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Difference	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**0.047**	**0.048**	**2.1%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**
Barium	**0.500**	**0.047**	**0.546**	**99.8%**	**80% - 120%**
Cadmium	**0.500**	**ND**	**0.500**	**100.0%**	**80% - 120%**
Chromium	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**
Lead	**0.500**	**ND**	**0.499**	**99.8%**	**80% - 120%**
Mercury	**0.050**	**ND**	**0.050**	**100.0%**	**80% - 120%**
Selenium	**0.500**	**ND**	**0.498**	**99.6%**	**80% - 120%**
Silver	**0.500**	**ND**	**0.500**	**100.0%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for sample 28427.**

Analyst

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CHAIN OF CUSTODY RECORD

12022

Client / Project Name: KEY ENERGY

Project Location: Injection well A.F

Sampler:

Client No.: 98065-004

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o Metals						Remarks
Injection well A.F	4-20-04	10Am	28427	H2O	5	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Michael Pollard	4-20-04	10:53Am	Glenn E. Spencer	4/20/04	11:53
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

PO 176684

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

san juan reproduction 578-129

UNLOCK YOUR POTENTIAL

Key Energy Services, Inc.
Four Corners Division
5651 US Highway 64
P.O. Box 900
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

July 27, 2004 Second Quarter 2004

Martine J. Kieling
Enviromental Geologist
New Mexico OCD
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87504

Denny Foust
Environmental Geologist
New Mexico OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Key Energy Quarterly Injection Well Report

Dear Martyne,

Please find attached our quarterly Injection Well Report for Key Disposal
The following explanation is needed concerning Flow Rate and Annular Pressures:

On Flow Rates the average was based on a 16 hour day / days of the month. Also there were some days when there was little or no pump activity.

On Annular Pressures, the non-continuous pump activity had severely affected the backside pressures. So on a letter dated March 20, 1997 NMOCD granted Key (formally Sunco) a permit amendment pertaining to the annulus. This change in the permit is reflected in this quarter's report.

The Injection Water Analysis is also provided. If you require additional information, please contact me at the Office 334-6416 or the Facility at 334-6186. Email at mtalovich@keyenergy.com

Best Regards:

Michael Talovich
Disposal Manager
Key Energy Services

cc: Mr. Putman KEY
Mr. Foust NMOCD

KEY ENERGY DISPOSAL
P.O. BOX 900
FARMINGTON, N.M. 87499

MONTHLY INJECTION WELL REPORT

PERIOD 2004	INJECTION PRESSURES			FLOW RATES			'FLOW VOLUMES / DAY			'ANNULAR PRESSURES			CLASS 1 NON-HAZ
	MAX (PSI)	MIN (PSI)	AVG (PSI)	MAX (bbls)	MIN (bbls)	AVG (bbls)	MONTH(bbls)	'YTD (bbls)	LIFE OF WELL	MAX (PSI)	MIN (PSI)	AVG (PSI)	VOLUMES IN BARRELS
									7,251,330				
JAN	2070	1800	1935	2,110	0	1,454	45,065	45,065	7,296,395	0	0	0	4,080
FEB	2070	1800	1935	2,219	0	1,164	33,757	78,822	7,330,152	0	0	0	5,080
MAR	2100	1830	1965	2,243	0	1,762	54,630	133,452	7,384,782	0	0	0	2,840
APR	2100	1840	1970	2,186	775	1,873	56,185	189,637	7,440,967	0	0	0	4,920
MAY	2090	1830	1960	2,035	0	1,299	40,255	229,892	7,481,222	0	0	0	1,520
JUN	2050	1800	1925	1,964	0	1,093	32,778	262,670	7,514,000	0	0	0	1,240
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													

CERTIFICATION Michael [signature] DATE 7-27-04

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

July 23, 2004

Mr. Mike Talovich
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-004
Job No.: 806504

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Injection Well". One water sample was collected by Key Energy Service designated personnel on 7/15/04, and received by the Envirotech laboratory on 7/19/04 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 12598. The sample was assigned Laboratory No. 29576 (Injection Pump AF) for tracking purposes.

The sample was analyzed 7/20/04 and 7/22/04 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump AF	Date Reported:	07-20-04
Lab ID#:	29576	Date Sampled:	07-15-04
Sample Matrix:	Water	Date Received:	07-19-04
Preservative:	Cool	Date Analyzed:	07-20-04
Condition:	Cool and Intact	Chain of Custody:	12598

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 5.83**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump AF	Date Reported:	07-20-04
Laboratory Number:	29576	Date Sampled:	07-15-04
Chain of Custody:	12598	Date Received:	07-19-04
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-20-04
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0137**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0293**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump AF	Date Reported:	07-22-04
Laboratory Number:	29576	Date Sampled:	07-15-04
Chain of Custody:	12598	Date Received:	07-19-04
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-22-04
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**0.027**	**0.020**	**200**
p,m-Cresol	**0.055**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**99%**
	2,4,6-Tribromophenol	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump AF	Date Reported:	07-22-04
Laboratory Number:	29576	Date Sampled:	07-15-04
Chain of Custody:	12598	Date Received:	07-19-04
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-22-04
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Injection Well.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy	Project #:	98065-004
Sample ID:	Injection Pump AF	Date Reported:	07-20-04
Laboratory Number:	29576	Date Sampled:	07-15-04
Chain of Custody:	12598	Date Received:	07-19-04
Sample Matrix:	Water	Date Analyzed:	07-20-04
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.003**	**0.001**	**5.0**
Barium	**0.318**	**0.001**	**100**
Cadmium	**0.001**	**0.001**	**1.0**
Chromium	**0.002**	**0.001**	**5.0**
Lead	**0.001**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**0.001**	**0.001**	**1.0**
Silver	**ND**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Injection Well.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-20-04
Laboratory Number:	07-20-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-20-04
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	**100%**
	1,4-difluorobenzene	**100%**
	4-bromochlorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 29576.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-20-04
Laboratory Number:	29576	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	07-20-04
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0137	0.0137	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0293	0.0293	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 29576.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	07-20-04
Laboratory Number:	29576	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	07-20-04
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	**ND**	**0.050**	**0.0499**	**0.0001**	**99.8%**	**28-163**
1,1-Dichloroethene	**ND**	**0.050**	**0.0498**	**0.0001**	**99.6%**	**43-143**
2-Butanone (MEK)	**0.0137**	**0.050**	**0.0635**	**0.0001**	**99.7%**	**47-132**
Chloroform	**ND**	**0.050**	**0.0499**	**0.0001**	**99.7%**	**49-133**
Carbon Tetrachloride	**ND**	**0.050**	**0.0497**	**0.0001**	**99.4%**	**43-143**
Benzene	**0.0293**	**0.050**	**0.0791**	**0.0001**	**99.7%**	**39-150**
1,2-Dichloroethane	**ND**	**0.050**	**0.0498**	**0.0001**	**99.6%**	**51-147**
Trichloroethene	**ND**	**0.050**	**0.0497**	**0.0003**	**99.4%**	**35-146**
Tetrachloroethene	**ND**	**0.050**	**0.0497**	**0.0005**	**99.4%**	**26-162**
Chlorobenzene	**ND**	**0.050**	**0.0499**	**0.0003**	**99.8%**	**38-150**
1,4-Dichlorobenzene	**ND**	**0.050**	**0.0497**	**0.0002**	**99.4%**	**42-143**

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample 29576.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-22-04
Laboratory Number:	07-22-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-22-04
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	**98 %**
	2,4,6-tribromophenol	**99 %**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 29576.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-22-04
Laboratory Number:	29576	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	07-22-04
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**0.027**	**0.027**	**0.020**	**0.0%**
p,m-Cresol	**0.055**	**0.054**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 29576.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-22-04
Laboratory Number:	07-22-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	07-22-04
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 29576.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-22-04
Laboratory Number:	29576	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	07-22-04
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for sample 29576.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	N/A	Project #:	N/A
Sample ID:	07-20-TCM QA/QC	Date Reported:	07-20-04
Laboratory Number:	29576	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	07-20-04
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Difference	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**0.003**	**0.003**	**0.0%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**0.318**	**0.316**	**0.6%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**0.001**	**0.001**	**0.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.002**	**0.002**	**0.0%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**0.001**	**0.001**	**0.0%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**0.001**	**0.001**	**0.0%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**0.003**	**0.502**	**99.8%**	**80% - 120%**
Barium	**0.500**	**0.318**	**0.815**	**99.6%**	**80% - 120%**
Cadmium	**0.500**	**0.001**	**0.501**	**100.0%**	**80% - 120%**
Chromium	**0.500**	**0.002**	**0.501**	**99.8%**	**80% - 120%**
Lead	**0.500**	**0.001**	**0.500**	**99.8%**	**80% - 120%**
Mercury	**0.050**	**ND**	**0.050**	**100.0%**	**80% - 120%**
Selenium	**0.500**	**0.001**	**0.500**	**99.8%**	**80% - 120%**
Silver	**0.500**	**ND**	**0.500**	**100.0%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for sample 29576.**

Analyst

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CHAIN OF CUSTODY RECORD

12598

Client / Project Name	Project Location
KEY ENERGY	Injection WELL

Sampler:	Client No.
MIKE TALOVICH	98065-004

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP	ANALYSIS / PARAMETERS	Remarks
Injection Pump AF	7/15/04	0930	29576 12548 (RT)	H2O	5	✓	NO Metals, Pb, As	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Michael Talovich	7/19/04	10:35 AM	William E. Ayl	7/19/04	10:35
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

PO# 248344

ENVIROTECH INC.
5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

san juan reproduction 578-129