ETECH
Environmental & Safety Solutions, Inc.

APPROVED
By Olivia Yu at 4:03 pm, Jun 13, 2018

Electronic Correspondence

June 12, 2018

NMOCD approves of the proposed delineation plan for 1RP-5091. To complete vertical delineation for TPH, 1 ft. further in depth is required for verification.

Ms. Olivia Yu
Environmental Specialist, District I
Oil Conservation Division, EMNRD
Olivia.yu@state.nm.us

Re: Delineation Work Plan
Former DCP Pump Station Historical Release
Legal: Unit F, Sec 4, T22S R36E, Lea County, NM
Latitude/Longitude: 32.422898/ -103.274162
Etech Proj. Number: 876-9521-000
Depth to Groundwater: 200-275 feet - Chevron/Texaco Lea County Depth to Groundwater Map
- OSE NM Water Rights Reporting System
Release Type: Produced Water

Contaminants of Concern (COCs)	Threshold Levels
TPH	5000 mg/kg
Benzene	10 mg/kg
BTEX	50 mg/kg
Chlorides	600 mg/kg

Dear Olivia:

Etech Environmental & Safety Solutions, Inc. (Etech) is submitting the following delineation work plan on the aforementioned site for your review and approval.

Background

On February 21, 2018, a Phase I environmental site assessment inspection was conducted by a third party at the 8.33 acre former DCP pump station site. Of particular interest was a possibly impacted area which had been identified from historical aerial photos and is located approximately one hundred and forty (140) feet south of the former pump station's concrete pad. The possibly impacted area measures approximately seventy (70) feet in length and fifty (50) feet in width and covers an area of approximately three thousand five hundred (3,500) square feet.

Concurrent with the Phase I environmental site assessment inspection, three (3) soil samples were collected by hand auger from two (2) locations of the possibly impacted area (See Annotated Aerial Imagery). Hand auger refusal occurred at a depths of three (3) and three and a half (3.5) feet below ground surface (bgs) where a hard layer of competent caliche was encountered. The soil samples were submitted to Cardinal Laboratories (Cardinal) and analyzed for TPH, benzene, BTEX, chloride, and pH. The laboratory results determined that the TPH levels ranged from 6,770 mg/kg to 39,573 mg/kg. Benzene levels ranged from no analytical detection to 0.318 mg/kg. BTEX levels ranged from no analytical detection to 14.2 mg/kg. Chloride levels ranged from no analytical detection to 32 mg/kg. (See Annotated Aerial Imagery and Table 1 Summary of Delineation Sampling Analytical Results below).

Table 1 Summary of Delineation Sampling Analytical Results									
Sample ID	Depth	Date	C6-C12	>C12-C28	>C28-C35	Total TPH (mg/kg)	Benzene (mg/kg)	BTEX (mg/kg)	Chlorides (mg/kg)
S-1	6”	2/21/18	ND	14,200	6,730	**20,930**	ND	ND	ND
S-1	3.5’	2/21/18	ND	5,240	1,530	**6,770**	ND	ND	32
S-2	3’	2/21/18	243	29,400	9,930	**39,573**	0.318	14.2	32

ND denotes no analytical detection.
Bold denotes analytical results above regulatory guidelines

Depth to Groundwater Data

Depth to groundwater data was obtained from the Chevron/Texaco Lea County Depth to Groundwater Map and the New Mexico Office of the State Engineer (OSE) New Mexico Water Rights Reporting System.

The Former DCP Pump Station location lies between the 250 foot and 275 foot ground water contour lines as depicted on the Chevron/Texaco Lea County Depth to Groundwater Map. This correlates well with the water depths displayed in the OSE Water Column/ Average Depth to Water Table.

Attachment D contains an image of the pertinent area of the Chevron/ Texaco Lea County Depth to Groundwater Map with the location of the Former DCP Pump Station denoted, and the OSE Water Column/ Average Depth to Water Table.

Site Ranking Score and Recommended Remediation Action Levels

The New Mexico Oil Conservation Division publication entitled “Guidelines for Remediation of Leaks, Spills and Releases” (August 13, 1993) provides ranking criteria for the setting of recommended remediation action levels for release sites in New Mexico. Per these criteria the following ranking was calculated:

Criteria Value Ranking

Depth to Groundwater greater than 100 feet = 0

Wellhead Protection Area Greater than 1,000 feet from a water source and greater than 200 feet from a private domestic water source = 0

Distance to Surface Water Body Greater than 1,000 feet = 0

Total Ranking = 0

The recommended remediation action levels for a site that displays a total ranking of zero (0) to nine (9) are:

TPH – 5000 mg/kg

Benzene – 10 mg/kg

BTEX – 50 mg/kg

Chloride – 600 mg/kg

Scope of Work

1. Further delineation of the site will be performed by trenching with a backhoe at each of the original auger hole locations. If necessary, a drill rig will be utilized if trenching is found to be infeasible.

2. Soil samples will be collected at one (1) foot intervals and evaluated for visual and olfactory indications of the presence or absence of hydrocarbon impact. Once a sample indicates the absence of hydrocarbon impact, it will be containerized and submitted for laboratory analysis for TPH, benzene, and BTEX.

3. In addition, a soil sample will be collected at a five (5) foot interval and field tested for chloride.

4. If the field test indicates that the chloride concentration is below the regulatory threshold of 600 mg/kg, the soil sample will be containerized and submitted for laboratory analysis for chloride.

5. If the field test indicates that the chloride concentration is above the regulatory threshold of 600 mg/kg, then sampling and field testing will resume at one (1) foot intervals.

6. Once chloride levels are observed below the 600 mg/kg regulatory threshold level in a sample, the sample will be containerized and submitted for laboratory analysis for chloride.

7. Following the observation of chloride levels below the regulatory threshold of 600 mg/kg in a soil sample, another soil sample will be collected at a depth five (5) feet below the sample displaying a chloride level below 600 mg/kg and will be field tested for chloride.

8. If the field test displays that the chloride level is below the regulatory threshold of 600 mg/kg in the soil sample, then the soil sample will be containerized and submitted for laboratory analysis for chloride.

9. If the field test displays that the chloride levels are above the regulatory threshold of 600 mg/kg in the soil sample, then delineation will begin again at one (1) foot intervals.

10. Delineation will only be completed when all soil sample locations display chloride levels below the regulatory threshold of 600 mg/kg in two consecutive soil samples separated in depth by five (5) feet.

11. Upon completion of the delineation, the borings will be properly plugged and abandoned.

Notifications and Special Conditions

1. The BLM and OCD will be notified prior to the commencement of on-site operations.
2. The BLM and OCD will be notified prior to each sampling event to allow the opportunity to witness the sampling events. Splits will be made available if requested.
3. A report documenting the results of the delineation activities will be submitted to the BLM and OCD.

Thank you for your assistance on this matter. Should you have any questions, require additional information, or have any additional stipulations for this site, please contact me at (432) 563-2200 (office) or via email at geoff@etechenv.com.

Respectfully:

Geoff Leking,
Project Manager
Etech Environmental & Safety Solutions, Inc.

Attachment A
Initial C-141

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-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

X Initial Report ☐ Final Report

Name of Company Goodnight Midstream	Contact Ralph Tijerina
Address 5910 N. Central Expy. Suite 850 Dallas, Tx 75206	Telephone No. 214-444-7001
Facility Name Former DCP Operating Company, LP (DCP) Pump Station	Facility Type Pump Station

Surface Owner Private	Mineral Owner State	API No. 30-025-08769 (non related closest well)

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	04	22S	36E	1900	North	1490	West	Lea

Latitude 32.422898 **Longitude** -103.274162 NAD83

NATURE OF RELEASE

Type of Release Crude oil	Volume of Release Unk	Volume Recovered Unk
Source of Release Unk	Date and Hour of Occurrence Historical	Date and Hour of Discovery Historical
Was Immediate Notice Given? ☐ Yes ☐ No X Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes X No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
In the early 1960s a pump station was operated on the subject property. At an unknown time a release(s) from an unknown source occurred approximately one hundred forty (140) feet south of the pump station's concrete pad.

Describe Area Affected and Cleanup Action Taken.*
The release(s) affected an area approximately seventy (70) feet long by fifty (50) feet wide in the pasture south of the pump station. Initial delineation soil samples were collected by a third party utilizing an hand auger on February 21, 2018. Initial soil sampling indicates impact exists to depths of three (3) and three and a half (3.5) feet below ground surface (bgs) where hand auger refusal was observed. A delineation work plan for further delineation of the impact is attached.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name:	Approved by Environmental Specialist:	
Title:	Approval Date:	Expiration Date:
E-mail Address:	Conditions of Approval:	Attached ☐
Date: Phone:		

* Attach Additional Sheets If Necessary

Attachment B
Annotated Aerial Imagery

ETECH Environmental & Safety Solutions, Inc.

Delineation & Assessment Report ©	Lease Name:	Former DCP Pump Statipon	Case No.:	876-9521-000
	Date Assessed:	Feb 21, 2018		

	Assessment Results		
Sample I. D.	Depth (ft.)	TPH (mg/kg)	Chlorides (mg/kg)
S-1	0.5	**20,930**	ND
S-1	3.5	**6,770**	32
S-2	3.0	**39,573**	32

Bold denotes analytical results above regulatory guidelines

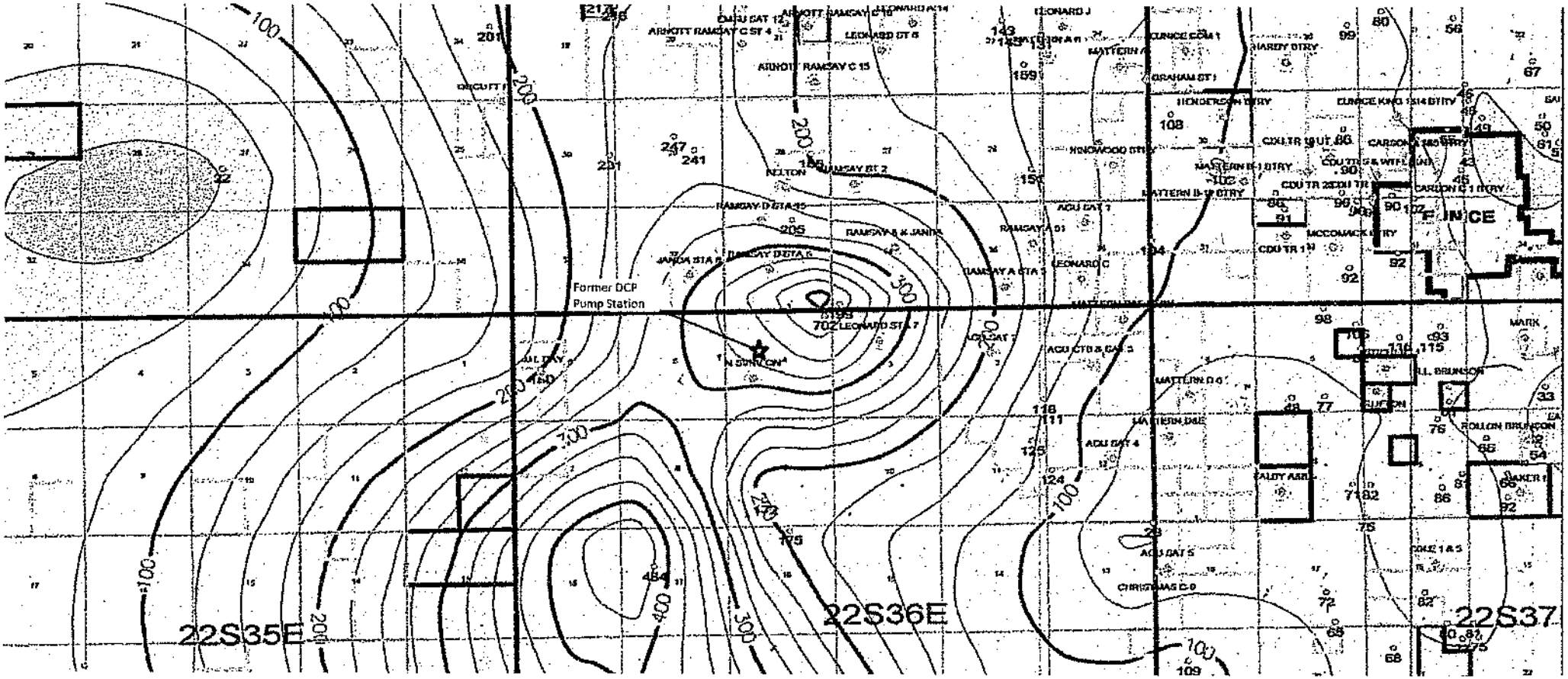
ND denotes no analytical detection

Attachment C
Photograph Log

View of release looking northwest.

View of auger hole S-1.

Attachment D
Depth to Groundwater Data


Former DCP
Pump Station
22S35E
22S36E
22S37
100
200
300
400
FINCE

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00727		CP	LE	1	3	2	05	22S	36E	661130	3588673*	1143	267	212	55
CP 00727 CLW475753	O	CP	LE	1	3	2	05	22S	36E	661130	3588673*	1143	228		
L 11013	C	L	LE			3	10	22S	36E	663892	3586402*	2748	222		
CP 01318 POD2		CP	LE	3	3	3	10	22S	36E	663672	3586106	2879	260	180	80
CP 00469		CP	LE	1	2	3	06	22S	36E	659127	3588245*	3167	220	195	25
CP 01469 POD1		CP	LE	2	2	2	18	22S	36E	660234	3585869	3426	200	140	60
CP 00070		CP	LE	2	2	3	16	22S	36E	662604	3585071*	3567	220	170	50
CP 00070 CLW472929	O	CP	LE	2	2	3	16	22S	36E	662604	3585071*	3567	220	170	50
CP 00764 POD1		CP	LE	2	1	4	16	22S	36E	663006	3585079*	3619	4700	4000	700
CP 00539		CP	LE	4	3	2	30	21S	36E	659663	3591676*	4016	270	240	30
CP 00760 POD1		CP	LE	1	4	4	35	21S	36E	666347	3589567*	4182	5000		
CP 00761 POD1		CP	LE	4	3	1	01	22S	36E	666964	3588569*	4692	5000		

Average Depth to Water: **663 feet**

Minimum Depth: **140 feet**

Maximum Depth: **4000 feet**

Record Count: 12

Basin/County Search:

County: Lea

UTMNAD83 Radius Search (in meters):

Easting (X): 662272.3 **Northing (Y):** 3588623.13 **Radius:** 4838.7

***UTM location was derived from PLSS - see Help**

Attachment E
Analytical Results

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 22, 2018

ALAN KANE

KANE ENVIROMENTAL

8816 BIG VIEW DRIVE

AUSTIN, TX 78730

RE: 8.33 ACRE SITE

Enclosed are the results of analyses for samples received by the laboratory on 02/21/18 13:03.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

KANE ENVIROMENTAL 8816 BIG VIEW DRIVE AUSTIN TX, 78730	Project: 8.33 ACRE SITE Project Number: 18-091 Project Manager: ALAN KANE Fax To:	Reported: 22-Feb-18 13:55

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-1 3-3.5'	H800521-01	Soil	21-Feb-18 11:20	21-Feb-18 13:03
S-1 0-6"	H800521-02	Soil	21-Feb-18 11:10	21-Feb-18 13:03
S-2 2.5-3'	H800521-03	Soil	21-Feb-18 11:45	21-Feb-18 13:03

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

KANE ENVIROMENTAL 8816 BIG VIEW DRIVE AUSTIN TX, 78730	Project: 8.33 ACRE SITE Project Number: 18-091 Project Manager: ALAN KANE Fax To:	Reported: 22-Feb-18 13:55

S-1 3-3.5'

H800521-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**32.0**		16.0	mg/kg	4	8022201	AC	22-Feb-18	4500-Cl-B	
pH*	**7.83**		0.100	pH Units	1	8022202	AC	22-Feb-18	9045	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	8022104	MS	22-Feb-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8022104	MS	22-Feb-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8022104	MS	22-Feb-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8022104	MS	22-Feb-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8022104	MS	22-Feb-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*119 %*	*72-148*		*8022104*	MS	*22-Feb-18*	*8021B*	
Petroleum Hydrocarbons by GC FID										**S-06**
GRO C6-C10*	<100		100	mg/kg	10	8022105	MS	22-Feb-18	8015B	
DRO >C10-C28*	**5240**		100	mg/kg	10	8022105	MS	22-Feb-18	8015B	
EXT DRO >C28-C36	**1530**		100	mg/kg	10	8022105	MS	22-Feb-18	8015B	
Surrogate: 1-Chlorooctane			*84.1 %*	*41-142*		*8022105*	MS	*22-Feb-18*	*8015B*	
Surrogate: 1-Chlorooctadecane			*160 %*	*37.6-147*		*8022105*	MS	*22-Feb-18*	*8015B*	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

KANE ENVIROMENTAL 8816 BIG VIEW DRIVE AUSTIN TX, 78730	Project: 8.33 ACRE SITE Project Number: 18-091 Project Manager: ALAN KANE Fax To:	Reported: 22-Feb-18 13:55

S-1 0-6"

H800521-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	<16.0		16.0	mg/kg	4	8022201	AC	22-Feb-18	4500-Cl-B	
pH*	**5.45**		0.100	pH Units	1	8022202	AC	22-Feb-18	9045	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	8022104	MS	22-Feb-18	8021B	
Toluene*	<0.050		0.050	mg/kg	50	8022104	MS	22-Feb-18	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	8022104	MS	22-Feb-18	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	8022104	MS	22-Feb-18	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	8022104	MS	22-Feb-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*110 %*	*72-148*		*8022104*	MS	*22-Feb-18*	*8021B*	
Petroleum Hydrocarbons by GC FID										**S-06**
GRO C6-C10*	<200		200	mg/kg	20	8022105	MS	22-Feb-18	8015B	
DRO >C10-C28*	**14200**		200	mg/kg	20	8022105	MS	22-Feb-18	8015B	
EXT DRO >C28-C36	**6730**		200	mg/kg	20	8022105	MS	22-Feb-18	8015B	
Surrogate: 1-Chlorooctane			*76.1 %*	*41-142*		*8022105*	MS	*22-Feb-18*	*8015B*	
Surrogate: 1-Chlorooctadecane			*401 %*	*37.6-147*		*8022105*	MS	*22-Feb-18*	*8015B*	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

KANE ENVIROMENTAL 8816 BIG VIEW DRIVE AUSTIN TX, 78730	Project: 8.33 ACRE SITE Project Number: 18-091 Project Manager: ALAN KANE Fax To:	Reported: 22-Feb-18 13:55

S-2 2.5-3'

H800521-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**32.0**		16.0	mg/kg	4	8022201	AC	22-Feb-18	4500-Cl-B	
pH*	**6.00**		0.100	pH Units	1	8022202	AC	22-Feb-18	9045	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	**0.318**		0.100	mg/kg	100	8022104	MS	22-Feb-18	8021B	
Toluene*	**0.796**		0.100	mg/kg	100	8022104	MS	22-Feb-18	8021B	
Ethylbenzene*	**3.83**		0.100	mg/kg	100	8022104	MS	22-Feb-18	8021B	
Total Xylenes*	**9.29**		0.300	mg/kg	100	8022104	MS	22-Feb-18	8021B	
Total BTEX	**14.2**		0.600	mg/kg	100	8022104	MS	22-Feb-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*114 %*	*72-148*		*8022104*	MS	*22-Feb-18*	*8021B*	
Petroleum Hydrocarbons by GC FID										**S-06**
GRO C6-C10*	**243**		200	mg/kg	20	8022105	MS	22-Feb-18	8015B	
DRO >C10-C28*	**29400**		200	mg/kg	20	8022105	MS	22-Feb-18	8015B	
EXT DRO >C28-C36	**9930**		200	mg/kg	20	8022105	MS	22-Feb-18	8015B	
Surrogate: 1-Chlorooctane			*74.9 %*	*41-142*		*8022105*	MS	*22-Feb-18*	*8015B*	
Surrogate: 1-Chlorooctadecane			*469 %*	*37.6-147*		*8022105*	MS	*22-Feb-18*	*8015B*	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

KANE ENVIROMENTAL 8816 BIG VIEW DRIVE AUSTIN TX, 78730	Project: 8.33 ACRE SITE Project Number: 18-091 Project Manager: ALAN KANE Fax To:	Reported: 22-Feb-18 13:55

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022201 - 1:4 DI Water										
Blank (8022201-BLK1)				Prepared & Analyzed: 22-Feb-18						
Chloride	ND	16.0	mg/kg							
LCS (8022201-BS1)				Prepared & Analyzed: 22-Feb-18						
Chloride	416	16.0	mg/kg	400		104	80-120			
LCS Dup (8022201-BSD1)				Prepared & Analyzed: 22-Feb-18						
Chloride	400	16.0	mg/kg	400		100	80-120	3.92	20	
Batch 8022202 - 1:1 DI										
LCS (8022202-BS1)				Prepared & Analyzed: 22-Feb-18						
pH	7.22		pH Units	7.00		103	90-110			
Duplicate (8022202-DUP1)		**Source: H800521-01**		Prepared & Analyzed: 22-Feb-18						
pH	7.94	0.100	pH Units		7.83			1.40	20	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

KANE ENVIROMENTAL 8816 BIG VIEW DRIVE AUSTIN TX, 78730	Project: 8.33 ACRE SITE Project Number: 18-091 Project Manager: ALAN KANE Fax To:	Reported: 22-Feb-18 13:55

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022104 - Volatiles										
Blank (8022104-BLK1)				Prepared & Analyzed: 22-Feb-18						
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	*0.113*		mg/kg	*0.100*		*113*	*72-148*			
LCS (8022104-BS1)				Prepared & Analyzed: 22-Feb-18						
Benzene	1.91	0.050	mg/kg	2.00		95.7	79.5-124			
Toluene	1.91	0.050	mg/kg	2.00		95.6	75.5-127			
Ethylbenzene	1.83	0.050	mg/kg	2.00		91.4	77.7-125			
Total Xylenes	5.67	0.150	mg/kg	6.00		94.5	70.9-124			
Surrogate: 4-Bromofluorobenzene (PID)	*0.104*		mg/kg	*0.100*		*104*	*72-148*			
LCS Dup (8022104-BSD1)				Prepared & Analyzed: 22-Feb-18						
Benzene	1.91	0.050	mg/kg	2.00		95.4	79.5-124	0.316	6.5	
Toluene	1.88	0.050	mg/kg	2.00		94.1	75.5-127	1.57	7.02	
Ethylbenzene	1.85	0.050	mg/kg	2.00		92.7	77.7-125	1.43	7.83	
Total Xylenes	5.69	0.150	mg/kg	6.00		94.9	70.9-124	0.440	7.78	
Surrogate: 4-Bromofluorobenzene (PID)	*0.106*		mg/kg	*0.100*		*106*	*72-148*			

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

KANE ENVIROMENTAL 8816 BIG VIEW DRIVE AUSTIN TX, 78730	Project: 8.33 ACRE SITE Project Number: 18-091 Project Manager: ALAN KANE Fax To:	Reported: 22-Feb-18 13:55

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8022105 - General Prep - Organics										
Blank (8022105-BLK1)				Prepared & Analyzed: 21-Feb-18						
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	*49.1*		mg/kg	*50.0*		*98.2*	*41-142*			
Surrogate: 1-Chlorooctadecane	*48.6*		mg/kg	*50.0*		*97.2*	*37.6-147*			
LCS (8022105-BS1)				Prepared & Analyzed: 21-Feb-18						
GRO C6-C10	201	10.0	mg/kg	200		101	76.5-133			
DRO >C10-C28	196	10.0	mg/kg	200		98.2	72.9-138			
Total TPH C6-C28	398	10.0	mg/kg	400		99.4	78-132			
Surrogate: 1-Chlorooctane	*50.2*		mg/kg	*50.0*		*100*	*41-142*			
Surrogate: 1-Chlorooctadecane	*52.0*		mg/kg	*50.0*		*104*	*37.6-147*			
LCS Dup (8022105-BSD1)				Prepared & Analyzed: 21-Feb-18						
GRO C6-C10	207	10.0	mg/kg	200		103	76.5-133	2.67	20.6	
DRO >C10-C28	202	10.0	mg/kg	200		101	72.9-138	2.99	20.6	
Total TPH C6-C28	409	10.0	mg/kg	400		102	78-132	2.83	18	
Surrogate: 1-Chlorooctane	*51.9*		mg/kg	*50.0*		*104*	*41-142*			
Surrogate: 1-Chlorooctadecane	*53.9*		mg/kg	*50.0*		*108*	*37.6-147*			

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Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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RUSH!!

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: Kane Environmental Engineering
Project Manager: Ralph Harvey
Address: 125 Pecan Valley Dr.
City: Bullard State: TX Zip: 75757
Phone #: 903-235-9359 Fax #:
Project #: 18-091 Project Owner:
Project Name: 8.33 Acre site
Project Location: SW of Kunrce, NM
Sampler Name: Ralph Harvey

BILL TO
P.O. #: 18-091
Company: Kane
Attn: Alan Kane
Address: 8816 Big View
City: Austin
State: TX Zip: 78730
Phone #: 281-370-6580
Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME (see bars)	ANALYSIS REQUEST: TPH GRO, DRO, ORO	BTEX	pH	Chlorides
H800521	~~S-1 0-6"~~																	
1	S-1 3-3½'	G	1			✓					✓		2/21	11:20	✓	✓	✓	✓
2	S-1 0-6"	G	1			✓					✓		2/21	11:10				
3	S-2 2½-3'	G	1			✓					✓		2/21	11:15				

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

Relinquished By: Date: 2/21 Time: 13:03 Received By: Jodi Henson
Relinquished By: Date: Time: Received By:
Delivered By: (Circle One) #75
Sampler - UPS - Bus - Other: 3.6°C / 3.85°C
Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials)

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:
PV rvharvey@gmail.com
Inv ⇒ alanjkane@comcast.net

+ Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326