

Release Report/ General Correspondence

Enterprise SJ

Date: Apr-Jun 2014

State of New Mexico Energy Minerals and Natural Resources

> Oil Conservation Division 1220 South St. Francis Dr. Santa Fe. NM 87505

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

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			Rel	ease Notific	catio	on and Co	orrective A	ction	L			
						OPERA '	ГOR		🗍 Initi	al Report	\boxtimes	Final Report
Name of Co	ompany: I	Enterprise Fi	eld Servi	ces LLC		Contact: TI						I
		Ave, Farmin					No. 505-599-22					
Facility Na	me: Later	al 3B-23 Blo	ock Valv	e Leak (EOL)		Facility Typ	e: Gathering L	.ine/Blo	ock Valv	e		
Surface Ow	ner: Priv	ate		Mineral C)wner:	BLM			API No	0.		
•				LOCA	ATIO	N OF RE	LEASE					
Unit Letter	Section	Township	Range			Douth Line		East	Vest Line	County		
A	30	29N	11W	1240			25			San Juan		
L	-1	Lati	tude 3	6.700682		Longitud	e <u>-108.0284</u>	1 10		I		
		Buth	<u>-</u>					10				
Type of Rele	ase: Natur	al Gas and Na	tural Gas		URE	C OF REL	EASE Release: 29 MC	'F	Volume	Recovered:	Unkno	
	aby. matur		10101 005	Diquius			nated 3-5 BBLs	~#'	volume		UIKIU	
L					<u> </u>	Liquids						
Source of Re	elease: Bloc	k Valve Malfi	inction			1	lour of Occurrenc	e:			covery	: 1/27/2014
Was Immedi	ate Notice	Given?		······			@ 6:06 p.m. Whom? Brandor	n Powell	<u>@ 6:06 p</u> – NMOC			
			Yes [] No 🔲 Not Re	equired				1	2		
By Whom?	Thomas Lo	ng				Date and I-	lour. 1/27/2014 7	:00 p.m.	•			
Was a Water	course Rea	ched?		-			olume Impacting t			· <u>·</u> ······		
			Yes 🛛	No								
vicinity of a feet by 6 feet	residential a was impac	area. The line ated by a conde	was blowr ensate/w <u>a</u> t	n Taken.* A relea: 1 down, taken out er mix.	of serv	vice and LOTO	(lock out tag out		i 0ins ⊿di 1ay 2 7		f appro	a was in the eximately 6
Remediation approved NM twelve (12) f I hereby certi regulations a public health	was compl AOCD land eet below g ify that the 11 operators or the envi	eted on March farm facility. round surface information gi are required t ronment. The	The final The final A third iven above o report and acceptance	ken.* A surface are Approximately excavation measur party environment e is true and compl nd/or file certain re ce of a C-141 repo	99 cub red app al cont lete to elease ort by th	the best of my notifications and the NMOCD m	drocarbon impacted teen (15) feet long ve action report is knowledge and u and perform correct arked as "Final Ro	ed soil w g by fifte s include nderstan tive acti eport" d	vas excava een (15) w ed with this od that purs ons for rel oes not rel	ted and trans ide ranging s "final" c-14 suant to NM eases which ieve the ope	ported from te 11. OCD ru may er rator of	to an n (10) to ules and ndanger `liability
		addition, NMC		otance of a C-141	report	does not reliev	e the operator of	responsi	bility for c	ompliance v	ith any	/ other
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Signature:	7	W/U	LH_			, A	En l'anna antal G			re/	/ 、	51
Printed Name	e: Jon Field	<u>s</u>				Approved by	Environmental S	pecialist		10	n	Ð
Title: Directo	or, Environi	mental				Approval Dat	1e: 5/29/1	4 I	Expiration	Date:		
E-mail Addro			·			Conditions of				Attached		
Date:	5-22-	zsiy	Phone	: (713)381-6684								
Attach Addi	tional She	ets If Necess			ا اب	HARSI	41 4850,1	dn		_1		6
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CORRECTIVE ACTION REPORT

Property:

3B-23 EOL Release NE 1/4, S30 T29N R11W San Juan County, New Mexico

OIL CONS. DIV DIST. 3 MAY 2 7 2014

April 14, 2014 Apex Project No. 7030414G003

Prepared for:

Enterprise Products Operating LLC 614 Reilly Avenue Farmington, NM 87401 Attn: Mr. Tom Long

Prepared by:

un m

Kyle Summers, C.P.G. Branch Manager

B. Chris Mitchell, P.G. Principal Geoscientist

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CORRECTIVE ACTION REPORT

3B-23 EOL Release NE 1/4, S30 T29N R11W San Juan County, New Mexico

Apex Project No. 7030414G003

1.0 INTRODUCTION

1.1 Site Description & Background

The 3B-23 EOL Release Site is located within the Enterprise Products Operating LLC (Enterprise) pipeline right-of-way (ROW) in the northeast (NE) ¼ of Section 30 in Township 29 North and Range 11 West in Bloomfield, San Juan County, New Mexico, referred to hereinafter as the "Site" or "subject Site". The Site is located on land owned by San Juan County, at the southeast edge of the Salmon River Ruins cultural park and museum property, and is surrounded by the cultural park and residential areas, periodically interrupted with oil and gas gathering facilities, including one (1) Enterprise natural gas gathering pipeline riser and an associated well tie that traverses the Site.

On February 20th, 2014, Enterprise shut in the 3B-23 EOL due to a gasket leak on the pipeline riser. Repair activities were initiated and an initial attempt to facilitate corrective action at the site by hand-digging was subsequently abandoned due to the depth of impact. On March 4th, 2014, after approval from a San Juan County archeologist, corrective actions resumed with the aid of a back hoe. An unknown quantity of condensate/water mixture was potentially released from the riser as a result of the damaged gasket. The leak was visually identified by a release of natural gas from the riser to the atmosphere. Slight soil discoloration was visible at the surface.

A topographic map depicting the location of the Site is included as Figure 1, and a Site Vicinity Map is included as Figure 2 in Appendix A.

1.2 **Project Objective**

The primary objective of the corrective actions was to reduce the concentration of chemicals of concern (COCs) in the on-Site soils to below the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), Oil Conservation Division (OCD) *Remediation Action Levels* (RALs) using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

1.3 Standard of Care

Apex TITAN's (Apex's) services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, Apex does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client.



1.4 Additional Limitations

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Apex cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this scope of services. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Apex's findings and recommendations are based solely upon data available to Apex at the time of these services.

1.5 Reliance

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the expressed written authorization of Enterprise and Apex. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, the report, and Apex's Agreement. The limitation of liability defined in the agreement is the aggregate limit of Apex's liability to the client.

2.0 SITE RANKING

In accordance with the New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, Apex utilized the general site characteristics obtained during the completion of corrective action activities to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the table below:

Rankin	g Criteria		Ranking Score
	<50 feet	20	
Depth to Groundwater	50 to 99 feet	10	20*
	>100 feet	0	
Wellhead Protection Area • <1,000 feet from a water	Yes	20	20
source, or; <200 feet from private domestic water source.	No	0	
	<200 feet	20	
Distance to Surface Water Body	200 to 1,000 feet	10	10
	>1,000 feet	0	
Total Ran	king Score		50

*Based on an anticipated groundwater depth of <50 feet below grade surface (bgs).

Based on Apex's evaluation of the scoring criteria, the Site would have a Total Ranking Score of 50. This ranking is based on the following:

- The Site is located in an area where groundwater is expected to be encountered within 50 feet bgs.
- The Office of the State Engineer website database is identifies several private water wells within Section 30 of T29N R12W. No water wells were visually identified within 200 feet of the Site, but may be present as two (2) residences are located within 200 feet of the



Site. The San Juan River (a water source) is located approximately 980 feet south of the Site.

• A possible historic pond is located near the Site at the head of an ephemeral wash (as identified by the 1965 USGS topographic map, but does not contain water. The San Juan River (surface water body) is located approximately 980 feet south of the Site.

3.0 **RESPONSE ACTIONS**

3.1 Soil Excavation Activities

On February 20th, 2014, Enterprise shut in the 3B-23 EOL due to a gasket leak on the pipeline riser. Repair activities were initiated and an initial attempt to facilitate corrective action at the site by hand-digging was subsequently abandoned due to the depth of impact. On March 4th, 2014, after approval from a San Juan County archeologist, corrective actions resumed with the aid of a back hoe. An estimated five (5) to ten (10) barrels of condensate/water mixture was potentially released from the riser as a result of the damaged gasket. The leak was visually identified by a release of natural gas from the riser to the atmosphere. Slight soil discoloration was visible at the surface. During the corrective action activities, West States Energy Contractors provided heavy equipment and labor support, and Kyle Summers and Aaron Bryant, Apex environmental professionals, provided environmental support. An Archeologist from the Salmon River Ruins museum was present during all excavation activities.

During the first stage of corrective action, subsequent to the pipeline repair activities, approximately 9 cubic yards of hydrocarbon affected soils were excavated at the Site using hand tools. Initial corrective action activities were halted once the depth of excavation reached 4 feet bgs.

On March 4th, 2014, subsequent to the approval to utilize a back hoe at the Site, Enterprise resumed corrective actions. The excavation was extended in all four (4) cardinal directions from the riser, and an additional 90 cubic yards of material were removed from the floor and sidewalls of the excavation in the immediate vicinity of the release. The total depth of the final excavation reached approximately 10 feet to 12 bgs. The overall average surface expression of the excavation measured approximately 15 feet long by 15 feet wide.

A total of approximately 99 cubic yards of hydrocarbon affected soils were excavated and transported to the Industrial Ecosystems, Inc. landfarm on Crouch Mesa, near Aztec, NM for disposal/remediation. The executed C-138 forms are provided in Appendix B. Following the receipt of acceptable confirmation sampling results, the excavation was backfilled with clean imported fill and contoured to surrounding grade.

During excavation activities, air in the breathing zone was monitored to ensure that the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) of 200 parts per million (ppm) Time Weighted Average (TWA) for an 8-hour work day was not exceeded. Additionally, Enterprise monitored the excavation for explosive atmosphere conditions and oxygen deficiency prior to any entries into the excavation.

The lithology encountered during the completion of corrective action activities consisted primarily of loose silty-sands with occasional gravel and cobbles.

Although soil moisture increased with excavation depth, groundwater was not encountered during the corrective action activities.



Figure 3 is a site map that indicates the location of the excavated area and shows the final confirmation sample locations in relation to the final excavation dimensions (Appendix A)... Photographic documentation of the field activities is included in Appendix C.

3.2 Soil Sampling Program

Apex screened head-space samples of the impacted soils with a photoionziation detector (PID) fitted with a 10.6 eV lamp to estimate excavation limits.

Apex's soil sampling program included the collection of eleven (11) confirmation samples (SC-1 through SC-11) from the side walls and bottom of the excavation for laboratory analysis. The soil sample locations were selected based on visual, olfactory and/or PID evidence of potential impairment and excavation dimensions, and based on on-site OCD guidance, composite samples were collected for laboratory analysis.

Figure 3 depicts the approximate location of the excavated areas and shows the final confirmation sample locations in relation to the final excavation dimensions (Appendix A).

The confirmation soil samples were collected and placed in laboratory prepared glassware, labeled/sealed using the laboratory supplied label, and placed on ice in a cooler, which was secured with a custody seal. The sample cooler and completed chain-of-custody form were relinquished to either Envirotech Analytical Laboratory in Farmington, New Mexico or Hall Environmental Analysis Laboratory in Albuquerque, New Mexico for 24-hr rush analysis.

4.0 LABORATORY ANALYTICAL METHODS

Confirmation soil samples were analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX) using EPA SW-846 Method #8021, and total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (GRO) using EPA SW-846 Method #8015.

Laboratory results are summarized in Table 1, included in Appendix D. The executed chain-ofcustody form and laboratory data sheets are provided in Appendix E.

5.0 DATA EVALUATION

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to condensate releases, the New Mexico EMNRD OCD utilizes the *Guidelines* for Remediation of Leaks, Spills and Releases as guidance, in addition to the OCD rules, specifically NMAC 19.15.30 Remediation. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

5.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or reporting limits (RLs) associated with the eleven (11) confirmation samples collected from the excavated area to the OCD RAL for sites having a total ranking score of "50".

• The laboratory analyses of the confirmation samples of soils remaining in place did not indicate benzene concentrations above the OCD RAL.



- The laboratory analyses of the confirmation samples of soils remaining in place did not indicate total BTEX concentrations above the OCD RAL.
- The laboratory analyses of the confirmation samples of soil remaining in place did not indicate TPH GRO/DRO concentrations above the OCD RAL of 100 mg/Kg for a Site ranking of "50".

Confirmation sample results are provided in Table 1 in Appendix D.

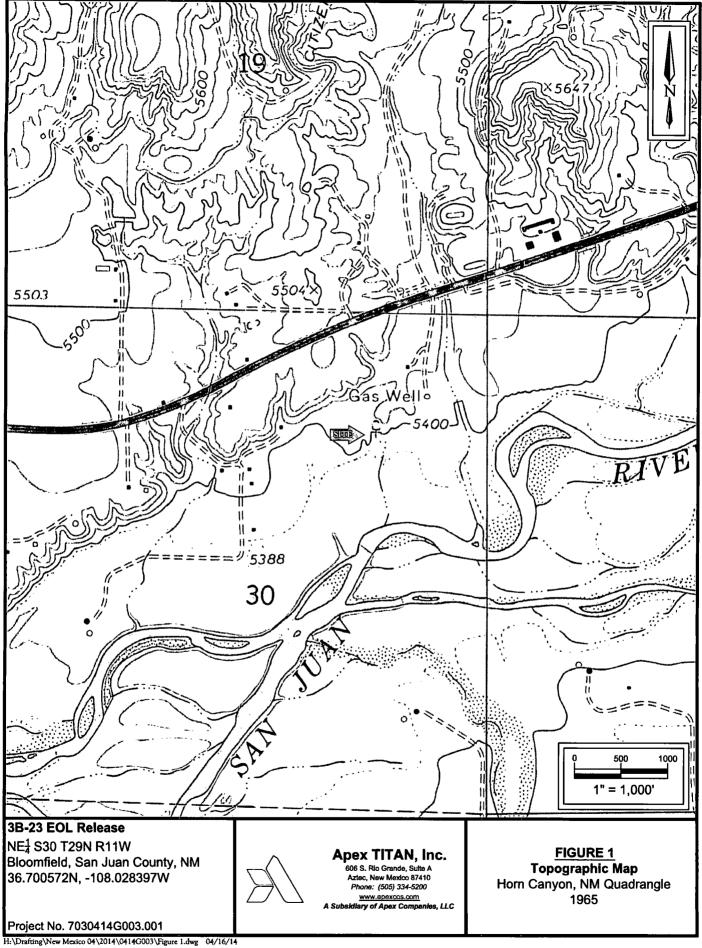
6.0 FINDINGS AND RECOMMENDATIONS

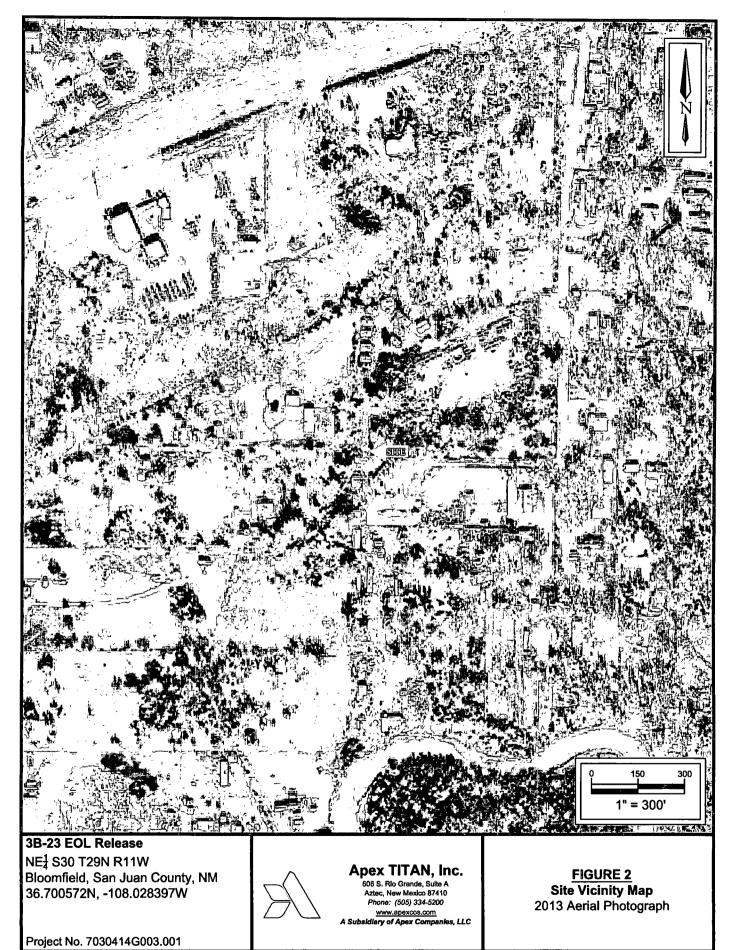
The 3B-23 EOL Release Site is located within the Enterprise pipeline ROW in the NE ¼ of Section 30 in Township 29 North and Range 11 West in Bloomfield, San Juan County, New Mexico. The Site is located on land owned by San Juan County, at the southeast edge of the Salmon River Ruins cultural park and museum property, and is surrounded by the cultural park and residential areas, periodically interrupted with oil and gas gathering facilities, including one (1) Enterprise natural gas gathering pipeline riser and an associated well tie that traverses the Site.

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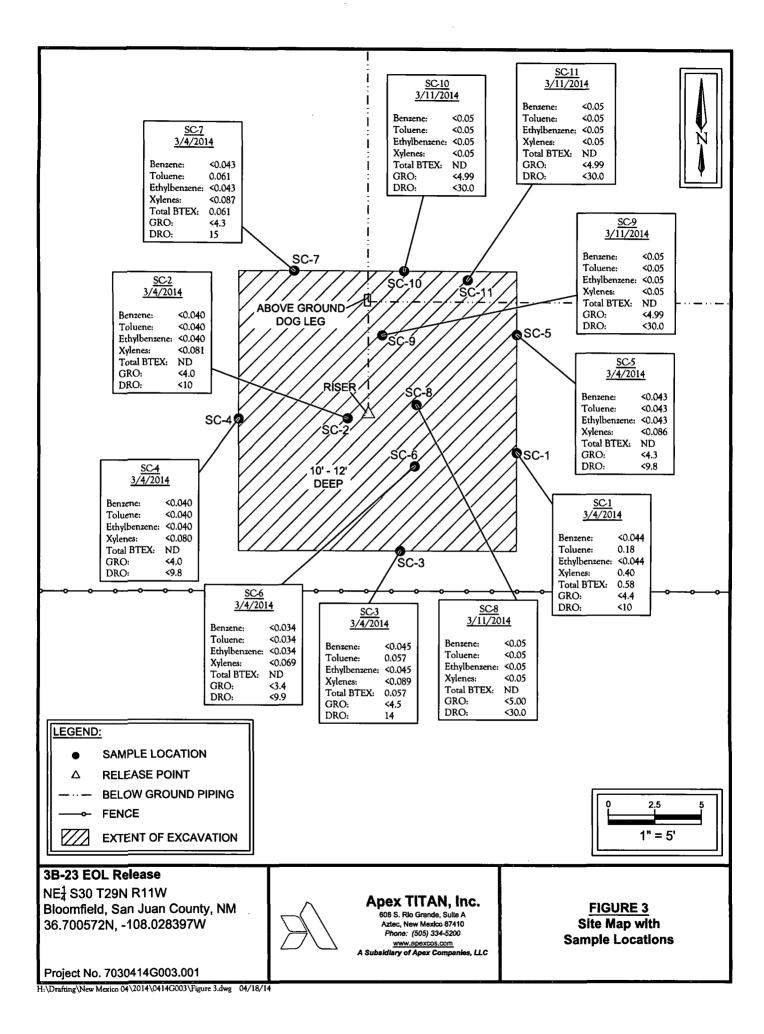
- The primary objective of the corrective actions was to reduce the concentration of COCs in the on-Site soils to below the New Mexico EMNRD OCD RALs using the New Mexico EMNRD OCD's Guidelines for Remediation of Leaks, Spills and Releases as guidance.
- The total depth of the final excavation reached approximately 10 feet to 12 feet bgs near the source of the release. The overall average surface expression of the excavation measured approximately 15 feet long by 15 feet wide.
- A total of approximately 99 cubic yards of hydrocarbon affected soils were transported to the Industrial Ecosystems, Inc. landfarm on Crouch Mesa, near Aztec, NM for disposal/remediation. The excavation was backfilled with clean imported fill and contoured to the surrounding grade.
- The lithology encountered during the completion of corrective action activities consisted primarily of loose silty-sands with occasional gravel and cobbles.
- Groundwater was not encountered during the corrective action excavation activities.
- Prior to backfilling the excavation, confirmation samples were collected from the floor and sidewalls of the excavation. Based on analytical and screening results, the soils remaining on-site do not exhibit COC concentrations above the OCD RALs.

Based on the laboratory analytical results, no additional investigation or corrective action appears warranted at this time.





H:\Drafting\New Mexico 04\2014\0414G003\Figure 2.dwg 04/16/14



*			
,	District I 1625 N. French Dr., Hobbs, NM 88240 District II	State of New Mexico . Energy Minerals and Natural Resources	Form C-138 Revised August 1, 2011
) V	811 S. First St., Artesia, NM 88210 <u>District III</u> - 000 Rio Brazos Road, Aztec, NM 87410 <u></u>	Oil Conservation Division 1220 South St. Francis Dr.	*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.
		Santa Fe, NM 87505	
	REQUEST 1. Generator Name and Address:	FOR APPROVAL TO ACCEPT S	OLID WASTE
	Enterprise Field Services, LLC, 614 R	eilly Avenue, Farmington, NM 87401	3-11-14 1024
	2. Originating Site: Lateral 3B-23 EOL		3-10-1900
	3. Location of Material (Street Addres Unit A, Section 30, T29N, R11W; 30		3-4-14 500
		Hydrocarbon impacted soils associated with a releas	e from a nátural gas gathering line blook
	valve.		O X
	5. Estimated Volume <u>30</u> bb	Is Known Volume (to be entered by the operator	at the end of the haul)(yd)/ bbls
		FOR CERTIFICATION STATEMENT OF WAS	STE STATUS
	1, Thomas Long Thom Long representativ	ve or authorized agent for <u>Enterprise Field Serv</u>	vices LLC do hereby
	PRINT & SIGN NAME	COMPANY NAME	
	regulatory determination, the above descri	servation and Recovery Act (RCRA) and the US Er bed waste is: (Check the appropriate classification)	
		generated from oil and gas exploration and producti ly Maste Acceptancethrequency and Monthly and	
\mathcal{Q}	characteristics established in RCRA re	iste which is non-hazardous that does not exceed th egulations, 40 CFR 261.21-261.24, or listed hazardo g documentation is attached to demonstrate the above	ous waste as defined in 40 CFR, pai
	MSDS Information RCRA Haza	rdous Waste Analysis 🛛 Process Knowledge 🛛	☐ Other (Provide description in B
	GENERATOR 19.15.36.15 V	VASTE TESTING CERTIFICATION STATEM	IENT FOR LANDFARMS
	Them Lay		
	1, <u>2-20-14</u> , representative for Generator Signature	r Enterprise Field Services, LLC authorize Envirot	ech to
	complete the required testing/sign the Gen	erator Waste Testing Certification.	
		IKL	
	representative samples of the oil field wast	sentative for <u>Envirotech. Inc.</u>	do hereby ted for chloride content and the ples
	have been found to conform to the specific	e have been subjected to the paint filter test and tes requirements applicable to landfarms pursuant to S	Section 15 of 19.15.36 NMAC
	19.15.36 NMAC.	to demonstrate the above-described waste conform	to the requirements of Section 2.
!	6. Transporter: West States Energy Co	ontractors (WSEC)	
	Address of Facility: #49 CR 2150 Aztec	n/Industrial Ecosystems, Inc. * Permit #: NM 01-	0010B CL-21
	Method of Treatment and/or Disposal: Treating Plant 🛛 Landfarm 🗋 Land	fill 🔲 Other	CC-21 Ph-7
	Waste Acceptance Status:	APPROVED 🗍 DENIED (Must Be Maintained As Permanent Record)
()	RINT NAME AND CALL	TITLE: Alan	Sold Constre 200-1
	SIGNATURE:	TELEPHONE NO .:	0521035201& 2
	SIGNATURE: Surface Waste Management Fac		

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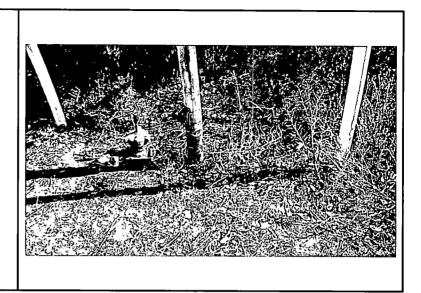
2-20-10

SITE PHOTOGRAPHS



Photograph 1

Staining at base of Riser.



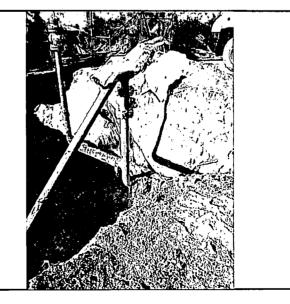
Photograph 2

Excavating the west portion of the release area (facing south).



Photograph 3

General view of final excavation facing southwest. Note the backfill in SW corner to prevent sloughing near fence.

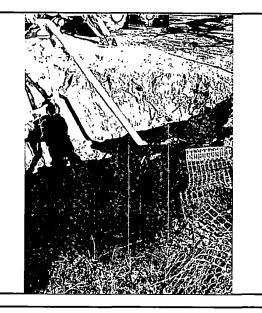






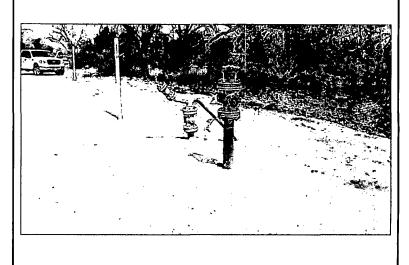
Photograph 4

General view of final excavation (east half) facing northwest.



Photograph 5

View after completion of corrective actions (facing north).



Photograph 6

View after the completion of corrective actions (facing southwest).





TABLE 1 3B-23 EOL SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
		Natural Resources	•	10	NE	NE	NE	50		00
			Fin	al Confirmation S	Samples for Soils	Remaining in Pla	ce			
SC-1	3/4/2014	C (3 aliquot)	2-8	<0.044	0.18	<0.044	0.40	0.58	<4.4	<10
SC-2	3/4/2014	C (3 aliquot)	11-12	<0.040	<0.040	<0.040	< 0.081	ND	<4.0	<10
SC-3	3/4/2014	C (4 aliquot)	2-10	<0.045	0.057	<0.045	<0.089	0.057	<4.5	14
SC-4	3/4/2014	C (4 aliquot)	1-11	<0.040	<0.040	<0.040	<0.080	ND	<4.0	<9.8
SC-5	3/4/2014	C (3 aliquot)	2-10	<0.043	<0.043	<0.043	<0.086	ND	<4.3	<9.8
SC-6	3/4/2014	C (2 aliquot)	10-11	<0.034	< 0.034	<0.034	<0.069	ND	<3.4	<9.9
SC-7	3/4/2014	C (2 aliquot)	3-8	<0.043	0.061	<0.043	<0.087	0.061	<4.3	_15
SC-8	3/11/2014	C (3 aliquot)	10-11	<0.05	<0.05	<0.05	<0.05	ND	<5.00	<30.0
SC-9	3/11/2014	C (2 aliquot)	10-12	<0.05	<0.05	<0.05	<0.05	ND	<4.99	<30.0
SC-10	3/11/2014	C (3 aliquot)	1-8	<0.05	<0.05	<0.05	<0.05	ND	<4.99	<30.0
SC-11	3/11/2014	C (2 aliquot)	3-5	<0.05	<0.05	<0.05	<0.05	ND	<4.99	<30.0

Note: Concentrations in **bold** and yellow exceed the applicable OCD Remediation Action Level

NA = Not Analyzed

NE = Not Established

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

March 07, 2014

Kyle Summers Southwest Geoscience 606 S. Rio Grande Unit A Aztec, NM 87410 TEL: (903) 821-5603 FAX (214) 350-2914

RE: 3B-23 EDL

OrderNo.: 1403225

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 7 sample(s) on 3/6/2014 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 <u>www.hallenvironmental.com</u> 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 qualifers 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,

andis

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 3/7/2014

Batch

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience Client Sample ID: SC-1 Project: 3B-23 EDL Collection Date: 3/4/2014 3:14:00 PM Lab ID: 1403225-001 Matrix: SOIL Received Date: 3/6/2014 10:20:00 AM Analyses Result **RL** Qual Units **DF** Date Analyzed **EPA METHOD 8015D: DIESEL RANGE ORGANICS** Analyst: JME Diesel Panao Organics (DPO) 2/6/2014 12:00:24 DM 40

Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/6/2014 12:09:24 PM	12049
Surr: DNOP	107	66-131	%REC	1	3/6/2014 12:09:24 PM	12049
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	JMP
Gasoline Range Organics (GRO)	ND	4.4	mg/Kg	1	3/6/2014 11:15:40 AM	R17144
Surr: BFB	94.1	74.5-129	%REC	1	3/6/2014 11:15:40 AM	R17144
EPA METHOD 8021B: VOLATILES					Analyst	JMP
Benzene	ND	0.044	mg/Kg	1	3/6/2014 11:15:40 AM	R17144
Toluene	0.18	0.044	mg/Kg	1	3/6/2014 11:15:40 AM	R17144
Ethylbenzene	ND	0.044	mg/Kg	1	3/6/2014 11:15:40 AM	R17144
Xylenes, Total	0.40	0.089	mg/Kg	1	3/6/2014 11:15:40 AM	R17144
Surr: 4-Bromofluorobenzene	107	80-120	%REC		3/6/2014 11:15:40 AM	R17144

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank	
E Value above quantitation		Value above quantitation range	nge H Holding times for prepa			
	J Analyte detected below quantitation limits		ND Not Detected at the Reporting Limit		Page 1 of 11	
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 460 1 01 11	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		
	S	Spike Recovery outside accepted recovery limits				

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/7/2014

CLIENT: Southwest Geoscience Project: 3B-23 EDL

1403225-002

Lab ID:

Client Sample ID: SC-2 Collection Date: 3/4/2014 3:30:00 PM Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual_Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	j 1	3/6/2014 11:38:48 AM	12049
Surr: DNOP	107	66-131	%REC) 1	3/6/2014 11:38:48 AM	12049
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	: JMP
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	j 1	3/6/2014 11:45:46 AM	R17144
Surr: BFB	86.5	74.5-129	%REC	C 1	3/6/2014 11:45:46 AM	R17144
EPA METHOD 8021B: VOLATILES					Analyst	: JMP
Benzene	ND	0.040	mg/Kg	g 1	3/6/2014 11:45:46 AM	R17144
Toluene	ND	0.040	mg/Kg	, j 1	3/6/2014 11:45:46 AM	R17144
Ethylbenzene	ND	0.040	mg/Kg	j 1	3/6/2014 11:45:46 AM	R17144
Xylenes, Total	ND	0.081	mg/Kg	g 1	3/6/2014 11:45:46 AM	R17144
Surr: 4-Bromofluorobenzene	97.1	80-120	%REC	C 1	3/6/2014 11:45:46 AM	R17144

Matrix: SOIL

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank	
	E Value above quantitation rangeJ Analyte detected below quantitation limits		Н	Holding times for preparation or analys	n or analysis exceeded	
			ND Not Detected at the Reporting Limit		Page 2 of 11	
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	ruge a crist	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		
	S	Spike Recovery outside accepted recovery limits				

Date Reported: 3/7/2014

3/6/2014 12:15:54 PM

Batch

12049

12049

R17144

R17144

R17144

R17144

R17144

R17144

R17144

Analyst: JMP

Analyst: JMP

Hall Environmental Analysis Laboratory, Inc.

EPA METHOD 8015D: GASOLINE RANGE

Gasoline Range Organics (GRO)

EPA METHOD 8021B: VOLATILES

Surr: 4-Bromofluorobenzene

Surr: BFB

Benzene

Toluene

Ethylbenzene

Xylenes, Total

CLIENT: Southwest Geoscience Client Sample ID: SC-3 3B-23 EDL Project: Collection Date: 3/4/2014 3:45:00 PM Lab ID: 1403225-003 Matrix: SOIL Received Date: 3/6/2014 10:20:00 AM Analyses Result **RL** Qual Units **DF** Date Analyzed **EPA METHOD 8015D: DIESEL RANGE ORGANICS** Analyst: JME Diesel Range Organics (DRO) 14 9.9 mg/Kg 3/6/2014 1:41:29 PM 1 Surr: DNOP 117 66-131 %REC 1 3/6/2014 1:41:29 PM

4.5

74.5-129

0.045

0.045

0.045

0.089

80-120

mg/Kg

%REC

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%REC

1

1

1

1

1

1

1

ND

92.9

ND

ND

ND

104

0.057

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analys	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 11
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 460 5 01 11
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1403225

Date Reported: 3/7/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience **Client Sample ID: SC-4** 3B-23 EDL **Project:** Collection Date: 3/4/2014 3:50:00 PM Matrix: SOIL Lab ID: 1403225-004 Received Date: 3/6/2014 10:20:00 AM Analyses Result **RL** Qual Units **DF** Date Analyzed Batch **EPA METHOD 8015D: DIESEL RANGE ORGANICS** Analyst: JME **Diesel Range Organics (DRO)** ND 9.8 mg/Kg 1 3/6/2014 2:12:16 PM 12049 Surr: DNOP 106 %REC 3/6/2014 2:12:16 PM 12049 66-131 1

EPA METHOD 8015D: GASOLINE RANGE					Analyst	: JMP
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	3/6/2014 12:46:09 PM	R17144
Surr: BFB	95.3	74.5-129	%REC	1	3/6/2014 12:46:09 PM	R17144
EPA METHOD 8021B: VOLATILES					Analyst	: JMP
Benzene	ND	0.040	mg/Kg	1	3/6/2014 12:46:09 PM	R17144
Toluene	ND	0.040	mg/Kg	1	3/6/2014 12:46:09 PM	R17144
Ethylbenzene	ND	0.040	mg/Kg	1	3/6/2014 12:46:09 PM	R17144
Xylenes, Total	ND	0.080	mg/Kg	1	3/6/2014 12:46:09 PM	R17144
Surr: 4-Bromofluorobenzene	107	80-120	%REC	1	3/6/2014 12:46:09 PM	R17144

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 4 of 11
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1464 10111
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Date Reported: 3/7/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience **Client Sample ID: SC-5** 3B-23 EDL **Project:** Collection Date: 3/5/2014 8:00:00 AM 1403225-005 Matrix: SOIL Lab ID: Received Date: 3/6/2014 10:20:00 AM Analyses Result **RL** Qual Units DF Date Analyzed Batch EPA METHOD 8015D: DIESEL RANGE ORGANICS Analyst: JME

Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/6/2014 2:43:23 PM	12049
Surr: DNOP	113	66-131	%REC	1	3/6/2014 2:43:23 PM	12049
EPA METHOD 8015D: GASOLINE RANG	E				Analys	t: JMP
Gasoline Range Organics (GRO)	ND	4.3	mg/Kg	1	3/6/2014 1:16:19 PM	R17144
Surr: BFB	92.8	74.5-129	%REC	1	3/6/2014 1:16:19 PM	R17144
EPA METHOD 8021B: VOLATILES					Analys	t: JMP
Benzene	ND	0.043	mg/Kg	1	3/6/2014 1:16:19 PM	R17144
Toluene	ND	0.043	mg/Kg	1	3/6/2014 1:16:19 PM	R17144
Ethylbenzene	ND	0.043	mg/Kg	1	3/6/2014 1:16:19 PM	R17144
Xylenes, Total	ND	0.086	mg/Kg	1	3/6/2014 1:16:19 PM	R17144
Surr: 4-Bromofluorobenzene	104	80-120	%REC	1	3/6/2014 1:16:19 PM	R17144

	_				
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Ε	Value above quantitation range	Н	Holding times for preparation or analys	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 5 of 11
O RSD is greater than RSD limit		RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1460 5 61 11
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1403225 Date Reported: 3/7/2014

CLIENT:	Southwest Geoscience
Project:	3B-23 EDL

1403225-006

Ξ

Lab ID:

Client Sample ID: SC-6 Collection Date: 3/5/2014 8:10:00 AM Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/6/2014 3:14:23 PM	12049
Surr: DNOP	121	66-131	%REC	1	3/6/2014 3:14:23 PM	12049
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	t: JMP
Gasoline Range Organics (GRO)	ND	3.4	mg/Kg	1	3/6/2014 1:46:34 PM	R17144
Surr: BFB	88.5	74.5-129	%REC	1	3/6/2014 1:46:34 PM	R17144
EPA METHOD 8021B: VOLATILES					Analys	t: JMP
Benzene	ND	0.034	mg/Kg	1	3/6/2014 1:46:34 PM	R17144
Toluene	ND	0.034	mg/Kg	1	3/6/2014 1:46:34 PM	R17144
Ethylbenzene	ND	0.034	mg/Kg	1	3/6/2014 1:46:34 PM	R17144
Xylenes, Total	ND	0.069	mg/Kg	1	3/6/2014 1:46:34 PM	R17144
Surr: 4-Bromofluorobenzene	98.3	80-120	%REC	1	3/6/2014 1:46:34 PM	R17144

Matrix: SOIL

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Ē	Value above quantitation range	Н	Holding times for preparation or analys	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 6 of 11
O RSD is greater than 1	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1050 0 01 11	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/7/2014

CLIENT: Southwest Geoscience 3B-23 EDL **Project:**

1403225-007

Lab ID:

Client Sample ID: SC-7 Collection Date: 3/5/2014 8:20:00 AM Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RĽ Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	15	10	mg/Kg	1	3/6/2014 3:45:22 PM	12049
Surr: DNOP	114	66-131	%REC	1	3/6/2014 3:45:22 PM	12049
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	st: JMP
Gasoline Range Organics (GRO)	ND	4.3	mg/Kg	1	3/6/2014 2:16:48 PM	R17144
Surr: BFB	94.1	74.5-129	%REC	1	3/6/2014 2:16:48 PM	R17144
EPA METHOD 8021B: VOLATILES					Analys	it: JMP
Benzene	ND	0.043	mg/Kg	1	3/6/2014 2:16:48 PM	R17144
Toluene	0.061	0.043	mg/Kg	1	3/6/2014 2:16:48 PM	R17144
Ethylbenzene	ND	0.043	mg/Kg	1	3/6/2014 2:16:48 PM	R17144
Xylenes, Total	ND	0.087	mg/Kg	1	3/6/2014 2:16:48 PM	R17144
Surr: 4-Bromofluorobenzene	106	80-120	%REC	1	3/6/2014 2:16:48 PM	R17144

Matrix: SOIL

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Ε	Value above quantitation range	Н	Holding times for preparation or analys	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 7 of 11
	O RSD is greater than RSDlimit		Р	Sample pH greater than 2.	1460 / 01 11
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1403225

07-Mar-14

thod 8015D: Diesel Range Organics Units: mg/Kg imit HighLimit %RPD RPDLimit Qual 66 131 thod 8015D: Diesel Range Organics Units: mg/Kg imit HighLimit %RPD RPDLimit Qual 60.8 145 66 131 thod 8015D: Diesel Range Organics Units: %REC imit HighLimit %RPD RPDLimit Qual
Units: mg/Kg imit HighLimit %RPD RPDLimit Qual 66 131 thod 8015D: Diesel Range Organics Units: mg/Kg imit HighLimit %RPD RPDLimit Qual 60.8 145 66 131 thod 8015D: Diesel Range Organics Units: %REC imit HighLimit %RPD RPDLimit Qual
imit HighLimit %RPD RPDLimit Qual 66 131 thod 8015D: Diesel Range Organics Units: mg/Kg imit HighLimit %RPD RPDLimit Qual 60.8 145 66 131 thod 8015D: Diesel Range Organics Units: %REC imit HighLimit %RPD RPDLimit Qual
imit HighLimit %RPD RPDLimit Qual 66 131 thod 8015D: Diesel Range Organics Units: mg/Kg imit HighLimit %RPD RPDLimit Qual 60.8 145 66 131 thod 8015D: Diesel Range Organics Units: %REC imit HighLimit %RPD RPDLimit Qual
66 131 thod 8015D: Diesel Range Organics Units: mg/Kg imit HighLimit %RPD RPDLimit Qual 60.8 145 66 131 thod 8015D: Diesel Range Organics Units: %REC imit HighLimit %RPD RPDLimit Qual
thod 8015D: Diesel Range Organics Units: mg/Kg imit HighLimit %RPD RPDLimit Qual 60.8 145 66 131 thod 8015D: Diesel Range Organics Units: %REC imit HighLimit %RPD RPDLimit Qual
Units: mg/Kg imit HighLimit %RPD RPDLimit Qual 60.8 145 66 131 thod 8015D: Diesel Range Organics Units: %REC imit HighLimit %RPD RPDLimit Qual
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60.8 145 66 131 thod 8015D: Diesel Range Organics Units: %REC .imit HighLimit %RPD RPDLimit Qual
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66 131
thod 8015D: Diesel Range Organics
Units: %REC
imit HighLimit %RPD RPDLimit Qual
66 131
thod 8015D: Diesel Range Organics
Units: mg/Kg
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47.4 148
66 131
thod 8015D: Diesel Range Organics
thod 8015D: Diesel Range Organics
thod 8015D: Diesel Range Organics Units: mg/Kg
Units: mg/Kg

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

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QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1403225

07-Mar-14

	uthwest Geoscience -23 EDL							
Sample ID MB-12059	SampType: MBLK	TestCode: EPA Method 8015D: Diesel Range Organics						
Client ID: PBS	Batch ID: 12059	RunNo: 17125						
Prep Date: 3/6/2014	Analysis Date: 3/6/2014	SeqNo: 493441	Units: %REC					
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual				
Surr: DNOP	8.2 10.00	81.6 66	131					
Sample ID LCS-12059	SampType: LCS	TestCode: EPA Method	8015D: Diesel Range (Drganics				
Client ID: LCSS	Batch ID: 12059	RunNo: 17125						
Prep Date: 3/6/2014	Analysis Date: 3/6/2014	SeqNo: 493442	Units: %REC					
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual				
Surr: DNOP	4.2 5.000	84.3 66	131					

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

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QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1403225

07-Mar-14

Client: Project:	Southwes 3B-23 ED	t Geoscien DL	ice								
Sample ID	5ML RB SampType: MBLK			Tes	TestCode: EPA Method 8015D; Gasoline Range						
Client ID:	PBS	Batch	ID: R1	7144	F	RunNo: 1	7144				
Prep Date:		Analysis D	ate: 3/	6/2014	S	eqNo: 4	93621	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 940	5.0	1000		93.6	74.5	129			
Sample ID	2.5UG GRO LCS	SampT	ype: LC	:s	Tes	TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS Batch ID: R17144			RunNo: 17144							
Prep Date:	e: Analysis Date: 3/6/2014		SeqNo: 493623		Units: mg/Kg						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	23	5.0	25.00	0	93.0	71.7	134			
Surr: BFB		960		1000		95.9	74.5	129			
Sample ID	1403225-001AMS	SampT	ype: MS	S	TestCode: EPA Method 8015D: Gasoline Range						
Client ID:	SC-1	Batch	ID: R1	7144	RunNo: 17144						
Prep Date:		Analysis D	ate: 3/	/6/2014	SeqNo: 493633		Units: mg/Kg				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	22	4.4	22.24	0	97.5	69.5	145			
Surr: BFB		910		889.7		102	74.5	129			
Sample ID	1403225-001AMSE) SampT	ype: MS	SD	Tes	tCode: E	PA Method	8015D: Gase	oline Rang	e	
Client ID:	SC-1	Batch	ID: R1	7144	F	RunNo: 1	7144				
Prep Date:		Analysis D	ate: 3	/6/2014	S	SeqNo: 4	93634	Units: mg/l	۶g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	21	4.4	22.24	0	93.2	69.5	145	4.45	20	
Surr: BFB		910		889.7		102	74.5	129	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

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OC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1403225

07-Mar-14

Southwest Geoscience **Client:** 3B-23 EDL **Project:** Sample ID 5ML RB SampType: MBLK TestCode: EPA Method 8021B: Volatiles Client ID: PBS Batch ID: R17144 RunNo: 17144 Prep Date: Analysis Date: 3/6/2014 SeqNo: 493688 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene ND 0.050 Toluene ND 0.050 Ethylbenzene ND 0.050 ND Xylenes, Total 0.10 Surr: 4-Bromofluorobenzene 1.1 1.000 107 80 120 Sample ID 100NG BTEX LCS SampType: LCS TestCode: EPA Method 8021B: Volatiles Client ID: LCSS Batch ID: R17144 RunNo: 17144 Prep Date: Analysis Date: 3/6/2014 SeqNo: 493689 Units: mg/Kg Result SPK value SPK Ref Val %REC %RPD RPDLimit Analyte POL LowLimit HighLimit Qual Benzene 0.93 0.050 1.000 Û 92.7 80 120 Toluene 0.93 0.050 1.000 0 93.4 80 120 0.94 0.050 1.000 0 94.1 80 Ethylbenzene 120 Xylenes, Total 2.9 0.10 3.000 0 96.6 80 120 Surr: 4-Bromofluorobenzene 1.000 80 120 1.0 105 Sample ID 1403225-001AMS SampType: MS TestCode: EPA Method 8021B: Volatiles Client ID: SC-1 Batch ID: R17144 RunNo: 17144 Prep Date: Analysis Date: 3/6/2014 SeqNo: 493699 Units: mg/Kg SPK value SPK Ref Val %REC %RPD **RPDLimit** Result PQL LowLimit HighLimit Qual Analyte 0.81 0.044 0.8897 0.02838 87.3 67.4 135 Benzene 0.8897 0.1814 90.4 72.6 135 0.99 0.044 Toluene Ethylbenzene 0.85 0.044 0.8897 0.03212 91.5 69.4 143 0.3987 70.8 Xylenes, Total 2.9 0.089 2.669 94.4 144 0.8897 80 120 0.98 111 Surr: 4-Bromofluorobenzene Sample ID 1403225-001AMSD SampType: MSD TestCode: EPA Method 8021B: Volatiles Batch ID: R17144 RunNo: 17144 Client ID: SC-1 Prep Date: Analysis Date: 3/6/2014 SeqNo: 493700 Units: mg/Kg SPK value SPK Ref Val RPDLimit PQL %REC LowLimit HighLimit %RPD Qual Result Analyte 0.02838 85.9 67.4 135 20 Benzene 0.79 0.044 0.8897 1.51 0.97 0.044 0.8897 0.1814 88.2 72.6 135 1.91 20 Toluene 0.84 0.044 0.8897 0.03212 90.4 69.4 143 1.21 20 Ethylbenzene 0.3987 1.87 20 92.4 70.8 144 2.9 0.089 2.669 Xvlenes, Total 0.8897 80 120 0 0 Surr: 4-Bromofluorobenzene 0.98 111

Oualifiers:

- Value exceeds Maximum Contaminant Level.
- Ε Value above quantitation range
- Analyte detected below quantitation limits J
- RSD is greater than RSDlimit 0
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Р
- **Reporting Detection Limit** RL

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Sample pH greater than 2.

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: Southwest Geoscience	Work Order Number: 14	03225		ReptNo: 1	
Received by/date:	03/06/14				
Logged By: Anne Thorne	3/6/2014 10:20:00 AM		anne Hom	-	
Completed By: Anne Thorne	3/6/2014		anne Arm		
Reviewed By:	03/06/14			-	
Chain of Custody					
1. Custody seals intact on sample bottles?	Y	es 🗆	No 🗌	Not Present V	
2. Is Chain of Custody complete?	Y	es 🔽	No 🗌	Not Present	
3. How was the sample delivered?	C	ourier			
<u>Log In</u>					
4. Was an attempt made to cool the samples?	Y	es 🗹	No 🗌	na 🗌	
5. Were all samples received at a temperature	of >0° C to 6.0°C Ye	es 🗹	No 🗌		
6. Sample(s) in proper container(s)?	Y	es 🗹	No 🗌		
7. Sufficient sample volume for indicated test(s)? Yı	es 🗹	No 🗌		
8. Are samples (except VOA and ONG) proper	ly preserved? Ye	es 🗹	No 🗆		
9. Was preservative added to bottles?	Y	es 🗌	No 🗹	NA 🗌	
10.voA vials have zero headspace?	Y	es 🗌	No 🗌	No VOA Vials 🗹	
11. Were any sample containers received broke	n? Y	es 🗀	No 🗹 🏾	# of preserved	
12. Does paperwork match bottle labels?	V	es 🗸	No 🗔	bottles checked for pH:	
(Note discrepancies on chain of custody)					>12 unless noted
13. Are matrices correctly identified on Chain of	Custody? Yo	es 🗹	No 🗆	Adjusted?	
14. Is it clear what analyses were requested?	Ye	es 🗹	No 🗌		
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Ye	es 🗹	No 🗌	Checked by:	
<u>Special Handling (If applicable)</u>					
16. Was client notified of all discrepancies with t	his order? Ye	es 🗌 👘	No 🗌	NA 🗹	
Person Notified:	Date				
By Whom:	Via: 🗌 e	Mail 🗌 P	hone 🗌 Fax	In Person	
Regarding:	·····	<u> </u>	·		
Client Instructions:					

18. Cooler Information

Cooler No	Temp ⁰C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Page 1 of 1

			CHAIN OF CUSTODY RECO
Southwest Laboratory: Hal	11	ANALYSIS REQUESTED	Lab use only Due Date:
Environmental & Hydrogeologic Consultants		5000	Temp. of coolers when received (C°):
Office Location Az fec Contact: Freemes	14	/ / /	
Phone	107	8021	Page
Project Manager Sulta mers PO/SO #: 041460		\$°, 12	
Project Manager Sullin mers PO/SO #: 041460 Sampler's Name Sampler's Signature Signature			
Project Name 04/46003 Project Name 38-23 EOL	No/Type of Containers	LA /	
Matrix Date Time C G Identifying Marks of Sample(s).	VOA A/G 250 P/O	QR /	Lab Sample ID (Lab Use Only)
5 3/4/14 1514 56-	ja 🖡	XX	M03225-001
1 1530 56-2	14. - 36 1 - 24.		-742
1545 56-3			-013
¥ 1550 SE-4			-004
3/5/14 0800 56-5			-05
1 0810 56-6			
4 0820 SC-7			707
	FIS IN		
the second secon			
Turn around time 🔲 Normal 🔲 25% Rush 🗌 50% Rush 🔰 100% Rush	Some Day	<u> </u>	
Relinguistics by (Signature) Date: Time: Received by (Signature)	ture) Date	Time: NOTES:	
Relinquished by (Signature) Date: Time: Received by: (Signa	ulire) Date	: Time:	1.0
Relinquished by (Signature) Date: Time: Received by: (Signature)			
Relinquished by (Signature) Date: Time: Received by: (Signa	iture) Date	: Time:	
Matrix WW - Wastewater W - Water S - Soli SD - Solid L - Liquic Container VOA - 40 ml via! A/G - Amber / Or Glass 1 Liter 250 ml -		Charcoal tube SL - sludge) - Plastic or other	O - Oil

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SOUTHWEST GEOSCIENCE • 2351 W. Northwest Hwy., Suite 3321 • Dallas, Texas 75220 • Office: 214-350-5469 • Fax 214-350-2914



Analytical Report

Report Summary

Client: Southwest Geoscience Chain Of Custody Number: 16705 Samples Received: 3/11/2014 10:04:00AM Job Number: 07174-0003 Work Order: P403026 Project Name/Location: 3B-23 EOL

Entire Report Reviewed By:

Tim Cain, Laboratory Manager

3/13/14

Date:

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.



ĺ	Southwest Geoscience	Project Name:	3B-23 EOL		
	2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:	
	Dallas TX, 75220	Project Manager:	Kyle Summers	13-Mar-14 13:14	

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SC-8	P403026-01A	Soil	03/11/14	03/11/14	Glass Jar, 4 oz.
SC-9	P403026-02A	Soil	03/11/14	03/11/14	Glass Jar, 4 oz.
SC-10	P403026-03A	Soil	03/11/14	03/11/14	Glass Jar, 4 oz.
SC-11	P403026-04A	Soil	03/11/14	03/11/14	Glass Jar, 4 oz.

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Ртојес	Project Number: 0		3B-23 EOL 07174-0003 Kyle Summers				Reported: 13-Mar-14 13:14	
		- 40- 0	SC-8						
······		P4030	26-01 (So	olid)		··· <u>-</u> .	· · · · · ·		
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021			_						
Benzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Surrogate: Bromochlorobenzene		102 %	80-	-120	1411005	03/11/14	03/12/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		98.9 %	80	-120	1411005	03/11/14	03/12/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1411004	03/11/14	03/12/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	ject Name: 3B-23 EOL ject Number: 07174-0003 ject Manager: Kyle Summers					Reported: 13-Mar-14 13		
		D 4000	SC-9						
·····		P4030	26-02 (So	olid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Surrogate: Bromochlorobenzene	·····	100 %	80	-120	1411005	03/11/14	03/12/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		97.7 %	80-	-120	1411005	03/11/14	03/12/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1411004	03/11/14	03/12/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	t Name: t Number: t Manager:	Number: 07174-0003					Reported: 13-Mar-14 13	
			SC-10 26-03 (So						
			20-03 (30	, iiu)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021	•								
Benzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
o-Xylene	. ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Surrogate: Bromochlorobenzene		104 %		-120	1411005	03/11/14	03/12/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		101 %	80-	-120	1411005	03/11/14	03/12/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1411004	03/11/14	03/12/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project	Project Name:3B-23 EOLProject Number:07174-0003Project Manager:Kyle Summers					Reported: 13-Mar-14 13		
			SC-11 26-04 (So	olid)					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Surrogate: Bromochlorobenzene		94.5 %	80	-120	1411005	03/11/14	03/12/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		96.3 %	80	-120	1411005	03/11/14	03/12/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1411004	03/11/14	03/12/14	EPA 8015D	

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Southwest Geoscience	Project Name:	3B-23 EOL	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	13-Mar-14 13:14

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 1411005 - Purge and Trap EPA 5030A										
Blank (1411005-BLK1)	-			Prepared:	11-Mar-14	Analyzed:	12-Mar-14		_	
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	u							
Ethylbenzene	ND	0.05	11							
p,m-Xylene	ND	0.05	11							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	46.5	- //	ug/L	50.0		93.0	80-120			
Surrogate: Bromochlorobenzene	50.3		"	50.0		101	80-120			
Duplicate (1411005-DUP1)	Sou	rce: P402099-	01RE1	Prepared:	11-Mar-14	Analyzed:	12-Mar-14			
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	n		ND				30	
o-Xylene	ND	0.05	н		ND				30	
Surrogate: 1,3-Dichlorobenzene	42.8		ug/L	50.0		85.6	80-120			
Surrogate: Bromochlorobenzene	56.9		"	50.0		114	80-120			
Matrix Spike (1411005-MS1)	Sou	irce: P40 <u>2099</u> -	01RE1	Prepared:	11-Mar-14	Analyzed:	12-Mar-14			
Benzene	50.4		ug/L	50.0	ND	101	39-150			
Toluene	54.7		"	50.0	ND	109	46-148			
Ethylbenzene	52.5		"	50.0	ND	105	32-160			
p,m-Xylene	107		"	100	ND	107	46-148			
o-Xylene	52.5		"	50.0	ND	105	46-148			
Surrogate: 1,3-Dichlorobenzene	56.4		"	50.0		113	80-120			
Surrogate: Bromochlorobenzene	66.0		"	50.0		132	80-120			St

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Southwest Geoscience	Project Name:	3B-23 EOL	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	13-Mar-14 13:14

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 1411004 - DRO Extraction EPA 3550C					···					
Blank (1411004-BLK1)				Prepared: 1	11-Mar-14	Analyzed:	12-Mar-14			
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg							
Duplicate (1411004-DUP1)	Sou	rce: P402099-	01	Prepared: 1	1-Mar-14	Analyzed:	12-Mar-14			
Diesel Range Organics (C10-C28)	3860	30.0	mg/kg		5910			42.1	30	Dl
Matrix Spike (1411004-MS1)	Sou	rce: P402099-	01	Prepared: 1	11-Mar-14	Analyzed:	12-Mar-14		_	
Diesel Range Organics (C10-C28)	4270		mg/L	250	5630	NR	75-125			SPK1

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Southwest Geoscience	Project Name:	3B-23 EOL	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	13-Mar-14 13:14

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 1411005 - Purge and Trap EPA 5030A										
Blank (1411005-BLK1)				Prepared: 1	11-Mar-14	Analyzed:	12-Mar-14			
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							
Duplicate (1411005-DUP1)	Sou	irce: P402099-	01RE1	Prepared: 1	11-Mar-14	Analyzed:	12-Mar-14			
Gasoline Range Organics (C6-C10)	13.7	4.99	mg/kg		7.20			62.1	30	D1
Matrix Spike (1411005-MS1)	Sou	irce: P402099-	01RE1	Prepared: 1	11-Mar-14	Analyzed:	12-Mar-14			
Gasoline Range Organics (C6-C10)	0.55		mg/L	0.450	0.14	90.2	75-125			

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Southwest Geoscience	Project Name:	3B-23 EOL	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	13-Mar-14 13:14

Notes and Definitions

Surrl	Surrogate recovery was above acceptable limits.
SPK1	The spike recovery for this QC sample is outside of control limits.
Dl	Duplicates or Matrix Spike Duplicates Relative Percent Difference exceeds 30%.
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

16705

Client: Southwest	Geo	Pro	iject Name / Locati 3 B - 2, 3 D	on:		i			20 28 20				A	NAL	rsis	/ Pai	RAMI	ETER	IS				
Email results to:	い	Sa	mpjerjName: Kyle S	um	men	ব				BTEX (Method 8021)	8260)	<u>s</u>			0	-							
Client Phone No.: 903 821-560	03	Clie	ent No.: 07174-0						TPH (Method 8015)	(Methor	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P	CO Table 910-1	418.1)	RIDE				Sample Cool	
Sample No./ Identification	Sample Date	Sample Time	Lab No.		Volume Intainers	Pr HNO ₃	eservativ нсі	/e	ТРН (N	втех	VOC (RCRA	Cation	RCI	TCLP	CO Ta	TPH (418.1)	CHLORIDE			100000	Sample Looi	וקוואט
SC-8	3/11/14	0800	P403024-01	1 / X	402,				X	Х												Z	4
56-9		0810	P403026-02			_															1	/-	7
56-10		0820	P403076-03																			1	7
50-11		0900	7403020-04	V	•				\checkmark	\checkmark												1	7
				VR	5																		
			K	$\overline{\zeta}$						-													
				[\vdash																
						_			\searrow							_							
<i></i>										\backslash													
Relinquished by:/(Signature)	-			Pate/ 7/11/14	Time 10 0 4	Recei	ived by	/: (Się	gnatu	ne)]			\ll	_					D 3/1/		Time / 00	
Relinquished by: (Signature)						Recei	ived by	/:-(Sij	anati	ure)		~											7
Sample Matrix Soil 🔏 Solid 🗋 Sludge 🗌	Aqueous [] Other []																					
Sample(s) dropped off after	r hours to se	cure drop of	if area.	30	env And	ir (9 (12	2.9		10	. 6	/	1.0		(1) ?	3		
5795 US Highway 6	54 • Farmingt	on, NM 8740	01 • 505-632-0615 •	Three Spr	ings • 65	Merca	do Stre	et, Su	uite 1	15, D	vran	go, C	O 813	• 108	labor	atory	/@env	virote	ch-inc	Pa	age 11	of 1	_ <u>_</u>

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Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

	220 S. St. Francis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505											
			Rele	ease Notifi	cation	and Co	orrective A	ction				
						OPERA	ΓOR		🗍 Initia	al Report	\boxtimes	Final Report
Name of Co	mpany: E	nterprise Fie	ld Servic	es LLC			omas Long		<u> </u>			
Address: P.	.O. Box 43	24, Houston	, TX 772	210			No. 505-599-22	.86				
Facility Nar	ne: Latera	nl 10A-5				Facility Typ	e: Natural Gas	Gathe	ring Line	;		
Surface Ow	ner: NAP	I/Navajo Na	ition	Mineral (Dwner:B	LM			API No	·		
				LOC	ATION	OF RE	FASE					
Unit Letter M	Section 34	Township 26N	Range 12W	Feet from the 200		orth south ine Feet from the East West ine County San Juan						
L	J:	Latit	ude <u>3</u>	<u>6.438323</u>		_ Longitud	e -108.10339	99		I,		
. <u></u>					URE	OF REL	EASE					
	Type of Release: Natural Gas and Natural gas liquids						Release: Unkno			Recovered:		
Source of Release: Internal Corrosion of the Pipeline						our of Occurrenc @ 12:30 p.m.	e:	Date and @ 12:30	Hour of Dis 5.m.	covery:	2/19/2014	
Was Immediate Notice Given? If YES, To Whom? NMOCD – Jonathan Kelly, NNEPA - Steve Austin, Green Vazzie and Mike Freeman - NAPI								ustin, Greg				
By Whom? 7	Thomas Lor	ng				Date and F	our 2/20/2014 @	9:18 a.	m.			
Was a Watero		hed?	V 17				lume Impacting t			·		
			Yes 🛛	NO								
If a Watercou						·····						
Describe Cau the pipeline. out) was appl	se of Proble Initially an ied. The re	em and Reme area of appro pairs/remedia	lial Action kimately I tion activi	n Taken.* A relea 2 feet by 25 feet ties were comple	use was d was affe ted on Fe	iscovered on cted. The line bruary 25, 20	the Trunk 10A-5 was blown down 014.	ОЦкех	NS. DIV	ice and LOT DIST. 3	ternal c O (loci	corrosion of k out tag
									Y 27 21			
	f hydrocarb	on impacts so	il was exc	avated and transp			vities were comp pproved land farm					
					lete to th	e best of my	knowledge and u	nderstan	d that purs	uant to NM	DCD ru	iles and
regulations al	loperators	are required to	report an	d/or file certain r	elease no	tifications a	nd perform correct	tive acti	ons for rele	eases which	may en	danger
							arked as "Final R on that pose a thr					
or the enviror	iment. In a	ddition, NMC	CD accep				e the operator of					
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E-mail Addre				· · · · · · · · · · · · · · · · · · ·		Conditions of	~ ~ ~			Attached		
Date:		2-2016		(713)381-6684					<u></u>			
Attach Addit	tional Shee	ets If Necess	ary		7	7 NCS 11	41 4849	222				



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche Farmington, NM 87401 505-564-2281

> Durango, Colorado 970-403-3084

May 8, 2014

Thomas Long Enterprise Field Services, LLC 614 Reilly Avenue Farmington, New Mexico 87401

Via electronic mail with delivery confirmation receipt to: tjlong@eprod.com

RE: Release Assessment Report Lateral 10A-5 February 2014 Pipeline Release SW¼ SW¼, Section 34, T26N, R12W San Juan County, New Mexico OIL CONS. DIV DIST. 3 MAY 2 7 2014

Dear Mr. Long:

On February 20 and 25, 2014, Animas Environmental Services, LLC (AES) completed an assessment associated with a release of natural gas and pipeline liquids of unknown volume resulting from a pipeline leak at the Enterprise Field Services, LLC (Enterprise) Lateral 10A-5 pipeline. The release was discovered on February 19, 2014, and resulted from pipeline corrosion.

1.0 Site Information

1.1 Location

Location – SW¼ SW¼, Section 34, T26N, R12W, San Juan County, New Mexico Latitude/Longitude – N36.43801 and W108.10355, respectively Surface Owner – Navajo Reservation (Navajo Agricultural Products Industry) Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map

1.2 NMOCD Ranking

In accordance with Navajo Nation Environmental Protection Agency (NNEPA) release protocols, action levels were established per New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to the assessment. The release was given a ranking score of 30 based on the following factors:

Thomas Long Lateral 10A-5 Pipeline Release Assessment Report May 8, 2014 Page 2 of 6

- Depth to Groundwater: A perched groundwater table associated with percolation of irrigation water was observed at 5.5 feet below ground surface (bgs) in the excavation at the time of pipeline repair activities. (20 points)
- Wellhead Protection Area: The release location is not within a wellhead protection area. (0 points)
- Distance to Surface Water Body: The release is located approximately 925 feet to the north of an ephemeral wash which discharges to West Fork Gallegos Canyon. (10 points)

The ranking score of 30 dictates that concentrations for impacted soils left in place must be below the NMOCD action levels of 10 mg/kg benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and xylenes (BTEX), and 100 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) and diesel range organics (DRO).

1.3 Assessment and Mitigation

On February 19, 2014, Enterprise personnel discovered a release associated with internal corrosion during pipeline lowering operations along the Lateral 10A-5 pipeline. On February 20, 2014, AES collected two soil samples (S-1 and S-2) from the north and south walls of the initial excavation, in addition to one composite sample (SC-1) from temporarily stockpiled soil, for field screening and laboratory analysis. The east and west walls were comprised of disturbed, clean backfill from the line lowering operations; therefore, no samples were collected from these walls. Following additional excavation for pipeline repair access on February 25, 2014, AES collected one soil sample (S-3) from the base of the excavation and two composite soil samples (SC-2 and SC-3) from temporarily stockpiled soil for field screening and laboratory analysis. Based on field screening results, the excavation was extended an additional 1.5 feet in depth, and a soil sample (S-4) was collected from the final excavation base. A water sample (W-1) was collected from the edge of the excavation, immediately down gradient of the release location, and was also submitted for laboratory analysis.

The final excavation measured approximately 60 feet by 22 feet by 10 feet deep. The excavation was backfilled with clean, imported material along with a portion of the excavation spoils shown to be below applicable action levels (based on field sampling and laboratory analyses). Approximately 40 cubic yards of petroleum impacted soil was transported to the Envirotech Landfarm for proper disposal. Soil sample locations and final excavation extents are included on Figure 3. The Envirotech Bill of Lading and a photograph log are included in the Appendix.

2.0 Soil and Water Sampling

Two soil samples (S-1 and S-2) were collected from the north and south walls of the initial excavation, and two soil samples (S-3 and S-4) were collected from the base of the excavation. Three composite soil samples (SC-1 through SC-3) were collected from the temporarily stockpiled excavation soils. All soil samples were field screened for volatile organic compounds (VOCs). One water sample (W-1) for was collected from the edge of the excavation, immediately down gradient of the release location.

2.1 Field Screening

2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

2.2 Laboratory Analyses

Samples collected for laboratory analysis were placed into new, clean, laboratorysupplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. The soil samples collected during initial excavation activities (S-1, S-2, SC-1) were submitted for laboratory analysis to Envirotech Analytical Laboratory (Envirotech), in Farmington, New Mexico. The soil and water samples collected during final excavation activities (S-4, SC-2, SC-3, and W-1) were submitted for laboratory analysis to Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. All samples were maintained on ice until delivery.

Soil and water samples were laboratory analyzed for:

BTEX per U.S. Environmental Protection Agency (USEPA) Method 8021.

Soil Samples were also laboratory analyzed for:

• TPH (GRO/DRO) per USEPA Method 8015.

2.3 Field Screening and Laboratory Analytical Results

Soil field screening results showed that VOC concentrations via OVM ranged from 0.0 ppm in S-1 and S-2 to 26.8 ppm in S-3. Results are included in Table 1 and on Figure 3.

Lateral 10A-5 Pipe	eline Release As	ssessment, Fe	bruary 2014
Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)
NNEPA/N	MOCD Action Le	evel*	100
S-1	2/20/14	1 to 8.5	0.0
S-2	2/20/14	1 to 8.5	0.0
	2/25/14	8.5	26.8
S-4	2/25/14	10	1.5
SC-1	2/20/14	Stockpile	NM
SC-2	2/25/14	Stockpile	0.6
SC-3	2/25/14	Stockpile	1.0

Table 1. Soil Field Screening VOC Results
Lateral 10A-5 Pipeline Release Assessment, February 2014

NM – Not Measured

*NNEPA action levels determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993).

Soil laboratory analytical results showed that benzene, total BTEX, and TPH concentrations were below laboratory detection limits in all samples except SC-1, with a TPH concentration of 727 mg/kg. Results are included in Table 2 and on Figure 3. The laboratory analytical reports are attached.

Later	al 10A-5 Pip	eline Relea	se Assessn	nent, Febri	uary 2014	
Sample ID	Date Sampled	Depth (ft)	Benzene (mg/Kg)	Total BTEX (mg/Kg)	TPH – GRO (mg/Kg)	TPH DRO (mg/Kg)
NNEPA/NMOCD Action Level*			10	50	10	00
S-1	2/20/14	1 to 5.5	<0.05	<0.05	<4.99	<29.9
S-2	2/20/14	1 to 5.5	<0.05	<0.05	<5.00	<30.0
S-4	2/25/14	10	<0.024	<0.121	<2.4	<10
SC-1	2/20/14	Stockpile	<0.05	<0.05	<4.99	727
SC-2	2/25/14	Stockpile	<0.024	<0.121	<2.4	<10
SC-3	2/25/14	Stockpile	<0.026	<0.130	<2.6	<10

Table 2. Soil Laboratory Analytical Results – BTEX and TPH Lateral 10A-5 Pipeline Release Assessment, February 2014

*NNEPA action levels determined by the NMOCD ranking score per NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993)

Water laboratory analytical results for benzene, toluene, ethylbenzene, and xylene concentrations were below laboratory detection limits in W-1. Laboratory analytical results are included in Table 3 and on Figure 3. The laboratory analytical report is attached.

				Ethyl-	
Sample ID	Date Sampled	Benzene (µg/L)	Toluene (μg/L)	Benzene (µg/L)	Xylene: (µg/L)
WQCC Sta	ndards	10	750	750	620
W-1	2/25/14	<2.0	<2.0	<2.0	<4.0

Table 3. Water Laboratory Analytical Results – BTEX Lateral 10A-5 Pipeline Release Assessment, February 2014

3.0 Conclusions and Recommendations

On February 20 and 25, 2014, AES conducted an assessment associated with a pipeline release on the Lateral 10A-5. NNEPA utilizes action levels for releases determined by NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the release was assigned a ranking score of 30. Field screening of soil samples S-1 through S-4 and composite soil samples SC-2 and SC-3 showed VOC concentrations below the NMOCD action level of 100 ppm, with the highest VOC concentration reported in S-3 with 26.8 ppm in S-3. Soil laboratory analytical results showed that benzene, total BTEX, and TPH concentrations were below laboratory detection limits in all samples except SC-1, with a TPH concentration above the NMOCD action level of 100 mg/kg with 727 mg/kg, which was subsequently removed to the landfarm for proper disposal.

Additionally, water sample W-1 collected immediately downgradient of the release location showed that shallow groundwater does not appear to have been impacted as a result of the pipeline release, with concentrations for all parameters analyzed below laboratory detection limits and below applicable Water Quality Control Commission (WQCC) standards. Based on field screening and laboratory analytical results, no further work is recommended for the Lateral 10A-5 February 2014 pipeline release.

Thomas Long Lateral 10A-5 Pipeline Release Assessment Report May 8, 2014 Page 6 of 6

If you have any questions about this report or site conditions, please do not hesitate to contact Heather Woods at (505) 564-2281.

Sincerely,

David g Reve

David J. Reese Environmental Scientist

Aleather M. Woods

Heather M. Woods, P.G. Project Manager

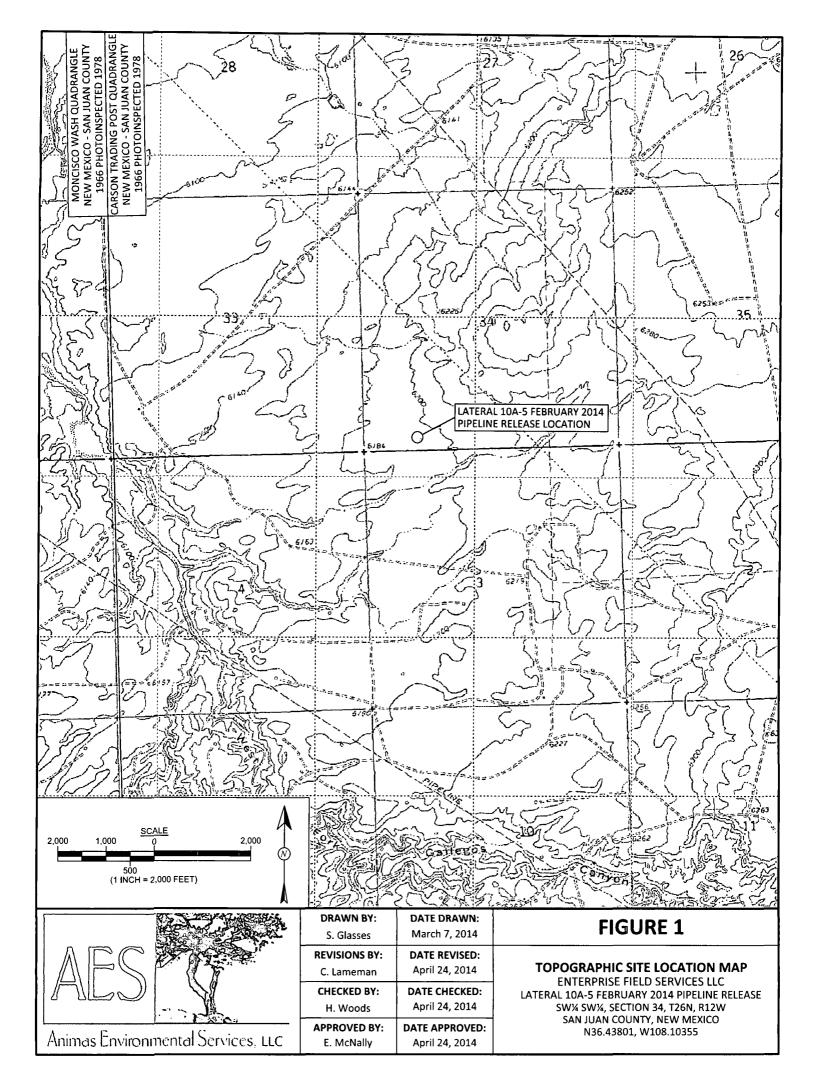
Elizabeth V M. Nolly

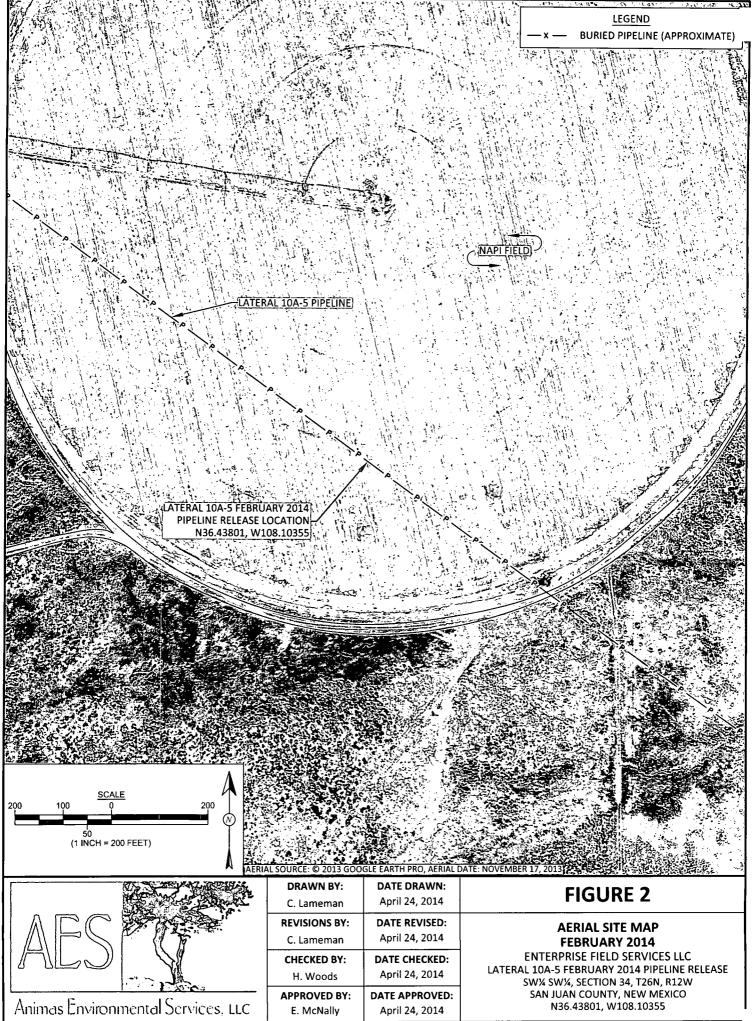
Elizabeth McNally, P.E.

Attachments:

Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map Figure 3. Final Excavation Sample Locations and Results, February 2014 Bill of Lading (Envirotech 46061) Photograph Log Laboratory Analytical Report (Envirotech P402048) Laboratory Analytical Reports (Hall 1402A02 and 1402985)

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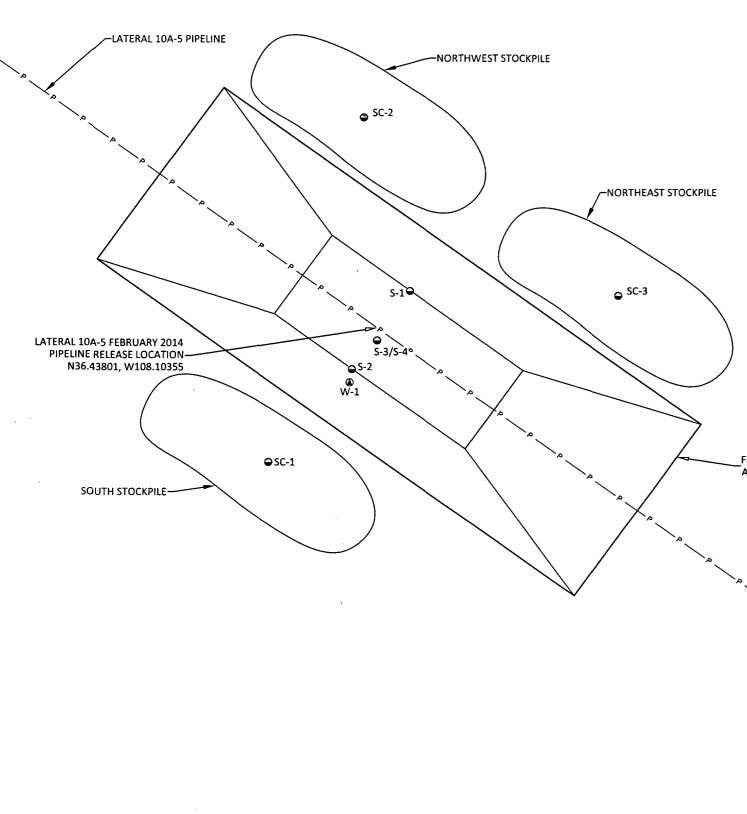
Sample ID	Date	Depth (ft)	OVM- PID (ppm)
NNEPA/NN	ΛΟCD ΑCTIO	N LEVEL	100
S-1	2/20/14	1 to 8.5	0.0
S-2	2/20/14	1 to 8.5	0.0
S-3	2/25/14	8.5	26.8
S-4	2/25/14	10	1.5
SC-1	2/20/14	Stockpile	NA
SC-2	2/25/14	Stockpile	0.6
SC-3	2/25/14	Stockpile	1.0

Sample ID	Date	Depth (ft)	y Analytical I Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
NNEPA/NMOCD ACTION LEVEL			10	50	1	00
S-1	2/20/14	1 to 8.5	<0.05	<0.20	<4.99	<29.9
S-2	2/20/14	1 to 8.5	<0.05	<0.20	<5.00	<30.0
S-4	2/25/14	10	<0.024	<0.121	<2.4	<10
SC-1	2/20/14	Stockpile	<0.05	<0.20	<4.99	727
SC-2	2/25/14	Stockpile	<0.024	<0.121	<2.4	<10
SC-3	2/25/14	Stockpile	<0.026	<0.130	<2.6	<10

- 4

_FINAL EXCAVATION APPROXIMATELY 60 FT x 22 FT x 10 FT DEEP

	Water L	aboratory A	nalytical Res	sults		
Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl- Benzene (µg/L)	Xylenes (µg/L)	
WQCC STA	NDARD	10	750	750	620	
W-1	2/25/14	<2.0	<2.0	<2.0	<4.0	



÷.,

FIGU	IRE 3						
FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS FEBRUARY 2014 ENTERPRISE FIELD SERVICES LLC LATERAL 10A-5 FEBRUARY 2014 PIPELINE RELEASE SW% SW%, SECTION 34, T26N, R12W SAN JUAN COUNTY, NEW MEXICO N36.43801, W108.10355							
AES Animas Environme	ental Services II C						
DRAWN BY:	DATE DRAWN:						
C. Lameman	April 24, 2014						
REVISIONS BY:	DATE REVISED:						
.C. Lameman	April 24, 2014						
CHECKED BY:	DATE CHECKED:						
H. Woods	April 24, 2014						
APPROVED BY:	DATE APPROVED:						
E. McNally	April 24, 2014						
LEG	END						
SOIL SAMPI	LE LOCATIONS						
WATER SAM	APLE LOCATION						
-P -BURIED PIP	ELINE (APPROXIMATE)						
10 6 (1 INCH =	ALE 10 10 FEET)						



Bill of Lading

MANIFEST # 46061 DATE 2-26-14 JOB # 97057-0626

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	COM	PLETE DESCRIPT	ION OF SHIPMEN	NT			TRANSPO	DRTING	COMPAN	١Y
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	ENterprise Lat 10.A.J	LFII.5	CONIT SOL	H-29	10	1	POUS (FULTZ	734	92	Ronzill
2	n ()	LFII.5	" (H .29	10	-	L/ 2	\$34	925	Don allery
3	1(1)	11	11	H.29	10	-	١t	934	1028	fonting
4	tt tj	11	1	H-29	10	~	11	5534	1028	Do celip
, 				-	40					
					10					
				1						
RESULTS	S: CHLORIDE TEST	LANDFARM EMPLOYEE:	Curl	N NN	E. WAR	2	NOTES:	•		
	PAINT FILTER TEST	Certifi	cation of above re	ceival & pla						
By signing mentione	g as the driver/transporter, I d Generator/Point of Origin a	certify the material and that no addition	hauled from the a nal material has be	bove locati	on has not	been ad the loa	ded to or tampered d.	with. I ce	ortify the	material is from the above
TRANSPC	RTER CO. DUK FOU	tz Const	NAME	Kon 1	sripht		SIGNATURE	Roll	Z	Telt
COMPAN	CONTACT Crail	Fortz	PHONE		4922		DATE	2-24	-14	<i>, , , , , , , , , ,</i>
Signature	es required prior to distributio	n of the legal docu					-		'	

Photo #1	
Client: Enterprise Field Services, LLC	
Project: Lateral 10A-5 Pipeline Release	
Taken by: Heather Woods	
Date: February 20, 2014	
AES Project No. 140216	Description: View of initial excavation looking southeast.

Photo #2	
Client: Enterprise Field Services, LLC	
Project: Lateral 10A-5 Pipeline Release	
Taken by: Heather Woods	
Date: February 25, 2014	
AES Project No. 140216	Description: View of final excavation looking northwest.



Analytical Report

Report Summary Client: Animas Environmental Services Chain Of Custody Number: 16621 Samples Received: 2/20/2014 4:15:00PM Job Number: 99083-0001 Work Order: P402048 Project Name/Location: Lateral 10A-5 Pipeline Release

Date: 2/26/14

Page 1 of 10

Entire Report Reviewed By:

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 2/26/14 2:00 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.

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



Animas Environmental Services	Project Name:	Lateral 10A-5 Pipeline Release	
624 E. Comanche St.	Project Number:	99083-0001	Reported:
Farmington NM, 87401-6815	Project Manager:	Heather Woods	26-Feb-14 14:04

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S-1	P402048-01A	Soil	02/20/14	02/20/14	Glass Jar, 4 oz.
S-2	P402048-02A	Soil	02/20/14	02/20/14	Glass Jar, 4 oz.
SC-1	P402048-03A	Soil	02/20/14	02/20/14	Glass Jar, 4 oz.

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 5796 US Highway 64, Farmington, NM 87401		Ph (505) 632-0615	Fx (505) 632-1865		envirotech	i - II (
 Three Springs - 65 Mercado Street, Suite 115, Durango, CO 813	01.	Ph (970) 259-0615	Fr (800) 362-1879		laboratory@envirotech	n-int

nc.com nc.com



Animas Environmental Services 624 E. Comanche St. Farmington NM, 87401-6815	Project	oject Name:Lateral 10A-5 Pipeline Releaseoject Number:99083-0001oject Manager:Heather Woods							Reported: 26-Feb-14 14:04		
			S-1								
		P4020	48-01 (So	olid)							
		Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
Volatile Organics by EPA 8021											
Benzene	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B			
Foluene	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B			
Ethylbenzene	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B			
p,m-Xylene	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B			
)-Xylene	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B			
Fotal Xylenes	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B			
Total BTEX	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B			
Surrogate: Bromochlorobenzene		109 %	80-	-120	1409005	02/24/14	02/25/14	EPA 8021B			
Surrogate: 1,3-Dichlorobenzene		104 %	80	-120	1409005	02/24/14	02/25/14	EPA 8021B			
Nonhalogenated Organics by 8015							0				
Jasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8015D			
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1409004	02/24/14	02/25/14	EPA 8015D			

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Page 3 of 10



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Animas Environmental Services 624 E. Comanche St. Farmington NM, 87401-6815	Project Name:Lateral 10A-5 Pipeline ReleaseProject Number:99083-0001Project Manager:Heather Woods							Reported: 26-Fcb-14 14:04		
			S-2							
		P4020	48-02 (So	olid)						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
Volatile Organics by EPA 8021										
Benzene	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B		
Toluene	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B		
Ethylbenzene	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B		
p,m-Xylene	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B		
0-Xylene	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B		
Total Xylenes	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B		
Total BTEX	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B		
Surrogate: Bromochlorobenzene	- <u>Le</u> <u>Li, ex</u>	110 %	80	-120	1409005	02/24/14	02/25/14	EPA 8021B		
Surrogate: 1,3-Dichlorobenzene		106 %	80	-120	1409005	02/24/14	02/25/14	EPA 8021B		
Nonhalogenated Organics by 8015		÷								
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8015D		
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1409004	02/24/14	02/25/14	EPA 8015D		

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Animas Environmental Services	Project Name:	Lateral 10A-5 Pipeline Release	
624 E. Comanche St.	Project Number:	99083-0001	Reported:
Farmington NM, 87401-6815	Project Manager:	Heather Woods	26-Feb-14 14:04

			SC-1						
		P4020	48-03 (So	olid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Zolatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
oluene	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Ithylbenzene	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
-Xylene	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
lurrogate: 1,3-Dichlorobenzene		100 %	80-	-120	1409005	02/24/14	02/25/14	EPA 8021B	
lurrogate: Bromochlorobenzene		105 %	80-	-120	1409005	02/24/14	02/25/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Jasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1409005	02/24/14	02/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	727	29.9	mg/kg	1	1409004	02/24/14	02/26/14	EPA 8015D	

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•	Three Springs • 65	5 Mercado Street, Suite 115, Durango,	CO 8 1301.	· ·	Ph (970) 259-0615	Fr (800) 362-1879		Jaboratory@envirotech inc.com
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		· · · · · · · · · · · · · · · · · · ·						Page 5 of 10



Animas Environmental Services	Project Name:	Lateral 10A-5 Pipeline Release	
624 E. Comanche St.	Project Number:	99083-0001	Reported:
Farmington NM, 87401-6815	Project Manager:	Heather Woods	26-Feb-14 14:04

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC	555	RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1409005 - Purge and Trap EPA 5030A	<u>_</u>		<u> </u>		<u> </u>					
Blank (1409005-BLK1)				Prepared: 2	24-Feb-14	Analyzed: 2	25-Feb-14			
E	ND	0.05	mg/kg							
Γι ;	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	50.9		ug/L	50.0	· •··	102	80-120			
Surrogate: Bromochlorobenzene	52.6		"	50.0		105	80-120			
Duplicate (1409005-DUP1)	Sou	rce: P402048-	01	Prepared: 2	24-Feb-14	Analyzed: 2	25-Feb-14			
Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	"		ND				30	
Ethylbenzene	ND	0.05	n		ND				30	
p,m-Xylene	ND	0.05	u		ND				30	
o-Xylene	ND	0.05	"		ND				30	
Surrogate: 1,3-Dichlorobenzene	53.2		ug/L	50.0		106	80-120			
Surrogate: Bromochlorobenzene	55.3		"	50.0		111	80-120			
Matrix Spike (1409005-MS1)	Sou	irce: P402048-	01	Prepared: 2	24-Feb-14	Analyzed: 2	25-Feb-14			
Benzene	47.7		ug/L	50.0	ND	95.4	39-150			
Toluene	47.4		"	50.0	ND	94.8	46-148			
Ethylbenzene	47.3		"	50.0	ND	94.7	32-160			
p,m-Xylene	95.0			100	ND	95.0	46-148			
0-Xylene	48.0		"	50.0	ND	96.0	46-148			
Surrogate: 1,3-Dichlorobenzene	52.4		"	50.0		105	80-120			
Surrogate: Bromochlorobenzene	54.5		"	50.0		109	80-120			

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Page 6 of 10



Animas Environmental Services	Project Name:	Lateral 10A-5 Pipeline Release	
624 E. Comanche St.	Project Number:	99083-0001	Reported:
Farmington NM, 87401-6815	Project Manager:	Heather Woods	26-Feb-14 14:04

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1409004 - DRO Extraction EPA 3550C										
Blank (1409004-BLK1)				Prepared: 2	24-Feb-14	Analyzed: 2	25-Feb-14			
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg							
Duplicate (1409004-DUP1)	Sour	ce: P402048-	01	Prepared: 2	24-Feb-14	Analyzed: 2	25-Feb-14			
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg		ND				30	
Matrix Spike (1409004-MS1)	Sour	ce: P402048-	01	Prepared: 2	24-Feb-14	Analyzed: 2	25-Feb-14			
Diesel Range Organics (C10-C28)	173	31.6	mg/kg	263	ND	65.8	75-125	_		SPK I

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Animas Environmental Services	Project Name:	Lateral 10A-5 Pipeline Release	
624 E. Comanche St.	Project Number:	99083-0001	Reported:
Farmington NM, 87401-6815	Project Manager:	Heather Woods	26-Feb-14 14:04

Nonhalogenated Organics by 8015 - Quality Control

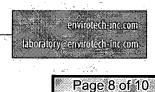
Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1409005 - Purge and Trap EPA 5030A										
Blank (1409005-BLK1)				Prepared: 2	4-Feb-14	Analyzed: 2	25-Feb-14			
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							
Duplicate (1409005-DUP1)	Sourc	e: P402048-	01	Prepared: 2	4-Feb-14	Analyzed: 2	25-Feb-14			
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg		ND				30	
Matrix Spike (1409005-MS1)	Sourc	e: P402048-	01	Prepared: 2	4-Feb-14	Analyzed: 2	25-Feb-14			
Gasoline Range Organics (C6-C10)	0.44		mg/L	0.450	ND	98.0	75-125			

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ī	Animas Environmental Services	Project Name:	Lateral 10A-5 Pipeline Release		ĺ
	624 E. Comanche St.	Project Number:	99083-0001	Reported:	ĺ
	Farmington NM, 87401-6815	Project Manager:	Heather Woods	26-Feb-14 14:04	

Notes and Definitions

SPK 1	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

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Client:			oject Name / Locatio									Δ		(SIS			ETER	IS				
Animas Environmental	Services	1	atural 10A-5	Pipeline hele	ase					•		~			/ / / /	0 1111						
Email results to: hwoods@anim	as environmen	del.com Si	ampler Name:					5)	21)	0)												
tilongeeprod.com		1	. ubods / C.	Skyles				801	1 80	826	s			~								
Client Phone No.:		C		83-0001				(Method 8015)	(Method 8021)	(Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P	CO Table 910-1	118.1)	RIDE				Sample Cool	sample Intact
Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers		eservat HCI	tive cutoł	v) нат	BTEX	VOC (I	RCRA	Cation	RCI	TCLP	CO Tal	TPH (418.1)	CHLORIDE				sample	oanipi
5-1	2/20/14	1425	P402048-01	1-402 6600			X	Х	×												- \	<u> </u>
5-2	2/20/14	1429	P402048-02	1 - 4+2 Glass	,		x	×	×												-]	
SC-1	2/20/14	1500	P402048-03	1 - 402 GLASS	ſ		×	×	×												-	
			······································																			
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Heather M. Whoo	do		2	2120/14 1612	$\langle \rangle$	Den	0.	34	R	7	• •								2	20/14	197	5
Relinquished by: (Signature)					Rece	ived I	by: (S	ignat	ure)	<u> </u>												
Sample Matrix												·										
Soil 🔀 Solid 🔲 Sludge 🗋	Aqueous 🗌	Other []																			
Sample(s) dropped off after				env						5	8.2 5.1 .4								·			
5795 US Highway 64	4 • Farmingto	on, NM 874	01 • 505-632-0615 • 1	Three Springs • 65 N	lerca	do Str	reet, S	uite 1	15, D	uran	go, C	O 81	301 •	labo	rator	y@er	virote	ech-in	F	age 1	0 of	10



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

March 03, 2014

Heather Woods Animas Environmental Services 624 East Comanche Farmington, NM 87401 TEL: (505) 716-2787 FAX (505) 324-2022

RE: Lateral 10A-5

OrderNo.: 1402A02

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/26/2014 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 <u>www.hallenvironmental.com</u> 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 qualifers 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1402A02

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/3/2014

CLIENT: Animas Environmental Services Project: Lateral 10A-5 Lab ID: 1402A02-001		AQUEOU			Date: 2/2	-1 25/2014 12:00:00 PM 26/2014 10:15:00 AM	
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analys	st: JMP
Methyl tert-butyl ether (MTBE)	ND	5.0	р	µg/L	2	2/27/2014 12:33:45 PI	M R17017
Benzene	ND	2.0	р	µg/L	2	2/27/2014 12:33:45 PI	M R17017
Toluene	ND	2.0	р	µg/L	2	2/27/2014 12:33:45 PI	M R17017
Ethylbenzene	ND	2.0	р	µg/L	2	2/27/2014 12:33:45 PI	M R17017
Xylenes, Total	ND	4.0	р	µg/L	2	2/27/2014 12:33:45 PI	M R17017
1,2,4-Trimethylbenzene	ND	2.0	р	µg/L	2	2/27/2014 12:33:45 PI	M R17017
1,3,5-Trimethylbenzene	ND	2.0	р	µg/L	2	2/27/2014 12:33:45 PI	M R17017
Surr: 4-Bromofluorobenzene	102	85-136	р	%REC	2	2/27/2014 12:33:45 PI	M R17017

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Daga 1 of 2
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	Page 1 of 3
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

	Environme	ntal Ser	vices							
Project: Lateral	10A-5							_		
Sample ID 5ML RB	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8021B: Volat	iles	-	<u></u>
Client ID: PBW	Batch	1D: R1	7017	F	RunNo: 1	7017				
Prep Date:	Analysis D	ate: 2/	27/2014	5	SeqNo: 4	89520	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
fethyl tert-butyl ether (MTBE)	ND	2.5						-		
enzene	ND	1.0								
Toluene	ND	1.0								
thylbenzene	ND	1.0								
lylenes, Total	ND	2.0								
,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofiuorobenzene	21		20.00		107	85	136			
Sample ID 100NG BTEX LC	S SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSW	Batch	1D: R1	7017	F	RunNo: 1	7017				
Prep Date:	Analysis D	ate: 2/	27/2014	S	SeqNo: 4	89521	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
fethyl tert-butyl ether (MTBE)	18	2.5	20.00	0	88.8	71.1	128			
enzene	19	1.0	20.00	0	93.3	80	120			
Toluene	19	1.0	20.00	0	94.2	80	120			
ithylbenzene	19	1.0	20.00	0	95.5	80	120			
Vienes, Total	58	2.0	60.00	0	97.4	80	120			
,2,4-Trimethylbenzene	19	1.0	20.00	0	97.3	80	120			
,3,5-Trimethylbenzene	20	1.0	20.00	0	99.0	80	120			
Surr: 4-Bromofluorobenzene	19		20.00		95.7	85	136		L	
Sample ID 1402A02-001AM	S SampT	ype: MS		Tes	tCode: El	PA Method	8021B: Volati	iles		-
Client ID: W-1	Batch	1D: R1	7017	F	RunNo: 1	7017				
Prep Date:	Analysis D	ate: 2/	27/2014	S	SeqNo: 4	89526	Units: µg/L.			
Analyte	Result	PQL		SPK Ref Val		LowLimit	HighLimit	%RPD	RPDLimit	Qual
ethyl tert-butyl ether (MTBE)	35	5.0	40.00	0	88.0	62.4	135			
enzene	38	2.0	40.00	0.7400	94.3	71	129			
Toluene	40	2.0	40.00	1.028	96.5	68.4	135			
thylbenzene	40	2.0	40.00	0	99.1	69.4	135			
ylenes, Total	120	4.0	120.0	1.084	100	72.4	135			
,2,4-Trimethylbenzene	40	2.0	40.00	0.5160	98.8	67.1	135			
,3,5-Trimethylbenzene	41	2.0	40.00	0.4560	101	75.9	130			
Surr: 4-Bromofluorobenzene	46		40.00		116	85	136			

)ualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 2 of 3

reater than 2.

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Animas Environmental Services

Project:

Lateral 10A-5

Sample ID 1402A02-001AM	ISD SampT	ype: MS	SD	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: W-1	Batch	n ID: R1	7017	F	RunNo: 1	7017				
Prep Date:	Analysis D)ate: 2/	27/2014	5	SeqNo: 4	89527	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	35	5.0	40.00	0	86.5	62.4	135	1.71	20	
Benzene	38	2.0	40.00	0.7400	92.0	71	129	2.40	20	
Toluene	- 38	2.0	40.00	1.028	93.4	68.4	135	3.17	20	
Ethylbenzene	39	2.0	40.00	0	97.1	69.4	135	2.00	20	
Xylenes, Total	120	4.0	120.0	1.084	97.6	72.4	135	2.41	20	
1,2,4-Trimethylbenzene	40	2.0	40.00	0.5160	98.1	67.1	135	0.702	20	
1,3,5-Trimethylbenzene	40	2.0	40.00	0.4560	99.2	75.9	130	1.65	20	
Surr: 4-Bromofluorobenzene	46		40.00		114	85	136	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
 - P Sample pH greater than 2.
 - RL Reporting Detection Limit

Page 3 of 3

HALL ENVIROI ITAL ANALYSIS LABORATORY	Hall Environmental A Albuq TEL: 505-345-3975 F Website: www.halle	4901 H uerque, AX: 505	awkins NE NM 87109 -345-4107	Sam	ple Log-In C	heck List
Client Name: Animas Environmental	Work Order Number:	1402A0	2		ReptNo:	1
Received by/date:	e 24/14	· ·			. . .	
Logged By: Lindsay Mangin 2/	26/2014 10:15:00 AM		0	radic Horazo)	
Completed By: Lindsay Mangin 2/	26/2014 12:53:33 PM		Ø	indy Hlopp)	
Reviewed By: Aroz/26/	4					······
Chain of Custody						
1. Custody seals intact on sample bottles?		Yes]	No	Not Present 🖌	
2. Is Chain of Custody complete?		Yes	ä	No	Not Present	
3. How was the sample delivered?		Courier				
Log In						
4. Was an attempt made to cool the samples?		Yes 🗄	Z	No 🖸	na 🗌	
5. Were all samples received at a temperature of	>0° C to 6.0°C	Yes 🔽	1	No 🗌	NA 🗔	
6. Sample(s) in proper container(s)?		Yes	Z	No []		
7. Sufficient sample volume for indicated test(s)?		Yes 🗸		No		
8. Are samples (except VOA and ONG) properly	preserved?	Yes V	Ë	No		
.9. Was preservative added to bottles?		Yes 🗌]	No 🗹	NA	
10.VOA vials have zero headspace?		Yes 🛓	_	No 📋	No VOA Vials 📋	
11. Were any sample containers received broken?)	Yes []	No 🔽	# of preserved	
		Yes N	7	No 🗌	bottles checked for pH:	
12.Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Tes iv	() ()	INO ELL		or >12 unless noted)
13. Are matrices correctly identified on Chain of Ci	ustody?	Yes 🙀	2	No 1.1	Adjusted?	:
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:	: ::
Special Handling (if applicable)						
16. Was client notified of all discrepancies with this	s order?	Yes [No 🗌	NA 🗹	
Person Notified:	Date:					
By Whom:		eMail	Phone	. ∃ Fax	In Person	
Regarding:						
Client Instructions:		on de la constantia de la c			n ar an ann an ann ann ann ann ann ann a	
17. Additional remarks:	<u> </u>					
18. <u>Cooler Information</u> Cooler No Temp °C Condition Seal	Intact Seal No Se	eal Date	Sign	ed By	J	
1 1.6 Good Yes					J	

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Client:	$\Delta \pi m$	as En	vironmental	Standard	🗆 Rush				_· ·	 									τοι		,
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		60	FE Conarche	Project #:							awkin										
	<u>i.rafto</u>		M, 87401						le	1. 50	5-345		Anal				4107			· .	
Phone :		(505)	564 2281						$\overline{\mathbf{x}}$				Allai		Ney	uesi					
email o				Project Mana	ger:		_	21)	TPH (Gas only)	ARC				S0₄	s's						
	Package:			Hear	Lr V	Jood	5	TMB's (8021)	Bas			SIMS)		04,	PCB'						
□ Stan			Level 4 (Full Validation)	··	····	5		B's	Ξ	DRO				О ₂ , Р							
Accredi		🗆 Ofhe	r	Sampler: On Ice:				ΤM	TP	5	8.1)	7 () 7 7 (3,NC	/ 80		2				2
				Sample Tem				+ Щ	+ Щ	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	ELUB (Method 504.1) PAH's (8310 or 8270	als	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082		8270 (Semi-VOA)				Air Bubbles (Y or N)
	<u>(')po)</u>	<u> </u>						MTBE	BTEX + MTBE	5B (tho	310 310	8 Metals	Ū,	stici	8260B (VOA)	,-im				les
Date	Time	Matrix	Sample Request ID		Preservative	HFA	Ľ NO.	+ >	+	801	(Me	8) (Me	A 8	l) st	Pe	2 8	S)				qqn
Buto				Type and #	Туре	11/0	้กกาว	BTEX +	Ê	H	H	HÅ	RCRA	nior	081	260	270	1			ir B
7.1.				3 PICI VOA	HO	1400	$\frac{\pi \nu c}{2}$		- <u>m</u>				<u>. </u>	◄	8	8	8	-+		+	
125/14	1200	water	W-1	- 2 VOA		- <u>C</u>		K													┣—
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Date:	Time:	Relinguishe	ed by:	Received by:	\	Date -	Time														
15/14	1749		Alalt	V K	TANZ	7614	1015														
	f necessary,	samples subr	nitted to Hall Environmental may be subo	contracted to other a	credited laboratori	es. This serves	as notice of this	s possi	bility.	Any su	b-contra	icted da	ta wili t	e clear	rly nota	ated or	n the a	nalytical	report.		
				\	/		-														

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February 27, 2014

Heather Woods Animas Environmental Services 624 East Comanche Farmington, NM 87401 TEL: (505) 716-2787 FAX (505) 324-2022

RE: Lateral 101A-5

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

OrderNo.: 1402985

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 3 sample(s) on 2/26/2014 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 <u>www.hallenvironmental.com</u> 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 qualifers 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report
Lab Order 1402985

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 2/27/2014

CLIENT: Animas Environmental Services Project: Lateral 101A-5 Lab ID: 1402985-001		MEOH (SOII		Date: 2/2	4 25/2014 12:13:00 PM 26/2014 10:15:00 AM	
Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE C	RGANICS				Analys	: BCN
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	2/26/2014 1:35:39 PM	11903
Surr: DNOP	85.6	66-131	%REC	1	2/26/2014 1:35:39 PM	11903
EPA METHOD 8015D: GASOLINE RANG	E				Analys	t: JMP
Gasoline Range Organics (GRO)	ND	2.4	mg/Kg	1	2/26/2014 11:41:31 AM	R16966
Surr: BFB	82.3	74.5-129	%REC	1	2/26/2014 11:41:31 AM	I R16966
EPA METHOD 8021B: VOLATILES					Analys	t: JMP
Benzene	ND	0.024	mg/Kg	1	2/26/2014 11:41:31 AM	R16966
Toluene	ND	0.024	mg/Kg	1	2/26/2014 11:41:31 AM	I R16966
Ethylbenzene	ND	0.024	mg/Kg	1	2/26/2014 11:41:31 AM	I R16966
Xylenes, Total	ND	0.049	mg/Kg	1	2/26/2014 11:41:31 AN	I R16966
Surr: 4-Bromofluorobenzene	94.8	80-120	%REC	1	2/26/2014 11:41:31 AM	R16966

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	Е	Value above quantitation range
	J	Analyte detected below quantitation limits
	0	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits

- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Page 1 of 6
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Analytical Report Lab Order 1402985 Date Reported: 2/27/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Project: Lateral 101A-5

1402985-002

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Lab ID:

Collection Date: 2/25/2014 12:20:00 PM

Matrix: MEOH (SOIL) Received Date: 2/26/2014 10:15:00 AM

Client Sample ID: SC-2

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	t: BCN
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	2/26/2014 1:57:54 PM	11903
Surr: DNOP	85.0	66-131	%REC	1	2/26/2014 1:57:54 PM	11903
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	t: JMP
Gasoline Range Organics (GRO)	ND	2.4	mg/Kg	1	2/26/2014 12:10:02 PM	A R16966
Surr: BFB	82.3	74.5-129	%REC	1	2/26/2014 12:10:02 PM	A R16966
EPA METHOD 8021B: VOLATILES					Analys	t: JMP
Benzene	ND	0.024	mg/Kg	1	2/26/2014 12:10:02 PM	1 R16966
Toluene	ND	0.024	mg/Kg	1	2/26/2014 12:10:02 PN	1 R16966
Ethylbenzene	ND	0.024	mg/Kg	1	2/26/2014 12:10:02 PM	1 R16966
Xylenes, Total	ND	0.049	mg/Kg	1	2/26/2014 12:10:02 PM	1 R16966
Surr: 4-Bromofluorobenzene	93.9	80-120	%REC	1	2/26/2014 12:10:02 PM	I R16966

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

ORSD is greater than RSDlimitPSample pH greater than 2.RRPD outside accepted recovery limitsRLReporting Detection Limit	Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank	
ORSD is greater than RSDImitPSample pH greater than 2.RRPD outside accepted recovery limitsRLReporting Detection Limit	-	Е	Value above quantitation range	H Holding times for preparation or analysis exc			
ORSD is greater than RSDlimitPSample pH greater than 2.RRPD outside accepted recovery limitsRLReporting Detection Limit		J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 6	
		0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 460 2 01 0	
		R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		
S Spike Recovery outside accepted recovery limits		S	Spike Recovery outside accepted recovery limits				

Analytical Report
Lab Order 1402985

Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

Date Reported: 2/27/2014

1 2/26/2014 12:38:36 PM R16966

CLIENT:Animas Environmental ServicesProject:Lateral 101A-5Lab ID:1402985-003	-	MEOH (SOIL)	Client Sampl Collection Received			
Analyses	Result	RL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE C	ORGANICS				Analyst	BCN
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	2/26/2014 2:20:05 PM	11903
Surr: DNOP	85.3	66-131	%REC	1	2/26/2014 2:20:05 PM	11903
EPA METHOD 8015D: GASOLINE RANG	ε				Analyst	: JMP
Gasoline Range Organics (GRO)	ND	2.6	mg/Kg	1	2/26/2014 12:38:36 PM	R16966
Surr: BFB	82.1	74.5-129	%REC	1	2/26/2014 12:38:36 PM	R16966
EPA METHOD 8021B: VOLATILES					Analyst	: JMP
Benzene	ND	0.026	mg/Kg	1	2/26/2014 12:38:36 PM	R16966
Toluene	ND	0.026	mg/Kg	1	2/26/2014 12:38:36 PM	R16966
Ethylbenzene	ND	0.026	mg/Kg	1	2/26/2014 12:38:36 PM	R16966
Xylenes, Total	ND	0.052	mg/Kg	1	2/26/2014 12:38:36 PM	R16966

80-120

93.9

%REC

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 6
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	Fage 5 01
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits		-	

Client: Project:	Animas Lateral	Environment 101A-5	al Sei	rvices							
Sample ID	MB-11896	SampTyp	be: Mi	BLK	Tes	tCode: El	PA Method	8015D: Diese	el Range C	Drganics	
Client ID:	PBS	Batch I	D: 11	896	F	RunNo: 1	6968				
Prep Date:	2/25/2014	Analysis Dat	:e: 2	/26/2014	S	eqNo: 4	88286	Units: %RE	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		8.2		10.00		81.5	66	131			
Sample ID	LCS-11896	SampTyp	be: LC	s	Tes	tCode: El	PA Method	8015D: Diese	el Range C	Drganics	
Client ID:	LCSS	Batch I	D: 11	896	F	tunNo: 1	6968				
Prep Date:	2/25/2014	Analysis Dat	ie: 2	/26/2014	s	eqNo: 4	88287	Units: %RE	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		4.3		5.000		86.9	66	131			
Sample ID	MB-11903	SampTyp	e: Ml	BLK	Test	Code: El	PA Method	8015D: Diese	l Range C	Organics	
Client ID:	PBS	Batch I	D: 11	903	R	lunNo: 1	6968				
Prep Date:	2/26/2014	Analysis Dat	e: 2	/26/2014	S	eqNo: 4	88291	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
)iesel Range C Surr: DNOP	Drganics (DRO)	ND 8.0	10	10.00		79.6	66	131			
Sample ID	LCS-11903	SampTyp	e: LC	s	Test	Code: El	PA Method	8015D: Diese	l Range C)rganics	
Client ID:	LCSS	Batch I	D: 11	903	R	tunNo: 1	6968				
Prep Date:	2/26/2014	Analysis Dat	e: 2	/26/2014	S	eqNo: 4	88292	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
iesel Range C Surr: DNOP	Organics (DRO)	46 4.0	10	50.00 5.000	0	92.6 80.8	60.8 66	145 131			
Jun. Diriol				0.000		00.0					

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 4 of 6

Client:	Animas	Environme	ntal Ser	vices							
Project:	Lateral 1	01A-5									
Sample ID	MB-11892 MK	SampT	ype: MI	BLK	TestCode: EPA Method 8015D: Gasoline Range						
Client ID:	PBS	Batch	Batch ID: R16966			lunNo: 1	6966				
Prep Date:	2/25/2014	Analysis D	ate: 2	/26/2014	S	eqNo: 4	88600	Units: mg/K	g		
Analyte	· · · · · · · · · · · · · · · · · · ·	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 810	5.0	1000		80.6	74.5	129			
Sample ID	LCS-11892 MK	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D: Gasol	ine Rang	e	
Client ID:	LCSS	Batch	1D: R1	6966	F	lunNo: 1	6966				
Prep Date:	2/25/2014	Analysis D	ate: 2	/26/2014	5	eqNo: 4	88601	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	e Organics (GRO)	24	5.0	25.00	0	97.8	71.7	134			
Surr: BFB		880		1000		88.0	74.5	129			
Sample ID	MB-11892	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	8015D: Gasol	ine Rang	e	
Client ID:	PBS	Batch	1D: 11	892	F	tunNo: 1	6966				
Prep Date:	2/25/2014	Analysis D	ate: 2	/26/2014	S	eqNo: 4	88617	Units: %REC	;		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		810		1000		80.6	74.5	129			
Sample ID	LCS-11892	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D: Gasol	ine Rang	e	
Client ID:	LCSS	Batch	n ID: 11	892	F	lunNo: 1	6966				
Prep Date:	2/25/2014	Analysis D	ate: 2	/26/2014	S	eqNo: 4	88618	Units: %REC	;		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		880		1000		88.0	74.5	129			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
 - Р Sample pH greater than 2.
 - Reporting Detection Limit RL

Page 5 of 6

WO#:	1402985
	27-Feb-14

Client: 'roject:	Animas Lateral 1	Environme 01A-5	ntal Ser	vices							
Sample ID	MB-11892 MK	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: F	PBS	Batch	h ID: R1	6966	F	RunNo: 1	6966				
Prep Date:		Analysis D)ate: 2/	26/2014	S	SeqNo: 4	88628	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
enzene		ND	0.050								
oluene		ND	0.050								
Ethylbenzene		ND	0.050								
Vilenes, Total		ND	0.10								
Surr: 4-Bromo	fluorobenzene	0.92		1.000		92.1	80	120			
Sample ID L	_CS-11892 MK	SampT	SampType: LCS TestCode: EPA Method 8021B: Volatiles								
Client ID: L	LCSS	Batch	n ID: R1	6966	F	RunNo: 1	6966				
Prep Date:		Analysis D)ate: 2/	26/2014	S	SeqNo: 4	88629	Units: mg/h	٨g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
enzene		1.1	0.050	1.000	0	108	80	120		_	
oluene		1.1	0.050	1.000	0	111	80	120			
Ethylbenzene		1.1	0.050	1.000	0	111	80	120			
ylenes, Total		3.4	0.10	3.000	0	114	80	120			
Surr: 4-Bromo	fluorobenzene	1.0		1.000		99.8	80	120			
Sample ID	MB-11892	SampT	ype: ME	3LK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: F	PBS	Batch	n ID: 11	892	F	RunNo: 1	6966				
Prep Date:	2/25/2014	Analysis D)ate: 2/	26/2014	S	eqNo: 4	88640	Units: %RE	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromo	fluorobenzene	0.92		1.000		92.1	80	120			
Sample ID L	_CS-11892	SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: 1	LCSS	Batch	n ID: 11	892	F	lunNo: 1	6966				
Prep Date:	2/25/2014	Analysis D	ate: 2/	26/2014	S	eqNo: 4	88641	Units: %RE	С		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromo	fluorobenzene	1.0		1.000		99.8	80	120			

}ualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- **RL** Reporting Detection Limit

Page 6 of 6

Client Name: Antimas_Environmental Work Order Number: 1402985 RcptNo: 1 Received by/date 0.2 2.2.0 1.4 Logged By: Astrey Gallegor 2.28/2014 ft0:15:00 AM Amage: Completed By: Revewed By: Astrey Gallegor 2.28/2014 ft0:24:15 AM Amage: Completed By: Astrey Gallegor Revewed By:	ANALYSIS ANALYSIS ANALYSIS ANALYSIS TEL: 505-345-397	al Analysis Laborato 4901 Hawkins N buquerque, NM 871 5 FAX: 505-345-410 mallenvironmental.cc	^{VE} 09 Sam 07	ple Log-In (Check List
Received by/case Ashley Galego 2/26/2014 10:24:15:00 AM Age Completed By: Ashley Galego 2/26/2014 10:24:15:AM Age Reviewed By: 2/26/2014 10:24:15:AM Age Reviewed By: 0.2 2/2/2/14 10:24:15:AM Age I. Custody seals intact on sample bottles? Yes No Not Present 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? Courrier 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 No NA 7. Sufficient sample volume for indicated test(s)? Yes No No In 10. VOA vials have zero headspace? Yes No No No VOA Vials If O preserved 11. Were any sample containers received broken? Yes No Adjusted? Adjusted? 12. Does paperwork match bottle labels? Yes No Adjusted? Adjusted? <	Client Name: Animas Environmental Work Order Numbe	r: 1402985		RcptNo	: 1
Completed By: Ashley calleges 2/26/2014 ft0:24:15 AM Reviewed By: 2/26/2014 ft0:24:15 AM 2/26/27/21/11/1 2/ain of Custody 1. Custody seals intact on sample bottles? Yes No Not Present V 2. Is Chain of Custody complete? Yes V No Not Present I 3. How was the sample delivered? Counter Log In 4. Was an attempt made to cool the samples? Yes V No No NA I 5. Were all samples received at a temperature of >0° C to 5.0°C 9. Sample(s) in proper container(s)? Yes V No No I 7. Sufficient sample volume for indicated test(s)? Yes V No I 8. Are samples (except VOA and ONG) properly preserved? Yes No V No VA Vials V 10. VOA Vials reveared bottles? Yes V No V No VA Vials V 11. Were any sample containers received broken? Yes V No V No VAA Vials V 12. Dees paperwork match bottle labels? Yes V No V AN I 13. Are mattrees correctly identified on Chain of Custody? Yes V No V AN I 14. Is Clear what analyses were requested? Yes V No V AN I 15. Were all holding times able to bo met? Yes V No V AN I 16. Checked by Checked by No V A Adjusted? 17. Additional remarks: 18. Coclar Information Client Instructions: I 17. Additional remarks: 18. Coclar Information Coelect No I See Information Coelect No Visit See Information Coelect No I See Information	Received by/date 02/21	14		<u></u>	· · · · · · · · · · · · · · · · · · ·
Reviewed by:	Logged By: Ashley Gallegos 2/26/2014 10:15:00 A	* M	AZ		:
Chain of Custody Weight of Custody Not Present 1. Custody seals intact on sample botiles? Yes No Not Present 2. Is Chain of Custody complete? Yes No Not Present 3. How was the sample delivered? Courier Log In Courier 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 NA 7. Sufficient sample volume for indicated test(s)? Yes No Na 8. Are samples (except VOA and ONG) properly preserved? Yes No Na 9. Was preservative added to bottles? Yes No Na Interest (or pht. 10. VOA vials have zero headspace? Yes No Ma Interest (or pht. (vice discrepancies on chain of custody? Yes No Adjusted? 12. Does paperwork match bottle labels? Yes No Adjusted? Yes No Adjusted? 13. Are matrices correctly identified on Chain of Custody? Yes No In Preson Kes Ma	Completed By: Ashley Gallegos 1 2/26/2014 10:24:15	M	AZ		
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 NA 7. Sufficient sample volume for indicated test(s)? Yes No NA 8. Are samples (except VOA and ONG) properly preserved? Yes No No NA 9. Was preservative added to bottles? Yes No No No VOA Vials ✓ 10. VOA vials have zero headspace? Yes No for preserved bottle scheeded For preserved bottle scheeded Yes No ✓ # of preserved bottle scheeded Yes No ✓ Adjuster? Yes No ✓ Adjuster? <td>Reviewed By: 02.211</td> <td>14</td> <td>V</td> <td></td> <td></td>	Reviewed By: 02.211	14	V		
1. Oustody 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 NA 7. Sufficient sample volume for indicated test(s)? Yes No Na 8. Are samples (except VOA and ONG) properly preserved? Yes No No Na 9. Was preservative added to bottles? Yes No No No VOA Vials ✓ 10. VOA vials have zero headspace? Yes No for preserved bottles elsected broken? Yes No ✓ # of preserved bottle scheded for pt+: (<z or="">12 unless metrices correcity identified on Chain of Custody? Yes No Adjusted? 13. Are matrices correcity identified on Chain of Custody? Yes No Adjusted? Yes No Adjusted? 14. Is it clear what analyses were requested? Yes No In Person<</z>	Chain of Custody				
2. Is Chain of Custody complete? Yes I No Not Present 3. How was the sample delivered? Courier Log In 4. Was an attempt made to cool the samples? Yes I No NA 5. Were all samples received at a temperature of >0° C to 6.0°C Yes I No NA 6. Sample(s) in proper container(s)? Yes I No NA 7. Sufficient sample volume for indicated test(s)? Yes I No NA 8. Are samples (except VOA and ONG) properly preserved? Yes I No NA 9. Was preservative added to bottles? Yes I No No VOA Vials I 10. VOA vials have zero headspace? Yes I No If of preserved bottles checked 11. Were any sample containers received broken? Yes I No If of preserved bottle schecked 12. Does paperwork match bottle labels? Yes I No If of preserved bottles checked 13. Are matrices correcity identified on Chain of Custody? Yes I No Adjusted? 14. Is it clear what analyses were requested? Yes I No Adjusted? 14. Is it clear what analyses were requested? Yes I No Checked by:		Yes	No	Not Present 🗸	
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 NA 7. Sufficient sample volume for indicated test(s)? Yes No NA 8. Are samples (except VOA and ONG) properly preserved? Yes No NA 9. Was preservative added to bottles? Yes No NA 10. VOA vials have zero headspace? Yes No Mo # of preserved 11. Were any sample containers received broken? Yes No Mo # of preserved 12. Does paperwork match bottle labels? Yes No Adjusted? Yes No Adjusted? 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? Adjusted? Yes No Adjusted? 14. Is it clear what analyses were requested? Yes No Adjusted? No Checked by: Check		Yes 🖌	No	Not Present	
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 NA 7. Sufficient sample volume for indicated test(s)? Yes No Na 8. Are samples (except VOA and ONG) properly preserved? Yes No Na 9. Was preservative added to bottles? Yes No NA 10. VOA vials have zero headspace? Yes No No NA 11. Were any sample containers received broken? Yes No No Was preserved 12. Does paperwork match bottle labels? Yes No Ma developmentation 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? Adjusted? 14. Is to dear what analyses were requested? Yes No Checked by: Checked by: Checked by: 15. Wore all holding times able to be met? Yes No No Checked by: Checked by: <td>3. How was the sample delivered?</td> <td><u>Courier</u></td> <td></td> <td></td> <td>·</td>	3. How was the sample delivered?	<u>Courier</u>			·
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Client: Animas Environmentel	□ Standard Rush Some Dacy	HALL ENVIRONMEN AL
Mailing Address: 624 E Comarche	□ Standard Rush <u>Same Daey</u> Project Name: Luthral IDIA-5	www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109
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email or Fax#:	Project Manager:	21) anly) SO4) 3's
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If necessary, samples, submitted to Hall Environmental may be subc	ontracted to other accredited laboratories. This serves as notice of th	is possibility. Any sub-contracted data will be clearly notated on the analytical report.

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

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Resources

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

		R	elease	Notification	on and Corre	ctive Actio	on				
				C	PERATOR		Initial Report	🛛 Final Report			
	~~~	Enterprise F			Contact: Thomas						
		Ave, Farmin	gton, NM	87401	Telephone No. 505-599-2286						
Facility Na	me: Latera	al 5D-2			Facility Type: Nat	ural Gas Gathe	ering Line				
Surface Ov	vner: Priv	vate		Mineral Owne	er: <b>BLM</b>	····	API No.				
				LOCATIO	ON OF RELEAS	E		·			
Unit Letter B	Section 15	Township <b>29N</b>	Range 12W	Feet from the 753	North South Line	Feet from the 1962	East/West Line	County San Juan			
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E-mail Addr	ess: jefield:	s@eprod.com	Ì		Conditions of Appro	oval:	Attache	ed 🔲			
	- 13-20	· · · · · · · · · · · · · · · · · · ·		e: (713)381-6684							
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www.animasenvironmental.com

April 28, 2014

Thomas Long Enterprise Field Services, LLC 614 Reilly Avenue Farmington, New Mexico 87401

Via electronic mail with delivery confirmation receipt to: tjlong@eprod.com

RE: Release Assessment Report Lateral 5D-2 Pipeline Release NW¼ NE¼, Section 15, T29N, R12W San Juan County, New Mexico OIL CONS. DIV DIST. 3 MAY 1 9 2014

Dear Mr. Long:

On September 26 and 27, 2013, Animas Environmental Services, LLC (AES) completed an assessment associated with a suspected release from the Enterprise Field Services, LLC (Enterprise) Lateral 5D-2 pipeline. On October 8, 2013, AES also advanced two soil borings in the wash along the pipeline to aid in locating the suspected release. No release location was confirmed during the assessment activities, and a portion of the pipeline has been filled with inert gas and capped for abandonment.

## 1.0 Site Information

## 1.1 Location

Location – NW¼ NE¼, Section 15, T29N, R12W, San Juan County, New Mexico Latitude/Longitude – N36.73179 and W108.08428, respectively Surface Owner – Private Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map

## 1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to the assessment. The suspected release was given a ranking score of 30 based on the following factors:

624 E. Comanche Farmington, NM 87401 505-564-2281

> Durango, Colorado 970-403-3084

Thomas Long Lateral 5D-2 Pipeline Release Assessment Report April 28, 2014 Page 2 of 6

- Depth to Groundwater: Depth to groundwater is between 50 to 100 feet below ground surface (bgs) based on a depth to groundwater reported in nearby wells registered with the New Mexico Office of the State Engineer. (10 points)
- Wellhead Protection Area: The suspected release location is not within a wellhead protection area. (0 points)
- Distance to Surface Water Body: The suspected release area is located within 200 feet of an unnamed ephemeral wash draining to the San Juan River. (30 points)

The ranking score of 30 dictates that concentrations for impacted soils left in place must be below the NMOCD action levels of 10 mg/kg benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and xylenes (BTEX), and 100 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) and diesel range organics (DRO). An action level of 100 parts per million (ppm) volatile organic compound (VOCs) concentrations via organic vapor meter (OVM) may be substituted for laboratory analysis of benzene and total BTEX.

## 1.3 Assessment and Mitigation

A suspected release was discovered by a third-party line locator on September 20, 2013, and an Enterprise technician was dispatched to the location to remove the line from service. On September 26 and 27, 2013, Enterprise contractors completed an excavation along the pipeline in the suspected release area. AES provided field screening for excavation guidance and prior to backfilling the excavation, collected five confirmation soil samples for field screening and laboratory analysis from the walls and base of the final excavation, as well as two confirmation soil samples from the stockpiled soils. No release location was confirmed within the final excavation area. The final excavation measured approximately 47 feet by 15 feet by 9 feet deep and was backfilled with the stockpiled soil. Soil sample locations and final excavation extents are included on Figure 3.

On October 8, 2013, AES returned to the location and advanced two soil borings in the wash to the east of the release location, each boring to a total depth of 20 feet and 24 feet bgs. Soil borings were completed with a GeoProbe DT 6620 track-mounted direct push rig operated by Earth Worx, Los Lunas, New Mexico. Soil samples were collected from continuously driven core-barrel samplers with a diameter of 3.25 inches during advancement of the borings. At 4-foot intervals, a soil sample was collected from the core barrel sampler and transferred to appropriately labeled sample containers. For each soil boring, a Soil Boring Log was completed. These logs recorded sample identification, depth collected, and method of collection, as well as observations of soil moisture, color, grain size, contaminant presence, and overall stratigraphy. The local site lithology consisted of poorly graded sand underlain by clayey sand to sandy clay. No groundwater was observed in the borings at the time of drilling. Following field

Thomas Long Lateral 5D-2 Pipeline Release Assessment Report April 28, 2014 Page 3 of 6

activities, the pipeline was blown down with inert nitrogen gas and capped from approximately N36.73162, W108.08703 to N36.73197, W108.08178. Soil boring locations are included on Figure 4. A photograph log and soil boring logs are included in the Appendix.

## 2.0 Soil Sampling

Five soil samples (SC-1 through SC-5) were collected from the walls and the base of the final excavation during the assessment in September 2013. Two composite samples (SC-6 and SC-7) were also collected from the stockpiled soil. Fourteen samples were also collected from two soil borings (SB-1 and SB-2) advanced in the wash in October 2013. Each sample was field screened for VOCs, and selected samples were also field analyzed for TPH. Samples SC-2 and SC-5 were submitted for laboratory analysis.

## 2.1 Field Sampling

## 2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) OVM. Before beginning field screening, the PID-OVM was first calibrated with 100 ppm isobutylene gas.

## 2.1.2 Total Petroleum Hydrocarbons

Selected soil samples were also analyzed in the field for TPH per U.S. Environmental Protection Agency (USEPA) Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

## 2.2 Laboratory Analyses

Samples collected for laboratory analysis were placed into new, clean, laboratorysupplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Both soil samples were laboratory analyzed for:

• TPH (GRO/DRO) per USEPA Method 8015D.

Additionally, soil sample SC-2 was laboratory analyzed for:

• BTEX per USEPA Method 8021B.

## 2.3 Field Sampling and Laboratory Analytical Results

On September 26 and 27, 2013, soil field screening results for the excavation showed that VOC concentrations via OVM ranged from 0.0 ppm in SC-4 through SC-7 up to 3.3 ppm in SC-2. Field TPH concentrations ranged from 64.8 mg/kg in SC-3 and SC-4 up to 155 mg/kg in SC-5. On October 8, 2013, soil field screening results for the soil borings showed that VOC concentrations via OVM were 0.0 ppm for all the samples collected, except for SB-2 at 0 to 4 feet with 7.8 ppm. Field TPH concentration for SB-2 at 12 to 16 feet was 87.3 mg/kg. The AES Field Sampling Report is attached.

Table : Lateral 5D-2 Pipeline	1. Field Sampline Release Asses	•		tober 2013
Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
	Action Level*	()( 093)	<u>(ppin)</u> 100	( <i>mg</i> / kg) 100
SC-1	9/26/13	1 to 9	1.8	80.9
SC-2	9/26/13	9	3.3	94.4
SC-3	9/26/13	1 to 9	1.5	64.8
SC-4	9/27/13	1 to 9	0.0	64.8
SC-5	9/27/13	1 to 9	0.0	155
SC-6	9/27/13	Stockpile	0.0	75.5
SC-7	9/27/13	Stockpile	0.0	83.6
		0 to 4	0.0	NA
	-	4 to 6.5	0.0	NA
CD 1	-	6.5 to 8	0.0	NA
SB-1	10/8/13 -	8 to 12	0.0	NA
	-	12 to 16	0.0	NA
	-	16 to 20	0.0	NA
		0 to 4	7.8	NA
	-	4 to 8	0.0	NA
	-	8 to 12	0.0	NA
SB-2	10/8/13	12 to 16	0.0	87.3
	-	16 to 19.5	0.0	NA
	-	19.5 to 20	0.0	NA
		20 to 21	0.0	NA

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
NMOC	D Action Level*		100	100
SB-2	10/8/13	21 to 24	0.0	NA

NA – not analyzed

*Action level determined by the NMOCD ranking score per NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 1993)

Laboratory analytical results showed that benzene and total BTEX concentrations were below laboratory detection limits for SC-2. TPH (GRO/DRO) concentrations were also below the laboratory detection limits in SC-2 and SC-5. Laboratory analytical results are included in Table 2 and on Figure 3. The laboratory analytical report is attached.

		Sample	nent, Septe	Total	TPH –	TPH –
Sample ID	Date Sampled	Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg
NMOCD	Action Level*		10	50	10	00
SC-2	9/26/13	9	<0.047	<0.234	<4.7	<10
SC-5	9/27/13	1 to 9	NA	NA	<4.7	<10

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPH Lateral 5D-2 Pipeline Release Assessment, September and October 2013

NA – not analyzed

*Action level determined by the NMOCD ranking score per NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 1993)

## 3.0 Conclusions and Recommendations

Action levels for releases determined by NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the release was assigned a ranking score of 30. Field screening of SC-1 through SC-7 and samples from SB-1 and SB-2 showed VOC concentrations below the NMOCD action level of 100 ppm. Field TPH concentrations were also below the NMOCD action level of 100 mg/kg in all the samples collected, except for SC-5 with 155 mg/kg. However, laboratory analytical results reported benzene, total BTEX, and TPH below the applicable NMOCD action levels in SC-2 and SC-5.

Based on field sampling and laboratory results of the final excavation extents and adjacent wash area for petroleum contaminated soils, benzene, total BTEX, and TPH concentrations are below the applicable NMOCD action levels. No further work is recommended for the assessed portions of the Lateral 5D-2 pipeline. Should the

suspected pipeline release be located in the future, additional assessment may be required at that time.

If you have any questions about this report or site conditions, please do not hesitate to contact me at (505) 564-2281.

Sincerely,

Aleather M. Woods

Heather Woods, P.G. Project Manager

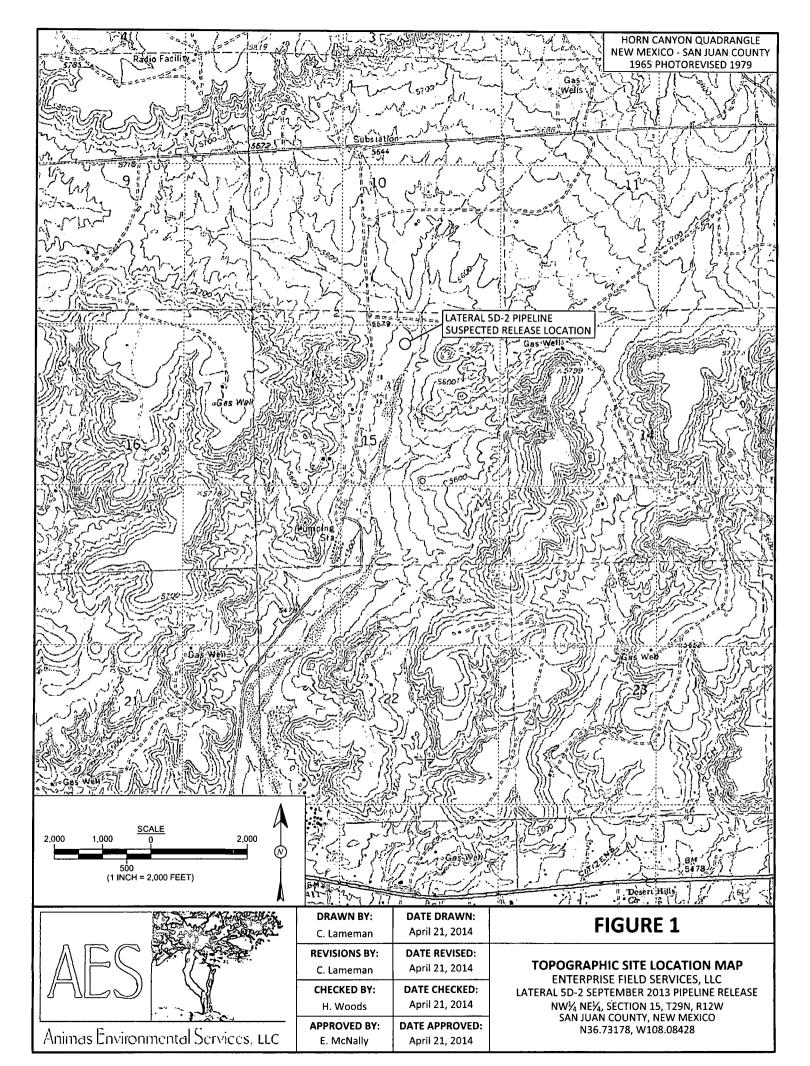
Elizabeth V Mendly

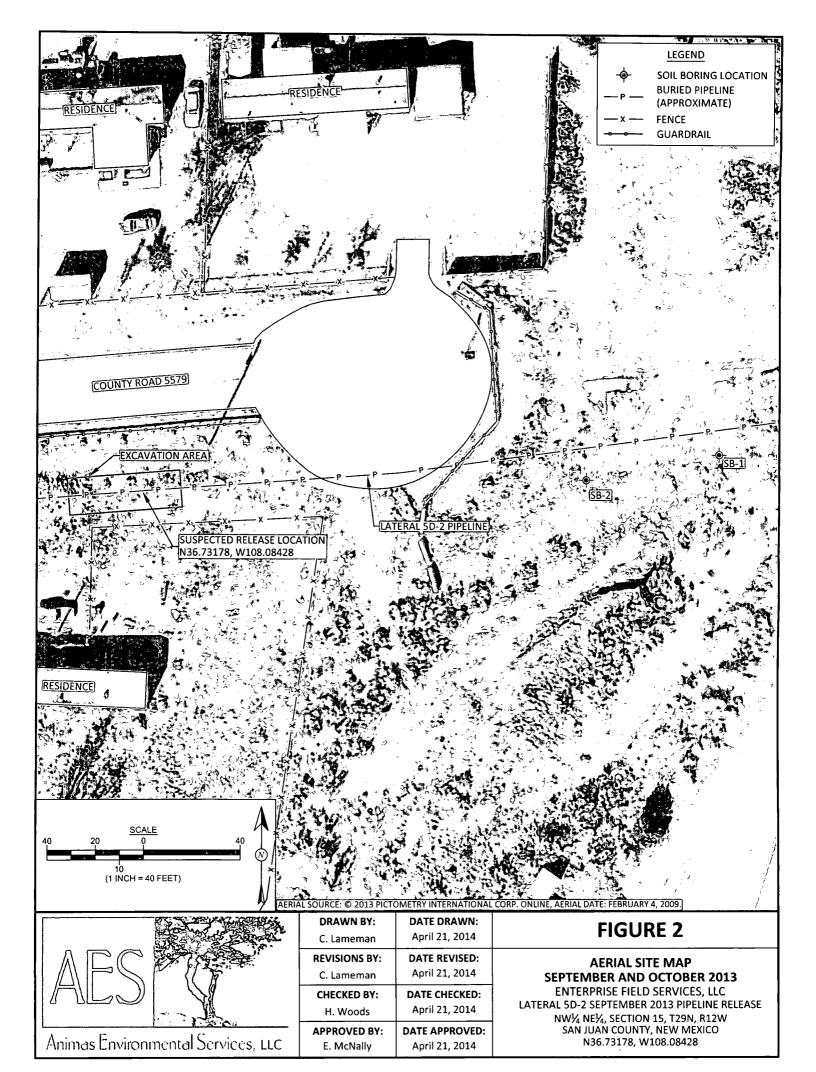
Elizabeth McNally, P.E.

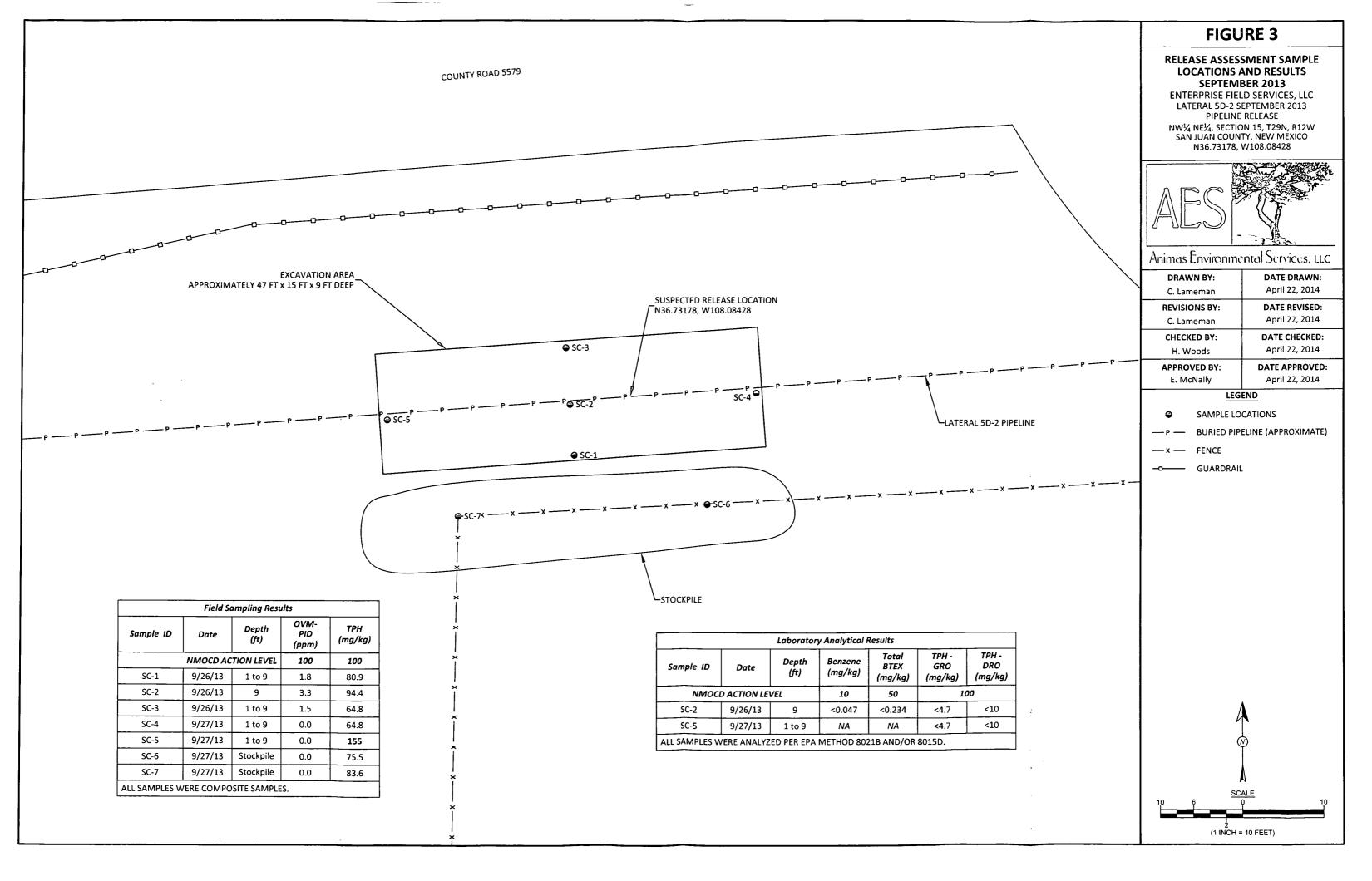
Attachments:

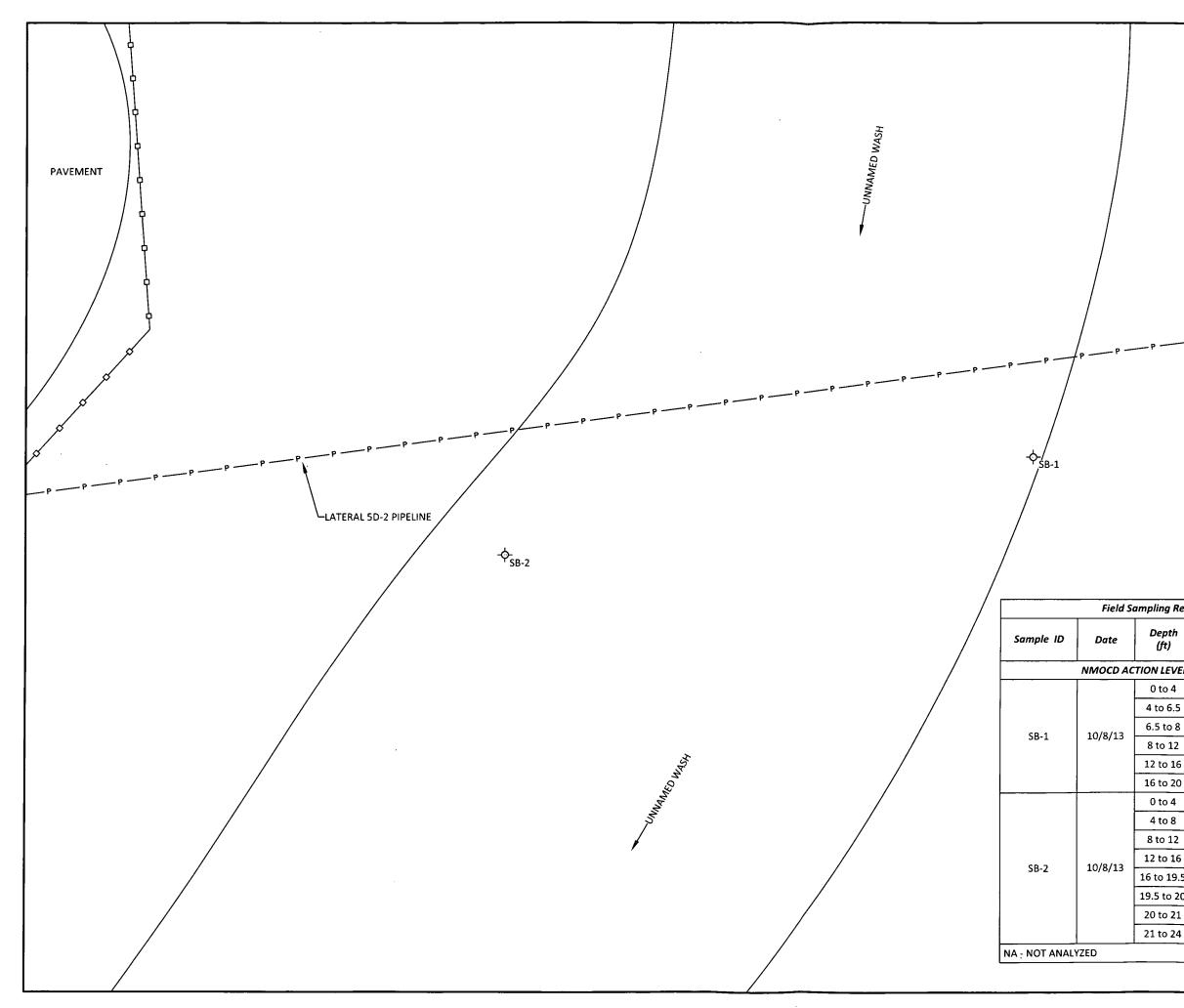
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, September and October 2013
Figure 3. Release Assessment Sample Locations and Results, September 2013
Figure 4. Soil Boring Locations and Results, October 2013
AES Field Sampling Report
Photograph Log
Soil Boring Logs
Laboratory Analytical Report (Hall 1309E35)

R:\Animas 2000\Dropbox\0000 Animas Server Dropbox EM\2014 Projects\Enterprise\Lateral 5D-2\Enterprise Lateral 5D-2 Release Report 042814.docx









				FIGU	JRE 4		
				SOIL BORING LOCATIONS AND RESULTS OCTOBER 2013 ENTERPRISE FIELD SERVICES, LLC LATERAL 5D-2 SEPTEMBER 2013 PIPELINE RELEASE NW¼ NE¼, SECTION 15, T29N, R12W SAN JUAN COUNTY, NEW MEXICO N36.73178, W108.08428			
				AES			
				Animas Environme	ental Services HC		
		— P —— P -	P =	DRAWN BY:	DATE DRAWN:		
P	Р		ļ	C. Lameman	April 22, 2014		
				REVISIONS BY: C. Lameman	DATE REVISED: April 22, 2014		
			ŀ	CHECKED BY: H. Woods	DATE CHECKED: April 22, 2014		
			ŀ	APPROVED BY: E. McNally	DATE APPROVED: April 22, 2014		
			F	LEG	END		
				SOIL BORIN	IG LOCATION		
				- P - BURIED PIP	ELINE (APPROXIMATE)		
Resu	Its				ELINE (APPROXIMATE)		
		 			ELINE (APPROXIMATE)		
	lts OVM- PID (ppm)	TPH (mg/kg)			ELINE (APPROXIMATE)		
Resu h	OVM- PID				ELINE (APPROXIMATE)		
h	OVM- PID (ppm)	(mg/kg)			ELINE (APPROXIMATE)		
n /EL	OVM- PID (ppm) 100	(mg/kg) 100			ELINE (APPROXIMATE)		
7 /EL 5	OVM- PID (ppm) 100 0.0	(mg/kg) 100 NA			ELINE (APPROXIMATE)		
h	OVM- PID (ppm) 100 0.0 0.0	(mg/kg) 100 NA NA			ELINE (APPROXIMATE)		
7 /EL 5 8 2	OVM- PID (ppm) 100 0.0 0.0 0.0	(mg/kg) 100 NA NA NA			ELINE (APPROXIMATE)		
7 7 7 7 7 7 7 8 8 2 .6	OVM- PID (ppm) 100 0.0 0.0 0.0 0.0	(mg/kg) 100 NA NA NA NA			ELINE (APPROXIMATE)		
7 7 7 7 7 7 8 8 2 .6	OVM- PID (ppm) 100 0.0 0.0 0.0 0.0 0.0	(mg/kg) 100 NA NA NA NA NA			ELINE (APPROXIMATE)		
7 7 7 7 7 7 7 8 8 2 .6	OVM- PID (ppm) 100 0.0 0.0 0.0 0.0 0.0 0.0 0.0	(mg/kg) 100 NA NA NA NA NA NA			ELINE (APPROXIMATE)		
/EL 55 88 22 66 00	OVM- PID (ppm) 100 0.0 0.0 0.0 0.0 0.0 0.0 7.8	(mg/kg) 100 NA NA NA NA NA NA NA			ELINE (APPROXIMATE)		
7 7 7 7 7 7 7 7 7 7 7 7 7 7	OVM- PID (ppm) 100 0.0 0.0 0.0 0.0 0.0 0.0 7.8 0.0	(mg/kg) 100 NA NA NA NA NA NA NA NA			ELINE (APPROXIMATE)		
7 7 5 8 2 6 0 1 3 2 6 6	OVM- PID (ppm) 100 0.0 0.0 0.0 0.0 0.0 0.0 7.8 0.0 0.0	(mg/kg) 100 NA NA NA NA NA NA NA NA NA			ELINE (APPROXIMATE)		
h /EL 5 8	OVM- PID (ppm) 100 0.0 0.0 0.0 0.0 0.0 0.0 7.8 0.0 0.0 0.0 0.0 0.0	(mg/kg) 100 NA NA NA NA NA NA NA NA NA NA			ELINE (APPROXIMATE)		
h /EL 5 8 2 .6 3 2 2 .6 9.5	OVM- PID (ppm) 100 0.0 0.0 0.0 0.0 0.0 7.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0	(mg/kg) 100 NA NA NA NA NA NA NA NA 87.3 NA		GUARDRAI	ELINE (APPROXIMATE)		
h /EL 5 8 2 .6 3 2 .6 9.5 20	OVM- PID (ppm) 100 0.0 0.0 0.0 0.0 0.0 7.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	(mg/kg) 100 NA NA NA NA NA NA NA 87.3 NA NA		GUARDRAI	ELINE (APPROXIMATE)		

AES Field Sampling Report



Animas Environmental Services. LLC

Client: Enterprise Field Services, LLC

www.animasenvironmental.com

Project Location: Lateral 5D-2 September 2013 Pipeline Release

Dates: 9/26/14, 9/27/14 and 10/8/13

Matrix: Soil

Farmington. NM 87401 505-564-2281

> Durango, Coiorado 970-403-3084

624 E. Comanche

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials	
SC-1	9/26/2013	10:30	1.8	80.9	16:33	20.0	1	нмw	
SC-2	9/26/2013	10:32	3.3	94.4	18:43	20.0	1	нмw	
SC-3	9/26/2013	10:34	1.5	64.8	16:41	20.0	1	HMW	
SC-4	9/27/2013	10:40	0.0	64.8	16:49	20.0	_1	нмw	
SC-5	9/27/2013	10:46	0.0	155	16:55	20.0	1	HMW	
SC-6	9/27/2013	10:59	0.0	75.5	17:01	20.0	1	нмw	
SC-7	9/27/2013	11:01	0.0	83.6	17:06	20.0	1	HMW	
SB-1 @ 0-4'	9/12/2013	13:25	0.0		Not	Analyzed for T	PH		
SB-1 @ 4-6.5'	9/12/2013	13:26	0.0		Not	Analyzed for T	Ъ. РН		
SB-1 @ 6.5-8'	9/12/2013	13:26	0.0	Not Analyzed for TPH					
SB-1 @ 8-12'	9/12/2013	13:29	0.0	Not Analyzed for TPH					
SB-1 @ 12-16'	9/12/2013	13:33	0.0	Not Analyzed for TPH					
SB-1 @ 16-20'	9/12/2013	13:35	0.0		Not	Analyzed for T	РН		

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials	
SB-2 @ 0-4'	10/8/2013	13:47	0.0		Not	Analyzed for T	РН		
SB-2 @ 4-8'	10/8/2013	13:49	0.0		Not	Analyzed for T	РН		
SB-2 @ 8-12'	10/8/2013	13:52	0.0		Not	Analyzed for T	РН		
SB-2 @ 12-16'	10/8/2013	13:55	0.0	87.3	14:38	20.0	1	нмм	
SB-2 @ 16-19.5'	10/8/2013	13:58	0.0		Not Analyzed for TPH				
SB-2 @ 19.5-20'	10/8/2013	14:00	0.0	Not Analyzed for TPH					
SB-2 @ 20-21'	10/8/2013	14:03	0.0	Not Analyzed for TPH					
SB-2 @ 21-24'	10/8/2013	14:03	0.0		Not	Analyzed for T	РН		

DF Dilution Factor

NA Not Analyzed

ND Not Detected at the Reporting Limit

PQL Practical Quantitation Limit

*Field TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

Heather M Woods

Photo #1	
Client:	
Enterprise Field	
Services, LLC	
Project: Lateral 5D-2	
Taken by:	
Heather Woods	
Date: September 26, 2013	
AES Project No.	Description:
130928	View looking east during pipeline excavation.

Photo #2	
Client:	
Enterprise Field	
Services, LLC	
Project: Lateral 5D-2	
Taken by:	
Heather Woods	
Date: September 27, 2013	
AES Project No.	Description:
130928	View looking east of final excavation.

Photo #3	
Client:	
Enterprise Field	
Services, LLC	
Project: Lateral 5D-2	
Taken by:	
Heather Woods	
Date: September 27, 2013	
AES Project No.	Description:
130928	View looking south of final excavation.

Photo #4	
Client:	
Enterprise Field	
Services, LLC	
Project: Lateral 5D-2	
Taken by:	
Heather Woods	
Date: October 8, 2013	
AES Project No. 130928	Description: View looking east of wash where soil borings SB-1 and SB-2 were completed.

			Animas Environme Services, I 624 East Com Farmington, NM	ntal LC. anche // 87401		: 10/8/13 : 10/8/13	DG OF: SB-1 Latitude Longitude	: N36.73179 : W108.0835	
NV NV	V¼ NE¼ AN JUAI	, SECTIO N COUNI	N 15, T29N, R12 N 15, T29N, R12 TY, NEW MEXICO W108.08428	2W	Hole Diameter Drilling Method	: 3.25 in. : Geoprobe : Continuous	Survey By Logged By	: Not Survey : H. Woods/	ed
Depth in Feet	Surf. Elev.	uscs	GRAPHIC	2		DESCRIPT	ION		PID (ppm)
0		SP		Poorly	Graded Sand, Brown, Dry	y to Moist, Fine to Med	dium Grained, No Odor, and No	o Staining.	0.0
				Sandy L	ean Clay, Brown, Fine to	Medium Grained Sand	d, Moist, No Odor, and No Stair	ning.	0.0
10		CL							0.0
- - - - - - -									0.0
									0.0

	ES .	V	Animas Environmental Services, LLC. 624 East Comanche Farmington, NM 87401	LOG OF: SB-2					
L NV	ATERAL /¼ NE¼, \N JUAN	5D-2 PI SECTIO	D SERVICES LLC PELINE RELEASE N 15, T29N, R12W Y, NEW MEXICO N108.08428	Date Started: 10/8/13Latitude: N36.73177Date Completed: 10/8/13Longitude: W108.083Hole Diameter: 3.25 in.Survey By: Not SurveyDrilling Method: GeoprobeLogged By: H. Woods/Sampling Method: Continuous: Continuous	73 ved				
Depth in Feet	Surf. Elev.	uscs	GRAPHIC	DESCRIPTION	PID (ppm)				
		SP	Poorl	y Graded Sand, Brown, Dry to Moist, Fine to Medium Grained, Moderate Odor, and Slight ng.	7.8 0.0 0.0 0.0				
		SC	Claye Odor	y Sand Grading to Sandy Clay, Fine to Medium Grained Sand, Brown, Moist, Moderate , and Slight Staining.	0.0				
20		SC	Claye Stair	y Sand, Gray Brown, Moist, Fine Grained, Slight to Moderate Odor and Slight to Moderate ing.	0.0				
- 24—									



October 04, 2013

Ross Kennemer Animas Environmental Services 624 East Comanche Farmington, NM 87401 TEL: (505) 486-1776 FAX (505) 324-2022

RE: Enterprise Lateral 5D-2

OrderNo.: 1309E35

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/28/2013 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 <u>www.hallenvironmental.com</u> 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 qualifers 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1309E35 Date Reported: 10/4/2013

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## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Project: Enterprise Lateral 5D-2

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Client Sample ID: SC-2 Collection Date: 9/26/2013 5:18:00 PM Received Date: 9/28/2013 11:10:00 AM

Lab ID: 1309E35-001	Matrix:	SOIL	Received 1	Received Date: 9/28/2013 11:10:00 AM			
Analyses	Result	RL Qu	al Units	DF Date Analyzed	Batch		
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS			Analyst	: JME		
Diesel Range Organics (DRO)	ND	10	mg/Kg	1 10/2/2013 3:36:38 PM	9576		
Surr: DNOP	87.5	63-147	%REC	1 10/2/2013 3:36:38 PM	9576		
EPA METHOD 8015D: GASOLINE F	RANGE			Analyst	: NSB		
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1 10/2/2013 2:43:49 PM	9584		
Surr: BFB	102	80-120	%REC	1 10/2/2013 2:43:49 PM	9584		
EPA METHOD 8021B: VOLATILES				Analyst	: NSB		
Benzene	ND	0.047	mg/Kg	1 10/2/2013 2:43:49 PM	9584		
Toluene	ND	0.047	mg/Kg	1 10/2/2013 2:43:49 PM	9584		
Ethylbenzene	ND	0.047	mg/Kg	1 10/2/2013 2:43:49 PM	9584		
Xylenes, Total	ND	0.093	mg/Kg	1 10/2/2013 2:43:49 PM	9584		
Surr: 4-Bromofluorobenzene	113	80-120	%REC	1 10/2/2013 2:43:49 PM	9584		

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 1 of
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Analytical Report Lab Order 1309E35

# Hall Environmental Analysis Laboratory, Inc.

I.

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Date Reported: 10/4/2013

CLIENT: Project: Lab ID:	: Animas Environmental Servi Enterprise Lateral 5D-2 1309E35-002		Client Sample ID: SC-9/5           Collection Date: 9/27/2013 2:02:00 PM           Matrix: SOIL         Received Date: 9/28/2013 11:10:00 AM						
Analyses		Result	RL Qu	al Units	DF	Date Analyzed	Batch		
EPA ME	THOD 8015D: DIESEL RANGI	EORGANICS				Analys	t: JME		
Diesel R	ange Organics (DRO)	ND	10	mg/Kg	1	10/2/2013 5:11:50 PM	9576		
Motor O	il Range Organics (MRO)	ND	50	mg/Kg	1	10/2/2013 5:11:50 PM	9576		
Surr:	DNOP	89.7	63-147	%REC	1	10/2/2013 5:11:50 PM	9576		
EPA MET	THOD 8015D: GASOLINE RAI	NGE				Analysi	I: NSB		
Gasoline	e Range Organics (GRO)	ND	4.7	mg/Kg	1	10/2/2013 4:14:22 PM	9584		
Surr: I	BFB	101	80-120	%REC	1	10/2/2013 4:14:22 PM	9584		

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank					
	Е	Value above quantitation range	н	Holding times for preparation or analysis exceeded					
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 2 of 5					
	0	RSD is greater than RSDlimit	Р	Not Detected at the Reporting Limit Page 2 of 5 Sample pH greater than 2 for VOA and TOC only.					
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit					
	S	Spike Recovery outside accepted recovery limits							

	Environme ise Lateral 5		vices							
Sample ID MB-9576 SampType: MBLK				Tes	tCode: El	PA Method	8015D: Dies	el Range (	Organics	
Client ID: PBS	PBS Batch ID: 9576				RunNo: 1	3723				
Prep Date: 10/1/2013	Analysis E	Date: 1	0/1/2013	S	SeqNo: 3	91935	Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		96.8	63	147			
Sample ID LCS-9576	Samp1	Type: LC	:s	TestCode: EPA Method 8015D: Diesel Range Organics						
Client ID: LCSS	Batcl	h ID: 95	76	RunNo: 13723						
Prep Date: 10/1/2013	Analysis [	Date: 10	0/1/2013	S	SeqNo: 3	91959	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.0	77.1	128			
Surr: DNOP	5.1		5.000		102	63	147			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 3 of 5

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# **QC SUMMARY REPORT**

Client: 'roject:		Environme e Lateral 5		vices							
Sample ID Lient ID:	MB-9584 PBS	-	ype: Mi		TestCode: EPA Method 8015D: Gasoline Range						
rep Date:	10/1/2013	Batch ID:         9584         RunNo:         13779           Analysis Date:         10/2/2013         SeqNo:         393846         Units:         mg/Kg									
	10/1/2013	-				•		Units: mg/l	•		
Analyte	e Organics (GRO)	Result ND		SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		1000	5.0	1000		100	80	120			
Sample ID	LCS-9584	SampT	ype: LC	:S	Tes	tCode: El	PA Method	8015D: Gase	oline Rang	e	
lient ID:	LCSS	Batch	1D: 95	84	F	RunNo: 1:	3779				
Prep Date:	10/1/2013	Analysis D	ate: 10	0/2/2013	S	SeqNo: 3	93847	Units: mg/ł	۲g		
nalyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
soline Rang	e Organics (GRO)	23	5.0	25.00	0	90.1	74.5	126			
Surr: BFB	· · · · · · · · · · · · · · · · · · ·	1100		1000		108	80	120			
ample ID	1309E35-002AMS	SampT	ype: MS		Tes	tCode: El	PA Method	8015D: Gase	oline Rang	e	
lient ID: ا	SC-9	Batch	ID: 95	84	ਸ	RunNo: 1	3779				
l ⊃rep Date:	10/1/2013	Analysis D	ate: 10	)/2/2013	S	eqNo: 3	93853	Units: mg/ł	٢g		
nalyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	23	4.7	23.32	0	97.6	76	156			
Surr: BFB		1000		932.8		110	80	120			
ampte ID	1309E35-002AMSI	D SampT	ype: MS	5D	Tes	tCode: EF	PA Method	8015D: Gaso	oline Rang	e	
Client ID:	SC-9	Batch	ID: 95	B4	R	unNo: 1	3779				
rep Date:	10/1/2013	Analysis D	ate: 10	)/2/2013	S	eqNo: 39	93854	Units: mg/h	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
asoline Rang	e Organics (GRO)	23	4.7	23.32	0	97.4	76	156	0.164	17.7	
Surr: BFB		1000		932.8		110	80	120	0	0	

ualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

- 1 Analyte detected below quantitation limits
- ) RSD is greater than RSDlimit
- t RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 4 of 5

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WO#:	1309E35
	04-Oct-13

Client: Project:		nvironmer e Lateral 5		vices							
Sample ID	лВ-9584	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: F	PBS	Batch	n ID: 95	B4	F	RunNo: 1	3779				
Prep Date:	10/1/2013	Analysis D	ate: 10	)/2/2013	ę	SeqNo: 3	93969	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.050								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Bromot	fluorobenzene	1.1		1.000		114	80	120			
Sample ID L	.CS-9584	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: L	.CSS	Batch	n ID: 95	84	F	RunNo: 1	3779				
Prep Date:	10/1/2013	Analysis D	ate: 10	)/2/2013	5	SeqNo: 3	93970	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.94	0.050	1.000	0	94.4	80	120			
Toluene		0.95	0.050	1.000	0	94.9	80	120			
Ethylbenzene		0.98	0.050	1.000	0	97.9	80	120			
Xylenes, Total		3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromo	fluorobenzene	1.2		1.000		116	80	120			
Sample ID 1	309E35-001AMS	SampT	ype: MS	3	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: S	SC-2	Batch	n ID: 95	84	F	RunNo: 1	3779				
Prep Date:	10/1/2013	Analysis D	ate: 10	)/2/2013	S	SeqNo: 3	93973	Units: mg/h	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.90	0.047	0.9381	0	96.2	67.3	145			
Toluene		0.93	0.047	0.9381	0.01819	97.3	66.8	144			
Ethylbenzene		0.97	0.047	0.9381	0.01791	102	61.9	153			
Xylenes, Total		3.1	0.094	2.814	0.05373	107	65.8	149			
Surr: 4-Bromo	fluorobenzene	1.1		0.9381		116	80	120			
Sample ID 1	1309E35-001AMS	D SampT	ype: MS	SD	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: S	SC-2	Batch	1D: 95	84	F	RunNo: 1	3779				
Prep Date:	10/1/2013	Analysis D	ate: 10	)/2/2013	\$	SeqNo: 3	93974	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.92	0.047	0.9372	0	97.8	67.3	145	1.50	20	
Toluene		0.94	0.047	0.9372	0.01819	97.9	66.8	144	0.479	20	
Ethylbenzene		0.98	0.047	0.9372	0.01791	102	61.9	153	0.474	20	
Xylenes, Total		3.1	0.094	2.812	0.05373	107	65.8	149	0.210	20	
Surr: 4-Bromo	fluorobenzene	1.1		0.9372		113	80	120	0	0	

Qualifiers:

Value exceeds Maximum Contaminant Level. *

E Value above quantitation range

- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Sample pH greater than 2 for VOA and TOC only. Р
- RL **Reporting Detection Limit**

Page 5 of 5

HALL	
ENVIRONMEN	TAL
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: Animas Environmental	Work Order Numi	per: 1309E35		RcptNo:	1
Received by/date: AF-09/28//	3	. <u>.</u>	<u></u>	10 TANK	
Logged By: Anne Thorne	9/28/2013 11:10:00	AM	anne Ann		
Completed By: Anne Thorne	10/1/2013		Anne Arm Anne Arm		
Reviewed By:	Norlis		Unite Ster		
Chain of Custody	10.100				
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	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 🗆		
9. Was preservative added to bottles?		Yes 🗌	No 🗹	NA 🗌	
10.VOA vials have zero headspace?		Yes 🗆	No 🗌	No VOA Vials 🗹	
11. Were any sample containers received broker	1?	Yes 🗆	No 🗹		
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗆	# of preserved bottles checked for pH:	>12 unless noted)
13. Are matrices correctly identified on Chain of C	Custodv?	Yes 🔽	No 🗆	Adjusted?	
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:	
Special Handling <u>(if applicable)</u>					
16. Was client notified of all discrepancies with th	is order?	Yes 🗌	No 🗆	NA 🗹	
Person Notified:	Date	[			
By Whom:	Via:	🗌 eMail 🔲 P	hone 🗌 Fax	In Person	
Regarding:					
Client Instructions:	· · ·	· · ·		·	
17. Additional remarks:					
18. <u>Cooler Information</u> Cooler No. Temp °C   Condition   Sea	I Intact   Seal No	Seal Date	Signed By		

4.1 Good Yes

Chain-of-Custody Record			Turn-Around Time:							-									<b></b> .			
Client:	Inimas	Enor	onmental Services	⊈ Standard	🗆 Rush																	
				Project Name:										•								
Mailing	Address	: 107.1		Enterprise Lateral 5D-2 Project #:				www.hallenvironmental.com														
	Mailing Address: 624 E. Comanche Farmington, NM 87401 Phone #: 505 - 564 - 2281 email or Fax#:		Project #:	Lateral	<u> </u>	<u> </u>		4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Analysis Request														
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			Project Mana					5	ଜି				incery.							1		
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⊠ Stan			Level 4 (Full Validation)	R. Kenne	Y DOC			TANESS (8021)	Gas	10			SIMS)		04	PCB's						
Accredi				Sampler: H		······································			+ TPH (	DR			0.0		lO ₂ ,I	082						
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	(Type)	····		Samplederh	perature: 17			WEBE	ШЩ	Ū.	d 4	2d 5	0 or	stals	N,N	sides	A)	2				Σ
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type			BTEX + M3	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ME20)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄ )	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
9 <u>126/13</u>	1718	5011	50-2	1-402	Non 1	7		X	<u> </u>	×	-						~	~				
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9/ 127/13 Date:	1710 Time:	Relinquish	ath M. Woods	Received by:	<u>u Wale</u>		710															
1/22/13	1724	Miz	thebach	Una	<u>h</u>	9/28/13 1	11:10				····											

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.

.

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

1220 S. St. Francis Dr., Santa Fe, NM 87505 Santa 1	Fe, NM 87505						
	on and Corrective Action	o <b>n</b>					
OPERATOR Initial Report Sinal Report							
Name of Company: Enterprise Field Services LLC	Contact: Thomas Long						
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286						
Facility Name: Lateral H-46/Bruington 15G Well Tie	Facility Type: Well Tie/Gatheri	ng Line					
Surface Owner: Private Mineral Owner	BLM	API No.					
	N OF RELEASE	st/West Dine County					
F 15 30N 11W 1801	2071	San Juan					
Latitude <u>36.8143</u>	Longitude <u>-107.9806</u>						
NATURI	E OF RELEASE						
Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: Unknown	Volume Recovered: Unknown					
Source of Release: Internal Corrosion	Date and Hour of Occurrence:	Date and Hour of Discovery: 1/23/2014					
Was Immediate Notice Given?	1/23/2014 @ 10:30 a.m. If YES, To Whom?	@ 10:30 a.m.					
Yes No X Not Require							
By Whom?	Date and Hour.						
Was a Watercourse Reached?	If YES, Volume Impacting the W	atercourse.					
🗌 Yes 🖾 No							
If a Watercourse was Impacted, Describe Fully.*							
Describe Cause of Problem and Remedial Action Taken.* A release was discovered on the Lateral H-46/Bruington 15G well tie on 1-23-14. The release caused by internal corrosion of the pipeline. The well was isolated and LOTO (lock out tag out) was applied Graphing were completed during the week of January 27, 2014.							
Describe Area Affected and Cleanup Action Taken.* Remediation activ was approximately 45 feet long by 17 feet wide by ranging from three ( cubic yards of impacted soils were excavated and transported to a NMO sprayed with a solution of potassium permanganate to treat subsurface c contactor corrective action report is included with this "final" c-141. I hereby certify that the information given above is true and complete to	3) to five (5) feet deep where sandstor CD approved landfarm. After approvention ontaminants within the sandstone and the best of my knowledge and under	ne was encountered. Approximately 100 val from NMOCD, the excavation was then backfilled. A third party environmental stand that pursuant to NMOCD rules and					
regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-141 report by should their operations have failed to adequately investigate and remedi or the environment. In addition, NMOCD acceptance of a C-141 report federal, state, or local laws and/or regulations.	the NMOCD marked as "Final Report ate contamination that pose a threat to does not relieve the operator of response	" does not relieve the operator of liability o ground water, surface water, human health onsibility for compliance with any other					
	OIL CONSER	RVATION DIVISION //					
Signature: In Turk							
Printed Name: Jon Fields	Approved by Environmental Specia	list: Lang line					
Title: Director, Environmental	Approval Date: 5/89/14	Expiration Date:					
E-mail Address: jefields@eprod.com	Conditions of Approval: Attached						
Date: 5-18-2014 Phone: (713)381-6684							
Attach Additional Sheets If Necessary	#NCS14114933	231					



OIL CONS. DIV DIST. 3 MAY 19 2014

### **CORRECTIVE ACTION REPORT**

Property:

H-46/Bruington # 15G Well Tie Release NW 1/4, S15 T30N R11W San Juan County, New Mexico

> April 8, 2014 Apex Project No. 7030414G004

> > Prepared for:

Enterprise Products Operating LLC 614 Reilly Avenue Farmington, NM 87401 Attn: Mr. Tom Long

Prepared by:

lian Kyle Summers, C.P.G.

Branch Manager  $\overrightarrow{\phantom{a}}$ 

B. Chris Mitchell, P.G. Principal Geoscientist

Apex TITAN, Inc., a subsidiary of Apex Companies, LLC 606 S Rio Grande, Unit A, Aztec, NM 87410 T 505.334.5200 F 505.334.5204 www.apexcos.com



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Appendix B:	Executed C-138 Solid Waste Acceptance Forms
Appendix C:	Photographic Documentation
Appendix D:	Tables
Appendix E:	Laboratory Analytical Reports & Chain of Custody Documentation



### **CORRECTIVE ACTION REPORT**

H-46/Bruington #15G Well Tie Release NW 1/4, S15 T30N R11W San Juan County, New Mexico

### Apex Project No. 7030414G004

### 1.0 INTRODUCTION

#### 1.1 Site Description & Background

The H-46/Bruington #15G Well Tie Release Site is located within the Enterprise Products Operating LLC (Enterprise) pipeline right-of-way (ROW) in the northwest (NW) ¼ of Section 15 in Township 30 North and Range 11 West in rural San Juan County; New Mexico, referred to hereinafter as the "Site" or "subject Site". The Site is located on private property owned by Aztec Orchards Inv Co Trust c/o R. Chaffee, and consists of native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including one (1) Enterprise natural gas gathering pipeline which traverses the area from east to west.

On January 28th, 2014, Enterprise shut in the H-46/Bruington #15G Well Tie pipeline and initiated excavation activities at the Site to allow the identification and repair of a subsurface leak. The pipeline leak was subsequently repaired. An unknown quantity of condensate/water mixture was potentially released from the pipeline as a result of internal corrosion. The leak was identified by a release of natural gas at the ground surface. Soil discoloration and minimal liquid evidence was visible at the surface.

A topographic map depicting the location of the Site is included as Figure 1, and a Site Vicinity Map is included as Figure 2 in Appendix A.

#### 1.2 **Project Objective**

The primary objective of the corrective actions was to reduce the concentration of chemicals of concern (COCs) in the on-Site soils to below the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), Oil Conservation Division (OCD) *Remediation Action Levels* (*RALs*) using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

#### 1.3 Standard of Care

Apex TITAN's (Apex's) services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, Apex does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client.

#### **1.4** Additional Limitations

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of



work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Apex cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this scope of services. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Apex's findings and recommendations are based solely upon data available to Apex at the time of these services.

### 1.5 Reliance

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Enterprise and Apex. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, the report, and Apex's Agreement. The limitation of liability defined in the agreement is the aggregate limit of Apex's liability to the client.

### 2.0 SITE RANKING

In accordance with the New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, Apex utilized the general site characteristics obtained during the completion of corrective action activities to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the table below:

Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	10*
	50 to 99 feet	10	
	>100 feet	0	
Wellhead Protection Area • <1,000 feet from a water source, or; <200 feet from private domestic water source.	Yes	20	0
	No	0	
Distance to Surface Water Body	<200 feet	20	10
	200 to 1,000 feet	10	
	>1,000 feet	0	
Total Ranking Score			20

*Based on an anticipated groundwater depth of >50 feet below grade surface (bgs).

Based on Apex's evaluation of the scoring criteria, the Site would have a Total Ranking Score of 20. This ranking is based on the following:

- The nearest residence is located over 1,500 feet northwest of the site and the nearest identified water well documented by the Office of the State Engineer website database is located over 2,000 feet northwest of the Site, with a recorded depth to water of 30 feet. However, due to the difference in elevation of approximately 100 feet, the depth to groundwater at the Site is anticipated to be greater >50 feet bgs.
- An un-named ephemeral wash is located approximately 300 feet east of the site and might be considered a "surface water body", but appears to only convey water during significant rain events.



### 3.0 **RESPONSE ACTIONS**

#### 3.1 Soil Excavation Activities

On January 28th, 2014, Enterprise shut in the H-46/Bruington #15G well tie and initiated excavation activities at the Site to allow the identification and repair of a subsurface leak. During the corrective action activities, West States Energy Contractors provided heavy equipment and labor support, and Kyle Summers and Aaron Bryant, Apex environmental professionals, provided environmental support.

Subsequent to the pipeline repair activities, additional hydrocarbon affected soils were excavated at the Site. The total depth of the final excavation reached approximately 5 feet bgs near the source of the release and averaged 3 feet to 4 feet bgs in the remaining excavation footprint. The overall average surface expression of the excavation measured approximately 45 feet long by 17 feet wide.

Analytical results for soils remaining in place indicate hydrocarbon impact on the excavation floor directly below the point of release; however, competent sandstone rendered further excavation impracticable. All other areas of the final excavation exhibited COC levels below the OCD RALs.

Enterprise obtained permission from the OCD to apply potassium permanganate to the floor of the excavation prior to backfilling and closing the Site.

A total of approximately 100 cubic yards of hydrocarbon affected soils were transported to the Industrial Ecosystems, Inc. landfarm on Crouch Mesa, near Aztec, NM for disposal/remediation. The executed C-138 forms are provided in Appendix B. The excavation was backfilled with clean imported fill and contoured to surrounding grade.

During excavation activities, air in the breathing zone was monitored to ensure that the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) of 200 parts per million (ppm) Time Weighted Average (TWA) for an 8-hour work day was not exceeded. Additionally, Enterprise monitored the excavation for explosive atmosphere conditions and oxygen deficiency prior to any entries into the excavation.

The lithology encountered during the completion of corrective action activities consisted primarily of loose silty-sands and competent sandstone.

Figure 3 is a site map that indicates the approximate location of the excavated area in relation to pertinent land features (Appendix A). Photographic documentation of the field activities is included in Appendix C.

### 3.2 Soil Sampling Program

Apex screened head-space samples of the impacted soils with a photoionziation detector (PID) fitted with a 10.6 eV lamp to estimate excavation limits.

Apex's soil sampling program included the collection of eleven (11) discrete confirmation samples (S-1 through S-5, S-8 and S-9, and S-11 through S-14) from the side walls and bottom of the excavation for laboratory analysis. The soil sample locations were selected based on visual, olfactory and/or PID evidence of potential impairment and excavation dimensions.



Figure 3 depicts the approximate location of the excavated areas and shows the final confirmation sample locations in relation to the final excavation dimensions (Appendix A).

The confirmation soil samples were collected and placed in laboratory prepared glassware, labeled/sealed using the laboratory supplied label, and placed on ice in a cooler, which was secured with a custody seal. The sample cooler and completed chain-of-custody form were relinquished to Envirotech Analytical Laboratory in Farmington, New Mexico for 24-hr rush analysis.

### 4.0 LABORATORY ANALYTICAL METHODS

Confirmation soil samples were analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX) using EPA SW-846 Method #8021, and total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (GRO) using EPA SW-846 Method #8015.

Laboratory results are summarized in Table 1, included in Appendix D. The executed chain-ofcustody form and laboratory data sheets are provided in Appendix E.

### 5.0 DATA EVALUATION

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to condensate releases, the New Mexico EMNRD OCD utilizes the *Guidelines* for Remediation of Leaks, Spills and Releases as guidance, in addition to the OCD rules, specifically NMAC 19.15.30 Remediation. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

### 5.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or reporting limits (RLs) associated with the eleven (11) confirmation samples collected from the excavated area to the OCD *RALs* for sites having a total ranking score of "20".

- The laboratory analyses of the confirmation samples of soil and sandstone remaining in place did not indicate benzene concentrations above the OCD *RAL*.
- The laboratory analyses of the confirmation samples of soil and sandstone remaining in place did not indicate total BTEX concentrations above the OCD RAL.
- The laboratory analyses of confirmation samples S-1 through S-5, S-8, S-9, S-11, S-13, and S-14 did not indicate TPH GRO/DRO concentrations above the OCD *RAL* of 100 mg/Kg for a Site ranking of "20".
- The laboratory analyses of confirmation sample S-12 indicated TPH GRO/DRO concentrations above the OCD RAL of 100 mg/Kg for a site ranking of "20". The TPH GRO/DRO concentrations were 340 mg/Kg and 1,900 mg/Kg, respectively, and were collected from sandstone bedrock.

Based on analytical and screening results, confirmation sample S-12 exhibited TPH GRO/DRO concentrations above the OCD *RALs*. The other confirmation samples for soil and bedrock which remains in-place at the Site did not exhibit COC concentrations above the OCD *RALs* for a Site



ranking of "20". Confirmation sample laboratory analytical results are provided in Table 1 in Appendix D.

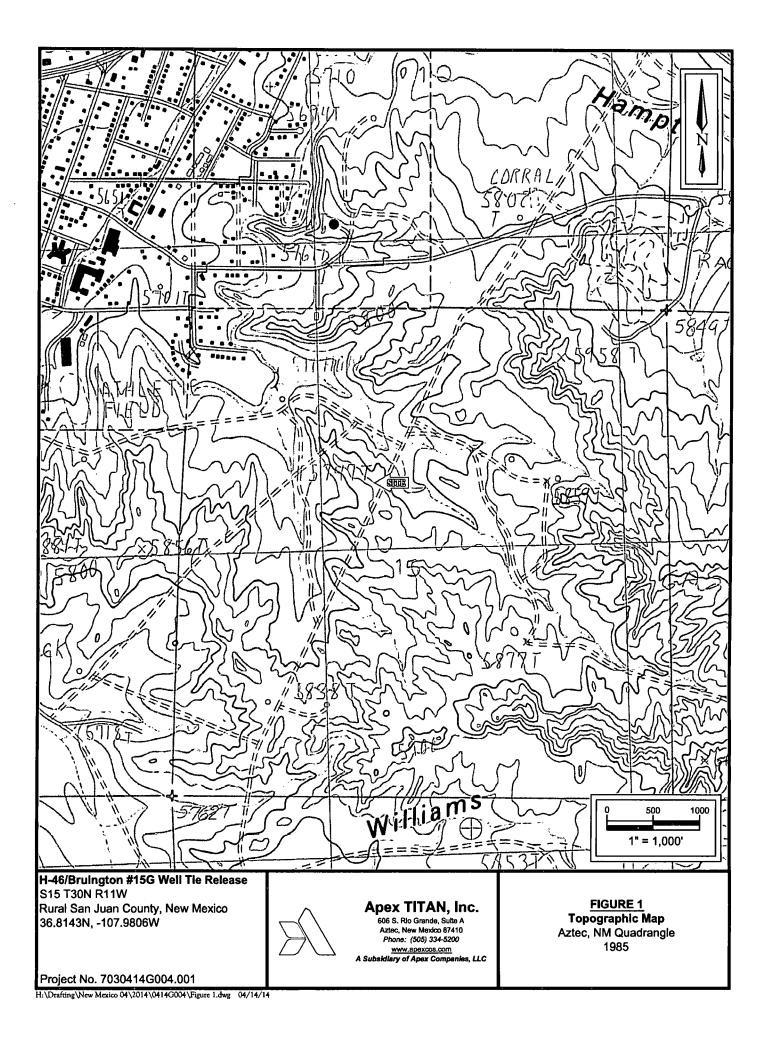
### 6.0 FINDINGS AND RECOMMENDATIONS

The H-46/Bruington #15G Well Tie Release Site is located within the Enterprise pipeline ROW in the NW ¼ of Section 15 in Township 30 North and Range 11 West in rural San Juan County, New Mexico. The Site is located on private land belonging to Aztec Orchards Inv Co Trust c/o R. Chaffe, and consists of native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including one (1) Enterprise natural gas gathering pipeline which traverses the area from east to west.

On January 28th, 2014, Enterprise shut in the H-46/Bruington #15G Well Tie pipeline and initiated excavation activities at the Site to allow the identification and repair of a subsurface leak. The pipeline leak was subsequently repaired and returned to service. An unknown quantity of condensate/water mixture was potentially released from the pipeline as a result of internal corrosion. The leak was identified by a release of natural gas at the ground surface. Soil discoloration and minimal liquid evidence was visible at the surface.

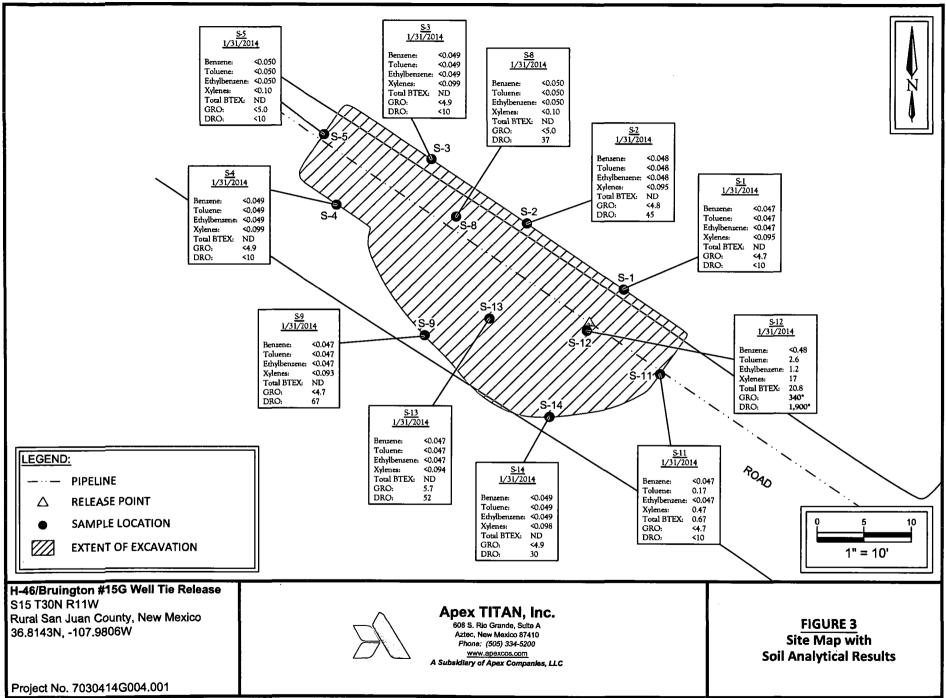
- The primary objective of the corrective actions was to reduce the concentration of COCs in the on-Site soils to below the New Mexico EMNRD OCD RALs using the New Mexico EMNRD OCD's Guidelines for Remediation of Leaks, Spills and Releases as guidance.
- The total depth of the final excavation reached approximately 5 feet bgs near the source of the release and averaged 3 feet to 4 feet bgs in the remaining excavation footprint. The overall average surface expression of the excavation measured approximately 45 feet long by 17 feet wide.
- Prior to applying potassium permanganate and backfilling the excavation, discrete confirmation samples were collected from the floor and sidewalls of the excavation. Based on analytical results, confirmation sample S-12 exhibited TPH GRO/DRO concentrations above the OCD *RAL* of 100 mg/Kg. The remaining confirmation samples for soil and sandstone which remains in-place at the Site did not exhibit COC concentrations above the OCD *RALs* for a Site ranking of "20".
- A total of approximately 100 cubic yards of hydrocarbon affected soils were transported to the Industrial Ecosystems, Inc. landfarm on Crouch Mesa, near Aztec, NM for disposal/remediation. Subsequent to the OCD-approved application of potassium permanganate to the floor of the excavation, the excavation was backfilled with clean imported fill and contoured to the approximate surrounding grade.
- The lithology encountered during the completion of corrective action activities consisted primarily of loose silty-sands and competent sandstone.

Based on the laboratory analytical results and the OCD-approved treatment of the excavation with potassium permanganate, no additional investigation or corrective action appears warranted at this time.





H:\Drafting\New Mexico 04\2014\0414G004\Figure 2.dwg 04/14/14



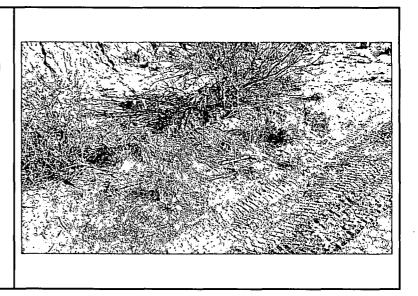
H:\Drafting\New Mexico 04\2014\0414G004\Figure 3.dwg 04/14/14

District   1625 N. French Dr., Hobbs, NM 88240 District    1301 W. Grand Avenue, Ariessa, NM 88210	State of New Mexico Energy Minerals and Natural Resources	Form C-138 Revised 08/01/11
District III POO Rio Brazos Road, Aztec, NM 87410 Vict IV	Oil Conservation Division 1220 South St. Francis Dr.	*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.
J.S. St. Francis Dr., Santa Fe, NM 87505	Santa Pe, NM 87505	
I. Generator Name and Address: Enterprise Field Services, LLC, 614 Rei	FOR APPROVAL TO ACCEPT	Ode: RB21200
2. Originating Site: H-46/Bruington 15G Well Tie		225-11-200
<ol> <li>Location of Material (Street Addres Unit F Sec-15,T-30N, R-11W, San Jur</li> </ol>	s, City, State or ULSTR): an County, NM	1-31-14-500
I. Source and Description of Waste: Source: Pipeline Release Description: Exempt petroleum affected : Estimated Volume <u>20 ÿd</u> s/ bbls Knc	soil from clean-up efforts at pipeline release. wwn Volume (to be entered by the operator at the er	nd of the haul)
, Kine Call, representative of Generator Signature certify that according to the Resource Cont	FOR CERTIFICATION STATEMENT OF WA authorized agent forEnterprise Field Services servation and Recovery Act (RCRA) and the US El bed waste is: (Check the appropriate classification)	, LLCdo hereby
RCRA Exempt: Oil field wastes ( exempt waste <u>Operator Use Only</u>	cenerated from oil and gas exploration and product Waste Acceptance Frequency Manthly	ion operations and are not mixed
RCRA Non-Exempt: Oil field wa characteristics established in RCRA re	ste which is non-hazardous that does not exceed th gulations, 40 CFR 261.21-261.24, or listed hazard t documentation is attached to demonstrate the abo	e minimum standards for waste hat you waste as defined in 40 CFR, pa
MSDS Information	dous Waste Analysis 🛛 Process Knowledge	Other (Provide description in Box
GENERATOR 19.15.36.15 W	ASTE TESTING CERTIFICATION STATEM	IENT FOR LANDFARMS
, <u>Runnol Sache</u> , representative for Generator Signature he reputied testing/sign the Generator Was	Enterprise Field Services, LLC	_authorize IEI to complete
, representative for	do he	reby certify that
Representative/Agent Signature epresentative samples of the oil field wast ave been found to conform to the specific	e have been subjected to the paint filter test and tes requirements applicable to landfarms pursuant to s o demonstrate the above-described waste conform	ted for chloride content and that the sam
	nknown trucking company on OCD approved i	raulers list.
OCD Permitted Surface Waste Manage Name and Facility Permit #: JFJ Lan Address of Facility: # 49 CR 3130 Az	ndfarm/Industrial Ecosystems, Inc. * Permit #: 1	NM 01-0010B
Method of Treatment and/or Disposal:		Landfill 🛛 Other
Waste Acceptance Status:		Must Be Maintained As Permanent Record)
PRINT NAME: L. Mache SIGNATURE:	TITLE: <u>OCIM</u> D. TELEPHONE NO.: S	Special SATE 1=30-19 5 (932-1782
Surface Waste Management F	асни <b>у /лшинин/2Си /Луб</b> оля	



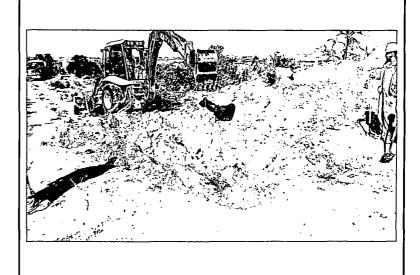
### Photograph 1

Evidence of pipeline release at ground surface.



# Photograph 2

Initial excavation activities.



### Photograph 3

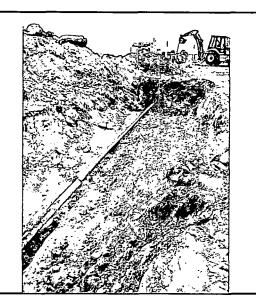
Removal of sandstone along the pipeline using jackhammer subsequent to excavation and repair activities.





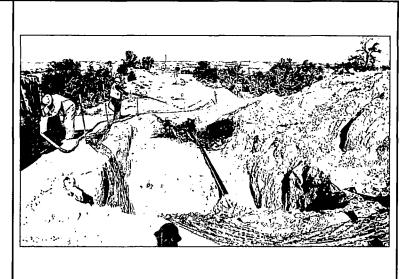
### Photograph 4

View of pipe chase (facing east) after final excavation and repair activities.



### Photograph 5

Application of potassium permanganate by Envirotech.





		<u> </u>		TAE	1131				
			H=46/E	Bruington #16	3C Well Tie R	elease			
				•	CAL SUMMARY				
	ت الله بي منه معالي في								
Sample I.D.	Date	Sample Depth	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX	ТРН	ТРН
		(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	GRO	DRO
								(mg/kg)	(mg/kg)
New Mexico En	tergy, Mineral & I	Natural Resources							
Department, Oil	Conservation Div Action Level	vision, Remediation	10	NE	NE	NE	50	10	00
	Action Level			[					
	T				ere Removed by Ex				
<u> </u>					Removed Based ( Removed Based (	¥			
<u> </u>	l					¥	-		
<u>S-10</u>					Removed Based ( s - Soils Remaining		S		
S-1	1/31/2014	2-4	< 0.047	<0.047	<0.047	<0.095	ND	<4.7	<10
S-2	1/31/2014	2-4	<0.048	< 0.048	<0.048	< 0.095	ND	<4.8	45
<u> </u>	1/31/2014	2-4	<0.049	< 0.049	< 0.049	<0.099	ND	<4,9	<10
<u>S-4</u>	1/31/2014	2-4	<0.049	< 0.049	<0.049	<0.099	ND	<4.9	<10
S-5	1/31/2014	3-4	< 0.050	<0.050	< 0.050	<0.10	ND	<5.0	<10
S-8	1/31/2014	4	<0.050	<0.050	<0.050	<0.10	ND	<5.0	37
S-9	1/31/2014	2-4	<0.047	<0.047	<0.047	<0.093	ND	<4.7	67
S-11	1/31/2014	2-5	<0.047	0.17	<0.047	0.47	0.67	<4.7	<10
S-12	1/31/2014	5	<0.48	2.6	1.2	17	20.8	340	1,900
S-13	1/31/2014	4	<0.047	<0.047	<0.047	<0.094	ND	5.7	52
S-14	1/31/2014	2-4	<0.049	<0.049	<0.049	<0.098	ND	<4.9	30

Note: Concentrations in **bold** and yellow exceed the applicable OCD Remediation Action Level

NA = Not Analyzed

NE = Not Established

# HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquergue, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

February 11, 2014

Kyle Summers Southwest Geoscience 606 S. Rio Grande Unit A Aztec, NM 87410 TEL: (903) 821-5603 FAX (214) 350-2914

RE: H-46/Bruington #15G

OrderNo.: 1402109

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 11 sample(s) on 2/4/2014 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 <u>www.hallenvironmental.com</u> 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 qualifers 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,

andig

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 2/11/2014

CLIENT: Southwest Geoscience			Client Samp	e ID: S-	1	
<b>Project:</b> H-46/Bruington #15G			<b>Collection</b>	Date: 1/.	31/2014 1:00:00 PM	
Lab ID: 1402109-001	Matrix:	SOIL	<b>Received</b>	Date: 2/4	4/2014 10:36:00 AM	
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	t: BCN
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	2/6/2014 2:20:26 PM	11569
Surr: DNOP	92.2	66-131	%REC	1	2/6/2014 2:20:26 PM	11569
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	t: JMP
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	2/6/2014 1:59:54 PM	11577
Surr: BFB	83.6	74.5-129	%REC	1	2/6/2014 1:59:54 PM	11577
EPA METHOD 8021B: VOLATILES					Analys	t: JMP
Benzene	ND	0.047	mg/Kg	1	2/6/2014 1:59:54 PM	11577
Toluene	ND	0.047	mg/Kg	1	2/6/2014 1:59:54 PM	11577
Ethylbenzene	ND	0.047	mg/Kg	1	2/6/2014 1:59:54 PM	11577
Xylenes, Total	ND	0.095	mg/Kg	1	2/6/2014 1:59:54 PM	11577
Surr: 4-Bromofluorobenzene	90.9	80-120	%REC	1	2/6/2014 1:59:54 PM	11577

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	E	Value above quantitation range	Н	Holding times for preparation or analys	is exceeded
J Analyte detected		Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 15
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 464 1 01
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	s	Spike Recovery outside accepted recovery limits			

2/6/2014 3:25:42 PM

2/6/2014 3:25:42 PM

2/6/2014 3:25:42 PM

1

1

1

mg/Kg

mg/Kg

%REC

11577

11577

11577

Date Reported: 2/11/2014

# Hall Environmental Analysis Laboratory, Inc.

Ethylbenzene

Xylenes, Total

Surr: 4-Bromofluorobenzene

CLIENT:Southwest GeoscienceProject:H-46/Bruington #15GLab ID:1402109-002	Matrix:	SOIL		Date: 1/3	2 81/2014 1:05:00 PM 1/2014 10:36:00 AM	
Analyses	Result	RL Qı	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS		1081		Analys	t: BCN
Diesel Range Organics (DRO)	45	10	mg/Kg	1	2/6/2014 2:42:21 PM	11569
Surr: DNOP	96.5	66-131	%REC	1	2/6/2014 2:42:21 PM	11569
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	it: JMP
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	2/6/2014 3:25:42 PM	11577
Surr: BFB	89.5	74.5-129	%REC	1	2/6/2014 3:25:42 PM	11577
EPA METHOD 8021B: VOLATILES					Analys	t: JMP
Benzene	ND	0.048	mg/Kg	1	2/6/2014 3:25:42 PM	11577
Toluene	ND	0.048	mg/Kg	1	2/6/2014 3:25:42 PM	11577

0.048

0.095

80-120

ND

ND

91.8

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Ε	Value above quantitation range	Н	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation		ND	Not Detected at the Reporting Limit	Page 2 of 15
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 460 2 01 10
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

#### Date Reported: 2/11/2014

2/6/2014 4:51:16 PM

Analyst: JMP

11577

11577

11577

11577

11577

1

1

1

1

1

# Hall Environmental Analysis Laboratory, Inc.

Benzene

Toluene

Ethylbenzene

Xylenes, Total

**EPA METHOD 8021B: VOLATILES** 

Surr: 4-Bromofluorobenzene

CLIENT	CLIENT: Southwest Geoscience Client Samp					3	
<b>Project:</b>	H-46/Bruington #15G			Collection l	Date: 1/3	31/2014 1:10:00 PM	
Lab ID:	1402109-003	Matrix: SOIL Received			Date: 2/4/2014 10:36:00 AM		
Analyses		Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA ME	THOD 8015D: DIESEL RANG	SE ORGANICS				Analys	t: BCN
Diesel F	Range Organics (DRO)	ND	10	mg/Kg	1	2/6/2014 3:04:17 PM	11569
Surr:	DNOP	87.5	66-131	%REC	1	2/6/2014 3:04:17 PM	11569
EPA ME	THOD 8015D: GASOLINE RA	ANGE				Analys	t: JMP
Gasolin	e Range Organics (GRO)	ND	4.9	mg/Kg	1	2/6/2014 4:51:16 PM	11577
Surr:		83.2	74.5-129	%REC		2/6/2014 4:51:16 PM	

0.049

0.049

0.049

0.099

80-120

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%REC

ND

ND

ND

ND

91.5

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
•		Holding times for preparation or analysis exceeded			
J Analyte detected below quant		Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 15
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 460 5 01 15
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

**Analytical Report** 

#### Lab Order 1402109

Date Reported: 2/11/2014

2/6/2014 5:19:54 PM

1

1

1

1

1

1

1

Analyst: JMP

Analyst: JMP

11577

11577

11577

11577

11577

11577

11577

# Hall Environmental Analysis Laboratory, Inc.

**EPA METHOD 8015D: GASOLINE RANGE** 

Gasoline Range Organics (GRO)

EPA METHOD 8021B: VOLATILES

Surr: 4-Bromofluorobenzene

Surr: BFB

Benzene

Toluene

Ethylbenzene

Xylenes, Total

CLIENT: Sou	thwest Geoscience	Client Sample ID: S-4						
Project: H-4	6/Bruington #15G			Collection 1	Date: 1/	31/2014 1:15:00 PM		
Lab ID: 140	02109-004	Matrix: SOIL Received Date: 2/4/2014 10:36				4/2014 10:36:00 AM		
Analyses		Result	RL Q	ual Units	DF	Date Analyzed	Batch	
EPA METHO	0 8015D: DIESEL RANG	GE ORGANICS				Analy	st: BCN	
Diesel Range	Organics (DRO)	ND	10	mg/Kg	1	2/6/2014 3:26:17 PM	11569	
Surr: DNOF	2	94.5	66-131	%REC	1	2/6/2014 3:26:17 PM	11569	

4.9

74.5-129

0.049

0.049

0.049

0.099

80-120

mg/Kg

%REC

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%REC

ND

82.7

ND

ND

ND

ND

90.0

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
E Value above quantitation range		Н	Holding times for preparation or analys	is exceeded	
JA		Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 4 of 15
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

### Date Reported: 2/11/2014

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# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience			Client Samp	le ID: S-	5	
Project: H-46/Bruington #15G			Collection 1	<b>Date:</b> 1/3	31/2014 1:20:00 PM	
Lab ID: 1402109-005	Matrix:	SOIL	Received	Date: 2/4/2014 10:36:00 AM		
Analyses	Result	RL Qu	1al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	t: BCN
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	2/6/2014 3:48:12 PM	11569
Surr: DNOP	94.5	66-131	%REC	1	2/6/2014 3:48:12 PM	11569
EPA METHOD 8015D: GASOLINE R	ANGE				Analys	t: JMP
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	2/6/2014 5:48:31 PM	11577
Surr: BFB	84.2	74.5-129	%REC	1	2/6/2014 5:48:31 PM	11577
EPA METHOD 8021B: VOLATILES					Analys	t: JMP
Benzene	ND	0.050	mg/Kg	1	2/6/2014 5:48:31 PM	11577
Telueno	ND	0.050			2/6/2014 E.49.24 DM	44577

Toluene ND 0.050 mg/Kg 1 2/6/2014 5:48:31 PM 11577 Ethylbenzene ND 0.050 2/6/2014 5:48:31 PM 11577 mg/Kg 1 Xylenes, Total ND 0.10 mg/Kg 2/6/2014 5:48:31 PM 11577 1 Surr: 4-Bromofluorobenzene %REC 2/6/2014 5:48:31 PM 90.8 80-120 1 11577

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
E Value above quantitation range		Н	Holding times for preparation or analyst	is exceeded	
J Analyte detected below quant		Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 5 of 15
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1460 0 01 10
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

# **Analytical Report**

### Hall Environmental Analysis Laboratory, Inc. -

Lab Order 1402109 Date Reported: 2/11/2014

2/7/2014 11:05:30 AM

11577

<b>CLIENT:</b> Southwest Geoscience	Client Sample ID: S-8								
Project: H-46/Bruington #15G	Collection Date: 1/31/2014 2:00:00 PM								
Lab ID: 1402109-006	Matrix:	SOIL	Received 1	Date: 2/4	4/2014 10:36:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	t: BCN			
Diesel Range Organics (DRO)	37	10	mg/Kg	1	2/6/2014 4:10:13 PM	11569			
Surr: DNOP	100	66-131	%REC	1	2/6/2014 4:10:13 PM	11569			
EPA METHOD 8015D: GASOLINE R	ANGE				Analys	t: JMP			

ND

### Surr: BFB E

Gasoline Range Organics (GRO)

Surr: BFB	91.5	74.5-129	%REC	1	2/7/2014 11:05:30 AM	11577
EPA METHOD 8021B: VOLATILES					Analyst:	JMP
Benzene	ND	0.050	mg/Kg	1	2/7/2014 11:05:30 AM	11577
Toluene	ND	0.050	mg/Kg	1	2/7/2014 11:05:30 AM	11577
Ethylbenzene	ND	0.050	mg/Kg	1	2/7/2014 11:05:30 AM	11577
Xylenes, Total	ND	0.10	mg/Kg	1	2/7/2014 11:05:30 AM	11577
Surr: 4-Bromofluorobenzene	90.0	80-120	%REC	1	2/7/2014 11:05:30 AM	11577

5.0

mg/Kg

1

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank	
	E	Value above quantitation range	Н	Holding times for preparation or analysis exceeded		
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 6 of 15	
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 460 0 01 15	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		
	S	Spike Recovery outside accepted recovery limits				

**Analytical Report** 

#### Lab Order 1402109

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Date Reported: 2/11/2014

# Hall Environmental Analysis Laboratory, Inc.

EPA METHOD 8015D: DIESEL RAN					vst: BCN
Analyses	Result	RL Qua	Units	DF Date Analyzed	Batch
Lab ID: 1402109-007	Matrix: S	Matrix:         SOIL         Received Date: 2/4/2014 10:36:00 J			1
<b>Project:</b> H-46/Bruington #15G			Collection	Date: 1/31/2014 2:10:00 PM	I
<b>CLIENT:</b> Southwest Geoscience			Client Samp	le ID: S-9	

Diesel Range Organics (DRO)	67	10	mg/Kg	1	2/6/2014 4:32:08 PM	11569
Surr: DNOP	116	66-131	%REC	1	2/6/2014 4:32:08 PM	11569
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	: JMP
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	2/7/2014 12:31:12 PM	11577
Surr: BFB	95.9	74.5-129	%REC	1	2/7/2014 12:31:12 PM	11577
EPA METHOD 8021B: VOLATILES					Analyst	: JMP
Benzene	ND	0.047	mg/Kg	1	2/7/2014 12:31:12 PM	11577
Toluene	ND	0.047	mg/Kg	1	2/7/2014 12:31:12 PM	11577
Ethylbenzene	ND	0.047	mg/Kg	1	2/7/2014 12:31:12 PM	11577
Xylenes, Total	ND	0.093	mg/Kg	1	2/7/2014 12:31:12 PM	11577
Surr: 4-Bromofluorobenzene	92.9	80-120	%REC	1	2/7/2014 12:31:12 PM	11577

Qualifiers: *	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank			
<b>L</b>	·Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded				
	J Analyte detected below quantitation limits		ND	ND Not Detected at the Reporting Limit				
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2. Page 7				
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit				
	S	Spike Recovery outside accepted recovery limits						

Date Reported: 2/11/2014

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11577

# Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

CLIENT:Southwest GeoscienceProject:H-46/Bruington #15GLab ID:1402109-008	Matriv	Client Sample ID: S-11 Collection Date: 1/31/2014 2:30:00 PM Matrix: SOIL Received Date: 2/4/2014 10:36:00 AM					
Analyses	Result		ual Units		Date Analyzed	Batch	
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	t: BCN	
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	2/6/2014 4:54:13 PM	11569	
Surr: DNOP	102	66-131	%REC	1	2/6/2014 4:54:13 PM	11569	
EPA METHOD 8015D: GASOLINE RA	ANGE				Analys	t: JMP	
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	2/6/2014 6:17:07 PM	11577	
Surr: BFB	84.2	74.5-129	%REC	1	2/6/2014 6:17:07 PM	11577	
EPA METHOD 8021B: VOLATILES					Analys	t: JMP	
Benzene	ND	0.047	mg/Kg	1	2/6/2014 6:17:07 PM	11577	
Toluene	0.17	0.047	mg/Kg	1	2/6/2014 6:17:07 PM	11577	
Ethylbenzene	ND	0.047	mg/Kg	1	2/6/2014 6:17:07 PM	11577	
Xylenes, Total	0.47	0.094	mg/Kg	1	2/6/2014 6:17:07 PM	11577	

80-120

90.8

%REC

1

2/6/2014 6:17:07 PM

Qualifiers: *		Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank			
	Ε	Value above quantitation range	Н	Holding times for preparation or analysis exceeded				
	J Analyte detected below quantitation lim		ND	Not Detected at the Reporting Limit	Page 8 of 15			
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 0 01 15			
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit				
	S	Spike Recovery outside accepted recovery limits						

### **Analytical Report**

### Lab Order 1402109

Date Reported: 2/11/2014

# Hall Environmental Analysis Laboratory, Inc.

CLIENT	: Southwest Geoscience	Client Sample ID: S-12								
<b>Project:</b>	H-46/Bruington #15G				Collection 1	Date: 1/3	1/2014 2:40:00 PM			
Lab ID:	1402109-009	Matrix:	SOIL	Received Date: 2/4/2014 10:36:00 AM						
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch		
EPA ME	THOD 8015D: DIESEL RANG	GE ORGANICS					Analys	t: BCN		
Diesel F	Range Organics (DRO)	1900	100		mg/Kg	10	2/6/2014 6:21:49 PM	11569		
Sum	DNOP	0	66.131	c	% DEC	10	26/2014 6:21:40 044	11560		

Surr: DNOP	0	66-131	S	%REC	10	2/6/2014 6:21:49 PM	11569
EPA METHOD 8015D: GASOLINE RANGE						Analyst	JMP
Gasoline Range Organics (GRO)	340	48		mg/Kg	10	2/7/2014 12:59:52 PM	11577
Surr: BFB	210	74.5-129	s	%REC	10	2/7/2014 12:59:52 PM	11577
EPA METHOD 8021B: VOLATILES						Analyst	JMP
Benzene	ND	0.48		mg/Kg	10	2/7/2014 12:59:52 PM	11577
Toluene	2.6	0.48		mg/Kg	10	2/7/2014 12:59:52 PM	11577
Ethylbenzene	1.2	0.48		mg/Kg	10	2/7/2014 12:59:52 PM	11577
Xylenes, Total	17	0.97		mg/Kg	10	2/7/2014 12:59:52 PM	11577
Surr: 4-Bromofluorobenzene	104	80-120		%REC	10	2/7/2014 12:59:52 PM	11577

Qualifiers: *	*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Bla				
<ul><li>E Value above quantitation range</li><li>J Analyte detected below quantitation limits</li></ul>		Value above quantitation range	H Holding times for preparation or an				
		Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 9 of 15		
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1-64 > 01 10		
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit			
	S	Spike Recovery outside accepted recovery limits					

Date Reported: 2/11/2014

2/7/2014 1:28:28 PM

11577

11577

11577

11577

11577

# Hall Environmental Analysis Laboratory, Inc.

Benzene

Toluene.

Ethylbenzene

Xylenes, Total

Surr: 4-Bromofluorobenzene

<b>CLIENT:</b> Southwest Geoscience	Client Sample ID: S-13								
Project: H-46/Bruington #15G	Collection Date: 1/31/2014 3:30:00 PM								
Lab ID: 1402109-010	Matrix:	SOIL	Received 1	Date: 2/4	4/2014 10:36:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	t: BCN			
Diesel Range Organics (DRO)	52	10	mg/Kg	1	2/6/2014 6:43:44 PM	11569			
Surr: DNOP	93.9	66-131	%REC	1	2/6/2014 6:43:44 PM	11569			
EPA METHOD 8015D: GASOLINE R	ANGE				Analys	t: <b>JMP</b>			
Gasoline Range Organics (GRO)	5.7	4.7	mg/Kg	1	2/7/2014 1:28:28 PM	11577			
Surr: BFB	106	74.5-129	%REC	1	2/7/2014 1:28:28 PM	11577			
EPA METHOD 8021B: VOLATILES					Analys	t: JMP			

0.047

0.047

0.047

0.094

80-120

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%REC

1

1

1

1

1

ND

ND

ND

ND

92.8

					had Dianis			
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank				
	Ε	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	Page 10 of 15			
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1.96 10 01 10			
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit				
	S	Spike Recovery outside accepted recovery limits						

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Southwest Geoscience

1402109-011

H-46/Bruington #15G

Project:

Lab ID:

 Inc.
 Date Reported: 2/11/2014

 Client Sample ID: S-14
 Collection Date: 1/31/2014 3:40:00 PM

Received Date: 2/4/2014 10:36:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE	ORGANICS				Analys	t: BCN
Diesel Range Organics (DRO)	30	10	mg/Kg	1	2/6/2014 7:05:42 PM	11569
Surr: DNOP	91.8	66-131	%REC	1	2/6/2014 7:05:42 PM	11569
EPA METHOD 8015D: GASOLINE RAN	NGE				Analys	t: JMP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	2/7/2014 1:57:04 PM	11577
Surr: BFB	87.7	74.5-129	%REC	1	2/7/2014 1:57:04 PM	11577
EPA METHOD 8021B: VOLATILES					Analys	t: JMP
Benzene	ND	0.049	mg/Kg	1	2/7/2014 1:57:04 PM	11577
Toluene	ND	0.049	mg/Kg	1	2/7/2014 1:57:04 PM	11577
Ethylbenzene	ND	0.049	mg/Kg	1	2/7/2014 1:57:04 PM	11577
Xylenes, Total	ND	0.098	mg/Kg	1	2/7/2014 1:57:04 PM	11577
Surr: 4-Bromofluorobenzene	93.0	80-120	%REC	1	2/7/2014 1:57:04 PM	11577

Matrix: SOIL

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method E					
	Ε	Value above quantitation range	H Holding times for preparation or analysis exceed					
		Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 11 of 15			
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.				
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit				
	S	Spike Recovery outside accepted recovery limits						

Southwest Geoscience

**Client:** 

Spike Recovery outside accepted recovery limits

Value exceeds Maximum Contaminant Level.

Analyte detected below quantitation limits

RPD outside accepted recovery limits

Value above quantitation range

RSD is greater than RSDlimit

Qualifiers:

*

Ε

J

0

R

S

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Project: H-46/B	Bruington #15G								
Sample ID MB-11569	SampType: MBLK	Te	TestCode: EPA Method 8015D: Diesel Range Organics						
Client ID: PBS	Batch ID: 11569		RunNo: 16554						
Prep Date: 2/5/2014	Analysis Date: 2/6/20	14	SeqNo: <b>476906</b>	Units: <b>mg/Kg</b>					
Analyte	Result PQL SPI	K value SPK Ref Val	%REC LowLimit	HighLimit %RPD	RPDLimit Qual				
Diesel Range Organics (DRO)	ND 10								
Sur: DNOP	6.8	10.00	68.3 66	131					
Sample ID MB-11588	SampType: MBLK	Te:	stCode: EPA Method	8015D: Diesel Range	Organics				
Client ID: PBS	Batch ID: 11588		RunNo: <b>16554</b>						
Prep Date: 2/5/2014	Analysis Date: 2/6/20	14	SeqNo: <b>476907</b>	Units: %REC					
Analyte	Result PQL SPI	K value SPK Ref Val	%REC LowLimit	HighLimit %RPD	RPDLimit Qual				
Surr: DNOP	7.5	10.00	75.2 66	131					
Sample ID LCS-11569	SampType: LCS	Те	stCode: EPA Method	8015D: Diesel Range	Organics				
Client ID: LCSS	Batch ID: 11569		RunNo: 16554						
Prep Date: 2/5/2014	Analysis Date: 2/6/20	14	SeqNo: <b>476908</b>	Units: mg/Kg					
Analyte	Result PQL SPI	K value SPK Ref Val	%REC LowLimit	HighLimit %RPD	RPDLimit Qual				
Diesel Range Organics (DRO)	52 10	50.00 0	104 60.8	145					
Surt: DNOP	4.3	5.000	86.7 66	131					
Sample ID LCS-11588	SampType: LCS	Te	stCode: EPA Method	8015D: Diesel Range	Organics				
Client ID: LCSS	Batch ID: 11588		RunNo: <b>16554</b>						
Prep Date: 2/5/2014	Analysis Date: 2/6/20	14	SeqNo: <b>476909</b>	Units: %REC					
Analyte	Result PQL SPI	K value SPK Ref Val	%REC LowLimit	HighLimit %RPD	RPDLimit Qual				
Surt: DNOP	3.7	5.000	74.9 66	131					

WO#: 14

11-Feb-14

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1402109

11-Feb-14

Client: Project:		t Geoscier									
Sample ID	MB-11577	SampT	ype: MI	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBS	Batch	n ID: 11	577	F	RunNo: 16565					
Prep Date:	2/5/2014	Analysis D	ate: 2	/6/2014	5	SeqNo: 4	77086	Units: mg/M	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	e Organics (GRO)	ND	5.0	1000		0.2 5	74.5	400			
Surr: BFB		840		1000		83.5	74.5	129			
Sample ID	LCS-11577	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSS	Batch	n ID: 11	577	F	RunNo: 1	6565				
Prep Date:	2/5/2014	Analysis D	ate: 2	/6/2014	S	SeqNo: 4	77087	Units: mg/M	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	28	5.0	25.00	0	111	74.5	126			
Surr: BFB		890		1000		88.7	74.5	129			
Sample ID	1402109-001AMS	SampT	ype: M	<u> </u>	TestCode: EPA Method 8015D: Gasoline Range						
Client ID:	S-1	Batch	n ID: 11	577	F	RunNo: 1	6565				
Prep Date:	2/5/2014	Analysis D	ate: 2	6/2014	s	SeqNo: 4	77089	Units: mg/M	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	34	4.8	23.79	0	141	69.5	145			
Surr: BFB	<u> </u>	890		951.5		93.4	74.5	129			
Sample ID	1402109-001AMS	<b>)</b> SampT	ype: M	SD	Tes	tCode: El	PA Method	8015D: Gasc	line Rang	e	
Client ID:	S-1	Batch	1D: 11	577	F	RunNo: 1	6565				
Prep Date:	2/5/2014	Analysis D	ate: 2	6/2014	5	SeqNo: 4	77090	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	0										
	e Organics (GRO)	30	4.7	23.72	0	127	69.5	145	11.3	20	
Surr: BFB	e Organics (GRO)	30 890	4.7	23.72 948.8	0	127 93.3	69.5 74.5	145 129	11.3 0	20 0	
-		890	4.7	948.8		93.3	74.5		0	0	<u> </u>
Surr: BFB		890 SampT		948.8 BLK	Tes	93.3	74.5 PA Method	129	0	0	<u></u>
Surr: BFB	5ML RB	890 SampT	ype: <b>Mi</b> 1 ID: <b>R1</b>	948.8 BLK 6598	Tes	93.3 tCode: Ef	74.5 PA Method 6598	129	0 Iline Rang	0	<u></u>
Surr: BFB Sample ID Client ID:	5ML RB	890 SampT Batch	ype: <b>Mi</b> 1 ID: <b>R1</b>	948.8 BLK 6598 77/2014	Tes	93.3 tCode: EF RunNo: 10	74.5 PA Method 6598	129 8015D: Gaso	0 Iline Rang	0	Qual
Surr: BFB Sample ID Client ID: Prep Date:	5ML RB	890 SampT Batch Analysis D	ype: Mi D: R1 Pate: 2	948.8 BLK 6598 77/2014	Tes F S	93.3 tCode: Ef RunNo: 10 SeqNo: 43	74.5 PA Method 6598 78175	129 8015D: Gaso Units: %RE	0 Viline Rang C	0 e	Qual
Surr: BFB Sample ID Client ID: Prep Date: Analyte Surr: BFB	5ML RB	890 SampT Batch Analysis D Result 830	ype: Mi D: R1 Pate: 2	948.8 BLK 6598 7/2014 SPK value 1000	Tes F S SPK Ref Val	93.3 tCode: EF RunNo: 10 SeqNo: 4 %REC 83.2	74.5 PA Method 6598 78175 LowLimit 74.5	129 8015D: Gaso Units: %RE HighLimit	0 Iline Rang C %RPD	0 e RPDLimit	Qual
Surr: BFB Sample ID Client ID: Prep Date: Analyte Surr: BFB	5ML RB PBS 2.5UG GRO LCS	890 SampT Batch Analysis D Result 830 SampT	ype: Mi DD: R1 Pate: 2/ PQL	948.8 BLK 6598 77/2014 SPK value 1000	Tes F SPK Ref Val Tes	93.3 tCode: EF RunNo: 10 SeqNo: 4 %REC 83.2	74.5 PA Method 6598 78175 LowLimit 74.5 PA Method	129 8015D: Gaso Units: %RE HighLimit 129	0 Iline Rang C %RPD	0 e RPDLimit	Qual
Surr: BFB Sample ID Client ID: Prep Date: Analyte Surr: BFB Sample ID	5ML RB PBS 2.5UG GRO LCS	890 SampT Batch Analysis D Result 830 SampT	ype: Mi n ID: R1 Pate: 2/ PQL ype: LC n ID: R1	948.8 BLK 6598 77/2014 SPK value 1000 CS 6598	Tes F SPK Ref Val Tes F	93.3 tCode: EF RunNo: 10 SeqNo: 4 %REC 83.2 tCode: EF	74.5 PA Method 6598 78175 LowLimit 74.5 PA Method 6598	129 8015D: Gaso Units: %RE HighLimit 129	0 Iline Rang C %RPD	0 e RPDLimit	Qual
Surr: BFB Sample ID Client ID: Prep Date: Analyte Surr: BFB Sample ID Client ID:	5ML RB PBS 2.5UG GRO LCS	890 SampT Batch Analysis D Result 830 SampT Batch	ype: Mi n ID: R1 Pate: 2/ PQL ype: LC n ID: R1	948.8 BLK 6598 77/2014 SPK value 1000 CS 6598 77/2014	Tes F SPK Ref Val Tes F	93.3 tCode: EF RunNo: 10 SeqNo: 4 %REC 83.2 tCode: EF RunNo: 10	74.5 PA Method 6598 78175 LowLimit 74.5 PA Method 6598	129 8015D: Gaso Units: %RE HighLimit 129 8015D: Gaso	0 Iline Rang C %RPD	0 e RPDLimit	Qual

#### Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

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Client:		est Geoscier										
Project:	H-46/B	ruington #1:	5G									
Sample ID	MB-11577	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles			
Client ID:	PBS	Batch	h ID: 11	577	F	RunNo: 1	6565					
Prep Date:	2/5/2014	Analysis D	)ate: <b>2</b> /	6/2014	SeqNo: 477123 Units:			Units: mg/M	mg/Kg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene		ND	0.050						·			
Toluene		ND	0.050									
Ethylbenzene		ND	0.050									
Xylenes, Total		ND	0.10									
Surt: 4-Bromo	ofluorobenzene	0.90		1.000		90.3	80	120				
Sample ID	LCS-11577	SampT	ype: LC	S	Tes	tCode: Ef	PA Method	8021B: Vola	tiles			
Client ID:	LCSS	Batch	n ID: 11	577	F	RunNo: 10	6565					
Prep Date:	2/5/2014	Analysis D	)ate: 2/	6/2014	\$	SeqNo: 4	77124	Units: mg/k	(g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene		1.1	0.050	1.000	0	111	80	120				
Toluene		1.1	0.050	1.000	0	110	80	120				
Ethylbenzene		1.1	0.050	1.000	0	110	80	120				
Xylenes, Total		3.3	0.10	3.000	0	109	80	120				
Surr: 4-Bromo	ofluorobenzene	0.97		1.000		96.6	80	120				
Sample ID	MB-11577	SampT	ype: ME	BLK	TestCode: EPA Method 8021B: Volatiles					-		
Client ID: I	PBS	Batch	n ID: 11	577	RunNo: <b>16565</b>							
Prep Date:	2/5/2014	Analysis D	)ate: <b>2/</b>	6/2014	5	SeqNo: 4	77126	Units: mg/Kg				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene		ND	0.050									
Toluene		ND	0.050									
Ethylbenzene		ND	0.050									
Xylenes, Total		ND	0.10									
Surr: 4-Bromo	ofluorobenzene	0.90		1.000		90.3	80	120				
Sample ID	LCS-11577	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8021B: Volat	tiles			
Client ID: I	LCSS	Batch	1 ID: 11	577	F	RunNo: 10	6565					
Prep Date:	2/5/2014	Analysis D	)ate: 2/	6/2014	S	SeqNo: 4	77127	Units: mg/K	(g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene		1.1	0.050	1.000	0	111	80	120				
Toluene		1.1	0.050	1.000	0	110	80	120				
Ethylbenzene		1.1	0.050	1.000	0	110	80	120				
Xylenes, Total		3.3	0.10	3.000	0	109	80	120				
Surr: 4-Bromo	ofluorobenzene	0.97		1.000		96.6	80	120				

#### Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

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11-Feb-14

WO#: 1402109

WO#: 1402109

11-Feb-14

Client: Project:	Southwes H-46/Bru										
Sample ID	1402109-002AMS	Samp	Гуре: М\$	<u> </u>	Tes	TestCode: EPA Method 8021B: Volatiles					
Client ID:	S-2	Batc	h ID: 11	577	RunNo: 16565						
Prep Date:	2/5/2014	Analysis D	Date: 2/	6/2014	SeqNo: 477130			Units: mg/Kg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.3	0.048	0.9551	0	135	67.4	135			
Toluene		1.3	0.048	0.9551	0.01099	135	72.6	135			
Ethylbenzene		1.3	0.048	0.9551	0.007147	137	69.4	143			
Xylenes, Total		4.0	0.096	2.865	0.05885	138	70.8	144			
Surr: 4-Brom	ofluorobenzene	0.92		0.9551		96.6	80	120			
Sample ID     1402109-002AMSD     SampType:     MSD     TestCode:     EPA Method     8021B:     Volatiles											
Client ID:	S-2	F	RunNo: 1	6565							
Prep Date:	2/5/2014	Analysis [	Date: <b>2</b> /	6/2014	S	SeqNo: 4	77131	Units: mg/h	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.3	0.048	0.9569	0	132	67.4	135	2.09	20	
Toluene		1.3	0.048	0.9569	0.01099	130	72.6	135	3.10	20	
Ethylbenzene		1.3	0.048	0.9569	0.007147	133	69.4	143	3.32	20	
Xylenes, Total		3.8	0.096	2.871	0.05885	132	70.8	144	3.99	20	
Surr: 4-Brom	ofluorobenzene	0.93		0.9569		96.8	80	120	0	0	
Sample ID	5ML RB	Samp	Гуре: МВ	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batc	h ID: <b>R1</b>	6598	F	RunNo: 1	6598				
Prep Date:		Analysis [	Date: 2/	7/2014	ę	SeqNo: 4	78191	Units: %RE	c		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bron	nofluorobenzene	0.89		1.000		89.3	80	120			
Sample ID	100NG BTEX LCS	Samp	Гуре: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batc	h ID: <b>R1</b>	6598	F	RunNo: i	6598				
Prep Date:		Analysis [	Date: 2/	7/2014	5	SeqNo: 4	78192	Units: %RE	С		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brom	ofluorobenzene	0.96		1.000		95.9	80	120			

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- Ε Value above quantitation range
- Analyte detected below quantitation limits J
- 0 RSD is greater than RSD limit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit ND
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**

Page 15 of 15

### HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

# Sample Log-In Check List

Client Name: Southwest Geoscience Work Order Number	er: 1402109		RcptNo:	1
Received by/date:	14		······	]
Logged By: Ashley Gallegos 2/4/2014 10:36:00 An	и И	AZ		:
Completed By: Ashley Gallegos 2/4/2014 4:44:39 PM		A		
Reviewed By: OB 215/19				· ·
Chain of Custody				<u></u>
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 🗌		
9. Was preservative added to bottles?	Yes	No 🔽	NA	
10.VOA vials have zero headspace?	Yes	No	No VOA Vials 🗭	
11. Were any sample containers received broken?	Yes	No 🗹	# of preserved	
			bottles checked	
12.Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗔	for pH: (<2 o	>12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes 🗹	No 🗌	Adjusted?	
14. Is it clear what analyses were requested?	Yes 🗹	No 🗔		
15. Were all holding times able to be met?	Yes 🗹	No 🗔	Checked by:	
(If no, notify customer for authorization.)				
Special Handling (if applicable)				
16. Was client notified of all discrepancies with this order?	Yes	No 🗔	NA 🗹	
Person Notified: Date:				
By Whom: Via:	🗌 eMail 🛄 F	Phone [ 🗍 Fax	In Person	
Regarding:			······································	
Client Instructions:		· · · · ·		
17. Additional remarks:				
18. <u>Cooler Information</u>				
Cooler No         Temp®C         Condition         Seal Intact         Seal No           1         1.0         Good         Yes         Intact         Seal No	Seal Date	Signed By		
1 1.0 Good Yes				

### CHAIN OF CUSTODY RECORD

	,		ANALYSIS /	Lab use only
Couthwest	Laboratory: HAL	1	REQUESTED / /	Due Date:
GEOSCIENCE Environmental & Hydrogeologic Consultants	Address: ABQ		2	Temp. of coolers when received (C°): 1.C
Office Location AZTEC, NM	Contact: FREEM	nan	3	1 2 3 4 5 Page of 7
	Phone:			/ / / / / Pageof
Project Manager KYLE SummERS	PO/SO #:	·····	25//	
Sampler's Name Kyle Summers	Sampler's Signature		at a	
	BRUING TON #1	No/Type of Containers	RTEL TOH	
Matrix Date Time C G o r m a p b	larks of Sample(s) trade	VOA A/G 250 P/O		Lab Sample ID (Lab Use Only)
S 1-31-4/300 X 5-	-1		XX	1402/09-001
5   1305 X S-	2		XX	-002
5 1310 X 5-	3		XX	-003
5 1315 X 5-	4		XX	-004
5 1320 X S-	5		XX	-005
	8		XX	-000
S 1410 X 5-	9		XX	-007
5 1430 X 5-	-11		XX	- 008
5 1440 X 5-	12		XX	-009
5 - 1530 X 5-	13	V	XX	-016
Turn around time Normal 25% Rush	0 50% Rush 0 100% Rush			
	109 Received by (Sign	1, 100 ton 12/3/	H 1409 NOTES:	
Relinquished by (Signature) Date: 23/N Relinquished by (Signature) Date:	Time: Received by: (Side	ature) Date		
Relinquished by (Signature) Date:	Time: Received by: (Sign	lature) Date		
Relinquished by (Signature) Date:	Time: Received by: (Sign	ature) Date	e: Time:	
Matrix WW - Wastewater W - Water Container VOA - 40 ml vial A/G - Amber /	S - Soil SD - Solid L - Liqu Or Glass 1 Liter 250 ml		- Charcoal tube SL - sludge O - Plastic or other	e O - Oil

SOUTHWEST GEOSCIENCE • 2351 W. Northwest Hwy., Suite 3321 • Dallas, Texas 75220 • Office: 214-350-5469 • Fax 214-350-2914

### CHAIN OF CUSTODY RECORD

Conthruget			ANALYSIS			Lab use only Due Date:
Southwest BGEOSCIENCE Environmental & Hydrogeologic Consultants	Laboratory: <u>HAU</u> Address: <u>ABU</u>		REQUESTED			Temp. of coolers
Office Location AZTEC, Nm	Dharas				/ / [i	2 3 4 5 Page 2 of 2
Project Manager Kyle Summers Sampler's Name Kyle Summers	PO/SO #:		893 202			
0414GOO4	6 113 RUNGTON #151	of Containers	Link Lee		/ /	
		VG 250 P/O 1 Lt. ml			Lab Sam	ple ID (Lab Use Only)
S 1-31-41540 X S	-14		XX		1402109	-011
		· · · · · · · · · · · · · · · · · · ·				
	NP NP					
Turn around time         Inormal         25% Rush           Relipediated by (Signature)         Date:         V	Image: 100% Rush       Time:       Received by:       (Signature)       Image: 100% Rush	Date		:		
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SOUTHWEST GEOSCIENCE • 2351 W. Northwest Hwy., Suite 3321 • Dallas, Texas 75220 • Office: 214-350-5469 • Fax 214-350-2914

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State of New Mexico **Energy Minerals and Natural Resources** 

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Oil Conservation Division 1220 South St. Francis Dr. Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Form C-141

Revised August 8, 2011

1220 S. St. Fran	ncis Dr., Sant	a Fe, NM 8750	5	Sa	anta Fe	e, NM 875	05					
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### CORRECTIVE ACTION REPORT

# OIL CONS. DIV DIST. 3

Property:

MAY 0 5 2014

Lateral 2B-17 Pipeline Release NE 1/4, S3 T27N R10W San Juan County, New Mexico

April 11, 2014 SWG Project No. 0413G015

Prepared for:

Enterprise Products Operating LLC 614 Reilly Avenue Farmington, NM 87401 Attn: Mr. Tom Long

Prepared by:

Kyle Summers, C.P.G. Branch Manager

B. Chris Mitchell, P.G.

B. Chris Mitchell, P.G. Principal Geoscientist



606 S. Rio Grande Avenue Unit A, Downstairs West Aztec, № 87410 Ph: (505) 334-5200 Fax: (505) 334-5204



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Appendix B:	Executed C-138 Solid Waste Acceptance Forms
Appendix C:	Photographic Documentation
Appendix D:	Tables

Appendix E: Laboratory Analytical Reports & Chain of Custody Documentation



### CORRECTIVE ACTION REPORT

Lateral 2B-17 Pipeline Release Site NE 1/4, S3 T27N R10W San Juan County, New Mexico

SWG Project No. 0413G015

### 1.0 INTRODUCTION

#### 1.1 Site Description & Background

The Lateral 2B-17 Pipeline Release Site is located within the Enterprise Products Operating LLC (Enterprise) pipeline right-of-way (ROW) in the northeast (NE) ¼ of Section 3 in Township 27 North and Range 10 West in rural San Juan County, New Mexico, referred to hereinafter as the "Site" or "subject Site". The Site is located on public land managed by the U.S. Bureau of Land Management (BLM), and consists of native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including one (1) 6-inch and one (1) 10-inch Enterprise natural gas gathering pipelines which traverse the area from east to west.

On October 8th, 2013, Enterprise shut in the lateral 2B-17 pipeline and initiated excavation activities at the Site in an attempt to locate a potential leak. The leak was subsequently identified and repaired. An estimated 10 bbls of condensate/water mixture was potentially released from the pipeline as a result of corrosion. No surface expression of the release was evident at the Site.

A topographic map depicting the location of the Site is included as Figure 1, and a Site Vicinity Map is included as Figure 2 in Appendix A.

### 1.2 Project Objective

The primary objective of the corrective actions was to reduce the concentration of chemicals of concern (COCs) in the on-Site soils to below the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), Oil Conservation Division (OCD) *Remediation Action Levels* using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

#### 1.3 Standard of Care

Southwest Geoscience's (SWG's) services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. SWG makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, SWG does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client.

### 1.4 Additional Limitations

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is



subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and SWG cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this scope of services. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. SWG's findings and recommendations are based solely upon data available to SWG at the time of these services.

### 1.5 Reliance

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Enterprise and SWG. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, the report, and SWG's Agreement. The limitation of liability defined in the agreement is the aggregate limit of SWG's liability to the client.

### 2.0 SITE RANKING

In accordance with the New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, SWG utilized the general site characteristics obtained during the completion of corrective action activities to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the table below:

Rankin	Ranking Score		
	<50 feet	20	20*
Depth to Groundwater	50 to 99 feet	10	
	>100 feet	0	
Wellhead Protection Area • <1,000 feet from a water	Yes	20	Ο
source, or; <200 feet from private domestic water source.	No	0	
Distance to Curfore Water	<200 feet	20	20
Distance to Surface Water	200 to 1,000 feet	10	
Body	>1,000 feet	0	
Total Rar	40		

*Based on an assumed groundwater depth of <50 feet below grade surface (bgs).

Based on SWG's evaluation of the scoring criteria, the Site would have a Total Ranking Score of 40. This ranking is based on the following:

• The nearest identified water well documented by the Office of the State Engineer website database is located over 3,000 feet southeast of the Site. This water well indicates a depth to water of 94 feet. Although groundwater was not encountered at the vertical extent of the excavation (21 feet bgs), an assigned ranking of "20" was given to the Site based on an assumed



groundwater depth of <50 feet bgs due to the close proximity of an ephemeral wash.

- No water wells or water sources were identified in the immediate area.
- For the purpose of determining the preliminary ranking, the dry ephemeral wash adjacent to the site might qualify as "surface water", resulting in a ranking of "20". However, considering that no groundwater was observed in the excavation, it is unlikely that significant subsurface flow is present. This un-named wash is a tributary to the larger Armenta Wash which it joins approximately 2.6 miles north of the Site.

#### 3.0 RESPONSE ACTIONS

#### 3.1 Soil Excavation Activities

On October 8th, 2013, Enterprise shut in the lateral 2B-17 pipeline and initiated excavation activities at the Site in an attempt to locate a potential leak (based on a vapor monitoring survey of the pipeline ROW) in the pipeline. During the remediation and repair activities, West States Energy Contractors provided heavy equipment and labor support, and Kyle Summers, a SWG environmental professional, provided environmental support.

The leak was identified on October 10th, 2013, and repairs were initiated. Stained soils were identified along the pipeline ROW to the east, and this material led to a historic release area east and north of the pipeline release area (possibly a former drip tank location). This material was also excavated and removed from the Site.

During the first stage of corrective action, approximately 564 cubic yards of hydrocarbon affected soils were excavated at the Site. Based on initial sampling results, the excavation was extended to approximately 15 feet bgs in the immediate area of the release, after which additional confirmation samples were collected. This depth represented the practicable mechanical limits of the on-site excavation equipment. Due to the physical nature (low angle of repose) of the sandy soils, additional excavation with the available equipment would put both the repaired pipeline and the adjacent pipeline in jeopardy of physical stress damage due to load shifting. The Site was fenced and equipment de-mobilized pending laboratory results from confirmation sampling.

Analytical results from the initial corrective actions indicated remaining hydrocarbon impact on the excavation floor directly below the point of release. All other areas of the excavation exhibited COC levels below the OCD Remediation Action Levels (RALs). Enterprise met with the OCD and BLM to discuss further actions at the Site.

On March 24th, 2014 Enterprise resumed excavation at the Site. The excavation was further benched for added stability, and an additional 270 cubic yards of material were removed from the floor and lower sidewalls of the excavation in the immediate vicinity of the release. The total depth of the final excavation reached approximately 21 feet bgs near the source of the release, and approximately 6 feet bgs in the remaining original excavation footprint. The overall average surface expression of the excavation measured approximately 40 feet long by 20 feet wide.

A total of approximately 834 cubic yards of hydrocarbon affected soils mixed with a limited amount of overburden slough were transported to the Envirotech landfarm near Hilltop, NM for disposal/remediation. The executed C-138 forms are provided



in Appendix B. The excavation was backfilled on March 27th and 28th 2014 with clean imported fill and unaffected overburden and benching-derived soils.

During excavation activities, air in the breathing zone was monitored to ensure that the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) of 200 parts per million (ppm) Time Weighted Average (TWA) for an 8hour work day was not exceeded. Additionally, Enterprise monitored the excavation for explosive atmosphere conditions and oxygen deficiency prior to any entries into the excavation.

The lithology encountered during the completion of corrective action activities consisted primarily of loose silty-sands and sands.

Figure 3 is a site map that indicates the approximate location of the excavated area in relation to pertinent land features (Appendix A). Photographic documentation of the field activities is included in Appendix C.

### 3.2 Soil Sampling Program

SWG screened head-space samples of the impacted soils with a photoionziation detector (PID) fitted with a 10.6 eV lamp to estimate excavation limits.

SWG's soil sampling program included the collection of twenty-two (22) discrete and composite confirmation samples (S-1 through S-4, and Conf-6 through Conf-23) from the side walls and bottom of the excavation for laboratory analysis. The soil sample locations were selected based on visual, olfactory and/or PID evidence of potential impairment and excavation dimensions. At the request of the OCD, composite samples were collected where possible during the second stage of the excavation.

Figure 3 depicts the approximate location of the excavated areas and shows the final confirmation sample locations in relation to the final excavation dimensions (Appendix A).

The confirmation soil samples were collected and placed in laboratory prepared glassware, labeled/sealed using the laboratory supplied label, and placed on ice in a cooler, which was secured with a custody seal. The sample cooler and completed chain-of-custody form were relinquished to Envirotech Analytical Laboratory in Farmington, New Mexico for 24-hr rush analysis.

### 4.0 LABORATORY ANALYTICAL METHODS

Confirmation soil samples were analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX) using EPA SW-846 Method #8021, and total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (GRO) using EPA SW-846 Method #8015.

Laboratory results are summarized in Table 1, included in Appendix D. The executed chain-of-custody form and laboratory data sheets are provided in Appendix E.

#### 5.0 DATA EVALUATION

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to condensate releases, the New Mexico EMNRD OCD utilizes the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically NMAC 19.15.30 *Remediation*. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

#### 5.1 Confirmation Soil Samples

SWG compared the BTEX and TPH concentrations or reporting limits (RLs) associated with the twenty-two (22) confirmation samples collected from the excavated area to the OCD *Remediation Action Levels* for sites having a total ranking score of >20.

- The laboratory analysis of the confirmation soil samples of soils remaining in place did not indicate benzene concentrations above the OCD *Remediation Action Level*.
- The laboratory analysis of the confirmation soil samples of soils remaining in place did not indicate total BTEX concentrations above the OCD *Remediation Action Levels*.
- The laboratory analysis of the confirmation soil samples of soils remaining in place did not indicate TPH GRO/DRO concentrations above the OCD *Remediation Action Levels*.
- The laboratory analyses of samples S-2, S-3, and Conf-14 indicated total BTEX and/or TPH GRO/DRO levels above the OCD *Remediation Action Levels*, however, these affected soils were subsequently removed for disposal/treatment during the final excavation activities.

Based on analytical and screening results, the soils which remain in-place at the Site exhibit no COC concentrations above the OCD *Remediation Action Levels*. Confirmation sample results are provided in Table 1 in Appendix D.

#### 6.0 FINDINGS AND RECOMMENDATIONS

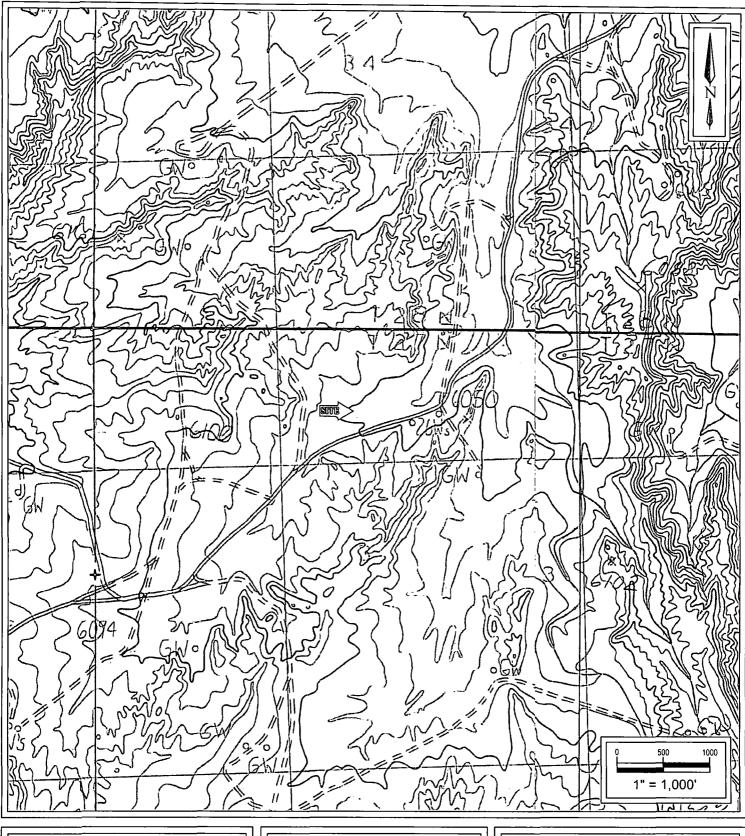
The Lateral 2B-17 Pipeline Release Site is located within the Enterprise pipeline ROW in the NE ¼ of Section 3 in Township 27 North and Range 10 West in rural San Juan County, New Mexico. The Site is located on public land managed by the U.S. BLM, and consists of native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including one 6-inch and one 10-inch Enterprise pipelines which traverse the area from east to west.

On October 8th, 2013, Enterprise shut in the lateral 2B-17 pipeline and initiated excavation activities at the Site in an attempt to locate a potential leak (based on a vapor monitoring survey of the pipeline ROW) in the pipeline. The leak was subsequently identified and repaired. An estimated 10 bbls of condensate/water mixture was potentially released from the pipeline as a result of corrosion. No surface expression of the release was evident.

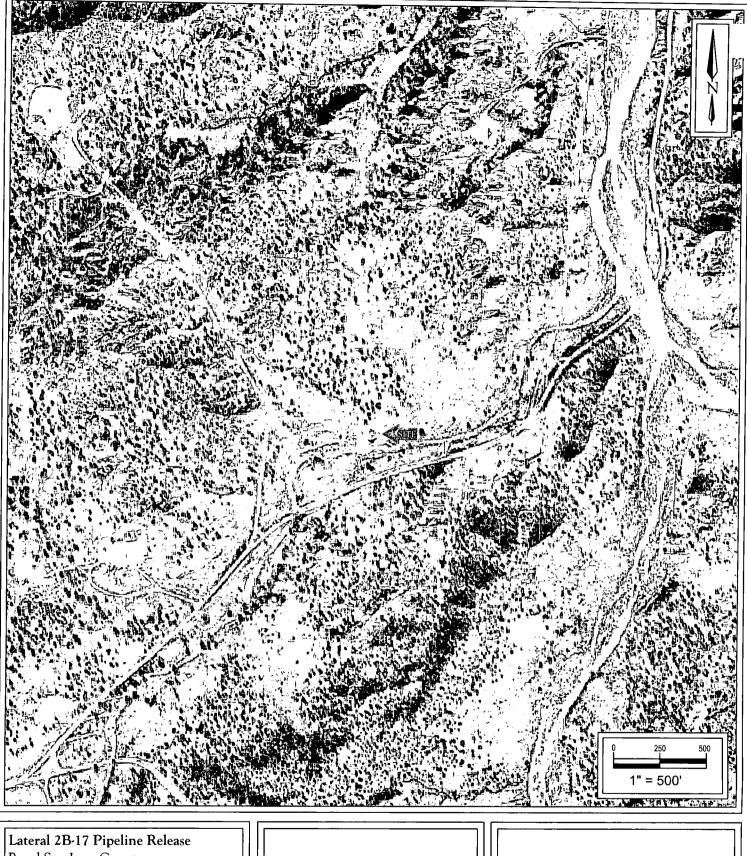


- The primary objective of the corrective actions was to reduce the concentration of COCs in the on-Site soils to below the New Mexico EMNRD OCD *Remediation Action Levels* using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.
- The total depth of the final excavation reached approximately 21 feet bgs near the source of the release, and approximately 6 feet bgs in the remaining original excavation footprint. The overall average surface expression of the excavation measured approximately 40 feet long by 20 feet wide.
- A total of approximately 834 cubic yards of hydrocarbon affected soils mixed with a limited amount of overburden slough were transported to the Envirotech landfarm near Hilltop, NM for disposal/remediation. The excavation was backfilled on March 27th and 28th 2014 with clean imported fill and unaffected overburden and benching-derived soils.
- The lithology encountered during the completion of corrective action activities consisted primarily of loose silty-sands and sands.
- Prior to backfilling the excavation, discrete and composite confirmation samples were collected from the floor and sidewalls of the excavation.
   Based on analytical and screening results, the soils remaining on-site do not exhibit COC concentrations above the OCD *Remediation Action Levels*.

Based on the laboratory analytical results, no additional investigation or remediation appears warranted at this time.



Lateral 2B-17 Pipeline Release Rural San Juan County, Navajo Nation, New Mexico	Southwest	<b>Figure 1</b> <b>Topographic Map</b> East Fork Kutz Canyon Quadrangle And Huerfanito Peak Quadrangle 1985
SWG Project No. 0413G015		

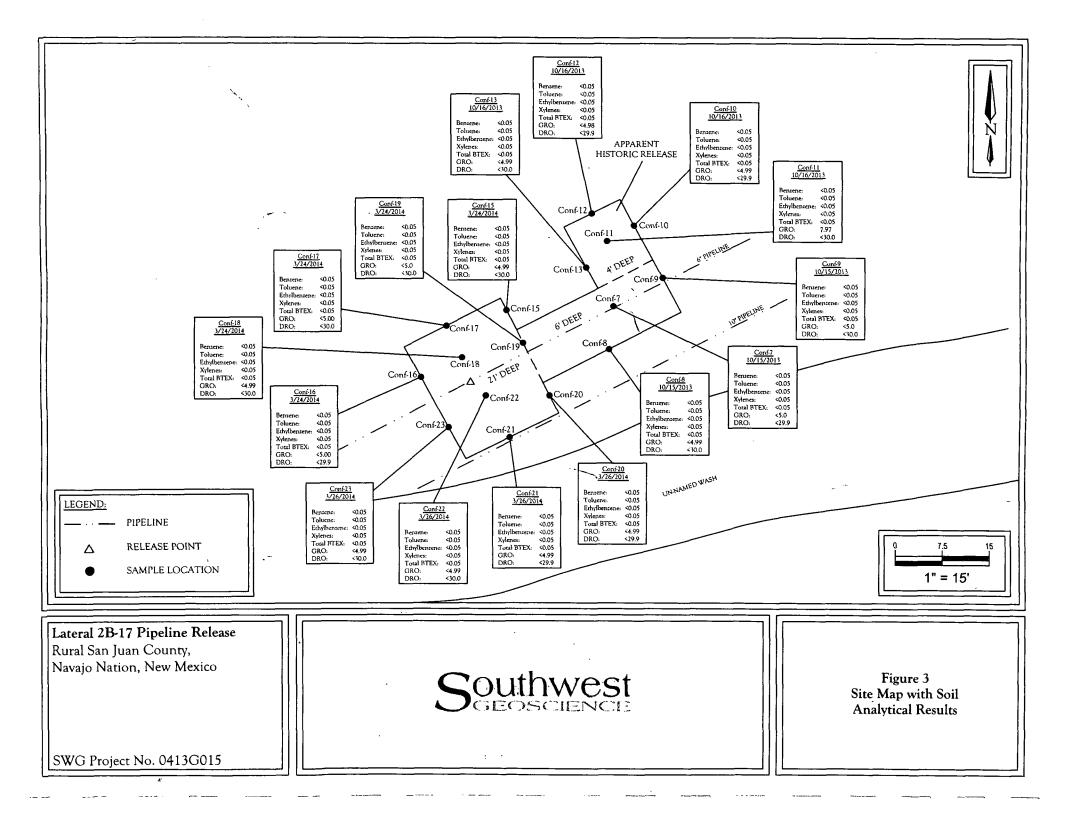


Rural San Juan County, Navajo Nation, New Mexico

SWG Project No. 0413G015

Southwest

Figure 2 Site Vicinity Map 2013 Aerial Photograph



*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

### **REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE**

L Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401 Paykey Code: RB21200
2 Originating Site: Lateral 2B-17 Pipeline
3 Location of Material (Street Address, City, State or ULSTR): Unit B Sec 3 T 27N R 10W, San Juan County, NM
A Source and Description of Waste: Source: Natural Gas Pipeline Release Description: Exempt petroleum affected soil from clean-up efforts at pipeline release. Estimated Volume20yd ² / bbls Known Volume (to be entered by the operator at the end of the haul) <u>564</u> (yd/ bbls
S-11*3 GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS Runell Seale, representative or authorized agent forEnterprise Field Services, LLC 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. <u>Operator Use Only: Waste Acceptance Frequency</u> Monthly Weekly Rev 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
the required testing/sign the Generator Waste Testing Certification. <u>Kanw</u> , representative for <u>Enviroleck</u> , <u>Toc</u> do hereby certify that <u>Representative/Agent Signature</u> <u>representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples</u>
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: IMI, WestStates or unknown trucking company on OCD approved haulers list. OCD Permitted Surface Waste Management Facility
Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011
Address of Facility: Hilltop, NM
Method of Treatment and/or Disposal:
Waste Acceptance Status: PRINT NAME ACCEPTANCE Agent DENIED (Must Be Maintained As Permanent Record) PRINT NAME ACCEPTANCE TITLE: Under Coordinato DATE: 10/11/13 SUFFACE Waste Management Facility Authorizer Agent S05-632-0615

<u>District 1</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District 11</u> 1301 W. Grand Avenue, Artesia, NM 88210	State of New Energy Minerals and N	atural Resources	Form C-138 9 705 7-0597 Revised 08/01/11
District III 1000 Rio Brazos Road, Aztec, NM 87410	Oil Conservation 1220 South St. F	II DIVISION	*Surface Waste Management Facility Operator and Generator shall maintain and make this
District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	Santa Fe, NM		documentation available for Division inspection.
The second s	FOR APPROVAL 7	ГО АССЕРТ	SOLID WASTE
1. Generator Name and Address:		<u> </u>	
Enterprise Field Services, LLC, 614 Rei	lly Ave, Farmington NM 8740	01 Paykey C	Code: RB21200
2. Originating Site: Lateral 2B-17 Pipeline		N	larch 14
3. Location of Material (Street Address Unit B Sec 3 T 27N R 10W, 36.6089		ounty, NM	
4. Source and Description of Waste: Source: Natural Gas Pipeline Release Description: Exempt petroleum affected Estimated Volume <u>50</u> vd ³ bbls Know	soil from clean-up efforts at pip wn Volume (to be entered by th	eline release. e operator at the en	d of the haul) $\frac{270}{1}$ yd ³ / bbls
5. GENERA	TOR CERTIFICATION STA	TEMENT OF WA	ASTE STATUS
Generator Signature		CRA) and the US E	Environmental Protection Agency's July 1988
	generated from oil and gas expl <u>w: Waste Acceptance Frequence</u>		tion operations and are not mixed with non- Weekly X Per Load
characteristics established in RCRA r	egulations, 40 CFR 261.21-261.	.24, or listed hazard	he minimum standards for waste hazardous by dous waste as defined in 40 CFR, part 261, ove-described waste is non-hazardous. (Check
🖸 MSDS Information 🛛 RCRA Haza	rdous Waste Analysis 🛛 🛛 Pro	cess Knowledge	□ Other (Provide description in Box 4)
GENERATOR 19.15.36.15 V	WASTE TESTING CERTIFIC	CATION STATEN	MENT FOR LANDFARMS
I, frepresentative for <u>Enternation</u> Generator Signature the required testing/sign the Generator Wa	erprise Field Services, LLC	autho	orize ENVIROTECH to complete
I, Grap ( walter , representative for /	1 CA	do h	nereby certify that
Representative/Agent Signature representative samples of the oil field was	c requirements applicable to lan	uint filter test and te dfarms pursuant to	ested for chloride content and that the samples Section 15 of 19.15.36 NMAC. The results
5. Transporter: IMI, WestStates or	unknown trucking company o	on OCD approved	haulers list. Fring M, Moss, West St
OCD Permitted Surface Waste Manag	gement Facility		GM3,
Name and Facility Permit #: Enviro	tech, Inc. Soil Remediation Fa	acility * Permit #:	NM 01-0011
Address of Facility: Hilltop, NM			
Method of Treatment and/or Disposa		🛛 Landfarm 🗌	] Landfill 🔲 Other
Waste Acceptance Status:	🔀 APPROVED	🗌 DENIE	ED (Must Be Maintained As Permanent Record)
PRINT NAME: Greg Cight ree SIGNATURE: Surface Wase Management	TITLE TELEF		tal Manager DATE: <u>3/25/14</u> 5-632-0615



MANIFEST # _ 44865

DATE 10-10-13 JOB # 97057-0597

PHONE: (505) 632-0615 • 5796 U.S. HI	HWAY 64 • FARMINGTON,	NEW MEXICO 87401
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LOAD	COM	PLETE DESCRIPT	ION OF SHIPMEI	IPMENT TRANSPORTING COMPANY				NY		
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
	E.tech.	Enterprise.		_	10		MOSS.	47	1320	Taka Burk '
2	)) ))	2-BPipe	50:2		10		MDSS	15	1320	Marka Burk-
					20			i		
					20					
			•							
RESULT	S:	LANDFARM	$\wedge$	$\frown$ $\land$	~I	Ban	NOTES:			
	CHLORIDE TEST	EMPLOYEE:	Gary	Roh	indo	n				
	PAINT FILTER TEST.		cation of above red	<u> </u>						Roc
By signin mentione	g as the driver/transporter, I o d Generator/Point of Origin a	certify the material ind that no addition	hauled from the a al material has be	bove location	r mixed into	the load	J.	-	•	
TRANSPO	RTER CO. MOSI EX	recountion		-ee M	230		SIGNATURE	Lee	Thea	<u>/</u>
COMPANY	CONTACT GOVY M	aestas_					DATE 10-	-10-	13	
Signature	es required prior to distribution	n of the legal docul	ment.							



MANIFEST # _44869

DATE 10-11-13 JOB # 97057-0597

LOAD	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY					
NO.	POINT OF ORIGI	N	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIG	NATURE
2	ENARPRISE EPT 2B17	,	(F#	cont Soil	E-21	10		Bet	105	5:35	Grians	SIEA
2	#	u	U	<i>6</i> 4	E-21	10	-	Bet	105	11:10	Brian	BAR
3	à	A	d U	<i>a a</i>	E-21	10	-	Bet	105	12:55	Brean	DEA
4	U	de		- *	E-21	10		Bet	105	14:30	Brian S	tover
5	4	R	l l	4 1	E-21	10		Bet	105	15:45	Brian	love
						50						
RESULTS			LANDFARM	6		/ (	Scen	NOTES:				ROC
2292		2	EMPLOYEE:	Lim					<u>.                                    </u>	<u>.</u>		<u></u>
	PAINT FILTER TEST 2 Certification of above receival & placement											
mentioned	as the driver/transpor	ter, I c rigin a	ertify the material and that no addition	al material has be	en added o	n has not l r mixed into	been add the load	1.	<u>A</u> e	rtify the	material is from	the above
	RTER CO. DE	, M	Manda		410	<u> </u>	NCK_ 1E	SIGNATURE	Du	$(\mathcal{N}^{\nu})$	<u> XUUT/'</u> >	
	r CONTACT	- - - ibutior	of the legal docui	PHONE			1_2	DATE _/C			>	



MANIFEST # 44870 DATE 10-11-13 JOB # 97057-0597

LOAD	COM	ION OF SHIPMEN		TRANSPORTING COMPANY						
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
2	E-toch	enternise 1At2817	CICAN Fill		10	_	Bet	105	9:35	Brian Stock
2	A 4	u u	r l		10	-	Bet	105	11:10	Brian Sorts
23	y U	a a	a a	_	10	-	Bet	105	12:55	Brian Stores
4	ų U	l l	l, l		10	-	Bet	105	14:30	pricen Doves
					70		Ret	103	15:45	-
					40					
<u>.                                    </u>										
			· · · · · · · · · · · · · · · · · · ·	· · · · · ·						
	· · · · · · · · · · · · · · · · · · ·									
RESULT	5:	LANDFARM	6		/	BCON	NOTES:	l		
/	CHLORIDE TEST	EMPLOYEE:	Lave	Le		ben				
1	PAINT FILTER TEST /	Certification of above receival & placement								
By signing	g as the driver/transporter, I define a structure of the driver of the d	certify the material and that no addition	hauled from the all	bove location	on has not i or mixed inte	been add	ded to or tampered	with ce	rtify the	material is from the above
		A		rian	SO	NI	SIGNATURE	(H)	len	KORY
	CONTACT DOLVIC	Methin	PHONE	419-	874	15	DATE / C	7-11	-13	5
	s required prior to distribution	n of the legal docu			(					



MANIFEST # 44871

DATE 10-11-13 JOB # 97057-0597

LOAD	СОМ	PLETE DESCRIPT	ETE DESCRIPTION OF SHIPMENT					TRANSPORTING COMPANY			
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE	
2	E-fech 4 u	ENHL 12.30. Lift 2B-17	Clean Fill	_	10	4	pris 5	47	13:05	Lee Mos	
2	4 <i>U</i>	a o	ti ci		10	.~	M0.55 M0.55	47	14:45	Lee Mos	
					20						
					ØX						
		· · ·									
, <u> </u>											
							<u> </u>				
RESULT	S: CHLORIDE TEST /	LANDFARM EMPLOYEE:	Lan			scen	NOTES:	I <u></u>	<u>t</u>		
			cation of above rec		cement	f				₽Ð	
mentione	g as the driver/transporter, I d d Generator/Point of Origin a	certify the material and that no addition	hauled from the al al material has be	bove location	on has not l r mixed into	the load	<b>j</b> .		-	material is from the above	
COMPAN	RTER CO. Mass Ex CONTACT Gary Ma required prior to distribution	estess n of the legal docu	PHONE					~// ~	13		



MANIFEST # 44872 DATE 10-11-13 JOB # 97057-0597

LOAD	C	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
NO.	POINT OF ORIGIN		DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
2	ENHEPRISE LAF 2B17		LFI	Cont SDIL	E-21	10	-	MOSS	47	10:05	- Lea mara
2	4	11	y 4 4	4 4	E-21	10	-	MOSS	47	13:05	Lee Mosa
3	¥	U	ų 4	u q	E-21	10		M055	47	14:45	Leo Moss
4	v	Ľ	U 4	4 4	E-21	10		MOSS	47	Ke:40	Lee Mose
						40					
						P					
		1									
						· · · · · · · · · · · · · · · · · · ·					
RESULT	5: 		LANDFARM	6		,	ACers	NOTES:	·		
2292	CHLORIDE TEST		EMPLOYEE:	Love	1-						
	PAINT FILTER TEST	)		cation of above re							poc
By signing mentione	g as the driver/transported Generator/Point of Orig	ir, I c jin a	ertify the material nd that no addition	hauled from the a al material has be	bove location	r mixed into	o the load	۰ ۱	_	•	material is from the above
	RTER CO. MOSS					1055		SIGNATURE	Lea	Ma	20
	CONTACT Gory 1										
Signature	s required prior to distrib	utior	n of the legal docu	ment.							



3

## Bill of Lading

MANIFEST # ______44877

DATE 10-11-13 JOB # 97057-0597

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64	FARMINGTON, NEW MEXICO 87401
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LOAD	C	OMPLE	TE DESCRIPT	ION OF SHIPME	TRANSPORTING COMPANY						
NO.	POINT OF ORIGIN	D	ESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
2	ENTISPRISU LAT 2 B17	٢,	FÆ	Co~f 50,2	E-21	10	-	Flying M	14	13:55	Joby Lehles
2	4	d.4	æ	ď c'	E-21	10	-	Flying M	14	15:4	Tobe Tables
						20					7
				·							
				······							
RESULT		L	LANDFARM	62			BGWi	NOTES:			
2292	CHLORIDE TEST	E	EMPLOYEE:	XIII	22			<u> </u>			
	PAINT FILTER TEST			ation of above rec							POC
mentione	d Generator/Point of Orig	in and t	that no addition:	al material has be	en added o	r mixed into	the load	4		•	material is from the above
TRANSPO	ORTER CO. <u>Fig. ng</u> CONTACT		1		Toby	Wa.	hle	SIGNATURE	Z	ors	e Tahles
COMPAN	( CONTACT			PHONE	0			DATE			
Signature	es required prior to distrib	ution of	f the legal docur	nent.							



DATE 10-11-13 JOB # 97057-0597

PHONE: (505) 632-0615 • 5796 U.S	. HIGHWAY 64 • FARMINGTON	NEW MEXICO 87401
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LOAD COMPLETE DESCRIPTION OF SHIPMENT TRANSPORTING COMPANY										
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	E-feck	ENTREPLASE LA + 2B-17	Clean Fill		10	-	Flying M	14	13:55	John Thehler
										e
				1						
				1						
						<u> </u>				
			······································							
										· · · · · · · · · · · · · · · · · · ·
			·							
RESULT	T	LANDFARM	6			Bard	NOTES:	<u> </u>		
/	CHLORIDE TEST	EMPLOYEE:	Love	Fr		+~~				
/	PAINT FILTER TEST /		cation of above re							29
By signing mentione	g as the driver/transporter, I d Generator/Point of Origin a	certify the material and that no addition	hauled from the a al material has be	bove location	on has not l r mixed/into	been ado o the load	ded to or tampered to define the tampered to definet tampered to define the tampered to def	with. I ce	rtify the	material is from the above
TRANSPO	ANSPORTER CO. Flying M NAME 1054 Wahle SIGNATURE John Wahles									
COMPAN	CONTACT		PHONE				DATE		8	

envirotech vⁿ Bill of Lading

MANIFEST # 44884 DATE /0-14-13 JOB # 97057-0597

LOAD													
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE			
	E.tech	Latan	Clean		12	-	BET	105	940	Brian Store			
2	8 9	2B-17	Fill		12	-	BEt	105	1107	Prian Stores			
3	4 4	e ø	a 4	-	12	-		line	1325	Brian Stores			
4	Noid this	"Line"	Yoid th	15-11	WE F	-	Dep	105	2	5			
					36								
RESULT	S: CHLORIDE TEST /	LANDFARM EMPLOYEE:	Gary	al	ind A	Biow	NOTES:		I				
1	PAINT FILTER TEST Certification of above receival & placement RD												
By signing mentione	by signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above hentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.												
TRANSPORTER CO. SET , NAME SIGNATURE SIGNATURE SUGALURE													
	DMPANY CONTACT BET NOUND MC/OMC/ PHONE 419-8745 DATE 10-14-13												
Signature	s required prior to distribution	n of the legal docu	ment.						-				



DATE 10-14-13 JOB # 97057-0597

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	NO. POINT OF ORIGIN DESTINATION MATERIAL GRID YDS BBLS COMPANY TRK# TIME DRIVER SIGNATURE										
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SI	GNATURE
1	E.tech.	ENTERPIS LOT 2B-17	CIEUN FIL		12	~	Flying M.	14	1000	Jok	Uples
2	N I	1 1	Soil		12	~	11 11	14	11Z3	6 by	Dehle
					1.1					- J	
					24						
			·								
											·····
			·····								
			········								
RESULTS	S:	LANDFARM	1		l	Bars	NOTES:		<u>.                                    </u>	<u> </u>	
		EMPLOYEE:	bary	Rolf	nggr	2					
PAINT FILTER TEST / Certification of above receival & placement RD											
By signing mentioned	g as the driver/transporter, I d d Generator/Point of Origin a	certify the material nd that no addition	hauled from the a al material has be	bove location	on has not l	been add	led to or tampered v	with. I ce	rtify the	material is fro	om the above
	RTER CO. FZying V	N-		,				st	y Z	leh az	·
COMPANY CONTACTF(1)/2/12PHONE_305 632 1803 DATE/0-14-13											



MANIFEST # 44886 DATE 10.14-13 JOB # 97057-0597

### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD		СОМ	PLETE DESCRIPT	TION OF SHIPME	NT			TRANSPO	DRTING	COMPA	NY		
NO.	POINT OF ORIGI		DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER	SIGNATUR	٦E
1	ENter-Prise CAF2B-17		LFIL	SOL	E-21	12	-	BET	05	1107	Arian	1 Lor	<del>DE</del> A
2	4	a	4 4	a c	E-21	12	)	BCt	105	132:	Prias	1 Xite	æ.
3	a	4	6	4 9	E-21	12		Bet	105	15:05	pria	1 Slor	R
4	11	¥	U V	V V	E-21	12		BET	105		12 .	Sov	è
\						11.8							
												_	
		_											
RESULT	S:		LANDFARM	1	0 1	, `	p-cov)	NOTES:	•·		<u> </u>		
2299	CHLORIDE TEST	1	EMPLOYEE:	Gay	Kol	inso	2P						{
	PAINT FILTER TEST Certification of above receival & placement								RD	C			
By signing mentioned	g as the driver/transporter. I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above d Generator/Point of Origin and that no additional material has been added or mixed into the load.												

TRANSPORTER CO.	NAME	SIGNATURE SIGNATURE
COMPANY CONTACT BET DOVID ME POT	PHONE 505-419-8745	DATE 10-14-13



MANIFEST # 44887

DATE 10-14-13 JOB # 97057-0597

### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD											
NO.	POINT OF ORIGI	N	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
t	ENterphis	e 7	LFI	CONT	E-21	12	-	FLyingm	14	112	3 toke Uphler
2	11	17	۲. ۲	<b>v</b> )	E-21	12	·	1)	14	1300	Jober Lahles
_						1					J
						24					
	· · · · · · · · · · · · · · · · · · ·										
RESULT	<u> </u>			A		1		NOTES:			
L299		1	LANDFARM EMPLOYEE:	Gary	Koll	noo	Flor			;	
	PAINT FILTER TEST	1	Certifie	cation of above red							RDC
By signing	g as the driver/transport d Generator/Point of Or	ter, I c rigin a	ertify the material nd that no addition	hauled from the a	bove location	on has not l	been ado	led to or tampered v	vith. I ce	rtify the	material is from the above
	RTER CO. FLYIN	13_	m				e		to	by	Lehler
COMPANY	MPANY CONTACT PHONE DATE 10-14-13										



MANIFEST # 44894 DATE 10-15-13 JOB # 97057-0597

LOAD	(		PLETE DESCRIPT	ION OF SHIPME	NT			TRANSPO	RTING	COMPA	NY		]
NO.	POINT OF ORIGIN	N	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER	SIGNATURE	1
2	Entraffe SC (4+ 2B-17		LF#	cont Soi 4	B-22	10	-	Flying M	14	9:4	Toke	, Achles	,
2	<i>c</i>	4	<i>i I</i>	a el	B-22	10	-	1 1	14	11:12	Jobe	hello	1
3	4	61	4 Li	4 U	B-22	10	-	a ce	14	12:25	Job!	Thele,	
4	U	U	a c	t v	B-22	10		4 4	14	13:45	the	. The los	
5	a	00	Ű	ę ę	B# 22	10		a a	14	16:00	100	e Tall	
					• 4	KO					l		
						3							1
													1
													1
													1
													1
RESULT	S:		LANDFARM		l			NOTES:	)	<u>1</u>	<u> </u>		
1299	CHLORIDE TEST	2	EMPLOYEE:	Lar	·								{
	PAINT FILTER TEST	2		cation of above rec								RDC	ļ
By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.													
TRANSPO	RTER CO. <u>F/4, 9</u>	É-	1		oby_	1/4/1/	18/	SIGNATURE	A	Ing	- Jul	hle	
	CONTACT	,		PHONE				DATE	115	1/3	3		
Signature	s required prior to distri	butior	n of the legal docul	ment.									



DATE 10-15-13 JOB # 97057 - 0597

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	СОМ	PLETE DESCRIPT	ION OF SHIPME	NT			TRANSP	ORTING	COMPA	NY		
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE		
2	E-tech	ENTER PR: SE CAL 28-17	Clun-V F.II	-	10		Flying M	14	9:45	Jober Elable		
					10					0		
					1							
								+				
			• • • • • • • • • • • • • • • • • • •									
			······									
RESULT	S:	LANDFARM	6 /		1		NOTES:					
		EMPLOYEE:	La	e Ze								
1	PAINT FILTER TEST	Certific	cation of above rea	ceival & pla	cement					RD		
By signing mentioned	g as the driver/transporter, I d d Generator/Point of Origin a	nd that no addition	al material has be	en addød o	r mixed into	y the load	d.		, ,	material is from the above		
TRANSPO	SPORTER CO. L. 41 ng Man Tol g Mahle SIGNATURE Jobe Electre											
COMPANY		NSPORTER CO. <u>Lying</u> <u>Mame</u> <u>NAME</u> <u>Jolg Lahle</u> <u>SIGNATURE</u> <u>Johg Lehle</u> <u>IPANY CONTACT</u> <u>PHONE</u> <u>DATE</u> <u>DITE</u> <u>DITE</u>										



MANIFEST # _____44896

DATE 10-15-13 JOB # 97057-0597

LOAD		СОМ	PLETE DESCRIPT	ION OF SHIPME	NT			TRANSP	ORTING	COMPA	NY
NO.	POINT OF ORIGI	N	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
7	Entre PRISC		LFIT	Cent. 50. C	B-22	10	-	Bet	105	9:50	Brian Stary
2			er o	4 (l	8-22	10	-	Bet	105	11:35	Brian Store
Ì	K1	4	<i>v v</i>	æ ll	B-22	10		Bet	185	12:55	Bruan Stover
4	£1	U	a U	1 4	B-22	10	-	Bet	105	14:10	Bright Lover
5	U	a		t ce	B-22	10	-	Bet	105	152	Brean Dozer
G	U	U	a 1	t L?	B-22	10	-	Bet	105	16:40	Brean Stort
					-	10					
						-6L					· · · · · · · · · · · · · · · · · · ·
RESULT	S:		LANDFARM	61	L	1		NOTES:	<u> </u>	I	
1299	CHLORIDE TEST	2	EMPLOYEE:	XPm	1 0	to					
	PAINT FILTER TEST 2 Certification of above receival & placement PAINT FILTER TEST 2										
By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.											
TRANSPO		· /			) <u>(</u> lan	STOI	JEN		PU	<u>wn</u> ,	JUUT
		YYL	epongle	PHONE	419-	87:	54_	DATE _//	<u>ソー1</u> :	5-1	5



MANIFEST # 44901 DATE 10-15-13 JOB # 97057-0597

#### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	СОМІ	PLETE DESCRIPT	TION OF SHIPMEN			TRANSPO	DRTING	COMPA	NY	
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
2	Enter/19:00- (14-2B-17	LFI	CONF	B-22	10		MOSS	15	15:15	- The BMC
2	lr 61	et ct	r v	B-22	10		MOSS	15-	16:45	ABME
				-	10					
					0.					
······································										
RESULTS	S:	LANDFARM			/		NOTES:	<u> </u>		
2299 CHLORIDE TEST EMPLOYEE: 2 two										
	PAINT FILTER TEST	Certifie	cation of above rec		cement					RDC
	g as the driver/transporter, I d Generator/Point of Origin a	سما فأشمه سمر مطافاتهم	al material has he		n matrice of tasks					
COMPANY	ANSPORTER CO. <u>MIDES EXCAUATION</u> NAME <u>WATHON</u> BME TOUS SIGNATURE <u>Mighter Representation</u> DMPANY CONTACT Lambert PHONE DATE DATE									



MANIFEST # <u>44905</u> DATE <u>/0-16-13</u> JOB # <u>97057-0597</u>

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	LOAD         COMPLETE DESCRIPTION OF SHIPMENT         TRANSPORTING COMPANY           NO.         POINT OF ORIGIN         DESTINATION         MATERIAL         GRID         YDS         BBLS         COMPANY         TRK#         TIME         DRIVER SIGNATURE												
NO.	POINT OF ORIG	IN Paris	DESTINATION		GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER S	GNATURE	]
1	2B-17		LETT	CON+ SOIL	8.23	12		FLyingph	17	93D	Joky	Caples	
2	i /	<u>۱</u>	<u>.</u> [	11	B-23	12	-	n 11	17	1118	the 's	Jhle.	
3	t (	<u>\ 1</u>	. (	11	B · 23	12		(1 4	17	1320	Tope	2/1 ale	- 
Y	17	11	レ	17	B-23	12		11 4	17	1457	Johe	1/ le	Ţ
5	1/	17	1,	1)	B-23	12		N 11	17	163	Ide.	that las	
						10			•	4	J		T
													1
											·		
													1
											<u> </u>		
RESULT	L S:		LANDFARM	1 0				NOTES:					
2299													
	PAINT FILTER TEST       Certification of above receival & placement       RDC         signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above												
By signing	g as the driver/transpo d Generator/Point of O	rter, 1 o rigin a	certify the material nd that no addition	hauled from the a al material has be	bove location	on has not l r mixed into	been add	led to or tampered v	vith. I ce	rtify the	material is fr	om the above	
	ntioned Generator/Point of Origin and that no additional material has been added or mixed into the load.												
COMPAN		2	•	PHONE				DATE	-/6	<u>I</u>	3	<	



MANIFEST # _ 44906

MANIFEST # 44905 DATE <u>10-16-13</u> JOB # <u>97057-0597</u>

LOAD	CC	MPLETE DESCRIP	ORTING	COMPA	NY					
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
14	ENterprise 2B-17	LF II	const- Soil	B:23	12		M055	æ17	930	Leo Mass
2	ע 1	11	17	B-23	12		14055	47	1118	Lee mass
3	11 11	11	11	B:23	12		moss	47	1300	Lee mosa
4	11 1	1)	ι)	B.23	12		M055	47	1450	Lee Mors
5	1/ []	11	11	B-23	12		moss	47	1647	Lee Moss Lee Moss
				_	10	-				
					60					
		· · · · · · · · · · · · · · · · · · ·								·
RESULT	1	LANDFARM	1	2 //	· · ·		NOTES:	·		
6299	CHLORIDE TEST		Day fa	Um	lon					
	PAINT FILTER TEST 2 Certification of above receival & placement									RDC
By signin mentione	y signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above entioned Generator/Point of Origin and that no additional material has been added or mixed into the load.									
	RTER CO. MOSS						SIGNATURE	Lea	Mo	22
	INSPORTER CO. MOSS Excountion NAME Lee MOSS SIGNATURE Lee MOSS SIGNATURE Lee MOSS SIGNATURE Lee MOSS DATE 10-16-13									
Signature	s required prior to distribu	tion of the legal docu	ument.							



MANIFEST # <u>44907</u> DATE <u>/0-/6-13</u> JOB # <u>97057-0597</u>

LOAD	COM	PLETE DESCRIPT	TION OF SHIPME	NT		<u></u>	TRANSPORTING COMPANY					
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE		
1	Enterprise	LFII	CON'T SOL	B.23	12	-	BET	105	940	Brien Stoll		
2	1) 1/	))	1)	B:23	12	-	BET	105	1120	Griun Sover		
3	11 1/	1)	()	B-23	12		BEt,	05	1315	Brian Stope/		
·	<u>, '</u>	N /	) [•] )	B.23	12		- BETIDS 1452 Juan Der					
5	1/ 1/	1)	/1	B-23	12		BET	105	7647	Bruen Slove		
					60		•					
<b> </b>												
			4									
RESULT	S:	LANDFARM	1	$\square$	1 .		NOTES:	<u>I</u>	<u>.</u> 1			
L299		EMPLOYEE:	Jour,	Kpb	Inst	201	<u>.                                    </u>	<u>,</u> ,				
	PAINT FILTER TEST		cation of above re							RDC		
By signing mentioned	g as the driver/transporter, I d Generator/Point of Origin a	certify the material and that no additior	hauled from the a nal material has be	bove locatio	on has not l r mixed into	been add b <u>the l</u> oad	ded to or tampered to define the second s	with I ce	rtify the	material is from the above		
TRANSPO				SMIGN	1 SOU	EK	SIGNATURE	Sil	m	ERC.		
	COMPANY CONTACT DOLLA WE WOUNGID PHONE 419-8745 DATE 10-16-13											
Signature	s required prior to distributio	n of the legal docu	ment.				r	-				



MANIFEST # 44909

DATE 10-16-13 JOB # 47057-0597

PHONE: (505) 632-0615	<ul> <li>5796 U.S. HIGHW</li> </ul>	AY 64 • FARMINGTON,	NEW MEXICO 87401
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LOAD	СОМ	PLETE DESCRIPT	ION OF SHIPME		TRANSPORTING COMPANY						
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE	
1	E.Tech	Enterprise Lat28-17	Clean Fi'll	~	12	-	M055	47	1118	Leo Moss	
2	11	Lat28-17		-	120		12055	47	1300	Leo moss	
3	1;	1	/ 1	-	12		moss	47	1450	Leo Moss Leo Moss Leo Moss	
					36						
					24						
			<u></u>								
			, , , , , , , , , , , , , , , , , , ,								
RESULT	S: CHLORIDE TEST	LANDFARM EMPLOYEE:	Come	lina			NOTES:	·····			
PAINT FILTER TEST Certification of above receival & placement										KD .	
mentione	By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.										
TRANSPO	RTER CO. MOSS Ex	Kovatio-1	NAME	ee Me	,sr		SIGNATURE	Low	Ma	02	
COMPAN	CONTACT GARY A	loestas	PHONE					-16-	-13		
Signature	COMPANY CONTACT Crow Meestas PHONE DATE 10-16-13 Signatures required prior to distribution of the legal document.										



MANIFEST # 44910 DATE 10-16-13 JOB # 97057-0597

LOAD	СОМ	PLETE DESCRIPT	TION OF SHIPME	NT		TRANSPORTING COMPANY					
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE	
)	E.toch	Enterrise Lut 2B-17	FII		12		Flyingm	海	1118	Topa Mallon	
2	11 11	11 11	SOIL	-	12	-	<u>, 1</u>	17	1320	Jobe Teller	
3	11 /1	10 11	11	-	12	-	11 11	17	1452	Jobe Dehles	
				-	36					8	
					34						
<u> </u>											
RESULT	S: CHLORIDE TEST	LANDFARM EMPLOYEE:	Contractor	Section			NOTES:				
/	PAINT FILTER TEST		cation of above re	ceival & pla	cement			<u> </u>		RD	
By signing as the driver/transporter. I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load. TRANSPORTER CO. Flying M. NAME Tobu Made Signature Signature											
	DMPANY CONTACT DATE DATE DATE DATE										
Signature	as required prior to distribution	n of the legal docu	ment.								



MANIFEST # 44911

DATE 10-16-13 JOB # 97057-0597

LOAD	СОМ		ION OF SHIPME	TRANSPORTING COMPANY								
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE		
	Etech	Enterprise	ecleon		12	-	BET	105	1120	Brian Stores		
2		11	SOIL		12		BET	105	1315	Brean Slover		
3	1	)]	11		12		DET	105	1452	Bruin Slote		
					26							
	·				34							
			<u> </u>									
			<u> </u>									
RESULT		LANDFARM EMPLOYEE:	(hann	PI	MA ON	1	NOTES:	<u> </u> ]	1			
	PAINT FILTER TEST	Certific	cation of above re	ceival & pla	cement	·				RD		
By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. Certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.												
COMPANY CONTACT DATE AND A CAMPANY CONTACT DATE 10-16-13 Signatures required prior to distribution of the legal document.												



MANIFEST # 44920

DATE /1-13 JOB # 97057-0597

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401
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LOAD	COMI	PLETE DESCRIPT	TON OF SHIPMEN	NT.		TRANSPORTING COMPANY					
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE	
1	Eitech.	Enterpris Lat 28-17	Clean		12		MOSS	47	TO	Lee Mase	
2	4 4		«F)   Y	-	12		moss	47	1011	Lee Mose Lee mose	
3	4 <i>U</i>		" 0		12		M055	47	12:15	Lee Mass	
4	a a	ti li	li 1(		12	-	MOSS	47	13:15	Lee Moss	
د 					118						
					-1						
RESULT		LANDFARM	Cours ly	1 .			NOTES:				
		EMPLOYEE:		00.00	on						
	PAINT FILTER TEST		cation of above rec				·			R	
mentioned	g as the driver/transporter, I o d Generator/Point of Origin a	nd that no addition	al material has be	en added o	r mixed into	o the load	d		-		
TRANSPORTER CO. Most Excountion NAME Lee Moss											
COMPAN	CONTACT GOTA A	har stars	PHONE				DATE 10-	-/7-	17		
Signature	Signatures required prior to distribution of the legal document.										



MANIFEST # _ 44921

DATE / 0-17-13 JOB # 97057-0597

LOAD	(	COMF	LETE DESCRIPT	TRANSPORTING COMPANY							
NO.	POINT OF ORIGIN	N	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	entreppise (m+2B-17		(FI	Cont Soil	B-22	12		MOSS	47.	1011	Lee Mas
2	4	U		9	B-22	12	1	MOSS	47	12:15	Lee Mass Lee Moss Lee Mass
3	\$	M	u ų	ст <i>L</i>	B-22	12	-	MUSS	47	13:15	Les Mose
						36					
				<u> </u>							
RESULT:	S: CHLORIDE TEST		LANDFARM EMPLOYEE:	66.	$\downarrow$		-	NOTES:			
011	PAINT FILTER TEST	$\frac{1}{3}$		cation of above red	ceival & pla	cement		R			
	g as the driver/transport	inin or	ertify the material	hauled from the a	bove locatio	on has not t	the lease			•	material is from the above
TRANSPO	ANSPORTER CO NAME Lee moss SIGNATURE Lee Moss										
COMPANY CONTACTPHONE								DATE			
Signature	Signatures required prior to distribution of the legal document.										



MANIFEST # _______ 44922

DATE 10-17-13 JOB # 97057-0597

PHONE: (505) 632-0615 •	5796 U.S.	HIGHWAY 64 •	FARMINGTON,	NEW MEXICO 87401

LOAD	C	LETE DESCRIPT	TRANSPORTING COMPANY								
NO.	POINT OF ORIGIN	1	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	E-toch	1	Enteriptise LAI2B-17	CLEAN FILL		12	-	Flying M.	14	890	Joby Valles
2	И	4	u 4	U Ø		12	-	1.1 0	14	1011	Toke Alphen
3	a l	1	4 9	f 4	_	12	1	4 V	14	12:15	Lober Lahler
4	И	4	U U	4 4		12	-	4 4	14	13:45	Joby Wahler
					~	TR			•		
							·				
RESULTS	S:		LANDFARM	6				NOTES:		<u>.                                    </u>	
/	CHLORIDE TEST	/	EMPLOYEE:	Land	Le						
PAINT FILTER TEST / Certification of above receival & placement											R
By signing mentioned	By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.										
	RTER CO. Flying	M								she	Flahle,
COMPANY	MANSPORTER CO. Flying M NAME TOby blackles SIGNATURE black the sig										



MANIFEST # ______44923

DATE 10-17-13 JOB # 97057-0597

LOAD	COMF	PLETE DESCRIPT		TRANSPORTING COMPANY							
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE	
2	E-KANRSC LAF 2D-17	17#	cont Soic	B-22	12	-	FLyingn	14	1011	Toky Calle	
2	и и	U 9	e 4	B-22	12		u 1 4	14	12:15	John Whiles	
3	4	t U.	(l (l	B-22	12	-	q 4	14	13:45	Joke Clahles	
					36						
RESULT		LANDFARM	K L	7	0		NOTES:				
2299		EMPLOYEE:	Altre	-de				<u>_· .</u>	<u></u>	2	
	PAINT FILTER TEST		cation of above red							R	
By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.											
TRANSPO	RANSPORTER CO. FLYIN/M NAME 10by Wahle signature boog allahle										
COMPAN							DATE		0	- \	
Signature	COMPANY CONTACT DATE DATE DATE DATE										



MANIFEST # ______44931

DATE 10-18-13

JOB # 97057-0597

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	COM	PLETE DESCRIPT	ION OF SHIPMEN	NT			TRANSPORTING COMPANY				
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE	
	E-Tech	ENterpr (nt.2B-17	ISPCIEDNU Fill		12	-	MOSS	2	800	THE BAR	
2	4 4	4 4	9 Y		12	~	MP55	2	1000	Math BMP	
3	4 1	4 4	e u		12		40-55	2	1236	YHE BING	
4	4 4	u q	4 U		12	-	MOSS	2	14:30	TAL BUCK	
					1.2					X	
					40						
				<u>-</u>							
	•										
RESULT	S:	LANDFARM	Λ	$\mathcal{D}$	1	Baw	NOTES:				
/	CHLORIDE TEST EMPLOYEE: (TIME & MADAZ										
7	PAINT FILTER TEST				RD						
By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.											
TRANSPO	RTER CO. MP35 E;	reavetion		Jathan	B.M.	Kinn	SIGNATURE	_]/k,	top	SML-	
	CONTACT Lamb	COMPANY CONTACT Lamber PHONE DATE 10-18-13									

Signatures required prior to distribution of the legal document.

6



MANIFEST # 44932 DATE 10-18-13 JOB # 97057-0577

LOAD	COMF	ION OF SHIPMEN	TRANSPORTING COMPANY							
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
2	E-tech.	Enterphise	Cleon	-	12	-	Flyingm	14	805	Topy Waller
2	u li	4 20 4	Soic		12	-	4 4	14	10:05	The tehler
3		4 67 .	a (	-	12		G U	14	11:35	The Mahar
4	4 4	4 4 .	Ll Ll		12	-	4 4	14	13:05	Topp Lahler
					UR					J
					40					· ·
							· · · · · · · · · · · · · · · · · · ·	 		
					2					
RESULT	Q.		-A		/ /					
/		LANDFARM EMPLOYEE:	(mu	NA	NOTES:					
1		Certific	cation of above red	ceivai & pia	2600	RD				
By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Orioin and that no additional material has been added or mixed into the load.										
TRANSPORTER CO NAME TO by Wahle SIGNATURE to be while ?							Viehler			
COMPAN	CONTACT		PHONE				DATE			<u> </u>
Signatures required prior to distribution of the legal document.										



MANIFEST # 46340 DATE 3/25/14 JOB # 97057-0597

LOAD		ION OF SHIPME	TRANSPORTING COMPANY										
NO.	POINT OF	ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE		
	Enterprise 2B-17	Lateral	LFI-5	CON+.	B-21	10	-	Moze Excavely	47	950	Lee Mass		
2	10	ιc	LFI-5	11 11	B-21	10	~	11 4	17	950	1		
3	li	K	LET-5	ic it	B-21	10	_	11 11	47	1150	Lee moss		
4	11	11	LEII-S		B-21	10		re e	17	1155	Q. Kobo		
5	1(	И	LFII-5	ન ષ	B-21	10		21 11	47	1330	Leo Moso		
6	И	U	LFII-5	il [[	B-21	10	~	10 10	17	1335	OfKobr		
2	u	v1	LEII-5	11 L(	B-21	10		11 11	47	1520	fee mos		
8	10	и	LEI-5	11 (1	B-21	10	1	(( ))	17	1525	On Kobzer		
						20	-				0.1. /		
						- 80-							
RESULTS	S:		LANDFARM	LANDFARM 2 Blow					NOTES:				
4286		~ ~	EMPLOYEE:	tatnick		Heme	m						
	PAINT FILTER TEST 2 Certification of above receival & placement												
By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.													
TRANSPORTER CO. <u>MOSS Excapsion</u> NAME Lee MOSS SIGNATURE <u>Lee Moss</u> COMPANY CONTACT <u>Gary Maestas</u> PHONE <u>DATE 3-25-14</u>													
COMPANY CONTACT Gary Maestas PHONE DATE 3-25-14													
Signatures required prior to distribution of the legal document.													



MANIFEST # 46341 DATE 3/25/14 JOB # 97057-0597

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	СОМ	TRANSPORTING COMPANY								
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Envirotech	ENTERPRISE LAT 2B17	CLEAN		10	~	Mc55 Excavation	47	950	Lee Mos
2.	vi vi	4 U	14 VL		10	~	11 11	17	950	On Kobza
3	it it	u V	1 L(		10	-	je ti	47	1150	Le mos
4	11 <i>(</i>	el U	ri Ll		10	-	(c)	17	1155	co trobera
5	ri vi	0 0	11 V		10		11 M	47	1330	Leo Mors
6	ห น	4 4	u n		10	l	11 15	17.	1335	Of Gater
					10			¢		0,0
					- <b>U</b>					
RESULTS	RESULTS: LANDFARM							<u>ا</u> م ۱		
		EMPLOYEE:	fatnic	Clas	Zina	Her ~	NOTES:			
7	PAINT FILTER TEST	Certifi	cation of above red	ceival & pla						
By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.										
TRANSPORTER CO. MOSS Excention NAME Lee Moss signature Lee Moss										
TRANSPORTER CO.     MOSS Excention     NAME     Lee Moss     SIGNATURE     Lee Moss       COMPANY CONTACT     Gard     Macstas     PHONE     Date     3-25-14										



MANIFEST # 46342 MANIFEST # 46342 DATE 3/25/14 JOB # 97057-0597

#### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD		COMF	PLETE DESCRIPT	ION OF SHIPMEN	NT			TRANSPO	RTING	COMPAI	NY
NO.	POINT OF ORI	GIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Entemprise L	otenal	LEII-5	Covit. Soil	A-21	10	~	FlyingM	15	1000	Mankley
2	11	(/	it it	te te	A-21	10	-	11 11	15	1200	Alban
3	и	u	n N	<i>u u</i>	A-21	10		FlyingM	15	1340	M light
Ý	1(	10	(* . t	11 11	A-21	10		FlyingM	15	1530	Mhent
					·	10	•				70
						90					
RESULTS			LANDFARM		2		-C -)	NOTES:		I	
4286	CHLORIDE TEST		EMPLOYEE:	tatnick	Lapon	Main	Baw				
	PAINT FILTER TES	Т	Certific	cation of above ree					_		
By signing mentioned	By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.										
	L	Vive	,	NAME,	MARK	L0P2	2		Ma	6	
COMPANY	COMPANY CONTACT KUSS MOSS PHONE 3260254 DATE 3-25-14										



MANIFEST # 46343 DATE \$ 3/25/14 JOB # 97057-0597

LOAD	СОМ	PLETE DESCRIPT	TION OF SHIPMEN	NT			TRANSPC	RTING	COMPAI	NY
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
l	Envirotech	ENERAL: SC CAT 2B17	Clean	_	10	~	Flying M	15	1000	Mark hun
2	14 il	6 6	60 (1		10	-	1 cl	15	1200	Mary
3	ч п	4 4	11 ι(	-	10	-	le cc	15	1340	Mhen
					30					
										· ·
RESULTS	S: CHLORIDE TEST	LANDFARM EMPLOYEE:	1 2 Jack	$\sim$	1 1 2	gen zv	NOTES:		I	
		Certifi	cation of above red							
mentioned	g as the driver/transporter, I d Generator/Point of Origin a	and that no addition	hal material has be	en added o	r mixed into	o the loa	d. (	1.		
TRANSPO	TRANSPORTER CO. FLYNG M NAME MARK LOPEZ SIGNATURE Lach how									
COMPAN	TRANSPORTER CO. FLYNG M NAME MARK LOPEZ SIGNATURE CAN A A A A A A A A A A A A A A A A A A									
Signature	s required prior to distribution	on of the legal docu	iment.	-						



MANIFEST # <u>46344</u> DATE <u>5/25/14</u> JOB # <u>97057-0597</u>

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	COM	PLETE DESCRIPT	ION OF SHIPMEN	1T			TRANSPO	RTING	COMPAI	NY
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Envirotecn	ENTERPLISE LAT 2B 17	clezin	-	10	1	westates	515	(000	Moul M. let
2	11 61	4 4	d rl		10	~	11	515	1155	Mand Milits
3	11 IC	4 4	<u>ci</u> ci		10	1	Westates	515	13-45	Manul M. Mb
					30					3
RESULTS	S:	Ban	NOTES:	··						
/	CHLORIDE TEST	LANDFARM EMPLOYEE:	Hack	4	Frank	-				
	PAINT FILTER TEST	Certifi	Certification of above receival & placement							
By signing	as the driver/transporter, 1 of	certify the material	hauled from the a	bove locatio	on has not l	been add	ded to or tampered v	with. I ce	rtify the	material is from the above

mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. 11/56 C	NAME Manuel M. Cuticyrec	SIGNATURE Man MI MAR
COMPANY CONTACT ally placestas	PHONE (979 309 6783	DATE



MANIFEST #	4634	15	
DATE <u>3/25</u>	11-4	JOB #_	97057-0597

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	CON	IPLETE DESCRIPT		NT			TRANSPO	RTING	COMPAI	NY
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Enterprise Later	LFI-5	Cont.	A-21	10	_	Weststates	515	1000	Mamel M. Sta
2	17 11	LFTT-S	10 11	4-21	10		Nostates	515	1155	Maml M. Lek
N	u n	1FI-5	ic vl	4-21	10	-	Westerles		1345	
4	n u	11 (1	te et	4-21	10		Westates			
					40					
					40					
RESULTS	ð:	LANDFARM				(مرم)	NOTES:			
4286	CHLORIDE TEST	EMPLOYEE:	Getrick	à à	temau cement					
	PAINT FILTER TEST		cation of above rec							

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. NSC	NAME Manuel M. Cutierrec	SIGNATURE / Campf. Mg
COMPANY CONTACT Garg Mlacstas		DATE 3-25-14
Signatures required prior to distribution of the legal document.		/



MANIFEST # 46354 DATE 3-26-14 JOB # 97057-0597

LOAD	СОМІ	PLETE DESCRIP	TION OF SHIPME	NT			TRANSPO	ORTING	COMPAI	NY
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1		EnterPrise Lat 28-17	Clean Fill	-	10		west states	515	725	Manuel M It
2	-) I	11 11	11	-	10	-	07 11	515	950	Maniel M. Life
					20					
					<b></b>					
RESULT		LANDFARM EMPLOYEE:	Gay Ro	Ling	EL	-	NOTES:	1	l	
//		Certifi	cation of above re-	ceival & pla	cement					
By signing	By signing as the driver/transporter. I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material has been added to or tampered with. I certify the material has been added to or tampered with. I certify the material has been added to or tampered with the location. I certify the material has been added to or tampered with the location. I certify the material has been added to or tampered with the location. I certify the material has been added to or tampered with the location. I certify the material has been added to or tampered with the location. I certify the material has been added to or tampered with the location. I certify the material has been added to or tampered with the location. I certify the material has been									
TRANSPO	RTER CO. West Sta	tes		anuel_1	U. Guti	erilz	SIGNATURE	Maru	<u>se []]</u>	.hts
COMPANY	CONTACT Gary Mar	stas	PHONE 5	<u>05/860</u>	3964		DATE	3=26	5-14	-
Signature	Signatures required prior to distribution of the legal document.									



MANIFEST # 46356 DATE 3-26-14 JOB # 97057-0597

LOAD		COMI	PLETE DES	SCRIPT	ION OF	SHIPMEN	NT T			TR	ANSPC	RTING	COMPA	NY
NO.	POINT OF ORIG	IN	DESTINA			RIAL	GRID	YDS	BBLS	СОМРА	NY	TRK#	TIME	DRIVER SIGNATURE
1	E-Tech		ENte Lat2	B-17		11	-	10	(	Flying	m	15	75	Mayor
2	()		11	11	501			10	-	EJ EJ	<b>y</b> (	15	952	Mber
3	U u	ć	u	и	ч	ч	-	20	1	N	u	15	11:22	Mhein
4	и	N	и	И	ù	u	1	10		N	n	15	1255	Mhand
35	0 11	ч	<b>u</b> ·	<i>L</i> (	ιι	<i>ر د</i>	~	10	_	u	N.	15	1430	Uhn
								50						. 0
	•													
RESULTS	S: CHLORIDE TEST			5	Cra	щł	2	n A A	5 2	NOTES:				
-	PAINT FILTER TEST			Certific	cation of a	above rec	eival & pla	cement						
mentioned	Generator/Point of C	Drigin a	nd that no a	addition	al materia	al has be	en added o	or mixed into	the loa	d.			- ,	material is from the above
TRANSPO	RTER CO. FLY	ng	<u>m.</u>		N	IAME	MARI	K. 101	25	SIGN	ATURE	120	1	$\sim$
										DATE	3-	26.	14	$\mathcal{O}$
Signature	s required prior to dist	tributio	n of the lega	ai docul	ment.								/	



MANIFEST # 46357

Ч	JOB # _	97057-	0597
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LOAD		COMF	PLETE DESCI	RIPTI	ON OF SHIPMEN	T			TRANSPORTING COMPANY			NY
NO.	POINT OF ORIG	IN	DESTINATION	N	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	ETech	_	Enterpi Lat ZB		clean Fill	1	10	-	MOSS Excavation	17	820	Oj Kobza
Z	111	(	11	"	11		10		11	47	620	Lee more
3	<u>n</u>	(	13	"	ı (		10	-	1/	47	950	La Mos
4	<u>11</u> (	ι	 	4r	L _C		10		' (	17		Or Kobza
\$	11	<u>.(</u>	11 1	1	1.1	2	10		((	47	1155	Le mas
$( \mathcal{O} )$	11	, ι	11 21		()	-	10		<u></u>	17		Of Koban
$\overline{\gamma}$	1(	ι	<u>ر ا</u>	<u>،</u>	<u>, (</u>	~	10	-	ι	17	1345	Orkaben
Ċ	Ц	u	U L	ι	* (		10	_	11	47	1345	Lee Mos
9	4	Ce	u .	a	4 Q		10		U	47	15:15	Les Mars
							90					
$\mathbf{X}$												
RESULTS	S:		LANDFAR	<u>م</u> ا			$\geq$	EL	NOTES:			
<u> </u>	CHLORIDE TEST	<	EMPLOYE	:	tatroc	Ki		ron				
/	PAINT FILTER TEST	//	C	Certification of above receival & placement								
By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above nentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.												

TRANSPORTER CO.	MOES EX	_ NAME_	OSKODZA	ag Kobza
COMPANY CONTACT	Lee MOSE		505-801-1803	3126114
	or to distribution of the legal document.		-	



MANIFEST # <u>46360</u> DATE <u>3-26-14</u> JOB # <u>97057-8577</u>

#### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD			COMF	PLETE DE	SCRIPT	ION OF	SHIPME	Т			TRANSPO	RTING	COMPA	NY
NO.		OF ORIG		DESTIN	ATION	MAT	ERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
[	Ente	2B-12	-	LFI	r.5	Cor	st f	D-20	10	-	MOSS	47	950	Leo Moss
2	, (		11	• 1			L/	D-20	10	-	moss	17	950	OS hole a
3	• 1		1.	/ 1			11	D-20	10	-	Moss	47	115	Lea Mass
4	И	<i>(</i>	И	VI	L.	n	10	D-20	10	-	Moss	17	115	5 de kobac
5	10		ι.	1 L	ιC	4	ι ζ	D-20	10		Moss	17	1335	G. Kaba
$\lfloor a \rfloor$	u		d	И	ιc	u	u	)-20	10	-	MOSS	(7	1345	feemos
	VOID	thi-	5	(in	le	~			10		MOS	47	15:15	Lae Moss
		· ·							(a)					
RESULTS	S:			LANDF				$\sum$			NOTES:	······································		
<286	CHLORIDE	TEST	2	EMPLO		tati	vek J	Alo	man	-	<u> </u>	test :	strips	on lord 1+6
	PAINT FILTE	ER TEST	2		Certific	cation of	above ree	ceival & pla	cement					
mentioned	d Generator/F	Point of Or	rigin ar	nd that no	addition	al mater	ial has be	en added o	r mixed into	o the load	1.	_	-	material is from the above
TRANSPO	rter Co. 🖊	N055	Ex	coust:	27	I		Lee.	MOSS	م 	SIGNATURE	Lee	M	00-
COMPANY	RANSPORTER CO. MOSS Excoustion NAME Lee MOSS SIGNATURE Lee Moss SIGNATURE Lee Moss SIGNATURE Lee Moss DATE 3-26-14													



Bill of Lading MANIFEST # 46361 DATE 3-26-14 JOB # 97457-0.577

#### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	СОМ	PLETE DESCRIPT	ION OF SHIPME	NT			TRANSPO	ORTING	COMPA	NY
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Enterprise Lat 2B-17	LFIT-5	Conit 3012	D-20	10	(	West states	515	950	Mand M. Site
2	// //	11	30 i C	D-20	10			515	1151	Manul M Get
					20					
					20					
								ļ		
							·			
			·							
RESULT	3:	LANDFARM	1	01	- E	Z	NOTES:			
<28Le	CHLORIDE TEST	EMPLOYEE:	Gaux	obe	nog	ry l				
	PAINT FILTER TEST	Certific	cation of above rea	ceival & pla	cement					
	by signing as the driver/transporter. I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above hentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.									

TRANSPORTER CO. West States	NAME Manyel M. Cutierrez	SIGNATURE Many M Jok
	PHONE 505 - 860 - 8984	DATE 3-26-14



MANIFEST # 46362

DATE 3-26-14 JOB # 97257-2597

#### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	COM	PLETE DESCRIPT	ION OF SHIPME	NT			TRANSPO	RTING	COMPAN	NY
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	
1	ENTERPRISE Lat 2B-17	LFII-5	CON'T SOIL	D-20	10	-	Flyingm	15	95	Mark han
2	a u	u u	Conit	D-20	10		Elying M	15	11:22	Mla
3	u ic	a a	conti	D-20	10	-	Avinall	15	1855	Mland
					30					J
					20					
									+	
RESULTS	3:	LANDFARM		$ \land \circ $	- E1	-	NOTES:	· ·		
228/e		EMPLOYEE:	Cary K	NU	nder	1				
	PAINT FILTER TEST ) Certification of above receival & placement									
By signing mentioned	y signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with. I certify the material is from the above location has not been added to or tampered with.									

TRANSPORTER CO. FLying M.	NAME	MARK	LOPSZ	SIGNATURE / anh	1-0
COMPANY CONTACT Lee moss		505-80	01-1803	DATE 3-26-14	



MANIFEST # _______ 46366_____ DATE 3-26-14 JOB # 97857-0597

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	CC	OMPLETE DESCRIPT	TION OF SHIPMEN	NT			TRANSPO	ORTING	COMPA	NY
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
i	Enterprise Vot 28-17	ßF	Cont. Sort w/ Lingurd			1	Ems	300-14	11:25	fille
						-				
						l				
<u> </u>										
RESULTS		LANDFARM	0 (		É	L	NOTES:	<b></b>	┉฿	
<284	CHLORIDE TEST	EMPLOYEE:	Anix	-31	WTS		<u></u>			
	PAINT FILTER TEST	Certifi	cation of above rec							
montiono	v signing as the driver/transporter. I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above entioned Generator/Point of Origin and that no additional material has been added or mixed into the load.									
TRANSPO	RTER CO			1.kc	Souche	<u> </u>	SIGNATURE		VA	
COMPANY	RANSPORTER CONAMENAME									



MANIFEST # <u>46373</u> DATE<u>3/27/14</u> JOB # <u>97057-0597</u>

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	C	OMF	PLETE DESCRIPT	TION OF SHIPMEN	T			TRANSPO	RTING	COMPAI	NY
NO.	POINT OF ORIGIN		DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	
1	Envirotecn		Evotenporise Lat 21317	clean Fill	-	16	<u> </u>	Flyingn	15	800	Al hen
2	11 16		10 60	chean		16		FlyingM	15	955	Millan
3	l.L	и	u U	clean		10	-	Flyingen	15	1115	Whith_
4	K C	:L	u J	CIERMU		10	-	Hyingm	15	1235	11.25
5	ts t		li re	Clean		10		FlyingM	15	1400	Mapa
6	4	N	l: 4	4 4	_	10		RU	15	15:20	Milin
						10					
						Q					
			<u></u>								
RESULT	S:		LANDFARM	$\bigcirc$		Ē	L	NOTES:		4	
/	CHLORIDE TEST	/	EMPLOYEE:	Houck	Dat	ensir	-			<u>_</u>	
/	PAINT FILTER TEST	/	Certifi	cation of above red		-					
mentione	Generator/Point of Orig	gin a	nd that no additior	hal material has be	en added o	r mixed into	o the load	d.		-	material is from the above
TRANSPO	RTER CO. FLYING	_	M	NAME	MARK	LOP	DZZ	SIGNATURE	Ne	L	hpp
COMPAN	CONTACT_PUSS	Λ	1055	PHONE		-		DATE M	ARCI	4 27	7/140
Signature	RANSPORTER CO. FLYING M NAME MARK LOPE SIGNATURE Mark Ing Company CONTACT RUSS MOSS PHONE DATE MARCH 27/14										



46374 14 JOB # 97657-0597 MANIFEST # 46374 DATE 3/27/

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	СОМ	PLETE DESCRIPT	TON OF SHIPMEN	T			TRANSPO	RTING	COMPAI	NY
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Envirotech	Enterplise Lat. 2317	Clean Fill		10	/	Moss	47	805	La mos
2	11 11	n n	clean Fill	-	10		Moss	17	810	OStara
3	и и	u u	Cleanfil		10	~	Moss	17	955	OCHODZY
4	re re	a u	Clean Fill		10		MOSS	47	1000	Les Mass
Ś	ci 20	U Ü	clean Fill		10		Moss	47	1130	
6	v v	11 21	LleanFill		10	-	Moss	17	1130	CC KObaa
7	1¢ 1¢	(i [(	Clean Fill		10	_	Moss	47	1308	fer mas
8	u 11	ri ·4	Cleanfil	-	10		Moss	17	1310	arkoba
9	и и	10 00	Classifil		iO		Moss	47	1500	Leemas
10	u u	l n	Cleanfill	/	10	-	Moss	17	1500	De Kobza
					100					0,0
RESULT	S:	LANDFARM	$\overline{(}$	$\overline{}$	EL	-	NOTES:			
	CHLORIDE TEST EMPLOYEE: Latrick Dobum									
PAINT FILTER TEST Certification of above receival & placement										
By signing mentione	By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.									
	RTER CO. MOSS EXC			Lee 1			SIGNATURE	Lee	_712	<i>1</i> 07-
COMPANY CONTACT Lee Mos PHONE 801-1803 DATE 3-27-14										

Signatures required prior to distribution of the legal document. White - Company Records, Yellow - Billing, Pink - Customer



MANIFEST # 46384 DATE 3.28-14 JOB # 97857-0597

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	COMF	PLETE DESCRIPT	ION OF SHIPMEN	NT			TRANSPO	RTING	COMPAN	١Y
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
4.	E.Tech	ENterprise Lat 2B-17 A 11	Clean Fill		10		West states	515	750	5-2-
2	<i>N</i>	a 11	50:6	<b>^</b>	10			515	930	
					20					$\partial$
RESULTS	S:	LANDFARM	ANDFARM A A EL		NOTES:		k	······································		
		EMPLOYEE:	(aly Ra	lin	an					
/	PAINT FILTER TEST									
By signing mentioned	y signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above entioned Generator/Point of Origin and that no additional material has been added or mixed into the load.									

TRANSPORTER CO. 6/est States	NAME ZACK Ton any	SIGNATURE
	PHONE 505-436-94418	DATE 3-28-14
Signatures required prior to distribution of the legal document	•	



MANIFEST # 46385

DATE 3-28-14 JOB # 97057-0597

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
NO.	POINT OF ORIGIN	DESTINATI		GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Effech	EnterPr Lat2B	·ise Clean ·i7 Fi'll		10	-	Moss	47	813	Lee more
Z			Soil		10	-	Moss	71	8:14	as holza
3	<b>i</b> ( <b>i</b> (	u 11	u 4		10	-	Moss	47	945	Lee Mons
4	21 U	11 1	1 U 21		10	$\sim$	Mass	17	94K	OLKobra
<b>.</b>					40	1				<u> </u>
RESULTS	S:	LANDFAR	· Gary	0	Ē	2	NOTES:			
/	CHLORIDE TEST	EMPLOYE	E Cary	Kobi	nl p	2				
/	PAINT FILTER TEST		ertification of above r	eceival & pla	cement					
	g as the driver/transporter d Generator/Point of Origi				or mixed into			with. I ce	rtify the	material is from the above

TRANSPORTER CO. MOSS.		Lee	Moss	SIGNATURE fee Mon	
COMPANY CONTACT Lee MOSS	PHONE	801-	1803	DATE 3.28.14	
Signatures required prior to distribution of the legal document.	-	•			

White - Company Records, Yellow - Billing, Pink - Customer



# MANIFEST # 46386 DATE 3-28-19 JOB # <u>97057-0597</u>

#### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	COM	TRANSPORTING COMPANY								
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	E-Tech	Enterfus Lat 2B-17	Clean Fill Soil	-	10	-	FLying m	15	0805	M hopen
2	11	)1 Ir	50iL 11	-	10		Flyingm		0928	Mm
					20		, v			
RESULTS	S:	LANDFARM	e – EL			NOTES:				
	CHLORIDE TEST	EMPLOYEE:	bay &	ober						
1	PAINT FILTER TEST	Certific	ation of above rec	eival & pla	cement					
Du aianina	ciping as the driver/transporter L certify the material bauled from the above location has not been added to or tampered with L certify the material is from the above									

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO.	NAME	SIGNATURE
COMPANY CONTACT	PHONE	DATE 3-28-14
Signatures required prior to distribution of the legal document.		•



1.) Early stages of excavation. Clean fill (reddish soil) was placed on pipeline for equipment support.



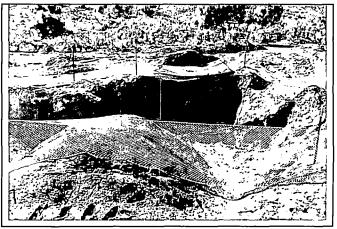
2.) View of excavation of apparent historic release at northeast portion of excavation (note apparent staining).



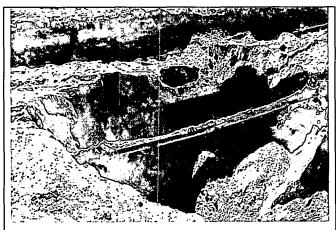
3.) Limit of excavation (15') reached with on-site equipment in October 2013.



5.) Excessive sloughing continues to challenge excavation activities.



4.) View of fencing being removed prior to resumption of excavation activities in March 2013.



6.) A total depth of 21 feet is achieved in the source area, and soil stability continues to provide challenges (note exposed adjacent pipeline).





# Southwest

TABLE 1-Draft Lateral 2B-17 Pipeline Release SOIL ANALYTICAL RESULTS											
Sampte I.D.	Date	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)		
New Mexico Energy, Miner	New Mexico Energy, Minerals & Natural Resources Department. Oil Conservation Division, Remediation Action Level			NE	NE	NE	50	1	00		
Confirmation Samples From Soils Which Were Removed by Excavation for Disposal/Treatment											
S-1	10.13.13	4.0	<0.05	<0.05	<0.05	0.08	0.08	<5.06	<30.5		
S-2	10.13.13	4.0	<0.05	0.13	0.06	0.95	1.13	8.95	213		
S-3	10.13.13	3.5	<0.05	<0.05	<0.05	0.51	0.51	12.6	193		
S-4	10.13.13	4.0	<0.05	<0.05	<0.05	<0.05	<0.05	5.65	<29.9		
S-5	S-5 10.13.13 7.0 Not Analyzed - exceedance based on PID reading										
Conf-14	10.17.13	15.0	0.79	8.14	3.21	38.3	50.4	249	3,580		
Confirmation Samples From Soils Removed as Overburden											
Conf-6	10.15.13	5.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<30.0		
		Con	nfirmation Sample	s From Soils Rem	aining in Place						
Conf-7	10.15.13	6.0	<0.05	<0.05	<0.05	<0.05	<0.05	<5.0	<29.9		
Conf-8	10.15.13	4.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	. <30.0		
Conf-9	10.15.13	4.0	<0.05	<0.05	<0.05	<0.05	<0.05	<5.0	<30.0		
Conf-10	10.16.13	3.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<29.9		
Conf-1 I	10.16.13	4.0	<0.05	<0.05	<0.05	<0.05	<0.05	7.97	<30.0		
Conf-12	10.16.13	3.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.98	<29.9		
Conf-13	10.16.13	3.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<30.0		
Conf-15	3.24.14	14.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<30.0		
Conf-16	3.24.14	12.0-18.0	<0.05	<0.05	<0.05	<0.05	<0.05	<5.00	<29.9		
Conf-17	3.24.14	12.0-16.0	<0.05	<0.05	<0.05	<0.05	<0.05	<5.00	<30.0		
Conf-18	3.24.14	North Floor Comp. 21.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<30.0		
Conf-19	3.24.14	16.0-20.0	<0.05	<0.05	<0.05	<0.05	<0.05	<5.0	<30.0		
Conf-20	3.26.14	SE Wall Composite	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<29.9		
Conf-21	3.26.14	S Wall Composite	<0.05	<0.05	<0.05	<0.05 .	<0.05	<4.99	<29.9		
Conf-22	3.26.14	South Floor Comp. 21.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<30.0		
Conf-23	3.26.14	SW Wall Composite	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<30.0		

Note: Concentrations in bold and yellow exceed the applicable OCD Remediation Action Level

NE = Not Established

+ = This area was subsequently over-excavated



### **Analytical Report**

#### **Report Summary**

Client: Southwest Geoscience Chain Of Custody Number: 16203 Samples Received: 10/8/2013 3:01:00PM Job Number: 07174-0003 Work Order: P310030 Project Name/Location: 2B-17

Date: 10/10/13

Entire Report Reviewed By:

Tim Cain, Laboratory Manager

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	10-Oct-13 08:45

#### **Analyical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S-1	P310030-01A	Soil	10/08/13	10/08/13	Glass Jar, 4 oz.
S-2	P310030-02A	Soil	10/08/13	10/08/13	Glass Jar, 4 oz.
S-3	P310030-03A	Soil	10/08/13	10/08/13	Glass Jar, 4 oz.
S-4	P310030-04A	Soil	10/08/13	10/08/13	Glass Jar, 4 oz.

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	et Name: et Number: et Manager:	umber: 07174-0003					Reported: 10-Oct-13 08	
		P3100	S-1 30-01 (Sol	lid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
p,m-Xylene	0.08	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Total Xylenes	0.08	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Total BTEX	0.08	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Surrogate: Bromochlorobenzene		83.7 %	80-	120	1341022	10/09/13	10/09/13	EPA 8021B	··
Surrogate: 1,3-Dichlorobenzene		81.4%	80-	120	1341022	10/09/13	10/09/13	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.06	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.5	mg/kg	1	1341023	10/09/13	10/09/13	EPA 8015D	
GRO and DRO Combined Fractions	ND	5.06	mg/kg		[CALC]	10/09/13	10/09/13	EPA 8015D	



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Proje	ect Name: 2B-17 ect Number: 07174-0003 ect Manager: Kyle Summers						Reported: 10-Oct-13 08	
		P31003	S-2 30-02 (Soi	lid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Toluene	0.13	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Ethylbenzene	0.06	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
p,m-Xylene	0.69	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
o-Xylene	0.26	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Total Xylenes	0.95	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Total BTEX	1.13	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Surrogate: Bromochlorobenzene	· · · ·	100 %	80-	120	1341022	10/09/13	10/09/13	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		94.6 %	80-	120	1341022	10/09/13	10/09/13	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	8.95	4.97	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8015D	
Diesel Range Organics (C10-C28)	213	30.1	mg/kg	1	1341023	10/09/13	10/09/13	EPA 8015D	
GRO and DRO Combined Fractions	222	4.97	mg/kg		[CALC]	10/09/13	10/09/13	EPA 8015D	



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	et Name: et Number: et Manager:	2B-17 07174 Kyle :					<b>Reported:</b> 10-Oct-13 08	
		P3100	S-3 30-03 (Sol	lid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
p,m-Xylene	0.40	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
o-Xylene	0.11	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Total Xylenes	0.51	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Total BTEX	0.51	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Surrogate: Bromochlorobenzene		92.9 %	80-	120	1341022	10/09/13	10/09/13	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		84.5 %	80-	120	1341022	10/09/13	10/09/13	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	12.6	5.07	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8015D	
Diesel Range Organics (C10-C28)	193	30.3	mg/kg	L	1341023	10/09/13	10/09/13	EPA 8015D	
GRO and DRO Combined Fractions	206	5.07	mg/kg		[CALC]	10/09/13	10/09/13	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	ect Name:2B-17ect Number:07174-0003ect Manager:Kyle Summers		1-0003				Reported: 10-Oct-13 08	
		P3100	S-4 30-04 (Sol	lid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	۱	1341022	10/09/13	10/09/13	EPA 8021B	
Surrogate: Bromochlorobenzene		82.9 %	80-	120	1341022	10/09/13	10/09/13	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		81.2 %	80-	120	1341022	10/09/13	10/09/13	EPA 8021B	
Nonhalogenated Organics by 8015	ā								
Gasoline Range Organics (C6-C10)	5.65	5.00	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1341023	10/09/13	10/09/13	EPA 8015D	
GRO and DRO Combined Fractions	5.65	5.00	mg/kg		[CALC]	10/09/13	10/09/13	EPA 8015D	

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	10-Oct-13 08:45

#### 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 1341022 - Purge and Trap EPA 5030A										
Blank (1341022-BLK1)				Prepared &	Analyzed:	09-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: 1,3-Dichlorobenzene	45.5		ug/L	50.0		90.9	80-120			
Surrogate: Bromochlorobenzene	46.4		"	50.0		92.8	80-120			
Duplicate (1341022-DUP1)	Sou	irce: P310030-	01	Prepared &	: Analyzed:	09-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	0.09	0.05			0.08			15.1	30	
o-Xylene	ND	0.05	'n		ND				30	
Surrogate: 1,3-Dichlorobenzene	44.9		ug/L	50.0		89.7	80-120			
Surrogate: Bromochlorobenzene	47.1		"	50.0		94.2	80-120			
Matrix Spike (1341022-MS1)	Sou	arce: P310030-	01	Prepared &	Analyzed:	09-Oct-13				
Benzene	45.2		ug/L	50,0	0.36	89.8	39-150			
Toluene	45.6		"	50.0	0.63	89.9	46-148			
Ethylbenzene	45.7		"	50.0	0.21	91.0	32-160			
p.m-Xylene	92.4			100	1.56	90.9	46-148			
o-Xylene	46.6			50.0	0.65	91.8	46-148			
Surrogate: 1,3-Dichlorohenzene	45.2		"	50,0		90.3	80-120			
Surrogate: Bromochlorobenzene	47.8		"	50.0		95.6	80-120			

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	10-Oct-13 08:45

#### 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 1341022 - Purge and Trap EPA 5030A											
Blank (1341022-BLK1)		Prepared & Analyzed: 09-Oct-13									
Gasoline Range Organics (C6-C10)	5.79	4.95	mg/kg							В	
Duplicate (1341022-DUP1)	Sou	rce: P310030-	01	Prepared &	Analyzed:	09-Oct-13					
Gasoline Range Organics (C6-C10)	ND	5.05	mg/kg		ND				30		
Matrix Spike (1341022-MS1)	Sou	Source: P310030-01		Prepared & Analyzed: 09-Oct-13							
Gasoline Range Organics (C6-C10)	0.39		mg/L	0.450	0.08	69.0	75-125			SPK I	

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	10-Oct-13 08:45

#### 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 1341023 - DRO Extraction EPA 3550C											
Blank (1341023-BLK1)				Prepared &	Analyzed:	09-Oct-13					
Diesel Range Organics (C10-C28)	ND	30.1	mg/kg								
Duplicate (1341023-DUP1)	Sou	rce: P310030-	01	Prepared &	Analyzed:	09-Oct-13					
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg		ND				30		
Matrix Spike (1341023-MS1)	Sou	Source: P310030-01			Analyzed:	09-Oct-13					
Diesel Range Organics (C10-C28)	244		mg/L	250	10.6	93.3	75-125				

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2351 W.	st Geoscience Northwest Hwy X, 75220	Project Name: Project Number: Project Manager:	2B-17 07174-0003 Kyle Summers	<b>Reported:</b> 10-Oct-13 08:45						
		Notes and I	Definitions							
SPK1	The spike recovery for this QC sample	the spike recovery for this QC sample is outside of control limits.								
в	Analyte is found in the associated bla	nalyte is found in the associated blank as well as in the sample.								
DET	Analyte DETECTED	Analyte DETECTED								
ND	Analyte NOT DETECTED at or above the	reporting limit								
NR	Not Reported									
dry	Sample results reported on a dry weight b	asis								
RPD	Relative Percent Difference									

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Client: Swin / EF	PROD	Pr	oject Name / Location	on: B-	B-i7						<u> </u>							SIS / PARAMETERS				
Email results to: KYLE Summ Client Phone No.: 903-821	ners - 560	Sa Cli		IN BRYANT 14-0003				ANT		BTEX (Method 8021)	(Method 8260)	RCRA 8 Metals	' Anion		with H/P	le 910-1	18.1)	IDE			Cool	
Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./	Volume ontainers	1	reserva		TPH (Method 8015)(ح	BTEX (I	VOC (N	RCRA 8	Cation / Anion	RCI	TCLP w	CO Table	TPH (418.1)	CHLORIDE			Sample Cool	Sample [:] Intact
5-1	10/8/13		1 2002001	1×1	102				X	X											X	X
5-2			P310030-02						X	X										_	X	K,
· 5-3 5-4			P310032-03 P310030-04		7		-		X X	X X										_	X	X
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Relinquished by: (Signature)	- 62					Recei	ved b	oy: (S	ignatı	ure)				)			- <i>,</i>					
Sample Matrix Soil 📴 Solid 🗌 Sludge 🗌	Aqueous 🗌	Other 🗌				R	υs	iH														
Sample(s) dropped off after	•		f area.	30	env Anai					)	K	2 12	>2	12	20	00				Į	_1	 
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### **Analytical Report**

#### **Report Summary**

Client: Southwest Geoscience Chain Of Custody Number: 16206 Samples Received: 10/14/2013 4:14:00PM Job Number: 07174-0003 Work Order: P310054 Project Name/Location: 2B-17

Date: 10/16/13

Entire Report Reviewed By:

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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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	16-Oct-13 15:13

#### **Analyical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Conf-10	P310054-01A	Soil	10/14/13	10/14/13	Glass Jar, 4 oz.
Conf-11	P310054-02A	Soil	10/14/13	10/14/13	Glass Jar, 4 oz.
Conf-12	P310054-03A	Soil	10/14/13	10/14/13	Glass Jar, 4 oz.
Conf-13	P310054-04A	Soil	10/14/13	10/14/13	Glass Jar, 4 oz.

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Ргојес	et Name: et Number: et Manager:		7 1-0003 Summers				Reported: 16-Oct-13 15					
Conf-10 P310054-01 (Solid)													
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes				
Volatile Organics by EPA 8021													
Benzene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B					
Toluene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B					
Ethylbenzene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B					
p,m-Xylene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B					
o-Xylene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B					
Total Xylenes	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B					
Total BTEX	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B					
Surrogate: Bromochlorobenzene		97.7 %	80-	120	1342005	10/15/13	10/15/13	EPA 8021B					
Surrogate: 1,3-Dichlorobenzene		94.2 %	80-	120	1342005	10/15/13	10/15/13	EPA 8021B					
Nonhalogenated Organics by 8015													
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8015D					
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1342004	10/15/13	10/15/13	EPA 8015D					
GRO and DRO Combined Fractions	ND	4.99	mg/kg		[CALC]	10/15/13	10/15/13	EPA 8015D					

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	et Name: et Number: et Manager:	2B-17 07174 Kyle :					Reported: 16-Oct-13 15	
			Conf-11 54-02 (Sol	lid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	i	1342005	10/15/13	10/15/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Surrogate: Bromochlorobenzene		101 %	80-	120	1342005	10/15/13	10/15/13	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		98.2 %	80-	120	1342005	10/15/13	10/15/13	EPA 8021B	
Nonhalogenated Organics by 8015	<u></u>								
Gasoline Range Organics (C6-C10)	7.97	4.98	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1342004	10/15/13	10/15/13	EPA 8015D	
GRO and DRO Combined Fractions	7,97	4.98	mg/kg		[CALC]	10/15/13	10/15/13	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Ргојес	et Name: et Number: et Manager:	2B-17 07174 Kyle S			<u> </u>		Reported: 16-Oct-13 15	:13
			onf-12 54-03 (Sol	lid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	I	1342005	10/15/13	10/15/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	I	1342005	10/15/13	10/15/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Surrogate: Bromochlorobenzene		92.7 %	80-	120	1342005	10/15/13	10/15/13	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		94.0 %	80-	120	1342005	10/15/13	10/15/13	EPA 8021B	
Nonhalogenated Organics by 8015									_
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	I	1342004	10/15/13	10/15/13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.98	mg/kg		[CALC]	10/15/13	10/15/13	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: Project Number: Project Manager:		07174	2B-17 07174-0003 Kyle Summers					<b>Reported:</b> 16-Oct-13 15:13	
		-	onf-13							
<u></u>		P3100:	54-04 (Sol	lid)						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
Volatile Organics by EPA 8021										
Benzene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B		
Toluene	ND	0.05	mg/kg	T	1342005	10/15/13	10/15/13	EPA 8021B		
Ethylbenzene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B		
p,m-Xylene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B		
o-Xylene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B		
Total Xylenes	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B		
Total BTEX	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B		
Surrogate: Bromochlorobenzene		101 %	80-	120	1342005	10/15/13	10/15/13	EPA 8021B		
Surrogate: 1,3-Dichlorobenzene		101 %	80-	120	1342005	10/15/13	10/15/13	EPA 8021B		
Nonhalogenated Organics by 8015										
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8015D		
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1342004	10/15/13	10/15/13	EPA 8015D		
GRO and DRO Combined Fractions	ND	4.99	mg/kg		[CALC]	10/15/13	10/15/13	EPA 8015D		

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Southwest Geoscience	Project Name:	2B-17		
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:	
Dallas TX, 75220	Project Manager:	Kyle Summers	16-Oct-13 15:13	

#### 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 1342005 - Purge and Trap EPA 5030A										
Blank (1342005-BLK1)				Prepared: 1	4-Oct-13 /	Analyzed: I	6-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: 1,3-Dichlorohenzene	47.0		ug/L	50.0		94.0	80-120			
Surrogate: Bromochlorobenzene	45.9		"	50.0		91.8	80-120			
Duplicate (1342005-DUP1)	Sou	rce: P310047-	01	Prepared: 1	4-Oct-13 /	Analyzed: I	6-Oct-13			
Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	"		ND				30	
Ethylbenzene	ND	0.05	n		ND				30	
p.m-Xylene	ND	0.05	"		ND				30	
o-Xylene	ND	0.05	"		ND				30	
Surrogate: 1,3-Dichlorobenzene	43.9		ug/L	50.0		87.9	80-120			
Surrogate: Bromochlorobenzene	43.7		"	50.0		87.4	80-120			
Matrix Spike (1342005-MS1)	Sou	rce: P310047-	01	Prepared: 1	4-Oct-13 A	Analyzed: 1	6-Oct-13			
Benzene	55.0		ug/L	50.0	0.21	109	39-150			
Toluene	55.6		"	50.0	0.43	110	46-148			
Ethylbenzene	53.6		"	50.0	0.08	107	32-160			
p,m-Xylene	107		"	100	0.46	106	46-148			
o-Xylene	53.6		"	50.0	0.19	107	46-148			
Surrogate: 1,3-Dichlorohenzene	50.6		"	50.0		101	80-120			
Surrogate: Bromochlorohenzene	48.9		"	50.0		97.7	80-120			

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l	Southwest Geoscience	Project Name	2B-17	
ł	2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
	Dallas TX, 75220	Project Manager:	Kyle Summers	16-Oct-13 15:13

#### 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 1342004 - DRO Extraction EPA 3	550C									
Blank (1342004-BLK1)				Prepared: 1	4-Oct-13	Analyzed: 1	5-Oct-13			
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg							
Duplicate (1342004-DUP1)	Sour	ce: P310047-	01	Prepared: 1	14-Oct-13	Analyzed: I	5-Oct-13			
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	-	ND				30	
Matrix Spike (1342004-MS1)	Sour	ce: P310047-	01	Prepared: 1	14-Oct-13	Analyzed: I	5-Oct-13			
Diesel Range Organics (C10-C28)	236		mg/L	250	2.96	93,4	75-125			

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	16-Oct-13 15:13

#### 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 1342005 - Purge and Trap EPA 5030A							-			
Blank (1342005-BLK1)				Prepared: 1	14-Oct-13	Analyzed:	16-Oct-13			
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							
Duplicate (1342005-DUP1)	Sou	rce: P310047-	01	Prepared: 1	14-Oct-13	Analyzed:	16-Oct-13			
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg		ND				30	
Matrix Spike (1342005-MS1)	Sou	rce: P310047-	01	Prepared: 1	14-Oct-13	Analyzed:	16-Oct-13			
Gasoline Range Organics (C6-C10)	0.64		mg/L	0.450	0.04	132	75-125			SPK I

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	16-Oct-13 15:13

#### **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

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Client: SWG/EROD		PI	roject Name / Locatic 2 B - 17	ion:				E.	220				AN	IALY	'SIS ,	/ PAF	RAME	ETERS	;			
Email results to:	15		Agron B			, ,	<u>`</u>		8015) /	8021)	8260)					-						
Client Phone No.: 903 821 5603		, C	lient No.: 07174-	-000	3				TPH (Method 8	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P	Table 910-1	(418.1)	RIDE			e Cool	Sample-Intact
Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./ of Co	/Volume ontainers	Pro HNO3	HCI	və	N) HAT	втех	v00	RCRA	Cation	RCI	TCLP	CO Tat	TPH (4	CHLORIDE			Sample	Sample
CONF-10	10/14/13		1210-21-01		102				X	X									$\Box$		7	~
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Sample Matrix				+		R	U.S.	H		·										<b> </b>	+	
Soil 😰 🛛 Solid 🔲 🛛 Sludge 🔲 🖊		Cure drop o			env Angl	-				←										، 		

16206



# **Analytical Report**

## **Report Summary**

Client: Southwest Geoscience Chain Of Custody Number: 16219 Samples Received: 10/15/2013 11:00:00AM Job Number: 07174-0003 Work Order: P310057 Project Name/Location: 2B-17

Date: 10/17/13

Entire Report Reviewed By:

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.



Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	17-Oct-13 08:57

## **Analyical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Conf-14	P310057-01A	Soil	10/15/13	10/15/13	Glass Jar, 4 oz.

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: Project Number: Project Manager:		2B-17 07174-0003 Kyle Summers					<b>Reported:</b> 17-Oct-13 08	
			onf-14 57-01 (Sol	id)					
							<u>.</u>		
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	0.79	0.10	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8021B	
Toluene	8.14	0.10	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8021B	
Ethylbenzene	3.21	0.10	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8021B	
p,m-Xylene	27.4	0.10	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8021B	
o-Xylene	10.9	0.10	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8021B	
Total Xylenes	38.3	0.10	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8021B	
Total BTEX	50.4	0.10	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8021B	
Surrogate: Bromochlorobenzene	· · · · · · · · · · · · · · · · · · ·	171 %	80-	120	1342012	10/15/13	10/16/13	EPA 8021B	Surr1
Surrogate: 1,3-Dichlorobenzene		246 %	80-	120	1342012	10/15/13	10/16/13	EPA 8021B	Surr1
Nonhalogenated Organics by 8015			_						
Gasoline Range Organics (C6-C10)	249	9.98	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8015D	
Diesel Range Organics (C10-C28)	3580	30.0	mg/kg	1	1342014	10/15/13	10/16/13	EPA 8015D	
GRO and DRO Combined Fractions	3820	9.98	mg/kg		[CALC]	10/15/13	10/16/13	EPA 8015D	

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	17-Oct-13 08:57

#### 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 1342012 - Purge and Trap EPA 5030A										
Blank (1342012-BLK1)				Prepared: 1	5-Oct-13	Analyzed: I	6-Oct-13			
	ND	0.05	mg/kg	·						
foluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
o,m-Xylene	ND	0.05	**							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	**							
Surrogate: 1,3-Dichlorobenzene	45.3		ug/L	50.0		90.6	80-120			
Surrogate: Bromochlorobenzene	46.1		"	50.0		92.2	80-120			
Duplicate (1342012-DUP1)	Sou	irce: P310055-	01	Prepared: 1	5-Oct-13	Analyzed: I	6-Oct-13			
Benzene	ND	0.05	mg/kg		ND				30	
Foluene	ND	0.05	"		ND				30	
Ethylbenzene	ND	0.05	"		ND				30	
o,m-Xylene	ND	0.05	"		ND				30	
p-Xylene	ND	0.05	"		ND				30	
Surrogate: 1,3-Dichlorobenzene	45.5		ug/L	50.0	·	90.9	80-120			
surrogate:. Bromochlorobenzene	44.6		"	50.0		89.2	80-120			
Matrix Spike (1342012-MS1)	Sou	rce: P310055-	01	Prepared: 1	5-Oct-13	Analyzed: 1	6-Oct-13			
	53.5		ug/L	50.0	0.14	107	39-150			
Toluene	54.3		**	50.0	0.48	108	46-148			
Ethylbenzene	52.7		"	50.0	0.09	105	32-160			
o,m-Xylene	105		"	100	0.25	104	46-148			
p-Xylene	52.6		••	50.0	0.17	105	46-148			
Surrogate: 1,3-Dichlorobenzene	49.7		"	50.0		99.4	80-120			
Surrogate: Bromochlorobenzene	48.5		"	50.0		97.0	80-120			

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	17-Oct-13 08:57

#### Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory										
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1342012 - Purge and Trap EPA 5030	A									
Blank (1342012-BLK1)				Prepared: 1	5-Oct-13	Analyzed: 1	6-Oct-13			
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg							
Duplicate (1342012-DUP1)	Sou	rce: P310055-	.01	Prepared: 1	5-Oct-13	Analyzed: 1	6-Oct-13			
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg		ND			-	30	
Matrix Spike (1342012-MS1)	Sou	rce: P310055-	-01	Prepared: 1	5-Oct-13	Analyzed: 1	16-Oct-13			
Gasoline Range Organics (C6-C10)	0.71		mg/L	0.450	0.08	140	75-125			SPK I

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	17-Oct-13 08:57

#### 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 1342014 - DRO Extraction EPA 3550C										
Blank (1342014-BLK1)				Prepared: 1	15-Oct-13	Analyzed: I	6-Oct-13			
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg							
Duplicate (1342014-DUP1)	Sou	irce: P310055-	01	Prepared: 1	15-Oct-13	Analyzed: 1	6-Oct-13			
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg		ND				30	
Matrix Spike (1342014-MS1)	Sou	irce: P310055-	01	Prepared: 1	15-Oct-13	Analyzed: 1	6-Oct-13			
Diesel Range Organics (C10-C28)	241		mg/L	250	15.1	90.3	75-125			

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	17-Oct-13 08:57

#### **Notes and Definitions**

Surrl	Surrogate recovery was above acceptable limits.
SPK 1	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
dıy	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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Client: SWG/EPR	0D		Project Name / Local 23 -	ion: 17				34/02				A	NAL	/SIS	/ PAI	RAMI	ETEF	IS			
Email results to: Kyle somme	<u>R</u> r			BRAANT	-			8015) ²	1 8021)	8260)	s			-							
Client Phone No.: 903 - 8-2.1-	5603	2	Client No.:	174-000			,	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			e Cool	Sample [®] Intact
Sample No./ Identification	Sample Date	Sampl Time	I Lab No.	No./Volume of Containers	P HNO ₃	reservativ HCI	ve	TPH (I	втех	voc (	RCRA	Cation	RCI	TCLP	CO Ta	) HAT	СНГО			Sample	Samp
CONF-14	10-15-13	10:0	0 P310057-01	12402				X	X											<u> </u> }	$\langle X \rangle$
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	<u> </u>			NFS																	
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Relinquished by: (Signature)				Date Time	Rece	ived by	 v: fSid	anati	ure)										 	te	Time
Če 1	SH			Date Time	<b>I</b>					19	Ì	-C	•						10/13	19_	11.30
Relinquished by: (Signature)			<u>_</u>		Rece	ived by	7: (Się	gnati	ure)							•		<del></del>			
Sample Matrix Soll 🗗 Solid 🗋 Sludge 🗌	Aqueous 🗌	] Other	□				R	U.	57	1											
Sample(s) dropped off after			o off area.							urana		0.813	201 -						212 540	-0 :	7



# **Analytical Report**

## **Report Summary**

Client: Southwest Geoscience Chain Of Custody Number: 16225 Samples Received: 10/15/2013 11:00:00AM Job Number: 07174-0003 Work Order: P310058 Project Name/Location: 2B-17

Entire Report Reviewed By:

Tim Cain, Laboratory Manager

Date:

10/17/13

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Southwest Geoscience	Project Name:	2B-17		
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:	
Dallas TX, 75220	Project Manager:	Kyle Summers	17-Oct-13 08:59	

## **Analyical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Conf-6	P310058-01A	Soil	10/14/13	10/15/13	Glass Jar, 4 oz.
Conf-7	P310058-02A	Soil	10/14/13	10/15/13	Glass Jar, 4 oz.
Conf-8	P310058-03A	Soil	10/14/13	10/15/13	Glass Jar, 4 oz.
Conf-9	P310058-04A	Soil	10/14/13	10/15/13	Glass Jar, 4 oz.

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	et Name: et Number: et Manager:	2B-17 07174 Kyle :	-0003				<b>Reported:</b> 17-Oct-13 08					
Conf-6 P310058-01 (Solid)         Reporting Analyte       Result       Limit       Units       Dilution       Batch       Prepared       Analyzed       Method       Notes         Yolatile Organics by EPA 8021       ND       0.05       mg/kg       1       1342012       10/15/13       10/16/13       EPA 8021B         Senzene       ND       0.05       mg/kg       1       1342012       10/15/13       10/16/13       EPA 8021B         Coluene       ND       0.05       mg/kg       1       1342012       10/15/13       10/16/13       EPA 8021B         Sthylbenzene       ND       0.05       mg/kg       1       1342012       10/15/13       10/16/13       EPA 8021B         Sthylbenzene       ND       0.05       mg/kg       1       1342012       10/15/13       10/16/13       EPA 8021B        Xylene       ND       0.05       mg/kg       1       1342012       10/15/13       10/16/13       EPA 8021B													
Analyte	Result		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes				
Volatile Organics by EPA 8021						r.							
Benzene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B					
Toluene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B					
Ethylbenzene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B					
p,m-Xylene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B					
o-Xylene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B					
Total Xylenes	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B					
Total BTEX	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B					
Surrogate: Bromochlorobenzene		101 %	80-	120	1342012	10/15/13	10/16/13	EPA 8021B					
Surrogate: 1,3-Dichlorobenzene		99.6 %	80-	120	1342012	10/15/13	10/16/13	EPA 8021B					
Nonhalogenated Organics by 8015													
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8015D					
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1342014	10/15/13	10/16/13	EPA 8015D					
GRO and DRO Combined Fractions	ND	4.99	mg/kg		[CALC]	10/15/13	10/16/13	EPA 8015D					

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	et Number:	07174	-0003				•	<b>Reported:</b> 17-Oct-13 08:59	
				lid)						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
Volatile Organics by EPA 8021										
Benzene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
Toluene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
Ethylbenzene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
p,m-Xylene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
o-Xylene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
Total Xylenes	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
Total BTEX	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
		97.4 %	80-	120	1342012	10/15/13	10/16/13	EPA 8021B		
Surrogate: 1,3-Dichlorobenzene		96.0 %	80-	120	1342012	10/15/13	10/16/13	EPA 8021B		
2351 W. Northwest Hwy       Project Number:       07174-0003       Reported:         Dallas TX, 75220       Project Manager:       Kyle Summers       17-Oct-13 08.59         Conf-7 P310058-02 (Solid)         Conf-7         Batch Prepared Analyzed Method Note:         Analyte       Reporting         Analyte       Batch Prepared Analyzed Method Note:         Conf-7         Analyte       Reporting         Analyte       Batch Prepared Analyzed Method Note:         Contatile Organics by EPA 8021B         Enzene       ND       0.05       mg/kg       1       1342012       10/16/13       EPA 8021B         Context method       ND       0.05       mg/kg       1       1342012       10/16/13       EPA 8021B         Context method       ND       ND <t< td=""><td></td></t<>										
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8015D		
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1342014	10/15/13	10/16/13	EPA 8015D		
GRO and DRO Combined Fractions	ND	5.00	mg/kg		[CALC]	10/15/13	10/16/13	EPA 8015D		

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	et Name: et Number: et Manager:	2B-17 07174 Kyle (					<b>Reported:</b> 17-Oct-13 08	
			Conf-8 58-03 (Sol	lid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
Surrogate: Bromochlorobenzene		99.2 %	80-	120	1342012	10/15/13	10/16/13	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		98.1 %	80-	120	1342012	10/15/13	10/16/13	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1342014	10/15/13	10/16/13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.99	mg/kg		[CALC]	10/15/13	10/16/13	EPA 8015D	



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Proje	ct Name: ct Number: ct Manager:	2B-17 07174 Kyle S					<b>Reported:</b> 17-Oct-13 08	
			C <mark>onf-9</mark> 58-04 (Sol	lid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
Surrogate: Bromochlorobenzene		96.0 %	80-	120	1342012	10/15/13	10/16/13	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		95.7 %	80-	120	1342012	10/15/13	10/16/13	EPA 8021B	
Nonhalogenated Organics by 8015							_		
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1342014	10/15/13	10/16/13	EPA 8015D	
GRO and DRO Combined Fractions	ND	5.00	mg/kg		[CALC]	10/15/13	10/16/13	EPA 8015D	



Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	17-Oct-13 08:59

## 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
		Linin		Level		78KEC				INDICS
Batch 1342012 - Purge and Trap EPA 5030A				. <u></u>						
Blank (1342012-BLK1)				Prepared: 1	5-Oct-13	Analyzed: 1	6-Oct-13			
Benzene	ND	0.05	mg/kg							
Foluene	ND	0.05	"							
Ethylbenzene	ND	0.05	*1							
o,m-Xylene	ND	0.05	11							
o-Xylene	ND	0.05	"							
Fotal Xylenes	ND	0.05								
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	45.3	· · · ·	ug/L	50.0		90.6	80-120			
Surrogate: Bromochlorobenzene	46.1		"	50.0		92.2	80-120			
Duplicate (1342012-DUP1)	Sou	irce: P310055-	01	Prepared: 1	5-Oct-13	Analyzed: 1	6-Oct-13			
Benzene	ND	0.05	mg/kg		ND				30	
Foluene	ND	0.05	n		ND				30	
Ethylbenzene	ND	0.05	**		ND				30	
»,m-Xylene	ND	0.05	"		ND				30	
p-Xylene	ND	0.05	"		ND				30	
Surrogate: 1,3-Dichlorobenzene	45.5		ug/L	50.0		90.9	80-120			
Surrogate: Bromochlorobenzene	44.6		"	50.0		89.2	80-120			
Matrix Spike (1342012-MS1)	Sou	rce: P310055-	01	Prepared: 1	5-Oct-13	Analyzed: 1	6-Oct-13			
Benzene	53.5		ug/L	50.0	0.14	107	39-150			
Foluene	54.3		н	50.0	0.48	108	46-148			
Ethylbenzene	52.7		n	50.0	0.09	105	32-160			
o,m-Xylene	105		"	100	0.25	104	46-148			
D-Xylene	52.6		11	50.0	0.17	105	46-148			
Surrogate: 1,3-Dichlorobenzene	49.7		"	50.0		99.4	80-120			
Surrogate: Bromochlorobenzene	48.5		"	50.0		97.0	80-120			

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	17-Oct-13 08:59

#### 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 1342012 - Purge and Trap EPA 5030A							<u>.                                    </u>			
Blank (1342012-BLK1)				Prepared:	15-Oct-13	Analyzed: 1	16-Oct-13			
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg							_
Duplicate (1342012-DUP1)	Sou	rce: P310055-	01	Prepared:	15-Oct-13	Analyzed: 1	6-Oct-13			_
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg		ND				30	
Matrix Spike (1342012-MS1)	Sou	rce: P310055-	01	Prepared: 1	15-Oct-13	Analyzed:	16-Oct-13			
Gasoline Range Organics (C6-C10)	0.71		mg/L	0.450	0.08	140	75-125			SPKI

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	Southwest Geoscience	Project Name:	2B-17	
	2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
1	Dallas TX, 75220	Project Manager:	Kyle Summers	17-Oct-13 08:59

## 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 1342014 - DRO Extraction EPA 3550	c									
Blank (1342014-BLK1)		<u></u> _		Prepared: 1	5-Oct-13	Analyzed: 1	6-Oct-13			
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg							
Duplicate (1342014-DUP1)	Sou	rce: P310055-	01	Prepared: 1	5-Oct-13	Analyzed: 1	6-Oct-13			
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg		ND				30	
Matrix Spike (1342014-MS1)	Sou	rce: P310055-	01	Prepared: 1	5-Oct-13	Analyzed: 1	6-Oct-13			
Diesel Range Organics (C10-C28)	241		mg/L	250	15.1	90.3	75-125			

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	17-Oct-13 08:59

#### **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

		C		FC	US'	τĊ	D	Y	R	E	C	DF	RC	)			1	62	225	5		
Client: 5416 EPADD	7	F	Project Name / Locati	on: 13 -	.17				N.S.	<u>ı                                    </u>			A	NAL	rsis	/ PAI	RAMI	ETEF	s		<u></u>	
Email results to: KyLE SUMME Client Phone No.:	P_5		Sampler Name: AA			AN	Т		(Method 8015)	BTEX (Method 8021)	od 8260)	etals	· uo		H/P	10-1					<u>_</u>	T L
903 - 821- Sample No./ Identification	5603 Sample	3 Sample	071	No.	0003 Volume	-	eservat	ive	TPH (Metho	rex (Meti	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion ·	5	TCLP with H/P	D Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample ⁻ Intact
	Date /0-/4-/3	Time	2 P310058-01		ontainers /0Z	HNO3	нсі			LB X	Z	R(	ö	RCI	μ	8	ц	Ċ		_	N Sa	X Sa
CONF - 6 CONF - 7 · CONF - 8 CONF - 9		1305			•				X	X											X	X
· CONF -8		1310	- 1010028-00 <u>5</u>						-	X											X	X
CONF -1		1.21.2	P310058-04	¥					X	X.											X	卢
			NFS.																			
			AB											_			-					
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Relinquished by (Signature)	3.	_		Date	Time []: 00	Recei	ved b	у: (Si	gnati	irə) A	n	1	Qp	1-2	_					Dat Dat		me OO
Relinquished by: (Signature)					1 1	Recei		•					U									
Sample Matrix Soll 🗗 Solid 🔲 Sludge 🗌	Aqueous 🗌	Other [	]						R	- () ()	1.											
Sample(s) dropped off after	hours to sec	cure drop	off area.	3.	P N V Anal	<b>ir c</b> ytica	<b>) † (</b> 11 Lai	e C	<b>ch</b>	)	1	PA	γΚί	Ξŋ	RI	35	212 40	.00 4				

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# **Analytical Report**

### **Report Summary**

Client: Southwest Geoscience Chain Of Custody Number: 16776 Samples Received: 3/24/2014 4:16:00PM Job Number: 07174-0003 Work Order: P403083 Project Name/Location: 2B-17

Date: 3/26/14

Entire Report Reviewed By:

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 3/26/14 11:21 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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Southwest Geoscience	Project Name:	2B-17		
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:	
Dallas TX, 75220	Project Manager:	Kyle Summers	26-Mar-14 11:24	l

## **Analyical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CONF-15	P403083-01A	Soil	03/24/14	03/24/14	Glass Jar, 4 oz.
CONF-16	P403083-02A	Soil	03/24/14	03/24/14	Glass Jar, 4 oz.
CONF-17	P403083-03A	Soil	03/24/14	03/24/14	Glass Jar, 4 oz.
CONF-18	P403083-04A	Soil	03/24/14	03/24/14	Glass Jar, 4 oz.
CONF-19	P403083-05A	Soil	03/24/14	03/24/14	Glass Jar, 4 oz.

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	t Name: t Number: t Manager:		7 4-0003 Summers				Reported: 26-Mar-14 11	:24
			ONF-15 83-01 (So				-		
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Surrogate: Bromochlorobenzene		96.6 %	80	-120	1413003	03/25/14	03/25/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		94.6 %	80	-120	1413003	03/25/14	03/25/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1413002	03/25/14	03/25/14	EPA 8015D	



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	et Name: et Number: et Manager:		7 4-0003 Summers				<b>Reported:</b> 26-Mar-14 11	
			ONF-16 83-02 (Se						
<b></b>									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		98.8 %	80	-120	1413003	03/25/14	03/25/14	EPA 8021B	
Surrogate: Bromochlorobenzene		100 %	80	-120	1413003	03/25/14	03/25/14	EPA 8021B	
Nonhalogenated Organics by 8015								<u> </u>	
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1413002	03/25/14	03/25/14	EPA 8015D	



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	t Name: t Number: t Manager:		7 4-0003 Summers				Reported: 26-Mar-14 11	
			ONF-17 83-03 (Sa						
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	ł	1413003	03/25/14	03/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Surrogate: Bromochlorobenzene		101 %	80	-120	1413003	03/25/14	03/25/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		95.9 %	80	-120	1413003	03/25/14	03/25/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1413002	03/25/14	03/25/14	EPA 8015D	



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	t Name: t Number: t Manager:		7 4-0003 Summers				Reported: 26-Mar-14 11	:24
		С	ONF-18						
		P4030	83-04 (So	lid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			onno	211411011					
Volatile Organics by EPA 8021									<u> </u>
Benzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Surrogate: Bromochlorobenzene		96.5 %	80	-120	1413003	03/25/14	03/25/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		97.3 %	80	-120	1413003	03/25/14	03/25/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8015D	_
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1413002	03/25/14	03/25/14	EPA 8015D	



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	t Name: t Number: t Manager:		7 4-0003 Summers				<b>Reported:</b> 26-Mar-14 11	:24
		C	ONF-19						
		P4030	83-05 (So	olid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		96.6 %	80	-120	1413003	03/25/14	03/25/14	EPA 8021B	
Surrogate: Bromochlorobenzene		97.7 %	80	-120	1413003	03/25/14	03/25/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1413002	03/25/14	03/25/14	EPA 8015D	



	Southwest Geoscience	Project Name:	2B-17	
	2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
ł	Dallas TX, 75220	Project Manager:	Kyle Summers	26-Mar-14 11:24

## Volatile Organics by EPA 8021 - Quality Control

#### **Envirotech Analytical Laboratory**

	Reporting			Spike	Spike Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1413003 - Purge and Trap EPA 5030A			_	<u></u>						
Blank (1413003-BLK1)				Prepared: 2	24-Mar-14	Analyzed:	25 <b>-</b> Mar-14			
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	н							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	н							
Total Xylenes	ND	0.05	10							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	46.5		ug/L	50.0		93.1	80-120			
Surrogate: Bromochlorobenzene	47.2		"	50.0		94.3	80-120			
Duplicate (1413003-DUP1)	Sou	rce: P403073-	02	Prepared: 2	24-Mar-14	Analyzed:	25-Mar-14			
Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	"		ND				30	
Ethylbenzene	NÐ	0.05			ND				30	
p,m-Xylene	ND	0.05			ND				30	
o-Xylene	ND	0.05			ND				30	
Surrogate: 1,3-Dichlorobenzene	50.0		ug/L	50.0		100	80-120			
Surrogate: Bromochlorobenzene	50.0		"	50.0		100	80-120			
Matrix Spike (1413003-MS1)	Sou	rce: P403073-	02	Prepared: 2	24-Mar-14	Analyzed:	25-Mar-14	_		
Benzene	50.0		ug/L	50.0	ND	99.9	39-150			
Toluene	49.5			50.0	ND	99.0	46-148			
Ethylbenzene	49.3			50.0	ND	98.6	32-160			
p.m-Xylene	97.6			100	ND	97.6	46-148			
o-Xylene	48.7		**	50.0	ND	97.3	46-148			
Surrogate: 1,3-Dichlorobenzene	52.0		"	50.0		104	80-120		_	
Surrogate: Bromochlorobenzene	51.9		"	50.0		104	80-120			

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	26-Mar-14 11:24

#### 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 1413002 - DRO Extraction EPA 3550C													
Blank (1413002-BLK1)				Prepared: 2	24-Mar-14	Analyzed: 2	25-Mar-14						
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg										
Duplicate (1413002-DUP1)	Sou	rce: P403073-	02	Prepared: 2	24-Mar-14	Analyzed:	25-Mar-14						
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg		ND				30				
Matrix Spike (1413002-MS1)	Sou	Source: P403073-02		Prepared: 2	24-Mar-14	Analyzed: 1	25-Mar-14						
Diesel Range Organics (C10-C28)	44.3		mg/L	250	ND	17.7	75-125						

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	26-Mar-14 11:24

#### 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 1413003 - Purge and Trap EPA 5030A													
Blank (1413003-BLK1)				Prepared: 2	24-Mar-14	Analyzed: 1	25-Mar-14						
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg										
Duplicate (1413003-DUP1)	Sou	rce: P403073-	02	Prepared: 24-Mar-14 Analyzed: 25-Mar-			25-Mar-14						
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg		ND				30				
Matrix Spike (1413003-MS1)	Sou	rce: <u>P403073-</u>	•02	Prepared: 2	24-Mar-14	Analyzed:	25-Mar-14						
Gasoline Range Organics (C6-C10)	0.49		mg/L	0.450	0.01	106	75-125						

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	Southwest Geoscience	Project Name:	2B-17	
ĺ	2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
	Dallas TX, 75220	Project Manager:	Kyle Summers	26-Mar-14 11:24

#### **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

16776

Client: SWG			Project Name / Location: 2B-17				Ryme				A	NALY	/SIS	/ PAI	RAM	ETEF	RS					
Email results to: KyLE Sc	immers	Sa	mpler Name: AA P	ON BRYANT				TPH (Method 8015) DP 4/02	1 8021)	8260)	S			•	÷							
Client Phone No.: 903-2	821-5	603 ^{Clin}	ent No.: 0717			<u>.</u>			Method 8	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P	CO Table 910-1	418.1)	RIDE			A Cool	Sample Intact
Sample No./ Identification	Sample Date	Sample Time	Lab No.		Volume ontainers	Pi HNO3	reservati HCI	ive		BTEX	voc (	RCRA	Cation	ß	TCLP	со та	TPH (418.1)	CHLORIDE			Sample Cool	Sample
CONF-15	3/24/14	1200	P403083-01	1X	402				χ	X												. 🗸
CONF-16		1230	P403083-02		ļ				X	X										_		$\square$
CONF-17		1300	P403083-03			1			χ	χ												$\checkmark$
CONF -18 CONF -19		1400	P403083-04						X	X												$\checkmark$
CONF-19		1500	P403083-05		L				X	X												_/
														_								
					-a																	
				· · · ·																		
		ļ		Data								-										
Relinquished by: (Signature)	Soft			Date 3/24/14	Time 4:16	Recei	ived b	y: (Sig 7 <i>In D</i>	gnatu	ire) Da	X	2								Dat 3/24		Time
Relinquished by: (Signature)	d'all			<u> </u>		Recei	ived b	y: (Si		ne)	Ð	<u></u>								<u> </u>		
Sample Matrix														<u> </u>	_							
Soil 🖸 Solid 🗋 Sludge 🗌	Aqueous 🗌	) Other 🗌																				
Sample(s) dropped off after	hours to see	cure drop of	if area.	入	<b>n</b> nvi	ir.	<b>.</b> +	~ ~	- h	,	5.3											
Rust			E		env Anal					C C	- <b>X</b>											
5795 US Highway 6	4 • Farmingt	on, NM 8740	1 • 505-632-0615 • T	hree Spr	ings • 65 M	lerca	do Stre	eet, Su	l eti	15, D	rang	10, C	0 813	01 • 1	abor	atory	@en	virote	ch-inc	Pad	e 12	of 12



# **Analytical Report**

## **Report Summary**

Client: Southwest Geoscience Chain Of Custody Number: 16780 Samples Received: 3/25/2014 1:27:00PM Job Number: 07174-0003 Work Order: P403090 Project Name/Location: 2B-17

Entire Report Reviewed By:

Date: 3/27/14

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.



Southwest Geoscience	Project Name:	2B-17		
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:	
Dallas TX, 75220	Project Manager:	Kyle Summers	27-Mar-14 11:35	

#### **Analyical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CONF-20	P403090-01A	Soil	03/25/14	03/25/14	Glass Jar, 4 oz.
CONF-21	P403090-02A	Soil	03/25/14	03/25/14	Glass Jar, 4 oz.
CONF-22	P403090-03A	Soil	03/25/14	03/25/14	Glass Jar, 4 oz.
CONF-23	P403090-04A	Soil	03/25/14	03/25/14	Glass Jar, 4 oz.

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	et Name: et Number: et Manager:		7 4-0003 Summers				<b>Reported:</b> 27-Mar-14 11	:35
			ONF-20 90-01 (So						-
		Reporting			· · · · · · ·				
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	I	1413014	03/25/14	03/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Surrogate: Bromochlorobenzene		94.1 %	80	-120	1413014	03/25/14	03/25/14	EPA 8021B	
Surrogate: 1,3-Dichlorohenzene		91.3 %	80	-120	1413014	03/25/14	03/25/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1413013	03/25/14	03/25/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Ргојес	et Name: et Number: et Manager:		7 4-0003 Summers				<b>Reported:</b> 27-Mar-14 11	:35
			ONF-21						
		P4030	90-02 (So	olid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Surrogate: Bromochlorobenzene		96.2 %	80	-120	1413014	03/25/14	03/25/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		93.3 %	80	-120	1413014	03/25/14	03/25/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1413013	03/25/14	03/25/14	EPA 8015D	



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Ргојес	t Name: t Number: t Manager:		7 4-0003 Summers				Reported: 27-Mar-14 11	:35
			ONF-22						
Г		P4030	90-03 (So	ona)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	l	1413014	03/25/14	03/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Surrogate: Bromochlorobenzene		89.3 %	80	-120	1413014	03/25/14	03/25/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		85.1 %	80	-120	1413014	03/25/14	03/25/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	ł	1413013	03/25/14	03/25/14	EPA 8015D	



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	et Name: et Number: et Manager:		7 4-0003 Summers				<b>Reported:</b> 27-Mar-14 11	
			ONF-23 90-04 (Se						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021						_			
Benzene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Surrogate: Bromochlorobenzene		86.7 %		-120	1413014	03/25/14	03/25/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		86.3 %	80	-120	1413014	03/25/14	03/25/14	EPA 8021B	
Nonhalogenated Organics by 8015	-								
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1413013	03/25/14	03/25/14	EPA 8015D	

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	27-Mar-14 11:35

#### 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 1413014 - Purge and Trap EPA 5030A										
Blank (1413014-BLK1)				Prepared &	z Analyzed:	25-Mar-14				
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	н							
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	46.3		ug/L	50.0		92.5	80-120			
Surrogate: Bromochlorobenzene	47.3		"	50.0		<b>94</b> .7	80-120			
Duplicate (1413014-DUP1)	Sou	rce: P403090-	01	Prepared &	Analyzed	25-Mar-14	Ļ			
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	48.6	<u> </u>	ug/L	50.0		97.1	80-120			
Surrogate: Bromochlorobenzene	49.3		"	50.0		98.6	80-120			
Matrix Spike (1413014-MS1)	Sou	rce: P403090-	01	Prepared &	k Analyzed	25-Mar-14	Ļ			
Benzene	46.5		ug/L	50.0	ND	93.0	39-150			
Toluene	46.4		"	50.0	ND	92.7	46-148			
Ethylbenzene	46.0		"	50.0	ND	92.0	32-160			
p,m-Xylene	92.1			100	ND	92.1	46-148			
o-Xylene	46.5			50.0	ND	92.9	46-148			
Surrogate: 1,3-Dichlorobenzene	47.6		"	50.0		95.2	80-120			
Surrogate: Bromochlorobenzene	47.3		"	50.0		94.5	80-120			

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	Southwest Geoscience	Project Name:	2B-17	
ŀ	2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
	Dallas TX, 75220	Project Manager:	Kyle Summers	27-Mar-14 11:35

#### 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 1413013 - DRO Extraction EPA 3550C											
Blank (1413013-BLK1)				Prepared &	Analyzed:	25-Mar-14					
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg								
Duplicate (1413013-DUP1)	Sour	·ce: P403090-	01	Prepared &	Analyzed:	25-Mar-14					
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg		ND				30		
Matrix Spike (1413013-MS1)	Sour	Source: P403090-01			Analyzed:	25-Mar-14					
Diesel Range Organics (C10-C28)	60.4		mg/L	250	ND	24.2	75-125			SPK I	

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	Southwest Geoscience	Project Name:	2B-17	
	2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
ĺ	Dallas TX, 75220	Project Manager:	Kyle Summers	27-Mar-14 11:35

#### Nonhalogenated Organics by 8015 - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1413014 - Purge and Trap EP	A 5030A									
Blank (1413014-BLK1)				Prepared &	Analyzed	25-Mar-14				
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg							
Duplicate (1413014-DUP1)	Sour	e: P403090-	01	Prepared &	Analyzed:	25-Mar-14				
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg		ND				30	
Matrix Spike (1413014-MS1)	Sour	Source: P403090-01		Prepared & Analyzed: 25-Mar-14						
							75-125			

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Southwest Geoscience	Project Name:	2B-17	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	27-Mar-14 11:35

#### **Notes and Definitions**

SPK 1	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

16780

Client:		Pr	pject Name / Location	on: 213 -1	7			N. K.	2			A	NALY	/SIS	/ PAI	RAMI	ETER	IS			
Email results to: Ky LE	Summer	es A	mpler Name: Ato ~ BRJAr ent No.: 0717	T Kyle.	Scm	nEX	S		1 8021)	8260)	s			•	÷.						
Client Phone Nas 21 - 56	63	Cli	ent No.: 0717	4-0003				TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P	CO Table 910-1	TPH (418.1)	RIDE			Sample Cool	Sample Intact
Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers		eservati HCI	Ve		втех	voc (	RCRA	Cation	RCI	TCLP	CO Ta	TPH (	CHLORIDE			Sampl	Sampl
CONF -20	3/25/14	1030	P403090-01	1 x 402	_			χ	Х,											-	$\checkmark$
CONF -21 CONF -22 CONF-23		1100	P403090-02					X	X												· ]
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Relinquished by: (Signature)	and the second s	••••		3/25/14 1:20	Recei	) Jan	y: (Si P	ignati	ure)	₹Żì									Date 3/25/14	-	îme 127
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Sample Matrix																					
Soil Solid Sludge Sudge Sample(s) dropped off after	-							<u> </u>											_		
Rush				3 env	<b>İ ľ (</b> lytica	D†(		c h	) Y	8 9.	.9 2										
5795 US Highway 6	54 • Farmingt	on, NM 874	01 • 505-632-0615 • 1	hree Springs • 65 M	Aerca	do Stre	et, S	uite 1	15, Du	Jrang	6, C	<u> </u>	01 • 1	abor	atory	@en\	/irote	ch-inc	Page	11 0	of 11

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### State of New Mexico Energy Minerals and Natural Resources

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Form C-141 Revised August 8, 2011

**Oil Conservation Division** 1220 South St. Francis Dr. Santa Eo. NIM 97505

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

						2, INIM 873	· · · · · ·								
			Rel	ease Notifi	catio	n and Co	orrective A	ction							
· · · · · · · · · · · · · · · · · · ·						<b>OPERA</b>			🗌 Initi	al Report		Final Repor			
		Enterprise Fi				Contact: Thomas Long									
		Ave, Farming		87401		Telephone No. 505-599-2286									
Facility Nat	ne: Gerk	Gas Com #1	L			Facility Type: Well Tie/Gathering Line									
Surface Ow	mer: Priva	ate		Mineral C	Owner:I	BLM			API No	).					
				LOCA	ATIO	N OF REI	LEASE								
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East/W	Vest Line	County					
В	30	29N	9W							San Juan					
	L		L												
		Lati	tude <u>3</u>	6.700710		_ Longitud	e <u>-107.8171</u>	<u>40</u>	,						
				NAT	<b>TURE</b>	OF REL	EASE								
Type of Rele	ase: Natura	al Gas and Na	tural Gas				Release: Unkno	own	Volume I	Recovered:	Unkno	wn			
							natural gas;	.,							
Source of Re	lease: Exter	rnal Damage t	o the Pine	line			3 to 5 bbls of liq lour of Occurrent		Date and	Hour of Die	COVerv	: 1/14/2014			
Source of Re		mai Dunnage (				1/14/2014	@ 1:15p.m.		@ 1:15p	.m.	-				
Was Immedi	ate Notice (			-		If YES, To	Whom? Courtes	sy notific	ation to N	MOCD – Jo	nathan	Kelly			
			JYes ∟	] No 🛛 Not R	equired					CONS I	D VIC	151. 2			
By Whom?						If YES, To Whom? Courtesy notification to NMOCD – Jonathan Kelly Date and Hour: 1/22/2014 @ 1:00 p.m. OIL CONS. DIV DIST. 3									
Was a Water	course Rea		]Yes 🛛	7 No		If YES, Volume Impacting the Watercourse. MAY 05 2014									
		· ·		2 110						Million	· · ·				
the pipeline. complete the Describe Are environment	The well w week of Fe	vas isolated ar ebruary 3, 201 and Cleanup	nd LOTO 4. Action Tanediation	n Taken.* A relea (lock out tag out) ken.* An area of c activities and colle D land farm facilit	was app estimated ected clo	lied. Repairs	<ul><li>were complete th</li><li>(25) feet by twen</li><li>Approximately</li></ul>	ne week ( nty-five ( one hung	of January 25) feet wa dred-eight	13, 2014. R as impacted. y (180) cubi	emedia Third c yards	party of impacted			
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		@eprod.com				Conditions o			•	Attached	i 🗌				
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Attach Addi	tional She	ets If Necess	sary		-	#NCS	141 3434	4710	e						

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#### CORRECTIVE ACTION REPORT

### OIL CONS. DIV DIST. 3

Property:

MAY 0 5 2014

Gerk Com #1 Pipeline Release NE 1/4, S30 T29N R9W San Juan County, New Mexico

April 4, 2014 SWG Project No. 0414G002

Prepared for:

Enterprise Products Operating LLC 614 Reilly Avenue Farmington, NM 87401 Attn: Mr. Tom Long

Prepared by:

un

Kyle Summers, C.P.G. Branch Manager

B. Chris Mitchell, P.G.

B. Chris Mitchell, P.G. Principal Geoscientist



606 S. Rio Grande Avenue Unit A, Downstairs West Aztec, NM 87410 Ph: (505) 334-5200 Fax: (505) 334-5204



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  Appendix B: Executed C-138 Solid Waste Acceptance Forms
  Appendix C: Photographic Documentation
- Appendix D: Tables
- Appendix E: Laboratory Analytical Reports & Chain of Custody Documentation



#### CORRECTIVE ACTION REPORT

#### Gerk Com #1 Pipeline Release Site NE 1/4, S30 T29N R9W San Juan County, New Mexico

SWG Project No. 0414G002

#### 1.0 INTRODUCTION

#### 1.1 Site Description & Background

The Gerk Com #1 Pipeline Release Site is located within the Enterprise Products Operating LLC (Enterprise) pipeline right-of-way (ROW) in the northeast (NE) ¼ of Section 30 in Township 29 North and Range 9 West in rural San Juan County, New Mexico, referred to hereinafter as the "Site" or "subject Site". The Site is located on private property owned by B. McCarthy and consists of native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including one (1) Enterprise natural gas gathering pipeline which traverses the area from east to west.

On January 17th, 2014, Enterprise shut in the Gerk Com #1 pipeline and initiated excavation activities at the Site in an attempt to locate a potential leak. The leak was subsequently identified and repaired. An estimated five (5) barrels of condensate/water mixture was potentially released from the pipeline as a result of internal corrosion. The leak was identified by a release of natural gas at the ground surface. Very slight soil discoloration was visible at the surface.

A topographic map depicting the location of the Site is included as Figure 1, and a Site Vicinity Map is included as Figure 2 in Appendix A.

#### 1.2 Project Objective

The primary objective of the corrective actions was to reduce the concentration of chemicals of concern (COCs) in the on-Site soils to below the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), Oil Conservation Division (OCD) *Remediation Action Levels* using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

#### 1.3 Standard of Care

Southwest Geoscience's (SWG's) services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. SWG makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, SWG does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client.



#### 1.4 Additional Limitations

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and SWG cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this scope of services. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. SWG's findings and recommendations are based solely upon data available to SWG at the time of these services.

#### 1.5 Reliance

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Enterprise and SWG. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, the report, and SWG's Agreement. The limitation of liability defined in the agreement is the aggregate limit of SWG's liability to the client.

#### 2.0 SITE RANKING

In accordance with the New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases,* SWG utilized the general site characteristics obtained during the completion of corrective action activities to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the table below:

Rankin	g Criteria		Ranking Score
Depth to Groundwater	<50 feet <u>50 to 09-feet</u> >100 feet	20 	CS DE O
Wellhead Protection Area • <1,000 feet from a water	20	5/14/14	
source, or; <200 feet from private domestic water source.	No	0	0
Distance to Surface Water Body	<200 feet 200 to 1,000 feet >1,000 feet		\0
Total Rar	0		

*Based on an anticipated groundwater depth of <100 feet below grade surface (bgs).

Based on SWG's evaluation of the scoring criteria, the Site would have a Total Ranking Score of 10. This ranking is based on the following:



- The nearest identified water well documented by the Office of the State Engineer website database is located over 2,000 feet west of the Site, with a recorded depth to water of 450 feet. However, due to the proximity of the valley floor a depth to water of approximately 100 feet feet bgs is possible.
- No surface water body was identified within 1,000 feet of the site. Two unnamed ephemeral washes are located within 600 feet and 800 feet, respectively, from the Site, but appear to only convey water during significant rain events.

#### 3.0 RESPONSE ACTIONS

#### 3.1 Soil Excavation Activities

On January 17th, 2014, Enterprise shut in the Gerk Com #1 pipeline and initiated excavation activities at the Site to locate and repair a potential leak. During the corrective action activities, West States Energy Contractors provided heavy equipment and labor support, and Kyle Summers and Aaron Bryant, SWG environmental professionals, provided environmental support.

During the first stage of corrective action, approximately 180 cubic yards of hydrocarbon affected soils were excavated at the Site. Based on initial sampling results, the excavation was extended approximately 10 feet from the initial point of release to the north and south, after which additional confirmation samples were collected.

Analytical results for soils remaining in place indicate remaining hydrocarbon impact on the excavation floor directly below the point of release; however, competent sandstone rendered further excavation impracticable. All other areas of the excavation exhibited COC levels below the OCD Remediation Action Levels (RALs).

Enterprise obtained permission from the OCD to apply potassium permanganate to the floor of the excavation prior to backfilling and closing the Site.

The total depth of the final excavation reached approximately 6 feet bgs near the source of the release, and approximately 5 feet bgs in the remaining original excavation footprint. The overall average surface expression of the excavation measured approximately 25 feet long by 20 feet wide.

A total of approximately 180 cubic yards of hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, NM for disposal/remediation. The executed C-138 forms are provided in Appendix B. The excavation was backfilled with clean imported fill and contoured to surrounding grade.

During excavation activities, air in the breathing zone was monitored to ensure that the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) of 200 parts per million (ppm) Time Weighted Average (TWA) for an 8hour work day was not exceeded. Additionally, Enterprise monitored the excavation for explosive atmosphere conditions and oxygen deficiency prior to any entries into the excavation.

The lithology encountered during the completion of corrective action activities consisted primarily of loose silty-sands and sandstone.



Figure 3 is a site map that indicates the approximate location of the excavated area in relation to pertinent land features (Appendix A). Photographic documentation of the field activities is included in Appendix C.

#### 3.2 Soil Sampling Program

SWG screened head-space samples of the impacted soils with a photoionziation detector (PID) fitted with a 10.6 eV lamp to estimate excavation limits.

SWG's soil sampling program included the collection of thirteen (13) discrete confirmation samples (S-1 through S-13) from the side walls and bottom of the excavation for laboratory analysis. The soil sample locations were selected based on visual, olfactory and/or PID evidence of potential impairment and excavation dimensions.

Figure 3 depicts the approximate location of the excavated areas and shows the final confirmation sample locations in relation to the final excavation dimensions (Appendix A).

The confirmation soil samples were collected and placed in laboratory prepared glassware, labeled/sealed using the laboratory supplied label, and placed on ice in a cooler, which was secured with a custody seal. The sample cooler and completed chain-of-custody form were relinquished to Envirotech Analytical Laboratory in Farmington, New Mexico for 24-hr rush analysis.

#### 4.0 LABORATORY ANALYTICAL METHODS

Confirmation soil samples were analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX) using EPA SW-846 Method #8021, and total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (GRO) using EPA SW-846 Method #8015.

Laboratory results are summarized in Table 1, included in Appendix D. The executed chain-of-custody form and laboratory data sheets are provided in Appendix E.

#### 5.0 DATA EVALUATION

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to condensate releases, the New Mexico EMNRD OCD utilizes the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically NMAC 19.15.30 *Remediation.* These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

#### 5.1 Confirmation Soil Samples

SWG compared the BTEX and TPH concentrations or reporting limits (RLs) associated with the thirteen (13) confirmation samples collected from the excavated area to the OCD *Remediation Action Levels* for sites having a total ranking score of "10".



- The laboratory analyses of the confirmation samples collected from soils remaining in place did not exhibit benzene concentrations above the OCD *Remediation Action Level*.
- The laboratory analyses of the confirmation samples S-2, S-4, and S-6 through S-12 collected from soils remaining in place did not exhibit total BTEX concentrations above the OCD *Remediation Action Level*.
- The laboratory analysis of confirmation sample S-13 exhibited a total BTEX concentration remaining in soil of 121 mg/Kg, which is above the OCD *Remediation Action Level* of 50 mg/Kg.
- The laboratory analyses of confirmation samples S-2, S-4, and S-6 through S-13 collected from soils remaining in place did not exhibit TPH GRO/DRO concentrations above the OCD *Remediation Action Level* of 1,000 mg/Kg for a Site ranking of "10".
- The laboratory analyses of confirmation samples S-1, S-3, and S-5 exhibited total BTEX and/or TPH GRO/DRO concentrations above the OCD *Remediation Action Levels*", however, these affected soils were removed for disposal/treatment during the excavation activities.

Based on analytical and screening results, confirmation sample S-13 exhibited total BTEX concentrations above the OCD *Remediation Action Levels*. The other soils which remain in-place at the Site did not exhibit COC concentrations above the OCD *Remediation Action Levels* for a Site ranking of "10". Confirmation sample results are provided in Table 1 in Appendix D.

#### 6.0 FINDINGS AND RECOMMENDATIONS

The Gerk Com #1 Pipeline Release Site is located within the Enterprise pipeline ROW in the NE ¼ of Section 30 in Township 29 North and Range 9 West in rural San Juan County, New Mexico. The Site is located on private land belonging to B. McCarthy, and consists of native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including one (1) Enterprise natural gas gathering pipeline which traverses the area from east to west.

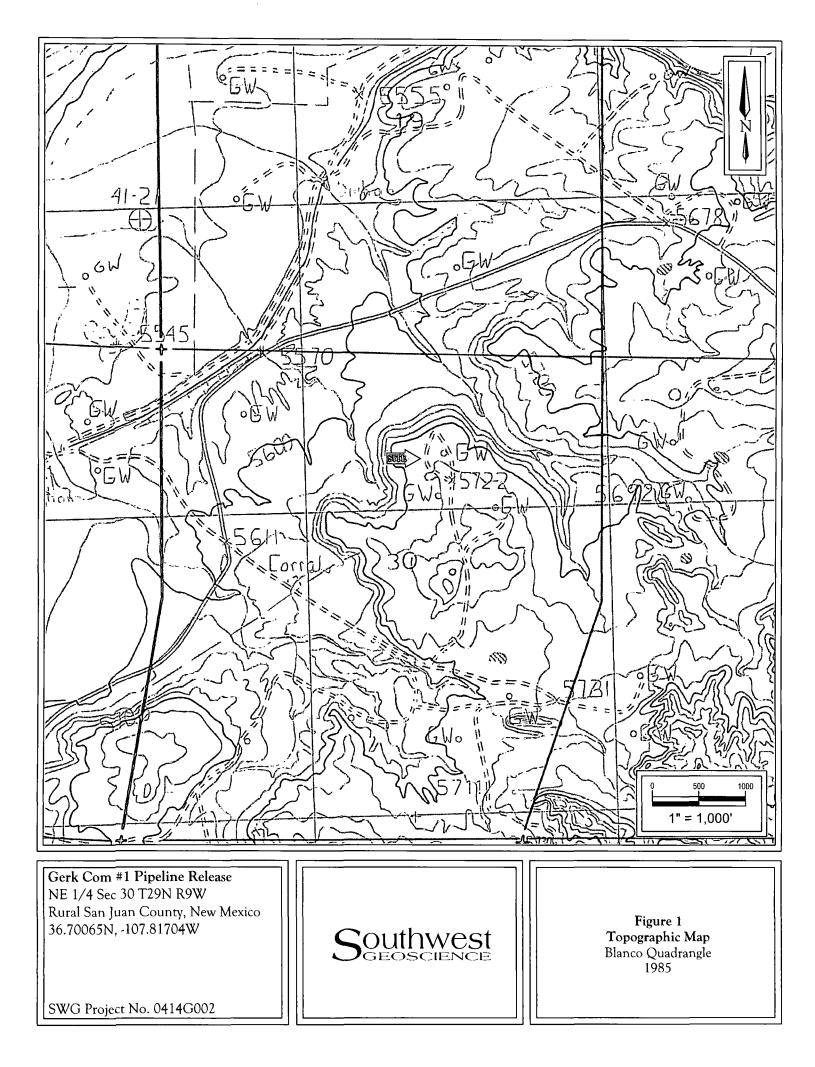
On January 17th, 2014, Enterprise shut in the Gerk Com #1 pipeline and initiated excavation activities at the Site to locate and repair a potential leak. The leak was subsequently identified and repaired. An estimated five (5) barrels of condensate/water mixture was potentially released from the pipeline as a result of internal corrosion. The leak was identified by a release of natural gas at the ground surface. No significant liquids were evident at the surface.

- The primary objective of the corrective actions was to reduce the concentration of COCs in the on-Site soils to below the New Mexico EMNRD OCD *Remediation Action Levels* using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.
- The total depth of the final excavation reached approximately 6 feet bgs near the source of the release, and approximately 5 feet bgs in the remaining original excavation footprint. The overall average surface expression of the excavation measured approximately 25 feet long by 20 feet wide.



- A total of approximately 180 cubic yards of hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, NM for disposal/remediation. Subsequent to the OCD-approved application of potassium permanganate to the floor of the excavation, the excavation was backfilled with clean imported fill and contoured to the approximate surrounding grade.
- The lithology encountered during the completion of corrective action activities consisted primarily of loose silty-sands and sandstone.
- Prior to applying potassium permanganate and backfilling the excavation, discrete and confirmation samples were collected from the floor and sidewalls of the excavation. Based on analytical and screening results, confirmation soil sample S-13 exhibited a total BTEX concentration above the OCD *Remediation Action Level* of 50 mg/Kg. The remaining confirmation samples for soils which remain in-place at the Site did not exhibit COC concentrations above the OCD *Remediation Action Level* of 50 mg/Kg. To a Site ranking of "10".

Based on the laboratory analytical results and the OCD-approved treatment of the excavation with potassium permanganate, no additional investigation or corrective action appears warranted at this time.

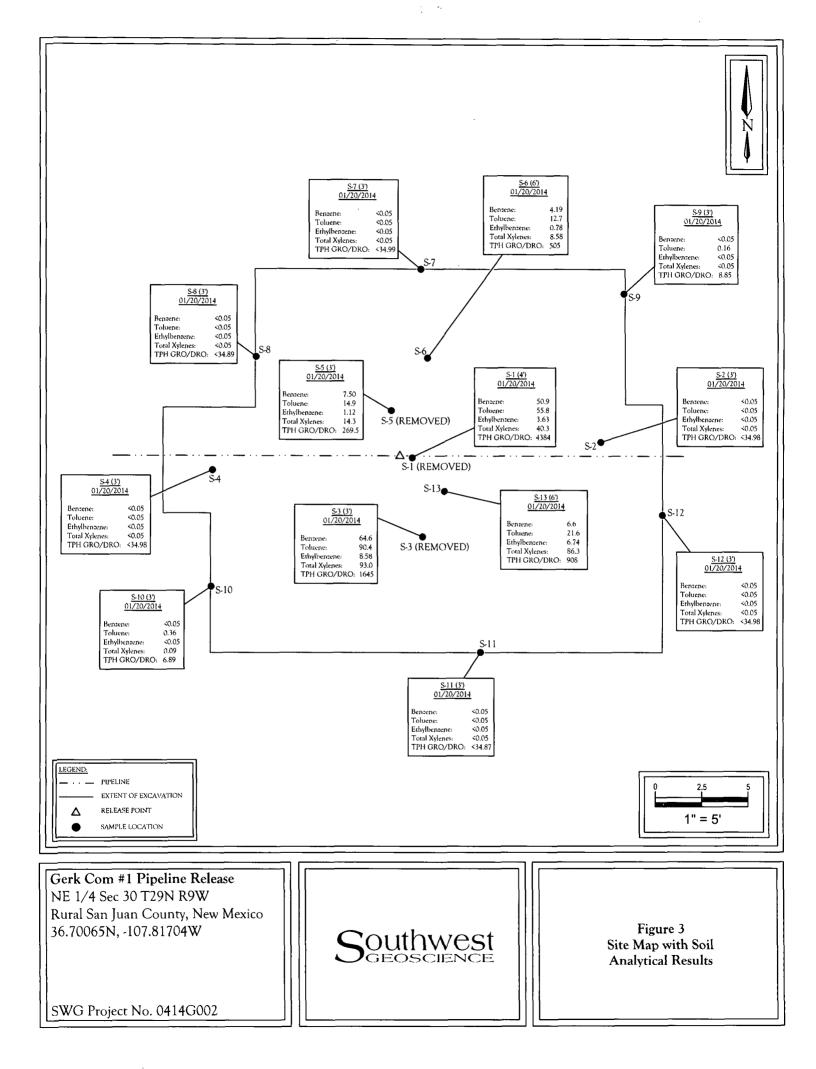




SWG Project No. 0414G002

Southwest

Figure 2 Site Vicinity Map 2013 Aerial Photograph



**Oil Conservation Division** 1220 South St. Francis Dr. Santa Fe, NM 87505

*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 Services, LLC, 614 Reilly Avenue, Farmington, NM 87401
2. Originating Site: Gerk Com #1 Natural Gas Gathering Line Jan 14
3. Location of Material (Street Address, City, State or ULSTR): Unit B, Section 30, T29N, R9W; 36.700710, -107.817140
<ul> <li>4. Source and Description of Waste: Hydrocarbon impacted soils associated with a release from a natural gas gathering line.</li> <li>5. Estimated Volume20yd³ bbls Known Volume (to be entered by the operator at the end of the haul) I BO yd³ bbls</li> </ul>
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS
I, <u>Thomas Long</u> representative or authorized agent for <u>Enterprise Field Services, LLC</u> do hereby PRINT & SIGN NAME
PRINT & SIGN NAME 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. <i>Operator Use Only: Waste Acceptance Frequency</i> 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, <u>Jhern Leg</u> , representative for <u>Enterprise Field Services, LLC</u> authorize Envirotech to Generator Signature
complete the required testing/sign the Generator Waste Testing Certification.
I, $\underline{M}$ 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: West States Energy Contractors (WSEC)
OCD Permitted Surface Waste Management Facility
Name and Facility Permit #: Envirotech Inc. Soil Remediation Facility Permit # NM-01-0011 Address of Facility: #43 Road 7175, South of Bloomfield NM Method of Treatment and/or Disposal:
🗋 Evaporation 🔲 Injection 🔲 Treating Plant 🔀 Landfarm 🔲 Landfill 🚺 Other
Waste Acceptance Status:
PRINT NAME: Greg Crab free TITLE: Environmental Manager DATE: 1/22/14
SIGNATURE: Surface Wastel Management Facility Authorized Agent TELEPHONE NO.: (505) 632-0615



MANIFEST # 45676

DATE 1-22-14 JOB # 97057-0618

LOAD	СОМІ	PLETE DESCRIP	TION OF SHIPMEN	NT			TRANSPO	ORTING	COMPA	NY
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
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PAINT FILTER TEST Certification of above receival & placement										
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MANIFEST # 45677 DATE 1-22-14 JOB # 97057- 0018

### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD COMPLETE DESCRIPTION OF SHIPMENT TRANSPORTING COMPANY						NY				
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
2	ENTAPRISE GERKIM II	(FIT-5	cont Soic	E-29	12		MOSS	47	11:20	Lee Moss
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3	K V	le (l.	4 4	E-29	12		MOSS	47	16:00	Les mos
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< 292	CHLORIDE TEST	EMPLOYEE:	Altre							
	PAINT FILTER TEST	Certifi	cation of above re	ceival & pla	cement					
mentione	By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above nentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.									
TRANSPO	RTER CO. MOSS E	xcousting	NAME L	ee M	055		SIGNATURE	Lee	Mo	82
COMPAN			PHONE	-			DATE 1-	22-	14	
Signature	s required prior to distributio	n of the legal docu	ment.							

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MANIFEST # 45682

DATE 1-23-14 JOB # 97057-0618

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NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER S	IGNATURE	
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MANIFEST # _____45683

DATE 1-23-14 JOB # 97057-0618

#### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	COI	MPLETE DESCRIPT	ION OF SHIPMEN	T			TRANSPORTING COMPANY			
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
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				•	36					
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Signatures required prior to distribution of the legal document.



MANIFEST # ____45684

DATE 1-23-14 JOB # 97057 - 0618

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401
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Signatures required prior to distribution of the legal document.



MANIFEST # 45685

DATE 1-23-14 JOB # 97057-0618

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NO.	POINT OF ORIGI		DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
2	Com #1	K	1FT-5	Conf	H-29	12		M055	47	10:30	Lee Mass
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COMPANY				PHONE	-			DATE /-	23-	14	
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MANIFEST # 45701 DATE 1-24-14 JOB # 97057-0418

LOAD	СОМ	PLETE DESCRIPT	TION OF SHIPMEN	NT			TRANSPO	ORTING	COMPA	NY	
NO.	POINT OF ORIGIN	DESTINATION	, MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE	
[	ENViRotech	E-NTERA G-Crk Com	Fill		12	_	states	515	740	Herak call	
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MANIFEST # _	45702	
DATE /-2	4-14 JOB#	97057-0618

LOAD											
NO.	POINT O	FORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Eteci	h .	Gerkcon	Clean		12		M055	47	8z	8 Lee mas
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3	Ce.	u	le ci	ll u		12		Moss	47	11:55	Lee moss
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	PAINT FILTER TEST / Certification of above receival & placement										
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COMPANY				PHONE				DATE_/	24-1	14	
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MANIFEST # 45704 DATE 1-24-14 JOB # 97057-0 618

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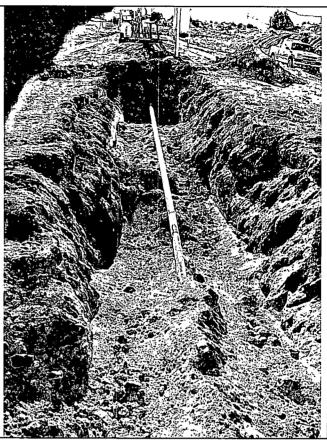


MANIFEST # 45706 DATE 1-24-14 JOB # 97057-0618

LOAD	COMPLETE DESCRIPTION OF SHIPMENT										TRANSPORTING COMPANY					
NO.	POI	NT OF ORIG	SIN	DESTINATIC	ON	MATERIA	NL	GRID	YDS	BBLS	СОМ	PANY	TRK#	TIME	DRIVER S	GNATURE
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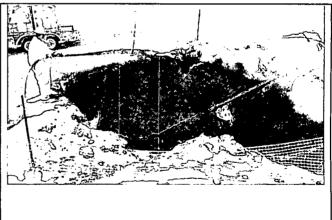
1.) Early stages of excavation facing to the west. Showing where the pipeline had been struck by something in the past (source of leak).



2.) View of excavation facing the east after repairs were completed and new coating applied to the pipeline.



3.) Final extent of excavation, approximately 25 feet long x20 feet wide, and 5 feet bgs.



4.) Envirotech, Inc. applying potassium permanganate to the affected sandstone on the excavation floor.





# TABLE IGerk Com # ISOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type	Sample Depth	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX	TPH	TPH	
Sample I.D.	Date	Sample Type	Sample Depth	Benzenie	rolucite	EmyiDenzene	Aylones	TOTALDIEA		161	
		C- Composite	(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	GRO	DRO	
		G - Grab	-								
									(mg/kg)	(mg/kg)	
New Mexico Ent	ergy, Mineral &	Natural Resource	es Department, Oil					1 1			
	0	, Remediation Act	•	10	NE	NE	NE	50	10	00	
			Our sealing Char		The second second second						
14/ 1	1/20/2012		Composite Stor			andfarm for Disp		170	201		
W-1	1/20/2013	С		44.1	57.7	5.93	64.0	172	304	2940	
W-2	1/20/2013	С		0.82	5.85	0.65	9.65	17.0	54.9	50.9	
			Sa			oved by Excavation					
<u>S-1</u>	1/20/2014	G		50.9	55.8	3.63	40.3	151	224	4160	
<u>S-3</u>	1/20/2014	G		64.6	90.4	8.58	93.0	257	435	1210	
S-5	1/20/2014	G		7.5	14.9	1.12	14.3	37.9	81.5		
			Fir	al Confirmation	Samples for Soils	Remaining in Pla	се				
S-2	1/20/2014	G		<0.05	<0.05	<0.05	<0.05	ND	<4.98	<30.0	
S-4	1/20/2014	G		<0.05	<0.05	<0.05	<0.05	ND	<4.98	<30.0	
S-6	1/23/2014	G		4.19	12.7	0.78	8.58	26.20	133	372	
S-7	1/23/2014	G		<0.05	<0.05	<0.05	<0.05	ND	<4.99	<30.0	
S-8	1/23/2014	G		<0.05	<0.05	<0.05	<0.05	ND	<4.99	<29.9	
S-9	1/23/2014	G		<0.05	0.16	<0.05	<0.05	0.16	8.85	<29.9	
S-10	1/23/2014	G		< 0.05	0.36	<0.05	0.09	0.44	6.89	<30.0	
S-11	1/23/2014	G		<0.05	<0.05	<0.05	<0.05	ND	<4.97	<29.9	
S-12	1/23/2014	G		<0.05	<0.05	<0.05	<0.05	ND	<4.98	<30.0	
S-13	1/23/2014	G		6.6	21.6	6.74	86.3	121	401	507	

Note: Concentrations in **bold** and yellow exceed the applicable OCD Remediation Action Level

NA = Not Analyzed

NE = Not Established



### **Analytical Report**

#### **Report Summary**

Client: Southwest Geoscience Chain Of Custody Number: 16531 Samples Received: 1/20/2014 11:00:00AM Job Number: 07174-0003 Work Order: P401050 Project Name/Location: Gerk Com #1

Date: 1/22/14

Entire Report Reviewed By:

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 1/22/14 8:41 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.



	Southwest Geoscience	Project Name:	Gerk Com #1		
	2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:	
ĺ	Dallas TX, 75220	Project Manager:	Kyle Summers	22-Jan-14 09:06	

## **Analyical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S-1	P401050-01A	Soil	01/20/14	01/20/14	Glass Jar, 4 oz.
S-2	P401050-02A	Soil	01/20/14	01/20/14	Glass Jar, 4 oz.
S-3	P401050-03A	Soil	01/20/14	01/20/14	Glass Jar, 4 oz.
S-4	P401050-04A	Soil	01/20/14	01/20/14	Glass Jar, 4 oz.
W-1	P401050-05A	Soil	01/20/14	01/20/14	Glass Jar, 4 oz.
W-2	P401050-06A	Soil	01/20/14	01/20/14	Glass Jar, 4 oz.
S-5	P401050-07A	Soil	01/20/14	01/20/14	Glass Jar, 4 oz.

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project	ject Number:		Gerk Com #1 07174-0003 Kyle Summers				<b>Reported:</b> 22-Jan-14 09:06	
			S-1						
		P4010	50-01 (So	lid)	<u></u>				
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	50.9	0.05	mg/kg	l	1404001	01/21/14	01/21/14	EPA 8021B	
Toluene	55.8	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Ethylbenzene	3.63	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
p,m-Xylene	31.9	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
o-Xylene	8.43	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total Xylenes	40.3	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total BTEX	151	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Surrogate: Bromochlorobenzene		190 %	80-	-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
Surrogate: 1,3-Dichlorobenzene		218 %	80-	-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	224	4.99	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8015D	
Diesel Range Organics (C10-C28)	4160	30.0	mg/kg	1	1404002	01/21/14	01/21/14	EPA 8015D	



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	t Name: t Number: t Manager:	mber: 07174-0003					<b>Reported:</b> 22-Jan-14 09	<b>Reported:</b> 22-Jan-14 09:06	
			S-2							
		P4010	50-02 (So	olid)						
		Reporting								
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
Volatile Organics by EPA 8021										
Benzene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B		
Toluene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B		
Ethylbenzene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B		
p,m-Xylene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B		
o-Xylene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B		
Total Xylenes	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B		
Total BTEX	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B		
Surrogate: Bromochlorohenzene		110 %	80	-120	1404001	01/21/14	01/21/14	EPA 8021B		
Surrogate: 1,3-Dichlorobenzene		108 %	80	-120	1404001	01/21/14	01/21/14	EPA 8021B		
Nonhalogenated Organics by 8015										
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8015D		
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1404002	01/21/14	01/21/14	EPA 8015D		

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	W. Northwest Hwy Project Number:		0717	Com #1 4-0003 Summers	<b>Reported:</b> 22-Jan-14 09:06				
		<b>B4010</b>	S-3						
		F4010	50-03 (So						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	64.6	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
Toluene	90.4	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
Ethylbenzene	8.58	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
p,m-Xylene	76.2	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
o-Xylene	16.8	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
Total Xylenes	93.0	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
Total BTEX	257	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
Surrogate: Bromochlorobenzene		231 %	80	-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
Surrogate: 1,3-Dichlorobenzene		178 %	80	-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
Nonhalogenated Organics by 8015							<u> </u>		
Gasoline Range Organics (C6-C10)	435	9.99	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8015D	
Diesel Range Organics (C10-C28)	1210	30.0	mg/kg	1	1404002	01/21/14	01/21/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project	t Name: t Number: t Manager:	0717	Com #1 4-0003 Summers				<b>Reported:</b> 22-Jan-14 09	
			S-4 50-04 (So						
Г <b></b>									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Surrogate: Bromochlorobenzene		108 %	80-	-120	1404001	01/21/14	01/21/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		101 %	80	-120	1404001	01/21/14	01/21/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1404002	01/21/14	01/21/14	EPA 8015D	



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	t Name: t Number: t Manager:	mber: 07174-0003					<b>Reported:</b> 22-Jan-14 09:06	
		<b>D</b> 4010	W-1	.P.J.					
	· · · ·	P4010	50-05 (So						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	44.1	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
Toluene	57.7	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
Ethylbenzene	5.93	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
p,m-Xylene	51.4	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
o-Xylene	12.7	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
Total Xylenes	64.0	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
Total BTEX	172	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		166 %	80-	-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
Surrogate: Bromochlorobenzene		152 %	80	-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	304	9.98	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8015D	
Diesel Range Organics (C10-C28)	2940	30.0	mg/kg	I	1404002	01/21/14	01/21/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	t Name: t Number: t Manager:	umber: 07174-0003			<b>Reported:</b> 22-Jan-14 09:06			
		P4010	W-2 50-06 (Sa	olid)					
		Reporting					<u>_</u>		
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	0.82	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Toluene	5.85	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Ethylbenzene	0.65	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
p,m-Xylene	7.94	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
o-Xylene	1.70	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total Xylenes	9.65	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total BTEX	17.0	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Surrogate: Bromochlorobenzene		146 %	80-	-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
Surrogate: 1,3-Dichlorobenzene		147 %	80	-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	54.9	4.99	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8015D	
Diesel Range Organics (C10-C28)	50.9	29.9	mg/kg	I	1404002	01/21/14	01/21/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	t Name: t Number: t Manager:	0717	Com #1 4-0003 Summers				Reported: 22-Jan-14 09	
			S-5						
		P4010	50-07 (So	olid)					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	7.50	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Toluene	14.9	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Ethylbenzene	1.12	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
p,m-Xylene	11.7	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
o-Xylene	2.64	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total Xylenes	14.3	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total BTEX	37.9	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Surrogate: Bromochlorobenzene		129 %	80	-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
Surrogate: 1,3-Dichlorobenzene		132 %	80	-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	81.5	5.00	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8015D	
Diesel Range Organics (C10-C28)	188	30.0	mg/kg	1	1404002	01/21/14	01/21/14	EPA 8015D	

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Southwest Geoscience	Project Name:	Gerk Com #1	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	22-Jan-14 09:06

#### Volatile Organics by EPA 8021 - Quality Control

#### **Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	I Incide	Spike	Source	AVDEC	%REC	DDD	RPD	<b>N</b>
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1404001 - Purge and Trap EPA 5030A										
Blank (1404001-BLK1)				Prepared: 2	0-Jan-14 A	Analyzed: 2	1-Jan-14			
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05								
o,m-Xylene	ND	0.05	"							
p-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	11							
Fotal BTEX	ND	0.05	н							
Surrogate: 1,3-Dichlorobenzene	45.7		ug/L	50.0		91.5	80-120			
Surrogate: Bromochlorobenzene	46,7		"	50.0		93.5	80-120			
Duplicate (1404001-DUP1)	Sou	rce: P401044-	01	Prepared &	Analyzed	20-Jan-14				
Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	11		ND				30	
Ethylbenzene	ND	0.05	17		ND				30	
p,m-Xylene	ND	0.05	*		ND				30	
o-Xylene	ND	0.05	"		ND				30	
Surrogate: 1,3-Dichlorobenzene	46.6		ug/L	50.0		93.3	80-120			
Surrogate: Bromochlorobenzene	47.8		"	50.0		95.6	80-120			
Matrix Spike (1404001-MS1)	Sou	ırce: P401044-	01	Prepared &	Analyzed	20-Jan-14				
Benzene	50.3		ug/L	50.0	ND	101	39-150			
Toluene	50.1		"	50.0	ND	100	46-148			
Ethylbenzene	50.3		11	50.0	ND	101	32-160			
o,m-Xylene	100		U.	100	ND	100	46-148			
p-Xylene	49.7			50.0	ND	99.3	46-148			
Surrogate: 1,3-Dichlorobenzene	50.8		"	50.0		102	80-120			
Surrogate: Bromochlorobenzene	50.1		п	50.0		100	80-120			

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Southwest Geoscience	Project Name:	Gerk Com #1	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	22-Jan-14 09:06

#### 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 1404001 - Purge and Trap EPA 5030A											
Blank (1404001-BLK1)				Prepared: 2	20-Jan-14 A	Analyzed: 2	l-Jan-14				
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg								
Duplicate (1404001-DUP1)	Sou	rce: P401044-	-01	Prepared &	Analyzed:	20-Jan-14					
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg		ND				30		
Matrix Spike (1404001-MS1)	Sou	rce: P401044-	-01	Prepared &	Analyzed:	20-Jan-14					
Gasoline Range Organics (C6-C10)	0.49		mg/L	0.450	0.02	106	75-125				

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Southwest Geoscience	Project Name:	Gerk Com #1	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	22-Jan-14 09:06

#### 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 1404002 - DRO Extraction EPA 355	0C							_			
Blank (1404002-BLK1)				Prepared &	Analyzed:	20-Jan-14					
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg								
Duplicate (1404002-DUP1)	Sour	ce: P401044-	01	Prepared &	Analyzed:	20-Jan-14					
Diesel Range Organics (C10-C28)	126	29.9	mg/kg		202			46.2	30	DI	
Matrix Spike (1404002-MS1)	Sour	ce: P401044-	01	Prepared &	Analyzed:	20-Jan-14					
Diesel Range Organics (C10-C28)	370	31.6	mg/kg	263	202	63.7	75-125			SPK1	

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Southwest Geoscience	Project Name:	Gerk Com #1	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	22-Jan-14 09:06

#### **Notes and Definitions**

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- D1 Duplicates or Matrix Spike Duplicates Relative Percent Difference exceeds 30%.
- 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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SPK1 The spike recovery for this QC sample is outside of control limits.

# CHAIN OF CUSTODY RECORD

16531

Client: SWG Email results to: KyLE SUMMERS Client Phone No.: Substance: Substance: Client No.: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance: Substance:						Color				A	NAL	rsis	/ PAi	RĄM	ETEF	RS							
Email results to: Kyle Sun	MER	Sar 5		For	BR	YAN	17		TPH (Method 8015)	BTEX (Method 8021)	8260)	s			0	- -							
Client Phone No.: 703-821	-56	Clie D <i>3</i>	ent No.: 0717	4-00	03				Aethod	(Metho	VOC (Method 8260)	RCRA 8 Metals	Catión / Anion		TCLP with H/P	CO Table 910-1	18.1)	RIDE				cool	e Intact
Sample No./ Identification	Sample Date	Sample Time	Lab No.		Volume ontainers	Pr HNO3	eservativ HCI	ve	трн (л	BTEX	VOC (I	RCRA	Cation	RCI		CO Tat	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
5 -1	1/20/14	930		/ x	402				X	X												$\checkmark$	$\checkmark$
5-2		935							X	X					-								
5-3		940							X	K													
5-4		945							X	Ł													
5-5	AB	950							X	Ł.													
W - I		955							X	$\mathcal{F}$													
w-2		1000							1	Ł													J
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Relinquished by: (Signature)	2			Date	Time // <i>0</i> 6	Recei	) M	y: (Sig	gnati	ure) B	i V	-				-				1	Date	Tir  ): (	1
Relinquished by: (Signature)	~					Recei	ived by	y: (Sig	gnati	ure)					_								
Sample Matrix									2.	4		~					A	13	·				-
Soil Solid Sludge			t aroa					/	$\frac{\circ}{1}$	4		09	//	4	50	<u>)</u> 0.	2						_
Sample Matrix Soil P Solid Sludge Aqueous Other PO# 0414600R Sample(s) dropped off after hours to secure drop off area. Repl Analytical Laboratory S-3 7,5 S-2 8,5 W-2 7.2																							
5795 US Highway 6	4 • Farmingt	on, NM 8740	1 • 505-632-0615 •	Three Spi	rings • 65.N	verca	do Strè	et, Sy	uite 1				0 813	01 •	labor	ratory	/@em	virote	ch-inc	P	age 1	4 of	14



# **Analytical Report**

### **Report Summary**

Client: Southwest Geoscience Chain Of Custody Number: 16565 Samples Received: 1/23/2014 2:52:00PM Job Number: 07174-0003 Work Order: P401066 Project Name/Location: The Gerk Com #1

Tim Cain, Laboratory Manager

Entire Report Reviewed By:

Date: 1/27/14

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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Southwest Geoscience	Project Name:	The Gerk Com #1	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	27-Jan-14 07:48

## **Analyical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S-6	P401066-01A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.
S-7	P401066-02A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.
S-8	P401066-03A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.
S-9	P401066-04A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.
S-10	P401066-05A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.
S-11	P401066-06A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.
S-12	P401066-07A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.
S-13	P401066-08A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.

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Southwest GeoscienceProject Name:2351 W. Northwest HwyProject Number:Dallas TX, 75220Project Manager:			0717	Gerk Com # 4-0003 Summers	<b>Reported:</b> 27-Jan-14 07:48				
		<b>D</b> 4010	S-6						
		P4010	66-01 (So	olid) 					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	4.19	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Toluene	12.7	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Ethylbenzene	0.78	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
p,m-Xylene	7.47	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
o-Xylene	1.11	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Total Xylenes	8.58	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Total BTEX	26.2	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Surrogate: Bromochlorobenzene		149 %	80-	-120	1404027	01/23/14	01/24/14	EPA 8021B	S-02
Surrogate: 1,3-Dichlorobenzene		408 %	80	-120	1404027	01/23/14	01/24/14	EPA 8021B	S-02
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	133	5.00	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8015D	
Diesel Range Organics (C10-C28)	372	30.0	mg/kg	1	1404026	01/23/14	01/24/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	51 W. Northwest Hwy Project Number:			Gerk Com # 4-0003 Summers	<b>Reported:</b> 27-Jan-14 07:48				
		<b>D</b> 4010	S-7						
		P4010	66-02 (So			<u> </u>		<del></del>	
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Surrogate: Bromochlorobenzene	· · · · · · · · · · · · · · · · · · ·	104 %	80	-120	1404027	01/23/14	01/24/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		99.9 %	80	-120	1404027	01/23/14	01/24/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1404026	01/23/14	01/24/14	EPA 8015D	

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Southwest GeoscienceProject Name:2351 W. Northwest HwyProject Number:Dallas TX, 75220Project Manager:			0717	Gerk Com # 4-0003 Summers	<b>Reported:</b> 27-Jan-14 07:48				
			S-8						
		P4010	66-03 (So	olid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		101 %	80	-120	1404027	01/23/14	01/24/14	EPA 8021B	
Surrogate: Bromochlorobenzene		105 %	80	-120	1404027	01/23/14	01/24/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1404026	01/23/14	01/24/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	et Name: et Number: et Manager:	0717	Gerk Com # 4-0003 Summers	1			<b>Reported:</b> 27-Jan-14 07	:48
			<b>S-9</b>						
		P4010	66-04 (So	olid)					
	D 1	Reporting	•••	-			_		
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Toluene	0.16	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Total BTEX	0.16	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Surrogate: Bromochlorobenzene		102 %	80	-120	1404027	01/24/14	01/24/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		105 %	80	-120	1404027	01/24/14	01/24/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	8.85	5.00	mg/kg	3	1404027	01/24/14	01/24/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	I	1404026	01/24/14	01/24/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Ргојес	t Name: t Number: t Manager:	0717	Gerk Com # 4-0003 Summers	1			<b>Reported:</b> 27-Jan-14 07	
			S-10						
		P4010	66-05 (Se	olid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	t	1404027	01/24/14	01/24/14	EPA 8021B	
Toluene	0.36	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
p,m-Xylene	0.09	0.05	mg/kg	I	1404027	01/24/14	01/24/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	l	1404027	01/24/14	01/24/14	EPA 8021B	
Total Xylenes	0.09	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Total BTEX	0.44	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Surrogate: Bromochlorobenzene		105 %	80	-120	1404027	01/24/14	01/24/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		103 %	80	-120	1404027	01/24/14	01/24/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	6.89	5.00	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1404026	01/24/14	01/24/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: Project Number: Project Manager:		0717	Gerk Com #1 4-0003 Summers				<b>Reported:</b> 27-Jan-14 07:48	
		P4010	S-11 66-06 (So	olid)					
		Reporting							<u> </u>
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	۱	1404027	01/24/14	01/24/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		96.0 %	80-	-120	1404027	01/24/14	01/24/14	EPA 8021B	
Surrogate: Bromochlorobenzene		103 %	80-	-120	1404027	01/24/14	01/24/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.97	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1404026	01/24/14	01/24/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: Project Number: Project Manager:		0717	Gerk Com # 4-0003 Summers	-0003				<b>Reported:</b> 27-Jan-14 07:48	
		P4010	S-12 66-07 (So	hid)						
·		Reporting								
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
Volatile Organics by EPA 8021					_	_				
Benzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
Toluene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
Ethylbenzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
p,m-Xylene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
o-Xylene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
Total Xylenes	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
Total BTEX	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
Surrogate: Bromochlorobenzene		99.3 %	80	-120	1404027	01/24/14	01/24/14	EPA 8021B		
Surrogate: 1,3-Dichlorobenzene		96.4 %	80	-120	1404027	01/24/14	01/24/14	EPA 8021B		
Nonhalogenated Organics by 8015										
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8015D		
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1404026	01/24/14	01/24/14	EPA 8015D		

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Projec	et Name: et Number: et Manager:	0717	Gerk Com # 4-0003 Summers	1			<b>Reported:</b> 27-Jan-14 07:48		
		P4010	S-13 66-08 (So	olid)						
		Reporting				<u> </u>				
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
Volatile Organics by EPA 8021										
Benzene	6.60	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
Toluene	21.6	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
Ethylbenzene	6.74	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
p,m-Xylene	63.4	0.05	mg/kg	I	1404027	01/24/14	01/24/14	EPA 8021B		
o-Xylene	22.9	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
Total Xylenes	86.3	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
Total BTEX	121	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
Surrogate: Bromochlorobenzene		148 %	80	-120	1404027	01/24/14	01/24/14	EPA 8021B	S-02	
Surrogate: 1,3-Dichlorobenzene		198 %	80	-120	1404027	01/24/14	01/24/14	EPA 8021B	S-02	
Nonhalogenated Organics by 8015		-								
Gasoline Range Organics (C6-C10)	401	5.00	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8015D		
Diesel Range Organics (C10-C28)	507	29.9	mg/kg	1	1404026	01/24/14	01/24/14	EPA 8015D		

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Southwest Geoscience	Project Name:	The Gerk Com #1	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	27-Jan-14 07:48

#### 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 1404027 - Purge and Trap EPA 5030A						· ···				
Blank (1404027-BLK1)				Prepared: 2	23-Jan-14 A	Analyzed: 2	4-Jan-14			
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	11							
Total BTEX	ND	0.05	11							
Surrogate: 1,3-Dichlorobenzene	52.6		ug/L	50.0		105	80-120			
Surrogate: Bromochlorobenzene	54.5		"	50.0		109	80-120			
Duplicate (1404027-DUP1)	Sou	rce: P401066-	01	Prepared: 2	23-Jan-14 A	Analyzed: 2	4-Jan-14			
Benzene	4.84	0.05	mg/kg		4.19			14.5	30	
Toluene	12.4	0.05	"		12.7			2.09	30	
Ethylbenzene	0.81	0.05	"		0.78			3.59	30	
p,m-Xylene	7.34	0.05	51		7.47			1.79	30	
o-Xylene	1.11	0.05	11		1.11			0.436	30	
Surrogate: 1,3-Dichlorobenzene	202		ug/L	50.0		404	80-120	·		S-0.
Surrogate: Bromochlorobenzene	68.3		"	50.0		137	80-120			S-0.
Matrix Spike (1404027-MS1)	Sou	rce: P401066-	01	Prepared: 2	23-Jan-14 A	Analyzed: 2	4-Jan-14			
Benzene	7.68	0.05	mg/kg	2.50	4.19	140	39-150			
Toluene	16.3	0.05	"	2.50	12.7	144	46-148			
Ethylbenzene	3.49	0.05	11	2.50	0.78	108	32-160			
p,m-Xylene	13.0	0.05	"	5.00	7.47	111	46-148			
o-Xylene	3.91	0.05		2.50	1.11	112	46-148			
Surrogate: 1,3-Dichlorobenzene	221		ug/L	50.0		443	80-120			S-0.
Surrogate: Bromochlorobenzene	72.1		"	50.0		144	80-120			S-0

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



	Southwest Geoscience	Project Name:	The Gerk Com #1	
	2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
۱	Dallas TX, 75220	Project Manager:	Kyle Summers	27-Jan-14 07:48

#### Nonhalogenated Organics by 8015 - Quality Control

	E	nvirotech A	Analyti	cal Labor	atory					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1404026 - DRO Extraction EPA 3550C	- <u></u>									
Blank (1404026-BLK1)				Prepared: 2	23-Jan-14 A	Analyzed: 2	4-Jan-14			
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg							
Duplicate (1404026-DUP1)	Sou	rc <u>e: P4</u> 01066-	01	Prepared: 2	23-Jan-14 A	Analyzed: 2	4-Jan-14			
Diesel Range Organics (C10-C28)	340	29.9	mg/kg		372			9.05	30	
Matrix Spike (1404026-MS1)	Sou	rce: P401066-	01	Prepared: 2	23-Jan-14 A	Analyzed: 2	4-Jan-14			
Diesel Range Organics (C10-C28)	605	31.6	mg/kg	263	372	88.5	75-125			

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



Southwest Geoscience	Project Name:	The Gerk Com #1	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	27-Jan-14 07:48

#### Nonhalogenated Organics by 8015 - Quality Control

# Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1404027 - Purge and Trap EPA 5030A										
Blank (1404027-BLK1)				Prepared: 2	23-Jan-14	Analyzed: 2	4-Jan-14			
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							_
Duplicate (1404027-DUP1)	Sourc	e: P401066-	01	Prepared: 2	23-Jan-14	Analyzed: 2	4-Jan-14			
Gasoline Range Organics (C6-C10)	133	4.99	mg/kg		133			0.0246	30	
Matrix Spike (1404027-MS1)	Sourc	e: P401066-	01	Prepared: 2	23-Jan-14	Analyzed: 2	4-Jan-14			
Gasoline Range Organics (C6-C10)	159	5.00	mg/kg	22,5	133	118	75-125			



Southwest Geoscience	Project Name:	The Gerk Com #1	
2351 W. Northwest Hwy	Project Number:	07174-0003	Reported:
Dallas TX, 75220	Project Manager:	Kyle Summers	27-Jan-14 07:48

#### **Notes and Definitions**

- S-02
   The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

   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

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

# CHAIN OF CUSTODY RECORD

16565

SWA         THE GERKCOMFT         ANALYSIS / PARAMETERS           Email results to:         Sampler Name:         AMADA: ISR. ANT         Image: Sampler Name:	Client: SWG		Pr	oject Name / Locatio THE	on: GERKO	O M	ŦŦ	/	S.K				A	NAL	/SIS	/ PA	RAMI	ETER	IS			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Email results to: KYLE Sum			ent No.:	/		7		hod 8015)	ethod 8021)	thod 8260)	Metals	vnion		d/H y	910-1	(1)	ЭE			loo	Itact
S - 7   265 PtolOllyo - 03   21 k   1   1   1   1   1   1   1   1   1		Sample Date	Sample Time		No./Volume	Pr	<u>т т т</u>	ve	TPH (Met	BTEX (M	VOC (Me	RCRA 8 1	Cation / A	RCI	TCLP with	CO Table	ТРН (418	CHLORIC			Sample C	Sample Ir
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S -11       1225 Pto10100-00       Kt       Image: Constraint of the second state of the	5-10		1220	P401066-05					と	K					÷							
S-12       1/230       Pt0101010-01       k k         S-13       1/235       Pt010010-08       k k         NFS       1/235       Pt010010-08       k k         NFS       1/235       Pt010010-08       k k         NFS       1/235       Pt010010-08       k k         Relinguished by: (Signature)       Pate       Time         Pelinguished by: (Signature)       Date       Time         Sample Matrix       Po # 04/46002       1/33.14         Sample (s) dropped off after hours to secure drop off area.       P0 # 04/46002       1/3.0 °C         RUSH       Envirotech       1/3.0 °C       1/1.0°C         State       1/3.0 °C       1/1.0°C       1/1.3°C	5-11		1225	Ptolololo-do					k	X												
S - 13       I & d > S P40 lougle - 08       I & K         NFS       NFS         Af3       Date         Time       Received by: (Signature)         Image: Signature       Date         VFS       Image: Signature)         Date       Time         Image: Signature       Particle         Pelinquished by: (Signature)       Date         Signature       Po # 04/14/0002         Sample Matrix       Solid         Solid       Sludge         Aqueous       Other         Po # 04/14/0002         Sample(s) dropped off after hours to secure drop off area.         RUSH       Empirical taboratory         I.3.0 °C       N.1 °C         I.3.0 °C       N.1 °C         I.3.2 C	5-12		1230	P40101010-07					K	X												
NFS       NFS         NFS       NFS         NFS       NFS         NFS       No         NFS       No         NFS       No         No       No	5-13		1235	P401066-08					Ł	Ł											<u> </u>	
Belingdished by: (Signature)       Date       Time       Received by: (Signature)       Date       Time         Relinquished by: (Signature)       Date       Time       Peceived by: (Signature)       Date       Time         Relinquished by: (Signature)       Received by: (Signature)       Received by: (Signature)       Date       Time         Sample Matrix       Soild       Sludge   Aqueous   Other         PO # 04/14/0002       Image: Construction of the construction of																						
Belingdished by: (Signature)       Date       Time       Received by: (Signature)       Date       Time         Relinquished by: (Signature)       Date       Time       Peceived by: (Signature)       Date       Time         Relinquished by: (Signature)       Received by: (Signature)       Received by: (Signature)       Date       Time         Sample Matrix       Soild       Sludge   Aqueous   Other         PO # 04/14/0002       Image: Construction of the construction of				A3												_						
Sample Matrix Soil Solid Sludge Aqueous Other Soil Solid Sludge Aqueous Other Sample(s) dropped off after hours to secure drop off area. RUSH Sample(s) Highway 44 + Egraphication NMA 87401 + 505-632-0415 + Three Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree CO 81201 + Isberstee Springer + 45 Marcado Street Suite LIS Furgree Springer + 45 Marcado S	a Z				Date Time /-23 <u>/4</u> /4/52	4	n	Ň	ñ	N	$\sim$	X	$\gamma$	ع	1			7	. <u> </u>			
Sample Matrix Soil Solid Sludge Aqueous Other Devirotech 13.0°C 11.1°C RUSH 5795 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 • Igboratory@envirotech-ind_ Daga 15 of 15	Relinquished by: (Signature)											O										
Soil Soil Sludge Aqueous Other Control Soil Solid Sludge Aqueous Other Control Sample(s) dropped off after hours to secure drop off area. RUSH Solid Street, Suite 115, Durango, CO 81301 • Igboratory@envirotech-ing						ſ.	)/1 -	H-												-		
L' Sample(s) dropped off after hours to secure drop off area. RUSH 5795 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 • Jaboratory@envirotech-ind_ Dargo 15 of 15						ľ	0 -	H	<u>_</u>	)41	40	70	$\mathcal{O}_{\mathcal{A}}$	2								
5795 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • Three Springs • 65 Mercadó Street, Suite 115, Durango, CO 81301 • Jaboratory@envirotech-ind Boro 15 of 15	_	r hours to se	cure drop o	ff area.	3 env	ir (			h	/	i.	3.0	) °( ح	()	۱	٩.١	°C	-				
	5795 US Highway 6	4 • Farmingt	on, NM 874(	)1 • 505-632-0615 • T	hree Springs • 65 i	Mercad	do Stře	et, su	vite 1	15, Di	Jrang	. 3 10, Ci	) D 813	01 • 1	abor	atory	@env	viroted	sh-ind	Deca	15 -	£ 15

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State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

1220 S. St. Fran	cis Dr., Santa	a Fe, NM 87505	>	Sa	anta F	Fe, NM 875	05						
	•		Rele	ease Notific	catio	on and Co	orrective A	ction					
. <u></u>		·				OPERA	ГOR		🛛 Initia	al Report	🔲 Fi	nal Report	
		Interprise Fie				Contact: Th							
		Ave, Farming	· · · · · · · · · · · · · · · · · · ·	87401		Telephone No. 505-599-2286							
Facility Nar	ne: Trunk	3D Pipelin	e		<u>.</u>	Facility Typ	e: Natural Gas	Gatherir	ng Line				
Surface Ow	ner: NAP	[		Mineral (	Dwner	: BLM			API No				
				LOCA	ATIC	ON OF REI	LEASE		•				
Unit Letter B	Section 7	Township 27N	Range 11W	Feet from the	· · · · · · · · · · · · · · · · · · ·	h/South Line	Feet from the	East/W	/est Line	County San Juan			
		Latit	tude <u>3</u>	6.594801		Longitud	e <u>-108.0446</u> 2	28					
				NAT	ſURI	E OF REL	EASE						
Type of Rele						Volume of	Release: Unkno	wn	Volume F	Recovered: I	J <b>nknown</b>		
Source of Re	lease: Accie	dental dischar	ge				lour of Occurrenc	e:		Hour of Disc	covery: 3/	25/2014	
Was Immedia	ata Nation (						@ 6:15 p.m. Lelly – NMOCD, T		@ 6:15 p				
was minicula			Yes [	] No 🔲 Not R	equired		eny – NMOCD,	INAPT 58	nety – Eric				
By Whom?	Thomas Lo	ng				3/25/14 @	7:00 p.m.						
Was a Water	course Read			_			olume Impacting t	the Wate	rcourse.				
			Yes 🛛	No									
If a Watercou	irse was Im	pacted, Descr	ibe Fully.	*									
							es of blowing dov						
on the Trunk	3D. Natur	al gas liquids t including or	(condensa	te, water and oil)	were r	eleased from the	the valve on the Tr	unk 3D.	An area o	f approxima	tely 20 fee	et wide by	
75 feet long v	was affected	a including a p	paved cou	my road. The ren	neorati	on activities of	19:104VoDNSTC	r <b>y</b> 8, 201	4.				
						AP	R 1 1 2014						
							ompleted on Mar						
				The impacted so party environment			ansported to an N ve action report.	IMOCD a	approved l	and farm fac	ility. A "	final" c-	
	<u> </u>				1		1 1 1 1		1 41 - 4				
I hereby certi	If y that the	information g	iven above	e is true and comp nd/or file certain	plete to	notifications a	knowledge and und perform correct	inderstan	id that purs	suant to NM eases which	JCD rules may ende	s and nger	
public health	or the envi	ronment. The	e acceptan	ce of a C-141 rep	ort by t	the NMOCD m	arked as "Final R	leport" de	oes not reli	ieve the oper	ator of lia	ıbility	
should their o	operations h	nave failed to	adequately	investigate and	remedi	ate contaminat	ion that pose a thr	eat to gr	ound water	r, surface wa	ter, humai	n health	
or the enviro	nment. In a	addition, NMC	OCD accept	otance of a C-141	report	does not reliev	e the operator of	responsi	bility for c	ompliance w	ith any ot	her	
federal, state,	, or local la	ws and/or reg	ulations.				OIL CON	SEDV	ATION	DIVISIC		/	
	$\langle \rangle$	1.4	1 10				OIL CON	SERV	ATION	DIVISIC		$\sim$	
Signature:		V 1. 72	ul			_					1		
Duinte d More	er Ion E. E:	alda				Approved by	Environmental S	Specialist	: ( 04	ng		n	
Printed Nam	e: Jon E. FI	eius				·	_/ /	/			$\Delta \mathcal{V}$		
Title: Direct	or, Environ	imental				Approval Da	te: 5/15/1	14 1	Expiration	Date:			
E mail Addr	ace: infield	s@eprod.com				Conditions o	f Approval:						
E-man Addi	ess. jenetu	sugeprod.com								Attached			
	1 -					-							
Date: * Attach Addi	7-1-	wy	Phone	:: (713)381-6684			······						
* Attach Addi	itional She	ets If Néces	sary		-	HAVS	, 1413s	531	395	-			
					_	11.000							

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State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr.

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

1220 S, St. Fran	icis Dr., Santa	a Fe, NM 8750:	5			e, NM 875						
		<u> </u>	Rela			<u> </u>	orrective A	ction	······································			
Name of Co	mpany. F	Interprise Fie	eld Servio	resLLC		OPERA	TOR 10mas Long	🛛 Initi	al Report 🔲 Final Report			
		ve, Farming					No. 505-599-22	286				
		1 M#1A We				Facility Typ	e: Well Site M	eter Run/Meter T	lube			
Surface Ow	ner: BLM			Mineral C	Owner:H	BLM		API No	).			
	<u></u>					N OF RE	1		······			
Unit Letter M	Section 31	Township 30N	Range 8W	Feet from the	North/	South Line	Feet from the	East/West Line	County San Juan			
		Latit	ude <u>3</u>	5.7 <u>62424</u>		Longitud	e <u>-107.71811</u>	6				
					TURE	OF REL		·····				
		l gas and con ten Methanol		Juids			Release: 772 M lour of Occurrence		Recovered: Unknown Hour of Discovery: 3/26/14 @			
			nijecioi			3/26/14 @	1:15 p.m.	1:15 p.m	•			
Was Immedi	ate Notice (		Yes 🗌	] No 🗌 Not R	equired	If YES, To	Whom? Jonatha	n Kelly - NMOCD				
By Whom?								p.m. by phone; 3.	/27/14 by email			
Was a Water	course Read		Yes 🗵	No		If YES, Volume Impacting the Watercourse.						
If a Watercou	urse was Im	pacted, Descr	ibe Fully.'	¢.			· · · · · · · · · · · · · · · · · · ·					
Describe Cau	use of Proble	em and Reme injector and r	dial Actio	n Taken.* A well	produce	er discovered	gas leaking from	a methoonsie of	VAD Enterprise technician was			
dispatened te	isolate the	injector and r	lake repai					APR 11	2014			
									e methanol tank. The affected			
		nand tools and oproved land t			Enterpri	se Compresso	or station to be sto	ored in a petroleum	contaminated soil box for later			
	·	6		· · · · · · · · · · · · · · · · · · ·	1-4-4-4			1				
regulations a	ll operators	are required t	o report ai	nd/or file certain	release n	otifications a	nd perform correc	ctive actions for rel	suant to NMOCD rules and eases which may endanger			
									ieve the operator of liability r, surface water, human health			
or the enviro	nment. In a	ddition, NMC	OCD accep						ompliance with any other			
federal, state	, or local lay	ws and/or regi	ilations.					SERVATION	DIVISION			
		/ <u></u> .	11				<u>UIL CON</u>	<u>SERVATION</u>				
Signature:	m	~ lu	lef				<b>D</b>		ner t			
Printed Nam	e: Jon Field	s				Approved by	Environmental S		1 m			
Title: Directo	or, Environr	nental				Approval Da	te:5/15/	14/ Expiration	 Date:			
E-mail Addr	ess: jefields	@eprod.com				Conditions o	f Approval:					
									Attached			
Date: 2	1-7-	20 14	Phone	: (713)381-6684		<b>.</b>						
* Attach Addi	itional She	ets If Necess	ary		7	+ Nes1	4113529	445				

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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-141 Revised August 8, 2011

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

1220 S. St. Francis Dr., Santa Fe, NM 87505 Santa	Fe, NM 87505							
Release Notificat	ion and Corrective Ac	etion						
	OPERATOR	🔀 Initial Report 🗌 Final Repor						
Name of Company: Enterprise Field Services LLC	Contact: Thomas Long							
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-228	6						
Facility Name: Lateral 3D Loop Pipeline	Facility Type: Natural Gas C	iathering Line						
Surface Owner: NAPI Mineral Owner	er:BLM	API No.						
	ON OF RELEASE							
	orth/South Line Feet from the	East/West Line   County						
D 2 27N 12W		San Juan						
Latitude <u>36.61015</u>	Longitude <u>-107.089064</u>							
NATUF	<b>RE OF RELEASE</b>							
Type of Release: natural gas and natural gas liquids	Volume of Release: Unknow	vn Volume Recovered: Unknown						
Source of Release: Suspected internal corrosion	Date and Hour of Occurrence 3/18/2014 @ 3:40 p.m.	Date and Hour of Discovery: 3/182014 @ 3:40p.m.						
Was Immediate Notice Given?		RCVD APR 7'14						
By Whom?		NT CONS. DIU						
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.							
🗋 Yes 🖾 No								
If a Watercourse was Impacted, Describe Fully.*		······································						
impacts. The line was blown down, taken out of service and LOTO (lo 2014. Describe Area Affected and Cleanup Action Taken.* The repairs/reme								
hydrocarbon impacted soil has been removed and transported to an NM of the third party environmental contractor corrective action report.								
I hereby certify that the information given above is true and complete regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-141 report by should their operations have failed to adequately investigate and remet or the environment. In addition, NMOCD acceptance of a C-141 report federal, state, or local laws and/or regulations.	se notifications and perform correct y the NMOCD marked as "Final Re diate contamination that pose a thre	ive actions for releases which may endanger port" does not relieve the operator of liability at to ground water, surface water, human health						
	OIL CONS	ERVATION DIVISION						
Signature: In Kurl		Carlot						
Printed Name: Jon Fields	Approved by Environmental Sp	ecialist:						
Title: Director, Environmental	Approval Date: 5/9/14/	Expiration Date:						
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached						
Date: 4-2-2014 Phone: (713)381-6684								
Attach Additional Sheets If Necessary	HOCS	1412927528						

# State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

1220 S. St. Fran	cis Dr., Sana	a Fe, INIVI 87503	) 	Sa	inta F	Fe, NM 875	505		-			
			Rele	ease Notific	catio	n and Co	orrective A	ction				
						<b>OPERA</b> '	ГOR	_	🔲 Initia	al Report		Final Report
						Contact Thomas Long						
			gton, NN	1 87401			No. (505) 599-2	2124				
Facility Nan	ne Irunk	K Pipeline			I	Facility Typ	e Pipeline		<u></u>			
Surface Owner BLM Mineral Owner E						BLM			API No.			
				LOCA	ATIO	N OF RE	LEASE					
Unit Letter B	nit Letter Section Township Range Feet from the North				h/South Line	Feet from the	East/West Line County San Ju					
				Latitude: <u>36.5</u>	<u>4831</u>	Longit	ude: <u>-107.6486</u>	3		·		
				NAT	URE	E OF REL	EASE					
		Gas condensa			· · · .	50+MCF	Release 10bbls			Recovered: U		n
			of the 16" :	spiral weld pipelir	ne	9/4/2013 (	lour of Occurrence <b>2</b> 6:00 p.m.	ce Date and Hour of Discovery 9/4/2013 @ 6:00 p.m.				
Was Immedia	ate Notice (		Yes 🗌	] No 🖾 Not Re	equired	If YES, To Brandon	) Whom? Powell, NMOCD	), notified	d by email	I		
By Whom?						Date and Hour 9/5/13 16:46						
Was a Watero	course Read		Yes 🗵	No		If YES, V	olume Impacting	the Wate	rcourse.			
If a Watercou	nse was mi	pacieu, Desei	ibe runy.							RCVD AP OIL CONS DIST	S. DIV	
	The cause			n Taken.* After al corrosion of th								
42 feet long b	y 17 feet w	vide by 14 fee	t deep was	ken.* Repair and I s affected. Approx hird party correcti	ximate	ly 150 cubic y	ard of hydrocarbo	on contan	ninated soi			
regulations al public health should their c	l operators or the envi operations h nment. In a	are required t ronment. The nave failed to a addition, NMC	o report an acceptane adequately OCD accept	e is true and comp nd/or file certain r ce of a C-141 repo v investigate and r otance of a C-141	elease ort by t emedia	notifications a he NMOCD mate contaminat	nd perform correct arked as "Final R ion that pose a thr	ctive active Report" de reat to gre	ons for rel oes not rel ound wate	eases which ieve the oper r, surface wa	may enc ator of l ter, hum	langer iability aan health
Signature: In Tuelob						OIL CONSERVATION DIVISION						
						Approved by Environmental Specialist:						
Title: Director, Environmental						Approval Date: 4/21/14/ Expiration Date:						
E-mail Address: jefields@eprod.com				Conditions of Approval: Attach			Attached	ed 🔲				
Date: 4- Attach Addit	-2-20			: (713)381-6684								
Allach Addi	nonal She	ets II mecess	aly	Inscident	1#	NES	141 114	2601	1		$\sim$	



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche Farmington, NM 87401 505-564-2281

> Durango, Colorado 970-403-3084

March 13, 2014

Thomas Long Enterprise Field Services, LLC 614 Reilly Avenue Farmington, New Mexico 87401

Via electronic mail with delivery confirmation receipt to: tjlong@eprod.com

RE: Release Assessment Report Trunk K Pipeline Release NW¼ NE¼, Section 26, T27N, R8W San Juan County, New Mexico

RCVD APR 7'14 OIL CONS. DIV. DIST. 3

Dear Mr. Long:

On September 9 through 11, 2013, Animas Environmental Services, LLC (AES) completed a release assessment associated with a pipeline release of pipeline liquids and natural gas of unknown volume at the Enterprise Field Services, LLC (Enterprise) Trunk K 16-inch diameter spiral-weld pipeline. The release was discovered on September 4, 2013, and resulted from pipeline corrosion.

## 1.0 Site Information

### 1.1 Location

Location – NW¼ NE¼, Section 26, T27N, R8W, San Juan County, New Mexico Latitude/Longitude – N36.54831 and W107.64863, respectively Surface Owner – Bureau of Land Management (BLM) Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map, September 2013

## 1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to the assessment. The release was given a ranking score of 30 based on the following factors:

 Depth to Groundwater: An NMOCD C-144 form dated March 2006 for the Marron #12, located approximately 2,600 feet north and at a similar elevation,

>

reported the depth to groundwater at less than 50 feet below ground surface (bgs). (20 points)

- Wellhead Protection Area: The release location is not within a wellhead protection area. (0 points)
- Distance to Surface Water Body: The wash in Largo Canyon is located approximately 420 feet east-northeast of the location. (10 points)

The ranking score of 30 dictates that concentrations for impacted soils left in place must be below the NMOCD action levels of 10 mg/kg benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and xylenes (BTEX), and 100 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) and diesel range organics (DRO).

# 1.3 Assessment and Mitigation

On September 9 to 11, 2013, Enterprise contractors completed an excavation along the pipeline and determined the release was the result of a pipeline leak caused by corrosion. The pipeline was repaired, and AES collected soil samples from the walls and base of the excavation. Soil samples were also collected from a soil boring advanced in the base of the excavation near the release location to aid in determination of vertical extent of petroleum hydrocarbon impacted soil. Based on laboratory analytical results, the excavation was extended an additional 2 feet to the northeast, and approximately 3.5 feet of soil was removed from the base of the excavation on September 11, 2013. Prior to backfilling, AES collected two samples from the northeast wall and base of the excavation.

The final excavation measured approximately 42.5 feet by 17 feet by 14 feet deep. The excavation was backfilled with clean, imported material, and the impacted soil was transported to the Envirotech Landfarm for proper disposal. Soil sample locations and final excavation extents are included on Figure 3. The Envirotech Bills of Lading and a photograph log are included in the Appendix.

# 2.0 Soil Sampling

Five soil samples (CS-1 through CS-5) were collected from the walls and base of the initial excavation. Additionally, one soil boring (SB-1) was advanced into the base of the initial excavation near the release location. Following additional excavation, two soil samples (CS-6 and CS-7) were collected from the northeast wall and base of the final excavation. Each sample was field screened for volatile organic compounds (VOCs) and submitted for laboratory analysis. Soil samples CS-6 and CS-7 were also field screened for TPH.

# 2.1 Field Screening

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## 2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

## 2.1.2 Total Petroleum Hydrocarbons

Selected soil samples were also analyzed in the field for TPH per U.S. Environmental Protection Agency (USEPA) Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1.

# 2.2 Laboratory Analyses

Samples collected for laboratory analysis were placed into new, clean, laboratorysupplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Envirotech Analytical Laboratory (Envirotech), in Farmington, New Mexico. Soil samples were laboratory analyzed for:

- BTEX per USEPA Method 8021; and
- TPH (GRO/DRO) per USEPA Method 8015.

# 2.3 Field Screening and Laboratory Analytical Results

Soil field screening results showed that VOC concentrations via OVM ranged from 0.0 ppm in CS-3 up to 1,847 ppm in CS-2. Field TPH concentrations ranged from 78.9 mg/kg in CS-7 up to 156 mg/kg in CS-6. Field screening results are summarized in Table 1 and presented on Figure 3. The AES Field Screening Report is attached.

eline Release	Assessment	, September	2013	
Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)	
OAction Level*	100	100		
9/10/13	12	845	NA	
9/10/13	18	587	NA	
9/10/13	0 to 10.5	1,365	NA	
	Date Sampled D Action Level* 9/10/13 9/10/13	SampleDateDepthSampled(ft bgs)D Action Level*9/10/13129/10/1318	Date SampledDepth (ft bgs)via OVM (ppm)D Action Level*1009/10/13128459/10/1318587	

Table 1. Soil Field Screening VOC and TPH Results

Thomas Long Trunk K Release Assessment Report March 13, 2014 Page 4 of 6

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
NMOCE	Action Level*	100	100	
CS-2	9/10/13	0 to 10.5	1,847	NA
CS-3	9/10/13	0 to 10.5	0.0	NA
CS-4	9/10/13	0 to 10.5	13.4	NA
CS-5	9/10/13	10.5	15.7	NA
CS-6	9/11/13	14.5	293	156
CS-7	9/11/13	0 to 14.5	42.5	78.9

*Action level determined by the NMOCD ranking score per NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993)

Laboratory analytical results showed that benzene concentrations ranged from below laboratory detection limits for all the samples, except CS-1 (0.18 mg/kg) and CS-5 (1.25 mg/kg). Total BTEX concentrations ranged from below laboratory detection limits in five samples up to 29.3 mg/kg in CS-5. TPH concentrations ranged from below laboratory detection limits in CS-3, CS-4, and CS-7, up to 1,770 mg/kg in CS-5. Laboratory analytical results are included in Table 2 and on Figure 3. The laboratory analytical reports are attached.

	Sample				TPH –	TPH –	
Sample ID	Date Sampled	Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	
NMOCI	D Action Level	10	50	100			
CD 1	9/10/13	12	<0.05	1.59	42.2	237	
SB-1	9/10/13	18	<0.05	1.18	15.1	80.4	
CS-1	9/10/13	0 to 10.5	0.18	10.2	144	1,160	
CS-2	9/10/13	0 to 10.5	<0.05	<0.20	<5.00	10.7	
CS-3	9/10/13	0 to 10.5	<0.05	<0.20	<5.00	<5.00	
CS-4	9/10/13	0 to 10.5	<0.05	<0.20	<4.99	<4.99	
CS-5	9/10/13	10.5	1.25	29.3	514	1,260	
CS-6	9/11/13	14.5	<0.05	<0.20	<5.00	33.3	
CS-7	9/11/13	0 to 14.5	<0.50	<2.00	<4.98	<4.98	

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPH Trunk K Pipeline Release Assessment, September 2013

*Action level determined by the NMOCD ranking score per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)

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### 3.0 Conclusions and Recommendations

Action levels for releases determined by NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the release was assigned a ranking score of 30. Field screening showed VOC concentrations above the NMOCD action level of 100 ppm in SB-1, CS-1, CS-2, and CS-6, with the highest concentration in CS-2 with 1,847 ppm. Field TPH concentrations were below the NMOCD action level of 100 ppm in CS-7 with 78.9 mg/kg but exceeded the action level in CS-6 with 156 mg/kg.

Laboratory analytical results for the samples collected from the initial excavation (CS-1 through CS-5) reported benzene and total BTEX below the applicable NMOCD action levels. TPH concentrations were below the NMOCD action level in CS-2 through CS-4 but exceeded the NMOCD action level in CS-1 (northeast wall) and CS-5 (excavation base at 10.5 feet bgs). Based on field screening results, soil boring SB-1 was advanced into the base of the initial excavation. Laboratory analytical results reported benzene and total BTEX concentrations below applicable NMOCD action levels for the 12 and 18 foot bgs samples from SB-1. TPH concentrations for SB-1 exceeded the NMOCD action level at 12 feet (279 mg/kg) but were below the action level at 18 feet (95.5 mg/kg). Following additional excavation, laboratory analytical results reported benzene, total BTEX and TPH concentrations below applicable NMOCD action levels in CS-6 (base at 14 feet bgs) and CS-7 (northeast wall).

Based on field screening and laboratory analytical results of the final walls of the excavation, benzene, total BTEX, and TPH concentrations are below the applicable NMOCD action levels. No further work is recommended for the Trunk K Pipeline Release.

If you have any questions about this report or site conditions, please do not hesitate to contact Heather Woods at (505) 564-2281.

Sincerely,

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David g Reve

David J. Reese Environmental Scientist

Heather M. Woods

Heather M. Woods, P.G. Project Manager

Thomas Long Trunk K Release Assessment Reporरें March 13, 2014 Page 6 of 6 د

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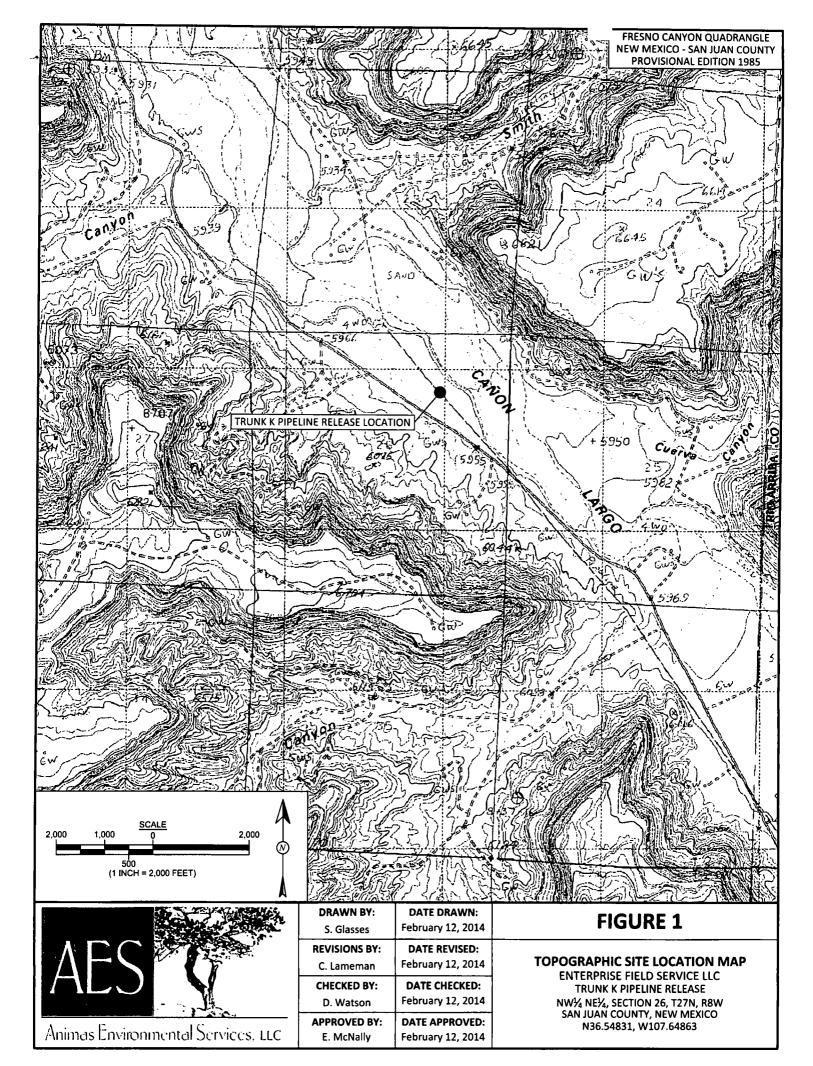
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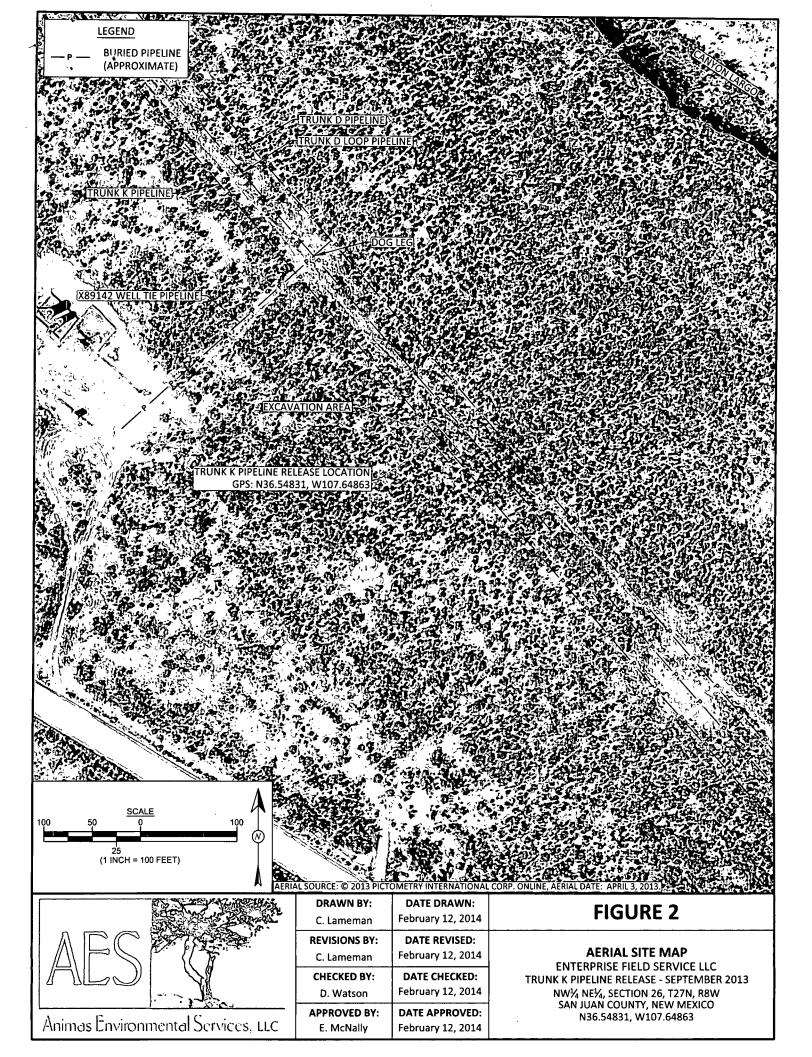
Elizabeth McNally, P.E.

Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, September 2013
Figure 3. Final Excavation Sample Locations and Results, September 2013
Bills of Lading (Envirotech 44629, 44630, 44634, 44636, 44637, 44639, 44640, 44645, 44647 through 44650, 44652, 44653, and 44655)
Photograph Log
AES Field Screening Report 091013-091113
Laboratory Analytical Reports (Envirotech P309048 and P309055)

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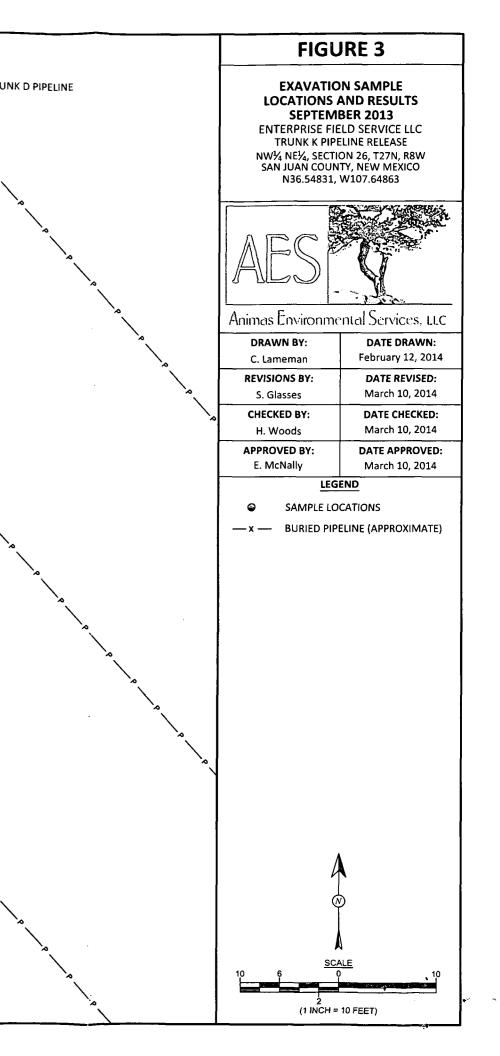
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· · ·							TRI	UNK K PIPELI	NE RELEASE 6.54831, W1	CS-1 © 5B-1 07 549531
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	Sample ID	Date	Depth (ft)	OVM- PID (ppm)	TPH 418.1 (mg/kg)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	CS-3
	NMOCI	D ACTION LE	VEL	100	100	10	50		00	
	<u> </u>	9/10/13	12	845	NA	<0.05	i.59	42.2	237	
	SB-1	9/10/13	18	587	NA	<0.05	1.18	15.1	80.4	
	 CS-1	9/10/13	1 to 10.5	1,365	NA	0.18	10.2	144	1,160	
	CS-2	9/10/13	1 to 10.5	1,847	NA	<0.05	<0.20	<5.00	10.7	
	CS-3	9/10/13	1 to 10.5	0.0	NA	<0.05	<0.20	<5.00	<5.00	
	CS-4	9/10/13	1 to 10.5	13.4	NA	<0.05	<0.20	<4.99	<4.99	
	CS-5	9/10/13	10.5	15.7	NA	1.25	29.3	514	1,260	

33.3

<4.98

CS-5 9/10/13 10.5 15.7 NA 1.25 29.3 514 CS-6 <5.00 9/11/13 14 293 156 <0.05 <0.20 CS-7 9/11/13 1 to 14 42.5 <0.50 <2.00 <4.98 78.9

ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021 AND 8015.



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MANIFEST # _____44629

DATE 9-18-13 JOB # 97057-0537

### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	СОМ	PLETE DESCRIPT	ION OF SHIPME	NT			TRANSPO	ORTING	COMPAI	NY
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Signature	s required prior to distributio	on of the legal docu	ment.		-					

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MANIFEST # _____44630

DATE <u>9-10-13</u> JOB # 97057-0587

#### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD										
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
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/	PAINT FILTER TEST	Certifi	cation of above re	ceival & pla	cement	• .				
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MANIFEST # _ 44634 DATE ______ JOB # _____57-0587

#### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD										
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Enterprise Batk 16" west SW	LFIL	Cont Soil	A-22	10	-	Richl	3	1430	Cutif. Brick
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K292	CHLORIDE TEST	EMPLOYEE:	Rone	Tril	4					
	PAINT FILTER TEST / Certification of above receival & placement									
montione	d Generator/Point of Origi	and that no addition	nal material has be	een added o	r mixed int	o the loa	Ч		-	material is from the above
TRANSPO	RTER CO. Rich	Trucky		artis	Richt		SIGNATURE	Cut	iA.C	uhl
COMPAN	ANSPORTER CO. Righ Truky NAME Curt's Right SIGNATURE Cute A. Brich									

Signatures required prior to distribution of the legal document.



MANIFEST # 44636 DATE 9-10-13 JOB # 97057-0587

### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

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	PAINT FILTER TEST	2	Certific	ation of above re	ceival & pla	cement			$\mathcal{A}$		
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	RTER CO. YUC	<u>(9</u> -	Trucking	NAME	Henry -	Armer	ta	SIGNATURE	M	MM	
COMPAN			, 	PHONE	U			DATE	9-1	0-11	B
Signature	s required prior to dist	ributior	n of the legal docu	ment.						V	



MANIFEST # _____44637

DATE <u>9-10-13</u> JOB # 97057-0587

#### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD											
NO.	POINT OF ORIGI	ZZ	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
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K292	CHLORIDE TEST		EMPLOYEE:	Roni	Sali	A		<u> </u>	<b></b>		
	PAINT FILTER TEST	1	Certific	ation of above re	ceival & pla	cement					
mentioned	y signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above entioned Generator/Point of Origin and that no additional material has been added or mixed into the load.										
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Signatures required prior to distribution of the legal document.

envirotech

MANIFEST # ______44639

DATE 9-10-1-3 JOB # 97057-058

### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD												
NO.	POINT OF ORIGIN		DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE	
1	Enterprise Trank K 16" SU	V	LFI	Cont	A22	12	1	MOSS Excavi	#47	1525	Leo Moss	
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COMPAN	CONTACT Allan	D	oyle	PHONE	337-0	2003			9-	10-1	3	
Signature	ANSPORTER CO. MOSS EX (WATH NAME Lee MOSS SIGNATURE											



MANIFEST # 44640 DATE 9-10-13 JOB # 97057-0587

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### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD										
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
	E Tech 1	Enterprist FMAKK16"SW	Clean Fill		10	-	Ritcharl	471	1530	Elim Rotaling
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RESULT		LANDFARM EMPLOYEE:	Jan -	1	A	Blevi	NOTES:			
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mentione	By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above neutrino denerator/Point of Origin and that no additional material has been added or mixed into the load.									
TRANSPO	CONTACT	Fuck		Elvin	2TR	tch		Y.	-1.K	Itela
COMPAN	CONTACT		PHONE	672	_3.5.5	$\sim$	DATE	9-1	0-1	3
Signature	s required prior to distribution	n of the legal docun	nent.							



MANIFEST # ______44645

DATE 9-11-13 JOB # 97057 - 0587

#### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD										
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
2	5-tech	Extex 1 185 C Heuret K - 16"	elen Fill	-	12	-	MOSS	47	8:00	Lee mos
2	X L	, Sw	`(	-	12	-	moss	47	1217	Les Mora
					24					
								1		
			_					1		
RESULT	S:	LANDFARM		1		BGW	NOTES:			
	CHLORIDE TEST	EMPLOYEE:	down	- Ja						
	PAINT FILTER TEST     Certification of above receival & placement									
By signin mentione	g as the driver/transporter, 1 d d Generator/Point of Origin a	certify the material and that no addition	hauled from the a nal material has be	bove locati en added d	on has not or mixed inte	o the loa	d.	•	-	
	DRTER CO. MOSS EXC						SIGNATURI	= Lee	Ma	20-
COMPAN	ANSPORTER CO. MOSS Excavation NAME (ee Mass									

Signatures required prior to distribution of the legal document.



MANIFEST # 44647

DATE 9.11.13 JOB # 97057-0587

### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD COMPLETE DESCRIPTION OF SHIPMENT TRANSPORTING								ORTING	COMPA	NY
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	ENterprise Trunk-K-16	LFIL	CON + SOIL	A-23	10	-	Recally	Z	1028	Cuti 1. Richt
2	5.00. 11	, 1j	1/	A-23	10	-	6 7	3	1435	Cutr A. Right
				-	20					
								1		
				-						
								1		
								<u>+</u> -		
RESULT	S:		1		_	Ravi	NOTES:	_ <u></u>	<u> </u>	
Kana	CHLORIDE TEST	EMPLOYEE:	Gaup	ali	U.G.					
PAINT FILTER TEST   Certification of above receival & placement										
mentione	d Generator/Point of Origi	in and that no additio	nal material has be	een added o	or mixed int	o the loa	d.	-		material is from the above
TRANSPO	PRTER CO. Riehl Truc	King UC		Curtis	Rich/		SIGNATURE	Cus	ti A	. Rich
COMPAN	DAMPANY CONTACT Charlie Degn PHONE 505 330 4029 DATE 9-11-13									

Signatures required prior to distribution of the legal document.

--- --- ---- - ----



MANIFEST # 44648

DATE 9-11-13 JOB # 97057-0587

#### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	COMF	PLETE DESCRIPT	ION OF SHIPMEN		TRANSPO	ORTING (	COMPA	NY		
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Eitech	ENter Pris Trunk KIG	Fill SUIL		10	-	Reilh	٥3	1028	Cuty J. Rich
		50	SOIL		10					
					10					
RESULT	S:	LANDFARM	1	$\square$	1 ~	BCar	NOTES:			
/	CHLORIDE TEST	EMPLOYEE:	bary	POL	IND	pr				
1	PAINT FILTER TEST	Certific	cation of above red	ceival & pla	cement					K 2C
mentione	g as the driver/transporter, i d d Generator/Point of Origin a DRTER CO. <u>Riehl Truc</u>	nd that no addition	al material has be	en added o	or mixed into	o the load	ded to or tampered dSIGNATURE		,	

COMPANY CONTACT <u>Unar lie</u> <u>Vegn</u> Signatures required prior to distribution of the legal document. DATE

PHONE 505 330 4089



MANIFEST # ______. 44649

DATE 9-11-13 JOB # 97057-0587

### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	CON	IPLETE DESCRIPT	FION OF SHIPME	NT			TRANSPO	ORTING	COMPA	NY
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	ENterprise Trunk-K.16	LFII	CONT	A:23	10	-	VUCCA	AFy	1135	( hannyh
2	11 11	1)	11	A.23	10	-	· > )	95E6	1135	Justhan
3		11		A 23	10	-	,.	AF4	1544	Kanal
4	,, p	"	17	A23	10	-		AF6	1644	Kulton
				-	10					. (
					40					
								1		
				•				1		
		<u>.</u>								
								1		
RESULT	S:	LANDFARM	A		1	a car	NOTES:	<u> </u>		
<292	CHLORIDE TEST	EMPLOYEE:	Cary	Zal	inse	9m				
	PAINT FILTER TEST	Certifi	ication of above re							
By signing mentione	g as the driver/transporter. d Generator/Point of Origin	certify the material and that no addition	I hauled from the a nal material has be	above location en added o	on has not or mixed int	been add o the load	ded to or tampered d.	with. I ce	ertify the	material is from the above
	RTER CO						SIGNATURE			poc_
COMPAN									-13	

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44650 MANIFEST # DATE 9-11-13 JOB # 97057-0587

#### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	COM	PLETE DESCRIPT	ION OF SHIPMEN	IT			TRANSP	ORTING	COMPA	NY
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	
[]	Etech	CNTE-PM Trunk-K	C/Par	•	10	-	YUCCA	AF4	1135	1 Jonesh 2
2	<b>`</b> )	165W	Fill Soil	۲	,0	-	· 1)	AFC	1135	Kenthan
					20					
•										
RESULT	S: CHLORIDE TEST	LANDFARM EMPLOYEE:				BGW	NOTES:			
1	PAINT FILTER TEST	Certific	cation of above red	ceival & pla	acement			Ν		for
By signin mentione	g as the driver/transporter, I d d Generator/Point of Origin a	certify the material and that no addition	hauled from the a al material has be	bove locati en added (	on has not or mixed int	been ade o the loa	ded to or tampered d.	with I Ce	ertify the	material is from the above
TRANSPO	ORTER CO.			temp			SIGNATUR	E	M	<u>\</u>
	CONTACT HILEN	······································		0			DATE	• 1\	<u> </u>	<i>I</i>
Signature	es required prior to distributio	n of the legal docu		iv Records. Yeli	ow - Rilling, Pinl	k - Customer			V	



44652 MANIFEST # 13 JOB # 97057-0587 DATE 9.1

#### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	C	OMP	LETE DESCRIPT	ION OF SHIPMEN	NT			TRANSPO	ORTING	COMPA	NY
NO.	POINT OF ORIGIN		DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
)	Jie Hit	t	LFIT	CONT	A.23	10	~	Ritchop	-71	1155	Juit R. Hel
2	Enterprise	254	1	1. 11	A 23	10	_	Richey	LTI	645	A TRA
	TONFIN					20					Contractor
						·····			1		
						•		· · · · · · · · · · · · · · · · · · ·	1		
								· · · · · · · · · · · · · · · · · · ·	+		
											· ·
									+		
				<u> </u>							
	· · · · · · · · · · · · · · · · · · ·										
				, 							
RESULT	L S:		LANDFARM					NOTES:	<u> </u>		
K292	CHLORIDE TEST	$\overline{1}$	EMPLOYEE:	Can	Kolin	NAM	BGW		<u> </u>		
	PAINT FILTER TEST	1	Certific	cation of above re	ceival & pla	cement					esc
By signing mentioned	g as the driver/transported d Generator/Point of Orig	er, I c gin ar	ertify the material nd that no addition	hauled from the a al material has be	bove location	on has not or mixed int	been ado p the load	ded to or tampered d.	with. I ce	ertify the	material is from the above
									A Man	1-TK	the -
COMPAN	CONTACT_Allen	1.			(323	550			At	1[_	

TRANSPORTER CO. N.

COMPANY CONTACT__

Signatures required prior to distribution of the legal document.



DATE 9-11-13_ JOB # 97057-0587

### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	COM	PLETE DESCRIPT	ION OF SHIPME	NT			TRANSPO	ORTING	COMPAN	۱Y
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Entech L.F	ENtarprise Trunk K	Clean	-	10		Ritchey	471	1155	-
		Trunk K 16-Sw	SUIL		TO					-
									·	
								<u> </u>		
				<u> </u>						· · · · · · · · · · · · · · · · · · ·
RESULT	S: CHLORIDE TEST	LANDFARM EMPLOYEE:	Cory P.	bun	<u>}</u>	BOW	NOTES:	- <b>-</b>	·	
1	PAINT FILTER TEST	Certifi	cation of above re							epe
By signin mentione	g as the driver/transporter, 1 d Generator/Point of Origin a	certify the material and that no addition	hauled from the a nal material has be	bove locati en added d	on has not or mixed int	been ade	ded to or tampered d.	with. I ce	rtify the	material is from the above
	•		NAME					Jan 1		Katching
COMPAN			PHONE_	632	3550		DATE	st		13_0
Signature	as required prior to distributio	n of the legal docu	iment.	÷ - •				/	£	

White - Company Records Vallow - Rilling Disk - Customer



DATE 9-11-13 JOB # 97057-0587

### PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD	СОМ	PLETE DESCRIPT	ION OF SHIPMEN	NT			TRANSPO	ORTING	COMPA	NY
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	ENTERPRISE Trunkk-1656	LFIF	CONT	A.23	10	~	MOSS	47	(2.12	Lee Mass
2	61 21	·· /·	1, ,,	AZ3	10	-	m055	47	1605	Lee Mos
					20					
					00					
				0						
RESULT	S:	LANDFARM	$\Lambda$	11		BOW	NOTES:	÷		
K292	CHLORIDE TEST	EMPLOYEE:	Jan M	oln	25	Bar				
	PAINT FILTER TEST		cation of above re							for
mentione	g as the driver/transporter, I d Generator/Point of Origin a	and that no addition	hal material has be	en added o	or mixed inte	o the loa	d.		-	
TRANSPO	CONTACT Allen DU	Klavation	NAME{	ee m	255		SIGNATURE	fee	Ma	2a
COMPAN	CONTACT Allen Du	y/e	PHONE	4	86-275	54		-11-	13	

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Photo #1	
Client:	
Enterprise Field	
Services, LLC	
Project: Trunk K Pipeline Release	
Taken by: Heather Woods	
Date: September 9, 2013	
AES Project No.	Description:
130908	View looking west of initial excavation prior to pipeline repair.

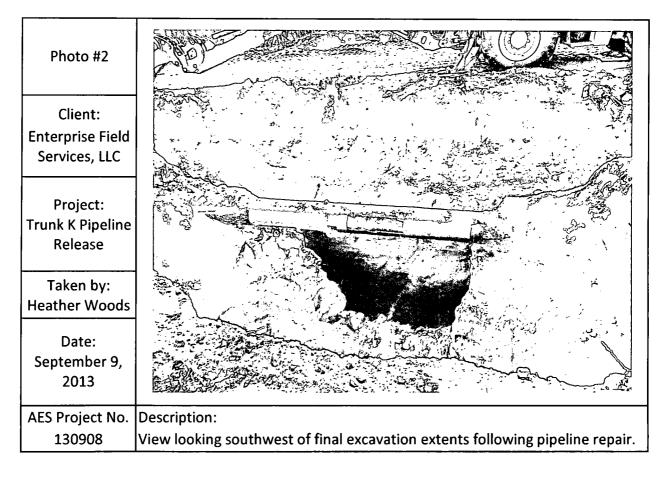


Photo #3	
Client:	
Enterprise Field Services, LLC	
Project: Trunk K Pipeline Release	
Taken by: Heather Woods	
Date: September 11, 2013	
AES Project No.	Description:
130908	View looking northwest of final excavation extents following pipeline repair.

,

AES Field Screening Report



Animas Environmental Services: LLC

www.animasenvironmental.com

624 E. Comanche Farmington, NM 87401 505-564-2281

> Durango, Colorado 970-403-3084

Client: Enterprise Field Services, LLC

Project Location: Trunk K Pipeline Release

Date: 9/10/2013 - 9/11/2013

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials		
SB-1 @ 12'	9/10/2013	13:22	845		Not A	nalyzed for TP	н			
SB-1 @ 18'	9/10/2013	13:25	587	Not Analyzed for TPH						
CS-1	9/10/2013	9:37	1,365	Not Analyzed for TPH						
CS-2	9/10/2013	9:40	1,847		Not A	nalyzed for TP	Н			
CS-3	9/10/2013	9:43	0.0		Not A	nalyzed for TP	H			
CS-4	9/10/2013	9:47	13.4		Not A	nalyzed for TP	H			
CS-5	9/10/2013	9:50	15.7		Not A	nalyzed for TP	н Н			
CS-6	9/11/2013	14:39	293	156	14:58	20.0	1	HMW		
CS-7	9/11/2013	14:40	42.5	78.9	15:01	20.0	1	HMW		

DF Dilution Factor

NA Not Analyzed

ND Not Detected at the Reporting Limit

PQL Practical Quantitation Limit

*Field TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Aleather M. Woods Analyst:



### **Analytical Report**

#### **Report Summary**

Client: Animas Environmental Services Chain Of Custody Number: 16068 Samples Received: 9/10/2013 11:15:00AM Job Number: 99083-0001 Work Order: P309048 Project Name/Location: Enterprise Trunk K

Date: 9/11/13

Entire Report Reviewed By:

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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Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (505) 632-0615 Fx (505) 632-1865 Ph (970) 259-0615 Fr (800) 362-1879





Animas Environmental Services	Project Name:	Enterprise Trunk K	
624 E. Comanche St.	Project Number:	99083-0001	Reported:
Farmington NM, 87401-6815	Project Manager:	Heather Woods	11-Sep-13 14:03

### Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SB-1@12'	P309048-01A	Soil	09/10/13	09/10/13	Glass Jar, 4 oz.
SB-1@18'	P309048-02A	Soil	09/10/13	09/10/13	Glass Jar, 4 oz.
CS-1	P309048-03A	Soil	09/10/13	09/10/13	Glass Jar, 4 oz.
CS-2	P309048-04A	Soil	09/10/13	09/10/13	Glass Jar, 4 oz.
CS-3	P309048-05A	Soil	09/10/13	09/10/13	Glass Jar, 4 oz.
CS-4	P309048-06A	Soil	09/10/13	09/10/13	Glass Jar, 4 oz.
CS-5	P309048-07A	Soil	09/10/13	09/10/13	Glass Jar, 4 oz.

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Animas Environmental Services 624 E. Comanche St. Farmington NM, 87401-6815	Project Name:Enterprise Trunk IProject Number:99083-0001Project Manager:Heather Woods			K			Reported		
		SE	8-1@12'						
		P3090	48-01 (So	lid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021				_					
Benzene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
ſoluene	0.18	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	0.09	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
o,m-Xylene	1.04	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
)-Xylene	0.28	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
fotal Xylenes	1.32	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
fotal BTEX	1.59	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Bromochlorobenzene		102 %	80	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Currogate: 1,4-Difluorobenzene		90.4 %	80	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
urrogate: Fluorobenzene		90.5 %	80	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Nonhalogenated Organics by 8015	<u></u>								
Gasoline Range Organics (C6-C10)	42.2	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
Diesel Range Organics (C10-C28)	237	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
GRO and DRO Combined Fractions	279	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	

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Page 3 of 13



3 - 2

Animas Environmental Services 624 E. Comanche St. Farmington NM, 87401-6815	Project	Project Name: Enterprise Trunk K Project Number: 99083-0001 Project Manager: Heather Woods						Reported	
			8-1@18' 48-02 (So	lid)			<u></u>		
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Benzene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Toluene	0.12	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	0.06	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
p,m-Xylene	0.79	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
o-Xylene	0.21	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total Xylenes	0.99	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total BTEX	1.18	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Bromochlorobenzene		105 %	80-1	20	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		94.0 %	80-1	20	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Fluorobenzene		94.9 %	80-1	20	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	15.1	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
Diesel Range Organics (C10-C28)	80.4	5.00	mg/kg	ł	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
GRO and DRO Combined Fractions	95.5	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	

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Animas Environmental Services	Project Name:	Enterprise Trunk K	
624 E. Comanche St.	Project Number:	99083-0001	Reported:
Farmington NM, 87401-6815	Project Manager:	Heather Woods	11-Sep-13 14:03

3

			CS-1						
- 1-2 - 101-10-10-10-10-10-10-10-10-10-10-10-10-		P30904	48-03 (Sol	lid)					
L.		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	0.18	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Foluene	1.92	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	1.04	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
p,m-Xylene	5.61	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
9-Xylene	1.45	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Fotal Xylenes	7.06	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Fotal BTEX	10.2	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Bromochlorobenzene		113 %	80-	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		91.6 %	80-	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Fluorobenzene		97.9 %	80-	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Vonhalogenated Organics by 8015									
Fasoline Range Organics (C6-C10)	144	4.99	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
Jiesel Range Organics (C10-C28)	1160	4.99	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
GRO and DRO Combined Fractions	1310	4.99	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	

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Animas Environmental Services 624 E. Comanche St. Farmington NM, 87401-6815	Project Name:Enterprise Trunk KProject Number:99083-0001Project Manager:Heather Woods							<b>Reported:</b> 11-Sep-13 14:03		
			CS-2 48-04 (Sol	lid)						
		Reporting								
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
Volatile Organics by EPA 8021										
Benzene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B		
Toluene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B		
Ethylbenzene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B		
p,m-Xylene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B		
o-Xylene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B		
Total Xylenes	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B		
Total BTEX	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B		
Surrogate: Bromochlorobenzene		102 %	80-	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B		
Surrogate: 1,4-Difluorobenzene		97.0 %	80-	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	. <u>.</u>	
Surrogate: Fluorobenzene		97.2 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B		
Nonhalogenated Organics by 8015						1 0.11 = 0				
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D		
Diesel Range Organics (C10-C28)	10.7	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D		
GRO and DRO Combined Fractions	10.7	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D		

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Animas Environmental Services 624 E. Comanche St. Farmington NM, 87401-6815	Proje	ct Name: ct Number: ct Manager:	99083	orise Trunk I -0001 er Woods	<b>Reported:</b> 11-Scp-13 14:03				
			CS-3 48-05 (Sol	lid)					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									•
Benzene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Foluene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
o,m-Xylene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
-Xylene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
fotal Xylenes	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	I	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Bromochlorobenzene		97.8 %	80-	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		95.8 %	80	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Fluorobenzene		97.1 %	80-	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Nonhalogenated Organics by 8015									
Jasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
<b>JRO and DRO Combined Fractions</b>	ND	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	

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Animas Environmental Services	Project	t Name:	Enter	prise Trunk I	K				
624 E. Comanche St.	Project	t Number:	99083	-0001				Reported	l:
Farmington NM, 87401-6815	Project	t Manager:	Heath	er Woods				11-Sep-13 1	4:03
			CS-4						
		P30904	48-06 (Sol	lid)					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021		<u>    .    .                           </u>	·····						
Benzene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
p, <b>m-</b> Xylene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Bromochlorobenzene		95.2 %	80-	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		102 %	80-	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Fluorobenzene		103 %	80-	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Nonhalogenated Organics by 8015								<b>_</b> .	
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	4.99	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.99	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	

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S.

Animas Environmental Services	Project Name:	Enterprise Trunk K	
624 E. Comanche St.	Project Number:	99083-0001	Reported:
Farmington NM, 87401-6815	Project Manager:	Heather Woods	11-Sep-13 14:03

			CS-5								
P309048-07 (Solid)											
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
Volatile Organics by EPA 8021											
Benzene	1.25	0.50	mg/kg	10	1337004	10-Sep-13	11-Sep-13	EPA 8021B			
foluene	6.48	0.50	mg/kg	10	1337004	10-Sep-13	11-Sep-13	EPA 8021B			
Ethylbenzene	2.19	0.50	mg/kg	10	1337004	10-Sep-13	11-Sep-13	EPA 8021B			
p,m-Xylene	16.0	0.50	mg/kg	10	1337004	10-Sep-13	11-Sep-13	EPA 8021B			
9-Xylene	3.44	0.50	mg/kg	10	1337004	10-Sep-13	11-Sep-13	EPA 8021B			
Fotal Xylenes	19.4	0.50	mg/kg	10	1337004	10-Sep-13	11-Sep-13	EPA 8021B			
Fotal BTEX	29.3	0.50	mg/kg	10	1337004	10-Sep-13	11-Sep-13	EPA 8021B			
Surrogate: Bromochlorobenzene		100 %	80	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B			
Surrogate: 1,4-Difluorobenzene		92.2 %	80-1	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B			
Surrogate: Fluorobenzene		94.5 %	80-1	120	1337004	10-Sep-13	11-Sep-13	EPA 8021B			
Nonhalogenated Organics by 8015											
Gasoline Range Organics (C6-C10)	514	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D			
Diesel Range Organics (C10-C28)	1260	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D			
GRO and DRO Combined Fractions	1770	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D			

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Animas Environmental Services	Project Name:	Enterprise Trunk K	
624 E. Comanche St.	Project Number:	99083-0001	Reported:
Farmington NM, 87401-6815	Project Manager:	Heather Woods	11-Sep-13 14:03

#### 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 1337004 - Purge and Trap EPA 5030A										
Blank (1337004-BLK1)				Prepared: (	)9-Sep-13	Analyzed: 1	0-Sep-13			
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05								
),m-Xylene	ND	0.05	"							
-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Fotal BTEX	ND	0.05	u							
Surrogate: Bromochlorobenzene	51.0	· · ·	ug/L	50.0		102	80-120			
Surrogate: 1,4-Difluorobenzene	54.1		"	50.0		108	80-120			
urrogate: Fluorobenzene	53.1		"	50.0		106	80-120			
Duplicate (1337004-DUP1)	Sou	rce: P309022-	-01	Prepared: (	09-Sep-13	Analyzed: I	10-Sep-13			
Benzene	ND	0.05	mg/kg		ND				30	
foluene	ND	0.05	"		ND				30	
Ethylbenzene	ND	0.05	"		ND				30	
o,m-Xylene	ND	0.05	"		ND				30	
o-Xylene	ND	0.05	"		ND				30	
Surrogate: Bromochlorobenzene	43.8		ug/L	50.0		87.7	80-120			
Surrogate: 1,4-Difluorobenzene	43.8		"	50.0		87.6	80-120			
Surrogate: Fluorobenzene	43.6		"	50.0		87.2	80-120			
Matrix Spike (1337004-MS1)	Sou	irce: P309022-	-01	Prepared: (	09-Sep-13	Analyzed:	10-Sep-13			
Benzene	2.59	0.05	mg/kg	2.50	ND	104	39-150			
foluene	2.58	0.05		2.50	ND	103	46-148			
Ethylbenzene	2.58	0.05	u	2.50	ND	103	32-160			
o,m-Xylene	5.15	0.05		5.00	ND	103	46-148			
p-Xylene	2.57	0.05		2.50	ND	103	46-148			
Surrogate: Bromochlorobenzene	53.2		ug/L	50.0		106	80-120			
Surrogate: 1,4-Difluorobenzene	51.8		"	50.0		104	80-120			

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Animas Environmental Services	Project Name:	Enterprise Trunk K	
624 E. Comanche St.	Project Number:	99083-0001	Reported:
Farmington NM, 87401-6815	Project Manager:	Heather Woods	11-Sep-13 14:03

### Nonhalogenated Organics by 8015 - Quality Control

### **Envirotech Analytical Laboratory**

· · · · · · · · · · · · · · · · · · ·		Reporting	_	Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
latch 1337005 - GRO/DRO Extraction	on EPA 3550C									
Blank (1337005-BLK1)				Prepared: (	)9-Sep-13	Analyzed:	0-Sep-13			
asoline Range Organics (C6-C10)	ND	5.00	mg/kg							
Diesel Range Organics (C10-C28)	ND	5.00	n							
GRO and DRO Combined Fractions	ND	5.00	n							
uplicate (1337005-DUP1)	Sour	ce: P309022-	01	Prepared: 0	)9-Sep-13	Analyzed: 1	0-Sep-13			
asoline Range Organics (C6-C10)	ND	4.98	mg/kg		ND				30	
Diesel Range Organics (C10-C28)	ND	4.98	"		ND				30	
Aatrix Spike (1337005-MS1)	Sour	ce: P309022-	01	Prepared: 0	)9-Sep-13	Analyzed: 1	0-Sep-13			
asoline Range Organics (C6-C10)	262	5.26	mg/kg	263	ND	99.4	75-125			
Diesel Range Organics (C10-C28)	265	· 5.26	u	263	ND	101	75-125			

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Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301	Ph (970) 259-0615 Fr (800) 362-1879	laboratory@envirotech-inc.com



#### **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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RUSH

# CHAIN OF CUSTODY RECORD

16068

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Client:			Project Name 7 Location:								ANALYSIS / PARAMETER									NS:				
Animas Environ mental Services Enterprise Trunk					CK.	K					d 1999 14		<u></u>	· • •	-						,			
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hwoods Canimasenvironmental com Heather Wood									680	d 80	826	S	, 		]     <b>     </b>	1			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				- 	
Client Phone No: ଚତ୍ର କ୍ରତ୍ୟକ 2.2.୧	5.	2 - Andre 1997 - 2	Clien	^{it No.} 99 <i>0.6</i>	3-1	0001				(Method 8015)	BTEX (Method 8021)	(Method 8260)	8 Metals	/ Anion		with H/P	CO Table 910-1	FPH (418.1)	RIDE		**		Sample Cool	ple Intact
Sample No./ Identification	Sample Date	Samp Time		Lab No.	No	./Volume Containers	PI ĤŇO3	reserva	ive Cold/ None		BTEX	Vòc (	RCRA	Cation	ŝ	ŤČĹP	CO Ta	ТРН (	CHLORIDE	6), 101.111 - 4		ی بر ۲۰۰۰ ۱۰۰۰ ۱۰۰۰ ۱۰۰۰ ۱۰۰۰ ۱۰۰۰ ۱۰۰۰ ۱۰۰۰	Samp	Sampi
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SB-10 [8 ^{7]}	9/10/13	90c	<u>,</u> [	1309.045-02	14	yoz	* 944 * 2 g		X	×	×			and the second					× <u>*</u> * * * *			*	<u></u>	
ĈS-1	9.110/13	19:3	7 1	309046-03	1	- <u>4</u> 02	* 		X	X	X		***											<u>-</u> ) 
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## **Analytical Report**

#### **Report Summary**

Client: Animas Environmental Services Chain Of Custody Number: 16076 Samples Received: 9/11/2013 4:20:00PM Job Number: 99083-0001 Work Order: P309055 Project Name/Location: Enterprise Trunk K

Entire Report Reviewed By:

Date: 9/12/13

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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14.2

Animas Environmental Services	Project Name:	Enterprise Trunk K	
624 E. Comanche St.	Project Number:	99083-0001	Reported:
Farmington NM, 87401-6815	Project Manager:	Heather Woods	12-Sep-13 10:42

## **Analyical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CS-6	P309055-01A	Soil	09/11/13	09/11/13	Glass Jar, 4 oz.
CS-7	P309055-02A	Soil	09/11/13	09/11/13	Glass Jar, 4 oz.

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Animas Environmental ServicesProject Name:Enterprise Trunk K624 E. Comanche St.Project Number:99083-0001Farmington NM, 87401-6815Project Manager:Heather Woods								Reported	
			CS-6 55-01 (Sol	lid)					
	<u></u>						<u> </u>	<u></u>	<u>-</u>
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
ſoluene	ND	0.05	mg/kg	1	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
)-Xylene	ND	0.05	mg/kg	1	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
lotal Xylenes	ND	0.05	mg/kg	1	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
fotal BTEX	ND	0.05	mg/kg	1	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Bromochlorobenzene		100 %	80	120	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		95.4 %	80	120	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Fluorobenzene		93.9 %	80	120	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Nonhalogenated Organics by 8015									
Jasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1337026	11-Sep-13	12-Sep-13	EPA 8015D	
Diesel Range Organics (C10-C28)	33.3	、5.00	mg/kg	1	1337026	11-Sep-13	12-Sep-13	EPA 8015D	
<b>GRO and DRO Combined Fractions</b>	33.3	5.00	mg/kg	1	1337026	11-Sep-13	12-Sep-13	EPA 8015D	

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Animas Environmental Services 624 E. Comanche St. Farmington NM, 87401-6815	524 E. Comanche St. Project Number: 99083-0001							Reported 12-Sep-13 1	
			CS-7 55-02 (Sol	lid)					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.50	mg/kg	10	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Toluene	ND	0.50	mg/kg	10	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	ND	0.50	mg/kg	10	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
p,m-Xylene	ND	0.50	mg/kg	10	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
o-Xylene	ND	0.50	mg/kg	10	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Total Xylenes	ND	0.50	mg/kg	10	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Total BTEX	ND	0.50	mg/kg	10	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Bromochlorobenzene		90.7 %	80-	120	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		93.0 %	80-	120	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Fluorobenzene		91.1 %	80-	120	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg	1	1337026	11-Sep-13	12-Sep-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	4.98	mg/kg	1	1337026	11-Sep-13	12-Sep-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.98	mg/kg	1	1337026	11-Sep-13	12-Sep-13	EPA 8015D	

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envirotech-inc.com laboratory denvirotech inc.com



Animas Environmental Serv	vices Project Name:	Enterprise Trunk K	
624 E. Comanche St.	Project Number:	99083-0001	Reported:
Farmington NM, 87401-681	5 Project Manager	:: Heather Woods	12-Sep-13 10:42

#### Volatile Organics by EPA 8021 - Quality Control

#### **Envirotech Analytical Laboratory**

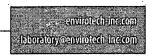
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1337027 - Purge and Trap EPA 5030A										
Blank (1337027-BLK1)				Prepared &	Analyzed:	11-Sep-13				
Benzene	ND	0.05	mg/kg							
lotuene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
ςm-Xylene	ND	0.05	"							
-Xylene	ND	0.05	"							
iotal Xylenes	ND	0.05	"							
Fotal BTEX	ND	0.05								
Surrogate: Bromochlorobenzene	49.8		ug/L	50.0		99.7	80-120			
Surrogate: 1,4-Difluorobenzene	50.2		"	50.0		100	80-120			
Surrogate: Fluorobenzene	49.9		"	50.0		99.7	80-120			
Duplicate (1337027-DUP1)	Sou	rce: P309035-	01	Prepared &	Analyzed:	11-Sep-13				
lenzene	ND	0.05	mg/kg		ND				30	
oluene	ND	0.05	"		ND				30	
thylbenzene	ND	0.05			ND				30	
,m-Xylene	ND	0.05			ND				30	
-Xylene	ND	0.05	"		ND				30	
urrogate: Bromochlorobenzene	46.5		ug/L	50.0		93.1	80-120			
urrogate: 1,4-Difluorobenzene	49.6		"	50.0		99.3	80-120			
urrogate: Fluorobenzene	49.1		"	50.0		98.2	80-120			
Aatrix Spike (1337027-MS1)	Sou	rce: P309035-	01	Prepared &	Analyzed:	11-Sep-13				
lenzene	47.7		ug/L	50.0	0.59	94.3	39-150	,		
oluene	49.0		"	50.0	0.94	96.2	46-148			
thylbenzene	48.7		"	50.0	0.15	97.2	32-160			
,m-Xylene	97.6		"	100	0.75	96.9	46-148			
-Xylene	48.7		u	50.0	0.24	97.0	46-148			
urrogate: Bromochlorobenzene	46.5		"	50.0		93.1	80-120			
urrogate: 1,4-Difluorobenzene	49.0		"	50.0		98.0	80-120			
urrogate: Fluorobenzene	48.8		"	50.0		97.5	80-120			

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Page 5 of 8



3.3

Animas Environmental Services	Project Name:	Enterprise Trunk K	
624 E. Comanche St.	Project Number:	99083-0001	Reported:
Farmington NM, 87401-6815	Project Manager:	Heather Woods	12-Sep-13 10:42

#### Nonhalogenated Organics by 8015 - Quality Control

#### **Envirotech Analytical Laboratory**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1337026 - GRO/DRO Extraction	on EPA 3550C									
Blank (1337026-BLK1)				Prepared &	2 Analyzed	11-Sep-13				
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg							
Diesel Range Organics (C10-C28)	ND	5.00	••							
GRO and DRO Combined Fractions	ND	5.00	"							
Duplicate (1337026-DUP1)	Sour	e: P309035-	01	Prepared &	k Analyzed	11-Sep-13				
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg		ND				30	
Diesel Range Organics (C10-C28)	149	4.99			1010			149	30	DI
Matrix Spike (1337026-MS1)	Sour	e: P309035-	01	Prepared 8	2 Analyzed	11-Sep-13				
Gasoline Range Organics (C6-C10)	254	5.26	mg/kg	263	ND	96.4	75-125			
Diesel Range Organics (C10-C28)	1080	5.26	Ħ	263	1010	25.8	75-125			SPK 1

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	Animas Environmental Services	Project Name:	Enterprise Trunk K	· ·
}	624 E. Comanche St.	Project Number:	99083-0001	Reported:
	Farmington NM, 87401-6815	Project Manager:	Heather Woods	12-Sep-13 10:42

#### **Notes and Definitions**

SPK 1	The spike recovery for this QC sample is outside of control limits.
DI	Duplicates or Matrix Spike Duplicates Relative Percent Difference exceeds 30%.
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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Page 7 of 8



# CHAIN OF CUSTODY RECORD

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Animas Environmental	Servic	es E	Herprise Trus	nk K.	، الله جار من	1						-A.	INAL	້ເວເວ	/ <b>CA</b> I	aawn	C I Ch	15		A	-	
mail results to:	-		mpler Name:			·		, Ĉ	2(1)	(0	; ;			· · · ·	2 · · · ·		<u> </u>					
hwoods animasen	Vironnia							3015	1 802	826	Ś						1 J		、 :		•	
کانوبر Phone No.: ଅନ୍ୟ ଅନ୍ୟ ଅନ୍ୟ		Clie	ent No.: 996	)42-AP	<i>(</i> ) ]			ethod 1	Vethoc	lethod	Metal	Anion	-	ith H/F	e 910	8.1)	DE				Cool	Intact
Sample No./ Identification	Sample Date	Sample	Lab No:	No./Volume of Containers	F HNO	reserva 3 . ĤCI	1	TPH. (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation/ Anion	RC	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE		4 - 1000 - 1 - 1000		Sample	Sample Intact
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of 8

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

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

				58	anta Fe	e, NM 875	05				
			Rele	ease Notific	catior	and Co	orrective A	ction	1		
						<b>OPERA</b>	FOR		🗍 Initia	l Report	Final Repor
Name of Co	ompany: E	Enterprise Fi	eld Servio	ces LLC		Contact: Th				<u> </u>	
		Ave, Farming	gton, NM	87401		Telephone N	No. 505-599-22				
Facility Na	me: Trunk	<u>k 10A</u>				Facility Typ	e: Natural Gas	s Gath	ering Line		
Surface Ow	ner: NAP	I/Navajo Na	ation	Mineral C	Owner:	BLM		· _ ·	API No		
						N OF REI	FASE				
Unit Letter	Section	Township	Range	Feet from the		outh line	Feet from the	Fast	WestLine	County	
N	27	26N	12W	1201			1874	Susta		San Juan	
	· · ·			<u> </u>			· · · · · · · · · · · · · · · · · · ·	<u> </u>			
		Latit	ude <u>3</u>	6.455278		_ Longitud	e <u>-108.1015</u>	<u>62</u>			
				NAT	URE	OF REL	EASE				
Type of Rele	ase: Natura	al Gas and Na	itural gas l	liquids			Release: Unkno		Volume R	ecovered: U	nknown
						about of g	as; Estimated to	be 1-	1		
Source of Re	elease: Inter	nal Corrosion	of the Pip	eline			lour of Occurrent		Date and	Hour of Disco	overy: 2/19/2014
W/ 1	A Netice (	710					<u>@ 12:30 p.m.</u>	<u> </u>	@ 12:30		
Was Immedi	ate Notice (		Yes 🗌	] No 📋 Not R	equired		Mike Freeman -		athan Kelly	NNEPA - SI	teve Austin, Greg
By Whom?	Thomas Lo						lour 2/19/2014 @		1:30 p.m.		
Was a Water		ched?					lume Impacting				
		L	Yes 🗵	No							•
If a Waterco	urse was Im	pacted, Descr	ibe Fully.								
Describe Cau	use of Probl	em and Reme	dial Actio	n Taken.* A relea	ise was d	liscovered on	the Trunk 10A.	The rel	ease was an	esult) WinDer	al corrosion of the
pipeline. Init	iany a suria	ce area or app	roximater	y 12 reet by 25 re	et was a	fiected. The I	ine was blown do	own, tak	on our or se	rvice and LO	TO (lock out tag
out) was app	lied. The re	epairs/remedia	tion activi	ities were comple	ted on Fo	ebruary 27, 2	014.		11.11	1092114	+
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				cen.* Assessment e stockpile soil w							cavation remained
				exico Oil Conserv							
party enviror	nmental con	tractor correct	tive action	report is included	d with th	is "final" c-1	41.				
I hereby cert	ify that the i	information g	iven above	e is true and comp nd/or file certain r	elease n	ne best of my	knowledge and u	indersta	nd that purs	uant to NMO	CD rules and
				ce of a C-141 repo							
should their o	operations h	ave failed to	adequately	investigate and r	emediate	e contaminati	on that pose a thr	reat to g	round water	, surface wate	er, human health
		iddition, NMC		otance of a C-141	report d	oes not reliev	e the operator of	respons	ibility for c	ompliance wit	th any other
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Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche Farmington, NM 87401 505-564-2281

> Durango, Colorado 970-403-3084

May 20, 2014

Thomas Long Enterprise Field Services, LLC 614 Reilly Avenue Farmington, New Mexico 87401

*Via electronic mail with delivery confirmation receipt to:* <u>tjlong@eprod.com</u>

RE: Release Assessment Report Trunk 10A February 2014 Pipeline Release SE% SW%, Section 27, T26N, R12W N36.455278, W108.10156 San Juan County, New Mexico

OIL CONS. DIV DIST. 3

JUN 09 2014

Dear Mr. Long:

On February 27, 2014, Animas Environmental Services, LLC (AES) completed an assessment associated with a release of natural gas and pipeline liquids from the Enterprise Field Services, LLC (Enterprise) 4-inch diameter Trunk 10A pipeline. The release was discovered on February 19, 2014, and resulted from pipeline corrosion.

#### 1.0 Site Information

## 1.1 Location

Location – Unit Letter N, Section 27, T26N, R12W, San Juan County, New Mexico Latitude/Longitude – N36.455278 and W108.101562, respectively Surface Owner – Navajo Agricultural Products Industry (NAPI) Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map, February 2014

## 1.2 NMOCD Ranking

In accordance with Navajo Nation Environmental Protection Agency (NNEPA) release protocols, action levels were established per New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to the assessment. The release was given a ranking score of 40 based on the following factors:

Thomas Long Trunk 10A February 2014 Pipeline Release Assessment Report May 20, 2014 Page 2 of 5

- Depth to Groundwater: A perched groundwater table associated with percolation of irrigation water is often observed at less than 10 feet below ground surface (bgs) in the surrounding area. (20 points)
- Wellhead Protection Area: The release location is not within a wellhead protection area. (0 points)
- Distance to Surface Water Body: The release is located approximately 90 feet to the north of an ephemeral wash which discharges to West Fork Gallegos Canyon. (20 points)

The ranking score of 40 dictates that concentrations for impacted soils left in place must be below the NMOCD action levels of 10 mg/kg benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and xylenes (BTEX), and 100 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) and diesel range organics (DRO). An action level of 100 parts per million (ppm) volatile organic compound (VOCs) concentrations via organic vapor meter (OVM) may be substituted for laboratory analysis of benzene and total BTEX.

## 1.3 Assessment and Mitigation

On February 27, 2014, Enterprise contractors completed an excavation along the pipeline and determined the release was the result of a pipeline leak caused by internal corrosion. The pipeline was repaired, and prior to backfilling the excavation AES collected soil samples from the walls and base of the excavation, as well two composite samples from the stockpiled soils for field sampling and laboratory analysis. The backfill material was sampled by AES on April 23, 2014, to confirm the natural attenuation of petroleum hydrocarbon impact through natural attenuation. The final excavation measured approximately 23.5 feet by 55 feet by 5 feet deep and was backfilled with the stockpiled soils. Soil sample locations and final excavation extents are included on Figure 3. A photograph log is included in the Appendix.

## 2.0 Soil Sampling

Five soil samples (S-1 through S-5) were collected from the walls and the base of the final excavation, and two composite samples (SC-1 and SC-2) were collected from the stockpiles during the initial assessment. Additionally, one composite sample (SC-3) was collected from the backfill material to confirm natural attenuation of petroleum hydrocarbon impacts. Each sample was field sampled for VOCs and submitted for laboratory analysis.

## 2.1 Field Sampling

#### 2.1.1 Volatile Organic Compounds

Field sampling for VOC vapors was conducted with a photo-ionization detector (PID) OVM. Before beginning field sampling, the PID-OVM was first calibrated with 100 ppm isobutylene gas.

#### 2.2 Laboratory Analyses

Soil samples collected for laboratory analysis were placed into new, clean, laboratorysupplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Soil samples were laboratory analyzed for:

- BTEX per U.S. Environmental Protection Agency (USEPA) Method 8021B; and
- TPH (GRO/DRO) per USEPA Method 8015D.

### 2.3 Field Sampling and Laboratory Analytical Results

Soil field sampling results showed that VOC concentrations via OVM ranged from 0.8 ppm in S-5 up to 11.8 ppm in S-4. Results are included in Table 1 and on Figure 3.

Trunk 10A Release	Assessment,	February and	d April, 2014
Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)
NMOCE	Action Level*	k	100
S-1	2/27/14	5	7.2
S-2	2/27/14	1 to 5	2.2
S-3	2/27/14	1 to 5	1.7
S-4	2/27/14	1 to 5	11.8
S-5	2/27/14	1 to 5	0.8
SC-1	2/27/14	Stockpile	3.1
SC-2	2/27/14	Stockpile	6.8
SC-3	4/23/14	Backfill	NA
NIA Net Analyzad			

Table 1. Soil Field Sampling – VOCs

#### NA – Not Analyzed

*NNEPA action levels determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) Laboratory analytical results showed that benzene and total BTEX concentrations were below laboratory detection limits in all samples. TPH concentrations (GRO/DRO) were also below laboratory detection limits in all samples, except SC-2 with 270 mg/kg. Laboratory analytical results are included in Table 2 and on Figure 3. Laboratory analytical reports are attached.

	Date	Sample Depth	Benzene	Total BTEX	TPH – GRO	TPH – DRO
Sample ID	Sampled	(ft bgs)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NMOC	D Action Leve	*	10	50	10	00
S-1	2/27/14	5	<0.049	<0.245	<4.9	<9.9
S-2	2/27/14	1 to 5	<0.046	<0.231	<4.6	<10
S-3	2/27/14	1 to 5	<0.048	<0.241	<4.8	<9.9
S-4	2/27/14	1 to 5	<0.049	<0.245	<4.9	<9.9
S-5	2/27/14	1 to 5	<0.049	<0.246	<4.9	<9.9
SC-1	2/27/14	Stockpile	<0.048	<0.239	<4.8	<9.9
SC-2	2/27/14	Stockpile	<0.048	<0.240	<4.8	270
SC-3	4/23/14	Backfill	NA	NA	<4.8	<10

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPH Trunk 10A Release Assessment. February and April 2014

NA – Not Analyzed

*Action level determined by the NMOCD ranking score per NMOCD Guidelines for Leaks, Spills, and Releases (August 1993)

## 3.0 Conclusions and Recommendations

On February 27, 2014, AES conducted an assessment associated with a pipeline release on the Trunk 10A. NNEPA utilizes action levels for releases determined by NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the release was assigned a ranking score of 40. Field sampling of S-1 through S-5 and composite soil samples SC-1 and SC-2 showed VOC concentrations below the NMOCD action level of 100 ppm, with the highest VOC concentration reported in S-4 with 11.8 ppm. Soil laboratory analytical results showed that benzene, total BTEX, and TPH concentrations were below laboratory detection limits in all samples except SC-2, which had a TPH concentration above the NMOCD action level of 100 mg/kg with 270 mg/kg. The backfill material associated with SC-2 was subsequently resampled on April 23, 2014, and laboratory analytical results showed that TPH (GRO/DRO) concentrations were below the NMOCD action level and laboratory Thomas Long Trunk 10A February 2014 Pipeline Release Assessment Report May 20, 2014 Page 5 of 5

detection limits confirming that natural attenuation of petroleum hydrocarbons had occurred.

Based on field sampling and laboratory results of the final excavation extents for petroleum contaminated soils, VOCs, benzene, total BTEX, and TPH concentrations are below the applicable NMOCD action levels. No further work is recommended for the Trunk 10A February 2014 Pipeline Release.

If you have any questions about this report or site conditions, please do not hesitate to contact Kelsey Christiansen or Elizabeth McNally at (505) 564-2281.

Sincerely,

Lelang Christian

Kelsey Christiansen Environmental Scientist Project Manager

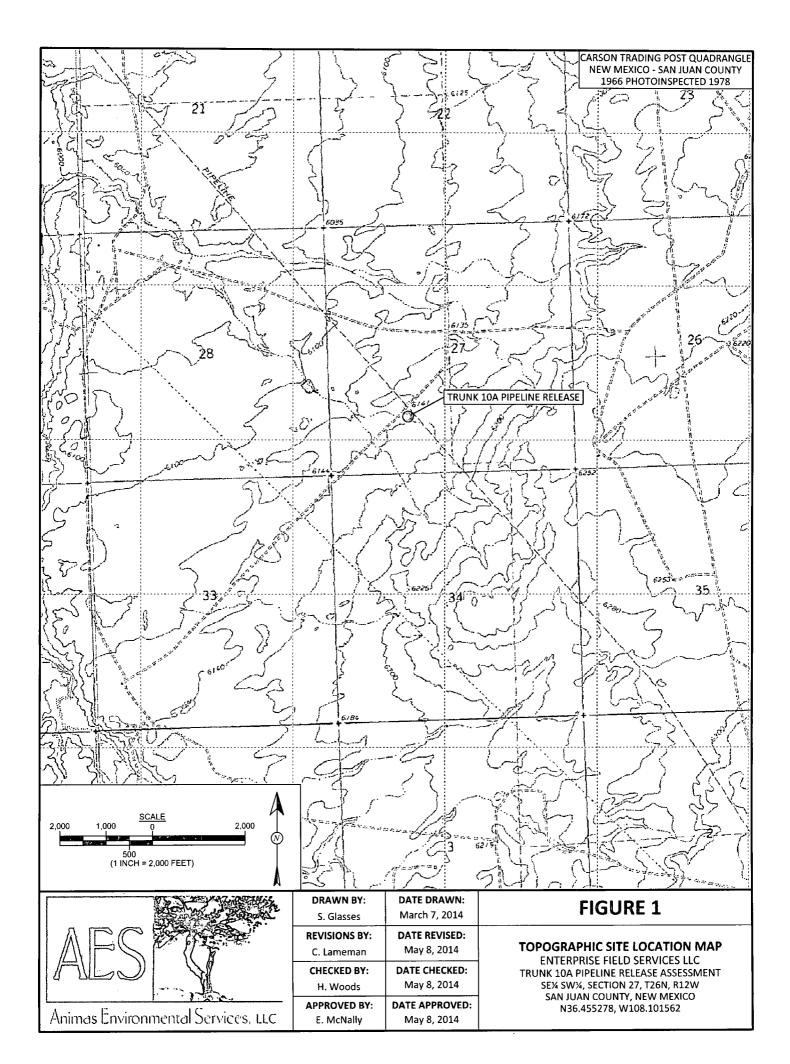
Elizabeth V Mervely

Elizabeth McNally, P.E.

Attachments:

Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map, February 2014 Figure 3. Final Excavation Sample Locations and Results, February and April 2014 Photograph Log Laboratory Analytical Reports (Hall 1402B37 and 1404A72)

C:\Users\Emilee Skyles\Dropbox (Animas Environmental)\0000 Animas Server Dropbox EM\2014 Projects\Enterprise\Trunk 10A\Enterprise Trunk 10A Pipeline Release Report 052014.docx



				LEGEND
				BURIED PIPELINE (APPROXIMATE)
		TRUNK 10A PIP	ELINE	
CTT M	K 10A PIPELINE RELE	ASE LOCATION		
	COLUMN TO			
50 0 100	.8			
25 (1 INCH = 100 FEET)			CORP. ONLINE, AERIAL DATE (25.3 )	
	DRAWN BY: S. Glasses	DATE DRAWN: March 7, 2014	FIGUR	<u></u>
AFS	REVISIONS BY: C. Lameman CHECKED BY:	DATE REVISED: May 8, 2014 DATE CHECKED:	AERIAL SITE FEBRUARY ENTERPRISE FIELD S	2014
nimas Environmental Services, LLC	H. Woods	May 8, 2014 DATE APPROVED:	TRUNK 10A PIPELINE RELE SE% SW%, SECTION 27 SAN JUAN COUNTY, N	ASE ASSESSMENT , T26N, R12W

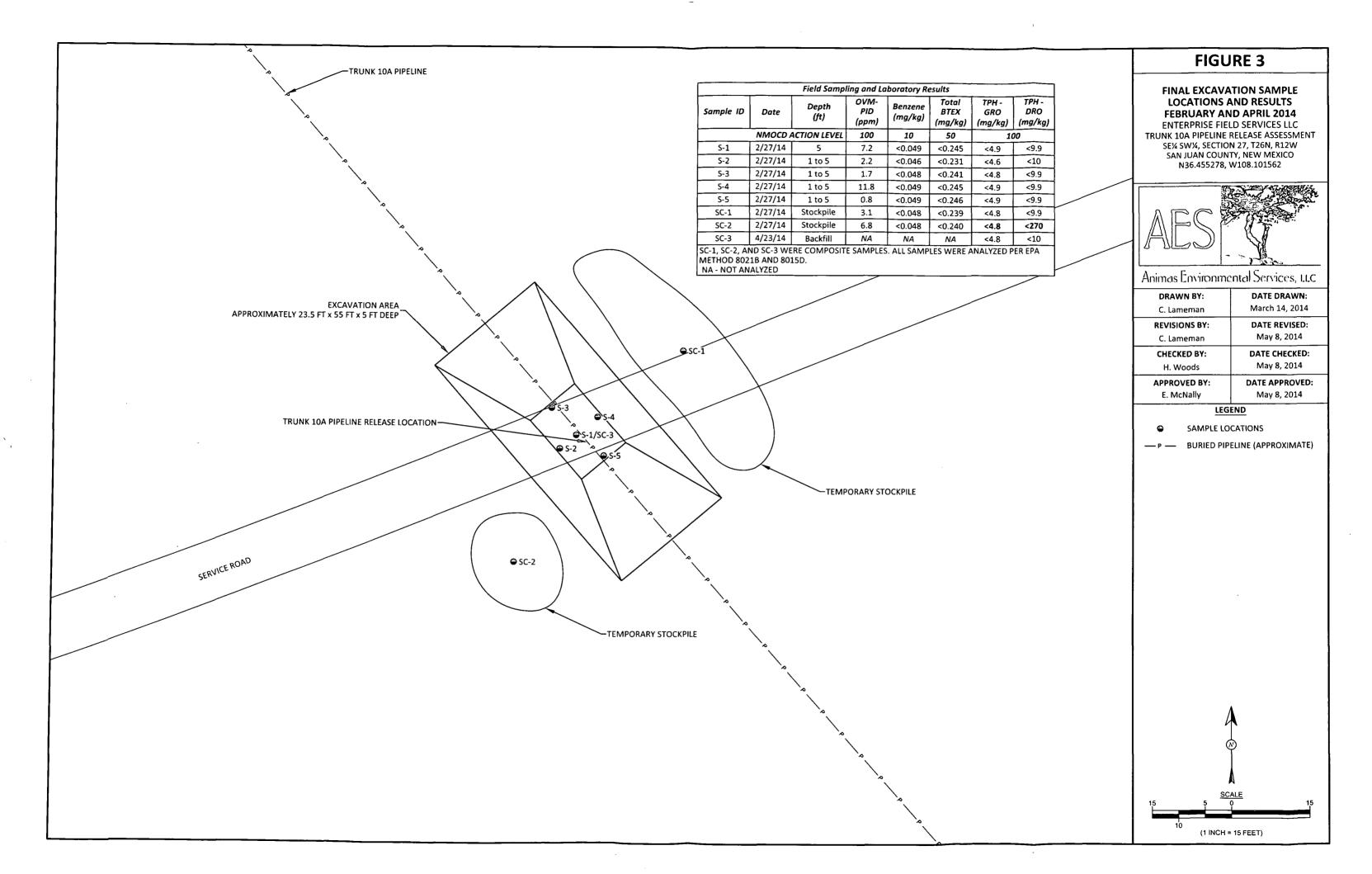


Photo #1	
Client: Enterprise Field Services, LLC	
Project: Trunk 10A Pipeline Release	
Taken by: Heather Woods	
Date: February 27, 2014	
AES Project No. 140224	Description: View of final excavation looking southeast.

	Photo #2	
	Client:	
	Enterprise Field	
	Services, LLC	
	Project: Trunk 10A Pipeline Release	
	Taken by:	
	Heather Woods	
	Date: February 27, 2014	
	AES Project No.	Description:
	140224	View of final excavation looking northeast.
·		· ·



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquergue. NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

March 06, 2014

Heather Woods Animas Environmental Services 624 East Comanche Farmington, NM 87401 TEL: (505) 716-2787 FAX (505) 324-2022

**RE:** Enterprise Trunk 10A

OrderNo.: 1402B37

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 7 sample(s) on 2/28/2014 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 <u>www.hallenvironmental.com</u> 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 qualifers 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,

Ander

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1402B37

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/6/2014

CLIENT: Animas Environmental Services Project: Enterprise Trunk 10A

1402B37-001

Lab ID:

#### Client Sample ID: S-1 Collection Date: 2/27/2014 2:12:00 PM Received Date: 2/28/2014 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG					Analysi	BCN
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/4/2014 10:02:39 AM	11965
Surr: DNOP	112	66-131	%REC	1	3/4/2014 10:02:39 AM	11965
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	: JMP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	3/4/2014 2:00:52 PM	11962
Surr: BFB	90.6	74.5-129	%REC	1	3/4/2014 2:00:52 PM	11962
EPA METHOD 8021B: VOLATILES					Analyst	: JMP
Benzene	ND	0.049	mg/Kg	1	3/4/2014 2:00:52 PM	11962
Toluene	ND	0.049	mg/Kg	1	3/4/2014 2:00:52 PM	11962
Ethylbenzene	ND	0.049	mg/Kg	1	3/4/2014 2:00:52 PM	11962
Xylenes, Total	ND	0.098	mg/Kg	1	3/4/2014 2:00:52 PM	11962
Surr: 4-Bromofluorobenzene	102	80-120	%REC	1	3/4/2014 2:00:52 PM	11962

Matrix: SOIL

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В				
	Е	Value above quantitation range	Н				
J Analyte detected below quantitation		Analyte detected below quantitation limits	ND Not Detected at th		Page 1 of 12		
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	rage 10/12		
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit			
	S	Spike Recovery outside accepted recovery limits					

**Analytical Report** Lab Order 1402B37 Date Reported: 3/6/2014

Batch

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services **Client Sample ID: S-2 Project:** Enterprise Trunk 10A Collection Date: 2/27/2014 2:14:00 PM Lab ID: 1402B37-002 Matrix: SOIL Received Date: 2/28/2014 10:00:00 AM Analyses Result **RL** Qual Units **DF** Date Analyzed **EPA METHOD 8015D: DIESEL RANGE ORGANICS** Analyst: BCN 0 10 ...... .... . ~ .

ND	10	mg/Kg	1	3/4/2014 10:33:25 AM	11965
90.8	66-131	%REC	1	3/4/2014 10:33:25 AM	11965
				Analyst	: JMP
ND	4.6	mg/Kg	1	3/4/2014 3:31:42 PM	11962
83.1	74.5-129	%REC	1	3/4/2014 3:31:42 PM	11962
				Analyst	JMP
ND	0.046	mg/Kg	1	3/4/2014 3:31:42 PM	11962
ND	0.046	mg/Kg	1	3/4/2014 3:31:42 PM	11962
ND	0.046	mg/Kg	1	3/4/2014 3:31:42 PM	11962
ND	0.093	mg/Kg	1	3/4/2014 3:31:42 PM	11962
91.6	80-120	%REC	1	3/4/2014 3:31:42 PM	11962
	90.8 ND 83.1 ND ND ND ND	90.8 66-131 ND 4.6 83.1 74.5-129 ND 0.046 ND 0.046 ND 0.046 ND 0.046 ND 0.046 ND 0.093	90.8         66-131         %REC           ND         4.6         mg/Kg           83.1         74.5-129         %REC           ND         0.046         mg/Kg           ND         0.093         mg/Kg	90.8         66-131         %REC         1           ND         4.6         mg/Kg         1           83.1         74.5-129         %REC         1           ND         0.046         mg/Kg         1           ND         0.093         mg/Kg         1	90.8         66-131         %REC         1         3/4/2014 10:33:25 AM           ND         4.6         mg/Kg         1         3/4/2014 10:33:25 AM           ND         4.6         mg/Kg         1         3/4/2014 3:31:42 PM           83.1         74.5-129         %REC         1         3/4/2014 3:31:42 PM           ND         0.046         mg/Kg         1         3/4/2014 3:31:42 PM           ND         0.093         mg/Kg         1         3/4/2014 3:31:42 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	B Analyte detected in the associated Method Blank				
	Ε	Value above quantitation range	н	Holding times for preparation or analysis exceeded				
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 12			
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.				
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit				
	S	Spike Recovery outside accepted recovery limits						

Analytical Report Lab Order 1402B37 Date Reported: 3/6/2014

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services **Client Sample ID: S-3** Enterprise Trunk 10A Collection Date: 2/27/2014 2:16:00 PM **Project:** 1402B37-003 Lab ID: Matrix: SOIL Received Date: 2/28/2014 10:00:00 AM Analyses Result **RL** Qual Units **DF** Date Analyzed Batch **EPA METHOD 8015D: DIESEL RANGE ORGANICS** Analyst: BCN

Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/4/2014 11:04:10 AM	11965
Surr: DNOP	109	66-131	%REC	1	3/4/2014 11:04:10 AM	11965
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	JMP
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/4/2014 4:01:45 PM	11962
Surr: BFB	87.9	74.5-129	%REC	1	3/4/2014 4:01:45 PM	11962
EPA METHOD 8021B: VOLATILES					Analyst	: JMP
Benzene	ND	0.048	mg/Kg	1	3/4/2014 4:01:45 PM	11962
Toluene	ND	0.048	mg/Kg	1	3/4/2014 4:01:45 PM	11962
Ethylbenzene	ND	0.048	mg/Kg	1	3/4/2014 4:01:45 PM	11962
Xylenes, Total	ND	0.097	mg/Kg	1	3/4/2014 4:01:45 PM	11962
Surr: 4-Bromofluorobenzene	99.2	80-120	%REC	1	3/4/2014 4:01:45 PM	11962

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	· · · · · · · · · · · · · · · · · · ·			
	Е	Value above quantitation range	Н				
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 12		
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.			
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit			
	S	Spike Recovery outside accepted recovery limits					

Analytical Report

# Hall Environmental Analysis Laboratory, Inc.

Lab Order 1402B37 Date Reported: 3/6/2014

CLIENT: Animas Environmental Servi	ices		Client Sampl	e ID: S-	4			
Project: Enterprise Trunk 10A		Collection Date: 2/27/2014 2:18:00 PM						
Lab ID: 1402B37-004	Matrix:	SOIL	Received	Date: 2/2	28/2014 10:00:00 AM			
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch		
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	t: BCN		
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/4/2014 11:34:38 AM	11965		
Surr: DNOP	104	66-131	%REC	1	3/4/2014 11:34:38 AM	11965		
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	t: JMP		
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	3/5/2014 1:03:12 PM	11962		
Surr: BFB	87.9	74.5-129	%REC	1	3/5/2014 1:03:12 PM	11962		
EPA METHOD 8021B: VOLATILES					Analys	t: JMP		
Benzene	ND	0.049	mg/Kg	1	3/5/2014 1:03:12 PM	11962		
Toluene	ND	0.049	mg/Kg	1	3/5/2014 1:03:12 PM	11962		
Ethylbenzene	ND	0.049	mg/Kg	1	3/5/2014 1:03:12 PM	11962		
Xylenes, Total	ND	0.098	mg/Kg	1	3/5/2014 1:03:12 PM	11962		
Surr: 4-Bromofluorobenzene	96.2	80-120	%REC	1	3/5/2014 1:03:12 PM	11962		

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank		
	E	Value above quantitation range	Н	Holding times for preparation or analyst	is exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 4 of 12	
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age + 01 12	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		
	S	Spike Recovery outside accepted recovery limits				

Analytical Report Lab Order 1402B37

#### Date Reported: 3/6/2014

3/4/2014 5:01:57 PM

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Analyst: JMP

Analyst: JMP

11962

11962

11962

11962

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11962

11962

#### Hall Environmental Analysis Laboratory, Inc.

**EPA METHOD 8015D: GASOLINE RANGE** 

Gasoline Range Organics (GRO)

Surr: 4-Bromofluorobenzene

**EPA METHOD 8021B: VOLATILES** 

Surr: BFB

Benzene

Toluene

Ethylbenzene

Xylenes, Total

**CLIENT:** Animas Environmental Services **Client Sample ID: S-5 Project:** Enterprise Trunk 10A Collection Date: 2/27/2014 2:20:00 PM 1402B37-005 Lab ID: Matrix: SOIL Received Date: 2/28/2014 10:00:00 AM Analyses Result **RL** Qual Units **DF** Date Analyzed Batch **EPA METHOD 8015D: DIESEL RANGE ORGANICS** Analyst: BCN Diesel Range Organics (DRO) ND 9.9 mg/Kg 1 3/4/2014 12:05:25 PM 11965 Surr: DNOP %REC 95.6 66-131 1 3/4/2014 12:05:25 PM 11965

4.9

74.5-129

0.049

0.049

0.049

0.099

80-120

mg/Kg

%REC

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%REC

ND

91.2

ND

ND

ND

ND

102

Refer to the OC Summar	v report and sa	ample login checklis	t for flagged OC data	and preservation information.
	j i epore ana be	ampre regin eneemie	tion magged QC dutte	

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	B Analyte detected in the associated Method Blank		
	E	Value above quantitation range	Н	Holding times for preparation or analys	is exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 5 of 12	
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 5 01 12	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		
	S	Spike Recovery outside accepted recovery limits				

Analytical Report Lab Order 1402B37 Date Reported: 3/6/2014

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services **Client Sample ID: SC-1 Project:** Enterprise Trunk 10A Collection Date: 2/27/2014 2:25:00 PM 1402B37-006 Matrix: SOIL Received Date: 2/28/2014 10:00:00 AM Lab ID: Analyses Result **RL** Qual Units **DF** Date Analyzed Batch **EPA METHOD 8015D: DIESEL RANGE ORGANICS** Analyst: BCN Diesel Range Organics (DRO) ND 9.9 mg/Kg 1 3/4/2014 12:36:16 PM 11965 Surr: DNOP 96.5 66-131 %REC 1 3/4/2014 12:36:16 PM 11965

EPA METHOD 8015D: GASOLINE RANG	ε.				Analyst	: JMP
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/4/2014 5:32:13 PM	11962
Surr: BFB	89.7	74.5-129	%REC	1	3/4/2014 5:32:13 PM	11962
EPA METHOD 8021B: VOLATILES					Analyst	: JMP
Benzene	ND	0.048	mg/Kg	1	3/4/2014 5:32:13 PM	11962
Toluene	ND	0.048	mg/Kg	1	3/4/2014 5:32:13 PM	11962
Ethylbenzene	ND	0.048	mg/Kg	1	3/4/2014 5:32:13 PM	11962
Xylenes, Total	ND	0.095	mg/Kg	1	3/4/2014 5:32:13 PM	11962
Surr: 4-Bromofluorobenzene	96.8	80-120	%REC	1	3/4/2014 5:32:13 PM	11962

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank		
	Е	Value above quantitation range	Н	Holding times for preparation or analys	is exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 6 of 12	
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 450 0 01 12	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		
	S	Spike Recovery outside accepted recovery limits				

**Analytical Report** Lab Order 1402B37

#### Date Reported: 3/6/2014

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## Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

**Client Sample ID: SC-2 CLIENT:** Animas Environmental Services Enterprise Trunk 10A Collection Date: 2/27/2014 2:29:00 PM **Project:** 1402B37-007 Matrix: SOIL Received Date: 2/28/2014 10:00:00 AM Lab ID: **DF** Date Analyzed Result **RL** Qual Units Batch Analyses Analyst: BCN **EPA METHOD 8015D: DIESEL RANGE ORGANICS** 270 3/4/2014 1:06:56 PM 11965 Diesel Range Organics (DRO) 10 mg/Kg 1 3/4/2014 1:06:56 PM 11965 Surr: DNOP 119 66-131 %REC 1 Analyst: JMP **EPA METHOD 8015D: GASOLINE RANGE** 3/5/2014 1:31:51 PM 11962 Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 84.4 74.5-129 %REC 1 3/5/2014 1:31:51 PM 11962 Surr: BFB Analyst: JMP **EPA METHOD 8021B: VOLATILES** ND 0.048 mg/Kg 1 3/5/2014 1:31:51 PM 11962 Benzene ND 0.048 mg/Kg 3/5/2014 1:31:51 PM 11962 Toluene 1 3/5/2014 1:31:51 PM 11962 Ethylbenzene ND 0.048 mg/Kg 1 ND 0.096 mg/Kg 3/5/2014 1:31:51 PM 11962 1 Xylenes, Total 3/5/2014 1:31:51 PM 11962 96.7 80-120 %REC 1

Qualifiers: * Value exceeds Ma		Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analys	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 7 of 12
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			
	Qualifiers:	E J O R	<ul> <li>E Value above quantitation range</li> <li>J Analyte detected below quantitation limits</li> <li>O RSD is greater than RSDlimit</li> <li>R RPD outside accepted recovery limits</li> </ul>	EValue above quantitation rangeHJAnalyte detected below quantitation limitsNDORSD is greater than RSDlimitPRRPD outside accepted recovery limitsRL	EValue above quantitation rangeHHolding times for preparation or analysJAnalyte detected below quantitation limitsNDNot Detected at the Reporting LimitORSD is greater than RSDlimitPSample pH greater than 2.RRPD outside accepted recovery limitsRLReporting Detection Limit

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WO#: 1402B37

06-Mar-14

	s Environmei rise Trunk 10		vices							
Sample ID MB-11965	1965 SampType: MBLK			TestCode: EPA Method 8015D: Diesel Range Organics						
Client ID: PBS	Batch ID: 11965			RunNo: 17073						
Prep Date: 3/3/2014	Analysis D	ate: 3/	4/2014	5	SeqNo: 4	91074	Units: mg/H	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.5		10.00		95.2	66	131			
Sample ID LCS-11965	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D: Dies	el Range (	Drganics	
Client ID: LCSS	Batch	1D: 11	965	R	tunNo: 1	7073				
Prep Date: 3/3/2014	Analysis D	ate: 3/	4/2014	S	eqNo: 4	91080	Units: mg/H	۲g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.4	60.8	145			
Surr: DNOP	3.6		5.000		71.3	66	131			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 8 of 12

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WO#: 1402B37

06-Mar-14

Client:		nvironmenta		3							
Project:	Enterprise	e Trunk 10A									
Sample ID 5M	IL RB	SampTyp	e: MBLK		Tes	tCode: I	EPA Method	8015D: Gasol	ine Rang	e	
Client ID: PB	BS	Batch II	D: R17094		F	lunNo:	17094				
Prep Date:		Analysis Date	e: <b>3/4/201</b>	14	5	SeqNo:	491583	Units: %REC	;		
Analyte		Result	PQL SPH	< value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		960		1000		96.0	74.5	129			
Sample ID 2.5	5UG GRO LCS	SampTyp	e: LCS		Tes	tCode: I	EPA Method	8015D: Gasol	ine Rang	e	
Client ID: LC	ss	Batch II	D: R17094		F	RunNo:	17094				
Prep Date:		Analysis Date	e: <b>3/4/201</b>	14	5	SeqNo:	491584	Units: %REC	;		
Analyte		Result		(value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		1000		1000		102	74.5	129			
Sample ID ME	B-11962	SampTyp	e: MBLK		Tes	tCode: I	EPA Method	8015D: Gasol	ine Rang	e	
Client ID: PB	BS	Batch II	D: <b>11962</b>		F	RunNo:	17086				
Prep Date: 2	/28/2014	Analysis Date	e: <b>3/4/201</b>	4	S	SeqNo:	491635	Units: mg/Kg	9		
Analyte		Result		< value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Or	rganics (GRO)	ND	5.0	4000		00.0	74.5	400			
Surr: BFB		810	·	1000		80.6	74.5	129			
Sample ID LC	S-11962	Samp⊤yp	e: LCS		Tes	tCode: I	EPA Method	8015D: Gasol	ine Rang	e	
Client ID: LC	SS	Batch II	D: <b>11962</b>		F	RunNo:	17086				
Prep Date: 2	/28/2014	Analysis Dat	e: 3/4/201	4	5	SeqNo:	491636	Units: mg/Kg	9		
Analyte		Result		< value	SPK Ref Val	%REC		HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Or	rganics (GRO)	27 920	5.0	25.00 1000	0	109 91.5		134 129			
Surr: BFB		920	<u> </u>	1000		91.0	74.5	129			<u>.</u>
Sample ID ME	B-12008 MK	SampTyp	e: MBLK		Tes	tCode: I	EPA Method	8015D: Gasol	ine Rang	e	
Client ID: PB	BS		D: R17108			RunNo:					
Prep Date:		Analysis Dat	e: 3/5/201	14	ç	SeqNo:	492293	Units: %REC	;		
Analyte			PQL SPH		SPK Ref Val	%REC		HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		810		1000		81.1	74.5	129			
Sample ID LC	S-12008 MK	SampTyp	e: LCS		Tes	tCode: I	EPA Method	8015D: Gasol	ine Rang	e	
Client ID: LC	SS	Batch II	D: <b>R17108</b>		F	RunNo:	17108				
Prep Date:		Analysis Dat	e: 3/5/201	14	S	SeqNo:	492294	Units: %REC	;		
Analyte			PQL SPP		SPK Ref Val	%REC		HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		910		1000		90.5	74.5	129			

#### Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Page 9 of 12

- P Sample pH greater than 2.
- RL Reporting Detection Limit

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WO#:	1402B37
	06-Mar-14

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	s Environmental Services rise Trunk 10A						
Sample ID MB-12010	SampType: MBLK	pe: MBLK TestCode: EPA Method 8015D: Gasoline Range					
Client ID: PBS	Batch ID: 12010	RunNo: 17108					
Prep Date: 3/4/2014	Analysis Date: 3/5/2014	SeqNo: 4	92296	Units: %RE	с		
Analyte	Result PQL SPK va	lue_SPK Ref Val _%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	840 1	000 84.1	74.5	129			
Sample ID LCS-12010	SampType: LCS	TestCode: E	PA Method	8015D: Gasc	line Rang	e	
Client ID: LCSS	Batch ID: 12010	RunNo: 1	7108				
Prep Date: 3/4/2014	Analysis Date: 3/5/2014	SeqNo: 4	92297	Units: %RE	с		
Analyte	Result PQL SPK va	lue SPK Ref Val %REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910 10	90.6	74.5	129			

#### Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

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WO#: 1402B37

06-Mar-14

Client:		Environme		vices							
Project:	Enterpris	e Trunk 10	)A 								
Sample ID	5ML RB	SampT	ype: ME	3LK	Test	TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch	n ID: <b>R1</b>	7094	R	RunNo: 17	7094				
Prep Date:		Analysis D	ate: 3/	4/2014	S	SeqNo: 49	91611	Units: %RE	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bror	nofluorobenzene	1.1		1.000		109	80	120			
Sample ID	100NG BTEX LCS	2 SampT	ype: LC	S	Test	tCode: EF	PA Method	8021B: Vola	tiles		
Client ID:				R	RunNo: 17	7094					
Prep Date:		Analysis D	ate: 3/	4/2014	s	SeqNo: 49	<del>9</del> 1612	Units: %RE	c		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bror	nofluorobenzene	1.1		1.000		107	80	120			
Sample ID	1402B37-001AMS	SampT	ype: MS		Test	tCode: EF	PA Method	8021B: Vola	tiles		
Client ID:	S-1 Batch ID: 11962				R	RunNo: 17	7094				
Prep Date:	2/28/2014	Analysis D	ate: 3/	4/2014	S	SeqNo: 49	91621	Units: mg/h	۲g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.80	0.049	0.9804	0.01766	80.2	67.4	135			
Toluene		0.83	0.049	0.9804	0.01570	82.6	72.6	135			
Ethylbenzene		0.87	0.049	0.9804	0	88.2	69.4	143			
Xylenes, Total		2.7	0.098	2.941	0.02601	90.0	70.8	144			
Surr: 4-Bror	nofluorobenzene	1.0		0.9804		106	80	120			
Sample ID	1402B37-001AMS	D SampT	ype: MS	3D	Test	tCode: EF	PA Method	8021B: Vola	tiles		
Client ID:	S-1	Batch	n ID: 11	962	RunNo: 17094						
Pren Date:	0/00/0044	Analysis D	)ate: 3/	4/2014	SeqNo: 491622 Units: mg/Kg			Units: <b>mg/</b>	٢g		
Tiep Date.	2/28/2014										
Analyte	2/28/2014	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Analyte	2/28/2014	Result 0.82		SPK value 0.9785	SPK Ref Val 0.01766	%REC 81.6	LowLimit 67.4	HighLimit 135	%RPD 1.57	RPDLimit 20	Qual
Analyte Benzene	2/28/2014		PQL								Qual
Analyte Benzene Toluene	2/28/2014	0.82	PQL 0.049	0.9785	0.01766	81.6	67.4	135	1.57	20	Qual
Analyte Benzene Toluene Ethylbenzene	2/28/2014	0.82 0.81	PQL 0.049 0.049	0.9785 0.9785	0.01766 0.01570	81.6 81.5	67.4 72.6	135 135	1.57 1.50	20 20	Qual
Analyte Benzene Toluene Ethylbenzene Xylenes, Total	10fluorobenzene	0.82 0.81 0.83	PQL 0.049 0.049 0.049	0.9785 0.9785 0.9785	0.01766 0.01570 0	81.6 81.5 85.2	67.4 72.6 69.4	135 135 143	1.57 1.50 3.75	20 20 20	Qual
Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bror		0.82 0.81 0.83 2.6 1.0	PQL 0.049 0.049 0.049	0.9785 0.9785 0.9785 2.935 0.9785	0.01766 0.01570 0 0.02601	81.6 81.5 85.2 86.9 105	67.4 72.6 69.4 70.8 80	135 135 143 144	1.57 1.50 3.75 3.63 0	20 20 20 20	Qual
Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bror	nofluorobenzene	0.82 0.81 0.83 2.6 1.0 SampT	PQL 0.049 0.049 0.049 0.098	0.9785 0.9785 0.9785 2.935 0.9785 3LK	0.01766 0.01570 0 0.02601 Test	81.6 81.5 85.2 86.9 105	67.4 72.6 69.4 70.8 80 PA Method	135 135 143 144 120	1.57 1.50 3.75 3.63 0	20 20 20 20	Qual
Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bror Sample ID	nofluorobenzene MB-11962	0.82 0.81 0.83 2.6 1.0 SampT	PQL 0.049 0.049 0.049 0.098	0.9785 0.9785 2.935 0.9785 3LK 962	0.01766 0.01570 0 0.02601 Tesi	81.6 81.5 85.2 86.9 105 tCode: EF	67.4 72.6 69.4 70.8 80 PA Method 7086	135 135 143 144 120	1.57 1.50 3.75 3.63 0 tiles	20 20 20 20	Qual
Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID Client ID:	nofluorobenzene MB-11962 PBS	0.82 0.81 0.83 2.6 1.0 SampT Batch Analysis D Result	PQL 0.049 0.049 0.098 0.098 Type: ME DD: 119 Date: 3/ PQL	0.9785 0.9785 2.935 0.9785 3LK 962 4/2014	0.01766 0.01570 0 0.02601 Tesi	81.6 81.5 85.2 86.9 105 tCode: EF	67.4 72.6 69.4 70.8 80 PA Method 7086	135 135 143 144 120 8021B: Vola	1.57 1.50 3.75 3.63 0 tiles	20 20 20 20	Qual
Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bror Sample ID Client ID: Prep Date: Analyte	nofluorobenzene MB-11962 PBS	0.82 0.81 0.83 2.6 1.0 SampT Batch Analysis D	PQL 0.049 0.049 0.098 	0.9785 0.9785 2.935 0.9785 3LK 962 4/2014	0.01766 0.01570 0 0.02601 Test R S	81.6 81.5 85.2 86.9 105 tCode: EF RunNo: 17 SeqNo: 45	67.4 72.6 69.4 70.8 80 PA Method 7086 91658	135 135 143 144 120 8021B: Vola Units: mg/ł	1.57 1.50 3.75 3.63 0 tiles	20 20 20 20 0	
Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID Client ID: Prep Date: Analyte Benzene	nofluorobenzene MB-11962 PBS	0.82 0.81 0.83 2.6 1.0 SampT Batch Analysis D Result	PQL 0.049 0.049 0.098 0.098 Type: ME DD: 119 Date: 3/ PQL	0.9785 0.9785 2.935 0.9785 3LK 962 4/2014	0.01766 0.01570 0 0.02601 Test R S	81.6 81.5 85.2 86.9 105 tCode: EF RunNo: 17 SeqNo: 45	67.4 72.6 69.4 70.8 80 PA Method 7086 91658	135 135 143 144 120 8021B: Vola Units: mg/ł	1.57 1.50 3.75 3.63 0 tiles	20 20 20 20 0	
Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bror Sample ID Client ID: Prep Date:	nofluorobenzene MB-11962 PBS	0.82 0.81 0.83 2.6 1.0 SampT Batch Analysis D Result ND	PQL 0.049 0.049 0.098 0.098 Type: ME DD: 119 Date: 3/ PQL 0.050	0.9785 0.9785 2.935 0.9785 3LK 962 4/2014	0.01766 0.01570 0 0.02601 Test R S	81.6 81.5 85.2 86.9 105 tCode: EF RunNo: 17 SeqNo: 45	67.4 72.6 69.4 70.8 80 PA Method 7086 91658	135 135 143 144 120 8021B: Vola Units: mg/ł	1.57 1.50 3.75 3.63 0 tiles	20 20 20 20 0	

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Page 11 of 12

- P Sample pH greater than 2.
- RL Reporting Detection Limit

WO#:	1402B37
WO#:	1402B37

06-Mar-14

	s Environme rise Trunk 1(		vices							
Sample ID MB-11962	SampT	уре: МІ	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batch	n ID: 11	962	F	RunNo: 1	7086				
Prep Date: 2/28/2014	Analysis D	)ate: 3/	4/2014	S	SeqNo: 4	91658	Units: mg/h	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.93		1.000		93.0	80	120			
Sample ID LCS-11962	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batch	1D: 11	962	ਜ	RunNo: 1	7086				
Prep Date: 2/28/2014	Analysis D	ate: 3/	4/2014	S	SeqNo: 4	91659	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	112	80	120			
Toluene	1.2	0.050	1.000	0	117	80	120			
Ethylbenzene	1.1	0.050	1.000	0	114	80	120			
Kylenes, Total	3.4	0.10	3.000	0	115	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

#### Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- RSD is greater than RSDlimit 0
- RPD outside accepted recovery limits R
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- RL

Page 12 of 12

Reporting Detection Limit

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

#### Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: Animas Environmental V	Vork Order Number: 1	14028	37		ReptNo	1
Received by/date: AG 02/2	28/14					
Logged By: Lindsay Mangin 2/2	8/2014 10:00:00 AM			Hungo		
Completed By: Lindsay Mangin 2/2	8/2014 2:01:58 PM			Analy Happe		
Reviewed By: IO 02	128/14			000		
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?		<u>Cour</u>	er	·		
<u>Log In</u>						
4. Was an attempt made to cool the samples?		Yes		No 🗌		
5. Were all samples received at a temperature of	>0° C to 6.0°C	Yes		No 🗌		
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 pr	reserved?	Yes		No 🗆		
9. Was preservative added to bottles?		Yes		No 🔽	NA 🗆	
10.VOA vials have zero headspace?		Yes		No 🗔	No VOA Vials 🗹	
11. Were any sample containers received broken?		Yes		No 🗹	# of preserved	
12.Does paperwork match bottle labels?		Yes		No 🗆	bottles checked for pH:	or >12 unless noted
(Note discrepancies on chain of custody) 13. Are matrices correctly identified on Chain of Cus	stody?	Yes	~	No 🗆	Adjusted?	
14. Is it clear what analyses were requested?	louy !	Yes		No 🗌		
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes	✓	No 🗖	Checked by:	
Special Handling (if applicable)						
16. Was client notified of all discrepancies with this	order?	Yes		No 🗆	NA 🗹	
Person Notified:	Date:					
By Whom:	Via:	eMa		Phone 🔲 Fax	In Person	
Regarding:			·· [_]			
Client Instructions:	e a companya de Calence a construir a managemente de la francé de la companya de la companya de la companya de La companya de la comp			Na tanàna mandritra dia kaominina dia kaominina dia mampikambana amin'ny fisiana dia mampikambana amin'ny fisi Ny fisiana mandritra dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina dia kao	: 	
at the factor of	na a Antonio antono de a dia antona di antonio	···· ·				
17. Additional remarks:	an a ful ar an	···· ·			<u>, and the set of the </u>	

# 18. <u>Cooler Information</u> Cooler No Temp *C Condition Seal Intact Seal No Seal Date Signed By 1 1.0 Good Yes Image: Seal Date Signed By

Page 1 of 1

U	nain	-01-00	istoay kecora		L 1111G.										<b></b> .	~~				- <b>A</b> F	
Client:	nimas	Environ	mental Services	- I⊈ Standard	🗆 Rush	ı	L   r												NT NTC		
				Project Name			] 1					v.hal									-
Mailing	Address	12115	Comanche	Enterosis	Truck	ν Γιο Λ	}	<b>4</b> 9	01 H								M 87	'10g			
Carr		0140		Enteroris Project #:			1			•							-410				
Phone #	<u>ungton</u> # 505	<u>, NM (</u> -544-2	97401	1					1. 00		.0.0.					ues	-		ر بند می		
email or		<u> </u>		Project Mana	ger:			ly)	â												
	Package:				-		5	s on	倒			6		4,SC	B's	{					
Stan	dard		Level 4 (Full Validation)	H. Woods			8	(Ga	/ DRO / \$550)			NIN SIN	•	Q.	2 PC						
Accredi				Sampler: H.			+ TPH (Gas only)       + TPH (Gas only)       RO / DRO / MEDD)       RO / DRO / MEDD)       18.1)       18.1)       18.1)       04.1)       04.1)       53,NO2,PO4,SO4)       53,NO2,PO4,SO4)       A)						Î								
		□ Othe	r	On Ice:			+	+	В. В	418.	504	r 82	s	10 ^{3,}	ss / S	1	Ś				o.
	(Type)	γ				+D		11 BE	<u>е</u>	poq	por	2	leta	CI,N	licide	(S	Ъ-́г				s ع
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO	BTEX + ATTE	BTEX + MTBE	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄ )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
127/14	1412	50:1	5-1	1-402 Glass	Cold	-001	X		X	-	<u> </u>	<u> </u>	<u> </u>	4	8	8	<u></u>				
	1414	1	5-2	1-402 Glass		-002	X		$\checkmark$										1		
	1416		5-3	1 - 402 61453		-003	X		Ŷ										•		
	1418		5-4	1 - 402 Glass		-004	X		X												
,	1420	1	5-5	1 - 402 Glass		-05	X		χ												
		501	SC-1	1- Yoz Glass		-020	X		Х												
	1429	1	SC-2	1 - 4 02 Glass		-007-	X		¥,			·									
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Date:	Time:	Relinquish	ed by:	Received by:		Date Time	Rer	narks	l			l				L	LI				<u> </u>
27/14	1454	Deat	the M. ubods	Anist	- Det	2/27/14 1654.															
Date:	Time:	Relinquish		Received by:	VA.	Date	Ľ.														
171 M	1728	$\square$	1051 Wat C C	sphanter	Halle	100 l	2_														

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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.

# HALL ENVIRONMENTAL ANALYSIS LABORATORY

May 05, 2014

Heather Woods Animas Environmental Services 624 East Comanche Farmington, NM 87401 TEL: (505) 716-2787 FAX

RE: Enterprise Trunk 10A

OrderNo.: 1404A72

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/25/2014 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 <u>www.hallenvironmental.com</u> 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 qualifers 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

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

**Analytical Report** 

# Hall Environmental Analysis Laboratory, Inc.

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Lab Order 1404A72 Date Reported: 5/5/2014

CLIENT:	Animas Environmental Ser	vices		Client Sampl	e ID: SC	2-3					
Project:	Enterprise Trunk 10A		Collection Date: 4/23/2014 4:15:00 1								
Lab ID:	1404A72-001	Matrix:	SOIL	Received J	Date: 4/25/2014 10:00:00 AM						
Analyses		Result	RL Qu	al Units	DF	Date Analyzed	Batch				
EPA ME	THOD 8015D: DIESEL RANG	GE ORGANICS				Analys	t: BCN				
Diesel R	ange Organics (DRO)	ND	10	mg/Kg	1	4/29/2014 10:25:13 AM	/ 12889				
Surr:	DNOP	87.3	57.9-140	%REC	1	4/29/2014 10:25:13 AM	A 12889				
EPA MET	THOD 8015D: GASOLINE RA	ANGE				Analys	t NSB				
Gasoline	e Range Organics (GRO)	ND	4.8	mg/Kg	1	4/30/2014 2:25:28 PM	12911				
Surr:	BFB	85.9	74.5-129	%REC	1	4/30/2014 2:25:28 PM	12911				

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	0	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits

- R S
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В

Page 1 of 3

- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit ND
- Sample pH greater than 2. Р
- **Reporting Detection Limit** RL

WO#: 1404A72

Page 2 of 3

05-May-14

Client:	Anim	as Environmental Ser	vices							
Project:	Enter	prise Trunk 10A								
Sample ID	LCS-12889	SampType: LC	s	Tes	Code: EF	PA Method	8015D: Diese	l Range (	Organics	
Client ID:	LCSS	Batch ID: 12	889	ਜ	unNo: 18	3255				
Prep Date:	4/28/2014	Analysis Date: 4/	30/2014	S	eqNo: 52	28692	Units: mg/K	g		
Analyte		Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Or	rganics (DRO)	44 10	50.00	0	87.6	60.8	145			
Surr: DNOP		4.1	5.000		81.9	57.9	140			
Sample ID	MB-12889	SampType: MI	BLK	Tes	Code: EF	PA Method	8015D: Diese	el Range (	Organics	
Client ID:	PBS	Batch ID: 12	889	ਜ	tunNo: 18	3255				
Prep Date:	4/28/2014	Analysis Date: 4/	30/2014	S	eqNo: 5	28693	Units: mg/K	g		
Analyte		Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Or	rganics (DRO)	ND 10								
Surr: DNOP		8.9	10.00		89.2	57.9	140			
Sample ID	MB-12956	SampType: MI	BLK	Tes	Code: EF	PA Method	8015D: Diese	el Range (	Organics	
Client ID:	PBS	Batch ID: 12	956	ਜ	tunNo: 18	3327				
Prep Date:	5/1/2014	Analysis Date: 5/	1/2014	S	eqNo: 5	29725	Units: %RE	C		
Analyte		Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		8.7	10.00		87.3	57.9	140			
Sample ID	LCS-12956	SampType: LC	s	Tes	tCode: El	PA Method	8015D: Diese	el Range (	Drganics	
Client ID: I	LCSS	Batch ID: 12	956	F	tunNo: 1	3327				
Prep Date:	5/1/2014	Analysis Date: 5/	1/2014	S	eqNo: 52	29726	Units: %RE	C		
Analyte		Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		4.7	5.000		94.0	57.9	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

	Environme ise Trunk 10		vices							
Sample ID MB-12911	SampT	уре: М	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	Batcl	h ID: 12	911	F	RunNo: 1	8302				
Prep Date: 4/28/2014	Analysis E	Date: 4/	/30/2014	S	SeqNo: 5	29105	Units: mg/k	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		84.8	74.5	129			
Sample ID LCS-12911	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang		
Client ID: LCSS	Batcl	h ID: 12	911	F	RunNo: 1	8302				
Prep Date: 4/28/2014	Analysis D	Date: 4/	/30/2014	S	SeqNo: 5	29106	Units: mg/H	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Basoline Range Organics (GRO)	24	5.0	25.00	0	95.1	71.7	134			
Sun: BFB	940		1000		93.8	74.5	129			

## Hall Environmental Analysis Laboratory, Inc.

#### Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

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WO#: 1404A72

05-May-14

ENVIRONMENTAL ANALYSIS LABODATORY TEL: 505-34	mental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 15-3975 FAX: 505-345-4107 www.hallenvironmental.com	•	ble Log-In Check Lis	st
Client Name: Animas Environmental Work Order N	umber: 1404A72	<u> </u>	RcptNo: 1	
Received by/date: 04/25/14				
Logged By: Lindsay Mangin 4/25/2014 10:00	D:00 AM	Juniky Henry O		
Completed By: Lindsay Mangin 4/25/2014 10:4(	):45 AM	Smake Henry		:
Reviewed By:	125/14			
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 $>0^{\circ}$ 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		
9. Was preservative added to bottles?	Yes	No 🖌	NA	
10.VOA vials have zero headspace?	Yes	No	No VOA Vials 🖌	
11. Were any sample containers received broken?	Yes	No 🗹		·· · · ·
		}	# of preserved bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes Ӯ	No 🗔	for pH: (<2 or >12 unless	noted)
13 Are matrices correctly identified on Chain of Custody?	Yes 🖌	No	Adjusted?	
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:	

## Special Handling (if applicable)

16. Was client	notified of all	discrepancies with this order?	Ye	es 🗋	No 🗍	NA 🖌
Pers	on Notified:		Date:		re of home with the principal state of the	• 1 3
By W	/hom:		Via: e	Mail 👔 I	Phone 🗒 Fax [ ]	n Person
Rega	arding:		in a second s	and the second		and the second
Clier	t Instructions:				and the second secon	ti mai ili ili ili ili ili ili ili ili ili i
4	remarks:	3	·	· .	· ·	

#### 18. Cooler Information

Coole	r Nó Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Not Present			
· · · · · · · · · · · · · · · · · · ·			4		the second s	

	• :	<del></del>	<u></u>	
Page 1	of	ł		

			mental Services	Standard I Rush Project Name: Enterprise Trunk ICA				HALL ENVIRONMENTAL ANALYSIS LABORATORY											
Mailing	Address	· 1024	E. Provenska					4901 Hawkins NE - Albuquerque, NM 87109											
Mailing Address: 624 E. Compache Farmington, NM 67417				Project #:				Tel. 505-345-3975 Fax 505-345-4107											
Phone #: (505)564-2261													alysis Request						
email or Fax#:				Project Manager:				(À					<b>(</b> †	{					
QA/QC Package:								TPH (Gas on	世	{	Ĩ		No.4	B's					
Standard  Level 4 (Full Validation)				H. Woods				9	õ		SMIS		Q.	PC					
	AP	Othe	er	Sampler: Lavina Lamons On Ice: 2 Yes DNO				HdT +	RO/DI	418.1)	504.1) r 8270 5	S	03,NO2	s / 8082		(YC			114 -0
				Sample Temperature Z r Z				18	B (G	po		leta	C'N	icide	3	) 			2
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO -	BTEX + MTBE	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / 1450)	TPH (Method 418.1)	EDB (Method 504.1) PAH's (8310 or 8270	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄ )	8081 Pesticides / 8082 PCB	8260B (VOA)	8270 (Semi-VOA)			Air Ruhhlae 🗸
4/23/14	1615	50:1	SC-3	1-BeezJar		-001			X									+	
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			<u> </u>	+			<b>}</b>				-†-	$\uparrow$				<b> </b>			
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	Time: [730 Time: [750	Relinquish Relinquish Relinquish	the M. Woods	Received by: Received by: Date Time Date Time Date Time Date Time				Remarks: Bill to Enterprise Fuld Services											
	f necessary,	samples sub	mitted to Hall Environmental may be sub	contracted to other a	ccrédited laboratori	es. This serves as notice of this	s possil	bility. A	Any sul	b-contra	cted dat	a will b	e clear	iy nota	ited on	the an	alytical n	зроrt.	

State of New Mexico Energy Minerals and Natural Resources .

Form C-141 Revised August 8, 2011

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Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action         OPERATOR       Initial Report       Final Report         Address:       614 Reilly Ave, Furmington, NM 87401       Telephone No. 505-599-2286         Facility Name: Lateral 3A Loop       Facility Type: Natural Gas Cathering Line         Surface Owner: NAPI/Navajo Tribal       Mineral Owner: NAPI/Navajo Tribal       API No.         Surface Owner: NAPI/Navajo Tribal       Mineral Owner: NAPI/Navajo Tribal       API No.         Loc CATION OF RELEASE       County       San Juan         Unit Letter       Section       Township       Range         Pe 21       28N       Range       Feet from the State and Hour O Courrence:       Date and Hour O Discovery: 610/2014         Source of Release: Natural Cas       Volume of Release: Unknown       Date and Hour O Discovery: 610/2014       64/202014         Source of Release: Suspected internal corrosion       Date and Hour O Courresy. Notification on NMCC - Cory Smith, NAPI-Mike Freenam, Ecit Tevizo, Steve Austin - NMECA       Mike Freenam, Ecit Tevizo, Steve Austin - NMECA         Was a Watercourse Reached?       Yes  No       No Require       If YES, Volume Impacting the Watercourse       Oil CONS. DIV DIS:         If a Watercourse was Impacted, Describe Fully.*       Describe Case of Problem and Remeidi Action. During a line patrol in the corridor of Trusk 3A. Loop, There were no environmental surface impacts	1220 S. St. Frar	icis Dr., Santa	a Fe, NM 87505	5	Sa	anta F	e, NM 875	505									
Name of Company: Enterprise Field Services LLC       Contact: Thomas Long         Address: 614 Reilly Ave, Farmington, NM 87401       Telephone No. 505-599-2286         Facility Name: Lateral 3A Loop       Facility Type: Natural Cas Gathering Line         Surface Owner: NAPI/Navajo Tribal       Mineral Owner: NAPI/Navajo Tribal       API No.         Lucatari Ja Lateral 3A Loop       Each Market Line       County         Surface Owner: NAPI/Navajo Tribal       Mineral Owner: NAPI/Navajo Tribal       API No.         Lucation Township       Range       Feet from the North Cas Cathering Line       Son Juan         Lucation Township       Range       Feet from the North Cas Cathering Line       County         Source of Release: Natural Cas       So Journe Recovered: Unknown       Source of Release: Natural Cas       Date and Hour of Discovery, 6/10/2014         Was Inmediate Notice Given?       Yes (D No (D No Required Mike Freeman, Eric Trevizo, Steve Austin - NNEPA       JUN 27 20 +         Was a Watercourse Recherd?       Yes (D No       If YES, Volume Impacting the Watercourse       JUN 27 20 +         If a Watercourse was Impacted, Describe Filly.*       Describe Cluss of Problem and Apiel look out us qui and monitor depressure Sos.       JUN 27 20 +         If a Watercourse was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. The pipeline was depressurized and creavitor of Trunk 3A Loop nine reak was confirmed to be on Trun	ji	· · · · · · · · · · · · · · · · · · ·		Rele	ase Notific	catio	n and Co	orrective A	ction				<u> </u>				
Name of Company:       Enterprise Field Services LLC       Contact:       Thomas Long         Address:       Otal Relily Ave,       Facility Type:       Natural Gas Gathering Line         Surface Owner:       NAPI/Navajo Tribal       Mineral Owner:       NAPI/Navajo Tribal       API No.         Line       Scenion       Township       Range       Feet from the       North Construct:       Feet from the       Son Juan         Lini Letter       Secion       Township       Range       Feet from the       North Construct:       County       Son Juan         Latitude       36.640560       Longitude       -108.110925         NATURE OF RELEASE       Nature of Release: Natural Gas       Volume Recovered:       Unknown         Source of Release:       Suspected Internal corrosion       Date and Hour of Occurrecy Notification to NMOCD - Cory Smith, NAPI -         Wis a Watercourse Reached?       Yes       No       No Required       Hive Freeman, Eric Trevizo, Steve Austin - NNEPA         By Whon? Thomas Long       Date and Hour of 71.20014 @343 p.m.       Gtt CONS. DIV DIST.         Wis a Watercourse Reached?       Yes       No       IYES, Volume Impacting the Watercourse         By Whon? Thomas Long       Date and Hour of 71.20014 @343 p.m.       Gtt CONS. DIV DIST.         Wis a Watercourse Reached?							<b>OPERA</b>	ГOR		🛛 Initia	al Report		Final Repo				
Facility Name: Lateral 3A Loop       Facility Type: Natural Gas Gathering Line         Surface Owner: NAPI/Navajo Tribal       Mineral Owner: NAPI/Navajo Tribal       API No.         Lini Letter       Socian       Township       Range       Feet from the Noth Call Data       Son Free From the Socian       Son Free From the Socian       Son Juan         Latitude	Name of Co	ompany: E	Interprise Fie	eld Servic	es LLC												
Surface Owner:       NAPI/Navajo Tribal       Mineral Owner:       NAPI/Navajo Tribal       API No.         Linit Letter       Section       Township       Range       Feet from the 35       North Could Line       Section       County San Juan         Latitude36.640560	Address: 6	14 Reilly A	Ave, Farming	gton, NM	87401		Telephone No. 505-599-2286										
LOCATION OF RELEASE         Unit Letter       Section       Township       Range       Feet from the 35       North Court       Feet from the 853       County       San Juan         Latitude36.640.560       Longitude108.110925         NATURE OF RELEASE         Type of Release: Suspected internal corrosion       Date and Hour of Occurrence: 04.430 p.m.       Date and Hour of Occurrence: 04.430 p.m.         Was Immediate Notice Given?       If YES, To Whon? Courtesy Notification to MOCD – Cory Smith, NAPI-         Wisa a Watercourse Reached?       Yes 0 No ® Not Required       Mike Freeman, Eric Trevizo, Steve Austin – NNEPA         By Whon? Thomas Long       Date and Hour of Occurrence: 04.430 p.m.       Otto Redease: Status and Hour of Occurrence: 04.430 p.m.         By Whon? Thomas Long       Date and Hour of Occurrence: 01.12 Occurrence       Otto Rendease: Only DIST.       If YES, Yolume Impacting the Watercourse         By Whon? Thomas Long       Date and Hour of Occurrence: 01.12 Occurrence       Otto Rendease: Otto Point Action During a line patrol in the corridor of Trunk 3A, Lateral 6B-14 and Trunk 3A Loop, Enterprise         technicians were dispatched to verify possible leak. Technicians used gas detector with limited results due to wink 3A Loop, Enterprise       JUN 27 20.vr         If a Watercourse was Impacted, Describe Pully.*       Technicians isolated the Trunk 3A Loop pipeline ad applied lock out ug out and monitored pressulto sas. A minor	Facility Na	me: Latera	al 3A Loop														
LOCATION OF RELEASE         Unit Letter       Section       Township       Range       Feet from the 35       North Court       Feet from the 853       County       San Juan         Latitude36.400560       Longitude108.110925         NATURE OF RELEASE         Type of Release: Natural Cas       Volume of Release: Unknown       Volume Recovered: Unknown         Source of Release: Suspected internal corrosion         Date and Hour of Occurrence:       Date and Hour of Occurrence:       Date and Hour of Occurrence:       04.30 p.m.         Was Immediate Notice Given?       If YES, To Whon? Courtesy Notification NMOCD - Cory Smith, NAPI-         By Whon? Thomas Long       Date and Hour of Occurrence:       Of 4.30 p.m.       Of Courtesy Notification: NMOCD - Cory Smith, NAPI-         By Whon? Thomas Long       Date and Hour of Occurrence:       If YES, To Whon? Courtesy Notification: NMOCD - Cory Smith, NAPI-         By Whon? Thomas Long       Date and Hour of Occurrence:       If YES, To Whon? Courtesy Notification: NMOCD - Long Smith, NAPI-         By Whon? Thomas Long       Date and Hour of Occurrence:       If a Watercourse Reached?       If YES, Volume Impacting the Watercourse         If a Watercourse was Impacted, Describe Pully.*       Count and Mour of Occurrence:       Impacted A that time technicians isolated the Trunk 3A Loop pipeline ad applied lock out ug out and	Surface On	ner NAP	I/Novaio Tr		Mineral	Junar	NA DI/Novo	io Tribol									
Unit Letter P       Section 21       Township 28N       Range 12W       Feet from the 35       North Courts       Feet from the 853       County San Juan         Latitude	Surface Ow	ner. IVAI	1/11avaj0 11	1041			· · · · · · · · · · · · · · · · · · ·		AFINO	<u>.</u>							
P       21       28N       12W       35       853       San Juan         Latitude36.640550       Longitude108.110925         NATURE OF RELEASE         Type of Release: Natural Gas       Volume of Release: Unknown       Volume Recovered: Unknown         Source of Release: Suspected internal corrosion       Date and Hour of Occurrence:       Date and Hour of Discovery: 610/2014         Was Immediate Notice Given?       If YES, To Whom? Courtesy Notification to NMCCD - Cory Smith, NAP1-       If YES, To Whom? Courtesy Notification to NMCCD - Cory Smith, NAP1-         Wis a WaterCourse Reached?       If YES, To Whom? Courtesy Notification to NMCCD - Cory Smith, NAP1-       If YES, Volume Impacting the Watercourse       If COURDS, DIV DIST.         If a Watercourse was Impacted, Describe Fully.*       Pes No       If YES, Volume Impacting the Watercourse       UN 27 20+         If a Watercourse was Impacted to verify possible leak. Technicians used gas detector with limited results due to wind. At that time technicians isolated the Trunk 3A Loop pipeline and applied lock out tag out and monitored pressure loss. A minor leak was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. The pipeline was depressurized and excavation and repairs of pipeline and apriled lock out ago on accept and the inding any environmental surface impact. Search and rended and for the creations of the release began of June 11, 2014. "Internation given above is true and complete to the best of my knowledge and understand that pursuant to MMCCD rules and regulations and perfrom correci																	
NATURE OF RELEASE         Type of Release: Natural Gas       Volume of Release: Unknown       Volume Recovered: Unknown         Source of Release: Suspected internal corrosion       Date and Hour of Occurrence:       Date and Hour of Discovery: 6/10/2014         Was Immediate Notice Given?       If VBS, To Whom? Courses Notification to MNOCD – Cory Smith, NAP1–         Winson? Thomas Long       Date and Hour of 0/32014 @3:43 p.m.       Mike Freeman, Eric Trevizo, Steve Austin - NNEPA         Was a Watercourse Reached?       Yes S No       If YES, Volume Impacting the Watercourse       Mike GONS, DIV DIST.         If a Watercourse was Impacted, Describe Fully.*       Describe Cause of Problem and Remedial Action: During a line patrol in the corridor of Trunk 3A, Lateral 6B-14 and Trunk 3A loop, Enterprise technicians were dispatched to verify possible leak. Technicians used gas detector with limited results due to wind. At that time technicians isolated the Trunk 3A Loop pipeline and applied Lock out go aut and monitored pressure loss. A minor leak was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. Repairs and remediation of the release began of June 11, 2014. "final" c-141 will be submitted upon receipt of the third party environmental contractor corrective action report.         Describe Area Affected and Cleanup Action Taken.*: Technicians isolated the Trunk 3A Loop pipeline and applied Lock out on the vertice of a C-141 report by the NMOCD mates and regulations and perform corrective action report.         Describe Area Affected and Cleanup Action Taken.*: Technicians isolated the Trunk 3A Loop pipeline and applied Lock out on the re			-			North	SouthLine		East								
Type of Release: Natural Gas       Volume of Release: Unknown       Volume Recovered; Unknown         Source of Release: Suspected internal corrosion       Date and Hour of Occurrence:       Date and Hour of Occurrence:       Date and Hour of Discovery: 6/10/2014         Was Immediate Notice Given?       If Yes       No IN Not Required       If YES, To Whom? Counces Notification to NMOCD - Cory Smith, NAPI - Mike Freeman, Eric Trevizo, Steve Austin - NNEPA         By Whom? Thomas Long       Date and Hour 6/13/2014 @3:43 p.m.       Other Cory Smith, NAPI - Mike Freeman, Eric Trevizo, Steve Austin - NNEPA         By Whom? Thomas Long       Date and Hour 6/13/2014 @3:43 p.m.       Other Cory Smith, NAPI - Mike Freeman, Eric Trevizo, Steve Austin - NNEPA         By Whom? Thomas Long       Date and Hour 6/13/2014 @3:43 p.m.       Other Cory Smith, NAPI - Mike Freeman, Eric Trevizo, Steve Austin - NNEPA         By Whom? Thomas Long       Date and Hour 6/13/2014 @3:43 p.m.       Other Cory Smith, NAPI - Mike Freeman, Eric Trevizo, Steve Austin - NNEPA         By Whom? Thomas Long       Date and Hour 6/13/2014 @3:43 p.m.       Other Cory Smith, NAPI - Mike Freeman, Eric Trevizo, Steve Austin - NNEPA         By Whom? Thomas Long       Pres IV PS       Not Required       Date and Hour 6/13/2014 @3:43 p.m.         If a Watercourse was Impacted, Describe Fully.*       Describe Cause of Problem and Remedial Action: During a line patrol in the corridor of Trunk 3A, Loop. There were no environmental surface impacts. Repairs and remediation of the release began of June 11,		4	Latit	ude3	6.640560	I	Longitud	e <u>-108.11092</u>	25		<u> </u>						
Type of Release: Natural Gas       Volume of Release: Unknown       Volume Recovered: Unknown         Source of Release: Suspected internal corrosion       Date and Hour of Occurrence:       Date and Hour of Discovery: 6/10/2014         Was Immediate Notice Given?       Pression       Pression       Pression       Pression         By Whom? Thomas Long       Pression       Date and Hour of Discovery: 6/10/2014       Pression       Pression         By Whom? Thomas Long       Date and Hour of Discovery: 6/10/2014       Date and Hour of Discovery: 6/10/2014       Pression       Pression </td <td></td> <td></td> <td></td> <td></td> <td>NAT</td> <td>URE</td> <td>OF REL</td> <td>EASE</td> <td></td> <td></td> <td></td> <td></td> <td></td>					NAT	URE	OF REL	EASE									
6/10/2014 @ 11:00 m.       @ 4:30 p.m.         Was Immediate Notice Given?       If YES, To Whom? Courtesy Notification to NMOCD – Cory Smith, NAPI – Mike Freeman, Eric Trevizo, Steve Austin – NNEPA         By Whom? Thomas Long       Date and Hour 6/13/2014 @ 3:43 p.m.       Other Courtesy Notification to NMOCD – Cory Smith, NAPI – Mike Freeman, Eric Trevizo, Steve Austin – NNEPA         By Whom? Thomas Long       Date and Hour 6/13/2014 @ 3:43 p.m.       Other Courtesy Notification to NMOCD – Cory Smith, NAPI – Mike Treaman, Eric Trevizo, Steve Austin – NNEPA         If a Watercourse Reached?       If YES, Volume Impacting the Watercourse       Other Courtesy Notification to NMOCD – Cory Smith, NAPI – Mike Treaman, Eric Trevizo, Steve Austin – NNEPA         Describe Cause of Problem and Remedial Action: During a line patrol in the corridor of Trunk 3A, Lateral 6B-14 and Trunk 3A loop, Enterprise technicians were dispatched to verify possible leak. Technicians used gas detector with limited results due to wind. At that time technicians isolated the Trunk 3A Loop pipeline and applied lock out tag out and monitored pressure loss. A minor leak was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. The pipeline was depressurized and excavation and repairs of pipeline began June 11, 2014.         Describe Cause of Proble and Cleanup Action Taken.*: Technicians isolated the Trunk 3A Loop pipele and applied lock out ago ut 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 report.         11, 2014. A "final" c-141 will be submitted upon receipt of the th	Type of Release: Natural Gas         Volume of Release: Unknown         Volume Recovered: Unknown																
Was Immediate Notice Given?       Yes       No       No Required       If YES, To Whom? Corresy Notification to NMOCD - Cory Smith, NAPI Mike Freeman, Eric Trevizo, Steve Austin - NNEPA         By Whom? Thomas Long       Date and Hour 6/13/2014 @3:43 p.m.       One Control (1990)       One Control (1990)         Was a Watercourse Reached?       If YES, Volume Impacting the Watercourse       One Control (1990)       One Control (1990)         If a Watercourse was Impacted, Describe Fully.*       Describe Cause of Problem and Remedial Action: During a line patrol in the corridor of Trunk 3A, Lateral 6B-14 and Trunk 3A loop, Enterprise technicians were dispatched to verify possible leak. Technicians used gas detector with limited results due to wind. At that time technicians isolated the Trunk 3A Loop pipeline and applied lock out tag out and monitored pressure loss. A minor leak was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. The pipeline was depressurized and excavation and repairs of pipeline began June 11, 2014.         Describe Area Affected and Cleanup Action Taken.*: Technicians isolated the Trunk 3A Loop pipeline began June 11, 2014.         I. Joeta A "final" c-141 will be submitted upon receipt of the third party environmental contractor corrective action report.         I hereby cerify 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 release which may endanger public health to the environment. In addition, NMOCD acceptance of a C-141 report by the NMOCD marked as "Final Report" does	Source of Re	lease: Suspe	ected internal	corrosion							covery	: 6/10/2014					
□       Yes       □       Not Required       Mike Freeman, Eric Trevizo, Steve Austin - NNEPA         By Whom? Thomas Long       □       Date and Hour 6/13/2014 @3:43 p.m.       @IL CONS. DIV DIST.         Was a Watercourse Reached?       □       Yes       No       If YES, Volume Impacting the Watercourse       @IL CONS. DIV DIST.         If a Watercourse was Impacted, Describe Fully.*       □																	
If a Watercourse was Impacted, Describe Fully.*	Yes No X Not Required Mike Freeman, Eric Trevizo, Steve Austin - NNEPA																
If a Watercourse was Impacted, Describe Fully.*						Date and Hour 6/13/2014 @3:43 p.m.											
JUN 2.7 24rd         If a Watercourse was Impacted, Describe Fully.*         Describe Cause of Problem and Remedial Action: During a line patrol in the corridor of Trunk 3A, Lateral 6B-14 and Trunk 3A loop, Enterprise technicians were dispatched to verify possible leak. Technicians used gas detector with limited results due to wind. At that time technicians isolated the Trunk 3A Loop pipeline and applied lock out tag out and monitored pressure loss. A minor leak was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. The pipeline was depressurized and excavation and repairs of pipeline and applied LOTO and monitored pressure loss. A minor leak was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. Repairs and remediation of the release began of June 11, 2014.         Describe Area Affected and Cleanup Action Taken.*: Technicians isolated the Trunk 3A Loop pipeline and applied LOTO and monitored pressure loss. A minor leak was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. Repairs and remediation of the release began of June 11, 2014. A "final" c-141 will be submitted upon receipt of the third party environmental contractor corrective action report.         In 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 action 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 contaminatin that pose a threat to ground water, surface water,	The second secon																
If a Watercourse was Impacted, Describe Fully.*         Describe Cause of Problem and Remedial Action: During a line patrol in the corridor of Trunk 3A, Lateral 6B-14 and Trunk 3A loop, Enterprise technicians were dispatched to verify possible leak. Technicians used gas detector with limited results due to wind. At that time technicians isolated the Trunk 3A Loop pipeline and applied lock out tag out and monitored pressure loss. A minor leak was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. The pipeline was depressurized and excavation and repairs of pipeline began June 11, 2014.         Describe Area Affected and Cleanup Action Taken.*: Technicians isolated the Trunk 3A Loop pipeline and applied LOTO and monitored pressure loss. A minor leak was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. Repairs and remediation of the release began of June 11, 2014. A "final" c-141 will be submitted upon receipt of the third party environmental contractor corrective action report.         It 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. The 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:       Mathetem State       Appro	· :-	JUN 27 20 IV															
technicians were dispatched to verify possible leak. Technicians used gas detector with limited results due to wind. At that time technicians isolated the Trunk 3A Loop pipeline and applied lock out tag out and monitored pressure loss. A minor leak was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. The pipeline was depressurized and excavation and repairs of pipeline began June 11, 2014.         Describe Area Affected and Cleanup Action Taken.*: Technicians isolated the Trunk 3A Loop pipeline and applied LOTO and monitored pressure loss. A minor leak was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. Repairs and remediation of the release began of June 11, 2014. A "final" c-141 will be submitted upon receipt of the third party environmental contractor 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:									_								
Trunk 3A Loop pipeline and applied lock out tag out and monitored pressure loss. A minor leak was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. The pipeline was depressurized and excavation and repairs of pipeline began June 11, 2014.         Describe Area Affected and Cleanup Action Taken.*: Technicians isolated the Trunk 3A Loop pipeline and applied LOTO and monitored pressure loss. A minor leak was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. Repairs and remediation of the release began of June 11, 2014. A "final" c-141 will be submitted upon receipt of the third party environmental contractor corrective action report.         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. In addition, NMOCD acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.         Signature:       June 11, 2014.         Approved by Environmental       Approval Date: 7/7 7/4         Expiration Date:       Conditions of Approval:         Attached       Phone: (713)381-6684																	
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