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

Responsible Party: Enduring Resources

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	NCS1925355225
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

OGRID: 372286

C	35 3 11		O 4 4 7		0721
Contact Name: James McDaniel Contact		Contact	Telephone: 505-636- 9	7/31	
Contact email: jmcdaniel@enduringresources.com		Incident	# (assigned by OCD)	NCS1925355225	
Contact mailing addr	ess: 200 Energy Court		Farming	ton, New Mexico 87	7401
		Location	of Release S		
atitude 36. 242	867	(NAD 83 in deci	Longitude imal degrees to 5 dec		78
		(312222 020 111 2000)			
Site Name: NE Chace	COM 168H		Site Type	: Wellsite	
Date Release Discove	red: 8/27/2019		API# (if a	pplicable) 30-039-3117	73
Unit Letter Section	n Township	Range	Cou	inty	
E 12	23N	7W	Rio A	Arriba	
_		Nature and	Volume of)
Ma	terial(s) Released (Select all t	Nature and	Volume of	he justification for the volu	
Ma Crude Oil	terial(s) Released (Select all t	Nature and	Volume of	Volume Recovered	ed (bbls)
Ma Crude Oil	terial(s) Released (Select all to Volume Released Volume Released Is the concentration	Nature and that apply and attach of (bbls) (bbls): 15 on of dissolved ch	Volume of	he justification for the volu	ed (bbls)
Ma Crude Oil	volume Released Volume Released Volume Released	Nature and that apply and attach of (bbls) (bbls): 15 on of dissolved characteristics of the control of the con	Volume of	Volume Recovered	ed (bbls): 0
Ma ☐ Crude Oil ☑ Produced Water	terial(s) Released (Select all to Volume Released Volume Released Is the concentration produced water > 1	Nature and that apply and attach of (bbls) (bbls): 15 on of dissolved ch 10,000 mg/l? (bbls)	Volume of	Volume Recovered Volume Recovered Volume Recovered Yes No	ed (bbls): 0 ed (bbls): 0
Ma ☐ Crude Oil ☐ Produced Water ☐ Condensate	Volume Released Volume Released Volume Released Is the concentration produced water > 1 Volume Released	Nature and that apply and attach of (bbls) (bbls): 15 on of dissolved ch 10,000 mg/l? (bbls) (Mcf)	Volume of calculations or specifical	Volume Recovered Volume Recovered Volume Recovered Yes No Volume Recovered Volume Recovered	ed (bbls): 0 ed (bbls): 0

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major	If YES, for what reason(s) does the respons	sible party consider this a major release?
release as defined by		
19.15.29.7(A) NMAC?		
☐ Yes 🏻 No		
If YES, was immediate no	otice given to the OCD? By whom? To who	om? When and by what means (phone, email, etc)?
	Initial Re	sponse
The responsible p	party must undertake the following actions immediately	unless they could create a safety hazard that would result in injury
☐ The source of the rele	ase has been stopped.	
The impacted area has	s been secured to protect human health and t	he environment.
Released materials ha	ve been contained via the use of berms or di	kes, absorbent pads, or other containment devices.
All free liquids and re	coverable materials have been removed and	managed appropriately.
If all the actions described	l above have <u>not</u> been undertaken, explain w	hy:
has begun, please attach a	a narrative of actions to date. If remedial e	mediation immediately after discovery of a release. If remediation fforts have been successfully completed or if the release occurred ease attach all information needed for closure evaluation.
regulations all operators are a public health or the environm failed to adequately investigated	required to report and/or file certain release notifi- ment. The acceptance of a C-141 report by the O ate and remediate contamination that pose a threa	est of my knowledge and understand that pursuant to OCD rules and cations and perform corrective actions for releases which may endanger CD does not relieve the operator of liability should their operations have to groundwater, surface water, human health or the environment. In
addition, OCD acceptance of and/or regulations.	a C-141 report does not relieve the operator of r	esponsibility for compliance with any other federal, state, or local laws
Printed Name: Jame	s McDaniet Title:	HSE Supervisor
Signature:	E-1	Date: 9/3/2019
email: mcdaniel@end	uringresources.com	Telephone: 505-636-9731
OCD Only		
Received by:	King	Date:9/10/19

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

regulations all operators are required to report and/or file certain release not public health or the environment. The acceptance of a C-141 report by the failed to adequately investigate and remediate contamination that pose a thr addition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	ifications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In
Printed Name: James McDaniel Signature: email: jmcdaniel Genduring resources com	Title: <u>HSE Supervisor</u> Date: <u>10/7/19</u> Telephone: <u>505-636-973/</u>
OCD Only Received by:	Date:

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan	Checklist: Each of the following items must be included in the plan.
Scaled siteman Estimated volu Closure criteri	iption of proposed remediation technique by with GPS coordinates showing delineation points ame of material to be remediated a is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC dule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)
Deferral Requests	s Only: Each of the following items must be confirmed as part of any request for deferral of remediation.
Contamination deconstruction.	must be in areas immediately under or around production equipment where remediation could cause a major facility
☐ Extents of con	tamination must be fully delineated.
☐ Contamination	does not cause an imminent risk to human health, the environment, or groundwater.
rules and regulatio which may endang liability should the surface water, hum	at the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD and all operators are required to report and/or file certain release notifications and perform corrective actions for releases per public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of air operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, and health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of compliance with any other federal, state, or local laws and/or regulations.
Printed Name:	Title:
Signature:	Daté:
email:	Telephone:
OCD Only	
Received by:	Date:
☐ Approved	☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved
Signature:	Date:

State of New Mexico Oil Conservation Division

Incident ID	
District RP	7/
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

☐ Yes 🔀 No		
☐ Yes 🗹 No		
☐ Yes 🗹 No		
☐ Yes 🌠 No		
☐ Yes 🏿 No		
☐ Yes 🛛 No		
☐ Yes 🛛 No		
☐ Yes 🔀 No		
Yes X No		
Yes X No		
☐ Yes ☑ No		
Yes 🛛 No		
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.		
Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. Field data Data table of soil contaminant concentration data Depth to water determination Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release Boring or excavation logs Photographs including date and GIS information Topographic/Aerial maps Laboratory data including chain of custody		

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico Oil Conservation Division

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

A scaled site and sampling diagram as described in 19.15.2	29.11 NIVIAC
Photographs of the remediated site prior to backfill or phomust be notified 2 days prior to liner inspection)	otos of the liner integrity if applicable (Note: appropriate OCD District office
Laboratory analyses of final sampling (Note: appropriate (ODC District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/or file cemay endanger public health or the environment. The acceptance should their operations have failed to adequately investigate and human health or the environment. In addition, OCD acceptance compliance with any other federal, state, or local laws and/or reg	Title: HSE Supervisor Date: 10/7/19
OCD Only	
Received by: OCD	Date: 10/8/19
	arty of liability should their operations have failed to adequately investigate and ace water, human health, or the environment nor does not relieve the responsible and/or regulations.
Closure Approved by:	Date: 12/10/19
Ciosuic Approved by.	

NE Chaco COM 168H Sample Results Table

55	< 20	< 0.1	< 0.250 < 0.250	< 0.250	< 0.250	< 95 < 0.250 < 0.250	< 95	< 45 < 50		< 20	< 25	9/24/2019 < 25 < 20	East Wall
154	383	< 0.1	< 0.250	< 0.250	< 0.250	< 0.250	46.8	46.8 < 50		< 20	46.8	9/18/2019	Bottom
70	< 20	< 0.1	< 0.250	< 0.250	< 0.250	< 95 < 0.250	< 95	< 45 < 50		< 25 < 20	< 25	9/18/2019	South Wall
55	122	2.74	2.08	0.328	0.334	< 0.250	217 1,323.50	217	36.5 1,106.50		1070	9/18/2019	East Wall
70	< 20	< 0.1	< 0.250	< 0.250	< 0.250	< 0.250	26.7	< 50	26.7	< 20	26.7	9/18/2019	North Wall
55	23.3	< 0.1	< 0.250	< 0.250	< 0.250	< 0.250	< 95	< 45 < 50		< 20	< 25	9/18/2019	West Wall
NA	< 2,000	77.41	56.5	4.49	13.3	3.12	23,783	4,370	19,413 4,370 23,783	513	18,900	8/28/2019 18,900	Spill Area - 0-6"
200 sq. ft	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ΝA	STANDARD
	20,000	50	NA	NA	AN	10	2,500	AN	1,000	NA	NA		
Footage	Chlorides	BTEX	Xylenes	Ethylbenzene Xylenes BTEX	Benzene Toluene Eth	Benzene	TPH	ORO	GRO	GRO	DRO	Date	Sample Name
Square		Total					Total		DRO+				

CLOSURE SAMPLES

Chad Snell

From:

Chad Snell

Sent:

Friday, September 20, 2019 7:22 AM

To:

'Smith, Cory, EMNRD'

Cc:

James McDaniel; 'Powell, Brandon, EMNRD'; 'aadeloye@blm.gov'

Subject:

RE: NE Chaco Com 168H NCS1925355225

Cory,

Please accept this email as the required 48 hour notice for closure sampling activities to take place at the NE Chaco Com 168H. The "East Wall" had slightly elevated results and will be resampled for closure after further excavation. Closure sampling will take place Tuesday September 24th 2019 at 9:00am. If you have any questions please let me know.

Thanks

Chad Snell

HSE Tech

Enduring Resources (505) 444-0586.

From: Chad Snell

Sent: Friday, September 13, 2019 2:06 PM

To: 'Smith, Cory, EMNRD' <Cory.Smith@state.nm.us>

Cc: James McDaniel < JMcDaniel@enduringresources.com >; Powell, Brandon, EMNRD < Brandon.Powell@state.nm.us >

Subject: NE Chaco Com 168H NCS1925355225

Cory,

Please accept this email as the required 48 hour notice for closure sampling activities to take place at the NE Chaco Com 168H. All clean-up activities have been completed and closure sampling will take place Wednesday September 18th at 9:00am. If you have any questions contact James or myself in regards to this matter.

Thanks.

Chad Snell HSE Tech Enduring Resources (505) 444-0586.



1	~		1
1/1	1		
	1/18	100	

ENDURING RESOURCES

ON-SITE FORM

		01 0 / 01	7	- 70	71172
Well Nam	eNE (Chaco Com 168+	API#	0-039	-311/3
Section	12	Township <u>23N</u> Range _	7W County Ria	Arriba:	State <u>////</u>
Contracto	rs On-Site	Non	Time On-Site 1030	Time Off-S	ite
Contracto	7	bbls Spilled (OVProduced \	Alada (Othor	\ Peco	vered
•					and the second s
Land Use	Range Re	esidential / Tribe) Spill Areax _	x	deep
S				Sanda, Point Sample Loca	
Site Diag		CAP B DEM CA	0000	Sample Loca	SEP Spill Ageg
Site Diag	10111			1	
Commen	its				
Sample	s ·				
Time	Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
	NA	100 Standard	NA		NA T
17:45	1	Soil Area - 0-6"	Sandy Domp Stong Wal		805, 8021, Chloriches

Time	Sample #	Sample Description	Characteristics	Owin (bhin)	Allalysis Requested
, comme	NA	100 Standard	NA		NA 1
1045	1	Spill ANG-0-6"	Sandy, Domp Strong wol		805, 8021, Chlorides
-	-				

Date 8/28/19

Company Enduring Name (Print) Jams Mc Danie

Name (Signature)_

A THE STATE OF THE

ENDURING RESOURCES

ON-SITE FORM

Well Name NE Chuo Com light	API# 30-634-31173
Section/ Township Range	W County Rio Arriba State NM
Contractors On-Site	ne On-Site 6: 454 Time Off-Site 9:454
Spill Amount /5 bbls Spilled (Oil/Produced Wa	er/Other) Recovered
Land Use (Range / Residential / Tribe)	Spill Area 14 x 11 x 5 deep
Site Diagram	Sample Location
NMOCD on site (John)	
Comments BLM on site	
Samples	*
Times I Complet I Completion I	Characteristics IOVM (npm) Analysis Regulacted

Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
NA	100 Standard	NA		NA
1	We St well	Sund, No odge		8021, 8015 Chlorid
2	North well	Sand No offer		
3	East was	Send odos		
4	Saulish well			
5	Buttom		-	
			+	
		1	+	
	NA	NA 100 Standard I we st well 2 worth well 3 Gast wall 4 South well	NA 100 Standard NA 1 We st well Sand No oder 2 North well Sand No oder 3 Gast was Sand No oder 4 South well	NA 100 Standard NA I We struck Sand No oder 2 North well Sand No oder 3 Gast was Sand No oder 4 South well Sand oder

Name (Print) the Snell	Date 9-/8-/9
Name (Signature)	Company Enduring Re Source S.

ENDURING RESOURCES

ON-SITE FORM

Well Nam	e NE	Chico	com 1681	4		API#_	30-039-	31173
Section_	12	Township_	23 N	Range _	7w	County Rio	arriba	StateNAC
Contracto	rs On-Site_	NA			Time On-Site	8:45a	Time Off-S	ite <u>/0:00 and</u>
Spill Amou	unt/_5	bbls	Spilled (Oil/	roduced \	Water/Other) Reco	vered
Land Use	(Range / R	esidential /	Tribe		_) Spill Area	/c_x_	//x_	5° deep
site Diag	e Calk				168	508	Sample Local	ation
No	6 N e	00 5	the to	w: h	mess			
Commen	ts							
Sample	8							
Time	Sample #		ple Descript	ALTONIO III		cteristics	OVM (ppm)	Analysis Requested
9130 cm	NA (East	100 Standard سانا ما		Sand, No	NA odor		9021, 9015, 64106; des
Name (Pri	int)ໍ່າ gnature)	ed sn	25		Compan	Enducia	Date 9-2	4-14

	Gr	ound Bed Drilling	Log	
Company: WfX &	neray	Well: 76 H 17	haco 7 H	Date: 10-24 2
Location: T-23-n A	tw Soch	State: <u>New Me</u>	410	Rig: Story #1
Ground Bed Depth:	300'	Water Depth: 205	<u>'</u>	Diameter: (3/4
Fuel Usage: 130 g	al			
DEPTH	F	DRMATION		OTHER
0-20'	Sand Stone,	Shale, Sand w/ Shale	w/ Sand	PVC (2)
20-80	Sand Stone,	Shale, Sand w/ Shale	w/ Sand	
80-100	Sand Stone,	Shale Sand w/ Shale	w/ Sand	
160-140	Sand Stone,	Shale, Sand w/ Shale	w/ Sand	
140-220	Sand Stone	Shale, Sand w/ Shale	w/ Sand	-
220-306	Sand Stone,	Shale, Sand w/ Shale	w/ Sand	
	Sand Stone,	Shale, Sand w/ Shale	w/ Sand	
	Sand Stone,	Shale, Sand w/ Shale	w/ Sand	
	Sand Stone,	Shale, Sand w/ Shale	w/ Sand	4.00
	Sand Stone,	Shale, Sand w/ Shale	w/ Sand	
	Sand Stone,	Shale, Sand w/ Shale	w/ Sand	
	Sand Stone,	Shale, Sand w/ Shale	w/ Sand	
OCD	2575	N		

~ 36.2575 N ~ 36.2575 W

		GROU	NDWATER DEPTH LOG
Company:	WPX Energ	y	Location: Chaco # 176H /# 177H
Probe type	2: Pover	5	
Date	Time	Depth	Comments
10/24/14	1.30pm	3coft	Prilled hole to 300ft let set
			Tested Wy probe water at 705H

Ground Bed Drilling Log

_			
Company: WPXE	nergy	Well: Chaco 1594 #160H	Date: 9-11-2015
Locationi Sec 35 Ex	1R7W	State New Mersico	Rig: Story#/
Ground Bed Depth: 3	360'	Water Depth: 142	Diameter: 10"
Fuel: 98 gal		Latitude:	Longitude:
DEPTH	R	ORMATION	OTHER
0-40	Sand Stone	, Shale, Sand w/ Shale w/ Sand	PVC
40-110	Sand Stone	Shale, Sand w/ Shale w/ Sand	
110-200	Sand Stone	, Shale, Sand w/ Shale w/ Sand	
200-260	Sand Stone	Shale, Sand w/ Shale w/ Sand	
260-360	Sand Stone	, Shale, Sand w/ Shale w/ Sand	
	Sand Stone	, Shale, Sand w/ Shale w/ Sand	
	Sand Stone	, Shale, Sand w/ Shale w/ Sand	,
	Sand Stone	, Shale, Sand w/ Shale w/ Sand	
	Sand Stone	, Shale, Sand w/ Shale w/ Sand	
***************************************	Sand Stone	, Shale, Sand w/ Shale w/ Sand	
	Sand Stone	, Shale, Sand w/ Shale w/ Sand	

Company	: WPX Energ	y	Location: UNICO #159 H #160H #901 H
Probe ty	pe: Powerve	Sowelir	
Date	Time	Depth	Comments
9-11-15	7:30 an	40	Drilled 40'
	8:30an	40	Fest: Nounter
	9.00	100	Drilled 60' - Got PVC
	10:00	100	test. No water
	11115	115	Dalled 115
	12.15	115	test in water
	4.30	360	test water e 143
9-14-1	519115	142	test water @ 142'
	11145		Emisted anode bed
	1		

National Flood Hazard Layer FIRMette





Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

Without Base Flood Elevation (BFE)
Zone A, V, A99

With BFE or Depth Zone AE, AO, AH, VE, AR

SPECIAL FLOOD HAZARD AREAS

Regulatory Floodway

areas of less than one square mile Zone. of 1% annual chance flood with average 0.2% Annual Chance Flood Hazard, Area

depth less than one foot or with drainag

OTHER AREAS OF FLOOD HAZARD

Area with Flood Risk due to Levee Zone D

Levee, See Notes, Zone X

Area with Reduced Flood Risk due to Chance Flood Hazard Zone X **Future Conditions 1% Annual**

NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs

Area of Undetermined Flood Hazard Zone

OTHER AREAS

STRUCTURES | 111111 Levee, Dike, or Floodwall GENERAL | - - - Channel, Culvert, or Storm Sewer

17.5 **Cross Sections with 1% Annual Chance** Water Surface Elevation

Coastal Transect

Limit of Study **Base Flood Elevation Line (BFE)**

Jurisdiction Boundary

T23N R7W S11

eff.¹3/15/201 35039 (2325

723N R7W S12

AREA OF MINIMAL FLOOD HAZARD

RIOARRIBACOUNTRY

Hydrographic Feature Profile Baseline **Coastal Transect Baseline**

FEATURES

OTHER

Digital Data Available

No Digital Data Available

Unmapped

MAP PANELS

The pin displayed on the map is an approximate point selected by the user and does not represe an authoritative property location.

accuracy standards The basemap shown complies with FEMA's basemap digital flood maps if it is not void as described below. This map complies with FEMA's standards for the use of

become superseded by new data over time. time. The NFHL and effective information may change or was exported on 9/3/2019 at 5:54:38 PM and does not authoritative NFHL web services provided by FEMA. This map The flood hazard information is derived directly from the reflect changes or amendments subsequent to this date and



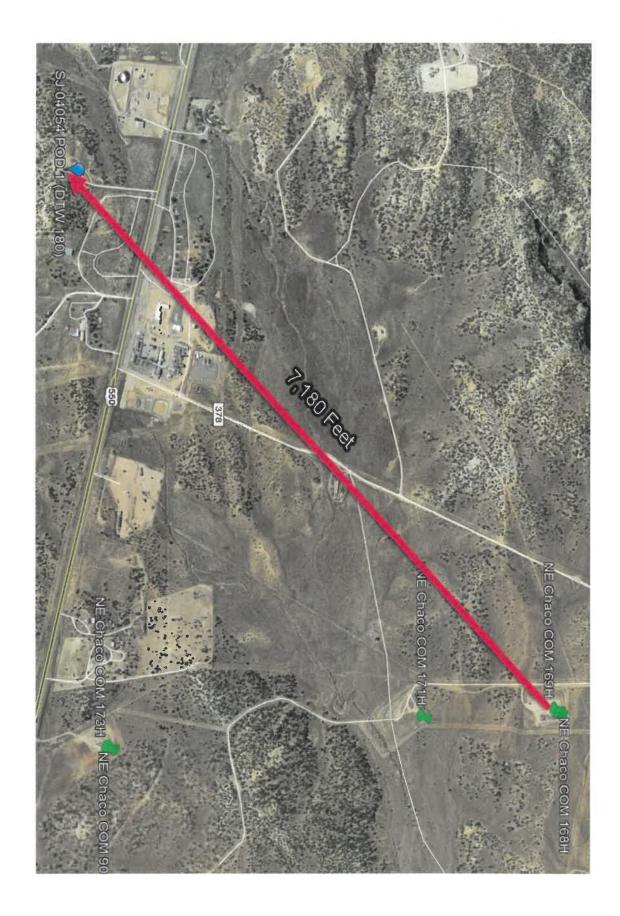
regulatory purposes.

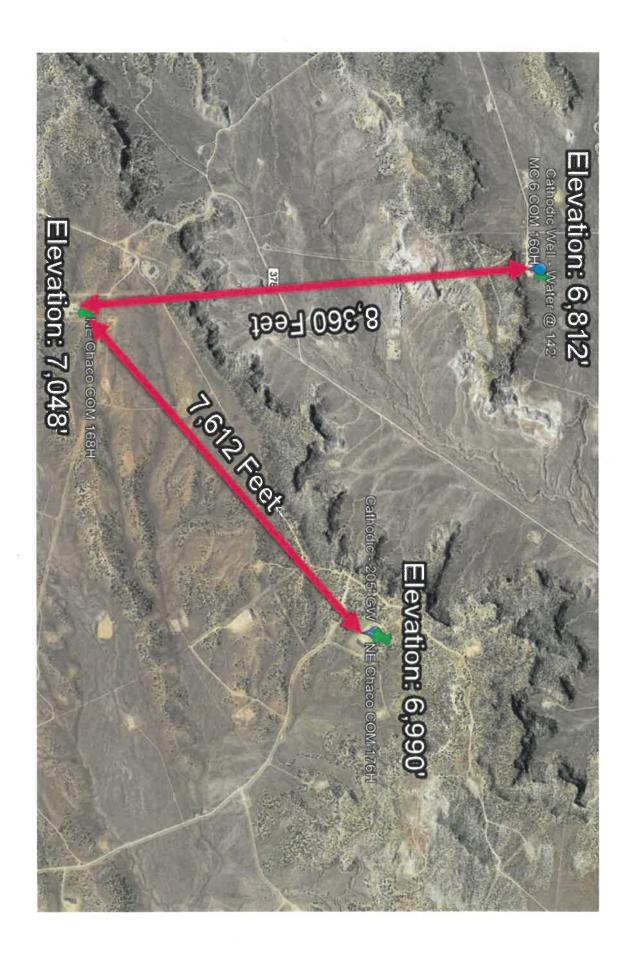
unmapped and unmodernized areas cannot be used for

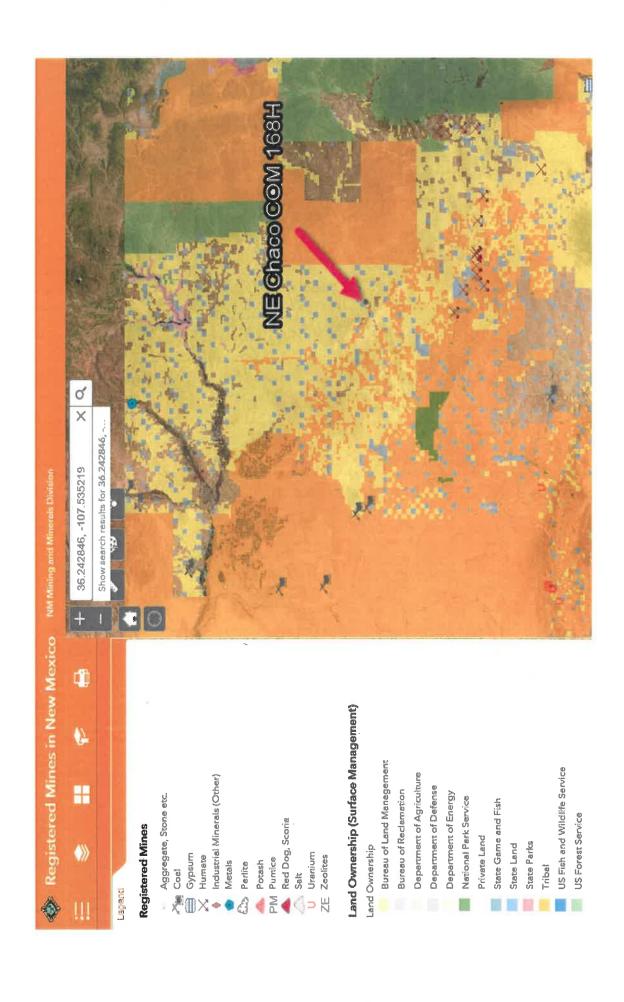
FIRM panel number, and FIRM effective date. Map images for egend, scale bar, map creation date, community identifiers, This map image is void if the one or more of the following map

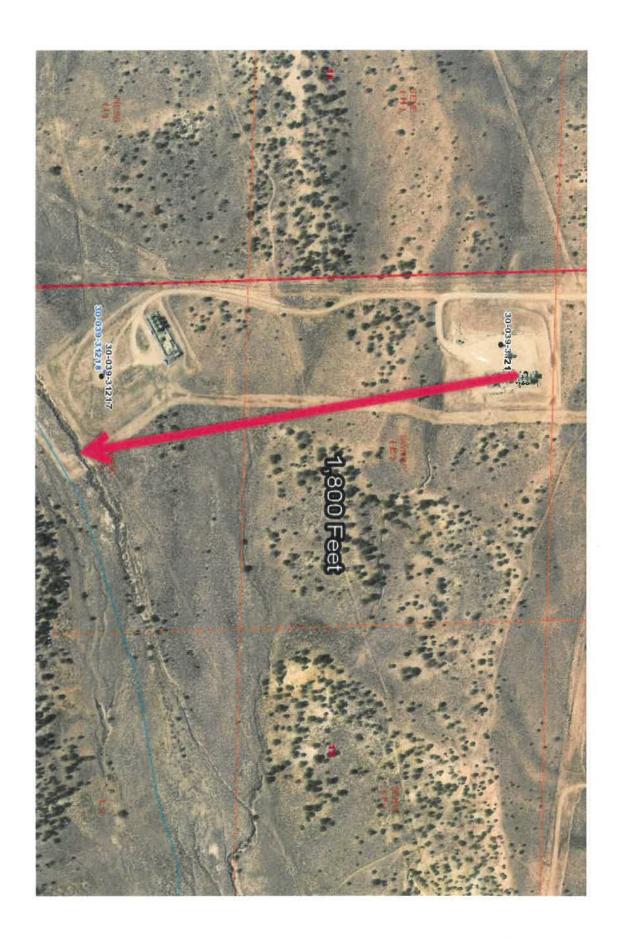
elements do not appear. basemap imagery, flood zone labels,

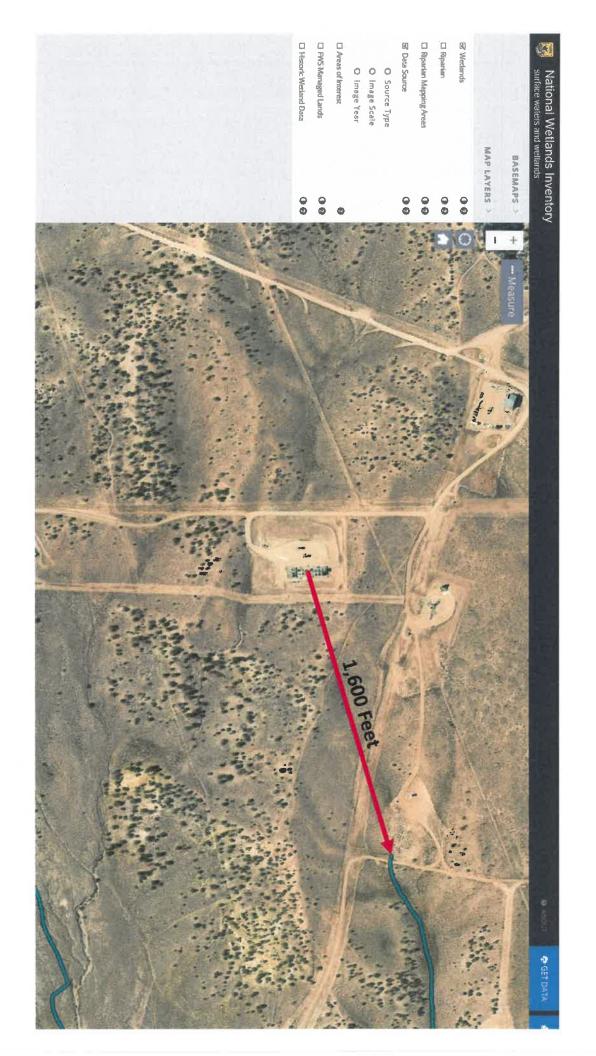














Enduring Resources, LLC Spill Closure Report NE Chaco COM 168H

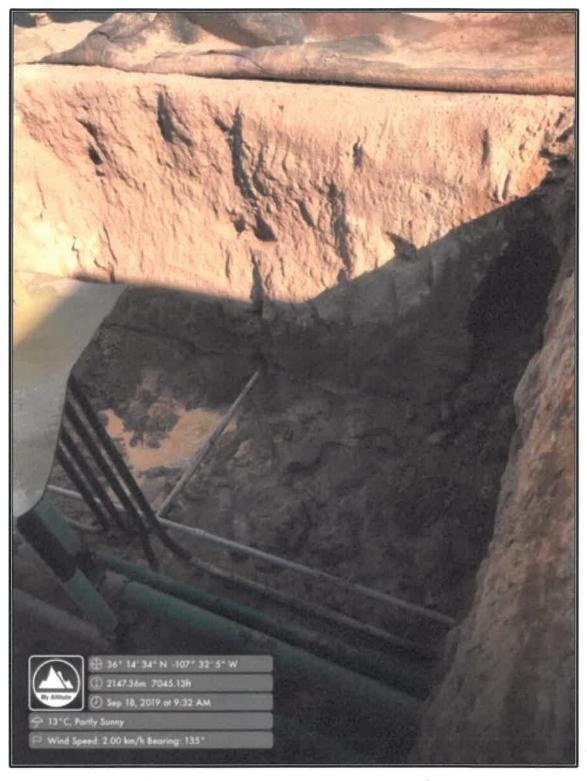


Photo 1: Excavated Area on 9/18/2019 (View of North Wall)



Enduring Resources, LLC Spill Closure Report NE Chaco COM 168H

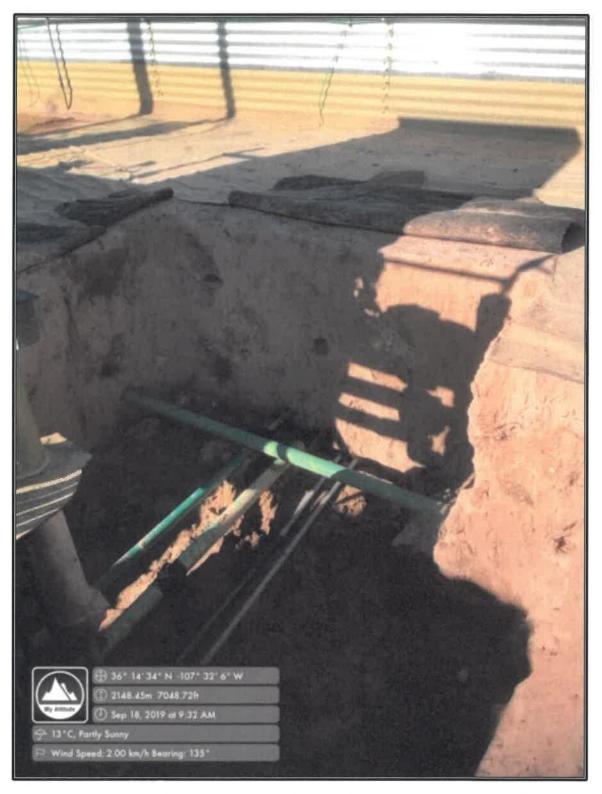


Photo 2: Excavated Area on 9/18/2019 (View of West Wall)



Enduring Resources, LLC Spill Closure Report NE Chaco COM 168H



Photo 4: Excavated Area on 9/18/2019 (View of South Wall)



Photo 4: Excavated Area on 9/24/2019 (View of East Wall)

NE Chaco COM 168H Remediation Narrative

8/27/2019

A release was discovered beneath the liner at the NE Chaco COM 168H. 15 bbls of produced water was released into the ground from a leaking underground flowline. The well was shut in and the leak stopped.

8/28/2019

Enduring HSE was on-site to perform initial assessment, and an initial sample was collected to determine the extent of the release. Results are included in the attached *Sample Results Table*. The site was determined to have a depth to groundwater over 100 feet, setting the closure standards to the least stringent Table I standards of 1,000 ppm TPH (DRO and DRO), 2,500 ppm TPH (DRO and GRO and ORO), 10 ppm Benzene, 50 PPM total BTEX, and 20,000 ppm chlorides.

9/3/2019

A hydrovac was used to excavate the impacted area and to find the leak in the underground line.

9/9/2019

Additional excavation activities were performed using a hydrovac on the impacted area.

9/12/2019

Additional excavation activities were performed using a hydrovac on the impacted area. The final extents of the excavation were $14' \times 11' \times 5'$ deep.

9/18/2019

Closure sampling was performed on the excavated area, and witnessed by the NMOCD (John Durham) and the BLM (Abiodun Adeloye). Five (5) closure samples were collected from the excavated area. One (1) composite sample was collected from each of the four (4) walls of the excavation, and one (1) composite sample was collected from the bottom of the excavation at four foot deep. Sampling results can be referenced in the *Sample Results Table*.

9/19/2019

Sample results were received from the 9/18/2019 closure sampling, and all closure samples returned results below the NMOCD Table I standards, except for the East Wall, which returned results above the 1,000 ppm standard for total TPH (DRO and GRO).

9/20/2019

Additional excavation was performed with a hydrovac, and approximately 2 additional feet of impacted soil was removed from the east wall of the excavation. The extents of the excavated area became $16' \times 11' \times 5'$ deep.

9/24/2019

A composite sample was collected from the new east wall, and analyzed for total TPH, BTEX and chlorides, as outlined in Table I. No one from the NMOCD or the BLM was on-site to witness the closure sampling. A notification for closure sampling was submitted on 9/20/2019; see attached 48 Hour Notification.

9/25/2019

Sample results from the 9/24/2019 closure sampling of the east wall were received. The East Wall sample returned results below the NMOCD Table I standards determined for this location. All closure samples returned results below the most stringent closure standards outlined in Table I. Results for all sampling events can be referenced in the attached *Sample Results Table*, and the attached *Analytical Results*.



Analytical Report

Report Summary

Client: Enduring Resources, LLC

Samples Received: 8/28/2019 Job Number: 17065-0017

Work Order: P908088

Project Name/Location: NE Chaco Com 168H

Danad	Reviewed	D
Report	Reviewed	DV.

Walter Hindung

Date:

8/30/19

Walter Hinchman, Laboratory Director

Supplement to analytical report generated on: 8/30/19 12:21 pm



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.

Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.

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Envirotech, Inc, holds the Utah TNI certification NM009792018-1 for the data reported.

Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.

5796 Highway 64, Farmington, NM 87401

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Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700

Denver CO, 80202

Project Number: Project Manager: 17065-0017 James McDaniel Reported:

08/30/19 15:19

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Spill Area 0-6"	P908088-01A	Soil	08/28/19	08/28/19	Glass Jar, 4 oz.



Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700

Denver CO, 80202

Project Number: Project Manager: 17065-0017 James McDaniel Reported:

08/30/19 15:19

Spill Area 0-6" P908088-01 (Solid)

		1,7000	אונטכו) גט-סט	•/					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	3.12	0.250	mg/kg	.0	1935029	08/28/19	08/29/19	EPA 8021B	
Toluene	13.3	0.250	mg/kg	0	1935029	08/28/19	08/29/19	EPA 8021B	
Ethylbenzene	4.49	0.250	mg/kg	0	1935029	08/28/19	08/29/19	EPA 8021B	
p,m-Xylene	38.2	0.500	mg/kg	.0	1935029	08/28/19	08/29/19	EPA 8021B	
o-Xylene	18.3	0.250	mg/kg	0	1935029	08/28/19	08/29/19	EPA 8021B	
Total Xylenes	56.5	0.250	mg/kg	0	1935029	08/28/19	08/29/19	EPA 8021B	
Surrogaie: 4-Bromochlorobenzene-PID		115 %	50-15	0	1935029	08/28/19	08/29/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO	O/ORO								
Diesel Range Organics (C10-C28)	18900	1250	mg/kg	60	1935031	08/28/19	08/29/19	EPA 8015D	
Oil Range Organics (C28-C40)	4370	2500	mg/kg 5	50	1935031	08/28/19	08/29/19	EPA 8015D	
Surrogate: n-Nonane		744 %	50-20	0	1935031	08/28/19	08/29/19	EPA 8015D	Surr2
Nonhalogenated Organics by 8015 - GR	D								
Gasoline Range Organics (C6-C10)	.513	200	mg/kg	0	1935029	08/28/19	08/29/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		102 %	50-15	0	1935029	08/28/19	08/29/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	ND	2000	mg/kg	00	1935036	08/28/19	08/29/19	EPA 300,0/9056A	A-0



Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700 Denver CO, 80202 Project Number: Project Manager: 17065-0017 James McDaniel Reported:

08/30/19 15:19

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 1935029 - Purge and Trap EPA 5030A										
Blank (1935029-BLK1)				Prepared:	08/28/19 1 A	Analyzed: 0	8/28/19 2			
Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	н							
Ethylbenzene	ND	0.0250	н							
p,m-Xylene	ND	0.0500	и							
o-Xylene	ND	0.0250								
Total Xylenes	ND	0.0250	н							
Surrogate: 4-Bromochlorobenzene-PID	8.86		**	8.00		111	50-150			
LCS (1935029-BS1)				Prepared:	08/28/19 1 A	Analyzed: 0	8/28/19 2			
Benzene	4.43	0.0250	mg/kg	5.00		88.6	70-130			
Toluene	4,44	0.0250	п	5.00		88.9	70-130			
Ethylbenzene	4.46	0.0250	n	5.00		89.1	70-130			
p,m-Xylene	9.07	0.0500	**	10.0		90.7	70-130			
o-Xylene	4.46	0.0250	н	5.00		89.3	70-130			
Total Xylenes	13.5	0.0250	Ħ	15.0		90.2	70-130			
Surrogute: 4-Bromochlorobenzene-PID	8.97			8.00		112	50-150			
Matrix Spike (1935029-MS1)	Sou	rce: P908084-	01	Prepared:	08/28/19 1 A	Analyzed: 0	8/28/19 2			
Benzene	4.73	0.0250	mg/kg	5.00	ND	94.6	54,3-133			
Toluene	4.73	0.0250	n	5.00	ND	94.6	61.4-130			
Ethylbenzene	4.76	0.0250	EP .	5.00	ND	95.3	61.4-133			
p,m-Xylene	9.68	0.0500	и	10.0	ND	96.8	63.3-131			
o-Xylene	4.75	0.0250	*	5.00	ND	94.9	63.3-131			
Total Xylenes	14.4	0.0250	85	15.0	ND	96.2	63.3-131			
Surrogate: 4-Bromochlorohenzene-PID	8.89		*	8.00		111	. 50-150			
Matrix Spike Dup (1935029-MSD1)	Sou	rce: P908084-	01	Prepared:	08/28/19 1 <i>A</i>	Analyzed: (8/29/19 0			
Benzene	4.79	0.0250	mg/kg	5.00	ND	95.7	54.3-133	1.18	20	
Toluene	4.79	0.0250		5.00	ND	95.9	61.4-130	1.38	20	
Ethylbenzene	4.84	0.0250	11	5.00	ND	96.8	61.4-133	1.56	20	
p,m-Xylene	9.83	0.0500	n	10.0	ND	98.3	63.3-131	1.54	20	
o-Xylene	4.83	0.0250	В	5.00	ND	96.6	63.3-131	1.73	20	
Total Xylenes	14.7	0,0250	in the	15.0	ND	97.7	63.3-131	1.60	20	
Surrogate: 4-Bromochlorohenzene-PID	8.99		'40	8.00		112	50-150			
•										



Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700

Project Number:

17065-0017

Reported:

Denver CO, 80202

Project Manager: James McDaniel

08/30/19 15:19

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

	Reporting		Spike	Source		%REC		RPD	
Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
	Ø								
			Prepared &	Analyzed:	08/28/19 1				
ND	25.0	mg/kg							
ND	50.0	*							
45.2		"	50.0		90.4	50-290			
			Prepared 8	Analyzed:	08/28/19 1				
547	25.0	mg/kg	500		109	38-132			
53.9		•	50.0		108	50-200			
Sou	rce: P908076-	D1	Prepared &	Analyzed:	08/28/19 1				
539	25.0	mg/kg	500	ND	108	38-132			
34.6		"	50.0		69.1	50-200			
Sou	rce: P908076-	D1	Prepared 8	Analyzed:	08/28/19 1				
545	25.0	mg/kg	500	ND	109	38-132	1.09	20	
31.7			50.0		63.4	50,200			
	ND ND 45.2 547 53.9 Sou 539 34.6 Sou 545	ND 25.0 ND 50.0 45.2 547 25.0 53.9 Source: P908076-6 539 25.0 34.6 Source: P908076-6	ND 25.0 mg/kg ND 50.0 "	ND 25.0 mg/kg 500	Result Limit Units Level Result Prepared & Analyzed: ND 25.0 mg/kg ND 50.0 " 45.2 " 50.0 Prepared & Analyzed: 547 25.0 mg/kg 500 53.9 " 50.0 Source: P908076-01 Prepared & Analyzed: 539 25.0 mg/kg 500 ND 34.6 " 50.0 Prepared & Analyzed: Source: P908076-01 Prepared & Analyzed: 545 25.0 mg/kg 500 ND	Result Limit Units Level Result %REC Prepared & Analyzed: 08/28/19 1 ND 25.0 mg/kg mg/kg<	Result Limit Units Level Result %REC Limits Prepared & Analyzed: 08/28/19 1 ND 25.0 mg/kg 50.0 90.4 50-290 Prepared & Analyzed: 08/28/19 1 547 25.0 mg/kg 500 109 38-132 53.9 " 50.0 108 50-200 Source: P908076-01 Prepared & Analyzed: 08/28/19 1 539 25.0 mg/kg 500 ND 108 38-132 34.6 " 50.0 69.1 50-200 Source: P908076-01 Prepared & Analyzed: 08/28/19 1 545 25.0 mg/kg 500 ND 109 38-132	Prepared & Analyzed: 08/28/19	ND 25.0 mg/kg 500 ND 108 38-132 34.6 mg/kg 500 ND 109 38-132 55.0 mg/kg 500 ND 108 38-132 55.0 38-132 55.0 mg/kg 500 ND 108 38-132 55.0 50.0 50.0 50.00



Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700

Denver CO, 80202

Project Number: Project Manager: 17065-0017 James McDaniel Reported: 08/30/19 15:19

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1935029 - Purge and Trap EPA 5030A										
Blank (1935029-BLK1)				Prepared: (08/28/19 1 A	Analyzed: 0	8/28/19 2			
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.46		"	8.00		93.2	50-150			
LCS (1935029-BS2)				Prepared: (08/28/19 1 /	Analyzed: 0	8/28/19 2			
Gasoline Range Organics (C6-C10)	46.6	20.0	mg/kg	50.0		93.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.53		P	8.00		94.1	50-150			
Matrix Spike (1935029-MS2)	Sour	ce: P908084-	01	Prepared: (08/28/19 1 <i>A</i>	Analyzed: 0	8/29/19 0			
Gasoline Range Organics (C6-C10)	51.2	20.0	mg/kg	50.0	ND	- 102	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.57		*	8.00		94.6	50-150			
Matrix Spike Dup (1935029-MSD2)	Sour	ce: P908084-	01	Prepared: (08/28/19 1 /	Analyzed: 0	8/29/19 0			
Gasoline Range Organics (C6-C10)	48.4	20.0	mg/kg	50.0	ND	96.9	70-130	5.53	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.56		7	8.00		94.5	50-150			



Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700

Project Number:

17065-0017

Reported:

Denver CO, 80202

Project Manager:

James McDaniel

08/30/19 15:19

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1935036 - Anion Extraction EPA 300.)/9056A									
Blank (1935036-BLK1)				Prepared &	Analyzed:	08/28/19 1				
Chloride	ND	20.0	mg/kg							
LCS (1935036-BS1)				Prepared &	Analyzed:	08/28/19 1				
Chloride	257	20.0	mg/kg	250		103	90-110			
Matrix Spike (1935036-MS1)	Sour	ce: P908085-	D1	Prepared: (08/28/19 1 A	Analyzed: 0	8/28/19 2			
Chloride	636	20.0	mg/kg	250	371	106	80-120			
Matrix Spike Dup (1935036-MSD1)	Sour	ce: P908085-	D1	Prepared: (08/28/19 <i>A</i>	Analyzed: 0	8/28/19 2			
Chloride	635	20.0	mg/kg	250	371	106	80-120	0.118	20	

QC Summary Report

Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values my differ slightly.

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Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700

Denver CO, 80202

Project Number:

17065-0017

Reported: 08/30/19 15:19

Project Manager: James McDaniel

Notes and Definitions

Surr2

The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in

the sample extract.

A-01

Reporting limit elevated due to the presence of residual oil.

ND

Analyte NOT DETECTED at or above the reporting limit

NR

Not Reported

RPD

Relative Percent Difference

**

Methods marked with ** are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

Page of

Project No. R. C. C. R. C.	McDenie 16814 14-3004 Natrix Containers Sample 1D Set South Secure 10 Au Ons:	due by: 2/29 //		1 X 1508 by 8023	Analysis and Meth		RCRA	
Attention: Carbon Management of the Control of the	Manager: 5 McDanie Ses 2-444-3004 So 5-444-3004 Sonpled Matrix Containers Sample ID As Part Sample Soil As Part Soil As Matructions:	ite, Zip		X BTEX by 8021		X 20		je
Address: Charles State Zip Phone: Email: Email: Analysis and Method Number Ord Numb	Sos - 444-3004 Sos - 444-3004 Sompled Matrix Containers Sample ID AZE 6 Sol April Sol	ite, Zip				po	-	te E
CITY, State, Zip Phone:	Sos - 444-3004 Sompled Matrix Containers Sample 1D AZE G SE F SO A Matrix Containers Sample 1D AZE G SE F SO A Matrix Containers Sample 1D AZE G SE F SO A Matrix Containers Sample 1D AZE G SE F SO A Matrix Containers Sample 1D	ite, Zip		ETEX by 8023			-	E
Fmail: Fmail: Fmail: Mumber Mu	Sos—444-3004 Date Matrix containers Sample 1D AZE/14 Se/1 Soil A Matrix containers Sample 1D AZE/14 Se/1 Soil A Matrix containers Sample 1D Matrix	300		BTEX by 8023	0108 zls79M		<u> </u>	5
Afres O.C. (** Lab Number Date Number Date Date Time Tim	Date Matrix Containers Sample ID AZE/14 Se/1 So/1 A Matrix Containers Sample ID Matrix Containers Sample ID Matrix Containers Sample ID Matrix Containers Sample ID	0.00		81EX p\ 805	DLO3 zlefaM		Y	-
AYEA O'CO (Lab Number O'CO) Number O'CO D' Number D'CO D' Number O'CO D' Number O'CO D' D' Number O'CO D' D' Number O'CO D'	Sample 1D ### Sample 1D #### Sample 1D ###################################	0,00		d X3T8	zlistaM	_		
AYEA O.C. (*	Haliff Sell F Soill A	900	2 -	x x	×			Remarks
Time Received by: (Signature) Received by: (Signature) Received by: (Signature) Container Type: g - glass, p - po								
nate that tampering with or intentionally ministralinating country date and the face in time and the signature) Received by: (Signature) Received by: (Signature) Received by: (Signature) Date Time Container Type: g - glass, p - po	Additional Instructions:							
nate that tampering with or intentionally militabelling and a face of the container of the container Type: g - glass, p - po	Additional Instructions:			_				
nate that tampering with or intentionally militabelline the sample locator, date as nationally militabelline the sample locator, date as national locator of the sample locator	Additional Instructions:							
nate that tampering with or intentionally militabelline the sample loops of date or necessary (Signature) Received by: (Signature) Received by: (Signature) Received by: (Signature) Date Time Container Type: g - glass, p - po	Additional Instructions:			+			F	
nate that tampering with or intentionally militabelline the sample loops of date or meeting by: (Signature) Received by: (Signature) Received by: (Signature) Received by: (Signature) Container Type: g - glass, p - po	Additional Instructions:			+				
npled by: Received by: (Signature) Container Type: g - glass, p - po	Additional Instructions:			+			+	
nate that tampering with or intentionally mislabelling the angels location, date at mpled by: Received by: (Signature) Received by: (Signature) Received by: (Signature) Date Time Time Container Type: g - glass, p - po	Additional Instructions:				7			
nate that tampering with or intentionally militabellinearing angress location, date or necessary and by: (Signature) Received by: (Signature) Received by: (Signature) Date Time Time Container Type: g - glass, p - po	Additional Instructions:							
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rate that tampering with or intentionally militabe lips the angress locator, date or received by: (Signature), Received by: (Signature) Received by: (Signature) Received by: (Signature) Date Time Container Type: g - glass, p - po	Additional Instructions:							
Received by: (Signature) Received by: (Signature) Received by: (Signature) Received by: (Signature) Container Type: g - glass, p - po								
Received by: (Signature) Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA	I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or interview of my interval making the personnel of the sample	h or intentionally missuballingsthe samples locat	on, date of	A	Samples requiring thermal pr received packed in ice at an a	eservation must be rec	reived on fize the d	day they are sampled or brequent days,
Received by: (Signature) Received by: (Signature) Received by: (Signature) Date T1 T2 AVG Temp °C Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA	Segnature October 9/19 Times		2 1 %	ine ine	-		Only	
Received by: (Signature) Date Time AVG Temp °C Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA	Date	200	7 11 07	ine ine	אבניפועפט סוווכפי	,	,	ſ
	Date			lme	11	7		n
					AVG Temp °C	7	1	
	Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other		Container Type:	g - glass, p -	poly/plastic, ag - am	ber glass, v - V	OA	

Page 9 of 9

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5796 US Highway 64, Farmington, NB4 87401 24 Hour Emirgency Response Phone (800) 332-1879

envirotech Analytical Laboratory

envirotech-inc com



Analytical Report

Report Summary

Client: Enduring Resources, LLC

Samples Received: 9/18/2019 Job Number: 17065-0017 Work Order: P909045

Project Name/Location: NE Chaco Com 168H

Poport	Reviewed	Rv.

Walter Hinkman

Date:

9/19/19

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.

Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.

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Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.



Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700

Denver CO, 80202

Project Number:

17065-0017

Reported: 09/19/19 16:37

Project Manager:

Chad Snell

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
West Wall	P909045-01A	Soil	09/18/19	09/18/19	Glass Jar, 4 oz.
North Wall	P909045-02A	Soil	09/18/19	09/18/19	Glass Jar, 4 oz.
East Wall	P909045-03A	Soil	09/18/19	09/18/19	Glass Jar, 4 oz.
South Wall	P909045-04A	Soil	09/18/19	09/18/19	Glass Jar, 4 oz.
Bottom	P909045-05A	Soil	09/18/19	09/18/19	Glass Jar, 4 oz.



Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700

Denver CO, 80202

Project Number: Project Manager: 17065-0017 Chad Snell Reported:

09/19/19 16:37

West Wall P909045-01 (Solid)

		Reporting	(,					
Analyte	Result	Limit	Units 1	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg l		1938018	09/18/19	09/18/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg l		1938018	09/18/19	09/18/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg 1		1938018	09/18/19	09/18/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg l		1938018	09/18/19	09/18/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg i		1938018	09/18/19	09/18/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg 1		1938018	09/18/19	09/18/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		108 %	50-15)	1938018	09/18/19	09/18/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/O	RO								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg 1		1938020	09/18/19	09/18/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg 1		1938020	09/18/19	09/18/19	EPA 8015D	
Surrogate: n-Nonane		110%	50-20	0	1938020	09/18/19	09/18/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg 1		1938018	09/18/19	09/18/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		95.6 %	50-15	0	1938018	09/18/19	09/18/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	23.3	20.0	mg/kg 1		1938019	09/18/19	09/18/19	EPA 300.0/9056A	



Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700 Denver CO, 80202 Project Number: Project Manager: 17065-0017 Chad Snell Reported: 09/19/19 16:37

North Wall P909045-02 (Solid)

		P9090	45-02 (50110)					
		Reporting						
Analyte	Result	Limit	Units Dilu	ition Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021								
Benzene	ND	0.0250	mg/kg l	1938018	09/18/19	09/18/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg l	1938018	09/18/19	09/18/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg l	1938018	09/18/19	09/18/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg i	1938018	09/18/19	09/18/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg l	1938018	09/18/19	09/18/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg 1	1938018	09/18/19	09/18/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		108 %	50-150	1938018	09/18/19	09/18/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO	/ORO							
Diesel Range Organics (C10-C28)	26.7	25.0	mg/kg 1	1938020	09/18/19	09/18/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg 1	1938020	09/18/19	09/18/19	EPA 8015D	
Surrogate: n-Nonane		103 %	50-200	1938020	09/18/19	09/18/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg l	1938018	09/18/19	09/18/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-F1D		93.9 %	50-150	1938018	09/18/19	09/18/19	EPA 8015D	
Anions by 300.0/9056A								
Chloride	ND	20.0	mg/kg l	1938019	09/18/19	09/18/19	EPA 300.0/9056A	



Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700

Denver CO, 80202

Project Number: Project Manager: 17065-0017 Chad Snell Reported:

09/19/19 16:37

East Wall P909045-03 (Solid)

		17070	45-05 (DUMU)					
		Reporting	·					
Analyte	Result	Limit	Units Dilutio	n Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021								
Benzene	ND	0.0250	mg/kg l	1938018	09/18/19	09/18/19	EPA 8021B	
Toluene	0.334	0.0250	mg/kg 1	1938018	09/18/19	09/18/19	EPA 8021B	
Ethylbenzene	0.328	0.0250	mg/kg 1	1938018	09/18/19	09/18/19	EPA 8021B	
p,m-Xylene	1.45	0.0500	mg/kg 1	1938018	09/18/19	09/18/19	EPA 8021B	
o-Xylene	0.632	0.0250	mg/kg I	1938018	09/18/19	09/18/19	EPA 8021B	
Total Xylenes	2.08	0.0250	mg/kg 1	1938018	09/18/19	09/18/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		113 %	50-150	1938018	09/18/19	09/18/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO	O/ORO							
Diesel Range Organics (C10-C28)	1070	50.0	mg/kg 2	1938020	09/18/19	09/18/19	EPA.8015D	
Oil Range Organics (C28-C40)	217	100	mg/kg 2	1938020	09/18/19	09/18/19	EPA 8015D	
Surrogate; n-Nonane		113 %	50-200	1938020	09/18/19	09/18/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GR	0							
Gasoline Range Organics (C6-C10)	36.5	20.0	mg/kg l	1938018	09/18/19	09/18/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-F1D		94.1 %	50-150	1938018	09/18/19	09/18/19	EPA 8015D	
Anions by 300.0/9056A								
Chloride	122	20.0	mg/kg 1	1938019	09/18/19	09/18/19	EPA 300.0/9056A	



Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700

Denver CO, 80202

Project Number: Project Manager: 17065-0017 Chad Snell Reported:

09/19/19 16:37

South Wall P909045-04 (Solid)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	1938018	09/18/19	09/18/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1938018	09/18/19	09/18/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1938018	09/18/19	09/18/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1938018	09/18/19	09/18/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1938018	09/18/19	09/18/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1938018	09/18/19	09/18/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		109 %	50-	150	1938018	09/18/19	09/18/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/OR	0								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1938020	09/18/19	09/18/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1938020	09/18/19	09/18/19	EPA 8015D	
Surrogate: n-Nonane		104 %	50-	200	1938020	09/18/19	09/18/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1938018	09/18/19	09/18/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorohenzene-FID		93.0 %	50-	150	1938018	09/18/19	09/18/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1938019	09/18/19	09/18/19	EPA 300.0/9056A	



Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700 Denver CO, 80202 Project Number: Project Manager: 17065-0017 Chad Snell

Reported:

09/19/19 16:37

Bottom P909045-05 (Solid)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg l		1938018	09/18/19	09/19/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg 1		1938018	09/18/19	09/19/19	EPA 8021B	
Ethylbenzene	ND.	0.0250	mg/kg 1		1938018	09/18/19	09/19/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg 1		1938018	09/18/19	09/19/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg l		1938018	09/18/19	09/19/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg 1		1938018	09/18/19	09/19/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		108 %	50-15	0	1938018	09/18/19	09/19/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO	D/ORO								
Diesel Range Organics (C10-C28)	46.8	25.0	mg/kg l		1938020	09/18/19	09/18/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg l		1938020	09/18/19	09/18/19	EPA 8015D	
Surrogate: n-Nonane		107 %	50-20	0	1938020	09/18/19	09/18/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO	0								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg l		1938018	09/18/19	09/19/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorohenzene-FID		91.6%	50-15	0	1938018	09/18/19	09/19/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	383	20.0	mg/kg 1		1938019	09/18/19	09/18/19	EPA 300.0/9056A	



Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700 Denver CO, 80202 Project Number: Project Manager: 17065-0017 Chad Snell

Reported:

09/19/19 16:37

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 1938018 - Purge and Trap EPA 5030A										
Blank (1938018-BLK1)				Prepared &	Analyzed:	09/18/19 1				
Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	n							
Ethylbenzene	ND	0.0250	Ħ							
p,m-Xylene	ND	0.0500	*							
p-Xylene	ND	0.0250	н							
Total Xylenes	ND	0.0250	es .							
Surrogate: 4-Bromochlorobenzene-PID	8.49		-	8.00		106	50-150			
LCS (1938018-BS1)				Prepared &	Analyzed:	09/18/19 1				
Benzene	4.64	0.0250	mg/kg	5.00		92.9	70-130			
Toluene	4.62	0.0250	rr ·	5.00		92.3	70-130			
Ethylbenzene	4.60	0.0250	**	5.00		92.0	70-130			
p,m-Xylene	9.19	0.0500		10.0		91.9	70-130			
o-Xylene	4.63	0.0250	п	5.00		92.5	70-130			
Total Xylenes	13.8	0.0250	H	15.0		92.1	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.67		п	8.00		108	50-150	9		
Matrix Spike (1938018-MS1)	Sou	rce: P909045-	01	Prepared: (09/18/19 1 4	Analyzed: (09/18/19 2			
Benzene	4.46	0.0250	mg/kg	5.00	ND	89.1	54.3-133			
Toluene	4.43	0.0250	90	5.00	ND	88.6	61.4-130			
Ethylbenzene	4.42	0.0250	*	5.00	ND	88.4	61.4-133			
p,m-Xylene	8.83	0.0500	*	10.0	ND	88.3	63.3-131			
o-Xylene	4.43	0.0250	71	5.00	ND	88.6	63.3-131			
Total Xylenes	13.3	0.0250	**	15.0	ND:	88.4	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8.70		*	8.00		109	50-150			
Matrix Spike Dup (1938018-MSD1)	Sou	rce: P909045-	01	Prepared: (09/18/19 1 A	Analyzed: (09/18/19 2			
Benzene	4.67	0.0250	mg/kg	5.00	ND	93.4	54.3-133	4.71	20	
Toluene	4.63	0.0250	Tr .	5.00	ND	92.7	61.4-130	4.53	20	
Ethylbenzene	4,62	0.0250	n	5.00	ND	92.4	61.4-133	4.44	20	
p,m-Xylene	9.22	0.0500	n	10.0	ND	92.2	63.3-131	4,36	20	
o-Xylene	4,64	0.0250	n	5.00	ND	92.8	63.3-131	4.61	20	
Total Xylenes	13.9	0.0250	TF	15.0	ND	92.4	63.3-131	4.45	20	



Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700

Denver CO, 80202

Project Number: Project Manager: 17065-0017 Chad Snell Reported:

09/19/19 16:37

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1938020 - DRO Extraction EPA 3570										
Blank (1938020-BLK1)				Prepared &	Analyzed:	09/18/19 1				
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	н							
Surrogate: n-Nonane	52.4			50.0		105	50-200			
LCS (1938020-BS1)				Prepared &	Analyzed:	09/18/19 1				
Diesel Range Organics (C10-C28)	471	25.0	mg/kg	500		94.1	38-132			
Surrogate: n-Nonane	51.7		•	50.0		103	50-200			
Matrix Spike (1938020-MS1)	Sou	rce: P909045-	01	Prepared &	Analyzed:	09/18/19 1				
Diesel Range Organics (C10-C28)	528	25.0	mg/kg	500	ND	106	38-132			
Surrogate: n-Nonane	52.3		*	50.0		105	50-200			
Matrix Spike Dup (1938020-MSD1)	Sou	rce: P909045-	01	Prepared &	Analyzed:	09/18/19 1				
Diesel Range Organics (C10-C28)	536	25.0	mg/kg	500	ND	107	38-132	1.51	20	
Surrogate: n-Nonane	52.6			50.0		105	50-200			



Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700

Denver CO, 80202

Project Number: Project Manager: 17065-0017 Chad Snell

Reported:

09/19/19 16:37

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1938018 - Purge and Trap EPA 5030A										
Blank (1938018-BLK1)				Prepared &	Analyzed:	09/18/19 1				
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorohenzene-FID	7.83		н	8.00		97.9	50-150			
LCS (1938018-BS2)				Prepared &	Analyzed:	09/18/19 [
Gasoline Range Organics (C6-C10)	44.0	20.0	mg/kg	50.0		0.88	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.73		*	8.00		96.6	50-150			
Matrix Spike (1938018-MS2)	Sour	ce: P909045-	01	Prepared: (09/18/19 1 /	Analyzed: 0	9/18/19 2			
Gasoline Range Organics (C6-C10)	47.4	20.0	mg/kg	50.0	ND	94.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FlD	7.51		•	8.00		93.8	50-150			
Matrix Spike Dup (1938018-MSD2)	Sour	ce: P909045-	01	Prepared: (09/18/19 1 /	Analyzed: 0	9/18/19 2			
Gasoline Range Organics (C6-C10)	47.8	20.0	mg/kg	50.0	ND	95.6	70-130	0.866	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.47		*	8.00		93.4	50-150			



Project Name:

NE Chaco Com 168H

Spike

Source

511 16th Street, Suite 700

Denver CO, 80202

Project Number: Project Manager:

Reporting

17065-0017 Chad Snell

Reported:

09/19/19 16:37

RPD

%REC

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1938019 - Anion Extraction EPA	300.0/9056A									
Blank (1938019-BLK1)				Prepared &	k Analyzed:	09/18/19				
Chloride	ND	20.0	mg/kg							
LCS (1938019-BS1)				Prepared &	Analyzed:	09/18/19 1				
Chloride	256	20.0	mg/kg	250		102	90-110			
Matrix Spike (1938019-M\$1)	Source	: P909045-	01	Prepared &	Analyzed:	09/18/19 1				
Chloride	277	20.0	mg/kg	250	23.3	101	80-120			
Matrix Spike Dup (1938019-MSD1)	Source	: P909045-	01	Prepared &	k Analyzed:	09/18/19 1				
Chloride	278	20.0	mg/kg	250	23.3	102	80-120	0,519	20	

QC Summary Report

Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values my differ slightly.

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5796 Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

envirotech-inc.com



Project Name:

NE Chaco Com 168H

511 16th Street, Suite 700

Denver CO, 80202

Project Number: Project Manager: 17065-0017 Chad Snell

Reported:

09/19/19 16:37

Notes and Definitions

ND

Analyte NOT DETECTED at or above the reporting limit

ŃR

Not Reported

RPD

Relative Percent Difference

44

Methods marked with ** are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

Client: EnJuring M	Me Souces		Report Attention	J	Lab	Lab Use Only	TAT	E E	EPA Program	
Project: NE Chaco	٦.	Re	Report due by:	[E]	Lab WQ#	Job Number	1D 3D	RCRA	CWA	SDWA
Project Manager: Chee	Smell	Att	Attention:	ا	STOP OF	H00-C90+1	×			
Address: Zoo Energy	_M		Address:			Analysis and Method	q		State	a
City, State, Zip Fecha, Aglan	Sec		City, State, Zip	5	_				NM CO UT	UT AZ
Email: Cabul 1 @ Enduly exsonression	ונישא בבצטמעובליוכי		:He	108 40	PV 801	OI			X X	
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Time Date Matrix Sampled Sampled	Containers Sample 1D	Q.		Lab SO	o\ose	VOC by			Remarks	arks
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3										
Additional Instructions:										
I, (field samples), attest to the valkdity and authenticity of this sample. I am sware that tampering time of collection is considered fraud and may be grounds for legal action. Sampled by.	d authenticity of this sample. d may be grounds for legal ac	fam aware that tamper don. Sampted by.	ing with or intentionally mistal elling the sample location, date or $9-9-9$	1-18-19	1 1 1	Samples requested that mad the exercation must be recurred on the title day they are sumplet or received packed in subsequent days	rvatkon must ke rec emp above U but le	curred on ten this e	lay they are san sequent days	grentar
Refinquierfed by: (Signeture)	Pate 9-19-19	Time 12 Rm	Received by: (Signature)	Og 118 19	Time 11:13	Received on ice:	Lab Use Only	Only		
Relinquished by: (Signature)	Date	Time	Received by: (Signature)/	Date	Time	T1 16.4	72 15.3		الة الم	~
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Ояте	Тіте	AVG Temp °C 1102				
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other	- Sludge, A - Aqueous, O -	Other		Container Typ	e: g - glass, p -	Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA	r glass, v - V	VOA		
Note: Samples are discarded 30 days only to those samples received by the	after results are reported elaboratory with this COC.	unless other arrangen The flabelity of the fa	Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The laboratory is limited to the amount and for on the report.	urned to client or di	sposed of at the cl	ent expense. The report for	the analysis of 1	the above san	přes is appli	able
							and the same			1

Canvirotech 5'96 US Highway 84, Familyon, NA9740:
Analytical Laboratory 24 Hour Emergency Response Phane : St01 362-1879

Pr (539) 8

Pr (539) 532-1381 Pr (505) 530-1665

envirotecta-ins.com abadinissi@envirotecta-ins.com Page 13 of 13



Analytical Report

Report Summary

Client: Enduring Resources, LLC

Samples Received: 9/24/2019 Job Number: 19065-0017 Work Order: P909072

Project Name/Location: NE Chaco 168H

	Draft		
Report Reviewed By:		Date: _	9/25/19
	Walter Hinchman, Laboratory Director		



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.

Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.

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Envirotech, Inc, holds the Utah TNI certification NM009792018-1 for the data reported.

Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.

5796 Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

envirotech-inc.com



Project Name:

NE Chaco 168H

511 16th Street, Suite 700

Project Number:

19065-0017

Reported: 09/25/19 16:30

Denver CO, 80202

Project Manager: Chad Snell

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
East Wall	P909072-01A	Soil	09/24/19	09/24/19	Glass Jar, 4 oz.



Project Name:

NE Chaco 168H

511 16th Street, Suite 700

Project Number:

19065-0017

Reported: 09/25/19 16:30

Denver CO, 80202 Project Manager:

Chad Snell

East Wall P909072-01 (Solid)

		Reporting	72-01 (Sulla)					
Analyte	Result	Limit	Units Dilutio	on Batch	Prepared	Analyzed	Method	Note
Volatile Organic Compounds by 8260								
Benzene	ND	0.0250	mg/kg l	1939011	09/24/19	09/25/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg I	1939011	09/24/19	09/25/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg l	1939011	09/24/19	09/25/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg 1	1939011	09/24/19	09/25/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg l	1939011	09/24/19	09/25/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg 1	1939011	09/24/19	09/25/19	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		104 %	70-130	1939011	09/24/19	09/25/19	EPA 8260B	
Surrogate: Toluene-d8		97.7 %	70-130	1939011	09/24/19	09/25/19	EPA 8260B	
Surrogate: Bromofluorobenzene		98.5 %	70-130	1939011	09/24/19	09/25/19	EPA 8260B	
Nonhalogenated Organics by 8015 - DRO/	ORO							
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg 1	1939016	09/24/19	09/24/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg 1	1939016	09/24/19	09/24/19	EPA 8015D	
Surrogate: n-Nonane		102 %	50-200	1939016	09/24/19	09/24/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg I	1939011	09/24/19	09/25/19	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		104 %	70-130	1939011	09/24/19	09/25/19	EPA 8015D	
Surrogate: Toluene-d8		97.7 %	70-130	1939011	09/24/19	09/25/19	EPA 8015D	
Surrogate: Bromofluorobenzene		98.5 %	70-130	1939011	09/24/19	09/25/19	EPA 8015D	
Anions by 300.0/9056A								
Chloride	ND	20.0	mg/kg 1	1939013	09/24/19	09/24/19	EPA 300.0/9056A	



Project Name:

NE Chaco 168H

511 16th Street, Suite 700

Denver CO, 80202

Project Number: Project Manager: 19065-0017 Chad Snell

Reported: 09/25/19 16:30

Volatile Organic Compounds by 8260 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1939011 - Purge and Trap EPA 5030.	4									
Blank (1939011-BLK1)				Prepared: (09/23/19 1 A	Analyzed: 0	9/25/19 0			
Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	**							
Ethylbenzene	ND	0.0250	**							
,m-Xylene	ND	0.0500	11							
-Xylene	ND	0.0250	19							
otal Xylenes	ND	0.0250	."							
urrogate: 1,2-Dichloroethane-d4	0.491		*	0.500	2	98.2	70-130			
iurrogate: Toluene-d8	0.493		-	0.500		98.6	70-130			
urragate: Bromofluorobenzene	0.490			0.500		98.0	70-130			
CS (1939011-BS1)				Prepared: (09/23/19 1 /	Analyzed: 0	9/25/19 0			
enzene	2.51	0.0250	mg/kg	2.50		100	70-130			
oluene	2.39	0.0250	79	2.50		95.5	70-130			
thylbenzene	2.44	0.0250	**	2.50		97.7	70-130			
,m-Xylene	4.82	0.0500	79	5.00		96.5	70-130			
-Xylene	2.41	0.0250	и	2.50		96.6	70-130			
otal Xylenes	7.24	0.0250		7.50		96.5	70-130			
urrogate: 1,2-Dichloroethane-d4	0.545		w	0.500		109	70-130			
urrogate: Toluene-d8	0.485		**	0.500		96.9	70-130			
urrogute: Bromofluorobenzene	0.514		89	0.500		103	70-130			
Matrix Spike (1939011-MS1)	Sou	rce: P909067-	01	Prepared: (09/23/19 1 /	Analyzed: 0	9/25/19 0			
Benzene	2.49	0.0250	mg/kg	2.50	ND	99.8	48-131			
Toluene	2.48	0.0250	n	2.50	0.0855	95.9	48-130			
ihylbenzene	2.46	0.0250		2.50	0.0305	97.1	45-135			
,m-Xylene	5.20	0.0500	29	5.00	0.275	98.5	43-135			
-Xylene	2.57	0.0250	n	2.50	0.0945	98.8	43-135			
Total Xylenes	7.77	0.0250	n	7.50	0.369	98.6	43-135			
Surrogate: 1,2-Dichloroethane-d4	0.528			0.500		106	70-130			
Surrogate: Toluene-d8	0.495		7	0.500		98.9	70-130			
Surrogate: Bromofluorobenzene	0.518		"	0.500		104	70-130			
Matrix Spike Dup (1939011-MSD1)	Sou	rce: P909067-	01	Prepared: (09/23/19 1 A	Analyzed: 0	9/25/19 0			
Benzene	2.36	0.0250	mg/kg	2.50	ND	94,3	48-131	5.58	23	
Coluene	2.32	0.0250	n	2.50	0.0855	89.3	48-130	6.87	24	
Ethylbenzene	2.32	0.0250	11	2.50	0.0305	91.6	45-135	5.74	27	
p,m-Xylene	4.84	0.0500	47	5.00	0.275	91.3	43-135	7.15	27	
≻Xylone	2.38	0.0250	17	2.50	0.0945	91.6	43-135	7.36	27	
Total Xylenes	7.23	0.0250	**	7.50	0.369	91.4	43-135	7.22	27	
	0.535		,,	0.500		107	70-130			
Surrogate: 1.2-Dichloroethane-d4	0.535			17.171515						
Surrogate: 1.2-Dichloroethane-d4 Surrogate: Toluene-d8	0.535		*	0.500		98.1	70-130			

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5796 Highway 64, Farmington, NM 67401

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Project Name:

NE Chaco 168H

511 16th Street, Suite 700

Denver CO, 80202

Project Number: Project Manager: 19065-0017 Chad Snell

Reported: 09/25/19 16:30

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1939016 - DRO Extraction EPA 3570										
Blank (1939016-BLK1)				Prepared &	k Analyzed:	09/24/19 1				
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	Ħ							
Surrogate: n-Nonane	50.1		**	50.0		100	50-200			
LCS (1939016-BS1)				Prepared &	k Analyzed:	09/24/19 1				
Diesel Range Organics (C10-C28)	471	25.0	mg/kg	500		94.2	38-132			
Surrogate: n-Nonane	48.3		•	50.0		96.6	50-200			
Matrix Spike (1939016-MS1)	Sour	ce: P909068-	01	Prepared &	k Analyzed:	09/24/19 1				
Diesel Range Organics (C10-C28)	508	25.0	mg/kg	500	ND	102	38-132			
Surrogate: n-Nonane	48.9		n	50.0		97.8	50-200			
Matrix Spike Dup (1939016-MSD1)	Sour	ce: P909068-	01	Prepared &	k Analyzed:	09/24/19 1				
Diesel Range Organics (C10-C28)	515	25.0	mg/kg	500	ND	103	38-132	1.32	20	
Surrogate: n-Nonane	49.0			50.0		98.1	50-200			



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511 16th Street, Suite 700

Denver CO, 80202

Project Number: Project Manager: 19065-0017 Chad Snell

Reported:

09/25/19 16:30

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1939011 - Purge and Trap EPA 5030A										
Blank (1939011-BLK1)				Prepared: (09/23/19 1 /	Analyzed: 0	9/25/19 0			
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1,2-Dichloroethane-d4	0.491		*	0.500		98.2	70-130			
Surrogate: Toluene-d8	0.493		*	0.500		98.6	70-130			
Surrogate: Bromofluorobenzene	0.490		•	0.500		98.0	70-130			
LCS (1939011-BS2)				Prepared: (09/23/19 1 /	Analyzed: 0	9/25/19 0			
Gasoline Range Organics (C6-C10)	43.8	20.0	mg/kg	50.0		87.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.505		•	0.500		101	70-130			
Surrogate: Toluene-d8	0.488		7	0.500		97.5	70-130			
Surrogate: Bromofluorobenzene	0.486		*	0.500		97.2	70-130			
Matrix Spike (1939011-MS2)	Sou	rce: P909067-	01	Prepared: (09/23/19 1 /	Analyzed: 0	9/25/19 0			
Gasoline Range Organics (C6-C10)	64.0	20.0	mg/kg	50.0	ND	128	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.515		1.61	0.500		103	70-130			
Surrogate: Toluene-d8	0.501		W	0.500		100	70-130			
Surrogate: Bromofluorobenzene	0.516			0.500		103	70-130			
Matrix Spike Dup (1939011-MSD2)	Sou	ırce: P909067-	01	Prepared: (09/23/19 1 /	Analyzed: 0	9/25/19 0			
Gasoline Range Organics (C6-C10)	60.3	20.0	mg/kg	50.0	ND	121	70-130	5.96	20	
Surrogate: 1,2-Dichloroethane-d4	0.514		*	0.500		103	70-130			
Surrogate: Toluene-d8	0.494		*	0.500		98.7	70-130			
Surrogate: Bromofluorohenzene	0.498		•	0.500		99.6	70-130			



Project Name:

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Denver CO, 80202

Project Number: Project Manager: 19065-0017 Chad Snell

Reported: 09/25/19 16:30

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Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1939013 - Anion Extraction EPA 300),0/9056A									
Blank (1939013-BLK1)				Prepared: (09/24/19 0 /	Analyzed: 0	9/24/19 I			
Chloride	ND	20.0	mg/kg							
LCS (1939013-BS1)				Prepared: (09/24/19 0 A	Analyzed: 0	9/24/19 1			
Chloride	255	20.0	mg/kg	250		102	90-110			
Matrix Spike (1939013-MS1)	Source	e: P909062-	01	Prepared: (09/24/19 0 2	Analyzed: 0	9/24/19 1			
Chloride	313	60.0	mg/kg	250	72.3	96.3	80-120			
Matrix Spike Dup (1939013-MSD1)	Sourc	e: P909062-	01	Prepared: (09/24/19 0	Analyzed: 0	9/24/19 1			
Chloride	310	60.0	mg/kg	250	72.3	95.0	80-120	1.01	20	

QC Summary Report

Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values my differ slightly.

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Project Name:

NE Chaco 168H

511 16th Street, Suite 700

Denver CO, 80202

Project Number: Project Manager: 19065-0017 Chad Snell

Reported:

09/25/19 16:30

Notes and Definitions

ND

Analyte NOT DETECTED at or above the reporting limit

NR

Not Reported

RPD

Relative Percent Difference

**

Methods marked with ** are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

Client: Chd Uring	-Nd Ur		KO SOLINGES	Caro	_	_	Report Attention			Lab	Lab Use Only	July	TAT	ш	EPA Program	Ε	-
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Additional Instructions:	Instructi	ions:									-						
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tame of collection is considered fraud and may be grounds for legal action. Sampled by:	attest to the v	validity and as	ithenticity of t	this sample. 1a 1 for legal action	m aware that	r tampering	I, (flekt sampler), attest to the validity and authenticity of this sample. I am aware that tampening with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:	e location, date or			Samp	Samples requiring thermal preservation must be received on ire the day they are rampled or received packed in ice at an ang temp above 0 but less than GC on subsequent days.	avation must be temp above 0 is	received on ice fi	in they they are hall subsequent days.	upled or	
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Sample Matrix: \$ - Soil, \$d - Solid, \$g - Sludge, A - Aqueous, O - Other	S - Soil, 5d -	Solid, Sg - Si	udge, A - Aq	Tueous, O - O	ther			Container T	ype: g	- glass, p -	poly/p	Container Type: B - glass, p - poly/plastic, ag - amber glass, v - VOA	r glass, v	-VOA			
Note: Samples &	are discarded mples receiv	130 days aft ed by the tal	er results are boratory with	e reported un h this COC. 7	less other ari	rangemer	Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the laboratory is limited to the amount paid for on the report.	urned to client or he report.	r dispos	d of at the cl	ent exp	ense. The report for	the analysis	of the above s	amples is appli	cable	

5796 US Highway 64, Famingtor, NW 8740: 24 Hour Emergency Response Phone (800) 302-1879 Senvirotech Analylical taboratory

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