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 1220 S. St. Francis Dr., Santa Fe, NM 87505

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	
District RP	
Facility ID	
Application ID	

Release Notification

			Resp	onsit	ole Party	y	
Responsible Party XTO Energy				OGRID 5380			
Contact Name Shelby Pennington				Contact Telephone 281-723-9353			
Contact emai	il Shelby_	Pennington@xt	oenergy.com		Incident#	(assigned by OCD)	1RP-4832 & 1RP-5340
Contact mail	ing address	6401 Holiday H	Iill Rd. Buildin	ng 5 M	Iidland TX	X 79707	
Latitude 32.	57479°N		Location]	Longitude -	-103.32164°V	W
			(NAD 83 in dec	cimal deg	rees to 5 decim	nal places)	-
Site Name E	MSU Sate	ellite #13			Site Type I	Flowline	
Date Release	Discovered	9/20/2017 & 1	/07/2019		API# (if applicable)		
				1			1
Unit Letter	Section	Township	Range		County		
G	14	20S	36E		Lea		
Surface Owner: State Federal Tribal X Private (Name: Jimmie Cooper)		
			Nature and	l Volu	ume of F	Release	
		(s) Released (Select all	that apply and attach	calculation	ons or specific	justification for the	volumes provided below)
Crude Oil Volume Released (bbls)				Volume Recovered (bbls)			
X Produced Water Volume Released (bbls) 34.06 bbls &332			bbls	Volume Recovered (bbls)0 bbls & 300 bbls			
Is the concentration of total dissolved solid in the produced water >10,000 mg/l?			ids (TDS)	Yes X N			
Condensate Volume Released (bbls)			Volume Recovered (bbls)				
Natural G	tural Gas Volume Released (Mcf)			Volume Recovered (Mcf)			
Other (de	scribe)	ribe) Volume/Weight Released (provide units)		Volume/Weig	tht Recovered (provide units)		

Cause of Release

The first release (1RP-4823) occurred due to the rupture of a north to south trending flowline. The second release (1RP-5340) occurred during remediation of the first release when a backhoe operator struck the east to west trending flowline.

Received by OCD: 9/23/2024 7:46:01 AM Form C-141 State of New Mexico Page 2 Oil Conservation Division

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Incident ID	
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	<u> </u>	
Was this a major	If YES, for what reason(s) does the respon	sible party consider this a major release?
release as defined by	The releases were greater than 25 bbls of	liquid.
19.15.29.7(A) NMAC?		
V V D M		
X Yes No		
If VES was immediate n	Lotice given to the OCD? By whom? To wh	nom? When and by what means (phone, email, etc)?
	·	•
	·	-4832 on the same day of the release. An email notice was given to
Christina Hernandez and	Jim Griswold by Shelby Pennington for 1R	.P-5340 the day following the release.
	Initial Ro	esponse
The responsible	party must undertake the following actions immediatel	y unless they could create a safety hazard that would result in injury
The responsible		, and a result of care a sujety rational man result in a sujety
X The source of the rele	ease has been stopped.	
X The impacted area ha	s been secured to protect human health and	the environment.
X Released materials ha	ave been contained via the use of berms or d	likes, absorbent pads, or other containment devices.
X All free liquids and re	ecoverable materials have been removed and	d managed appropriately.
	d above have <u>not</u> been undertaken, explain v	
if all the actions described	1 above have <u>not</u> been undertaken, explain v	viiy.
Per 19 15 29 8 R (4) NM	AC the responsible party may commence r	emediation immediately after discovery of a release. If remediation
		efforts have been successfully completed or if the release occurred
within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.		
		best of my knowledge and understand that pursuant to OCD rules and
		fications and perform corrective actions for releases which may endanger
public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In		
addition, OCD 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.		
Chalby Day	nninatan	Environmental Coordinator
Printed Name: Shelby Per	inington	Title: Environmental Coordinator
Simular Shelh	y Pennington	D-4 7/2/2010
Signature:	y restriction for the	Date: <u>7/3/2019</u>
email: Shelby_Penningto	on@xtoenergy.com	Telephone: 281-723-9353
		1
OCD Only		
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Received by:		Date:
•		

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Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	35_ (ft bgs)	
Did this release impact groundwater or surface water?	X Yes No	
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	Yes X No	
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	Yes X No	
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	Yes X No	
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	Yes X No	
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	Yes X No	
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	Yes X No	
Are the lateral extents of the release within 300 feet of a wetland?	Yes X No	
Are the lateral extents of the release overlying a subsurface mine?	Yes X No	
Are the lateral extents of the release overlying an unstable area such as karst geology?	Yes X No	
Are the lateral extents of the release within a 100-year floodplain?	Yes X No	
Did the release impact areas not on an exploration, development, production, or storage site?	Yes X 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.

Characterization Report Checklist: Each of the following items must be included in the report.

- X Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- X Field data
- X Data table of soil contaminant concentration data
- X Depth to water determination
- X Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- X Boring or excavation logs
- X Photographs including date and GIS information
- X Topographic/Aerial maps
- X 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.

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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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.			
Printed Name: Shelby Pennington	Title: Environmental Coordinator		
Signature: Shelby Pennington	Date: 7/3/2019		
email: Shelby_Pennington@xtoenergy.com	Telephone: 281-723-9353		
OCD Only			
Received by:	Date:		

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and

REVIEWED

By Mike Buchanan at 11:23 am, Oct 01, 2024

Soil remediation portion has been approved for closure as installation of a 20' mil liner and confirmation samples collected every 50' have been completed and previously approved by the OCD. Additionally, groundwater has been confirmed to be impacted by the pipeline release as demonstrated by lab analyses from TMW1 and TMW2. As a result of this, please proceed to furnish a stage 1 abatement plan as XTO Energy has partially proposed in section 4.2 Monitoring Wells. This proposal is required to follow the provisions under section 19.15.30.13 NMAC ABATEMENT PLAN PROPOSAL. XTO Energy has sixty (60) days from this approval date (10.01.2024) to submit a stage 1 abatement plan to fully characterize the release and impact to groundwater for this incident. Lastly, please upload the stage 1 abatement plan for both incident numbers, [nOY1727250040] [nCH1903648978]

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Remediation Plan

Remediation Plan Checklist: Each of the following items must be	e included in the plan.									
Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)										
Deferral Requests Only: Each of the following items must be con	firmed as part of any request for deferral of remediation.									
	oduction equipment where remediation could cause a major facility									
Extents of contamination must be fully delineated.										
Contamination does not cause an imminent risk to human health	, the environment, or groundwater.									
I hereby certify that the information given above is true and complet rules and regulations all operators are required to report and/or file complete which may endanger public health or the environment. The acceptational liability should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD are sponsibility for compliance with any other federal, state, or local limits and the state of the st	ertain release notifications and perform corrective actions for releases nce of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of									
Printed Name: Shelby Pennington	Title: Environmental Coordinator									
Signature: Shelby Pennington	Date: 7/3/2019									
email: Shelby_Pennington@xtoenergy.com	Telephone: 281-723-9353									
OCD Only										
Received by:	Date:									
Approved	Approval									
Signature:	Date:									

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X A scaled site and sampling diagram as described in 19.15.29.11 NMAC

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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.

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

X Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office
X Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)
X Description of remediation activities	
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rehuman health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regularestore, reclaim, and re-vegetate the impacted surface area to the coaccordance with 19.15.29.13 NMAC including notification with 19.15.29.13 NMAC including notif	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.
Printed Name: Shelby Pennington	Title: _Environmental Coordinator
Signature: Shelby Pennington	Date: 7/3/2019
email: Shelby_Pennington@xtoenergy.com	Telephone: 281-723-9353
OCD Only	
Received by:	Date:
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.
Closure Approved by:	Date:
Printed Name:	Title:

1RP-4832 and 1RP-5340 CLOSURE REPORT EMSU B Satellite 13 Trunk Line Leak Lea County, New Mexico

Latitude: 32° 34′ 32.79″ Longitude: 103° 19′ 19.06″

LAI Project No. 17-0193-01

July 1, 2019

Prepared for: XTO Energy, Inc. 6401 Holiday Hill Road, Building 5 Midland, Texas 79707

Prepared by: Larson & Associates, Inc. 507 North Marienfeld Street, Suite 205 Midland, Texas 79701

Mark J. Larson, P.G.
Certified Professional Geoscientist #10490

Rachel Owen Sr. Geoscientist This Page Intentionally Left Blank

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Appendices

Appendix A Initial C-141

Appendix B Regulatory Communications

Appendix C Laboratory Reports

Appendix D Boring Logs
Appendix E Photographs
Appendix F OSE Well Permit
Appendix G Waste Manifests

1.0 INTRODUCTION

Larson & Associates, Inc., (LAI) has prepared this closure report on behalf of XTO Energy, Inc. (XTO) for submittal to the New Mexico Oil Conservation Division (OCD) District 1 for two (2) produced water spills from two (2) fiberglass trunk lines near the Eunice Monument South Unit (EMSU) B Satellite #13 (Site) located in Unit G (SW/4, NE/4), Section 14, Township 20 South, Range 37 East in Lea County, New Mexico. The geodetic position is North 32° 34′ 32.79″ and West 103° 19′ 19.06″. Figure 1 presents a topographic map. Figure 2 presents an aerial map.

1.1 Background

The first spill occurred on September 20, 2017, due to rupture in a north to south trending trunk line releasing approximately 34.06 barrels (bbl) of produced water with 0 bbl recovered. The release covered an area estimated at approximately 10 x 45 feet or about 450 square feet. Soil was excavated to approximately four (4) feet below ground surface (bgs) to repair the pipe. The second spill occurred during remediation of the first spill when an east to west trending 3 inch diameter fiberglass trunk line was struck with the excavator bucket causing approximately 332 bbl of produced water to flow into the completed excavation from the first spill. Approximately 300 bbl of produced water from the second spill was recovered. The surface owner is Jimmie T. Cooper. The mineral owner is the United States of America (US) administered by the Department of the Interior Bureau of Land Management (BLM).

On September 28, 2017, XTO submitted the C-141 for the first spill to OCD District 1 which assigned the release remediation permit number 1RP-4832. On January 9, 2019, XTO submitted the C-141 for the second spill to OCD District 1, which assigned remediation permit number 1RP-5340. Appendix A presents both C-141s. Appendix B presents regulatory communications.

1.2 Physical Setting

The physical setting is as follows:

- The surface elevation is approximately 3,558 feet above mean sea level (MSL);
- The topography slopes towards the east and southeast;
- There are no surface water features within 1,000 feet of the Site;
- The soils are designated as "Wink fine sand", consisting of approximately 12 inches of fine sand underlain by about 12 inches of sandy loam to approximately 60 inches derived from sedimentary rock;
- The upper geological unit is the Tertiary-age Blackwater Draw and Ogallala formations, in descending order, comprised of very fine to medium-grained quartz sand and gravel, with minor amount of silt and clay with indistinct to massive cross beds;
- The Ogallala formation is underlain by clay, silty clay, shale and sandstone of the Chinle formation (Triassic) and is about 300 feet thick;
- According to records from the U.S. Geological Survey (U.S.G.S.) and State of New Mexico Office
 of the State Engineer (OSE) the nearest fresh water well is located in Unit G (SW/4, NE/4),
 Section 14, Township 20 South, Range 36 East or about 410 feet southwest from the Site;
- Groundwater occurs at approximately 35 feet bgs.

1.3 Remediation Levels

The following remediation levels are based on closure criteria for soils impacted by a release as presented in Table 1 (19.15.29 NMAC):

Benzene 10 mg/Kg

BTEX 50 mg/Kg
 TPH 100 mg/Kg
 Chloride 600 mg/Kg

2.0 DELINEATION

On December 8 and 11, 2017, LAI personnel used a stainless steel hand auger to collect soil samples from the bottom of the excavation for repairing the pipe (HA-1) to approximately 9 feet bgs and sidewalls at approximately 2 feet bgs. Direct push technology (DPT) was used to collect soil samples at six (6) locations (DP-1 through DP-6) surrounding HA-1 between approximately 3 feet (DP-1) and 12 feet (DP-2) bgs. Permian Basin Environmental Lab (PBEL) analyzed the excavation (HA-1) samples for total petroleum hydrocarbons (TPH), including gasoline range organics (C6 – C12), diesel range organics (>C12 – C28) and oil range organics (>C28 – C35) by EPA SW-846 Method 8015 and chloride by EPA Method 300. The DPT (0 to 1 foot) samples were analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA SW-846 Method 8021B, TPH and chloride.

On April 6 and 24, 2018, Scarborough Drilling Inc. (SDI), under supervision from LAI, used an air rotary rig and jam tube sampler to collect additional soil samples for chloride delineation at HA-1, DP-2, DP-5, DP-6, DP-7 and DP-9 through DP-13. Soil samples were collected every five (5) feet to total depth between approximately 25 feet (DP-2, DP-5 and DP-6) and 35 feet (DP-7, DP-9, and DP-10 through DP-13). PBEL analyzed the samples for chloride by EPA Method 300.

Benzene and BTEX were below the analytical method reporting limits. TPH was reported above the remediation level (100 mg/) in the bottom and sidewall samples from the excavation. Chloride exceeded the delineation limit (600 mg/kg) in the deepest samples at the following locations:

Boring	Depth	Chloride (mg/Kg)
HA-1	35	1,170
DP-2	25	735
DP-5	25	985
DP-6	25	685
DP-7	35	1,150
DP-11	35	1,770
DP-12	35	2,120

Table 1 presents the delineation soil sample analytical data summary. Appendix C presents the laboratory reports. Appendix D presents the boring logs.

On July 13, 2018, LAI, on behalf of XTO, submitted a delineation report and proposed remediation plan to OCD District 1. OCD District 1 approved the remediation plan on July 23, 2018, with the following comments and conditions:

- Please use different colors within a single map to facilitate interpretation and approval.
- Please clarify location of the 4' extended excavation relative to the other excavations as it is unclear. Will it be 10 ft north of the current excavation or 10 ft north of the proposed 12' extended excavation?

 Areas that show historic releases (DP-2, DP-6, DP-7, DP-9, DP-10, DP-11, DP-12, DP-13) must be remediated as well due to high mobility of chlorides.

Delineation completed and proposed remediation is approved with the following stipulations:

- Please note that both proposed monitoring wells are required, one up gradient and one down gradient from spill release location as noted. (Mr. Brad Billings, NMOCD Santa Fe, may have additional stipulations).
- Please be advised that all laboratory analyses (Benzene, BTEX, and TPH extended) are required for proposed 12' and 4' extended excavation confirmation bottom and sidewall sample locations; complete laboratory analyses will also be required for groundwater testing.
- Please address historical releases; please be advised to excavate to 4' at these (DP-2, DP-6, DP-7, DP-9, DP-10, DP-11, DP-12, DP-13) locations and collect sidewall samples as well.
- After proper placement of 20 mil liner and back filling, sample every 50 cubic yards.

BLM approved the delineation report and remediation plan on September 19, 2018. Appendix B presents regulatory communications.

3.0 REMEDIATION

3.1 Monitoring Wells and Groundwater Samples

On December 28, 2018, SDI, under supervision from LAI, used an air rotary rig and 5 inch bit to drill two (2) borings northwest (TMW-1) and southeast (TMW-2) of the release. The borings were drilled to 47.64 feet bgs (TMW-1) and 47.67 feet bgs (TMW-2) and completed with 2 inch schedule 40 threaded PVC and twenty (20) feet of well screen positioned between about 27 and 47 feet bgs. The well screens were surrounded with graded silica sand to about 3 feet above the screens. The remainder of the annulus above the sand and between the well and boring was filled with bentonite chips to about 2 feet bgs and hydrated with potable water. A locking steel cover was placed over the casing stickup measured at about 2.96 feet (TMW-1) and 2.98 feet (TMW-2) and anchored in concrete. Groundwater was gauged at approximately 36.55 and 37.00 feet bgs at the time of well completion and stabilized at 36.54 feet bgs (TMW-1) and 37.02 feet bgs (TMW-2), on January 2, 2019. Table 2 presents the monitoring well completion and gauging summary. Figure 4 presents an aerial drawing showing locations for TMW-1 and TMW-2. Appendix D presents the boring logs and well completion records. Appendix F presents the OSE well permit.

On January 2, 2019, LAI personnel developed the wells by pumping with an electric submersible pump. The pump was thoroughly decontaminated between wells by cleaning with a solution of potable water and laboratory-grade detergent (Alconox0®) and rinsed with distilled water. Polyethylene used for discharging groundwater was discarded between wells. Groundwater samples were collected with dedicated polyethylene bailers and carefully poured into laboratory containers that were sealed, labeled and submitted under preservation and chain of custody to DHL Analytical, a National Environmental Laboratory Accreditation Programs (NELAP) accredited laboratory located in Round Rock, Texas. DHL analyzed the samples for BTEX and chloride by EPA SW-846 Method 8021B and Method 300, respectively. BTEX was not reported above the analytical method reporting limits. Chloride was

reported at 637 milligrams per liter (mg/L) in well TMW-1 (up gradient) and 4,260 mg/L in well TMW-2 (down gradient). The chloride concentrations exceed the New Mexico Water Quality Control Commission (NMWQCC) domestic water quality standard (250 mg/L). Table 3 presents the groundwater analytical data summary. Appendix C presents laboratory report.

3.2 Soil Remediation

3.2.1 Initial Spill (1RP-4832) Remediation

On November 16, 2018, SDR Enterprises LLC (SDR), under supervision from LAI, excavated soil from the area encompassing HA-1 to approximately 10 feet bgs over an area measuring approximately 536 square feet. Between November 30, 2018 and December 3, 2018, the excavation was expanded to approximately 5,454 based on laboratory analysis of sidewall and bottom confirmation samples (S-1 through S-19). The excavation in the area of HA-1 was approximately 10 feet deep with the remaining excavation approximately 4 feet deep. Table 2 presents the confirmation sample analytical data summary. Figure 5 presents the excavation and confirmation sample locations. Appendix C presents the laboratory reports.

Soil was excavated around borings DP-2, DP-6, DP-7, DP-9, DP-10, DP-11, DP-12 and DP-13 for approximately 100 square feet around to the depth of 4 feet bgs. Sidewall confirmation samples were collected at approximately 2 feet bgs from each excavation and were analyzed for BTEX, TPH and chloride. Benzene, BTEX and TPH were no reported in the samples above the analytical method reporting limits. Chloride concentrations reported below OCD closure criteria of 600 mg/Kg, as presented in Table 1 (19.15.29 NMAC) in all samples. A 20 mil polyethylene liner was placed in the bottom of each excavation (DP-2, DP-6, DP-7, DP-9, DP-10, DP-11, DP-12 and DP-13) and covered with topsoil to ground surface and seeded according to surface owner (Jimmie Cooper) instructions. Table 2 presents the confirmation sample analytical data summary. Figure 5 presents the excavation and confirmation sample locations. Appendix C presents the laboratory reports.

On January 7, 2019, while expanding the main excavation (HA-1) west between sample locations S-13 and S-14, a 3 inch fiberglass trunk line thought to run from east to west turned northwest and was struck with the excavator bucket causing the second spill to occur. The second spill flowed east onto the surface of the 4-foot deep excavation and into the deeper excavation between about 6 and 12 feet deep. XTO requested a vacuum truck to recover approximately 300 bbl of the estimated 332 bbl spilled and visually contaminated soil was scraped from the surface of the 4-foot excavation. On January 11, 2019, XTO and LAI personnel met with OCD District 1 Environmental Specialist, Christina Hernandez, to discuss remediation of the initial spill and the resulting spill that occurred from the line strike. OCD agreed that no further remediation was necessary for the initial release but remediation was necessary for the second release on January 7, 2019. On January 28, 2019, the C-141 for the second spill was submitted to OCD District 1.

3.2.2 Second Spill (1RP-5340) Remediation

Due to confined space safety concerns and limited access it was decided to utilize vacuum extraction to remediate the oil and produced water impacted soil in the bottom of the deep excavation between approximately 6 and 12 feet bgs. On January 22 and 23, 1019, Oilfield Safety and Environmental Services (OFSES) was contracted to use an extended suction line and high vacuum to extract the oil and produced water impacted soil from the bottom of the deep excavation however this approached was abandoned due to additional safety concerns and equipment limitations.

On March 4 and 8, 2019, LAI personnel used stainless steels hand augers to collect soil samples from the bottom of the 4 foot excavation (S-1 through S-6) and deep excavation between approximately 6 and 12 feet (S-7 through S-14) to delineate the vertical extent of benzene, BTEX, TPH and chloride impact from the second release. PBEL analyzed the samples and reported benzene and BTEX below the OCD remediation levels in Table 1 (19.15.29 NMAC). TPH exceeded the remediation level (100 mg/Kg) in samples S-2 from the 4 foot deep excavation (455.3 mg/Kg) and ranged from 275 mg/Kg in sample S-14, 10 feet to 24,690 mg/Kg in sample S-12, 11 feet. TPH was delineated vertically to less than 100 mg/Kg. Chloride in the deepest samples from S-7 through S-14 ranged from 477 mg/Kg in sample S-13, 11 feet to 2,470 mg/Kg in sample S-12, 13 feet. Table 4a presents the delineation sample analytical data summary for the second release. Figure 6 presents the soil sample locations. Appendix C presents the laboratory reports.

On May 6, 2019, XTO shut-in the field for automation upgrades and removed the segment of 4 inch fiberglass line where the initial release occurred to allow access to safely complete the remediation. Between May 7 and 17, 2019, SDR, under supervision from LAI, excavated soil to about 6.5 feet bgs from the area of sample S-2, in the bottom and sides of the 4 foot deep excavation. Soil was excavated from the deep excavation between about 11 feet bgs (S-13 and S-14) to about 18 feet bgs (S-9 and S-11). Confirmation samples were collected from the bottom and sidewalls and were analyzed for BTEX, TPH and chloride. All bottom and sidewall samples confirm BTEX and TPH were remediated below the OCD closure criteria in Table 1 (19.15.29 NMAC). Chloride in the bottom samples ranged from 274 mg/Kg (S-12, 14 feet) to 2,650 mg/Kg (S-6, 4 feet). The highest chloride concentration reported in the sidewall samples was 3,450 mg/Kg from the south side at S-14, 5.5 feet bgs. Table 4a presents the confirmation sample analytical data summary for the second release. Figure 7 presents the excavation and soil sample locations. Appendix C presents the laboratory reports.

The deep excavation was backfilled to approximately 4 feet bgs with caliche acquired from the surface owner. On May 17, 2019, Akome Inc. installed a 20 mil thickness liner in the bottom of the 4 foot excavation measuring approximately 8,400 square feet. The liner was placed beneath the new segment of 4 inch fiberglass line and a 10 inch steel cement lined injection line. The lines were covered with clean sand prior to covering with caliche to approximately 1.5 feet bgs. The remainder of the excavation was filled with topsoil acquired from the surface owner. The Site will be seeded to the landowner's requirements. Approximately 1,636 cubic yards of caliche and 996 cubic yards of topsoil were used to fill the excavation. Table 5 presents the chloride analytical data summary for the backfill samples. Approximately 1,956 cubic yards of contaminated soil was disposed at Sundance Disposal located east of Eunice, New Mexico. Appendix G presents the waste manifests.

3.0 CLOSURE

XTO requests no further actions for soil remediation associated with 1RP-4832 and 1RP-5340.

4.0 GROUNDWTER ASSESSMENT

XTO proposes the following for assessing the groundwater impact.

4.1 EM-34 Conductivity Survey

An electromagnetic (EM) terrain conductivity survey will be performed to qualitatively assess the extent of groundwater impacted from chloride. The survey will be performed using an EM-34 terrain conductivity meter manufactured by Geonics Ltd., Mississauga, Ontario, Canada. The EM-34 detects

elevated conductivity in soil and groundwater relative to background which corresponds to elevated chloride in soil and groundwater. The depth of exploration is determined by the spatial separation between the transmitter and receiver coils and the orientation of the coils (i.e., horizontal (HD) or vertical dipole (VD)). The EM-34 has maximum depth of exploration capabilities of 0 to 24.6 feet bgs (HD) and 0 to 49.2 feet bgs (VD) with the 10-meter coil separation. The maximum response of the EM-34 in the HD mode occurs near the surface and decreases with depth. The maximum response of the EM-34 in the VD mode occurs at a depth equal to approximately 75 percent of the exploration depth or about 36.9 feet bgs in the 10 meter coil separation and is suited for detecting elevated chloride in groundwater at the Site. The results of the EM-34 survey will be used for selecting locations for installing down gradient monitoring wells.

4.2 Monitoring Wells

Locations for additional monitoring wells will be based on the results of the EM-34 terrain conductivity survey. Approximately 4 to 6 locations may be selected for installing monitoring wells to delineate the release. An application will be filed with the OSE to obtain a permit to install the wells. The wells will be drilled between about 45 and 50 feet bgs and completed with 2 inch schedule 40 PVC threaded casing and about 20 feet of factory slotted screen. The well screen will be placed above and below the groundwater level observed during drilling. The well screen will be surrounded with graded silica sand compatible with the screen slot size. The sand will be placed around the screen to a depth about 2 feet above the screen. The annulus above the sand to ground surface will be filled with bentonite chips and hydrated with potable water. The well will be secured with a locking cap. A State of New Mexico licensed driller will drill the wells with a truck mounted air rotary rig or equivalent rig. A State of New Mexico licensed professional land surveyor will survey the wells for location and elevation including top of casing and groundwater elevation referenced to the nearest USGS datum. Drill cuttings will be placed on the ground adjacent to the borings.

4.3 Groundwater Samples

The well will be developed by pumping with an electric submersible pump until groundwater is visibly clear of suspended solids. The purged water will be contained in a 55 gallon drum or in a portable tank and disposed in an OCD permitted disposal well. Groundwater samples will be collected following well development and analyzed by a NELAP certified laboratory for BTEX and chloride.

4.4 Hydraulic Conductivity (Slug) Testing

The wells will be tested for in-situ horizontal hydraulic conductivity by slug test method to assist with developing a groundwater remediation plan.

4.5 Report and Remediation Plan

A comprehensive report will be prepared with recommendation for remediation. The report will include maps showing the EM-34 survey results, monitoring well locations, boring logs, well completion diagrams, discussions of the plume boundaries, contaminant concentrations and recommendation for remediation.

Figures

Table 1 1RP-4832 and 1RP-5340

Delineation Soil Sample Analytical Data Summary EMSU B Satellite 13 Trunk Line XTO Energy, Inc.

Sample	Depth	Collection	Benzene	BTEX	C6 - C12	C12 - C28	C28 - C35	TPH	Chloride	
- Cap.i.c	(Feet)	Date	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	
RRAL	, ,		10	50	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	(0, 0,	100	600	
Excavation Soil Samples										
HA-1	4 - 5	12/11/2017			<29.4	66.1	<29.4	66.1	397	
117. 1	5 - 6	12/11/2017			<27.8	<27.8	<27.8	<27.8	366	
	6 - 7	12/11/2017			<27.2	637	132	769	633	
	7 - 8	12/11/2017			36.0	1,150	233	1,409	786	
	8 - 9	12/11/2017			<26.3	217	58.8	275.8	777	
	10	04/24/2018							551	
	15	04/24/2018							926	
	20	04/24/2018							1070	
	25	04/24/2018							469	
	30	04/24/2018							859	
	35	04/24/2018							1,170	
SW-N	2	12/11/2017			<25.5	627	212	839	1,480	
SW-S	2	12/11/2017			<26.0	134	40.6	174.6	1,480	
CVA/ F	2	42/44/2047			.20.7	.20.7	.20.7	.20.7	4.500	
SW-E	2	12/11/2017			<28.7	<28.7	<28.7	<28.7	1,590	
SW-W	2	12/11/2017			<25.8	105	91.7	196	1,010	
300-00	2	12/11/2017			\23.6	103	91.7	190	1,010	
				Diect Push	Soil Sample	es				
DP-1	0 - 1	[12/08/2017	<0.00109	<0.00761	<27.2	<27.2	<27.2	<27.2	<1.09	
	1 - 2	12/08/2017			<28.7	<28.7	<28.7	<28.7	<1.15	
	2 - 3	12/08/2017			<28.1	<28.1	<28.1	<28.1	<1.12	
DP-2	0 - 1	12/08/2017	<0.00105	<0.00737	<26.3	<26.3	<26.3	<26.3	<1.05	
	1 - 2	12/08/2017			<28.4	<28.4	<28.4	<28.4	<1.14	
	2 - 3	12/08/2017			<28.7	<28.7	<28.7	<28.7	<1.15	
	3 - 4	12/08/2017			<28.4	<28.4	<28.4	<28.4	74.1	
	4 - 6	12/08/2017			<26.0	<26.0	<26.0	<26.0	114	
	6 - 8	12/08/2017			<26.3	<26.3	<26.3	<26.3	375	
	8 - 10	12/08/2017			<26.9	<26.9	<26.9	<26.9	573	
	10 - 12	12/08/2017			<28.7	<28.7	<28.7	<28.7	789	
	15	04/06/2018							551	
	20	04/06/2018							997	
	25	04/06/2018							735	
	0 1	42/00/2017	.0.00444	.0.00454	.20.4	.22.4	.20.4	.22.4	40.0	
DP-3	0 - 1	12/08/2017		<0.00454	<28.4	<28.4	<28.4	<28.4	48.2	
	1 - 2	12/08/2017			<27.2	<27.2	<27.2	<27.2	54.1	
	2 - 3	12/08/2017			<28.1	<28.1	<28.1	<28.1	6.47	
	3 - 4	12/08/2017			<27.8	<27.8	<27.8	<27.8	4.00	
I	4 - 6	12/08/2017			<27.8	<27.8	<27.8	<27.8	58.1	

Table 1 1RP-4832 and 1RP-5340

Delineation Soil Sample Analytical Data Summary EMSU B Satellite 13 Trunk Line XTO Energy, Inc.

Sample	Depth	Collection	Benzene	BTEX	C6 - C12	C12 - C28	C28 - C35	TPH	Chloride
	(Feet)	Date	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
RRAL	, ,		10	50	, 0. 0,	· 0. 0.	(0. 0,	100	600
DP-4	0 - 1	12/08/2017	<0.00106	<0.00744	<26.6	<26.6	<26.6	<26.6	19.0
	1 - 2	12/08/2017			<26.0	<26.0	<26.0	<26.0	2.11
	2 - 3	12/08/2017			<26.9	<26.9	<26.9	<26.9	41.2
	3 - 4	12/08/2017			<27.8	<27.8	<27.8	<27.8	84.9
DP-5	0 - 1	12/08/2017	<0.00105	<0.00737	<26.3	69.5	<26.3	69.5	172
	1 - 2	12/08/2017			<26.6	<26.6	<26.6	<26.6	444
	2 - 3	12/08/2017			<28.7	<28.7	<28.7	<28.7	1,450
	3 - 4	12/08/2017			<29.1	<29.1	<29.1	<29.1	1,510
	5	04/06/2018							1,510
	10	04/06/2018							923
	15	04/06/2018							970
	20	04/06/2018							813
	25	04/06/2018							985
DD 6	0.4	12/02/2017	0.00404	0.00700	26.0	26.0	26.0	26.0	00.4
DP-6	0 - 1	12/08/2017	<0.00104	<0.00728	<26.0	<26.0	<26.0	<26.0	98.1
	1 - 2	12/08/2017			<25.8	<25.8	<25.8	<25.8	27.9
	2 - 3 3 - 4	12/08/2017			<27.8	<27.8	<27.8	<27.8	108
	3 - 4 5	12/08/2017 04/06/2018			<27.8	<27.8	<27.8	<27.8	562
	10	11/16/2018							11.1 703
	15	04/06/2018							102
	20	04/06/2018							6.34
	25	04/06/2018							685
		0 1,00,2010							003
DP-7	0 - 1	12/11/2017	<0.00105	<0.00737	<26.3	<26.3	<26.3	<26.3	<1.05
	1 - 2	12/11/2017			<28.1	<28.1	<28.1	<28.1	138
	2 - 3	12/11/2017			<30.1	<30.1	<30.1	<30.1	440
	3 - 4	12/11/2017			<29.4	<29.4	<29.4	<29.4	162
	4 - 6	12/11/2017			<30.9	<30.9	<30.9	<30.9	18.2
	6 - 8	12/11/2017			<28.4	<28.4	<28.4	<28.4	485
	8 - 10	12/11/2017			<28.1	<28.1	<28.1	<28.1	799
	10 - 12	12/11/2017			<29.1	<29.1	<29.1	<29.1	1,140
	15	04/24/2018							942
	20	04/24/2018							1,470
	25	04/24/2018							967
	30	04/24/2018							1,970
	35	04/24/2018							1,150
DP-8	0 - 1	12/11/2017	<0.00102	<0.00714	<25.5	<25.5	<25.5	<25.5	<1.02
	1 - 2	12/11/2017			<25.5	<25.5	<25.5	<25.5	<1.02
	2 - 3	12/11/2017			<27.2	<27.2	<27.2	<27.2	5.38

Table 1 1RP-4832 and 1RP-5340

Delineation Soil Sample Analytical Data Summary EMSU B Satellite 13 Trunk Line XTO Energy, Inc.

Sample	Depth	Collection	Benzene	BTEX	C6 - C12	C12 - C28	C28 - C35	TPH	Chloride
•	(Feet)	Date	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
RRAL			10	50			, 0. 0,	100	600
	3 - 4	12/11/2017			<28.4	<28.4	<28.4	<28.4	9.47
DP-9	0	04/24/2018							9.12
	5	04/24/2018							<1.08
	10	04/24/2018							69.8
	15	04/24/2018							157
	20	04/24/2018							174
	25	04/24/2018							436
	30 25	04/24/2018							404
	35	04/24/2018							171
DP-10	0	04/24/2018							44.3
	5	04/24/2018							6.11
	10	04/24/2018							855
	15	04/24/2018							464
	20	04/24/2018							907
	25	04/24/2018							730
	30	04/24/2018							707
	35	04/24/2018							149
DP-11	0	04/24/2018							5.16
	5	04/24/2018							70.4
	10	04/24/2018							703
	15	04/24/2018							754
	20	04/24/2018							1,290
	25	04/24/2018							784
	30	04/24/2018							457
	35	04/24/2018							1,770
DP-12	0	04/24/2018							8.86
Dr-12	5	04/24/2018							3.4
	10	04/24/2018							255
	15	04/24/2018							1,040
	20	04/24/2018							872
	25	04/24/2018							1,110
	30	04/24/2018							1,460
	35	04/24/2018							2,120
		, , ====							
DP-13	0	04/24/2018							23.9
	5	04/24/2018							451
	10	04/24/2018							275
	15	04/24/2018							327
I	20	04/24/2018							513

Table 1

1RP-4832 and 1RP-5340

Delineation Soil Sample Analytical Data Summary EMSU B Satellite 13 Trunk Line XTO Energy, Inc.

Sample	Depth	Collection	Benzene	BTEX	C6 - C12	C12 - C28	C28 - C35	TPH	Chloride
	(Feet)	Date	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
RRAL			10	50				100	600
	25	04/24/2018							863
	30	04/24/2018							2,500
	35	04/24/2018							290

Notes: Laboratory analysis performed by Permian Basin Environmental Lab, Midland, Texas by EPA SW-846 Method 8015M (TPH) and

Method 300 (chloride)

Depth in feet below ground surface (bgs)

mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

Denotes concentration exceeds RRAL (100 mg/Kg)

Denotes concentration exceeds OCD delineation level (250 mg/Kg)

^{*:} OCD delineation level

Table 2 1RP-4832

Monitoring Well Completion and Gauging Summary XTO Energy, Inc., EMSU B Satelite #13 Trunk Line Lea County, New Mexico N32° 34′ 32.79″ W103° 19′ 19.06″

	Well Information								
Well ID	Date Drilled	Drilled Depth (feet bgs)	Well Depth (feet TOC)	Well Diameter (inches)	Screen Interval (feet bgs)	Casing Stickup (feet)	Date	Depth to Water (TOC)	Depth to Water (bgs)
TMW-1	12/28/2018	47.64	50.60	2	27.46 - 47.14	2.96	12/28/2018 01/02/2019	39.51 39.50	36.55 36.54
TMW-2	12/28/2018	47.67	50.65	2	27.44 - 47.17	2.98	12/28/2018 01/02/2019	39.98 40.00	37.00 37.02

Notes: well drilled and completed by Scarborough Drilling, Inc., Lamesa, Texas, and using constructed with 2-inch threaded schedule 40 PVC casing and screen All values are in feet, unless otherwise noted.

bgs - below ground surface

TOC - top of casing

Table 3 1RP-4832 and 1RP-5340

Groundwater Sample Organic and Inorganic Analytical data Summary EMSU B Satelite #13 Trunk Line Leak, XTO Energy, Inc.

Lea County, New Mexico

Sample ID	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Chloride
NMWQCC Lin	nit:	0.01	0.75	0.75	0.62	250
TMW-1	01/02/2019	<0.0008	<0.002	<0.002	<0.002	637
TMW-2	01/02/2019	<0.0008	<0.002	<0.002	<0.002	4,260

Notes: analysis performed by DHL Analytical, Round Rock, Texas by EPA SW-846 Mwthod 8021B (BTEX) and Method 300 (chloride)

All values reported in milligrams perlLiter - (mg/L) equivelent to parts per million (ppm).

Bold and highlighted denotes analyte reported at concentration above NMWQCC domestic water quality lin

Table 4 1RP-4832

Remediation Confirmation Soil Sample Analytical Data Summary

XTO Energy, Inc., EMSU Satellite #13 Produced Water Spill

Latitude: 32.575775° Longitude: -103.321961°

Lea County, New Mexico

Page 1 of 4

Locatior	Sample	Location	Depth	Collection	Status	Benzene	BTEX	C6 - C12	C12 - C28	C28 - C35	TPH	Chloride
			(Feet)	Date		(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Remedi	Remediation Limit: 10 50										100	600
	Excavation Samples											
HA-1	S-1	North (side)	6	11/30/2018	Excavated			<27.8	30.8	<27.8	30.8	1,020
		North (side)	6	12/05/2018	Excavated	<0.00110	< 0.05	<27.5	<27.5	<27.5	<27.5	890
		North (side)	6	12/13/2018	Excavated	<0.00105	<0.5	477	509	<26.3	986	892
					Re	efer to Table	2A					
		North (side)	10	12/05/2018	Excavated	< 0.00109	<0.03803	<27.2	<27.2	<27.2	<27.2	660
		North (side)	10	12/13/2018	Excavated	<0.00110	<0.03803	<27.5	<27.5	<27.5	<27.5	821
					Re	fer to Table	2A					
	S-2	East (side)	6	11/30/2018	In-Situ			<28.4	<28.4	<28.4	<28.4	526
		East (side)	10	12/05/2018	In-Situ	<0.00112	< 0.05164	<28.1	56.0	<28.1	56.0	344
	S-3	South (side)	6	11/30/2018	Excavated			30.0	754	140	924	111
		South (side)	6	12/05/2018	In-Situ	<0.00108	<0.04956	<26.9	38.5	<26.9	38.5	119
		South (side)	10	12/05/2018	In-Situ	<0.00106	<0.04888	<26.6	<26.6	<26.6	<26.6	96.1
	S-4	West (side)	6	11/30/2018	Excavated			<27.5	38.8	<27.5	38.8	40.1
		West (side)	10	12/05/2018	Excavated	<0.0211	<0.9681	<26.3	937	176	1,113	464
		West (side)	10	12/13/2018	In-Situ	<0.00111	<0.9681	<27.8	36.30	<27.8	36.30	1,110
	S-5	Northwest (side)	2	11/30/2018	Excavated			<26.3	<26.3	<26.3	<26.3	1,250
		Northwest (side)	2	12/05/2018	In-Situ	<0.00114	<0.05232	<28.4	<28.4	<28.4	<28.4	327
	S-6	Southwest (side)	2	11/30/2018	In-Situ			<25.3	<25.3	<25.3	<25.3	351
	S-7	Southeast (side)	2	12/04/2018	In-Situ	<0.00101	<0.04646	<25.3	<25.3	<25.3	<25.3	40.8
	S-8	Southeast (side)	2	12/04/2018	In-Situ	<0.00101	<0.04646	<25.3	<25.3	<25.3	<25.3	491
	S-9	South (side)	2	12/04/2018	Excavated	<0.00111	<0.05087	<27.8	<27.8	<27.8	<27.8	4,680
				12/13/2018	In-Situ	<0.00111	<0.05087	<27.8	<27.8	<27.8	<27.8	703
	S-10	Southwest (side)	2	12/04/2018	In-Situ	<0.00102	<0.04692	<25.5	<25.5	<25.5	<25.5	33.0
	S-11	Southwest (side)	2	12/04/2018	In-Situ	<0.00103	<0.04738	<25.8	<25.8	<25.8	<25.8	432
	S-12	Southwest (side)	2	12/04/2018	In-Situ	<0.00106	<0.04888	<26.6	<26.6	<26.6	<26.6	5.27
	S-13	West (side)	2	12/04/2018	Excavted	<0.00108	<0.04956	<26.9	<26.9	<26.9	<26.9	761
		West (side)	2	12/13/2018	In-Situ	<0.00110	<0.04956	<27.5	<27.5	<27.5	<27.5	142
	S-14	Northwest (side)	2	12/04/2018	In-Situ	<0.00106	<0.04888	<26.6	<26.6	<26.6	<26.6	<1.06
	S-15	Northwest (side)	2	12/04/2018	In-Situ	<0.00100	<0.046	<25.0	<25.0	<25.0	<25.0	<1.00
	S-16	Northwest (side)	2	12/04/2018	In-Situ	<0.00106	<0.04888	<26.6	<26.6	<26.6	<26.6	<1.06

Table 4 1RP-4832

Remediation Confirmation Soil Sample Analytical Data Summary

XTO Energy, Inc., EMSU Satellite #13 Produced Water Spill

Latitude: 32.575775° Longitude: -103.321961°

Lea County, New Mexico

Page 2 of 4

Locatior	Sample	Location	Depth	Collection	Status	Benzene	BTEX	C6 - C12	C12 - C28	C28 - C35	TPH	Chloride
	•		(Feet)	Date		(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Remedi	ation Lir	nit:				10	50	, ,,	,	,	100	600
	S-17	North (side)	2	12/04/2018	In-Situ	<0.00105	<0.04841	<26.3	<26.3	<26.3	<26.3	30.0
	S-18	Northeast (side)	2	12/04/2018	In-Situ	< 0.00104	<0.04785	<26.0	<26.0	<26.0	<26.0	292
	S-19	Northeast (side)	2	12/04/2018	In-Situ	< 0.00100	< 0.046	<25.0	<25.0	<25.0	<25.0	43.7
	S-20	North (bottom)	12	12/05/2018	In-Situ	< 0.00115	< 0.0069	<28.7	<28.7	<28.7	<28.7	445
	S-21	North (side)	10	1/8/2019	In-Situ	<0.00115	<0.0069	<28.7	<28.7	<28.7	<28.7	445
DP-2	DP-2	North (side)	2	11/16/2018	In-Situ	<0.00110	<0.05	<27.5	<27.5	<27.5	<27.5	1.82
		East (side)	2	11/16/2018	In-Situ	<0.00116	< 0.05347	<291.	<29.1	<29.1	<29.1	1.24
		South (side)	2	11/16/2018	In-Situ	<0.00104	<0.04785	<26.0	<26.0	<26.0	<26.0	4.24
		West (side)	2	11/16/2018	In-Situ	<0.00112	<0.05164	<28.1	<28.1	<28.1	<28.1	5.42
DP-6	DP-6	North (side)	2	11/16/2018	In-Situ	<0.00103	<0.04738	<25.8	<25.8	<25.8	<25.8	15.5
		East (side)	2	11/16/2018	In-Situ	<0.00106	<0.04888	<26.6	<26.6	<26.6	<26.6	125
		South (side)	2	11/16/2018	In-Situ	<0.00106	<0.04888	<26.6	<26.6	<26.6	<26.6	2.61
		West (side)	2	11/16/2018	In-Situ	<0.00105	<0.04841	<26.3	<26.3	<26.3	<26.3	15.1
DP-7	DP-7	North (side)	2	11/16/2018	In-Situ	<0.00114	<0.05232	<28.4	<28.4	<28.4	<28.4	<1.14
		East (side)	2	11/16/2018	In-Situ	<0.00106	<0.04888	<26.6	<26.6	<26.6	<26.6	425
		South (side)	2	11/16/2018	In-Situ	<0.00106	<0.04888	<26.6	<26.6	<26.6	<26.6	<1.06
		West (side)	2	11/16/2018	In-Situ	<0.00106	<0.04888	<26.6	<26.6	<26.6	<26.6	6.03
DP-9	DP-9	North (side)	2	11/16/2018	In-Situ	<0.00111	<0.05087	<27.8	<27.8	<27.8	<27.8	<1.11
	J . 3	East (side)	2	11/16/2018	In-Situ	< 0.00119	< 0.05474	<29.8	46.9	29.8	76.7	<1.19
		South (side)	2	11/16/2018	In-Situ	<0.00116	< 0.05347	<29.1	<29.1	<29.1	<29.1	2.64
		West (side)	2	11/16/2018	In-Situ	< 0.00116	< 0.05347	<29.1	<29.1	<29.1	<29.1	<1.16
		, ,										
DP-10	DP-10	North (side)	2	11/16/2018	In-Situ	<0.00106	<0.04888	<26.6	<26.6	<26.6	<26.6	<1.06
		East (side)	2	11/16/2018	In-Situ	<0.00109	<0.03803	<27.2	<27.2	<27.2	<27.2	<1.09
		South (side)	2	11/16/2018	In-Situ	<0.00108	<0.04956	<26.9	<26.9	<26.9	<26.9	<1.08
		West (side)	2	11/16/2018	In-Situ	<0.00104	<0.04785	<26.0	<26.0	<26.0	<26.0	<1.04

Table 4 1RP-4832

Remediation Confirmation Soil Sample Analytical Data Summary

XTO Energy, Inc., EMSU Satellite #13 Produced Water Spill

Latitude: 32.575775° Longitude: -103.321961°

Lea County, New Mexico

Page 3 of 4

Location	Sample	Location	Depth	Collection	Status	Benzene	BTEX	C6 - C12	C12 - C28	C28 - C35	TPH	Chloride
			(Feet)	Date		(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Remedi	Remediation Limit: 10 50										100	600
DP-11	DP-11	North (side)	2	11/16/2018	In-Situ	<0.00110	<0.05	<27.5	<27.5	<27.5	<27.5	<1.10
		East (side)	2	11/16/2018	In-Situ	<0.00112	< 0.05164	<28.1	<28.1	<28.1	<28.1	<1.12
		South (side)	2	11/16/2018	In-Situ	<0.00114	<0.05232	<28.4	<28.4	<28.4	<28.4	1.35
		West (side)	2	11/16/2018	In-Situ	<0.00114	<0.05232	<28.4	<28.4	<28.4	<28.4	<1.14
DP-12	DP-12	North (side)	2	11/16/2018	In-Situ	<0.00119	<0.05474	<29.8	<29.8	<29.8	<29.8	<1.19
		East (side)	2	11/16/2018	In-Situ	<0.00118	<0.05416	<29.4	<29.4	<29.4	<29.4	<1.18
		South (side)	2	11/16/2018	In-Situ	<0.00109	<0.03803	<27.2	<27.2	<27.2	<27.2	<1.09
		West (side)	2	11/16/2018	In-Situ	<0.00111	<0.05087	<27.8	<27.8	<27.8	<27.8	<1.11
DP-13	DP-13	North (side)	2	11/16/2018	In-Situ	<0.00108	<0.04956	<26.9	<26.9	<26.9	<26.9	56.1
		East (side)	2	11/16/2018	In-Situ	<0.00109	<0.05002	<27.2	<27.2	<27.2	<27.2	54.1
		South (side)	2	11/16/2018	In-Situ	<0.00108	<0.04956	<26.9	<26.9	<26.9	<26.9	2.49
		West (side)	2	11/16/2018	In-Situ	<0.00109	<0.05002	<27.2	<27.2	<27.2	<27.2	23.8

Notes: analysis performed by Permian Basin Environmental Lab, Midland, Texas, by EPA SW-846 Methods 8021B (BTEX), 8015M (TPH) and 300 (chloride).

Depth in feet below ground surface (bgs)

mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

Analyte concentration exceeds TPH closure criteria (Table) of 19.15.29 NMAC

Analyte concentration exceeds chloride closure criteria (Table) of 19.15.29 NMAC

Table 4a 1RP-4832 and 1RP-5340

Delineation Soil Sample Analytical Data Summary

EMSU Satellite #13 Produced Water Spill, XTO Energy, Inc.

Latitude: 32.575775° Longitude: -103.321961°

Lea County, New Mexico

Page 1 of 3

Sample	Depth		Collection	Status	Benzene	BTEX	C6 - C12	C12 - C28	C28 - C35	TPH	Chloride
	(Feet)	Position	Date		(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
RRAL					10	50				100	600
				Soil Sample	S						
T-1	4.5	Bottom (W)	01/08/2019	Excavated	<0.00120	<0.05532	<30.1	<30.1	<30.1	<30.1	1,390
T-2	4.5	Bottom (W)	01/08/2019	Excavated	<0.00112	< 0.05164	<28.1	39.9	<28.1	39.9	1,110
T-3	10.5	Bottom (W)	01/08/2019	Excavated	<0.00118	0.1111	66.2	337	52.1	455.3	1,200
S-1	4	Bottom	03/04/2019	In-situ	<0.00110	<0.0066	<27.5	<27.5	<27.5	<27.5	1,220
S-2	5	Bottom	03/04/2019	Excavated	<0.0233	<0.05582	<29.1	332	48.7	380.7	2,960
	6	Bottom	03/08/2019	Excavated			<27.8	104	<27.8	104	1,050
	6.5	Bottom	05/08/2029	In-situ	<0.00106	<0.00637	<26.6	<26.6	<26.6	<26.6	432
	3		05/08/2029	In-situ	<0.00103	<0.00618	<25.8	72.3	<25.8	72.3	166
	3	Sidewall (S)	05/08/2029	In-situ	<0.00101	<0.00606	<25.3	<25.3	<25.3	<25.3	2.23
	3	Sidewall (W)	05/08/2029	In-situ	<0.00110	<0.0066	<27.5	<27.5	<27.5	<27.5	2.76
S-3	4	Bottom	03/04/2019	In-situ	<0.00122	<0.00732	<30.5	116	<30.5	116	1,260
S-4	4	Bottom	03/04/2019	In-situ	<0.00115	<0.0069	<28.7	<28.7	<28.7	<28.7	1,710
S-5	4	Bottom	03/04/2019	In-situ	<0.00112	<0.00673	<28.1	<28.1	<28.1	<28.1	2,430
S-6	4	Bottom	03/04/2019	In-situ	<0.00119	<0.00714	<29.8	36.9	<29.8	36.9	2,650
S-7	6	Bottom	03/04/2019	Excavated	<0.0222	<0.1332	244	4,100	580	4,924	1,210
	7	Bottom	03/08/2019	Excavated			54.5	89.3	<28.1	543.8	1,330
	12	Bottom	05/08/2019	Excavated	<0.00116	<0.00697	<29.1	<29.1	<29.1	<29.1	1,420
	17	Bottom	05/13/2019	In-situ			<36.8	<36.8	<36.8	<36.8	
	6	Sidewall (S)	05/08/2019	In-situ	<0.00112	< 0.00673	<28.1	<28.1	<28.1	<28.1	1,100
	9	Sidewall (S)	05/13/2019	In-situ	<0.00115	<0.0069	<28.7	<28.7	<28.7	<28.7	1,250
	6	Sidewall (N)	05/08/2019	In-situ	<0.00104	<0.00624	<26.0	<26.0	<26.0	<26.0	1,080

Table 4a 1RP-4832 and 1RP-5340

Delineation Soil Sample Analytical Data Summary

EMSU Satellite #13 Produced Water Spill, XTO Energy, Inc.

Latitude: 32.575775° Longitude: -103.321961°

Lea County, New Mexico

Page 2 of 3

Sample	Depth		Collection	Status	Benzene	BTEX	C6 - C12	C12 - C28	C28 - C35	TPH	Chloride
	(Feet)	Position	Date		(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
RRAL					10	50				100	600
	6	Sidewall (W)	05/13/2019	In-situ	<0.00114	<0.00683	<28.4	<28.4	<28.4	<28.4	1,240
	9	Sidewall (N)	05/13/2019	In-situ	<0.00110	<0.0066	<27.5	<27.5	<27.5	<27.5	765
S-8	10	Bottom	03/04/2019	Excavated	<0.0230	4.077	2,290	10,100	1,620	14,010	1,010
	11	Bottom	03/08/2019	Excavated			79.5	696	102	877.5	477
	12	Bottom	03/08/2019	Excavated			<29.4	72.5	<29.4	72.5	826
	13	Bottom	05/08/2019	In-situ	<0.00147	<0.00882	<36.8	<36.8	<36.8	<36.8	521
	6.5	Sidewall (N)	05/08/2019	In-situ	<0.00147	0.00191	<36.8	<36.8	<36.8	<36.8	606
	6.5	Sidewall (S)	05/08/2019	In-situ	<0.00137	<0.00795	<34.2	<34.2	<34.2	<34.2	590
S-9	11	Bottom	03/04/2019	Excavated	0.332	21.532	5,570	13,100	2,440	21,110	1,490
	12	Bottom	03/08/2019	Excavated			1,180	2,840	479	4,499	1,150
	13	Bottom	03/08/2019	Excavated			92.3	205	38.1	335.4	810
	18	Bottom	05/07/2019	In-situ	<0.00111	<0.00555	<27.8	<27.8	<27.8	<27.8	727
	9	Sidewall (E)	05/07/2019	In-situ	<0.00111	<0.00555	<27.8	61.0	<27.8	61.0	1,120
	9	Sidewall (W)	05/07/2019	In-situ	<0.00115	<0.0069	<28.7	<28.7	<28.7	<28.7	659
S-10	11	Bottom	03/04/2019	Excavated	0.118	7.925	1,720	5,640	943	8,303	1,840
	12	Bottom	03/08/2019	Excavated			533	1,100	186	1,819	888
	13	Bottom	03/08/2019	Excavated			30.2	41.5	<29.4	71.7	1,780
	16	Bottom	05/09/2019	In-situ	<0.00110	<0.0066	<27.5	<27.5	<27.5	<27.5	926
	8	Sidewall (S)	05/09/2019	In-situ	<0.00111	<0.00555	<27.8	<27.8	<27.8	<27.8	960
	8	Sidewall (W)	05/09/2019	In-situ	<0.00114	<0.00683	<28.4	<28.4	<28.4	<28.4	1,290
	8	Sidewall (N)	05/09/2019	In-situ	<0.00111	<0.00555	<27.8	<27.8	<27.8	<27.8	1,640
S-11	12	Bottom	03/04/2019	Excavated	<0.0241	4.597	1,400	5,130	902	7,432	1,750
	13	Bottom	03/08/2019	Excavated			304	1,070	164	1,538	1,580
	16	Bottom	03/08/2019	Excavated			1,010	3,470	530	5,010	2,190
	18	Bottom	05/09/2019	In-situ	<0.00111	<0.00555	<27.8	<27.8	<27.8	<27.8	449

Table 4a 1RP-4832 and 1RP-5340

Delineation Soil Sample Analytical Data Summary

EMSU Satellite #13 Produced Water Spill, XTO Energy, Inc.

Latitude: 32.575775° Longitude: -103.321961°

Lea County, New Mexico

Page 3 of 3

Sample	Depth		Collection	Status	Benzene	BTEX	C6 - C12	C12 - C28	C28 - C35	TPH	Chloride
	(Feet)	Position	Date		(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
RRAL					10	50				100	600
S-12	11	Bottom	03/04/2019	Excavated	<0.238	3.292	3,060	18,800	2,830	24,690	1,910
	12	Bottom	03/08/2019	Excavated			164	1,290	189	1,643	1,720
	13	Bottom	03/08/2019	Excavated			<32.9	57.3	<32.9	57.3	2,470
	14	Bottom	05/08/2019	In-situ	<0.00116	<0.00697	<29.1	<29.1	<29.1	<29.1	274
	7	Sidewall (N)	05/08/2019	In-situ	< 0.00137	<0.00822	<34.2	<34.2	<34.2	<34.2	1,800
S-13	10	Bottom	03/04/2019	Excavated	<0.00109	<0.00109	<27.2	457	63.3	520.3	1,090
	11	Bottom	03/08/2019	Excavated			<30.1	<30.1	<30.1	<30.1	477
	11	Bottom	05/08/2019	Excavated	<0.00116	<0.00697	<29.1	<29.1	<29.1	<29.1	972
	12	Bottom	03/08/2019	In-situ			<29.1	<29.1	<29.1	<29.1	1,120
S-14	10	Bottom	03/04/2019	Excavated	<0.00109	<0.00109	<27.2	237	38.0	275	972
	11	Bottom	03/08/2019	In-situ			<27.2	<27.2	<27.2	<27.2	809
	11	Bottom	05/08/2019	In-situ	<0.00115	<0.0069	<28.7	<28.7	<28.7	<28.7	1,020
	5.5	Sidewall (N)	05/08/2019	In-situ	<0.00102	<0.00612	<25.5	<25.5	<25.5	<25.5	630
	5.5	Sidewall (S)	05/08/2019	In-situ	< 0.0143	<0.09152	<357	<357	<357	<357	3,450
	5.5	Sidewall (E)	05/08/2019	In-situ	<0.00128	<0.00768	<32.1	<32.1	<32.1	<32.1	41.1

Notes: analysis performed by Permian Basin Laboratory, Midland, Texas by EPA SW-846 Methods 80121B (BTEX), 8015M (TPH) and 300 (chloride) Depth in feet below ground surface (bgs)

mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

Highlighted denotes concentration exceeds TPH closure critieria standard (Table 1 19.15.29 NMAC)

Highlighted denotes concentration exceeds chloride closure critieria standard (Table 1 19.15.29 NMAC)

Table 5 1RP-4832 and 1RP-5340

Backfill Soil Sample Analytical Data Summary

EMSU Satellite #13 Produced Water Leak, XTO Energy, Inc., Latitude: 32.575775° Longitude: -103.321961°

Lea County, New Mexico

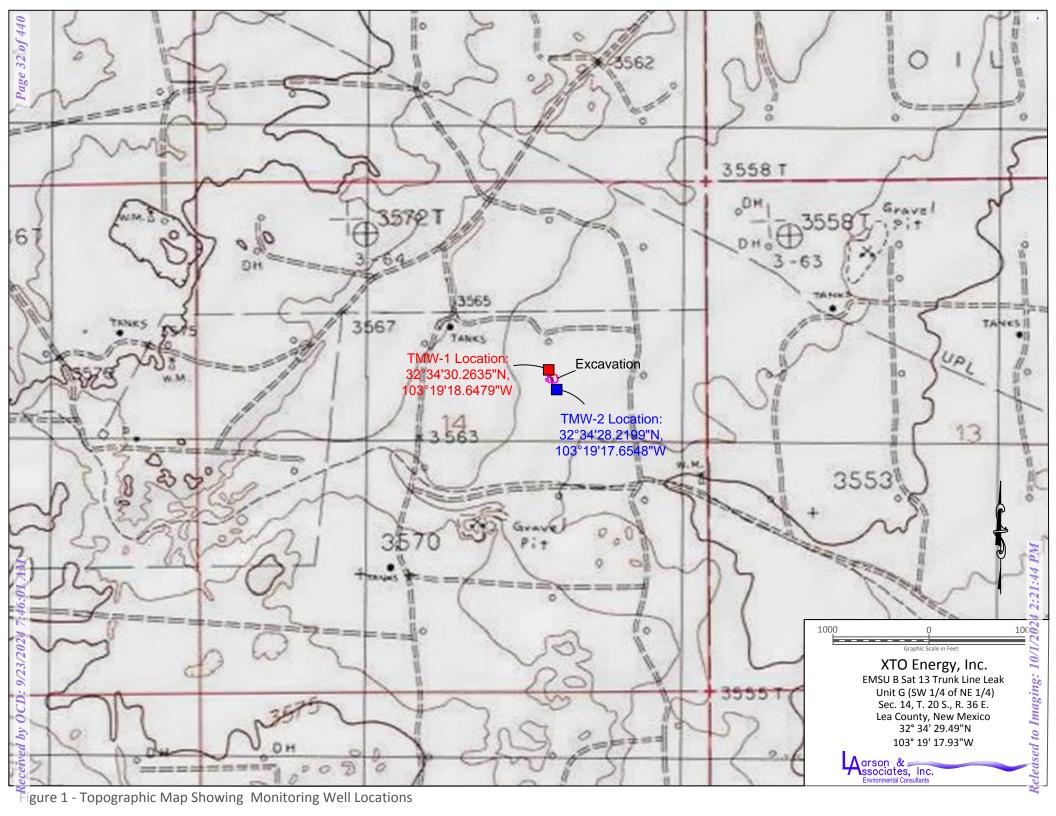
Page 1 of 2

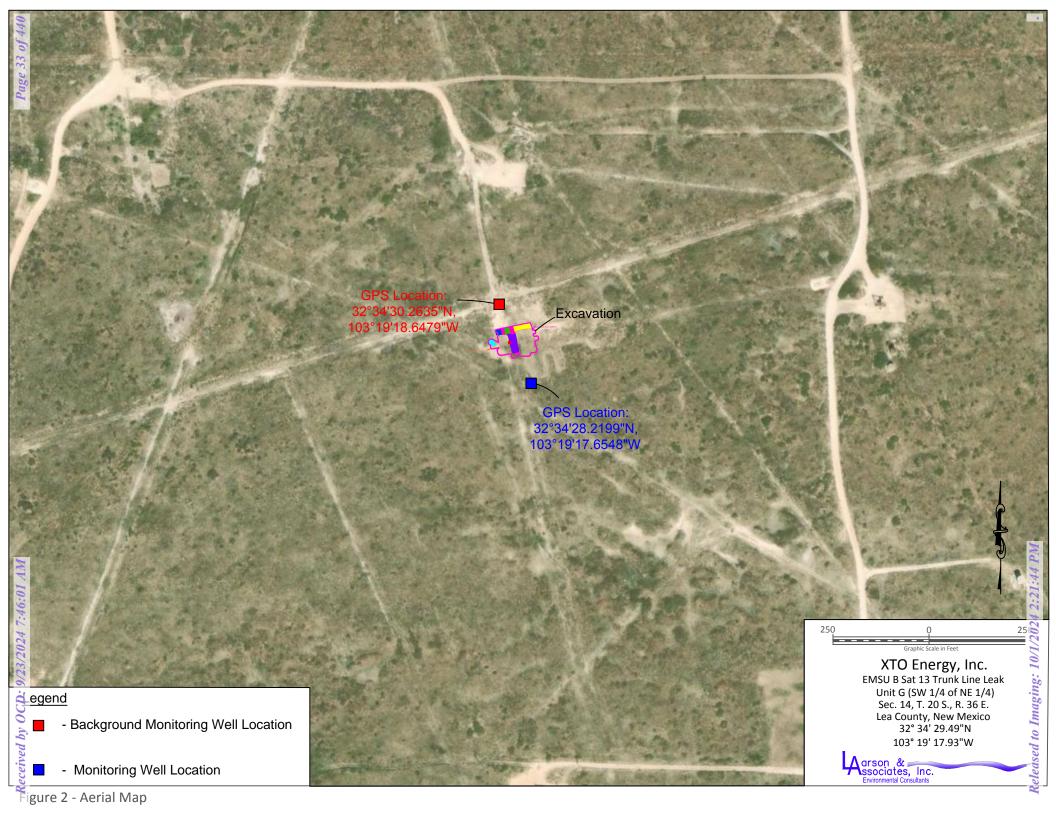
Sample	Collection Date	Status	Chloride (mg/Kg)
RRAL			600
Backfill Caliche 1	6/4/19	In-Situ	7.95
Backfill Caliche 2	6/4/19	In-Situ	4.74
Backfill Caliche 3	6/4/19	In-Situ	<1.27
Backfill Caliche 4	6/4/19	In-Situ	<1.22
Backfill Caliche 5	6/4/19	In-Situ	1.23
Backfill Caliche 6	6/4/19	In-Situ	3.99
Backfill Caliche 7	6/4/19	In-Situ	11.6
Backfill Caliche 8	6/4/19	In-Situ	5.40
Backfill Caliche 9	6/4/19	In-Situ	2.64
Backfill Caliche 10	6/4/19	In-Situ	<1.12
Backfill Caliche 11	6/4/19	In-Situ	3.43
Backfill Caliche 12	6/4/19	In-Situ	<1.15
Backfill Caliche 13	6/4/19	In-Situ	2.04
Backfill Caliche 14	6/4/19	In-Situ	1.68
Backfill Caliche 15	6/4/19	In-Situ	2.77
Backfill Caliche 16	6/4/19	In-Situ	2.80
Backfill Topsoil 1	6/4/19	In-Situ	1.53
Backfill Topsoil 2	6/4/19	In-Situ	1.69
Backfill Topsoil 3	6/4/19	In-Situ	<1.15
Backfill Topsoil 4	6/4/19	In-Situ	1.24
Backfill Topsoil 5	6/4/19	In-Situ	3.68

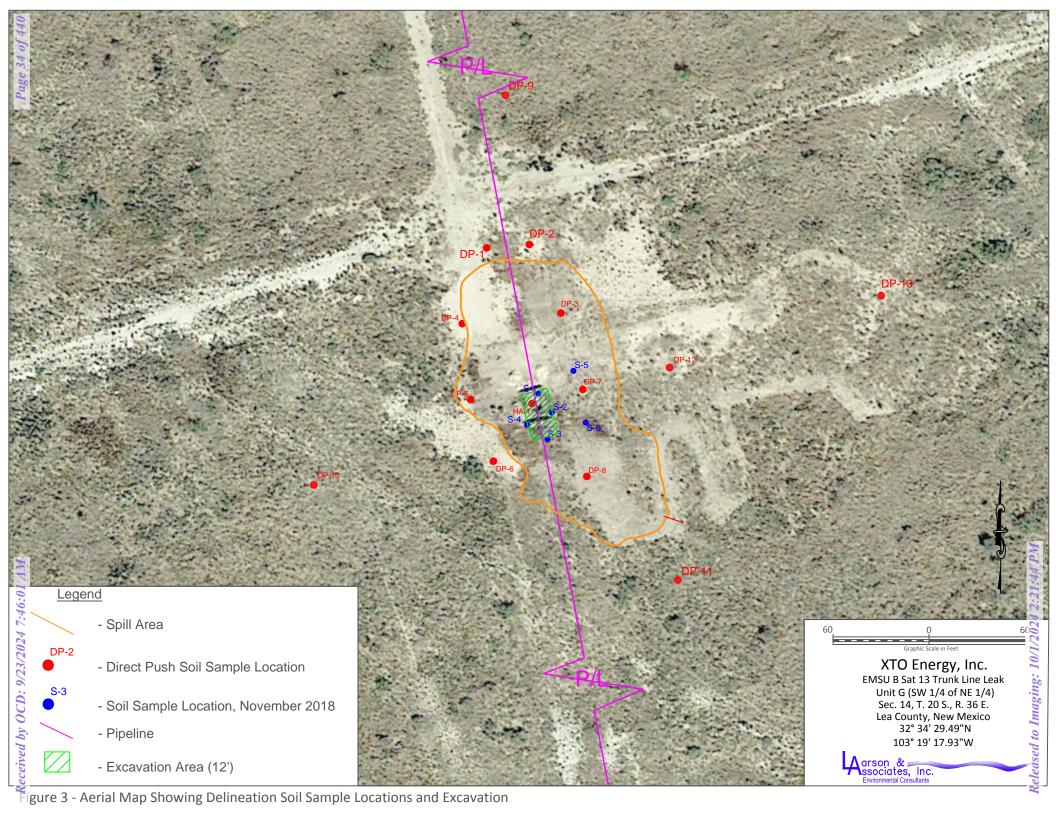
Notes: analysis performed by Permian Basin Laboratory, Midland, Texas by EPA Method 300

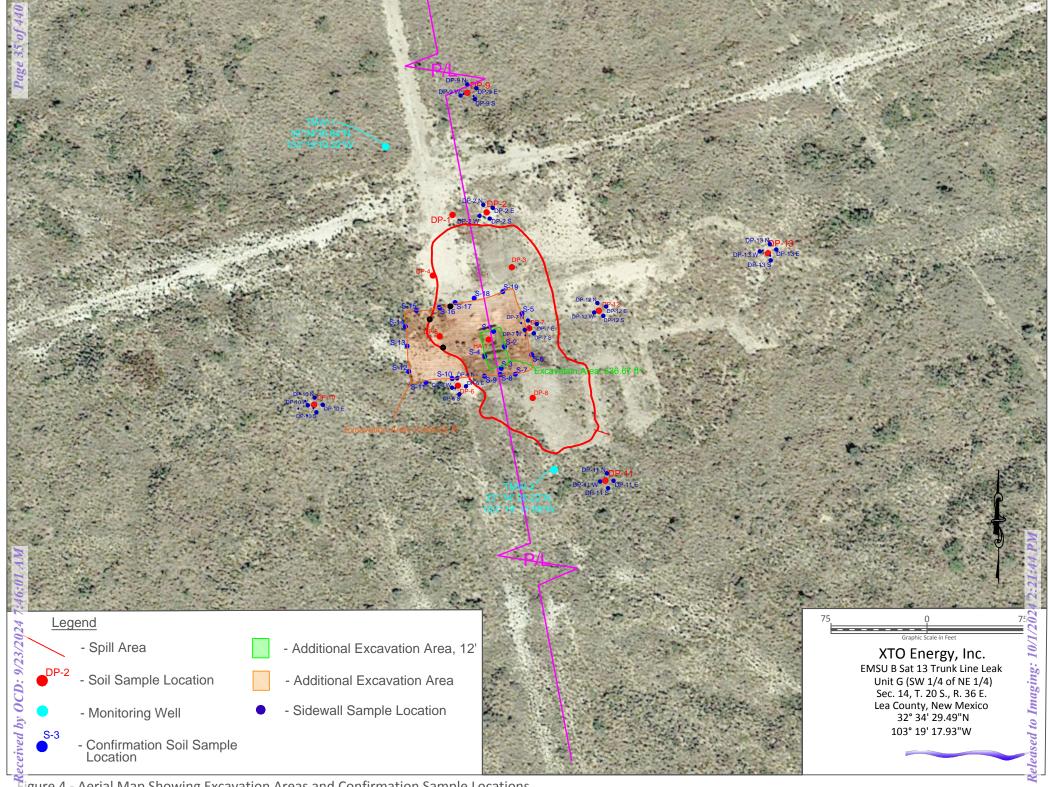
mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

Tables

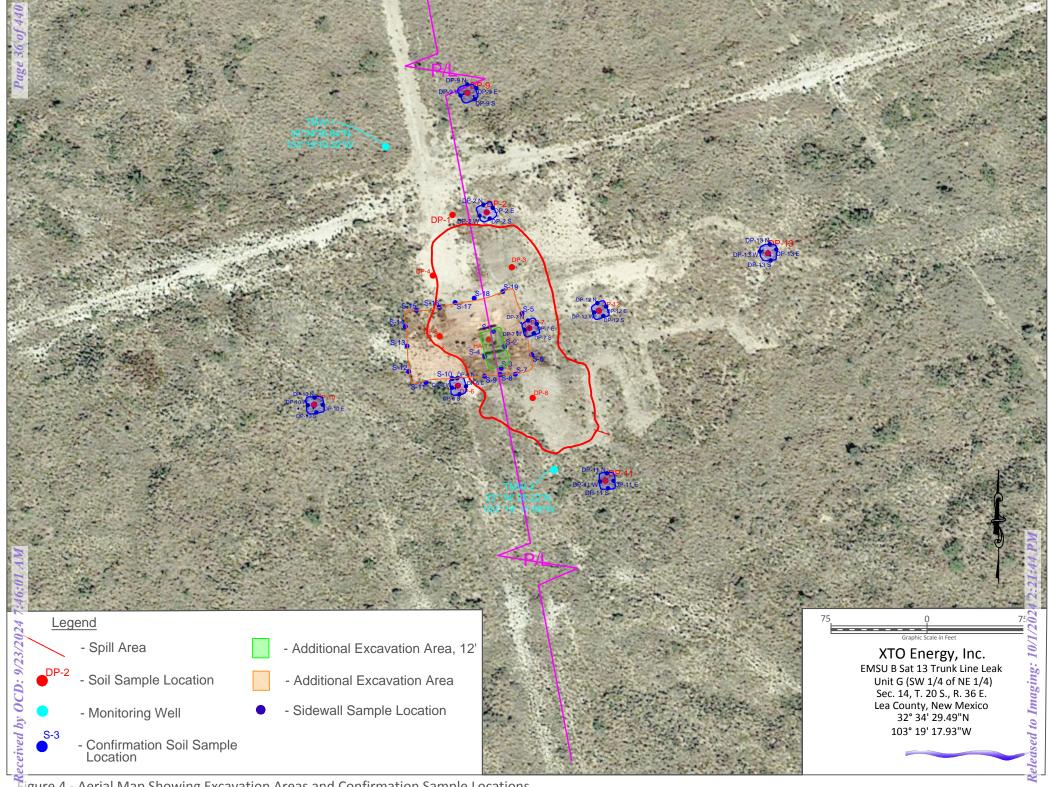




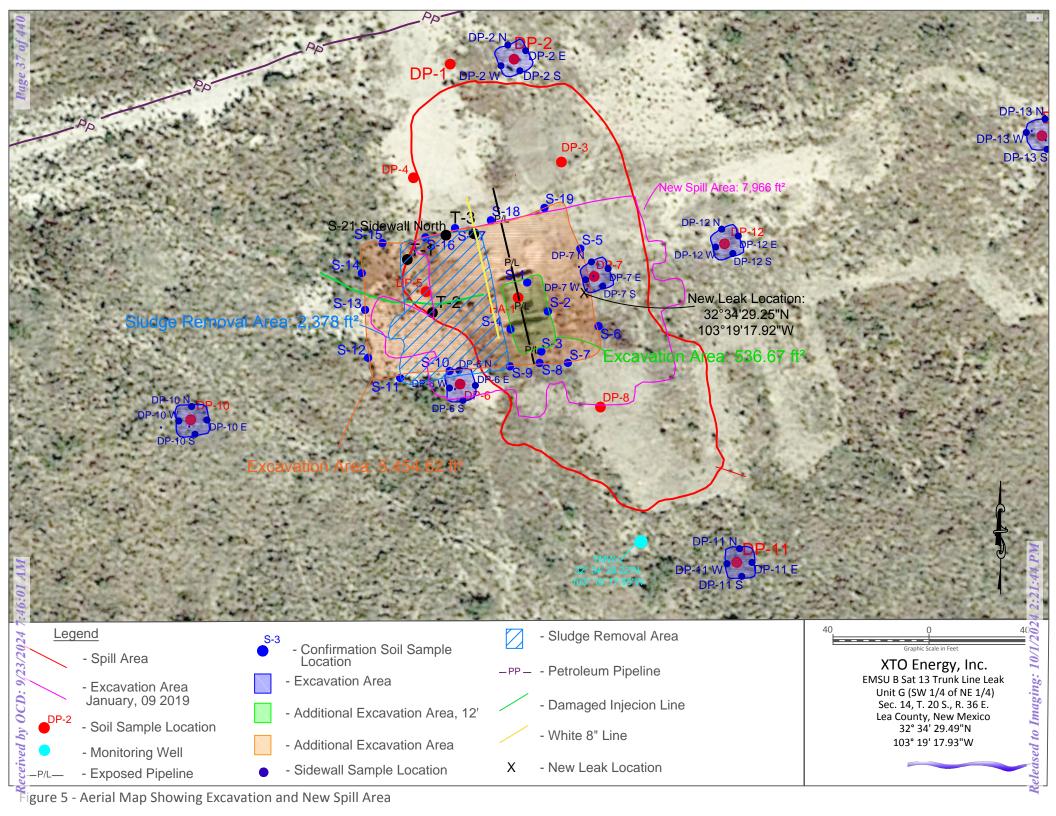


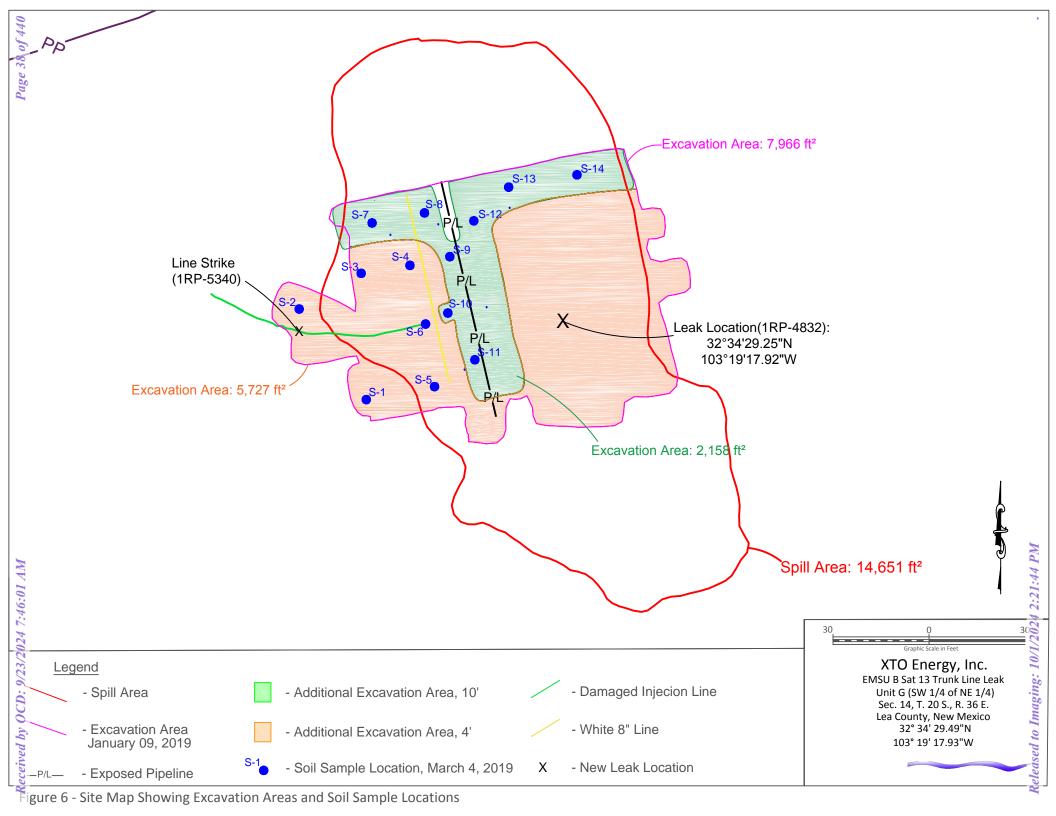


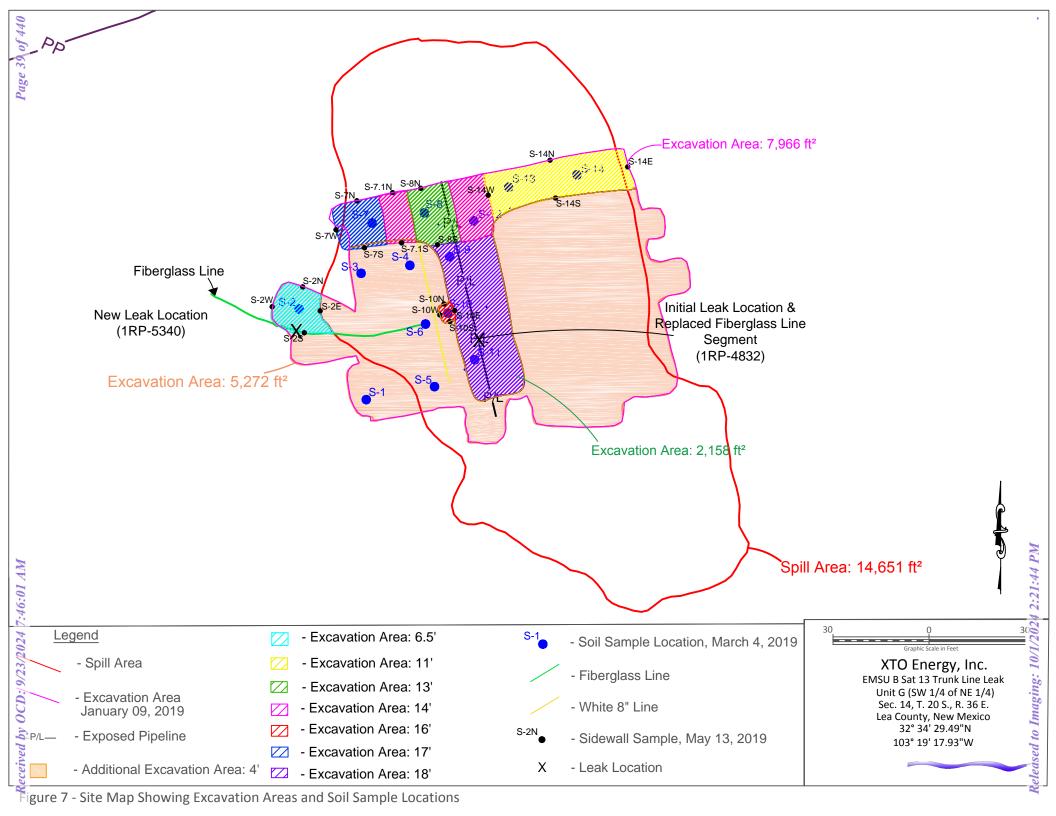
igure 4 - Aerial Map Showing Excavation Areas and Confirmation Sample Locations



igure 4 - Aerial Map Showing Excavation Areas and Confirmation Sample Locations







Appendix A

C-141

District 1 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised April 3, 2017

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 Notificati	ion and Corrective Action							
	OPERATOR Initial Report Final Report							
Name of Company: XTO ENERGY INC.	Contact SHANNON WALKER							
Address:	Telephone No.							
500 W. ILLINOIS SUITE 100 MIDLAND, TX 79701	575-394-2089							
Facility Name: EMSU B Satelite #13	Facility Type: Satellite							
Surface Owner: Jimmie T. Cooper Mineral Owner	er: BLM API No. N/A							
LOCATI	ON OF RELEASE							
	orth/South Line Feet from the East/West Line County							
G 14 20S 36E								
Latitude 32° 34' 32.79"N	Longitude 103° 19' 19.06'W NAD83							
) - 2								
	RE OF RELEASE							
Type of Release: Produced Water Source of Release: 4" FG Trunk line	Volume of Release: 34.06bbls Date and Hour of Occurrence: Date and Hour of Discovery							
Source of Release.4 To Trulk file	09/20/2017 Date and from of Occurrence. 09/20/2017 09/20/2017 @ 12:30 MT							
Was Immediate Notice Given?	If YES, To Whom?							
By Whom? Shannon Walker	Date and Hour 09/20/2017							
Was a Watercourse Reached? ☐ Yes ☑ No	If YES, Volume Impacting the Watercourse. N/A							
If a Watercourse was Impacted, Describe Fully.*								
N/A	RECEIVED							
	By Olivia Yu at 1:35 pm, Sep 29, 2017							
	By 61111a 1a at 1.56 pm, 66p 25, 2011							
Describe Cause of Problem and Remedial Action Taken.*								
Line rupture, no remedial action taken at this time. Larson and Association	stes have been assigned for remediation							
Estimated area affected: L45'x W10'x D4"	nes have been assigned for remediation.							
	346							
Describe Area Affected and Cleanup Action Taken.*								
Pasture Land, no remediation has taken place as of this time.								
24	*							
	to the best of my knowledge and understand that pursuant to NMOCD rules and							
	se notifications and perform corrective actions for releases which may endanger							
	the NMOCD marked as "Final Report" does not relieve the operator of liability diate contamination that pose a threat to ground water, surface water, human health							
	rt does not relieve the operator of responsibility for compliance with any other							
federal, state, or local laws and/or regulations.								
(Vale, 1/h) = 0 - 1	OIL CONSERVATION DIVISION							
Signature: TOTAL SOMACE	$\Delta \mathcal{M}_{-}$							
	Approved by Environmental Specialist:							
Printed Name: Patricia Donald								
Title: Regulatory Analyst	Approval Date: 9/29/2017 Expiration Date:							
E-mail Address: Patricia_Donald@xtoenergy.com	Conditions of Approval:							
	see attached directive							
Date: 09/28/2017 Phone:432-571-8220 Attach Additional Sheets If Necessary	1							

1RP-4832

nOY1727250040

pOY1727250266

fOY1727249863

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _9/29/2017_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-4832__ has been assigned. Please refer to this case number in all future correspondence.

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete <u>division-approved corrective action</u> for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs____ on or before _10/29/2017_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- •Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.
- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.
- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold

OCD Environmental Bureau Chief 1220 South St. Francis Drive Santa Fe, New Mexico 87505 505-476-3465 jim.griswold@state.nm.us District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources 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

_
0
249863
649364

Release Notification

Responsible Party

Responsible Party XTO I	Energy		OGRID 5	380		
Contact Name Shelby Pe				elephone 281-723-9353		
Contact email shelby_pe		oenergy.com	Incident #	NCH1903648978 EMSU SATELLITE #13 @ FOY1727249863		
Contact mailing address 6		•	ng 5 Midland T	<u>.</u> FOY1727249863 X 79707		
8 0		mi Ku. Bulluli	ig 5 ivildiand 12	17101		
		Location	of Release So	ource		
Latitude <u>32.5747917° N</u>	J		Longitude -	-103.3216444° W		
		(NAD 83 in dec	imal degrees to 5 decin	nal places)		
Site Name EMSU Satell	ite #13		Site Type I	Flowline		
Date Release Discovered 1	1/07/2019		API# (if app	plicable)		
Unit Letter Section	Township	Range	Coun	nty		
G 14	20S	36E	Lea			
Surface Owner: State	Tederal □ Tr	ibal X Private (Λ	Jame. Jimmie Coo	per)		
Federal Minerals		ioai 🔼 i iivate (iv	rame.	,		
		Nature and	Volume of I	Release		
) Released (Select al	l that apply and attach	calculations or specific	justification for the volumes provided below)		
	Volume Release	` '		Volume Recovered (bbls)		
X Produced Water	Volume Release	d (bbls) 332 bbls		Volume Recovered (bbls) 300 bbls		
	Is the concentrat	ion of total dissolv	\ /	Yes X No		
	<u>in the produced </u> Volume Release	water >10,000 mg/ d (bbls)	/1?	Volume Recovered (bbls)		
_			Volume Recovered (Mcf)			
		Released (provide	unita)	Volume/Weight Recovered (provide units)		
United (describe)	volume/weight	Released (provide	, units)	volume/ weight recovered (provide units)		
Cause of Release						
	h., o 400 als h.o.					
A flowline was struck	by a track not	e during son rer	neurauon.			

Received by OCD: 9/23/2024 Form C-141	7:46:01 AM State of New Mexico
Page 2	Oil Conservation Division

	Page 45 of 44	40
Incident ID		
District RP		
Facility ID		
Application ID		

Was this a major	If YES, for what reason(s) does the respon	sible party consider this a major release?
release as defined by 19.15.29.7(A) NMAC?	The release was a volume more that	n 25 bbls.
X Yes		
If YES, was immediate no	otice given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?
Email to Christina I 01/08/2019	Hernandez (OCD District 1) and Jim	Griswold (OCD Santa Fe) by Shelby Pennington,
	Initial Re	esponse
The responsible	party must undertake the following actions immediately	unless they could create a safety hazard that would result in injury
X The source of the rele	ease has been stopped.	
X The impacted area ha	s been secured to protect human health and	the environment.
X Released materials ha	we been contained via the use of berms or d	ikes, absorbent pads, or other containment devices.
X All free liquids and re	ecoverable materials have been removed and	l managed appropriately.
If all the actions described	d above have <u>not</u> been undertaken, explain v	vhy:
Dar 10 15 20 9 R (4) NM	AC the responsible party may commence re	emediation immediately after discovery of a release. If remediation
has begun, please attach	a narrative of actions to date. If remedial e	efforts have been successfully completed or if the release occurred lease attach all information needed for closure evaluation.
regulations all operators are public health or the environr failed to adequately investig addition, OCD acceptance o	required to report and/or file certain release notified ment. The acceptance of a C-141 report by the O ate and remediate contamination that pose a threat	best of my knowledge and understand that pursuant to OCD rules and ications and perform corrective actions for releases which may endanger CD does not relieve the operator of liability should their operations have at to groundwater, surface water, human health or the environment. In responsibility for compliance with any other federal, state, or local laws
and/or regulations.		
Printed Name: Shelby I	Pennington	Title: Environmental Supervisor
Signature: Shelk	y L Pennington	Date: 1/28/19
email: shelby_pennir	ngton@xtoenergy.com	Telephone: 281-723-9353
OCD Only RECEI	VED	
	nandez at 1:37 pm, Feb 05, 20	19 e:

Appendix B

Regulatory Communications

 From:
 Tucker, Shelly

 To:
 Mark Larson

 Cc:
 Pennington, Shelby

Subject: Re: [EXTERNAL] FW: 1RP-4832 - Delineation Report, EMSU B Satellite #13 Trunk Line Leak, XTO Energy, Inc.,

July 6, 2018

Date: Wednesday, September 19, 2018 2:53:23 PM

BLM concurs with NMOCD.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Shelly J Tucker

Environmental Protection Specialist O&G Spill/Release Coordinator

575.234.5905 - Direct 575.361.0084 - Cellular

575.234.6235 - Emergency Spill Number

stucker@blm.gov

Bureau of Land Management

620 E. Greene St Carlsbad, NM 88220

The <u>BLM acceptance/approval does not</u> relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment or if the location fails to reclaim properly. <u>In such an event a site does not achieve successful restoration</u>, <u>or future issues with contaminants are encountered</u>, the <u>operator will be asked to address these issues until they are fully mitigated and the location is successfully reclaimed</u>. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state or local laws/regulations.

Confidentiality Warning: This message along with any attachments are intended only for use of the individual or entity to which it is addressed and may contain information that is privileged or confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately.

NOTE: LPC Timing Stipulations - from **March 1st through June 15th**. Please plan remedial activities accordingly. Check for African Rue...treat (before it gets out of control).

On Mon, Jul 23, 2018 at 4:46 PM Mark Larson < <u>Mark@laenvironmental.com</u>> wrote:

Dear Ms. Tucker,

Larson & Associates, Inc. (LAI), on behalf of XTO Energy, Inc. (XTO) requests approval from the US Bureau of Land Management (BLM) to complete remediation at the EMSU B Satellite 13 truck line produced water spill site, as approved below by OCD.

Respectfully,

Mark J. Larson, P.G.

President/Sr. Hydrogeologist

507 N. Marienfeld St., Suite 205
Midland, Texas 79701
Office – 432-687-0901
Cell – 432- 556-8656
Fax – 432-687-0456
mark@laenvironmental.com
Logo
"Serving the Permian Basin Since 2000"
From: Hernandez, Christina, EMNRD [mailto:Christina.Hernandez@state.nm.us] Sent: Monday, July 23, 2018 5:35 PM To: Mark Larson; 'Tucker, Shelly'; Yu, Olivia, EMNRD Cc: 'Pennington, Shelby' Subject: RE: 1RP-4832 - Delineation Report, EMSU B Satellite #13 Trunk Line Leak, XTO Energy, Inc., July 6, 2018
Mr. Larson:
Like approval from BLM required.
Thanks,
Christina Hernandez
EMNRD-OCD
Environmental Specialist

1625 N French Drive

Hobbs, NM 88240

575-393-6161 x111

Christina.Hernandez@state.nm.us

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Hernandez, Christina, EMNRD Sent: Monday, July 23, 2018 2:53 PM

To: 'Mark Larson' < Mark@laenvironmental.com'>; 'Tucker, Shelly' < stucker@blm.gov'>;

Yu, Olivia, EMNRD < Olivia. Yu@state.nm.us>

Cc: 'Pennington, Shelby' < Shelby Pennington@xtoenergv.com>

Subject: RE: 1RP-4832 - Delineation Report, EMSU B Satellite #13 Trunk Line Leak,

XTO Energy, Inc., July 6, 2018

Dear Mr. Larson:

Notes

- Please use different colors within a single map to facilitate interpretation and approval.
- Please clarify location of the 4' extended excavation relative to the other excavations as it is unclear. Will it be 10 ft north of the current excavation or 10 ft north of the proposed 12' extended excavation?
- Areas that show historic releases (DP-2, DP-6, DP-7, DP-9, DP-10, DP-11, DP-12, DP-13) must be remediated as well due to high mobility of chlorides.

Delineation completed and proposed remediation is approved with the following stipulations:

- Please note that both proposed monitoring wells are required, one up gradient and one down gradient from spill release location as noted. (Mr. Brad Billings, NMOCD Santa Fe, may have additional stipulations).
- Please be advised that all laboratory analyses (Benzene, BTEX, and TPH extended) are required for proposed 12' and 4' extended excavation confirmation bottom and sidewall sample locations; complete laboratory analyses will also be required for groundwater testing.
- Please address historical releases; please be advised to excavate to 4' at these (DP-2, DP-6, DP-7, DP-9, DP-10, DP-11, DP-12, DP-13) locations and collect sidewall samples as well.
- After proper placement of 20 mil liner and back filling, sample every 50 cubic yards.

Thanks,

Christina Hernandez

EMNRD-OCD

Environmental Specialist

1625 N. French Drive

Hobbs, NM 88240

575-393-6161 x111

Christina.Hernandez@state.nm.us

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Mark Larson < <u>Mark@laenvironmental.com</u>>

Sent: Friday, July 13, 2018 3:03 PM

To: 'Tucker, Shelly' < stucker@blm.gov>; Yu, Olivia, EMNRD < Olivia.Yu@state.nm.us>;

Hernandez, Christina, EMNRD < Christina.Hernandez@state.nm.us>

Cc: 'Pennington, Shelby' < <u>Shelby_Pennington@xtoenergy.com</u>>

Subject: FW: 1RP-4832 - Delineation Report, EMSU B Satellite #13 Trunk Line Leak,

XTO Energy, Inc., July 6, 2018

Shelly,

Please accept my apology for not including you on the attached submittal to OCD District 1. Please contact Shelby Pennington with XTO at (432) 682-8873 or email Shelby Pennington@xtoenergy.com or me if you have questions.

Respectfully,

Mark J. Larson, P.G.

President/Sr. Project Manager

507 N. Marienfeld St., Suite 205

Midland, Texas 79701

(432) 687-0901 (O)

(432) 556-8656 (C)



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From: Mark Larson

Sent: Friday, July 13, 2018 4:00 PM

To: 'Yu, Olivia, EMNRD'; 'Christina.Hernandez@state.nm.us'

Cc: 'Pennington, Shelby'

Subject: Re: 1RP-4832 - Delineation Report, EMSU B Satellite #13 Trunk Line Leak, XTO Energy, Inc.,

July 6, 2018

Dear Ms. Yu and Ms. Hernandez,

Larson & Associates, Inc. (LAI), on behalf of XTO Energy, Inc. (XTO), submits the attached delineation report for a produced water leak from the EMSU Satellite #13 trunk line. XTO proposes the following remedial actions in response to the spill:

- Install one (1) monitoring well down gradient (south) of the spill constructed with 2 inch schedule 40 threaded PVC and fifteen (15) feet of well screen positioned between approximately 30 and 45 feet bgs;
- Collect groundwater samples for field (chloride) and laboratory (BTEX and chloride) analysis by EPA SW-846 Methods 8021B and Method 300, respectively;
- Install second temporary monitoring well up gradient (north) of spill if field chloride analysis demonstrate concentration greater than 250 milligrams per liter (mg/L) and construct similar to down gradient well;
- Expand excavation north, south and west between about 5 to 10 feet from current excavation boundary to depth of about 12 feet bgs and collect confirmation bottom sample at approximately 12 feet bgs (HA-1) and sidewalls (north, south, east and west) at approximately 2, 8 and 10 feet bgs and analyze for TPH by EPA SW-846 Method 8015M, including GRO (C6-C12), DRO (>C12-C28) and ODR (>C28-C35);
- Excavate additional soil from sidewalls and bottom as necessary to reduce TPH below 100 mg/Kg;
- Assuming no further soil excavation backfill excavation with caliche to approximately 4 feet bgs;
- Expand excavation to depth of approximately 4 feet bgs north (10 feet), south (5 feet), east (15 feet) and west (30 feet) and collect bottom (4 feet) and sidewall (2 feet) confirmation samples for laboratory analysis (TPH and chloride) by EPA SW-846 Method 8015M and Method 300, respectively, to confirm concentrations below 100 mg/Kg (TPH) and 250 mg/Kg (chloride);
- Expand excavation as needed (north, south, east and west) approximately 4 feet bgs until sidewall confirmation samples report TPH and chloride below 100 mg/Kg and 250 mg/kg, respectively;
- Assuming no further soil excavation install 20 mil thickness poly liner in bottom of excavation at approximately 4 feet bgs, backfill excavation with clean soil and seed to landowner specifications;
- Dispose of excavated soil at Sundance (Parabo) disposal.

Your approval of the delineation report and proposed remediation plan are appreciated. Please contact Shelby Pennington with XTO at (432) 682-8873 or email Shelby Pennington@xtoenergy.com or me if you have questions.

Respectfully,
Mark J. Larson, P.G.
President/Sr. Project Manager
507 N. Marienfeld St., Suite 205
Midland, Texas 79701
(432) 687-0901 (O)
(432) 556-8656 (C)
Logo
www.LAEnvironmental.com
"Serving the Permian Basin Since 2000"
From: Yu, Olivia, EMNRD [mailto:Olivia.Yu@state.nm.us] Sent: Tuesday, November 28, 2017 1:06 PM To: Mark Larson Cc: 'Williams, Luke'; 'Donald, Patricia' Subject: RE: 1RP-4832 - Delineation Plan, EMSU B Satellite #13 Trunk Line Leak, XTO Energy, Inc., October 15, 2017
Mr. Larson:

The proposed delineation report for 1RP-4832 is approved with these stipulations:

- Please note that based on the release outlined in Figure 3, there are 2 NMOSE wells (L04507 & L10135) within 1000 ft. of the GPS coordinates for the site.
- Delineate to 600 mg/kg chloride levels and maintained for 10 ft. further in depth.
- At least two depths for each sample location must have laboratory analyses: depth obtained and depth maintained permissible levels of chlorides, TPH extended, and BTEX. Include all pertinent field data.
- Please be advised that with average depth to groundwater < 50 ft. bgs, a temporary monitoring well may be required.
- In the subsequent delineation report, please include on one or more appropriately scaled maps: 1) the release area and pipeline trench outlined; 2) delineation and proposed confirmation sample locations demarcated with GPS coordinates; 3) and dimensions and depths of proposed excavations annotated.

dimensions and depths of proposed excavations annotated.
Please confirm or inform if clarification is required.
Thanks,
Olivia Yu
Environmental Specialist
NMOCD, District I
Olivia.yu@state.nm.us
575-393-6161 x113
OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Mark Larson [mailto:Mark@laenvironmental.com]

Sent: Monday, November 27, 2017 2:41 PM

To: Yu, Olivia, EMNRD < Olivia. Yu@state.nm.us>

Cc: 'Williams, Luke' < <u>Luke Williams@xtoenergy.com</u>>; 'Donald, Patricia'

< Patricia Donald@xtoenergy.com >

Subject: FW: 1RP-4832 - Delineation Plan, EMSU B Satellite #13 Trunk Line Leak, XTO

Energy, Inc., October 15, 2017

Hello Olivia,

This message is submitted on behalf of XTO Energy, Inc. (XTO) as a follow up to the email sent on October 19, 2017, conveying the delineation plan for 1RP-4832, and approval to delineate the spill according to the attached plan? Please contact Luke Williams with XTO at (432) 682-8873 or email Luke_Willaims@xtoenergy.com or me if you have questions.

Respectfully,

Mark J. Larson, P.G.

President/Sr. Project Manager

507 N. Marienfeld St., Suite 205

Midland, Texas 79701

(432) 687-0901 (O)

(432) 556-8656 (C)



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From: Mark Larson

Sent: Thursday, October 19, 2017 5:44 PM

To: 'Yu, Olivia, EMNRD'

Cc: 'Williams, Luke'; Sarah Johnson

Subject: Re: 1RP-4832 - Delineation Plan, EMSU B Satellite #13 Trunk Line Leak, XTO Energy, Inc.,

October 15, 2017

Dear Ms. Yu,

Larson & Associates, Inc. (LAI), on behalf of XTO Energy, Inc. (XTO), submits the attached delineation plan for a produced water leak from the flow line from EMSU Satellite #13 trunk line. Please contact Luke Williams with XTO at (432) 682-8873 or email Luke Willaims@xtoenergy.com or me if you have questions.

Respectfully,

Mark J. Larson, P.G.

President/Sr. Project Manager

507 N. Marienfeld St., Suite 205

Midland, Texas 79701

(432) 687-0901 (O)

(432) 556-8656 (C)



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Appendix C

Laboratory Reports

PERMIAN BASIN ENVIRONMENTAL LAB, LP 1400 Rankin Hwy Midland, TX 79701



Analytical Report

Prepared for:

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: XTO EMSU Sat 13 Project Number: 17-0193-01 Location: None Given

Lab Order Number: 8K19005



NELAP/TCEQ # T104704516-17-8

Report Date: 11/21/18

Larson & Associates, Inc.

Project: XTO EMSU Sat 13

P.O. Box 50685

Project Number: 17-0193-01

Midland TX, 79710 Project Manager: Mark Larson

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DP- 2 N (2')	8K19005-01	Soil	11/16/18 10:40	11-19-2018 11:40
DP- 2 E (2')	8K19005-02	Soil	11/16/18 10:41	11-19-2018 11:40
DP- 2 S (2')	8K19005-03	Soil	11/16/18 10:44	11-19-2018 11:40
DP- 2 W (2')	8K19005-04	Soil	11/16/18 10:45	11-19-2018 11:40
DP- 9 N (2')	8K19005-05	Soil	11/16/18 10:48	11-19-2018 11:40
DP- 9 E (2')	8K19005-06	Soil	11/16/18 10:50	11-19-2018 11:40
DP- 9 S (2')	8K19005-07	Soil	11/16/18 10:21	11-19-2018 11:40
DP- 9 W (2')	8K19005-08	Soil	11/16/18 10:53	11-19-2018 11:40
DP- 13 N (2')	8K19005-09	Soil	11/16/18 10:58	11-19-2018 11:40
DP- 13 E (2')	8K19005-10	Soil	11/16/18 11:00	11-19-2018 11:40
DP- 13 S (2')	8K19005-11	Soil	11/16/18 11:01	11-19-2018 11:40
DP- 13 W (2')	8K19005-12	Soil	11/16/18 11:02	11-19-2018 11:40
DP- 12 N (2')	8K19005-13	Soil	11/16/18 11:07	11-19-2018 11:40
DP- 12 E (2')	8K19005-14	Soil	11/16/18 11:09	11-19-2018 11:40
DP- 12 S (2')	8K19005-15	Soil	11/16/18 11:10	11-19-2018 11:40
DP- 12 W (2')	8K19005-16	Soil	11/16/18 11:12	11-19-2018 11:40
DP- 11 N (2')	8K19005-17	Soil	11/16/18 11:18	11-19-2018 11:40
DP- 11 E (2')	8K19005-18	Soil	11/16/18 11:20	11-19-2018 11:40
DP- 11 S (2')	8K19005-19	Soil	11/16/18 11:22	11-19-2018 11:40
DP- 11 W (2')	8K19005-20	Soil	11/16/18 11:23	11-19-2018 11:40
DP- 7 N (2')	8K19005-21	Soil	11/16/18 11:51	11-19-2018 11:40
DP- 7 E (2')	8K19005-22	Soil	11/16/18 11:53	11-19-2018 11:40
DP- 7 S (2')	8K19005-23	Soil	11/16/18 11:54	11-19-2018 11:40
DP- 7 W (2')	8K19005-24	Soil	11/16/18 11:56	11-19-2018 11:40
DP- 6 N (2')	8K19005-25	Soil	11/16/18 13:57	11-19-2018 11:40
DP- 6 E (2')	8K19005-26	Soil	11/16/18 13:59	11-19-2018 11:40
DP- 6 S (2')	8K19005-27	Soil	11/16/18 14:00	11-19-2018 11:40
DP- 6 W (2')	8K19005-28	Soil	11/16/18 14:03	11-19-2018 11:40
DP- 10 N (2')	8K19005-29	Soil	11/16/18 14:05	11-19-2018 11:40
DP- 10 E (2')	8K19005-30	Soil	11/16/18 14:06	11-19-2018 11:40
DP- 10 S (2')	8K19005-31	Soil	11/16/18 14:09	11-19-2018 11:40
DP- 10 W (2')	8K19005-32	Soil	11/16/18 14:11	11-19-2018 11:40

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

DP- 2 N (2') 8K19005-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin E	nvironmen	tal Lab, I	P.				
Organics by GC									
Benzene	ND	0.00110	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Toluene	ND	0.0110	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Ethylbenzene	ND	0.00549	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (p/m)	ND	0.0220	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (o)	ND	0.0110	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		119 %	75-1.	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		88.4 %	75-1.	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	S							
Chloride	1.82	1.10	mg/kg dry	1	P8K1914	11/19/18	11/20/18	EPA 300.0	
% Moisture	9.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 b	y EPA Method 80	15M							
C6-C12	ND	27.5	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		98.2 %	70-1.	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		117 %	70-1.	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	11/19/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

ND

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 2 E (2') 8K19005-02 (Soil)

			,	,					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	Environme	ntal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00116	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Toluene	ND	0.0116	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Ethylbenzene	ND	0.00581	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (p/m)	ND	0.0233	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (o)	ND	0.0116	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		119 %	75-1	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		93.1 %	75-1	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
General Chemistry Parameters by El	PA / Standard Method	ls							
Chloride	1.24	1.16	mg/kg dry	1	P8K1914	11/19/18	11/20/18	EPA 300.0	
% Moisture	14.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C	35 by EPA Method 80)15M							
C6-C12	ND	29.1	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
>C12-C28	ND	29.1	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
>C28-C35	ND	29.1	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
Surrogate: 1-Chlorooctane		72.9 %	70-1	30	P8K1905	11/19/18	11/19/18	TPH 8015M	
Surrogate: o-Terphenyl		83.9 %	70-1	30	P8K1905	11/19/18	11/19/18	TPH 8015M	

29.1 mg/kg dry

[CALC]

11/19/18

11/19/18

calc

Total Petroleum Hydrocarbon C6-C35

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 2 S (2') 8K19005-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Peri	nian Basin E	Environmen	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00104	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Toluene	ND	0.0104	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Ethylbenzene	ND	0.00521	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (p/m)	ND	0.0208	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (o)	ND	0.0104	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		120 %	75-1	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		95.4 %	75-1	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Metho	ds							
Chloride	4.24	1.04	mg/kg dry	1	P8K1914	11/19/18	11/20/18	EPA 300.0	
% Moisture	4.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	by EPA Method 8	015M							
C6-C12	ND	26.0	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
Surrogate: 1-Chlorooctane		72.3 %	70-1	30	P8K1905	11/19/18	11/19/18	TPH 8015M	
Surrogate: o-Terphenyl		81.8 %	70-1	30	P8K1905	11/19/18	11/19/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	11/19/18	11/19/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 2 W (2') 8K19005-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environme	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00112	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Toluene	ND	0.0112	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Ethylbenzene	ND	0.00562	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (p/m)	ND	0.0225	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (o)	ND	0.0112	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		119 %	75-1	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		90.0 %	75-1	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	5.42	1.12	mg/kg dry	1	P8K1914	11/19/18	11/20/18	EPA 300.0	
% Moisture	11.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	by EPA Method 80	015M							
C6-C12	ND	28.1	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
Surrogate: 1-Chlorooctane		72.4 %	70-1	30	P8K1905	11/19/18	11/19/18	TPH 8015M	
Surrogate: o-Terphenyl		82.4 %	70-1	30	P8K1905	11/19/18	11/19/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	11/19/18	11/19/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 9 N (2') 8K19005-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Toluene	ND	0.0111	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Ethylbenzene	ND	0.00556	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (p/m)	ND	0.0222	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (o)	ND	0.0111	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		90.0 %	75-1	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		118 %	75-1	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ls							
Chloride	ND	1.11	mg/kg dry	1	P8K1914	11/19/18	11/20/18	EPA 300.0	
% Moisture	10.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	27.8	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
Surrogate: 1-Chlorooctane		63.6 %	70-1	30	P8K1905	11/19/18	11/19/18	TPH 8015M	S-GC
Surrogate: o-Terphenyl		72.8 %	70-1	30	P8K1905	11/19/18	11/19/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	11/19/18	11/19/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

DP- 9 E (2') 8K19005-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	nvironmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00119	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Toluene	ND	0.0119	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Ethylbenzene	ND	0.00595	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (p/m)	ND	0.0238	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (o)	ND	0.0119	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		130 %	75-1	25	P8K1910	11/19/18	11/19/18	EPA 8021B	S-09
Surrogate: 1,4-Difluorobenzene		97.6 %	75-1	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
General Chemistry Parameters by EF	A / Standard Method	ls							
Chloride	ND	1.19	mg/kg dry	1	P8K1914	11/19/18	11/20/18	EPA 300.0	
% Moisture	26.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C	35 by EPA Method 80)15M							
C6-C12	ND	29.8	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C12-C28	46.9	29.8	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C28-C35	29.8	29.8	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		106 %	70-1	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		126 %	70-1	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	76.7	29.8	mg/kg dry	1	[CALC]	11/19/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 9 S (2') 8K19005-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Peri	nian Basin E	Environmer	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00116	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Toluene	ND	0.0116	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Ethylbenzene	ND	0.00581	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (p/m)	ND	0.0233	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (o)	ND	0.0116	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		120 %	75-1	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		91.7 %	75-1	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Metho	ds							
Chloride	2.64	1.16	mg/kg dry	1	P8K1914	11/19/18	11/20/18	EPA 300.0	
% Moisture	14.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 8	015M							
C6-C12	ND	29.1	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C12-C28	ND	29.1	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C28-C35	ND	29.1	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		94.6 %	70-1	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-1	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.1	mg/kg dry	1	[CALC]	11/19/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 9 W (2') 8K19005-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00116	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Toluene	ND	0.0116	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Ethylbenzene	ND	0.00581	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (p/m)	ND	0.0233	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (o)	ND	0.0116	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		115 %	75-1.	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		96.4 %	75-1.	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	ND	1.16	mg/kg dry	1	P8K1914	11/19/18	11/20/18	EPA 300.0	
% Moisture	14.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	29.1	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C12-C28	ND	29.1	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C28-C35	ND	29.1	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		96.0 %	70-1.	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		112 %	70-1.	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.1	mg/kg dry	1	[CALC]	11/19/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 13 N (2') 8K19005-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perr	nian Basin E	Environme	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00108	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Toluene	ND	0.0108	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Ethylbenzene	ND	0.00538	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (p/m)	ND	0.0215	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Xylene (o)	ND	0.0108	mg/kg dry	1	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		108 %	75-1	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		87.7 %	75-1	25	P8K1910	11/19/18	11/19/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Metho	ds							
Chloride	56.1	1.08	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	7.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	oy EPA Method 8	015M							
C6-C12	ND	26.9	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
Surrogate: 1-Chlorooctane		76.4 %	70-1	30	P8K1905	11/19/18	11/19/18	TPH 8015M	
Surrogate: o-Terphenyl		87.6 %	70-1	30	P8K1905	11/19/18	11/19/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.9	mg/kg dry	1	[CALC]	11/19/18	11/19/18	calc	
-									

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 13 E (2') 8K19005-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perr	nian Basin E	Environme	ntal Lab, l	P.				
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0109	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00543	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0217	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0109	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		113 %	75-1	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		97.5 %	75-1	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Metho	ds							
Chloride	54.1	1.09	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	8.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 8	015M							
C6-C12	ND	27.2	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		101 %	70-1	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		119 %	70-1	30	P8K1905	11/19/18	11/20/18	TPH 8015M	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

DP- 13 S (2') 8K19005-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Peri	nian Basin E	nvironmen	ıtal Lab, I					
Organics by GC									
Benzene	ND	0.00108	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0108	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00538	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0215	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0108	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		88.8 %	75-1	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		104 %	75-1	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA / Stat	ndard Metho	ds							
Chloride	2.49	1.08	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	7.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by El	PA Method 8	015M							
C6-C12	ND	26.9	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		100 %	70-1	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		118 %	70-1	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.9	mg/kg dry	1	[CALC]	11/19/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 13 W (2') 8K19005-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
· ·		nian Basin E				******	, v 		
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0109	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00543	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0217	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0109	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		113 %	75-1	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		94.2 %	75-1	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA / Sta	ndard Metho	ds							
Chloride	23.8	1.09	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	8.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by E	PA Method 8	015M							
C6-C12	ND	27.2	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P8K1905	11/19/18	11/19/18	TPH 8015M	
Surrogate: 1-Chlorooctane		82.5 %	70-1	30	P8K1905	11/19/18	11/19/18	TPH 8015M	
Surrogate: o-Terphenyl		94.2 %	70-1	30	P8K1905	11/19/18	11/19/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	11/19/18	11/19/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

- 12 N (2')

DP- 12 N (2') 8K19005-13 (Soil)

Analyte Re	Reporting esult Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permian Basin I	Environment	al Lab, I	L .P.				
Organics by GC								
Benzene	ND 0.00119	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Toluene	ND 0.0119	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND 0.00595	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND 0.0238	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND 0.0119	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	90.4 %	75-12:	5	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	108 %	75-123	5	P8K1910	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA / Standard	Methods							
Chloride	ND 1.19	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	6.0 0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA M	ethod 8015M							
C6-C12	ND 29.8	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C12-C28	ND 29.8	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C28-C35	ND 29.8	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane	83.4 %	70-130)	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl	95.9 %	70-130)	P8K1905	11/19/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND 29.8	mg/kg dry	1	[CALC]	11/19/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 12 E (2') 8K19005-14 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		nian Basin E		tal Lab, I			,		
Organics by GC									
Benzene	ND	0.00118	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0118	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00588	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0235	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0118	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		115 %	75-12	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		98.6 %	75-12	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA / St	andard Metho	ds							
Chloride	ND	1.18	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	15.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by	EPA Method 8	015M							
C6-C12	ND	29.4	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C12-C28	ND	29.4	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C28-C35	ND	29.4	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		98.4 %	70-1.	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		114 %	70-1.	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.4	mg/kg dry	1	[CALC]	11/19/18	11/20/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

DP- 12 S (2') 8K19005-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Peri	nian Basin E	nvironmen	tal Lab, I	P.				
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0109	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00543	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0217	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0109	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		104 %	75-1.	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		91.2 %	75-1.	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA / St	andard Metho	ds							
Chloride	ND	1.09	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	8.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by	EPA Method 8	015M							
C6-C12	ND	27.2	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		103 %	70-1.	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		120 %	70-1.	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	11/19/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 12 W (2') 8K19005-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	nvironmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0111	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00556	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0222	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0111	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		114 %	75-12	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		96.2 %	75-12	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EI	PA / Standard Method	ls							
Chloride	ND	1.11	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	10.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C	35 by EPA Method 80)15M							
C6-C12	ND	27.8	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C12-C28	42.4	27.8	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C28-C35	36.8	27.8	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		75.7 %	70-13	80	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		85.8 %	70-13	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	79.2	27.8	mg/kg dry	1	[CALC]	11/19/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 11 N (2') 8K19005-17 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perr	nian Basin E	nvironmen	tal Lab, I	P.				
Organics by GC									
Benzene	ND	0.00110	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0110	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00549	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0220	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0110	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		111 %	75-1.	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		94.8 %	75-1.	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA / St	andard Metho	ds							
Chloride	ND	1.10	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	9.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by	EPA Method 8	015M							
C6-C12	ND	27.5	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		107 %	70-1.	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		126 %	70-1.	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	11/19/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 11 E (2') 8K19005-18 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmer	ıtal Lab, l	P.				
Organics by GC									
Benzene	ND	0.00112	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0112	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00562	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0225	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0112	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		94.7 %	75-1	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		120 %	75-1	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	ND	1.12	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	11.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	by EPA Method 80	015M							
C6-C12	ND	28.1	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		80.9 %	70-1	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		93.0 %	70-1	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	11/19/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 11 S (2') 8K19005-19 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00114	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0114	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00568	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0227	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0114	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		108 %	75-1.	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		97.6 %	75-1.	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Method	ds							
Chloride	1.35	1.14	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	12.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	28.4	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		90.2 %	70-1.	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		103 %	70-1.	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	11/19/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 11 W (2') 8K19005-20 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Peri	mian Basin E	nvironmer	ıtal Lab, I	L.P.				
Organics by GC									
Benzene	ND	0.00114	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0114	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00568	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0227	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0114	mg/kg dry	1	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		113 %	75-1	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		92.0 %	75-1	25	P8K1910	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA / St	andard Metho	ds							
Chloride	ND	1.14	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	12.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by 1	EPA Method 8	015M							
C6-C12	ND	28.4	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		82.7 %	70-1	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		95.1 %	70-1	30	P8K1905	11/19/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	11/19/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 7 N (2') 8K19005-21 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
*		nian Basin E		tal Lab, I		*			
Organics by GC									
Benzene	ND	0.00114	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0114	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00568	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0227	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0114	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		88.9 %	75-1.	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		119 %	75-1.	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA / Sta	ındard Metho	ds							
Chloride	ND	1.14	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	12.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by I	EPA Method 8	015M							
C6-C12	ND	28.4	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		98.0 %	70-1.	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		113 %	70-1.	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	11/20/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 7 E (2') 8K19005-22 (Soil)

	Reporting							
Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Perr	nian Basin E	nvironmen	ıtal Lab, l	L .P.				
ND	0.00106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
ND	0.0106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
ND	0.00532	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
ND	0.0213	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
ND	0.0106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
	96.2 %	75-1	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
	110 %	75-1	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
Standard Metho	ds							
425	1.06	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
6.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
oy EPA Method 8	015M							
ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
	99.1 %	70-1	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
	115 %	70-1	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
ND	26.6	mg/kg dry	1	[CALC]	11/20/18	11/20/18	calc	
	Pern ND ND ND ND Very Standard Method 425 6.0 DV EPA Method 8 ND ND ND ND	ND	ND	ND	ND	ND	ND	ND

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Mark Larson

DP- 7 S (2') 8K19005-23 (Soil)

	D 1	Reporting	TT '2	D'L c'	D ()	D 1		M.d. I	N
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Per	mian Basin E	Environmen	tal Lab, l	L.P.				
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00532	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0213	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		111 %	75-12	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		93.4 %	75-12	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA / Sta	ndard Metho	ds							
Chloride	ND	1.06	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	6.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by E	PA Method 8	8015M							
C6-C12	ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		97.1 %	70-1.	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		112 %	70-1.	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	11/20/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 7 W (2') 8K19005-24 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perr	nian Basin E	Environme	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Γoluene	ND	0.0106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00532	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0213	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		105 %	75-1	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		96.5 %	75-1	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Metho	ds							
Chloride	6.03	1.06	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	6.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 8	015M							
C6-C12	ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
C12-C28	ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
C28-C35	ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		98.2 %	70-1	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-1	30	P8K2010	11/20/18	11/20/18	TPH 8015M	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 6 N (2') 8K19005-25 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmei	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00103	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0103	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00515	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0206	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0103	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		113 %	75-1	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		94.9 %	75-1	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA /	Standard Method	ds							
Chloride	15.5	1.03	mg/kg dry	1	P8K1915	11/19/18	11/20/18	EPA 300.0	
% Moisture	3.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 b	y EPA Method 80	015M							
C6-C12	ND	25.8	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		86.7 %	70-1	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		99.7 %	70-1	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	11/20/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Mark Larson

DP- 6 E (2') 8K19005-26 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00532	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0213	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		96.1 %	75-1	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		110 %	75-1	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ls							
Chloride	125	1.06	mg/kg dry	1	P8K2006	11/20/18	11/20/18	EPA 300.0	
% Moisture	6.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80)15M							
C6-C12	ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		92.5 %	70-1	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		106 %	70-1	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	11/20/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 6 S (2') 8K19005-27 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00532	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0213	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		111 %	75-1.	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		92.7 %	75-1.	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Method	ds							
Chloride	2.61	1.06	mg/kg dry	1	P8K2006	11/20/18	11/20/18	EPA 300.0	
% Moisture	6.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		96.7 %	70-1.	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-1.	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	11/20/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 6 W (2') 8K19005-28 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00105	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0105	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00526	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0211	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0105	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		105 %	75-12	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		95.5 %	75-12	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	15.1	1.05	mg/kg dry	1	P8K2006	11/20/18	11/20/18	EPA 300.0	
% Moisture	5.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	26.3	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		91.8 %	70-1.	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		105 %	70-1.	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.3	mg/kg dry	1	[CALC]	11/20/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

0 N (2!)

DP- 10 N (2') 8K19005-29 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin E	nvironmen	tal Lab, I	P.				
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00532	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0213	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0106	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		94.8 %	75-12	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		110 %	75-12	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA /	Standard Method	s							
Chloride	ND	1.06	mg/kg dry	1	P8K2006	11/20/18	11/20/18	EPA 300.0	
% Moisture	6.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 b	y EPA Method 80	15M							
C6-C12	ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		93.2 %	70-13	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
Surrogate: o-Terphenyl		107 %	70-13	30	P8K2010	11/20/18	11/20/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	11/20/18	11/20/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 10 E (2') 8K19005-30 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	tal Lab, I	L.P.				
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0109	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00543	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0217	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0109	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		120 %	75-12	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		94.4 %	75-12	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA / S	tandard Method	ls							
Chloride	ND	1.09	mg/kg dry	1	P8K2006	11/20/18	11/20/18	EPA 300.0	
% Moisture	8.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by	EPA Method 80)15M							
C6-C12	ND	27.2	mg/kg dry	1	P8K2010	11/20/18	11/21/18	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P8K2010	11/20/18	11/21/18	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P8K2010	11/20/18	11/21/18	TPH 8015M	
Surrogate: 1-Chlorooctane		95.8 %	70-1.	30	P8K2010	11/20/18	11/21/18	TPH 8015M	
Surrogate: o-Terphenyl		110 %	70-1.	30	P8K2010	11/20/18	11/21/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	11/20/18	11/21/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 10 S (2') 8K19005-31 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00108	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0108	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00538	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0215	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0108	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		94.7 %	75-1	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		110 %	75-1	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	ND	1.08	mg/kg dry	1	P8K2006	11/20/18	11/20/18	EPA 300.0	
% Moisture	7.0	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	by EPA Method 80	015M							
C6-C12	ND	26.9	mg/kg dry	1	P8K2010	11/20/18	11/21/18	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P8K2010	11/20/18	11/21/18	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P8K2010	11/20/18	11/21/18	TPH 8015M	
Surrogate: 1-Chlorooctane		95.9 %	70-1	30	P8K2010	11/20/18	11/21/18	TPH 8015M	
Surrogate: o-Terphenyl		112 %	70-1	30	P8K2010	11/20/18	11/21/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.9	mg/kg dry	1	[CALC]	11/20/18	11/21/18	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> DP- 10 W (2') 8K19005-32 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00104	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Toluene	ND	0.0104	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Ethylbenzene	ND	0.00521	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0208	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Xylene (o)	ND	0.0104	mg/kg dry	1	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		91.9 %	75-1	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		105 %	75-1	25	P8K1911	11/19/18	11/20/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	ND	1.04	mg/kg dry	1	P8K2006	11/20/18	11/20/18	EPA 300.0	
% Moisture	ND	0.1	%	1	P8K2003	11/20/18	11/20/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 8	015M							
C6-C12	ND	26.0	mg/kg dry	1	P8K2010	11/20/18	11/21/18	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P8K2010	11/20/18	11/21/18	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P8K2010	11/20/18	11/21/18	TPH 8015M	
Surrogate: 1-Chlorooctane		96.7 %	70-1	30	P8K2010	11/20/18	11/21/18	TPH 8015M	
Surrogate: o-Terphenyl		112 %	70-1	30	P8K2010	11/20/18	11/21/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	11/20/18	11/21/18	calc	

Analyte

Notes

Larson & Associates, Inc. Project: XTO EMSU Sat 13

Result

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

RPD

Limit

%REC

Limits

RPD

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

Units

Spike

Level

Source

Result

%REC

Reporting

Limit

Blank (P8K1910-BLK1)				Prepared & Analy	yzed: 11/19/18				
Benzene	ND	0.00100	mg/kg wet						
Toluene	ND	0.0100	"						
Ethylbenzene	ND	0.00500	"						
Xylene (p/m)	ND	0.0200	"						
Xylene (o)	ND	0.0100	"						
Surrogate: 1,4-Difluorobenzene	0.0533		"	0.0600	88.9	75-125			
Surrogate: 4-Bromofluorobenzene	0.0677		"	0.0600	113	75-125			
LCS (P8K1910-BS1)				Prepared & Analy	yzed: 11/19/18				
Benzene	0.108	0.00100	mg/kg wet	0.100	108	70-130			
Toluene	0.110	0.0100	"	0.100	110	70-130			
Ethylbenzene	0.112	0.00500	"	0.100	112	70-130			
Xylene (p/m)	0.212	0.0200	"	0.200	106	70-130			
Xylene (o)	0.120	0.0100	"	0.100	120	70-130			
Surrogate: 1,4-Difluorobenzene	0.0674		"	0.0600	112	75-125			
Surrogate: 4-Bromofluorobenzene	0.0682		"	0.0600	114	75-125			
LCS Dup (P8K1910-BSD1)				Prepared & Analy	yzed: 11/19/18				
Benzene	0.102	0.00100	mg/kg wet	0.100	102	70-130	5.36	20	

LCS Dup (P8K1910-BSD1)				Prepared & An	alyzed: 11/19/18				
Benzene	0.102	0.00100	mg/kg wet	0.100	102	70-130	5.36	20	
Toluene	0.105	0.0100	"	0.100	105	70-130	4.20	20	
Ethylbenzene	0.103	0.00500	"	0.100	103	70-130	7.68	20	
Xylene (p/m)	0.214	0.0200	"	0.200	107	70-130	1.17	20	
Xylene (o)	0.118	0.0100	"	0.100	118	70-130	1.49	20	
Surrogate: 1,4-Difluorobenzene	0.0645		"	0.0600	107	75-125			
Surrogate: 4-Bromofluorobenzene	0.0717		"	0.0600	120	75-125			

Matrix Spike (P8K1910-MS1)	Sour	ce: 8K19005	5-20	Prepared: 1	1/19/18 A	nalyzed: 1	1/20/18	
Benzene	0.0809	0.00114	mg/kg dry	0.114	ND	71.2	80-120	QM-05
Toluene	0.0786	0.0114	"	0.114	ND	69.1	80-120	QM-05
Ethylbenzene	0.0824	0.00568	"	0.114	ND	72.5	80-120	QM-05
Xylene (p/m)	0.152	0.0227	"	0.227	ND	66.7	80-120	QM-05
Xylene (o)	0.0712	0.0114	"	0.114	ND	62.6	80-120	QM-05
Surrogate: 1,4-Difluorobenzene	0.0754		"	0.0682		111	75-125	
Surrogate: 4-Bromofluorobenzene	0.0913		"	0.0682		134	75-125	S-GC

0.0639

0.0675

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

	Perm	iian Basin	Enviror	imental I	Lab, L.P	•				
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8K1910 - General Preparation (C	GC)									
Matrix Spike Dup (P8K1910-MSD1)	Sou	rce: 8K19005	5-20	Prepared: 1	11/19/18 A	nalyzed: 11	/20/18			
Benzene	0.0936	0.00114	mg/kg dry	0.114	ND	82.4	80-120	14.5	20	
Toluene	0.0916	0.0114	"	0.114	ND	80.6	80-120	15.4	20	
Ethylbenzene	0.0953	0.00568	"	0.114	ND	83.9	80-120	14.5	20	
Xylene (p/m)	0.171	0.0227	"	0.227	ND	75.3	80-120	12.2	20	QM-05
Xylene (o)	0.0860	0.0114	"	0.114	ND	75.6	80-120	18.8	20	QM-05
Surrogate: 1,4-Difluorobenzene	0.0782		"	0.0682		115	75-125			
Surrogate: 4-Bromofluorobenzene	0.0912		"	0.0682		134	75-125			S-GC
Blank (P8K1911 - General Preparation (CBlank (P8K1911-BLK1)	,			Prepared: 1	1/19/18 A	nalyzed: 11	/20/18			
Benzene	ND	0.00100	mg/kg wet	Trepared.	11/1//10 /1	naryzea. 11	720/10			
Toluene	ND	0.0100	"							
Ethylbenzene	ND	0.00500	"							
Xylene (p/m)	ND	0.0200	"							
Xylene (o)	ND	0.0100	"							
Surrogate: 4-Bromofluorobenzene	0.0680		"	0.0600		113	75-125			
Surrogate: 1,4-Difluorobenzene	0.0550		"	0.0600		91.6	75-125			
LCS (P8K1911-BS1)				Prepared: 1	1/19/18 A	nalyzed: 11	/20/18			
Benzene	0.105	0.00100	mg/kg wet	0.100		105	70-130			
Toluene	0.107	0.0100	"	0.100		107	70-130			
Ethylbenzene	0.116	0.00500	"	0.100		116	70-130			
Xylene (p/m)	0.208	0.0200	"	0.200		104	70-130			
Xylene (o)	0.111	0.0100	"	0.100		111	70-130			

0.0600

0.0600

Surrogate: 4-Bromofluorobenzene

Surrogate: 1,4-Difluorobenzene

107

112

75-125

75-125

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P8K1911 - General Preparation (GC)										
LCS Dup (P8K1911-BSD1)				Prepared: 1	1/19/18 A	nalyzed: 11	/20/18			
Benzene	0.105	0.00100	mg/kg wet	0.100		105	70-130	0.0666	20	
Toluene	0.109	0.0100	"	0.100		109	70-130	1.87	20	
Ethylbenzene	0.118	0.00500	"	0.100		118	70-130	1.61	20	
Xylene (p/m)	0.207	0.0200	"	0.200		104	70-130	0.261	20	
Xylene (o)	0.109	0.0100	"	0.100		109	70-130	2.24	20	
Surrogate: 4-Bromofluorobenzene	0.0699		"	0.0600		117	75-125			
Surrogate: 1,4-Difluorobenzene	0.0651		"	0.0600		108	75-125			
Matrix Spike (P8K1911-MS1)	Sou	ırce: 8K19005	5-32	Prepared: 1	1/19/18 A	nalyzed: 11	/20/18			
Benzene	0.0875	0.00104	mg/kg dry	0.104	ND	84.0	80-120			
Toluene	0.0868	0.0104	"	0.104	ND	83.3	80-120			
Ethylbenzene	0.0966	0.00521	"	0.104	ND	92.8	80-120			
Xylene (p/m)	0.188	0.0208	"	0.208	ND	90.1	80-120			
Xylene (o)	0.0917	0.0104	"	0.104	ND	88.0	80-120			
Surrogate: 1,4-Difluorobenzene	0.0692		"	0.0625		111	75-125			
Surrogate: 4-Bromofluorobenzene	0.0734		"	0.0625		118	75-125			
Matrix Spike Dup (P8K1911-MSD1)	Sou	ırce: 8K19005	5-32	Prepared: 1	1/19/18 A	nalyzed: 11	/20/18			
Benzene	0.0901	0.00104	mg/kg dry	0.104	ND	86.5	80-120	2.91	20	
Toluene	0.0904	0.0104	"	0.104	ND	86.7	80-120	3.99	20	
Ethylbenzene	0.101	0.00521	"	0.104	ND	97.4	80-120	4.88	20	
Xylene (p/m)	0.189	0.0208	"	0.208	ND	90.7	80-120	0.703	20	
Xylene (o)	0.0889	0.0104	"	0.104	ND	85.3	80-120	3.05	20	
Surrogate: 4-Bromofluorobenzene	0.0717		"	0.0625		115	75-125			
Surrogate: 1,4-Difluorobenzene	0.0684		"	0.0625		109	75-125			

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8K1914 - *** DEFAULT PREP ***										
Blank (P8K1914-BLK1)				Prepared: 1	11/19/18	Analyzed: 11	1/20/18			
Chloride	ND	1.00	mg/kg wet							
LCS (P8K1914-BS1)				Prepared: 1	11/19/18	Analyzed: 11	1/20/18			
Chloride	407	1.00	mg/kg wet	400		102	80-120			
LCS Dup (P8K1914-BSD1)				Prepared: 1	11/19/18	Analyzed: 11	1/20/18			
Chloride	408	1.00	mg/kg wet	400		102	80-120	0.209	20	
Duplicate (P8K1914-DUP1)	Sour	ce: 8K16018	8-02	Prepared: 1	11/19/18	Analyzed: 11	1/20/18			
Chloride	5650	26.6	mg/kg dry		5710			1.15	20	
Duplicate (P8K1914-DUP2)	Sour	ce: 8K1602	1-04	Prepared: 1	11/19/18	Analyzed: 11	1/20/18			
Chloride	9820	26.3	mg/kg dry		9850			0.332	20	
Matrix Spike (P8K1914-MS1)	Sour	ce: 8K16018	8-02	Prepared: 1	11/19/18 <i>A</i>	Analyzed: 11	1/20/18			
Chloride	8310	26.6	mg/kg dry	2660	5710	97.5	80-120			
Batch P8K1915 - *** DEFAULT PREP ***										
Blank (P8K1915-BLK1)				Prepared: 1	11/19/18	Analyzed: 11	1/20/18			
Chloride	ND	1.00	mg/kg wet			-				
LCS (P8K1915-BS1)				Prepared: 1	11/19/18	Analyzed: 11	1/20/18			
Chloride	407	1.00	mg/kg wet	400		102	80-120			
LCS Dup (P8K1915-BSD1)				Prepared: 1	11/19/18	Analyzed: 11	1/20/18			
Chloride	409	1.00	mg/kg wet	400		102	80-120	0.588	20	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P8K1915 - *** DEFAULT PREP ***										
Duplicate (P8K1915-DUP1)	Sou	rce: 8K19009	-01	Prepared: 1	11/19/18 A	nalyzed: 11	1/20/18			
Chloride	5660	11.9	mg/kg dry		5590			1.30	20	
Duplicate (P8K1915-DUP2)	Sou	rce: 8K19005	-16	Prepared: 1	11/19/18 A	nalyzed: 11	1/20/18			
Chloride	ND	1.11	mg/kg dry		ND				20	
Matrix Spike (P8K1915-MS1)	Sou	rce: 8K19009	-01	Prepared: 1	11/19/18 A	nalyzed: 11	1/20/18			
Chloride	6800	11.9	mg/kg dry	1190	5590	101	80-120			
Batch P8K2003 - *** DEFAULT PREP ***										
Blank (P8K2003-BLK1)				Prepared &	t Analyzed:	: 11/20/18				
% Moisture	ND	0.1	%							
Duplicate (P8K2003-DUP1)	Sou	rce: 8K19005	-21	Prepared &	k Analyzed:	11/20/18				
% Moisture	14.0	0.1	%		12.0			15.4	20	
Duplicate (P8K2003-DUP2)	Sou	rce: 8K19006	-16	Prepared &	k Analyzed:	11/20/18				
% Moisture	4.0	0.1	%	-	4.0			0.00	20	
Duplicate (P8K2003-DUP3)	Sou	rce: 8K19009	-03	Prepared &	k Analyzed:	: 11/20/18				
% Moisture	15.0	0.1	%	-	15.0			0.00	20	
Batch P8K2006 - *** DEFAULT PREP ***										
Blank (P8K2006-BLK1)				Prepared &	k Analyzed:	: 11/20/18				
Chloride	ND	1.00	mg/kg wet	-	•					

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P8K2006 - *** DEFAULT PREP ***										
LCS (P8K2006-BS1)				Prepared &	& Analyzed:	11/20/18				
Chloride	409	1.00	mg/kg wet	400		102	80-120			
LCS Dup (P8K2006-BSD1)				Prepared &	& Analyzed:	11/20/18				
Chloride	407	1.00	mg/kg wet	400		102	80-120	0.471	20	
Duplicate (P8K2006-DUP1)	Sour	ce: 8K19005	5-26	Prepared &	& Analyzed:	11/20/18				
Chloride	128	1.06	mg/kg dry		125			1.77	20	
Duplicate (P8K2006-DUP2)	Sour	ce: 8K19006	5-13	Prepared:	11/20/18 A	nalyzed: 11	/21/18			
Chloride	599	1.05	mg/kg dry		650			8.16	20	
Matrix Spike (P8K2006-MS1)	Sour	ce: 8K19005	5-26	Prepared &	& Analyzed:	11/20/18				
Chloride	657	1.06	mg/kg drv	532	125	99.9	80-120			

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

					~		0/275			
Analyta	Dogult	Reporting	Limita	Spike	Source	0/DEC	%REC	DDD	RPD	Note-
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P8K1905 - TX 1005										
Blank (P8K1905-BLK1)				Prepared &	Analyzed:	11/19/18				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	82.4		"	100		82.4	70-130			
Surrogate: o-Terphenyl	47.6		"	50.0		95.1	70-130			
LCS (P8K1905-BS1)				Prepared &	: Analyzed:	11/19/18				
C6-C12	800	25.0	mg/kg wet	1000		80.0	75-125			
>C12-C28	1010	25.0	"	1000		101	75-125			
Surrogate: 1-Chlorooctane	98.0		"	100		98.0	70-130			
Surrogate: o-Terphenyl	47.3		"	50.0		94.6	70-130			
LCS Dup (P8K1905-BSD1)				Prepared &	: Analyzed:	11/19/18				
C6-C12	1070	25.0	mg/kg wet	1000		107	75-125	28.5	20	
>C12-C28	1220	25.0	"	1000		122	75-125	18.6	20	
Surrogate: 1-Chlorooctane	120		"	100		120	70-130			
Surrogate: o-Terphenyl	56.9		"	50.0		114	70-130			
Matrix Spike (P8K1905-MS1)	Sour	ce: 8K19005	5-20	Prepared: 1	1/19/18 A	nalyzed: 11	/20/18			
C6-C12	906	28.4	mg/kg dry	1140	23.0	77.7	75-125			
>C12-C28	1000	28.4	"	1140	12.5	86.9	75-125			
Surrogate: 1-Chlorooctane	122		"	114		107	70-130			
Surrogate: o-Terphenyl	57.5		"	56.8		101	70-130			
Matrix Spike Dup (P8K1905-MSD1)	Sour	ce: 8K19005	5-20	Prepared: 1	1/19/18 A	nalyzed: 11	/20/18			
C6-C12	908	28.4	mg/kg dry	1140	23.0	77.9	75-125	0.271	20	
>C12-C28	1010	28.4	"	1140	12.5	87.9	75-125	1.20	20	
Surrogate: 1-Chlorooctane	121		"	114		107	70-130			
Surrogate: o-Terphenyl	57.5		"	56.8		101	70-130			
• •										

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting	** *.	Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P8K2010 - TX 1005										
Blank (P8K2010-BLK1)				Prepared &	Analyzed:	11/20/18				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	106		"	100		106	70-130			
Surrogate: o-Terphenyl	61.6		"	50.0		123	70-130			
LCS (P8K2010-BS1)				Prepared &	Analyzed:	11/20/18				
C6-C12	940	25.0	mg/kg wet	1000		94.0	75-125			
>C12-C28	990	25.0	"	1000		99.0	75-125			
Surrogate: 1-Chlorooctane	109		"	100		109	70-130			
Surrogate: o-Terphenyl	52.6		"	50.0		105	70-130			
LCS Dup (P8K2010-BSD1)				Prepared &	Analyzed:	11/20/18				
C6-C12	968	25.0	mg/kg wet	1000		96.8	75-125	2.92	20	
>C12-C28	1010	25.0	"	1000		101	75-125	2.15	20	
Surrogate: 1-Chlorooctane	114		"	100		114	70-130			
Surrogate: o-Terphenyl	54.0		"	50.0		108	70-130			
Matrix Spike (P8K2010-MS1)	Sour	rce: 8K19009	9-01	Prepared: 1	11/20/18 A	nalyzed: 11	/21/18			
C6-C12	1100	29.8	mg/kg dry	1190	14.0	91.6	75-125			
>C12-C28	1230	29.8	"	1190	12.3	102	75-125			
Surrogate: 1-Chlorooctane	133		"	119		112	70-130			
Surrogate: o-Terphenyl	62.9		"	59.5		106	70-130			
Matrix Spike Dup (P8K2010-MSD1)	Sour	rce: 8K19009	9-01	Prepared: 1	11/20/18 A	nalyzed: 11	/21/18			
C6-C12	1090	29.8	mg/kg dry	1190	14.0	90.0	75-125	1.78	20	
>C12-C28	1220	29.8	"	1190	12.3	101	75-125	0.744	20	
Surrogate: 1-Chlorooctane	128		"	119		108	70-130			
Surrogate: o-Terphenyl	62.0		"	59.5		104	70-130			
- * *										

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

Larson & Associates, Inc. Project: XTO EMSU Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

S-09 Surrogate recovery limits have been exceeded.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were

within acceptance limits showing that the laboratory is in control and the data is acceptable.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

	Drew	Darron			
Report Approved By:			Date:	11/21/2018	

Brent Barron, Laboratory Director/Technical Director

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If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

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PERMIAN BASIN ENVIRONMENTAL LAB, LP 1400 Rankin Hwy Midland, TX 79701



Analytical Report

Prepared for:

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: XTO Sat 13
Project Number: 17-0193-01
Location: None Given

Lab Order Number: 8L03002



NELAP/TCEQ # T104704516-17-8

Report Date: 12/04/18

Larson & Associates, Inc.

Project: XTO Sat 13

P.O. Box 50685

Project Number: 17-0193-01

Midland TX, 79710

Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-1 (6')	8L03002-01	Soil	11/30/18 07:35	12-03-2018 10:14
S-2 (6')	8L03002-02	Soil	11/30/18 07:38	12-03-2018 10:14
S-3 (6')	8L03002-03	Soil	11/30/18 07:41	12-03-2018 10:14
S-4 (6')	8L03002-04	Soil	11/30/18 07:44	12-03-2018 10:14
S-5 (2')	8L03002-05	Soil	11/30/18 07:51	12-03-2018 10:14
S-6 (2')	8L03002-06	Soil	11/30/18 07:54	12-03-2018 10:14

Larson & Associates, Inc. Project: XTO Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-1 (6') 8L03002-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	Environmen	tal Lab,	L.P.				
General Chemistry Parameters by EP	PA / Standard Methods	S							
Chloride	1020	5.56	mg/kg dry	5	P8L0304	12/03/18	12/04/18	EPA 300.0	
% Moisture	10.0	0.1	%	1	P8L0410	12/04/18	12/04/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C	35 by EPA Method 80	15M							
C6-C12	ND	27.8	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
>C12-C28	30.8	27.8	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
Surrogate: 1-Chlorooctane		116 %	70-13	80	P8L0404	12/03/18	12/03/18	TPH 8015M	
Surrogate: o-Terphenyl		129 %	70-13	80	P8L0404	12/03/18	12/03/18	TPH 8015M	
Total Petroleum Hydrocarbon	30.8	27.8	mg/kg dry	1	[CALC]	12/03/18	12/03/18	calc	
C6-C35									

Larson & Associates, Inc. Project: XTO Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-2 (6') 8L03002-02 (Soil)

			`						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
	Perm	ian Basin E	Environme	ıtal Lab, l	L .P.				
General Chemistry Parameters by EPA	Standard Method	s							
Chloride	526	1.14	mg/kg dry	1	P8L0304	12/03/18	12/04/18	EPA 300.0	
% Moisture	12.0	0.1	%	1	P8L0410	12/04/18	12/04/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	by EPA Method 80	15M							
C6-C12	ND	28.4	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
Surrogate: 1-Chlorooctane		114 %	70-1	30	P8L0404	12/03/18	12/03/18	TPH 8015M	
Surrogate: o-Terphenyl		126 %	70-1	30	P8L0404	12/03/18	12/03/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	12/03/18	12/03/18	calc	

Larson & Associates, Inc. Project: XTO Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-3 (6') 8L03002-03 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permi	an Basin E	Invironmen	ital Lab,	L.P.				
General Chemistry Parameters by EPA	A / Standard Methods	i							
Chloride	111	1.08	mg/kg dry	1	P8L0304	12/03/18	12/04/18	EPA 300.0	
% Moisture	7.0	0.1	%	1	P8L0410	12/04/18	12/04/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C3:	5 by EPA Method 801	15M							
C6-C12	30.0	26.9	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
>C12-C28	754	26.9	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
>C28-C35	140	26.9	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
Surrogate: 1-Chlorooctane		104 %	70-130		P8L0404	12/03/18	12/03/18	TPH 8015M	
Surrogate: o-Terphenyl		116 %	70-1	30	P8L0404	12/03/18	12/03/18	TPH 8015M	
Total Petroleum Hydrocarbon	924	26.9	mg/kg dry	1	[CALC]	12/03/18	12/03/18	calc	
C6-C35									

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-4 (6') 8L03002-04 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	Environmen	tal Lab, l	L.P.				
General Chemistry Parameters by EPA	/ Standard Method	s							
Chloride	40.1	1.10	mg/kg dry	1	P8L0304	12/03/18	12/04/18	EPA 300.0	
% Moisture	9.0	0.1	%	1	P8L0410	12/04/18	12/04/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	5 by EPA Method 80	15M							
C6-C12	ND	27.5	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
>C12-C28	38.8	27.5	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
Surrogate: 1-Chlorooctane		105 %	70-1.	30	P8L0404	12/03/18	12/03/18	TPH 8015M	
Surrogate: o-Terphenyl		118 %	70-1.	30	P8L0404	12/03/18	12/03/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	38.8	27.5	mg/kg dry	1	[CALC]	12/03/18	12/03/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-5 (2') 8L03002-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin E	Environmen	ital Lab, l	L.P.				
General Chemistry Parameters by EPA	Standard Method	s							
Chloride	1250	10.5	mg/kg dry	10	P8L0304	12/03/18	12/04/18	EPA 300.0	
% Moisture	5.0	0.1	%	1	P8L0410	12/04/18	12/04/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 b	y EPA Method 80	15M							
C6-C12	ND	26.3	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
Surrogate: 1-Chlorooctane		104 %	70-1.	30	P8L0404	12/03/18	12/03/18	TPH 8015M	
Surrogate: o-Terphenyl		117 %	70-1.	30	P8L0404	12/03/18	12/03/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.3	mg/kg dry	1	[CALC]	12/03/18	12/03/18	calc	

Total Petroleum Hydrocarbon C6-C35

Larson & Associates, Inc. Project: XTO Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

ND

S-6 (2') 8L03002-06 (Soil)

		01.03	002-00 (30	11)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Rasin F	Environme	ıtal Lah	[. P				
	TCIM	ian Dasin I	ZII VII OIIIICI	itai Lab, i	L.I .				
General Chemistry Parameters by	EPA / Standard Methods	S							
Chloride	351	1.01	mg/kg dry	1	P8L0304	12/03/18	12/04/18	EPA 300.0	
% Moisture	1.0	0.1	%	1	P8L0410	12/04/18	12/04/18	ASTM D2216	
Total Petroleum Hydrocarbons C6	5-C35 by EPA Method 80	15M							
C6-C12	ND	25.3	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P8L0404	12/03/18	12/03/18	TPH 8015M	
Surrogate: 1-Chlorooctane		101 %	70-1	30	P8L0404	12/03/18	12/03/18	TPH 8015M	
Surrogate: o-Terphenyl		115 %	70-1	30	P8L0404	12/03/18	12/03/18	TPH 8015M	

25.3 mg/kg dry

[CALC]

12/03/18

12/03/18

calc

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P8L0304 - *** DEFAULT PREP ***										
Blank (P8L0304-BLK1)				Prepared:	12/03/18	Analyzed: 1	2/04/18			
Chloride	ND	1.00	mg/kg wet							
LCS (P8L0304-BS1)				Prepared:	12/03/18	Analyzed: 1	2/04/18			
Chloride	ND	1.00	mg/kg wet	400			80-120			
LCS Dup (P8L0304-BSD1)				Prepared:	12/03/18	Analyzed: 1	2/04/18			
Chloride	ND	1.00	mg/kg wet	400			80-120		20	
Duplicate (P8L0304-DUP1)	Sou	rce: 8L03002	-01	Prepared:	12/03/18	Analyzed: 1	2/04/18			
Chloride	ND	1.11	mg/kg dry		1020				20	
Duplicate (P8L0304-DUP2)	Sou	rce: 8K28014	1-02	Prepared:	12/03/18	Analyzed: 1	2/04/18			
Chloride	ND	1.20	mg/kg dry		ND				20	
Matrix Spike (P8L0304-MS1)	Sou	rce: 8L03002	-01	Prepared:	12/03/18	Analyzed: 1	2/04/18			
Chloride	ND	1.11	mg/kg dry	1110	1020	NR	80-120			
Batch P8L0410 - *** DEFAULT PREP ***										
Blank (P8L0410-BLK1)				Prepared &	t Analyze	ed: 12/04/18				
% Moisture	ND	0.1	%	-						
Duplicate (P8L0410-DUP1)	Sou	rce: 8L01001	-20	Prepared &	k Analyze	ed: 12/04/18				
% Moisture	3.0	0.1	%		3.0			0.00	20	
Duplicate (P8L0410-DUP2)	Sou	rce: 8L01001	-47	Prepared &	k Analyze	ed: 12/04/18				
% Moisture	4.0	0.1	%		4.0			0.00	20	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P8L0410 - *** DEFAULT PREP ***										
Duplicate (P8L0410-DUP3)	Sour	ce: 8L01001-	74	Prepared &	Analyzed:	12/04/18				
% Moisture	13.0	0.1	%		11.0			16.7	20	
Duplicate (P8L0410-DUP4)	Sour	ce: 8L01005-	04	Prepared &	Analyzed:	12/04/18				
% Moisture	8.0	0.1	%		8.0			0.00	20	
Duplicate (P8L0410-DUP5)	Sour	ce: 8L01009-	02	Prepared &	Analyzed:	12/04/18				
% Moisture	6.0	0.1	%		9.0			40.0	20	
Duplicate (P8L0410-DUP6)	Sour	ce: 8L01009-	14	Prepared &	Analyzed:	12/04/18				
% Moisture	15.0	0.1	%		15.0			0.00	20	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

Anglyta	D anylt	Reporting	Umita	Spike	Source	0/DEC	%REC	DDD	RPD	Note:
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P8L0404 - TX 1005										
Blank (P8L0404-BLK1)				Prepared &	Analyzed:	12/03/18				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	113		"	100		113	70-130			
Surrogate: o-Terphenyl	61.7		"	50.0		123	70-130			
LCS (P8L0404-BS1)				Prepared &	Analyzed:	12/03/18				
C6-C12	1020	25.0	mg/kg wet	1000	·	102	75-125			
>C12-C28	1150	25.0	"	1000		115	75-125			
Surrogate: 1-Chlorooctane	120		"	100		120	70-130			
Surrogate: o-Terphenyl	54.8		"	50.0		110	70-130			
LCS Dup (P8L0404-BSD1)				Prepared &	Analyzed:	12/03/18				
C6-C12	1040	25.0	mg/kg wet	1000		104	75-125	2.34	20	
>C12-C28	1190	25.0	"	1000		119	75-125	3.93	20	
Surrogate: 1-Chlorooctane	126		"	100		126	70-130			
Surrogate: o-Terphenyl	57.2		"	50.0		114	70-130			
Duplicate (P8L0404-DUP1)	Sou	rce: 8K29009	9-14	Prepared: 1	2/03/18 A	nalyzed: 12	/04/18			
C6-C12	21.8	27.5	mg/kg dry		16.1			30.1	20	
>C12-C28	ND	27.5	"		13.2				20	
Surrogate: 1-Chlorooctane	111		"	110		101	70-130			
Surrogate: o-Terphenyl	62.9		"	54.9		114	70-130			

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

Fax: (432) 687-0456 Larson & Associates, Inc. Project: XTO Sat 13 P.O. Box 50685 Project Number: 17-0193-01

Midland TX, 79710 Project Manager: Mark Larson

Notes and Definitions

BULK Samples received in Bulk soil containers

Analyte DETECTED DET

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

Sample results reported on a dry weight basis dry

Relative Percent Difference RPD

LCS Laboratory Control Spike

Matrix Spike MS Duplicate

Dup

	Drew	Devicor C		
Report Approved By:			Date:	12/4/2018

Brent Barron, Laboratory Director/Technical Director

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Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

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	IN THE RECEIVE	DATE/TIME RECEIVED BY: (Signature)		DATE/TIME RECEIVED BY: (Signature)								F				58 4 4 6	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ICE UNPRES	tainers NaOH		PRESERVATION			Midland Ty 70701 PO#:			
	OTHER ()	S DAY S	NORMAL 🛄	TURN AROUND TIME	-																	CT#: 17- Q	PROJECT LOCATION OR NAME:	ı	811 /21		
HAND DELIVERED		☐ BROKE	RECEIVING TEMP. 2.2 THERM#:	LABORATORY USE ONLY:																			文O 50×113	,	PAGE √ OF √ 🕫	CHAIN-OF-CUSTO	V 0 0 N O O N O O O O O O O O O O O O O O

PERMIAN BASIN ENVIRONMENTAL LAB, LP 1400 Rankin Hwy Midland, TX 79701



Analytical Report

Prepared for:

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: XTO Sat 13
Project Number: 17-0193-01
Location: None Given

Lab Order Number: 8L05001



NELAP/TCEQ # T104704516-17-8

Report Date: 12/07/18

Larson & Associates, Inc.Project:XTO Sat 13P.O. Box 50685Project Number:17-0193-01Midland TX, 79710Project Manager:Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-7 (2')	8L05001-01	Soil	12/04/18 00:00	12-05-2018 09:00
S-8 (2')	8L05001-02	Soil	12/04/18 00:00	12-05-2018 09:00
S-9 (2')	8L05001-03	Soil	12/04/18 00:00	12-05-2018 09:00
S-10 (2')	8L05001-04	Soil	12/04/18 00:00	12-05-2018 09:00
S-11 (2')	8L05001-05	Soil	12/04/18 00:00	12-05-2018 09:00
S-12 (2')	8L05001-06	Soil	12/04/18 00:00	12-05-2018 09:00
S-13 (2')	8L05001-07	Soil	12/04/18 00:00	12-05-2018 09:00
S-14 (2')	8L05001-08	Soil	12/04/18 00:00	12-05-2018 09:00
S-15 (2')	8L05001-09	Soil	12/04/18 00:00	12-05-2018 09:00
S-16 (2')	8L05001-10	Soil	12/04/18 00:00	12-05-2018 09:00
S-17 (2')	8L05001-11	Soil	12/04/18 00:00	12-05-2018 09:00
S-18 (2')	8L05001-12	Soil	12/04/18 00:00	12-05-2018 09:00
S-19 (2')	8L05001-13	Soil	12/04/18 00:00	12-05-2018 09:00

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-7 (2') 8L05001-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Peri	nian Basin E	nvironmer	ıtal Lab, I	P.				
Organics by GC									
Benzene	ND	0.00101	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Toluene	ND	0.0101	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Ethylbenzene	ND	0.00505	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (p/m)	ND	0.0202	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (o)	ND	0.0101	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.7 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		89.7 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
General Chemistry Parameters by EPA / St	andard Metho	ds							
Chloride	40.8	1.01	mg/kg dry	1	P8L0517	12/05/18	12/06/18	EPA 300.0	
% Moisture	1.0	0.1	%	1	P8L0605	12/06/18	12/06/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by l	EPA Method 8	015M							
C6-C12	ND	25.3	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
Surrogate: 1-Chlorooctane		107 %	70-1	30	P8L0513	12/05/18	12/05/18	TPH 8015M	
Surrogate: o-Terphenyl		114 %	70-1	30	P8L0513	12/05/18	12/05/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry		[CALC]	12/05/18	12/05/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-8 (2') 8L05001-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	ıtal Lab, l	P.				
Organics by GC									
Benzene	ND	0.00101	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Toluene	ND	0.0101	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Ethylbenzene	ND	0.00505	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (p/m)	ND	0.0202	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (o)	ND	0.0101	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		84.7 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		95.2 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ls							
Chloride	491	1.01	mg/kg dry	1	P8L0517	12/05/18	12/06/18	EPA 300.0	
% Moisture	1.0	0.1	%	1	P8L0605	12/06/18	12/06/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	by EPA Method 80)15M							
C6-C12	ND	25.3	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
Surrogate: 1-Chlorooctane		91.4 %	70-1	30	P8L0513	12/05/18	12/05/18	TPH 8015M	
Surrogate: o-Terphenyl		99.3 %	70-1	30	P8L0513	12/05/18	12/05/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	12/05/18	12/05/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-9 (2') 8L05001-03 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Per	mian Basin E	invironmen	tal Lab, I	P.				
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Toluene	ND	0.0111	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Ethylbenzene	ND	0.00556	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (p/m)	ND	0.0222	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (o)	ND	0.0111	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		85.4 %	75-12	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		101 %	75-12	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
General Chemistry Parameters by EPA / Sta	ındard Metho	ds							
Chloride	4680	27.8	mg/kg dry	25	P8L0517	12/05/18	12/06/18	EPA 300.0	
% Moisture	10.0	0.1	%	1	P8L0605	12/06/18	12/06/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by I	EPA Method 8	015M							
C6-C12	ND	27.8	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
Surrogate: 1-Chlorooctane		84.9 %	70-1.	30	P8L0513	12/05/18	12/05/18	TPH 8015M	
Surrogate: o-Terphenyl		89.9 %	70-1.	30	P8L0513	12/05/18	12/05/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	12/05/18	12/05/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

S-10 (2') 8L05001-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		mian Basin E				Tropurou	. mary zea	oulou	110103
	ren	man basın e	anvironinei	itai Lab, i	⊿.Г.				
Organics by GC									
Benzene	ND	0.00102	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Toluene	ND	0.0102	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Ethylbenzene	ND	0.00510	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (p/m)	ND	0.0204	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (o)	ND	0.0102	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.0 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		84.2 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
General Chemistry Parameters by EPA / Star	ndard Metho	ds							
Chloride	33.0	1.02	mg/kg dry	1	P8L0517	12/05/18	12/06/18	EPA 300.0	
% Moisture	2.0	0.1	%	1	P8L0605	12/06/18	12/06/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EI	PA Method 8	015M							
C6-C12	ND	25.5	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
Surrogate: 1-Chlorooctane		87.0 %	70-1	30	P8L0513	12/05/18	12/05/18	TPH 8015M	
Surrogate: o-Terphenyl		93.4 %	70-1	30	P8L0513	12/05/18	12/05/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	12/05/18	12/05/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

S-11 (2') 8L05001-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00103	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Toluene	ND	0.0103	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Ethylbenzene	ND	0.00515	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (p/m)	ND	0.0206	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (o)	ND	0.0103	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		100 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		88.5 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Method	ls							
Chloride	432	1.03	mg/kg dry	1	P8L0517	12/05/18	12/06/18	EPA 300.0	
% Moisture	3.0	0.1	%	1	P8L0605	12/06/18	12/06/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80)15M							
C6-C12	ND	25.8	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
Surrogate: 1-Chlorooctane		84.1 %	70-1	30	P8L0513	12/05/18	12/05/18	TPH 8015M	
Surrogate: o-Terphenyl		90.5 %	70-1	30	P8L0513	12/05/18	12/05/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	12/05/18	12/05/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-12 (2') 8L05001-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	ıtal Lab, l	P.				
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Toluene	ND	0.0106	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Ethylbenzene	ND	0.00532	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (p/m)	ND	0.0213	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (o)	ND	0.0106	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		79.6 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		93.3 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ls							
Chloride	5.27	1.06	mg/kg dry	1	P8L0517	12/05/18	12/06/18	EPA 300.0	
% Moisture	6.0	0.1	%	1	P8L0605	12/06/18	12/06/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	by EPA Method 80)15M							
C6-C12	ND	26.6	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
Surrogate: 1-Chlorooctane		76.4 %	70-1	30	P8L0513	12/05/18	12/05/18	TPH 8015M	
Surrogate: o-Terphenyl		81.4 %	70-1	30	P8L0513	12/05/18	12/05/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	12/05/18	12/05/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-13 (2') 8L05001-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	tal Lab, l	P.				
Organics by GC									
Benzene	ND	0.00108	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Toluene	ND	0.0108	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Ethylbenzene	ND	0.00538	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (p/m)	ND	0.0215	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (o)	ND	0.0108	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		89.6 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		101 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	761	5.38	mg/kg dry	5	P8L0517	12/05/18	12/06/18	EPA 300.0	
% Moisture	7.0	0.1	%	1	P8L0605	12/06/18	12/06/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	26.9	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P8L0513	12/05/18	12/05/18	TPH 8015M	
Surrogate: 1-Chlorooctane		78.7 %	70-1	30	P8L0513	12/05/18	12/05/18	TPH 8015M	
Surrogate: o-Terphenyl		85.6 %	70-1	30	P8L0513	12/05/18	12/05/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.9	mg/kg dry	1	[CALC]	12/05/18	12/05/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-14 (2') 8L05001-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perr	nian Basin E	Environmen	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Toluene	ND	0.0106	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Ethylbenzene	ND	0.00532	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (p/m)	ND	0.0213	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (o)	ND	0.0106	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		85.2 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.0 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Metho	ds							
Chloride	ND	1.06	mg/kg dry	1	P8L0517	12/05/18	12/06/18	EPA 300.0	
% Moisture	6.0	0.1	%	1	P8L0605	12/06/18	12/06/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	oy EPA Method 8	015M							
C6-C12	ND	26.6	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
Surrogate: 1-Chlorooctane		81.6 %	70-1	30	P8L0513	12/05/18	12/06/18	TPH 8015M	
Surrogate: o-Terphenyl		87.1 %	70-1	30	P8L0513	12/05/18	12/06/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	12/05/18	12/06/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

S-15 (2') 8L05001-09 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perr	nian Basin E	Environmer	ıtal Lab, I	P.				
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Toluene	ND	0.0100	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Ethylbenzene	ND	0.00500	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (p/m)	ND	0.0200	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (o)	ND	0.0100	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		87.0 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.8 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
General Chemistry Parameters by EPA / St	andard Metho	ds							
Chloride	ND	1.00	mg/kg dry	1	P8L0517	12/05/18	12/06/18	EPA 300.0	
% Moisture	ND	0.1	%	1	P8L0605	12/06/18	12/06/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by l	EPA Method 8	015M							
C6-C12	ND	25.0	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
Surrogate: 1-Chlorooctane		83.2 %	70-1	30	P8L0513	12/05/18	12/06/18	TPH 8015M	
Surrogate: o-Terphenyl		88.8 %	70-1	30	P8L0513	12/05/18	12/06/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	12/05/18	12/06/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-16 (2') 8L05001-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	tal Lab, I	P.				
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Toluene	ND	0.0106	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Ethylbenzene	ND	0.00532	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (p/m)	ND	0.0213	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (o)	ND	0.0106	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		83.9 %	75-12	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.6 %	75-12	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
General Chemistry Parameters by EPA / S	Standard Method	ls							
Chloride	ND	1.06	mg/kg dry	1	P8L0517	12/05/18	12/06/18	EPA 300.0	
% Moisture	6.0	0.1	%	1	P8L0605	12/06/18	12/06/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by	EPA Method 80	015M							
C6-C12	ND	26.6	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
Surrogate: 1-Chlorooctane		86.4 %	70-1.	30	P8L0513	12/05/18	12/06/18	TPH 8015M	
Surrogate: o-Terphenyl		95.1 %	70-1.	30	P8L0513	12/05/18	12/06/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	12/05/18	12/06/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

S-17 (2') 8L05001-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	iian Basin E	Environmer	ıtal Lab, I	L .P.				
Organics by GC									
Benzene	ND	0.00105	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Toluene	ND	0.0105	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Ethylbenzene	ND	0.00526	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (p/m)	ND	0.0211	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (o)	ND	0.0105	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		83.3 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		102 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Method	ls							
Chloride	30.0	1.05	mg/kg dry	1	P8L0517	12/05/18	12/06/18	EPA 300.0	
% Moisture	5.0	0.1	%	1	P8L0605	12/06/18	12/06/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	15M							
C6-C12	ND	26.3	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
Surrogate: 1-Chlorooctane		87.6 %	70-1	30	P8L0513	12/05/18	12/06/18	TPH 8015M	
Surrogate: o-Terphenyl		94.6 %	70-1	30	P8L0513	12/05/18	12/06/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.3	mg/kg dry	1	[CALC]	12/05/18	12/06/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-18 (2') 8L05001-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		mian Basin E				******	y / 		
Organics by GC									
Benzene	ND	0.00104	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Toluene	ND	0.0104	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Ethylbenzene	ND	0.00521	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (p/m)	ND	0.0208	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (o)	ND	0.0104	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		95.9 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		81.8 %	75-1	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
General Chemistry Parameters by EPA / Stan	dard Metho	ds							
Chloride	292	10.4	mg/kg dry	10	P8L0517	12/05/18	12/06/18	EPA 300.0	
% Moisture	4.0	0.1	%	1	P8L0605	12/06/18	12/06/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EI	A Method 8	015M							
C6-C12	ND	26.0	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
Surrogate: 1-Chlorooctane		80.0 %	70-1	30	P8L0513	12/05/18	12/06/18	TPH 8015M	
Surrogate: o-Terphenyl		86.5 %	70-1	30	P8L0513	12/05/18	12/06/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	12/05/18	12/06/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-19 (2') 8L05001-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	nvironmen	tal Lab, I	Р.				
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Toluene	ND	0.0100	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Ethylbenzene	ND	0.00500	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (p/m)	ND	0.0200	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Xylene (o)	ND	0.0100	mg/kg dry	1	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		82.7 %	75-1.	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		100 %	75-1.	25	P8L0512	12/06/18	12/06/18	EPA 8021B	
General Chemistry Parameters by EPA / S	Standard Method	ds							
Chloride	43.7	1.00	mg/kg dry	1	P8L0517	12/05/18	12/06/18	EPA 300.0	
% Moisture	ND	0.1	%	1	P8L0605	12/06/18	12/06/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by	y EPA Method 80	015M							
C6-C12	ND	25.0	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
>C12-C28	ND	25.0	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
>C28-C35	ND	25.0	mg/kg dry	1	P8L0513	12/05/18	12/06/18	TPH 8015M	
Surrogate: 1-Chlorooctane		85.2 %	70-1.	30	P8L0513	12/05/18	12/06/18	TPH 8015M	
Surrogate: o-Terphenyl		73.2 %	70-1.	30	P8L0513	12/05/18	12/06/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.0	mg/kg dry	1	[CALC]	12/05/18	12/06/18	calc	

Analyte

Notes

Fax: (432) 687-0456

RPD

Limit

%REC

Limits

RPD

Larson & Associates, Inc.

Project: XTO Sat 13

Result

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

> > Units

Spike

Level

Source

Result

Prepared & Analyzed: 12/06/18

ND

ND

ND

ND

76.6

67.2

80.1

59.8

63.7

97.6

98.3

80-120

80-120

80-120

80-120

80-120

75-125

75-125

0.101

0.101

0.101

0.202

0.101

0.0606

0.0606

%REC

Reporting

Source: 8L05001-02

0.00101

0.0101

0.00505

0.0202

0.0101

mg/kg dry

0.0774

0.0679

0.0809

0.121

0.0644

0.0592

0.0596

Limit

Blank (P8L0512-BLK1)				Prepared & Analy	yzed: 12/06/18				
Benzene	ND	0.00100	mg/kg wet						
Toluene	ND	0.0100	"						
Ethylbenzene	ND	0.00500	"						
Xylene (p/m)	ND	0.0200	"						
Xylene (o)	ND	0.0100	"						
Surrogate: 1,4-Difluorobenzene	0.0544		"	0.0600	90.6	75-125			
Surrogate: 4-Bromofluorobenzene	0.0592		"	0.0600	98.7	75-125			
LCS (P8L0512-BS1)				Prepared & Analy	yzed: 12/06/18				
Benzene	0.107	0.00100	mg/kg wet	0.100	107	70-130			
Toluene	0.0971	0.0100	"	0.100	97.1	70-130			
Ethylbenzene	0.113	0.00500	"	0.100	113	70-130			
Xylene (p/m)	0.194	0.0200	"	0.200	97.1	70-130			
Xylene (o)	0.112	0.0100	"	0.100	112	70-130			
Surrogate: 1,4-Difluorobenzene	0.0608		"	0.0600	101	75-125			
Surrogate: 4-Bromofluorobenzene	0.0573		"	0.0600	95.6	75-125			
LCS Dup (P8L0512-BSD1)				Prepared & Analy	yzed: 12/06/18				
Benzene	0.107	0.00100	mg/kg wet	0.100	107	70-130	0.711	20	
Toluene	0.0977	0.0100	"	0.100	97.7	70-130	0.626	20	
Ethylbenzene	0.110	0.00500	"	0.100	110	70-130	3.12	20	
Xylene (p/m)	0.190	0.0200	"	0.200	95.0	70-130	2.21	20	
Xylene (o)	0.105	0.0100	"	0.100	105	70-130	5.75	20	
Surrogate: 1,4-Difluorobenzene	0.0590		"	0.0600	98.3	75-125			
Surrogate: 4-Bromofluorobenzene	0.0612		"	0.0600	102	75-125			

Permian Basin Environmental Lab, L.P.

Matrix Spike (P8L0512-MS1)

Surrogate: 1,4-Difluorobenzene

Surrogate: 4-Bromofluorobenzene

Benzene

Toluene

Ethylbenzene

Xylene (p/m)

Xylene (o)

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

QM-05

QM-05

QM-05

QM-05

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch P8L0512 - General Preparation (C	\mathbf{GC})
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Matrix Spike Dup (P8L0512-MSD1)	Sour	Source: 8L05001-02				12/06/18				
Benzene	0.0850	0.00101	mg/kg dry	0.101	ND	84.2	80-120	9.38	20	
Toluene	0.0730	0.0101	"	0.101	ND	72.3	80-120	7.30	20	QM-05
Ethylbenzene	0.0820	0.00505	"	0.101	ND	81.2	80-120	1.38	20	
Xylene (p/m)	0.120	0.0202	"	0.202	ND	59.3	80-120	0.916	20	QM-05
Xylene (o)	0.0619	0.0101	"	0.101	ND	61.3	80-120	3.92	20	QM-05
Surrogate: 4-Bromofluorobenzene	0.0642		"	0.0606		106	75-125			
Surrogate: 1,4-Difluorobenzene	0.0632		"	0.0606		104	75-125			

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P8L0517 - *** DEFAULT PREP ***										
Blank (P8L0517-BLK1)				Prepared:	12/05/18	Analyzed: 1	2/06/18			
Chloride	ND	1.00	mg/kg wet							
LCS (P8L0517-BS1)				Prepared:	12/05/18	Analyzed: 1	2/06/18			
Chloride	415	1.00	mg/kg wet	400		104	80-120			
LCS Dup (P8L0517-BSD1)				Prepared:	12/05/18	Analyzed: 1	2/06/18			
Chloride	404	1.00	mg/kg wet	400		101	80-120	2.81	20	
Duplicate (P8L0517-DUP1)	Sour	rce: 8K28019)-17	Prepared:	12/05/18	Analyzed: 1	2/06/18			
Chloride	1200	27.5	mg/kg dry	-	1230	-		2.89	20	
Duplicate (P8L0517-DUP2)	Sour	rce: 8L05001	-04	Prepared:	12/05/18	Analyzed: 1	2/06/18			
Chloride	37.3	1.02	mg/kg dry		33.0			12.4	20	
Matrix Spike (P8L0517-MS1)	Sour	rce: 8K28019) -17	Prepared:	12/05/18	Analyzed: 1	2/06/18			
Chloride	4130	27.5	mg/kg dry	2750	1230	105	80-120			
Batch P8L0605 - *** DEFAULT PREP ***										
Blank (P8L0605-BLK1)				Prepared &	& Analyze	ed: 12/06/18				
% Moisture	ND	0.1	%							
Duplicate (P8L0605-DUP1)	Soui	rce: 8L04021	-02	Prepared &	& Analyze	d: 12/06/18				
% Moisture	19.0	0.1	%		15.0			23.5	20	
Duplicate (P8L0605-DUP2)	Soui	rce: 8L04026	-01	Prepared &	& Analyze	ed: 12/06/18				
% Moisture	2.0	0.1	%		2.0			0.00	20	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P8L0513 - TX 1005										
Blank (P8L0513-BLK1)				Prepared &	Analyzed:	12/05/18				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	89.7		"	100		89.7	70-130			
Surrogate: o-Terphenyl	49.3		"	50.0		98.7	70-130			
LCS (P8L0513-BS1)				Prepared &	Analyzed:	12/05/18				
C6-C12	862	25.0	mg/kg wet	1000		86.2	75-125			
>C12-C28	1030	25.0	"	1000		103	75-125			
Surrogate: I-Chlorooctane	105		"	100		105	70-130			
Surrogate: o-Terphenyl	46.8		"	50.0		93.6	70-130			
LCS Dup (P8L0513-BSD1)				Prepared &	Analyzed:	12/05/18				
C6-C12	905	25.0	mg/kg wet	1000		90.5	75-125	4.85	20	
>C12-C28	1080	25.0	"	1000		108	75-125	4.20	20	
Surrogate: 1-Chlorooctane	110		"	100		110	70-130			
Surrogate: o-Terphenyl	48.3		"	50.0		96.6	70-130			
Matrix Spike (P8L0513-MS1)	Sourc	e: 8L05004	l-04	Prepared: 1	12/05/18 A	nalyzed: 12	2/06/18			
C6-C12	875	26.9	mg/kg dry	1080	24.6	79.1	75-125			
>C12-C28	1040	26.9	"	1080	ND	97.0	75-125			
Surrogate: 1-Chlorooctane	96.0		"	108		89.2	70-130			
Surrogate: o-Terphenyl	48.7		"	53.8		90.6	70-130			
Matrix Spike Dup (P8L0513-MSD1)	Sourc	e: 8L05004	l-04	Prepared: 1	12/05/18 A	nalyzed: 12	2/06/18			
C6-C12	920	26.9	mg/kg dry	1080	24.6	83.3	75-125	5.16	20	
>C12-C28	1080	26.9	"	1080	ND	100	75-125	3.28	20	
Surrogate: 1-Chlorooctane	97.2		"	108		90.4	70-130			
Surrogate: o-Terphenyl	50.6		"	53.8		94.1	70-130			

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

Fax: (432) 687-0456

Larson & Associates, Inc.

Project: XTO Sat 13

P.O. Box 50685

Project Number: 17-0193-01

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Notes and Definitions

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were

within acceptance limits showing that the laboratory is in control and the data is acceptable.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

	Burn Barron		
Report Approved By:		Date:	12/7/2018

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

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PERMIAN BASIN ENVIRONMENTAL LAB, LP 1400 Rankin Hwy Midland, TX 79701



Analytical Report

Prepared for:

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: XTO Sat 13
Project Number: 17-0193-01
Location: New Mexico

Lab Order Number: 8L17004



NELAP/TCEQ # T104704516-17-8

Report Date: 12/18/18

Larson & Associates, Inc.

Project: XTO Sat 13

P.O. Box 50685

Project Number: 17-0193-01

Midland TX, 79710

Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-4 (10')	8L17004-01	Soil	12/13/18 10:12	12-17-2018 11:10
S-9 (2')	8L17004-02	Soil	12/13/18 10:43	12-17-2018 11:10
S-13 (2')	8L17004-03	Soil	12/13/18 11:08	12-17-2018 11:10
S-1 (10')	8L17004-04	Soil	12/13/18 11:53	12-17-2018 11:10
S-1 (6')	8L17004-05	Soil	12/13/18 11:55	12-17-2018 11:10

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-4 (10') 8L17004-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		ian Basin E	Environmen	ıtal Lab, I					
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Toluene	ND	0.0111	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Ethylbenzene	ND	0.00556	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Xylene (p/m)	ND	0.0222	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Xylene (o)	ND	0.0111	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		99.0 %	75-1	25	P8L1711	12/17/18	12/17/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		83.3 %	75-1	25	P8L1711	12/17/18	12/17/18	EPA 8021B	
General Chemistry Parameters by El	PA / Standard Method	s							
Chloride	1110	5.56	mg/kg dry	5	P8L1713	12/17/18	12/18/18	EPA 300.0	
% Moisture	10.0	0.1	%	1	P8L1815	12/18/18	12/18/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C	35 by EPA Method 80	15M							
C6-C12	ND	27.8	mg/kg dry	1	P8L1705	12/17/18	12/18/18	TPH 8015M	
>C12-C28	36.3	27.8	mg/kg dry	1	P8L1705	12/17/18	12/18/18	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P8L1705	12/17/18	12/18/18	TPH 8015M	
Surrogate: 1-Chlorooctane		97.2 %	70-1	30	P8L1705	12/17/18	12/18/18	TPH 8015M	
Surrogate: o-Terphenyl		106 %	70-1	30	P8L1705	12/17/18	12/18/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	36.3	27.8	mg/kg dry	1	[CALC]	12/17/18	12/18/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-9 (2') 8L17004-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environme	ntal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Toluene	ND	0.0111	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Ethylbenzene	ND	0.00556	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Xylene (p/m)	ND	0.0222	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Xylene (o)	ND	0.0111	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.1 %	75-1	25	P8L1711	12/17/18	12/17/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		83.8 %	75-1	25	P8L1711	12/17/18	12/17/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	703	1.11	mg/kg dry	1	P8L1713	12/17/18	12/18/18	EPA 300.0	
% Moisture	10.0	0.1	%	1	P8L1815	12/18/18	12/18/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	by EPA Method 8	015M							
C6-C12	ND	27.8	mg/kg dry	1	P8L1705	12/17/18	12/18/18	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P8L1705	12/17/18	12/18/18	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P8L1705	12/17/18	12/18/18	TPH 8015M	
Surrogate: 1-Chlorooctane		92.8 %	70-1	30	P8L1705	12/17/18	12/18/18	TPH 8015M	
Surrogate: o-Terphenyl		101 %	70-1	30	P8L1705	12/17/18	12/18/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	12/17/18	12/18/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-13 (2') 8L17004-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00110	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Toluene	ND	0.0110	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Ethylbenzene	ND	0.00549	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Xylene (p/m)	ND	0.0220	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Xylene (o)	ND	0.0110	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		85.6 %	75-1.	25	P8L1711	12/17/18	12/17/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		101 %	75-1.	25	P8L1711	12/17/18	12/17/18	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	142	1.10	mg/kg dry	1	P8L1713	12/17/18	12/18/18	EPA 300.0	
% Moisture	9.0	0.1	%	1	P8L1815	12/18/18	12/18/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	by EPA Method 80	015M							
C6-C12	ND	27.5	mg/kg dry	1	P8L1705	12/17/18	12/18/18	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P8L1705	12/17/18	12/18/18	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P8L1705	12/17/18	12/18/18	TPH 8015M	
Surrogate: 1-Chlorooctane		95.1 %	70-1.	30	P8L1705	12/17/18	12/18/18	TPH 8015M	
Surrogate: o-Terphenyl		103 %	70-1.	30	P8L1705	12/17/18	12/18/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	12/17/18	12/18/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

S-1 (10') 8L17004-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
,.		nian Basin E				Tropured	7 mary 200	memod	110103
	1 611	iliali Dasili E	anvii ominen	tai Lab, i	J.1 .				
Organics by GC									
Benzene	ND	0.00110	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Toluene	ND	0.0110	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Ethylbenzene	ND	0.00549	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Xylene (p/m)	ND	0.0220	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Xylene (o)	ND	0.0110	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		82.3 %	75-1.	25	P8L1711	12/17/18	12/17/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.0 %	75-1.	25	P8L1711	12/17/18	12/17/18	EPA 8021B	
General Chemistry Parameters by EPA / St	andard Metho	ds							
Chloride	821	5.49	mg/kg dry	5	P8L1713	12/17/18	12/18/18	EPA 300.0	
% Moisture	9.0	0.1	%	1	P8L1815	12/18/18	12/18/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by l	EPA Method 8	015M							
C6-C12	ND	27.5	mg/kg dry	1	P8L1705	12/17/18	12/18/18	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P8L1705	12/17/18	12/18/18	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P8L1705	12/17/18	12/18/18	TPH 8015M	
Surrogate: 1-Chlorooctane		97.1 %	70-1.	30	P8L1705	12/17/18	12/18/18	TPH 8015M	
Surrogate: o-Terphenyl		109 %	70-1.	30	P8L1705	12/17/18	12/18/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	12/17/18	12/18/18	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-1 (6') 8L17004-05 (Soil)

		Reporting							•
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	ian Basin E	Invironmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00105	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Toluene	ND	0.0105	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Ethylbenzene	ND	0.00526	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Xylene (p/m)	ND	0.0211	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Xylene (o)	ND	0.0105	mg/kg dry	1	P8L1711	12/17/18	12/17/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		95.3 %	75-12	25	P8L1711	12/17/18	12/17/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		83.7 %	75-12	25	P8L1711	12/17/18	12/17/18	EPA 8021B	
General Chemistry Parameters by El	PA / Standard Method	ls							
Chloride	892	5.26	mg/kg dry	5	P8L1713	12/17/18	12/18/18	EPA 300.0	
% Moisture	5.0	0.1	%	1	P8L1815	12/18/18	12/18/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C	235 by EPA Method 80	15M							
C6-C12	477	26.3	mg/kg dry	1	P8L1705	12/17/18	12/17/18	TPH 8015M	
>C12-C28	509	26.3	mg/kg dry	1	P8L1705	12/17/18	12/17/18	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P8L1705	12/17/18	12/17/18	TPH 8015M	
Surrogate: 1-Chlorooctane		116 %	70-13	30	P8L1705	12/17/18	12/17/18	TPH 8015M	
Surrogate: o-Terphenyl		116 %	70-13	30	P8L1705	12/17/18	12/17/18	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	986	26.3	mg/kg dry	1	[CALC]	12/17/18	12/17/18	calc	

Larson & Associates, Inc.Project:XTO Sat 13P.O. Box 50685Project Number:17-0193-01Midland TX, 79710Project Manager:Mark Larson

Fax: (432) 687-0456

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

7 mary te	resurt	Limit	Omto	Level	resurt	/ OTCLE	Limits	МЪ	Limit	110103
Batch P8L1711 - General Preparation (G	(C)									
Blank (P8L1711-BLK1)				Prepared &	Analyzed:	: 12/17/18				
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.0100	"							
Ethylbenzene	ND	0.00500	"							
Xylene (p/m)	ND	0.0200	"							
Xylene (o)	ND	0.0100	"							
Surrogate: 1,4-Difluorobenzene	0.0500		"	0.0600		83.4	75-125			
Surrogate: 4-Bromofluorobenzene	0.0593		"	0.0600		98.9	75-125			
LCS (P8L1711-BS1)				Prepared &	Analyzed:	12/17/18				
Benzene	0.111	0.00100	mg/kg wet	0.100		111	70-130			
Toluene	0.109	0.0100	"	0.100		109	70-130			
Ethylbenzene	0.108	0.00500	"	0.100		108	70-130			
Xylene (p/m)	0.188	0.0200	"	0.200		94.2	70-130			
Xylene (o)	0.116	0.0100	"	0.100		116	70-130			
Surrogate: 4-Bromofluorobenzene	0.0621		"	0.0600		104	75-125			
Surrogate: 1,4-Difluorobenzene	0.0617		"	0.0600		103	75-125			
LCS Dup (P8L1711-BSD1)				Prepared &	Analyzed:	12/17/18				
Benzene	0.112	0.00100	mg/kg wet	0.100		112	70-130	1.05	20	
Toluene	0.111	0.0100	"	0.100		111	70-130	1.58	20	
Ethylbenzene	0.110	0.00500	"	0.100		110	70-130	1.50	20	
Xylene (p/m)	0.190	0.0200	"	0.200		95.0	70-130	0.819	20	
Xylene (o)	0.114	0.0100	"	0.100		114	70-130	1.44	20	
Surrogate: 4-Bromofluorobenzene	0.0572		"	0.0600		95.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.0615		"	0.0600		102	75-125			
Matrix Spike (P8L1711-MS1)	Sour	rce: 8L17004	l-01	Prepared: 12	2/17/18 A	nalyzed: 12	2/18/18			
Benzene	0.0880	0.00111	mg/kg dry	0.111	ND	79.2	80-120			QM-0
Toluene	0.0862	0.0111	"	0.111	ND	77.5	80-120			QM-0
Ethylbenzene	0.0823	0.00556	"	0.111	ND	74.0	80-120			QM-0
Xylene (p/m)	0.141	0.0222	"	0.222	ND	63.4	80-120			QM-0
Xylene (o)	0.0778	0.0111	"	0.111	ND	70.1	80-120			QM-0
Surrogate: 1,4-Difluorobenzene	0.0689		"	0.0667		103	75-125			
Surrogate: 4-Bromofluorobenzene	0.0662									

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

Larson & Associates, Inc. Project: XTO Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD		l
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	l

Batch P8L1711 - General Preparation (GC)

Matrix Spike Dup (P8L1711-MSD1)	Sour	rce: 8L17004	l-01	Prepared: 1	2/17/18 A	nalyzed: 12	2/18/18			
Benzene	0.0993	0.00111	mg/kg dry	0.111	ND	89.4	80-120	12.0	20	
Toluene	0.103	0.0111	"	0.111	ND	93.1	80-120	18.2	20	
Ethylbenzene	0.0982	0.00556	"	0.111	ND	88.3	80-120	17.6	20	
Xylene (p/m)	0.187	0.0222	"	0.222	ND	84.2	80-120	28.3	20	R3
Xylene (o)	0.0974	0.0111	"	0.111	ND	87.6	80-120	22.3	20	R3
Surrogate: 1,4-Difluorobenzene	0.0689		"	0.0667		103	75-125			
Surrogate: 4-Bromofluorobenzene	0.0781		"	0.0667		117	75-125			

Larson & Associates, Inc. Project: XTO Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P8L1713 - *** DEFAULT PREP ***										
Blank (P8L1713-BLK1)				Prepared:	12/17/18	Analyzed: 12	2/18/18			
Chloride	ND	1.00	mg/kg wet							
LCS (P8L1713-BS1)				Prepared:	12/17/18	Analyzed: 12	2/18/18			
Chloride	407	1.00	mg/kg wet	400		102	80-120			
LCS Dup (P8L1713-BSD1)				Prepared:	12/17/18	Analyzed: 12	2/18/18			
Chloride	408	1.00	mg/kg wet	400		102	80-120	0.00491	20	
Duplicate (P8L1713-DUP1)	Source: 8L17003-01 Prepa				12/17/18	Analyzed: 12	2/18/18			
Chloride	237 1.18 mg/kg dry				218			8.36	20	
Duplicate (P8L1713-DUP2)	Sou	rce: 8L14009	e: 8L14009-09		12/17/18	Analyzed: 12	2/18/18			
Chloride	76.9	1.09	mg/kg dry		77.7			0.984	20	
Matrix Spike (P8L1713-MS1)	Sou	rce: 8L17003	-01	Prepared:	12/17/18	Analyzed: 12	2/18/18			
Chloride	791	1.18	mg/kg dry	588	218	97.4	80-120			
Batch P8L1815 - *** DEFAULT PREP ***										
Blank (P8L1815-BLK1)				Prepared &	& Analyze	d: 12/18/18				
% Moisture	ND	0.1	%							
Duplicate (P8L1815-DUP1)	Sou	rce: 8L17002	-02	Prepared &	& Analyze	d: 12/18/18				
% Moisture	14.0	0.1	%		14.0			0.00	20	
Duplicate (P8L1815-DUP2)	Sou	Prepared &	& Analyze	d: 12/18/18						
% Moisture	19.0	0.1	%		19.0			0.00	20	

Larson & Associates, Inc. Project: XTO Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Duplicate (P8L1815-DUP3)	Source	: 8L17010-24	Prepared & Analyzed: 12/18/18			
% Moisture	5.0	0.1 %	8.0	46.2	20	
Duplicate (P8L1815-DUP4)	Source	: 8L17010-33	Prepared & Analyzed: 12/18/18			
% Moisture	4.0	0.1 %	4.0	0.00	20	

Larson & Associates, Inc. Project: XTO Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD						
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes					
Batch P8L1705 - TX 1005															
Blank (P8L1705-BLK1)				Prepared: 1	2/17/18 A	nalyzed: 12	/18/18								
C6-C12	ND	25.0	mg/kg wet												
>C12-C28	ND	25.0	"												
>C28-C35	ND	25.0	"												
Surrogate: 1-Chlorooctane	0.00		"	100			70-130								
Surrogate: o-Terphenyl	0.00		"	50.0			70-130								
LCS (P8L1705-BS1)				Prepared: 1	2/17/18 A	nalyzed: 12	/18/18								
C6-C12	ND	25.0	mg/kg wet	1000			75-125								
>C12-C28	ND	25.0	"	1000			75-125								
Surrogate: 1-Chlorooctane	0.00		"	100			70-130								
Surrogate: o-Terphenyl	0.00		"	50.0			70-130								
LCS Dup (P8L1705-BSD1)		Prepared: 12/17/18 Analyzed: 12/18/18													
C6-C12	ND	25.0	mg/kg wet	1000			75-125		20						
>C12-C28	ND	25.0	"	1000			75-125		20						
Surrogate: 1-Chlorooctane	0.00		"	100			70-130								
Surrogate: o-Terphenyl	0.00		"	50.0			70-130								
Matrix Spike (P8L1705-MS1)	Source	e: 8L17004	I-01	Prepared: 1	2/17/18 A	nalyzed: 12	/18/18								
C6-C12	ND	27.8	mg/kg dry	1110	11.0	NR	75-125								
>C12-C28	ND	27.8	"	1110	36.3	NR	75-125								
Surrogate: 1-Chlorooctane	0.00		"	111			70-130								
Surrogate: o-Terphenyl	0.00		"	55.6			70-130								
Matrix Spike Dup (P8L1705-MSD1)	Source	e: 8L17004	I-01	Prepared: 1	2/17/18 A	nalyzed: 12	/18/18								
C6-C12	ND	27.8	mg/kg dry	1110	11.0	NR	75-125		20						
>C12-C28	ND	27.8	"	1110	36.3	NR	75-125		20						
Surrogate: 1-Chlorooctane	0.00		"	111			70-130								
Surrogate: o-Terphenyl	0.00		"	55.6			70-130								

Permian Basin Environmental Lab, L.P.

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 Larson & Associates, Inc.
 Project:
 XTO Sat 13
 Fax: (432) 687-0456

 P.O. Box 50685
 Project Number:
 17-0193-01

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Notes and Definitions

R3 The RPD exceeded the acceptance limit due to sample matrix effects.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

recovery.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

	Dien	Delvior C		
Report Approved By:			Date:	12/18/2018

RARMA

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

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January 09, 2019

Mark Larson Larson & Associates

507 N. Marienfeld #205

Midland, TX 79701

TEL: (432) 687-0901

FAX (432) 687-0456 Order No.: 1901020

RE: EMSU Sat #13

Dear Mark Larson:

DHL Analytical, Inc. received 2 sample(s) on 1/4/2019 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative and all estimated uncertainties of results are within method specifications.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

John DuPont

General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-18-21



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Analytical Report 1901020	7
AnalyticalQCSummaryReport 1901020	9

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DHL Analytical, Inc.

Sample Receipt Checklist

Client Name Larson & Associates			Date Receiv	/ed:	1/4/2019		
Work Order Number 1901020			Received by	EL			
Checklist completed by:	1/4/2019 Date)	_ Reviewed by	/		1/4/2019 Date	
	Carrier name	LoneStar					
Shipping container/cooler in good condition?		Yes 🗹	No 🔲	Not Prese	ent 🗌		
Custody seals intact on shippping container/cools	эг?	Yes 🗹	No 🗌	Not Prese	ent 🗆		
Custody seals intact on sample bottles?		Yes	No 🗌	Not Prese	ent 🗹		
Chain of custody present?		Yes 🗹	No 🗌				
Chain of custody signed when relinquished and re	eceived?	Yes 🗹	No 🗌				
Chain of custody agrees with sample labels?		Yes 🗹	No 🗌		•		
Samples in proper container/bottle?		Yes 🗹	No 🗌				
Sample containers intact?		Yes 🗹	No 🗌				
Sufficient sample volume for indicated test?		Yes 🗹	No 🗆				
All samples received within holding time?		Yes 🗹	No 🗔				
Container/Temp Blank temperature in compliance	e?	Yes 🗹	No 🗆	2.7 °C			
Water - VOA vials have zero headspace?		Yes 🗹	No 🗀	No VOA via	als submitte	d 🗀	
Water - pH<2 acceptable upon receipt?		Yes 🗌	No 🗌	NA 🗹	LOT#		
		Adjusted?		Checke	ed by		_
Water - ph>9 (S) or ph>10 (CN) acceptable upon	receipt?	Yes 🗌	No 🗌	NA 🗹	LOT#		
•		Adjusted?		Check	ed by		~
Any No response must be detailed in the comme	ents section below.						
Client contacted	Date contacted:		Per	son contact	ted		
Contacted by:	Regarding:						<u>.</u>
Comments:							
			<u> </u>				
Corrective Action							
n '							
							
				_			

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DHL Analytical, Inc.

CLIENT: Larson & Associates
Project: EMSU Sat #13

Lab Order: 1901020

CASE NARRATIVE

Date: 09-Jan-19

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and E300.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Anions analysis by method E300 the matrix spike and matrix spike duplicate recoveries were slightly above control limits for Chloride. These are flagged accordingly in the enclosed QC summary report. The "S" flag denotes spike recovery was outside control limits. The LCS was within control limits for this analyte. No further corrective actions were taken.

DHL Analytical, Inc.

Project:

CLIENT: Larson & Associates Client Sample ID: TMW-1

EMSU Sat #13 Lab ID: 1901020-01

Project No: 17-0193-01 **Collection Date:** 01/02/19 12:11 PM

Lab Order: 1901020 Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		SW82	260C			Analyst: BTJ
Benzene	<0.00800	0.000800	0.00200	mg/L	1	01/08/19 12:30 PM
Ethylbenzene	< 0.00200	0.00200	0.00600	mg/L	1	01/08/19 12:30 PM
Toluene	< 0.00200	0.00200	0.00600	mg/L	1	01/08/19 12:30 PM
Total Xylenes	< 0.00200	0.00200	0.00600	mg/L	1	01/08/19 12:30 PM
Surr: 1,2-Dichloroethane-d4	105	0	72-119	%REC	1	01/08/19 12:30 PM
Surr: 4-Bromofluorobenzene	98.3	0	76-119	%REC	1	01/08/19 12:30 PM
Surr: Dibromofluoromethane	98.4	0	85-115	%REC	1	01/08/19 12:30 PM
Surr: Toluene-d8	95.8	0	81-120	%REC	1	01/08/19 12:30 PM
ANIONS BY IC METHOD - WATER		E30	00			Analyst: JL
Chloride	637	30.0	100	mg/L	100	01/04/19 01:43 PM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

DF Dilution Factor

J Analyte detected between MDL and RLND Not Detected at the Method Detection Limit

S Spike Recovery outside control limits

C Sample Result or QC discussed in the Case Narrative

Date: 09-Jan-19

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

Date: 09-Jan-19

DHL Analytical, Inc.

CLIENT: Larson & Associates Client Sample ID: TMW-2

Project: EMSU Sat #13 **Lab ID:** 1901020-02

Project No: 17-0193-01 **Collection Date:** 01/02/19 01:15 PM

Lab Order: 1901020 Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		SW82	260C			Analyst: BTJ
Benzene	<0.000800	0.000800	0.00200	mg/L	1	01/08/19 12:55 PM
Ethylbenzene	< 0.00200	0.00200	0.00600	mg/L	1	01/08/19 12:55 PM
Toluene	< 0.00200	0.00200	0.00600	mg/L	1	01/08/19 12:55 PM
Total Xylenes	< 0.00200	0.00200	0.00600	mg/L	1	01/08/19 12:55 PM
Surr: 1,2-Dichloroethane-d4	106	0	72-119	%REC	1	01/08/19 12:55 PM
Surr: 4-Bromofluorobenzene	98.9	0	76-119	%REC	1	01/08/19 12:55 PM
Surr: Dibromofluoromethane	98.9	0	85-115	%REC	1	01/08/19 12:55 PM
Surr: Toluene-d8	95.7	0	81-120	%REC	1	01/08/19 12:55 PM
ANIONS BY IC METHOD - WATER		E30	00			Analyst: JL
Chloride	4260	30.0	100	mg/L	100	01/04/19 02:09 PM

Qualifiers:

* Value exceeds TCLP Maximum Concentration Level

DF Dilution Factor

J Analyte detected between MDL and RLND Not Detected at the Method Detection Limit

S Spike Recovery outside control limits

C Sample Result or QC discussed in the Case Narrative

E TPH pattern not Gas or Diesel Range Pattern

MDL Method Detection Limit

RL Reporting Limit

N Parameter not NELAC certified

Date: 09-Jan-19

ANALYTICAL QC SUMMARY REPORT

DHL Analytical, Inc.

CLIENT: Larson & Associates

Work Order: 1901020 Project: EMSU S

EMSU Sat #13 **RunID: GCMS3_190108A**

The QC data in batch 88894 app	olies to the fo	ollowing sa	amples: 1901	020-01A, 19 <mark>01</mark> 0)20-02A				
Sample ID LCS-88894	Batch ID:	88894		TestNo	sw	8260C		Units:	mg/L
SampType: LCS	Run ID:	GCMS3	_190108A	Analysis	s Date: 1/8/	/2019 9:54:0	0 AM	Prep Date:	1/8/2019
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD RPDLimit Qual
Benzene	(0.0439	0.00200	0.0464	0	94.7	81	122	
Ethylbenzene	(0.0487	0.00600	0.0464	0	105	73	127	
Toluene	(0.0442	0.00600	0.0464	0	95.2	77	122	
Total Xylenes		0.148	0.00600	0.139	0	106	80	121	
Surr: 1,2-Dichloroethane-d4		51.7		50.00		103	72	119	
Surr: 4-Bromofluorobenzene		49.3		50.00		98.7	76	119	
Surr: Dibromofluoromethane		48.5		50.00		97.1	85	115	
Surr: Toluene-d8		48.4		50.00		96.7	81	120	
Sample ID MB-88894	Batch ID:	88894		TestNo	SW	/8260C		Units:	mg/L
SampType: MBLK	Run ID:	GCMS3	_190108A	Analysis	s Date: 1/8	/2019 10:20:	00 AM	Prep Date:	1/8/2019
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD RPDLimit Qual
Benzene	<0	0.000800	0.00200						
Ethylbenzene	<(0.00200	0.00600						
Toluene	<(0.00200	0.00600						
Total Xylenes	<(0.00200	0.00600						
Surr: 1,2-Dichloroethane-d4		52.0		50.00		104	72	119	
Surr: 4-Bromofluorobenzene		49.7		50.00		99.4	76	119	
Surr: Dibromofluoromethane		48.8		50.00		97.6	85	115	
Surr: Toluene-d8		48.1		50.00		96.2	81	120	
Sample ID 1901030-03AMS	Batch ID:	88894		TestNo	SW	/8260C		Units:	mg/L
SampType: MS	Run ID:	GCMS3	_190108A	Analysis	s Date: 1/8/	/2019 3:52:0	0 PM	Prep Date:	1/8/2019
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	RPD RPDLimit Qual
Benzene	(0.0412	0.00200	0.0464	0	88.8	81	122	
Ethylbenzene	(0.0465	0.00600	0.0464	0	100	73	127	
Toluene	(0.0410	0.00600	0.0464	0	88.3	77	122	
Total Xylenes		0.142	0.00600	0.139	0	102	80	121	
Surr: 1,2-Dichloroethane-d4		51.9		50.00		104	72	119	
Surr: 4-Bromofluorobenzene		48.9		50.00		97.9	76	119	
Surr: Dibromofluoromethane		48.8		50.00		97.7	85	115	
Surr: Toluene-d8		47.1		50.00		94.3	81	120	
Sample ID 1901030-03AMSD	Batch ID:	88894		TestNo	sw	/8260C		Units:	mg/L
SampType: MSD	Run ID:	GCMS3	_190108A	Analysis	s Date: 1/8/	/2019 4:18:0	0 PM	Prep Date:	1/8/2019
		Result	RL	SPK value	Ref Val	%REC			RPD RPDLimit Qual

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

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S Spike Recovery outside control limits

N Parameter not NELAC certified

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CLIENT: Larson & Associates

Work Order: 1901020
Project: EMSU Sat #13

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS3_190108A

Sample ID 1901030-03AMSD SampType: MSD	Batch ID: Run ID:	88894 GCMS	3_190108A	TestNo Analys		W8260C 8/2019 4:18:0	0 PM	Units: Prep Date	mg/l	L 2019
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimi	t HighLimit	%RPD	RPDLimit Qual
Benzene	(0.0418	0.00200	0.0464	0	90.1	81	122	1.45	20
Ethylbenzene	(0.0481	0.00600	0.0464	0	104	73	127	3.23	20
Toluene	(0.0419	0.00600	0.0464	0	90.3	77	122	2.23	20
Total Xylenes		0.146	0.00600	0.139	0	105	80	121	2.78	20
Surr: 1,2-Dichloroethane-d4		51.6		50.00		103	72	119	0	0
Surr: 4-Bromofluorobenzene		48.7		50.00		97.4	76	119	0	0
Surr: Dibromofluoromethane		48.1		50.00		96.1	85	115	0	0
Surr: Toluene-d8		47.0		50.00		94.1	81	120	0	0

Qualifiers:

B Analyte detected in the associated Method Blank

J Analyte detected between MDL and RL

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

Page 2 of 3

CLIENT: Larson & Associates

Work Order: 1901020

ANALYTICAL QC SUMMARY REPORT

Project: EMSU Sat #13 RunID: IC2_190104A

v								_		
The QC data in batch 88876 app	lies to the fo	ollowing sa	mples: 1901	020-01B, 19010)20-02B					
Sample ID MB-88876	Batch ID:	88876		TestNo:	E300			Units:	mg/L	
SampType: MBLK	Run ID:	IC2_190	104A	Analysis	s Date: 1/4/20)19 11:00:	05 AM	Prep Date:	1/4/2019	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDI	imit Qua
Chloride		<0.300	1.00							
Sample ID LCS-88876	Batch ID:	88876		TestNo:	E300			Units:	mg/L	
SampType: LCS	Run ID:	IC2_190	104A	Analysis	s Date: 1/4/20)19 11:13:	05 AM	Prep Date:	1/4/2019	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDI	imit Qua
Chloride		10.3	1.00	10.00	0	103	90	110		
Sample ID LCSD-88876	Batch ID:	88876		TestNo:	E300			Units:	mg/L	
SampType: LCSD	Run ID:	IC2_190	104A	Analysis	s Date: 1/4/20)19 11:26:	05 AM	Prep Date:	1/4/2019	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDI	imit Qua
Chloride		10.4	1.00	10.00	0	104	90	110	0.680 2	0
Sample ID 1901020-01BMS	Batch ID:	88876		TestNo:	E300			Units:	mg/L	
SampType: MS	Run ID:	IC2_190	104A	Analysis	s Date: 1/4/20)19 12:11:	58 PM	Prep Date:	1/4/2019	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDI	imit Qua
Chloride		23400	1000	20000	764.8	113	90	110		S
Sample ID 1901020-01BMSD	Batch ID:	88876		TestNo:	E300			Units:	mg/L	
SampType: MSD	Run ID:	IC2_190	104A	Analysis	s Date: 1/4/20)19 12:24:	58 PM	Prep Date:	1/4/2019	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLim	it HighLimit %	6RPD RPDL	imit Qua
Chloride		23200	1000	20000	764.8	112	90	110	0.918 2	0 S

Qualifiers: B Analyte detected in the associated Method Blank

 $J \quad \ \ Analyte \ detected \ between \ MDL \ and \ RL$

ND Not Detected at the Method Detection Limit

RL Reporting Limit

J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

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R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

PERMIAN BASIN ENVIRONMENTAL LAB, LP 1400 Rankin Hwy Midland, TX 79701



Analytical Report

Prepared for:

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: EMSU B Sat 13 Trunk Line/Lea Co NM

Project Number: 19-0193-01 Location: Lea Co, NM

Lab Order Number: 9C05001



NELAP/TCEQ # T104704516-18-9

Report Date: 03/06/19

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-1	9C05001-01	Soil	03/04/19 14:22	03-05-2019 08:44
S-2	9C05001-02	Soil	03/04/19 14:25	03-05-2019 08:44
S-3	9C05001-03	Soil	03/04/19 14:30	03-05-2019 08:44
S-4	9C05001-04	Soil	03/04/19 14:31	03-05-2019 08:44
S-5	9C05001-05	Soil	03/04/19 14:33	03-05-2019 08:44
S-6	9C05001-06	Soil	03/04/19 14:44	03-05-2019 08:44
S-7	9C05001-07	Soil	03/04/19 14:50	03-05-2019 08:44
S-8	9C05001-08	Soil	03/04/19 14:55	03-05-2019 08:44
S-9	9C05001-09	Soil	03/04/19 15:00	03-05-2019 08:44
S-10	9C05001-10	Soil	03/04/19 15:05	03-05-2019 08:44
S-11	9C05001-11	Soil	03/04/19 15:10	03-05-2019 08:44
S-12	9C05001-12	Soil	03/04/19 15:18	03-05-2019 08:44
S-13	9C05001-13	Soil	03/04/19 15:20	03-05-2019 08:44
S-14	9C05001-14	Soil	03/04/19 15:25	03-05-2019 08:44

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-1 9C05001-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Per	mian Basin E	Environmen	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00110	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Toluene	ND	0.00110	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.1 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		74.9 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	S-09
General Chemistry Parameters by EPA / St	andard Metho	ds							
Chloride	1220	5.49	mg/kg dry	5	P9C0504	03/05/19	03/06/19	EPA 300.0	
% Moisture	9.0	0.1	%	1	P9C0605	03/06/19	03/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by	EPA Method 8	8015M							
C6-C12	ND	27.5	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		98.2 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: o-Terphenyl		122 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	03/05/19	03/05/19	calc	

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-2 9C05001-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin E	Environme	ıtal Lab, l	L.P.				
Organics by GC									
Benzene	ND	0.0233	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Toluene	ND	0.0233	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Ethylbenzene	ND	0.0233	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (p/m)	ND	0.0465	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (o)	ND	0.0233	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		69.0 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	S-09
Surrogate: 4-Bromofluorobenzene		85.4 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
General Chemistry Parameters by EI	PA / Standard Method	ls							
Chloride	2960	11.6	mg/kg dry	10	P9C0504	03/05/19	03/06/19	EPA 300.0	
% Moisture	14.0	0.1	%	1	P9C0605	03/06/19	03/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C	35 by EPA Method 80	015M							
C6-C12	ND	29.1	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C12-C28	332	29.1	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C28-C35	48.7	29.1	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: o-Terphenyl		127 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	381	29.1	mg/kg dry	1	[CALC]	03/05/19	03/05/19	calc	

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

S-3 9C05001-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	ian Basin E	nvironmen	tal Lab, I	L .P.				
Organics by GC									
Benzene	ND	0.00122	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Toluene	ND	0.00122	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Ethylbenzene	ND	0.00122	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (p/m)	ND	0.00244	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (o)	ND	0.00122	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		68.0 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	S-09
Surrogate: 4-Bromofluorobenzene		95.8 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
General Chemistry Parameters by El	PA / Standard Method	ls							
Chloride	1260	6.10	mg/kg dry	5	P9C0504	03/05/19	03/06/19	EPA 300.0	
% Moisture	18.0	0.1	%	1	P9C0605	03/06/19	03/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C	235 by EPA Method 80	15M							
C6-C12	ND	30.5	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C12-C28	116	30.5	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C28-C35	ND	30.5	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		96.0 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: o-Terphenyl		118 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	116	30.5	mg/kg dry	1	[CALC]	03/05/19	03/05/19	calc	

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-4 9C05001-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00115	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Toluene	ND	0.00115	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Ethylbenzene	ND	0.00115	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (p/m)	ND	0.00230	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (o)	ND	0.00115	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		78.3 %	75-1.	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		105 %	75-1.	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	1710	11.5	mg/kg dry	10	P9C0504	03/05/19	03/06/19	EPA 300.0	
% Moisture	13.0	0.1	%	1	P9C0605	03/06/19	03/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	by EPA Method 80	015M							
C6-C12	ND	28.7	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C12-C28	ND	28.7	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		87.3 %	70-1.	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: o-Terphenyl		107 %	70-1.	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.7	mg/kg dry	1	[CALC]	03/05/19	03/05/19	calc	

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-5 9C05001-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00112	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		102 %	75-1.	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		77.4 %	75-1.	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	2430	11.2	mg/kg dry	10	P9C0504	03/05/19	03/06/19	EPA 300.0	
% Moisture	11.0	0.1	%	1	P9C0605	03/06/19	03/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	28.1	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-1.	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: o-Terphenyl		127 %	70-1.	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	03/05/19	03/05/19	calc	

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-6 9C05001-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	nvironmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00119	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Toluene	ND	0.00119	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Ethylbenzene	ND	0.00119	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (p/m)	ND	0.00238	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (o)	ND	0.00119	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		107 %	75-12	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		75.6 %	75-12	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
General Chemistry Parameters by El	PA / Standard Method	ds							
Chloride	2650	11.9	mg/kg dry	10	P9C0504	03/05/19	03/06/19	EPA 300.0	
% Moisture	16.0	0.1	%	1	P9C0605	03/06/19	03/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C	35 by EPA Method 80	015M							
C6-C12	ND	29.8	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C12-C28	36.9	29.8	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C28-C35	ND	29.8	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-13	80	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: o-Terphenyl		127 %	70-13	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	36.9	29.8	mg/kg dry	1	[CALC]	03/05/19	03/05/19	calc	

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-7 9C05001-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	iian Basin E	nvironmer	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.0222	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Toluene	ND	0.0222	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Ethylbenzene	ND	0.0222	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (p/m)	ND	0.0444	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (o)	ND	0.0222	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		69.1 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	S-09
Surrogate: 4-Bromofluorobenzene		95.9 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
General Chemistry Parameters by El	PA / Standard Method	ls							
Chloride	1210	5.56	mg/kg dry	5	P9C0504	03/05/19	03/06/19	EPA 300.0	
% Moisture	10.0	0.1	%	1	P9C0605	03/06/19	03/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C	35 by EPA Method 80	15M							
C6-C12	244	139	mg/kg dry	5	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C12-C28	4100	139	mg/kg dry	5	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C28-C35	580	139	mg/kg dry	5	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		93.2 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: o-Terphenyl		124 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	4920	139	mg/kg dry	5	[CALC]	03/05/19	03/05/19	calc	

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-8 9C05001-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Invironmer	ıtal Lab, I	L .P.				
Organics by GC									
Benzene	ND	0.0230	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Toluene	0.113	0.0230	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Ethylbenzene	0.514	0.0230	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (p/m)	2.15	0.0460	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (o)	1.30	0.0230	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		105 %	75-125		P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		89.0 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
General Chemistry Parameters by EP	A / Standard Method	ds							
Chloride	1010	5.75	mg/kg dry	5	P9C0504	03/05/19	03/06/19	EPA 300.0	
% Moisture	13.0	0.1	%	1	P9C0605	03/06/19	03/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	015M							
C6-C12	2290	287	mg/kg dry	10	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C12-C28	10100	287	mg/kg dry	10	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C28-C35	1620	287	mg/kg dry	10	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		116 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: o-Terphenyl		112 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	14000	287	mg/kg dry	10	[CALC]	03/05/19	03/05/19	calc	

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-9 9C05001-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
•	Pern	nian Basin E	invironmer	ıtal Lab, l	L.P.				
Organics by GC									
Benzene	0.332	0.0247	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	•
Toluene	2.13	0.0247	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Ethylbenzene	4.27	0.0247	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (p/m)	9.74	0.0494	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (o)	5.06	0.0247	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		99.3 %	75-125		P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		113 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
General Chemistry Parameters by EP	A / Standard Method	ls							
Chloride	1490	6.17	mg/kg dry	5	P9C0504	03/05/19	03/06/19	EPA 300.0	
% Moisture	19.0	0.1	%	1	P9C0605	03/06/19	03/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	015M							
C6-C12	5570	309	mg/kg dry	10	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C12-C28	13100	309	mg/kg dry	10	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C28-C35	2440	309	mg/kg dry	10	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		124 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	·
Surrogate: o-Terphenyl		108 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	21100	309	mg/kg dry	10	[CALC]	03/05/19	03/05/19	calc	

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-10 9C05001-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	nvironmen	tal Lab, I	P.				
Organics by GC									
Benzene	0.118	0.0238	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Toluene	0.727	0.0238	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Ethylbenzene	1.26	0.0238	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (p/m)	3.95	0.0476	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (o)	1.87	0.0238	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		90.4 %	75-1.	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		103 %	75-1.	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
General Chemistry Parameters by EP.	A / Standard Method	ls							
Chloride	1840	11.9	mg/kg dry	10	P9C0504	03/05/19	03/06/19	EPA 300.0	
% Moisture	16.0	0.1	%	1	P9C0605	03/06/19	03/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80)15M							
C6-C12	1720	149	mg/kg dry	5	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C12-C28	5640	149	mg/kg dry	5	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C28-C35	943	149	mg/kg dry	5	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %	70-1.	30	P9C0505	03/05/19	03/05/19	TPH 8015M	<u> </u>
Surrogate: o-Terphenyl		116 %	70-1.	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	8290	149	mg/kg dry	5	[CALC]	03/05/19	03/05/19	calc	

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

S-11 9C05001-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.0241	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Toluene	0.343	0.0241	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Ethylbenzene	0.554	0.0241	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (p/m)	2.46	0.0482	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (o)	1.24	0.0241	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		92.9 %	75-125		P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		95.0 %	75-1.	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
General Chemistry Parameters by EP	A / Standard Method	ls							
Chloride	1750	6.02	mg/kg dry	5	P9C0504	03/05/19	03/06/19	EPA 300.0	
% Moisture	17.0	0.1	%	1	P9C0605	03/06/19	03/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C3	35 by EPA Method 80	015M							
C6-C12	1400	151	mg/kg dry	5	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C12-C28	5130	151	mg/kg dry	5	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C28-C35	902	151	mg/kg dry	5	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		109 %	70-1.	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: o-Terphenyl		116 %	70-1.	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	7440	151	mg/kg dry	5	[CALC]	03/05/19	03/05/19	calc	

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-12 9C05001-12 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	nvironmen	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.0238	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Toluene	0.226	0.0238	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Ethylbenzene	0.376	0.0238	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (p/m)	1.41	0.0476	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (o)	1.28	0.0238	mg/kg dry	20	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.6 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		89.5 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
General Chemistry Parameters by EP	A / Standard Method	ls							
Chloride	1910	11.9	mg/kg dry	10	P9C0504	03/05/19	03/06/19	EPA 300.0	
% Moisture	16.0	0.1	%	1	P9C0605	03/06/19	03/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C3	35 by EPA Method 80)15M							
C6-C12	3060	298	mg/kg dry	10	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C12-C28	18800	298	mg/kg dry	10	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C28-C35	2830	298	mg/kg dry	10	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		113 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: o-Terphenyl		106 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	24700	298	mg/kg dry	10	[CALC]	03/05/19	03/05/19	calc	

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-13 9C05001-13 (Soil)

		.							
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	nvironmer	ıtal Lab, I	L .P.				
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Toluene	ND	0.00109	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Ethylbenzene	ND	0.00109	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (p/m)	ND	0.00217	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (o)	ND	0.00109	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		106 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		80.1 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Method	ls							
Chloride	1090	5.43	mg/kg dry	5	P9C0504	03/05/19	03/06/19	EPA 300.0	
% Moisture	8.0	0.1	%	1	P9C0605	03/06/19	03/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	27.2	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C12-C28	457	27.2	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C28-C35	63.3	27.2	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: o-Terphenyl		127 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	521	27.2	mg/kg dry	1	[CALC]	03/05/19	03/05/19	calc	

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-14 9C05001-14 (Soil)

		D (
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	nian Basin E	Environmen	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Toluene	ND	0.00109	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Ethylbenzene	ND	0.00109	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (p/m)	ND	0.00217	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Xylene (o)	ND	0.00109	mg/kg dry	1	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		77.2 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.1 %	75-1	25	P9C0517	03/05/19	03/05/19	EPA 8021B	
General Chemistry Parameters by EP	PA / Standard Method	ls							
Chloride	972	5.43	mg/kg dry	5	P9C0504	03/05/19	03/06/19	EPA 300.0	
% Moisture	8.0	0.1	%	1	P9C0605	03/06/19	03/06/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C	35 by EPA Method 80)15M							
C6-C12	ND	27.2	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C12-C28	237	27.2	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
>C28-C35	38.0	27.2	mg/kg dry	1	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		101 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Surrogate: o-Terphenyl		124 %	70-1	30	P9C0505	03/05/19	03/05/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	275	27.2	mg/kg dry	1	[CALC]	03/05/19	03/05/19	calc	

Analyte

Notes

Fax: (432) 687-0456

RPD

Limit

%REC

Limits

RPD

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

Reporting

Limit

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Result

0.0646

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

Units

Spike

Level

Source

Result

%REC

rmaryte	Result	Dillit	Cinto	Level	resurt	/orche	Lillits	KI D	Limit	110103
Batch P9C0517 - General Preparatio	n (GC)									
Blank (P9C0517-BLK1)				Prepared &	Analyzed:	03/05/19				
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.0445		"	0.0600		74.2	75-125			S-09
Surrogate: 4-Bromofluorobenzene	0.0558		"	0.0600		93.0	75-125			
LCS (P9C0517-BS1)				Prepared &	Analyzed:	03/05/19				
Benzene	0.105	0.00100	mg/kg wet	0.100		105	70-130			
Toluene	0.103	0.00100	"	0.100		103	70-130			
Ethylbenzene	0.0861	0.00100	"	0.100		86.1	70-130			
Xylene (p/m)	0.197	0.00200	"	0.200		98.4	70-130			
Xylene (o)	0.109	0.00100	"	0.100		109	70-130			
Surrogate: 1,4-Difluorobenzene	0.0643		"	0.0600		107	75-125			
Surrogate: 4-Bromofluorobenzene	0.0634		"	0.0600		106	75-125			
LCS Dup (P9C0517-BSD1)				Prepared &	Analyzed:	03/05/19				
Benzene	0.110	0.00100	mg/kg wet	0.100		110	70-130	4.32	20	
Toluene	0.106	0.00100	"	0.100		106	70-130	2.98	20	
Ethylbenzene	0.0866	0.00100	"	0.100		86.6	70-130	0.579	20	
Xylene (p/m)	0.197	0.00200	"	0.200		98.7	70-130	0.320	20	
Xylene (o)	0.113	0.00100	"	0.100		113	70-130	3.22	20	
Surrogate: 4-Bromofluorobenzene	0.0658		"	0.0600		110	75-125			

Benzene	0.00	mg/kg wet				
Toluene	0.00	"				
Ethylbenzene	0.00	"				
Xylene (p/m)	0.00	"				
Xylene (o)	0.00	"				
Surrogate: 4-Bromofluorobenzene	0.0612	"	0.0600	102	75-125	
Surrogate: 1,4-Difluorobenzene	0.0473	"	0.0600	78.8	75-125	

0.0600

Prepared & Analyzed: 03/05/19

Permian Basin Environmental Lab, L.P.

Surrogate: 1, 4-Difluor obenzene

Calibration Blank (P9C0517-CCB1)

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

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75-125

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

0.0619

Fax: (432) 687-0456

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
-		Zimit		20,01	1100011	,,,,,,,,	2			1.0.05
Batch P9C0517 - General Preparation (C	GC)									
Calibration Blank (P9C0517-CCB2)				Prepared &	Analyzed:	03/05/19				
Benzene	0.00		mg/kg wet							
Γoluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.0646		"	0.0600		108	75-125			
Surrogate: 1,4-Difluorobenzene	0.0518		"	0.0600		86.4	75-125			
Calibration Check (P9C0517-CCV1)				Prepared &	: Analyzed:	03/05/19				
Benzene	0.110	0.00100	mg/kg wet	0.100	-	110	80-120			
Γoluene	0.101	0.00100	"	0.100		101	80-120			
Ethylbenzene	0.117	0.00100	"	0.100		117	80-120			
Xylene (p/m)	0.183	0.00200	"	0.200		91.6	80-120			
Xylene (o)	0.111	0.00100	"	0.100		111	80-120			
Surrogate: 1,4-Difluorobenzene	0.0645		"	0.0600		107	75-125			
Surrogate: 4-Bromofluorobenzene	0.0623		"	0.0600		104	75-125			
Calibration Check (P9C0517-CCV2)				Prepared &	: Analyzed:	03/05/19				
Benzene	0.119	0.00100	mg/kg wet	0.100		119	80-120			
Γoluene	0.112	0.00100	"	0.100		112	80-120			
Ethylbenzene	0.120	0.00100	"	0.100		120	80-120			
Xylene (p/m)	0.203	0.00200	"	0.200		102	80-120			
Xylene (o)	0.119	0.00100	"	0.100		119	80-120			
Surrogate: 4-Bromofluorobenzene	0.0664		"	0.0600		111	75-125			
Surrogate: 1,4-Difluorobenzene	0.0655		"	0.0600		109	75-125			
Calibration Check (P9C0517-CCV3)				Prepared: 0	03/05/19 Aı	nalyzed: 03	3/06/19			
Benzene	0.113	0.00100	mg/kg wet	0.100		113	80-120			
Γoluene	0.104	0.00100	"	0.100		104	80-120			
Ethylbenzene	0.120	0.00100	"	0.100		120	80-120			
Xylene (p/m)	0.191	0.00200	"	0.200		95.3	80-120			
Xylene (o)	0.118	0.00100	"	0.100		118	80-120			
Surrogate: 4-Bromofluorobenzene	0.0572		"	0.0600		95.4	75-125			

Permian Basin Environmental Lab, L.P.

Surrogate: 1,4-Difluorobenzene

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

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75-125

0.0600

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

0.00354

0.0786

0.0682

0.00122

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

%REC RPD Spike Reporting Source Result Limit Level Result %REC Limits RPD Limit Units Notes Analyte

Batch P9C0517 - General Preparation (G	\mathbf{C})
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Xylene (o)

Surrogate: 4-Bromofluorobenzene

Surrogate: 1,4-Difluorobenzene

Batch P9C0517 - General Preparation (C	GC)									
Matrix Spike (P9C0517-MS1)	Sour	ce: 9C05001	-03	Prepared &	Analyzed:	03/05/19				
Benzene	0.0424	0.00122	mg/kg dry	0.122	ND	34.8	80-120			QM-05
Toluene	0.0401	0.00122	"	0.122	ND	32.9	80-120			QM-05
Ethylbenzene	0.0455	0.00122	"	0.122	ND	37.3	80-120			QM-05
Xylene (p/m)	0.0761	0.00244	"	0.244	ND	31.2	80-120			QM-05
Xylene (o)	0.0350	0.00122	"	0.122	ND	28.7	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	0.0808		"	0.0732		110	75-125			
Surrogate: 4-Bromofluorobenzene	0.0897		"	0.0732		123	75-125			
Matrix Spike Dup (P9C0517-MSD1)	Sour	ce: 9C05001	-03	Prepared &	Analyzed:	03/05/19				
Benzene	0.0218	0.00122	mg/kg dry	0.122	ND	17.9	80-120	64.2	20	QM-05
Toluene	0.0138	0.00122	"	0.122	ND	11.3	80-120	97.7	20	QM-05
Ethylbenzene	0.00617	0.00122	"	0.122	ND	5.06	80-120	152	20	QM-05
Xylene (p/m)	0.00862	0.00244	"	0.244	ND	3.54	80-120	159	20	QM-05

0.122

0.0732

0.0732

ND

2.90

107

93.2

80-120

75-125

75-125

163

20

QM-05

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9C0504 - *** DEFAULT PREP ***										
Blank (P9C0504-BLK1)				Prepared:	03/05/19 A	nalyzed: 03	3/06/19			
Chloride	ND	1.00	mg/kg wet							
LCS (P9C0504-BS1)				Prepared:	03/05/19 A	nalyzed: 03	3/06/19			
Chloride	ND	1.00	mg/kg wet	400			80-120			
LCS Dup (P9C0504-BSD1)				Prepared:	03/05/19 A	nalyzed: 03	3/06/19			
Chloride	ND	1.00	mg/kg wet	400		-	80-120		20	
Duplicate (P9C0504-DUP1)	Sou	rce: 9C05001	l -01	Prepared:	03/05/19 A	nalyzed: 03	3/06/19			
Chloride	1170	5.49	mg/kg dry		1220			3.87	20	
Duplicate (P9C0504-DUP2)	Sou	rce: 9C05001	l -11	Prepared:	03/05/19 A	nalyzed: 03	3/06/19			
Chloride	1750	6.02	mg/kg dry		1750			0.0137	20	
Matrix Spike (P9C0504-MS1)	Sou	rce: 9C05001	l -01	Prepared:	03/05/19 A	nalyzed: 03	3/06/19			
Chloride	2340	5.49	mg/kg dry	1100	1220	102	80-120			
Batch P9C0605 - *** DEFAULT PREP ***										
Blank (P9C0605-BLK1)				Prepared &	& Analyzed:	03/06/19				
% Moisture	ND	0.1	%							
Duplicate (P9C0605-DUP1)	Sou	rce: 9C04002	2-26	Prepared &	& Analyzed:	03/06/19				
% Moisture	15.0	0.1	%		16.0			6.45	20	
Duplicate (P9C0605-DUP2)	Sou	rce: 9C05002	2-05	Prepared &	& Analyzed:	03/06/19				
% Moisture	7.0	0.1	%		8.0			13.3	20	

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

	D 1	Reporting	TT '4	Spike	Source	N/DEG	%REC	DDD	RPD	N 4
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9C0605 - *** DEFAULT PREP ***										
Duplicate (P9C0605-DUP3)	Sour	ce: 9C05010-0	06	Prepared &	Analyzed:	03/06/19				
% Moisture	5.0	0.1	%		5.0			0.00	20	
Duplicate (P9C0605-DUP4)	Sour	ce: 9C05014-0	06	Prepared &	Analyzed:	03/06/19				
% Moisture	18.0	0.1	%		12.0			40.0	20	
Duplicate (P9C0605-DUP5)	Sour	ce: 9C05016-1	13	Prepared &	Analyzed:	03/06/19				
% Moisture	12.0	0.1	%		13.0			8.00	20	
Duplicate (P9C0605-DUP6)	Sour	ce: 9C05017-1	16	Prepared &	Analyzed:	03/06/19				
% Moisture	17.0	0.1	%		17.0			0.00	20	

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9C0505 - TX 1005										
Blank (P9C0505-BLK1)				Prepared &	k Analyzed:	: 03/05/19				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	103		"	100		103	70-130			
Surrogate: o-Terphenyl	64.1		"	50.0		128	70-130			
LCS (P9C0505-BS1)				Prepared &	k Analyzed:	03/05/19				
C6-C12	1090	25.0	mg/kg wet	1000		109	75-125			
>C12-C28	942	25.0	"	1000		94.2	75-125			
Surrogate: 1-Chlorooctane	117		"	100		117	70-130			
Surrogate: o-Terphenyl	60.6		"	50.0		121	70-130			
LCS Dup (P9C0505-BSD1)				Prepared &	k Analyzed:	03/05/19				
C6-C12	1060	25.0	mg/kg wet	1000		106	75-125	2.92	20	
>C12-C28	920	25.0	"	1000		92.0	75-125	2.29	20	
Surrogate: 1-Chlorooctane	112		"	100		112	70-130			
Surrogate: o-Terphenyl	59.8		"	50.0		120	70-130			
Calibration Blank (P9C0505-CCB1)				Prepared &	k Analyzed:	: 03/05/19				
C6-C12	11.4		mg/kg wet							
>C12-C28	10.7		"							
Surrogate: 1-Chlorooctane	126		"	100		126	70-130			
Surrogate: o-Terphenyl	78.1		"	50.0		156	70-130			S-09
Calibration Blank (P9C0505-CCB2)				Prepared &	k Analyzed:	03/05/19				
C6-C12	5.15		mg/kg wet							
>C12-C28	17.2		"							
Surrogate: 1-Chlorooctane	129		"	100		129	70-130			
Surrogate: o-Terphenyl	79.2		"	50.0		158	70-130			S-09

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9C0505 - TX 1005										
Calibration Check (P9C0505-CCV1)				Prepared &	k Analyzed:	03/05/19				
C6-C12	963	25.0	mg/kg wet	1000		96.3	85-115			
>C12-C28	898	25.0	"	1000		89.8	85-115			
Surrogate: 1-Chlorooctane	214		"	200		107	70-130			
Surrogate: o-Terphenyl	110		"	100		110	70-130			
Calibration Check (P9C0505-CCV2)				Prepared &	t Analyzed:	03/05/19				
C6-C12	1000	25.0	mg/kg wet	1000		100	85-115			
>C12-C28	893	25.0	"	1000		89.3	85-115			
Surrogate: 1-Chlorooctane	224		"	200		112	70-130			
Surrogate: o-Terphenyl	118		"	100		118	70-130			

Larson & Associates, Inc. Project: EMSU B Sat 13 Trunk Line/Lea Co NM

P.O. Box 50685 Project Number: 19-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Notes and Definitions

S-09 Surrogate recovery limits have been exceeded.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were

within acceptance limits showing that the laboratory is in control and the data is acceptable.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

	Drew	Devor C			
Report Approved By:			Date:	3/6/2019	

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

LABORATORY:	RELINQUISHED BX:(Signature)	C BERNOUISHER BY MORANDE	RELINATISMED BY (Signature)	TOTAL	202	5-14	S-13	5-12	6	5-16	5-9	5-5	5-7	5L	5-5	5-4	ئ " ئ	5-2	\$ _	Field Sample I.D.	UN VILL	TIME ZONE: Time zone/State:	Yes No		Data Reported to:	NSOCIOTES, ITIC. Environmental Consultants	Š	ige 1	(87 of	++0
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MAND DELIVERED	CARRIER BILL#	CUSTODY SEALS -	LABORATORY USE ONLY																			X/h	ξ) <u>/</u>	(Sign)		ELPO 12	LAB WORK ORDER#		CH,	
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		N □ INTACT	THERM#:											Scipt Jag	5-76	ON STANKE	2			FIELD NOT	/	Wicks				1	为	PAGE	CHAIN-OF-CUST	N
		BROKEN DINTACT NOT USED	7												Sey 16 33					FIELD NOTES						ומת רפי	0500	유	STOL	
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PERMIAN BASIN ENVIRONMENTAL LAB, LP 1400 Rankin Hwy Midland, TX 79701



Analytical Report

Prepared for:

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: XTO EMSU Sat 13 Project Number: 17-0193-01 Location: None Given

Lab Order Number: 9C11004



NELAP/TCEQ # T104704516-18-9

Report Date: 03/19/19

Larson & Associates, Inc.

Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-2 (6')	9C11004-01	Soil	03/08/19 10:21	03-11-2019 08:45
S-7 (7')	9C11004-02	Soil	03/08/19 09:11	03-11-2019 08:45
S-8 (11')	9C11004-03	Soil	03/08/19 09:18	03-11-2019 08:45
S-8 (12')	9C11004-04	Soil	03/08/19 09:34	03-11-2019 08:45
S-9 (12')	9C11004-05	Soil	03/08/19 09:43	03-11-2019 08:45
S-9 (13')	9C11004-06	Soil	03/08/19 09:47	03-11-2019 08:45
S-10 (12')	9C11004-07	Soil	03/08/19 10:45	03-11-2019 08:45
S-10 (13')	9C11004-08	Soil	03/08/19 10:48	03-11-2019 08:45
S-11 (13')	9C11004-09	Soil	03/08/19 10:37	03-11-2019 08:45
S-11 (16')	9C11004-10	Soil	03/08/19 10:38	03-11-2019 08:45
S-12 (12')	9C11004-11	Soil	03/08/19 10:25	03-11-2019 08:45
S-12 (13')	9C11004-12	Soil	03/08/19 10:28	03-11-2019 08:45
S-13 (11')	9C11004-13	Soil	03/08/19 10:18	03-11-2019 08:45
S-13 (12')	9C11004-14	Soil	03/08/19 10:20	03-11-2019 08:45
S-14 (11')	9C11004-15	Soil	03/08/19 10:15	03-11-2019 08:45

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

S-2 (6') 9C11004-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	Environmen	tal Lab,	L.P.				
General Chemistry Parameters by EP	A / Standard Method	S							
Chloride	1050	5.56	mg/kg dry	5	P9C1505	03/15/19	03/18/19	EPA 300.0	
% Moisture	10.0	0.1	%	1	P9C1202	03/12/19	03/12/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C3	35 by EPA Method 80	15M							
C6-C12	ND	27.8	mg/kg dry	1	P9C1405	03/14/19	03/15/19	TPH 8015M	
>C12-C28	104	27.8	mg/kg dry	1	P9C1405	03/14/19	03/15/19	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P9C1405	03/14/19	03/15/19	TPH 8015M	
Surrogate: 1-Chlorooctane		95.8 %	70-13	30	P9C1405	03/14/19	03/15/19	TPH 8015M	
Surrogate: o-Terphenyl		107 %	70-13	30	P9C1405	03/14/19	03/15/19	TPH 8015M	
Total Petroleum Hydrocarbon	104	27.8	mg/kg dry	1	[CALC]	03/14/19	03/15/19	calc	
C6-C35									

C6-C35

Fax: (432) 687-0456

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-7 (7') 9C11004-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environme	ntal Lab, l	L.P.				
General Chemistry Parameters by EPA / St	andard Method	ds							
Chloride	1330	5.62	mg/kg dry	5	P9C1505	03/15/19	03/18/19	EPA 300.0	
% Moisture	11.0	0.1	%	1	P9C1202	03/12/19	03/12/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by l	EPA Method 80	015M							
C6-C12	54.5	28.1	mg/kg dry	1	P9C1405	03/14/19	03/15/19	TPH 8015M	
>C12-C28	89.3	28.1	mg/kg dry	1	P9C1405	03/14/19	03/15/19	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P9C1405	03/14/19	03/15/19	TPH 8015M	
Surrogate: 1-Chlorooctane		95.8 %	70-1	30	P9C1405	03/14/19	03/15/19	TPH 8015M	
Surrogate: o-Terphenyl		106 %	70-1	30	P9C1405	03/14/19	03/15/19	TPH 8015M	
Total Petroleum Hydrocarbon	144	28.1	mg/kg dry	1	[CALC]	03/14/19	03/15/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-8 (11') 9C11004-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permi	an Basin E	nvironm	ental Lab, L	.P.				

General Chemistry Parameters by EPA	/ Standard Methods							
Chloride	477	6.58	mg/kg dry	5	P9C1505	03/15/19	03/18/19	EPA 300.0
% Moisture	24.0	0.1	%	1	P9C1202	03/12/19	03/12/19	ASTM D2216
Total Petroleum Hydrocarbons C6-C35	5 by EPA Method 801	5M						
C6-C12	79.5	32.9	mg/kg dry	1	P9C1405	03/14/19	03/15/19	TPH 8015M
>C12-C28	696	32.9	mg/kg dry	1	P9C1405	03/14/19	03/15/19	TPH 8015M
>C28-C35	102	32.9	mg/kg dry	1	P9C1405	03/14/19	03/15/19	TPH 8015M
Surrogate: 1-Chlorooctane		108 %	70-130		P9C1405	03/14/19	03/15/19	TPH 8015M
Surrogate: o-Terphenyl		119 %	70-130		P9C1405	03/14/19	03/15/19	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	877	32.9	mg/kg dry	1	[CALC]	03/14/19	03/15/19	calc

Total Petroleum Hydrocarbon

C6-C35

Fax: (432) 687-0456

calc

Larson & Associates, Inc. Project: XTO EMSU Sat 13

72.5

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-8 (12') 9C11004-04 (Soil)

Analyte	I Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes			
Permian Basin Environmental Lab, L.P.												
General Chemistry Parameters by EPA / Stands	ard Methods											
Chloride	826	11.8	mg/kg dry	10	P9C1505	03/15/19	03/18/19	EPA 300.0				
% Moisture	15.0	0.1	%	1	P9C1202	03/12/19	03/12/19	ASTM D2216				
Total Petroleum Hydrocarbons C6-C35 by EPA	Method 8015N	Л										
C6-C12	ND	29.4	mg/kg dry	1	P9C1507	03/15/19	03/15/19	TPH 8015M				
>C12-C28	72.5	29.4	mg/kg dry	1	P9C1507	03/15/19	03/15/19	TPH 8015M				
>C28-C35	ND	29.4	mg/kg dry	1	P9C1507	03/15/19	03/15/19	TPH 8015M				
Surrogate: 1-Chlorooctane		108 %	70-130)	P9C1507	03/15/19	03/15/19	TPH 8015M				
Surrogate: o-Terphenyl		129 %	70-130)	P9C1507	03/15/19	03/15/19	TPH 8015M				

29.4 mg/kg dry

[CALC]

03/15/19

03/15/19

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-9 (12') 9C11004-05 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

General Chemistry Parameters by EPA				-	DOC1505		0.04040	EPA 300.0
Chloride	1150	5.81	mg/kg dry	5	P9C1505	03/15/19	03/18/19	
% Moisture	14.0	0.1	%	1	P9C1202	03/12/19	03/12/19	ASTM D2216
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M						
C6-C12	1180	145	mg/kg dry	5	P9C1507	03/15/19	03/15/19	TPH 8015M
>C12-C28	2840	145	mg/kg dry	5	P9C1507	03/15/19	03/15/19	TPH 8015M
>C28-C35	479	145	mg/kg dry	5	P9C1507	03/15/19	03/15/19	TPH 8015M
Surrogate: 1-Chlorooctane		106 %	70-130)	P9C1507	03/15/19	03/15/19	TPH 8015M
Surrogate: o-Terphenyl		113 %	70-130)	P9C1507	03/15/19	03/15/19	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	4500	145	mg/kg dry	5	[CALC]	03/15/19	03/15/19	calc

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-9 (13') 9C11004-06 (Soil)

									1
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Chloride	810	1.15	mg/kg dry	1	P9C1505	03/15/19	03/18/19	EPA 300.0	
% Moisture	13.0	0.1	%	1	P9C1202	03/12/19	03/12/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	92.3	28.7	mg/kg dry	1	P9C1507	03/15/19	03/15/19	TPH 8015M	
>C12-C28	205	28.7	mg/kg dry	1	P9C1507	03/15/19	03/15/19	TPH 8015M	
>C28-C35	38.1	28.7	mg/kg dry	1	P9C1507	03/15/19	03/15/19	TPH 8015M	
Surrogate: 1-Chlorooctane		112 %	70-130		P9C1507	03/15/19	03/15/19	TPH 8015M	
Surrogate: o-Terphenyl		133 %	70-130		P9C1507	03/15/19	03/15/19	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	336	28.7	mg/kg dry	1	[CALC]	03/15/19	03/15/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-10 (12') 9C11004-07 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

	1 01 111	2	, 0	,	2017			
General Chemistry Parameters by EPA	A / Standard Methods	S						
Chloride	888	1.30	mg/kg dry	1	P9C1505	03/15/19	03/18/19	EPA 300.0
% Moisture	23.0	0.1	%	1	P9C1202	03/12/19	03/12/19	ASTM D2216
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 801	15M						
C6-C12	533	162	mg/kg dry	5	P9C1507	03/15/19	03/15/19	TPH 8015M
>C12-C28	1100	162	mg/kg dry	5	P9C1507	03/15/19	03/15/19	TPH 8015M
>C28-C35	186	162	mg/kg dry	5	P9C1507	03/15/19	03/15/19	TPH 8015M
Surrogate: 1-Chlorooctane		108 %	70-130)	P9C1507	03/15/19	03/15/19	TPH 8015M
Surrogate: o-Terphenyl		128 %	70-130)	P9C1507	03/15/19	03/15/19	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	1820	162	mg/kg dry	5	[CALC]	03/15/19	03/15/19	calc

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-10 (13') 9C11004-08 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian	Basin	Environ	mental	Lab.	L.P.

Chloride	1780	5.88	mg/kg dry	5	P9C1505	03/15/19	03/18/19	EPA 300.0	
% Moisture	15.0	0.1	%	1	P9C1202	03/12/19	03/12/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	30.2	29.4	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M	
>C12-C28	41.5	29.4	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M	
>C28-C35	ND	29.4	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M	
Surrogate: 1-Chlorooctane		112 %	70-130)	P9C1507	03/15/19	03/16/19	TPH 8015M	
Surrogate: o-Terphenyl		138 %	70-130)	P9C1507	03/15/19	03/16/19	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	71.7	29.4	mg/kg dry	1	[CALC]	03/15/19	03/16/19	calc	

% Moisture

Fax: (432) 687-0456

Larson & Associates, Inc. Project: XTO EMSU Sat 13

15.0

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-11 (13') 9C11004-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permian	Basin Er	nvironmei	ntal Lab, I	P.				
General Chemistry Paramete	ers by EPA / Standard Methods								
Chloride	1580	5.88	mg/kg dry	5	P9C1505	03/15/19	03/18/19	EPA 300.0	

Total Petroleum H	<u>ydrocarbons (</u>	<u> 26-C35 by</u>	EPA Method	8015M

Total Tetroleum Hyurocarbons Co-C3	by El A Method 6013	171							
C6-C12	304	29.4	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M	
>C12-C28	1070	29.4	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M	
>C28-C35	164	29.4	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M	
Surrogate: 1-Chlorooctane		113 %	70-130		P9C1507	03/15/19	03/16/19	TPH 8015M	
Surrogate: o-Terphenyl		130 %	70-130		P9C1507	03/15/19	03/16/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	1540	29.4	mg/kg dry	1	[CALC]	03/15/19	03/16/19	calc	

0.1

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

03/12/19

03/12/19

ASTM D2216

calc

Larson & Associates, Inc. Project: XTO EMSU Sat 13

5010

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-11 (16') 9C11004-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permi	an Basin E	nvironmer	ıtal Lab, I	P.				
General Chemistry Parameters by E	PA / Standard Methods								
Chloride	2190	8.20	mg/kg dry	5	P9C1505	03/15/19	03/18/19	EPA 300.0	
% Moisture	39.0	0.1	%	1	P9C1202	03/12/19	03/12/19	ASTM D2216	

Total Petroleum Hydrocarbons C6-	C35 by EPA Method 8015N	4						
C6-C12	1010	205	mg/kg dry	5	P9C1507	03/15/19	03/16/19	TPH 8015M
>C12-C28	3470	205	mg/kg dry	5	P9C1507	03/15/19	03/16/19	TPH 8015M
>C28-C35	530	205	mg/kg dry	5	P9C1507	03/15/19	03/16/19	TPH 8015M
Surrogate: 1-Chlorooctane		107 %	70-130		P9C1507	03/15/19	03/16/19	TPH 8015M
Surrogate: o-Terphenyl		129 %	70-130		P9C1507	03/15/19	03/16/19	TPH 8015M

205 mg/kg dry

[CALC]

03/15/19

03/16/19

C6-C35

Total Petroleum Hydrocarbon

C6-C35

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Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-12 (12') 9C11004-11 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

General Chemistry Parameters by EPA / Star	ndard Metho	ds							
Chloride	1720	5.88	mg/kg dry	5	P9C1505	03/15/19	03/18/19	EPA 300.0	
% Moisture	15.0	0.1	%	1	P9C1202	03/12/19	03/12/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by E	PA Method 8	015M							
C6-C12	164	29.4	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M	
>C12-C28	1290	29.4	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M	
>C28-C35	189	29.4	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %	70-130		P9C1507	03/15/19	03/16/19	TPH 8015M	
Surrogate: o-Terphenyl		133 %	70-130		P9C1507	03/15/19	03/16/19	TPH 8015M	S-GC
Total Petroleum Hydrocarbon	1640	29.4	mg/kg dry	1	[CALC]	03/15/19	03/16/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-12 (13') 9C11004-12 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P	Permian	Basin	Environmen	ıtal	Lab,	L.P
--------------------------------------	---------	--------------	------------	------	------	-----

Chloride	2470	13.2	mg/kg dry	10	P9C1505	03/15/19	03/18/19	EPA 300.0
% Moisture	24.0	0.1	%	1	P9C1202	03/12/19	03/12/19	ASTM D2216
Total Petroleum Hydrocarbons C6-C	35 by EPA Method 80	15M						
C6-C12	ND	32.9	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M
>C12-C28	57.3	32.9	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M
>C28-C35	ND	32.9	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M
Surrogate: 1-Chlorooctane		108 %	70-130)	P9C1507	03/15/19	03/16/19	TPH 8015M
Surrogate: o-Terphenyl		130 %	70-130)	P9C1507	03/15/19	03/16/19	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	57.3	32.9	mg/kg dry	1	[CALC]	03/15/19	03/16/19	calc

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-13 (11') 9C11004-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

General Chemistry Parameters by EPA /	Standard Mathada	,						
Chloride	477	1.20	mg/kg dry	1	P9C1505	03/15/19	03/18/19	EPA 300.0
% Moisture	17.0	0.1	%	1	P9C1202	03/12/19	03/12/19	ASTM D2216
Total Petroleum Hydrocarbons C6-C35 b	y EPA Method 801	15M						
C6-C12	ND	30.1	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M
>C12-C28	ND	30.1	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M
>C28-C35	ND	30.1	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M
Surrogate: 1-Chlorooctane		106 %	70-130		P9C1507	03/15/19	03/16/19	TPH 8015M
Surrogate: o-Terphenyl		126 %	70-130		P9C1507	03/15/19	03/16/19	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	30.1	mg/kg dry	1	[CALC]	03/15/19	03/16/19	calc

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Mark Larson

S-13 (12') 9C11004-14 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin E	Environme	ıtal Lab, l	L.P.				
General Chemistry Parameters by EPA / S	tandard Method	s							
Chloride	1120	5.81	mg/kg dry	5	P9C1505	03/15/19	03/18/19	EPA 300.0	
% Moisture	14.0	0.1	%	1	P9C1202	03/12/19	03/12/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by	EPA Method 80	15M							
C6-C12	ND	29.1	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M	
>C12-C28	ND	29.1	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M	
>C28-C35	ND	29.1	mg/kg dry	1	P9C1507	03/15/19	03/16/19	TPH 8015M	
Surrogate: 1-Chlorooctane		104 %	70-1	30	P9C1507	03/15/19	03/16/19	TPH 8015M	
Surrogate: o-Terphenyl		129 %	70-1	30	P9C1507	03/15/19	03/16/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.1	mg/kg dry	1	[CALC]	03/15/19	03/16/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-14 (11') 9C11004-15 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Chloride	809	5.43	mg/kg dry	5	P9C1505	03/15/19	03/18/19	EPA 300.0
% Moisture	8.0	0.1	%	1	P9C1202	03/12/19	03/12/19	ASTM D2216
Total Petroleum Hydrocarbons C6-C35 b	y EPA Method 80)15M						
C6-C12	ND	27.2	mg/kg dry	1	P9C1605	03/16/19	03/16/19	TPH 8015M
>C12-C28	ND	27.2	mg/kg dry	1	P9C1605	03/16/19	03/16/19	TPH 8015M
>C28-C35	ND	27.2	mg/kg dry	1	P9C1605	03/16/19	03/16/19	TPH 8015M
Surrogate: 1-Chlorooctane		84.7 %	70-130		P9C1605	03/16/19	03/16/19	TPH 8015M
Surrogate: o-Terphenyl		99.1 %	70-130		P9C1605	03/16/19	03/16/19	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	03/16/19	03/16/19	calc

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9C1202 - *** DEFAULT PREP ***										
Blank (P9C1202-BLK1)				Prepared &	Analyzed:	03/12/19				
% Moisture	ND	0.1	%							
Duplicate (P9C1202-DUP1)	Sour	ce: 9C08007-	26	Prepared &	Analyzed:	03/12/19				
% Moisture	7.0	0.1	%		7.0			0.00	20	
Duplicate (P9C1202-DUP2)	Sour	ce: 9C08007-	53	Prepared &	Analyzed:	03/12/19				
% Moisture	11.0	0.1	%		11.0			0.00	20	
Duplicate (P9C1202-DUP3)	Sour	ce: 9C08008-	08	Prepared &	Analyzed:	03/12/19				
% Moisture	3.0	0.1	%		3.0			0.00	20	
Duplicate (P9C1202-DUP4)	Sour	ce: 9C08012-	02	Prepared &	Analyzed:	03/12/19				
% Moisture	12.0	0.1	%		12.0			0.00	20	
Duplicate (P9C1202-DUP5)	Sour	ce: 9C11001-	04	Prepared &	Analyzed:	03/12/19				
% Moisture	12.0	0.1	%		10.0			18.2	20	
Duplicate (P9C1202-DUP6)	Sour	ce: 9C11004-	14	Prepared &	Analyzed:	03/12/19				
% Moisture	14.0	0.1	%		14.0			0.00	20	
Duplicate (P9C1202-DUP7)	Sour	ce: 9C11005-	06	Prepared &	Analyzed:	03/12/19				
% Moisture	12.0	0.1	%		10.0			18.2	20	
Duplicate (P9C1202-DUP8)	Sour	ce: 9C11013-	.03	Prepared &	Analyzed:	03/12/19				
% Moisture	4.0	0.1	%		3.0			28.6	20	R
Duplicate (P9C1202-DUP9)	Sour	ce: 9C11015-	06	Prepared &	Analyzed:	03/12/19				
% Moisture	16.0	0.1	%	-	14.0			13.3	20	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

ry Parameters by EPA / Standard Methods - Quality Control

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9C1505 - *** DEFAULT PREP ***										
Blank (P9C1505-BLK1)				Prepared: (03/15/19 A	nalyzed: 03	/18/19			
Chloride	ND	1.00	mg/kg wet					Limits RPD Limit 8/19 8/19 80-120 8/19 80-120 8/19 80-120 3.83 20 8/19 8/19 3.81 20 8/19 73.0 20 8/19 20 8/19 3.81 20 8/19 3.81 20 8/19 3.81 20 8/19 3.81 20 8/19 3.81 20 8/19 3.81 20 8/19 3.81 20 8/19 3.81 20 3.81 20 3.81 20 3.81 20 3.81 20 3.81 20 3.81 20 3.81 <td></td>		
LCS (P9C1505-BS1)				Prepared: (03/15/19 A	nalyzed: 03	/18/19			
Chloride	408	1.00	mg/kg wet	400		102	80-120			
LCS Dup (P9C1505-BSD1)				Prepared: (03/15/19 A	nalyzed: 03	/18/19			
Chloride	392	1.00	mg/kg wet	400		98.1	80-120	3.83	20	
Duplicate (P9C1505-DUP1)	Sou	rce: 9C08011	1-03	Prepared: (03/15/19 A	nalyzed: 03	/18/19			
Chloride	13500	59.5	mg/kg dry		14000			3.81	20	
Duplicate (P9C1505-DUP2)	Sou	rce: 9C11004	1-06	Prepared: (03/15/19 A	nalyzed: 03	/18/19			
Chloride	1740	1.15	mg/kg dry		810			73.0	20	R.
Matrix Spike (P9C1505-MS1)	Sou	rce: 9C08011	1-03	Prepared: (03/15/19 A	nalyzed: 03	/18/19			
Chloride	20400	59.5	mg/kg dry	5950	14000	108	80-120			

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9C1405 - TX 1005										
Blank (P9C1405-BLK1)				Prepared &	Analyzed:	03/14/19				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	88.9		"	100		88.9	70-130			
Surrogate: o-Terphenyl	49.4		"	50.0		98.8	70-130			
LCS (P9C1405-BS1)				Prepared &	Analyzed:	03/14/19				
C6-C12	994	25.0	mg/kg wet	1000		99.4	75-125			
>C12-C28	936	25.0	"	1000		93.6	75-125			
Surrogate: 1-Chlorooctane	100		"	100		100	70-130			
Surrogate: o-Terphenyl	50.1		"	50.0		100	70-130			
LCS Dup (P9C1405-BSD1)				Prepared &	Analyzed:	03/14/19				
C6-C12	915	25.0	mg/kg wet	1000		91.5	75-125	8.30	20	
>C12-C28	946	25.0	"	1000		94.6	75-125	0.994	20	
Surrogate: 1-Chlorooctane	98.0		"	100		98.0	70-130			
Surrogate: o-Terphenyl	47.1		"	50.0		94.2	70-130			
Calibration Blank (P9C1405-CCB1)				Prepared &	Analyzed:	03/14/19				
C6-C12	15.2		mg/kg wet							
>C12-C28	8.26		"							
Surrogate: 1-Chlorooctane	98.7		"	100		98.7	70-130			
Surrogate: o-Terphenyl	53.6		"	50.0		107	70-130			
Calibration Blank (P9C1405-CCB2)				Prepared: ()3/14/19 A	nalyzed: 03	/15/19			
C6-C12	14.3		mg/kg wet			-				
>C12-C28	14.0		"							
Surrogate: 1-Chlorooctane	102		"	100		102	70-130			
Surrogate: o-Terphenyl	55.7		"	50.0		111	70-130			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9C1405 - TX 1005										
Calibration Check (P9C1405-CCV1)				Prepared &	k Analyzed:	03/14/19				
C6-C12	565	25.0	mg/kg wet	500		113	85-115			
>C12-C28	500	25.0	"	500		100	85-115			
Surrogate: 1-Chlorooctane	101		"	100		101	70-130			
Surrogate: o-Terphenyl	51.3		"	50.0		103	70-130			
Calibration Check (P9C1405-CCV2)				Prepared: (03/14/19 A	nalyzed: 03	3/15/19			
C6-C12	501	25.0	mg/kg wet	500		100	85-115			
>C12-C28	518	25.0	"	500		104	85-115			
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	54.9		"	50.0		110	70-130			
Calibration Check (P9C1405-CCV3)				Prepared: (03/14/19 A	nalyzed: 03	3/15/19			
C6-C12	506	25.0	mg/kg wet	500		101	85-115			
>C12-C28	502	25.0	"	500		100	85-115			
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	54.3		"	50.0		109	70-130			
Matrix Spike (P9C1405-MS1)	Sour	ce: 9C11004	1-02	Prepared: (03/14/19 A	nalyzed: 03	3/15/19			
C6-C12	1010	28.1	mg/kg dry	1120	54.5	84.8	75-125			
>C12-C28	1320	28.1	"	1120	89.3	110	75-125			
Surrogate: 1-Chlorooctane	114		"	112		101	70-130			
Surrogate: o-Terphenyl	56.0		"	56.2		99.7	70-130			
Matrix Spike Dup (P9C1405-MSD1)	Sour	ce: 9C11004	1-02	Prepared: (03/14/19 A	nalyzed: 03	3/15/19			
C6-C12	948	28.1	mg/kg dry	1120	54.5	79.5	75-125	6.39	20	
>C12-C28	1300	28.1	"	1120	89.3	107	75-125	2.25	20	
Surrogate: 1-Chlorooctane	110		"	112		98.0	70-130			
Surrogate: o-Terphenyl	55.9		"	56.2		99.5	70-130			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9C1507 - TX 1005										
Blank (P9C1507-BLK1)				Prepared &	Analyzed:	03/15/19				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	116		"	100		116	70-130			
Surrogate: o-Terphenyl	63.1		"	50.0		126	70-130			
LCS (P9C1507-BS1)				Prepared &	Analyzed:	03/15/19				
C6-C12	897	25.0	mg/kg wet	1000		89.7	75-125			
>C12-C28	1140	25.0	"	1000		114	75-125			
Surrogate: 1-Chlorooctane	105		"	100		105	70-130			
Surrogate: o-Terphenyl	51.0		"	50.0		102	70-130			
LCS Dup (P9C1507-BSD1)				Prepared &	Analyzed:	03/15/19				
C6-C12	878	25.0	mg/kg wet	1000		87.8	75-125	2.16	20	
>C12-C28	1170	25.0	"	1000		117	75-125	2.79	20	
Surrogate: 1-Chlorooctane	106		"	100		106	70-130			
Surrogate: o-Terphenyl	55.8		"	50.0		112	70-130			
Calibration Blank (P9C1507-CCB1)				Prepared &	Analyzed:	03/15/19				
C6-C12	8.54		mg/kg wet							
>C12-C28	10.1		"							
Surrogate: 1-Chlorooctane	111		"	100		111	70-130			
Surrogate: o-Terphenyl	60.5		"	50.0		121	70-130			
Calibration Blank (P9C1507-CCB2)				Prepared &	Analyzed:	03/15/19				
C6-C12	11.9		mg/kg wet							
>C12-C28	8.40		"							
Surrogate: 1-Chlorooctane	114		"	100		114	70-130			
Surrogate: o-Terphenyl	62.3		"	50.0		125	70-130			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting	** .	Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9C1507 - TX 1005										
Calibration Check (P9C1507-CCV1)				Prepared &	ኔ Analyzed:	03/15/19				
C6-C12	488	25.0	mg/kg wet	500		97.5	85-115			
>C12-C28	551	25.0	"	500		110	85-115			
Surrogate: 1-Chlorooctane	93.8		"	100		93.8	70-130			
Surrogate: o-Terphenyl	49.5		"	50.0		99.1	70-130			
Calibration Check (P9C1507-CCV2)				Prepared &	ኔ Analyzed:	03/15/19				
C6-C12	486	25.0	mg/kg wet	500		97.2	85-115			
>C12-C28	541	25.0	"	500		108	85-115			
Surrogate: 1-Chlorooctane	97.1		"	100		97.1	70-130			
Surrogate: o-Terphenyl	50.4		"	50.0		101	70-130			
Calibration Check (P9C1507-CCV3)				Prepared: (03/15/19 A	nalyzed: 03	/16/19			
C6-C12	474	25.0	mg/kg wet	500		94.9	85-115			
>C12-C28	563	25.0	"	500		113	85-115			
Surrogate: 1-Chlorooctane	99.6		"	100		99.6	70-130			
Surrogate: o-Terphenyl	52.4		"	50.0		105	70-130			
Matrix Spike (P9C1507-MS1)	Sour	ce: 9C15004	1-06	Prepared: (03/15/19 A	nalyzed: 03	/16/19			
C6-C12	982	27.2	mg/kg dry	1090	24.3	88.1	75-125			
>C12-C28	1290	27.2	"	1090	ND	119	75-125			
Surrogate: 1-Chlorooctane	116		"	109		107	70-130			
Surrogate: o-Terphenyl	62.3		"	54.3		115	70-130			
Matrix Spike Dup (P9C1507-MSD1)	Sour	ce: 9C1500	1-06	Prepared: (03/15/19 A	nalyzed: 03	/16/19			
C6-C12	984	27.2	mg/kg dry	1090	24.3	88.3	75-125	0.255	20	
>C12-C28	1330	27.2	"	1090	ND	123	75-125	3.22	20	
Surrogate: 1-Chlorooctane	118		"	109		108	70-130			
Surrogate: o-Terphenyl	70.3		"	54.3		129	70-130			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
·	resurt	- Emite	Cinto	Level	resure	/urene	Limito	МЪ	Limit	110103
Batch P9C1605 - TX 1005										
Blank (P9C1605-BLK1)				Prepared &	ኔ Analyzed:	03/16/19				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	111		"	100		111	70-130			
Surrogate: o-Terphenyl	67.4		"	50.0		135	70-130			S-GC
LCS (P9C1605-BS1)				Prepared &	ኔ Analyzed:	03/16/19				
C6-C12	864	25.0	mg/kg wet	1000		86.4	75-125			
>C12-C28	1110	25.0	"	1000		111	75-125			
Surrogate: 1-Chlorooctane	120		"	100		120	70-130			
Surrogate: o-Terphenyl	67.4		"	50.0		135	70-130			S-GC
LCS Dup (P9C1605-BSD1)				Prepared &	k Analyzed:	03/16/19				
C6-C12	849	25.0	mg/kg wet	1000		84.9	75-125	1.76	20	
>C12-C28	1060	25.0	"	1000		106	75-125	4.54	20	
Surrogate: 1-Chlorooctane	122		"	100		122	70-130			
Surrogate: o-Terphenyl	65.5		"	50.0		131	70-130			S-GC
Calibration Blank (P9C1605-CCB1)				Prepared: (03/16/19 A	nalyzed: 03	3/17/19			
C6-C12	10.1		mg/kg wet							
>C12-C28	17.8		"							
Surrogate: 1-Chlorooctane	114		"	100		114	70-130			
Surrogate: o-Terphenyl	65.1		"	50.0		130	70-130			
Calibration Check (P9C1605-CCV1)				Prepared: (03/16/19 A	nalyzed: 03	3/17/19			
C6-C12	890	25.0	mg/kg wet	1000		89.0	85-115			
>C12-C28	861	25.0	"	1000		86.1	85-115			
Surrogate: 1-Chlorooctane	126		"	100		126	70-130			
Surrogate: o-Terphenyl	63.0		"	50.0		126	70-130			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9C1605 - TX 1005										
Calibration Check (P9C1605-CCV3)				Prepared: ()3/16/19 A	nalyzed: 03	/17/19			
C6-C12	982	25.0	mg/kg wet	1000		98.2	85-115			
>C12-C28	897	25.0	"	1000		89.7	85-115			
Surrogate: 1-Chlorooctane	121		"	100		121	70-130			
Surrogate: o-Terphenyl	63.9		"	50.0		128	70-130			
Matrix Spike (P9C1605-MS1)	Sour	ce: 9C11009)-01	Prepared: (03/16/19 A	nalyzed: 03	/17/19			
C6-C12	891	26.3	mg/kg dry	1050	ND	84.6	75-125			
>C12-C28	1210	26.3	"	1050	370	80.0	75-125			
Surrogate: 1-Chlorooctane	123		"	105		117	70-130			
Surrogate: o-Terphenyl	59.5		"	52.6		113	70-130			

Larson & Associates, Inc. Project: XTO EMSU Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

R3 The RPD exceeded the acceptance limit due to sample matrix effects.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

	Dien	Devou C		
Report Approved By:			Date:	3/19/2019

P AR

Brent Barron, Laboratory Director/Technical Director

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If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

CHAIN-OF-CU Midland, 1X 79701	Redein Redein LABORATORY: DI	ed RELINQUISHED BY:(Signature)	S RELÍNQUISHED BY:(Signature)	RELINGUISHED BY (Signature)	(23/2 TOTAL	1024 S-14 (111)	3-13 (121)	() () () () ()	A-12 (131)	(1,0,1) TH-S	5-11 (14)	S-11 (131)	5-10 (131)	S-10 (12')	15-9 (13/)	S-9 (121)	(3-8 (12)	8-8(11)	(+) t-2	(6')	Field Sample I.D.	TIME ZONE: Time zone/State:	•	Environmental Consultants Data Reported to:	Š	214 0	f 44(
SOT N. Monienteld. Ste. 200 Midland, TX 79701 432-487-0901 ADATE: PROJECT LOCATION OR NAME: XTO EMSI: PROJECT LOCATION OR NAME: XTO EMSI: PROJECT NOT TO THE MISSING PROJECT TO	\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	2	,	1 5/1		10:15		10, 18	10.28	10:25	10:38	しいご	84:01		47.0	9:43	9:34	9:18		18/19/10:21	Time			S, IIIC.			
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PERMIAN BASIN ENVIRONMENTAL LAB, LP 1400 Rankin Hwy Midland, TX 79701



Analytical Report

Prepared for:

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: XTO ESMU Sat 13 Project Number: 17-0193-01

Location:

Lab Order Number: 9E08001



NELAP/TCEQ # T104704516-18-9

Report Date: 05/10/19

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-9 (18')	9E08001-01	Soil	05/07/19 13:09	05-08-2019 08:42
S-9 East (9')	9E08001-02	Soil	05/07/19 13:10	05-08-2019 08:42
S-9 West (9')	9E08001-03	Soil	05/07/19 13:11	05-08-2019 08:42

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-9 (18') 9E08001-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	ıtal Lab, I	P.				
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P9E0812	05/08/19	05/08/19	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P9E0812	05/08/19	05/08/19	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P9E0812	05/08/19	05/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P9E0812	05/08/19	05/08/19	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P9E0812	05/08/19	05/08/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		102 %	75-1	25	P9E0812	05/08/19	05/08/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		95.7 %	75-1	25	P9E0812	05/08/19	05/08/19	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Method	ds							
Chloride	727	1.11	mg/kg dry	1	P9E0810	05/08/19	05/08/19	EPA 300.0	
% Moisture	10.0	0.1	%	1	P9E0904	05/09/19	05/09/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	27.8	mg/kg dry	1	P9E0801	05/08/19	05/08/19	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P9E0801	05/08/19	05/08/19	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P9E0801	05/08/19	05/08/19	TPH 8015M	
Surrogate: 1-Chlorooctane		103 %	70-1	30	P9E0801	05/08/19	05/08/19	TPH 8015M	
Surrogate: o-Terphenyl		109 %	70-1	30	P9E0801	05/08/19	05/08/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND 27.8 mg/kg dry 1				[CALC]	05/08/19	05/08/19	calc	

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-9 East (9') 9E08001-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
	Pern	nian Basin E	nvironmer	ıtal Lab, I	L .P.				
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P9E0812	05/08/19	05/08/19	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P9E0812	05/08/19	05/08/19	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P9E0812	05/08/19	05/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P9E0812	05/08/19	05/08/19	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P9E0812	05/08/19	05/08/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		99.9 %	75-1	25	P9E0812	05/08/19	05/08/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		108 %	75-1	25	P9E0812	05/08/19	05/08/19	EPA 8021B	
General Chemistry Parameters by EP	A / Standard Method	ls							
Chloride	1120	5.56	mg/kg dry	5	P9E0810	05/08/19	05/08/19	EPA 300.0	
% Moisture	10.0	0.1	%	1	P9E0904	05/09/19	05/09/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C.	35 by EPA Method 80)15M							
C6-C12	ND	27.8	mg/kg dry	1	P9E0801	05/08/19	05/08/19	TPH 8015M	
>C12-C28	61.0	27.8	mg/kg dry	1	P9E0801	05/08/19	05/08/19	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P9E0801	05/08/19	05/08/19	TPH 8015M	
Surrogate: 1-Chlorooctane		100 %	70-1	30	P9E0801	05/08/19	05/08/19	TPH 8015M	
Surrogate: o-Terphenyl		106 %	70-1	30	P9E0801	05/08/19	05/08/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	61.0	27.8	mg/kg dry	1	[CALC]	05/08/19	05/08/19	calc	

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-9 West (9') 9E08001-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	ıtal Lab, l	P.				
Organics by GC									
Benzene	ND	0.00115	mg/kg dry	1	P9E0812	05/08/19	05/08/19	EPA 8021B	
Toluene	ND	0.00115	mg/kg dry	1	P9E0812	05/08/19	05/08/19	EPA 8021B	
Ethylbenzene	ND	0.00115	mg/kg dry	1	P9E0812	05/08/19	05/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00230	30 mg/kg dry 1		P9E0812	05/08/19	05/08/19	EPA 8021B	
Xylene (o)	ND	0.00115	mg/kg dry	1	P9E0812	05/08/19	05/08/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.1 %	75-1	25	P9E0812	05/08/19	05/08/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		98.2 %	75-1	25	P9E0812	05/08/19	05/08/19	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Method	ds							
Chloride	659	1.15	mg/kg dry	1	P9E0810	05/08/19	05/08/19	EPA 300.0	
% Moisture	13.0	0.1	%	1	P9E0904	05/09/19	05/09/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	28.7	mg/kg dry	1	P9E0801	05/08/19	05/08/19	TPH 8015M	
>C12-C28	ND	28.7	mg/kg dry	1	P9E0801	05/08/19	05/08/19	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P9E0801	05/08/19	05/08/19	TPH 8015M	
Surrogate: 1-Chlorooctane		101 %	70-1	30	P9E0801	05/08/19	05/08/19	TPH 8015M	
Surrogate: o-Terphenyl		108 %	70-1	30	P9E0801	05/08/19	05/08/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND 28.7 mg/kg dry 1 [0			[CALC]	05/08/19	05/08/19	calc		

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

2 mary to	resurt								Limit	110103
Batch P9E0812 - General Preparation (GC)									
Blank (P9E0812-BLK1)				Prepared &	Analyzed:	05/08/19				
Benzene	ND	0.00100	mg/kg wet							
Coluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Zylene (p/m)	ND	0.00200	"							
Kylene (o)	ND	0.00100	"							
urrogate: 1,4-Difluorobenzene	0.0559		"	0.0600		93.2	75-125			
urrogate: 4-Bromofluorobenzene	0.0540		"	0.0600		89.9	75-125			
.CS (P9E0812-BS1)				Prepared &	Analyzed:	05/08/19				
Benzene	0.118	0.00100	mg/kg wet	0.100		118	70-130			
Coluene	0.119	0.00100	"	0.100		119	70-130			
thylbenzene	0.111	0.00100	"	0.100		111	70-130			
(ylene (p/m)	0.230	0.00200	"	0.200		115	70-130			
(ylene (o)	0.117	0.00100	"	0.100		117	70-130			
urrogate: 1,4-Difluorobenzene	0.0637		"	0.0600		106	75-125			
urrogate: 4-Bromofluorobenzene	0.0610		"	0.0600		102	75-125			
LCS Dup (P9E0812-BSD1)				Prepared &	Analyzed:	05/08/19				
Benzene	0.120	0.00100	mg/kg wet	0.100		120	70-130	1.08	20	
oluene	0.119	0.00100	"	0.100		119	70-130	0.689	20	
thylbenzene	0.110	0.00100	"	0.100		110	70-130	0.795	20	
Zylene (p/m)	0.224	0.00200	"	0.200		112	70-130	2.45	20	
Xylene (o)	0.115	0.00100	"	0.100		115	70-130	1.87	20	
'urrogate: 1,4-Difluorobenzene	0.0663		"	0.0600		110	75-125			
urrogate: 4-Bromofluorobenzene	0.0592		"	0.0600		98.6	75-125			
Calibration Blank (P9E0812-CCB1)				Prepared &	Analyzed:	05/08/19				
Benzene	0.00		mg/kg wet							
oluene	0.00		"							
thylbenzene	0.00		"							
(ylene (p/m)	0.00		"							
Zylene (o)	0.00		"							
Gurrogate: 4-Bromofluorobenzene	0.0601		"	0.0600		100	75-125			
Surrogate: 1,4-Difluorobenzene	0.0545		"	0.0600		90.8	75-125			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9E0812 - General Preparation (GC)										
Calibration Check (P9E0812-CCV1)				Prepared &	: Analyzed:	05/08/19				
Benzene	0.117	0.00100	mg/kg wet	0.100		117	80-120			
Toluene	0.111	0.00100	"	0.100		111	80-120			
Ethylbenzene	0.111	0.00100	"	0.100		111	80-120			
Xylene (p/m)	0.213	0.00200	"	0.200		106	80-120			
Xylene (o)	0.116	0.00100	"	0.100		116	80-120			
Surrogate: 4-Bromofluorobenzene	0.0584		"	0.0600		97.2	75-125			
Surrogate: 1,4-Difluorobenzene	0.0630		"	0.0600		105	75-125			
Calibration Check (P9E0812-CCV2)				Prepared &	Analyzed:	05/08/19				
Benzene	0.116	0.00100	mg/kg wet	0.100		116	80-120			
Toluene	0.113	0.00100	"	0.100		113	80-120			
Ethylbenzene	0.113	0.00100	"	0.100	100 11		80-120			
Xylene (p/m)	0.215	0.00200	"	0.200		107	80-120			
Xylene (o)	0.114	0.00100	"	0.100		114	80-120			
Surrogate: 4-Bromofluorobenzene	0.0570		"	0.0600		95.1	75-125			
Surrogate: 1,4-Difluorobenzene	0.0586		"	0.0600		97.6	75-125			
Matrix Spike (P9E0812-MS1)	Sou	rce: 9E08009	-01	Prepared &	Analyzed:	05/08/19				
Benzene	0.103	0.00102	mg/kg dry	0.102	ND	101	80-120			
Toluene	0.0811	0.00102	"	0.102	ND	79.5	80-120			QM-07
Ethylbenzene	0.0864	0.00102	"	0.102	ND	84.7	80-120			
Xylene (p/m)	0.144	0.00204	"	0.204	ND	70.4	80-120			QM-07
Xylene (o)	0.0810	0.00102	"	0.102	ND	79.3	80-120			QM-07
Surrogate: 4-Bromofluorobenzene	0.0635		"	0.0612		104	75-125			
Surrogate: 1,4-Difluorobenzene	0.0868		"	0.0612		142	75-125			S-GC
Matrix Spike Dup (P9E0812-MSD1)	Sou	rce: 9E08009	-01	Prepared &	Analyzed:	05/08/19				
Benzene	0.0743	0.00102	mg/kg dry	0.102	ND	72.8	80-120	32.4	20	QM-07, R2
Toluene	0.0615	0.00102	"	0.102	ND	60.2	80-120	27.6	20	QM-07, R2
Ethylbenzene	0.0629	0.00102	"	0.102	ND	61.6	80-120	31.6	20	QM-07, R2
Xylene (p/m)	0.120	0.00204	"	0.204	ND	58.9	80-120	17.8	20	QM-07
Xylene (o)	0.0564	0.00102	"	0.102	ND	55.3	80-120	35.7	20	QM-07, R2
Surrogate: 4-Bromofluorobenzene	0.0685		"	0.0612		112	75-125			
Surrogate: 1,4-Difluorobenzene	0.0796		"	0.0612		130	75-125			S-GC

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E0810 - *** DEFAULT PREP ***										
Blank (P9E0810-BLK1)				Prepared &	t Analyzed:	05/08/19				
Chloride	ND	1.00	mg/kg wet							
LCS (P9E0810-BS1)				Prepared &	k Analyzed:	: 05/08/19				
Chloride	413	1.00	mg/kg wet	400		103	80-120			
LCS Dup (P9E0810-BSD1)				Prepared &	t Analyzed:	: 05/08/19				
Chloride	417	1.00	mg/kg wet	400		104	80-120	0.954	20	
Calibration Blank (P9E0810-CCB1)				Prepared &	t Analyzed:	: 05/08/19				
Chloride	0.00		mg/kg wet							
Calibration Blank (P9E0810-CCB2)				Prepared &	t Analyzed:	05/08/19				
Chloride	0.00		mg/kg wet							
Calibration Check (P9E0810-CCV1)				Prepared &	t Analyzed:	05/08/19				
Chloride	20.7	0.100	mg/kg wet	20.0		103	0-200			
Calibration Check (P9E0810-CCV2)				Prepared &	k Analyzed:	05/08/19				
Chloride	20.4	0.100	mg/kg wet	20.0		102	0-200			
Calibration Check (P9E0810-CCV3)				Prepared: (05/08/19 A	nalyzed: 05	/09/19			
Chloride	21.0	0.100	mg/kg wet	20.0		105	0-200			
Matrix Spike (P9E0810-MS1)	Sou	rce: 9E08001	-01	Prepared &	k Analyzed:	: 05/08/19				
Chloride	1260	1.11	mg/kg dry	556	727	95.4	80-120	<u> </u>		
Matrix Spike (P9E0810-MS2)	Sou	rce: 9E04004	l-03	Prepared: (05/08/19 A	nalyzed: 05	/09/19			
Chloride	1490	5.56	mg/kg dry	556	897	107	80-120			

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E0810 - *** DEFAULT PREP ***										
Matrix Spike Dup (P9E0810-MSD1)	Sour	rce: 9E08001	-01	Prepared &	Analyzed:	05/08/19				
Chloride	1350	1.11	mg/kg dry	556	727	112	80-120	7.22	20	
Matrix Spike Dup (P9E0810-MSD2)	Sou	rce: 9E04004	-03	Prepared: (05/08/19 A	nalyzed: 05	/09/19			
Chloride	1490	5.56	mg/kg dry	556	897	108	80-120	0.0892	20	
Batch P9E0904 - *** DEFAULT PREP ***										
Blank (P9E0904-BLK1)				Prepared &	Analyzed:	: 05/09/19				
% Moisture	ND	0.1	%							
Duplicate (P9E0904-DUP1)	Sou	rce: 9E07002	-11	Prepared &	Analyzed:	05/09/19				
% Moisture	10.0	0.1	%		11.0			9.52	20	
Duplicate (P9E0904-DUP2)	Sou	rce: 9E07009	-05	Prepared &	Analyzed:	: 05/09/19				
% Moisture	5.0	0.1	%		4.0			22.2	20	
Duplicate (P9E0904-DUP3)	Sou	rce: 9E07010	-05	Prepared &	Analyzed:	: 05/09/19				
% Moisture	4.0	0.1	%		4.0			0.00	20	
Duplicate (P9E0904-DUP4)	Sou	rce: 9E08009	-01	Prepared &	Analyzed:	: 05/09/19				
% Moisture	3.0	0.1	%	•	2.0			40.0	20	
Duplicate (P9E0904-DUP5)	Sou	rce: 9E08012	-13	Prepared &	. Analyzed	: 05/09/19				
% Moisture	11.0	0.1	%		11.0			0.00	20	
Duplicate (P9E0904-DUP6)	Sou	rce: 9E08012	-19	Prepared &	x Analyzed:	: 05/09/19				
% Moisture	11.0	0.1	%	•	11.0			0.00	20	

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E0801 - TX 1005										
Blank (P9E0801-BLK1)				Prepared &	Analyzed:	05/08/19				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	118		"	100		118	70-130			
Surrogate: o-Terphenyl	61.8		"	50.0		124	70-130			
LCS (P9E0801-BS1)				Prepared &	Analyzed:	05/08/19				
C6-C12	1180	25.0	mg/kg wet	1000		118	75-125			
>C12-C28	1180	25.0	"	1000		118	75-125			
Surrogate: 1-Chlorooctane	105		"	100		105	70-130			
Surrogate: o-Terphenyl	53.2		"	50.0		106	70-130			
LCS Dup (P9E0801-BSD1)				Prepared &	Analyzed:	05/08/19				
C6-C12	1120	25.0	mg/kg wet	1000		112	75-125	5.07	20	
>C12-C28	1160	25.0	"	1000		116	75-125	2.27	20	
Surrogate: 1-Chlorooctane	118		"	100		118	70-130			
Surrogate: o-Terphenyl	51.4		"	50.0		103	70-130			
Calibration Blank (P9E0801-CCB1)				Prepared &	Analyzed:	05/08/19				
C6-C12	15.6		mg/kg wet							
>C12-C28	7.31		"							
Surrogate: 1-Chlorooctane	97.3		"	100		97.3	70-130			
Surrogate: o-Terphenyl	52.2		"	50.0		104	70-130			
Calibration Blank (P9E0801-CCB2)				Prepared &	Analyzed:	05/08/19				
C6-C12	8.15		mg/kg wet							
>C12-C28	22.7		"							
Surrogate: 1-Chlorooctane	90.5		"	100		90.5	70-130			
Surrogate: o-Terphenyl	48.3		"	50.0		96.7	70-130			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E0801 - TX 1005										
Calibration Check (P9E0801-CCV1)				Prepared &	Analyzed:	05/08/19				
C6-C12	539	25.0	mg/kg wet	500		108	85-115			
>C12-C28	522	25.0	"	500		104	85-115			
Surrogate: 1-Chlorooctane	110		"	100		110	70-130			
Surrogate: o-Terphenyl	50.4		"	50.0		101	70-130			
Calibration Check (P9E0801-CCV2)				Prepared &	Analyzed:	05/08/19				
C6-C12	522	25.0	mg/kg wet	500		104	85-115			
>C12-C28	562	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	103		"	100		103	70-130			
Surrogate: o-Terphenyl	46.2		"	50.0		92.4	70-130			
Calibration Check (P9E0801-CCV3)				Prepared &	Analyzed:	05/08/19				
C6-C12	559	25.0	mg/kg wet	500		112	85-115			
>C12-C28	548	25.0	"	500		110	85-115			
Surrogate: 1-Chlorooctane	96.7		"	100		96.7	70-130			
Surrogate: o-Terphenyl	44.9		"	50.0		89.8	70-130			
Duplicate (P9E0801-DUP1)	Sou	rce: 9E06004	1-06	Prepared &	Analyzed:	05/08/19				
C6-C12	ND	27.8	mg/kg dry		12.1				20	
>C12-C28	ND	27.8	"		ND				20	
Surrogate: 1-Chlorooctane	110		"	111		98.6	70-130			
Surrogate: o-Terphenyl	60.1		"	55.6		108	70-130			

Larson & Associates, Inc. Project: XTO ESMU Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01
Midland TX, 79710 Project Manager: Mark Larson

Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ROI Received on Ice

R2 The RPD exceeded the acceptance limit.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

recovery.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

	Drew	Dervor		
Report Approved By:			Date:	5/10/2019

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO ESMU Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

RELABORATORY: VBCL	RELINQUISHED B	REMODISHED BY SIGNSTAN	RELINQUISHED BY:(Signature)	23/2 TOTAL	024	7:46	5:01 2	AM					5-9West(g) 3	5-8 Est(91) 7	1 (181) 6-5	Field Sample I.D. Lab#	- " < I	TRRP report? S=SOIL W=WATER A=AIR	A QISON & SSOCIATES, INC. Environmental Consultants Data Reported to:	28 of 440
) 5-8 342	DATE/TIME									-		11:51	1 12:10	5/7/19 13:09	Date Time		P=PAINT TER SL=SLUDGE OT=OTHER	NC.	
	RECEIVED BY: (Signature)		RECEIVED BY: (Signature)										 		S 2	# of Conta HCI HNO ₃ H ₂ SO ₄ □ ICE		PRESERVATION	507 N. Marienfeld, Ste. Midland, TX 79701 432-687-0901	
	re) 2 DAY C												X	X = = =	XXX		is solved		DATE:, PO#: PROJECT LAI PROJE	
		Part P	m						The second N										TION ORN	
☐ HAND DELIVERED	_	RECEIVING TEMP: 4.5 > THERM#(4) NOT USED	LABORATORY USE ONLY:														REASON OF THE PROPERTY OF THE		LAB WO	CHAIN-OE-CHISTOR
		CT D NOT USED							· .							FIELD NOTES	V DE		PAGE 1 OF 1 Page 14 of	Nº 0109

PERMIAN BASIN ENVIRONMENTAL LAB, LP 1400 Rankin Hwy Midland, TX 79701



Analytical Report

Prepared for:

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: XTO EMSU Sat 13 Project Number: 17-0193-01

Location:

Lab Order Number: 9E09003



NELAP/TCEQ # T104704516-18-9

Report Date: 05/10/19

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-8 (13')	9E09003-01	Soil	05/08/19 07:46	05-09-2019 09:16
S-8 North (6.5')	9E09003-02	Soil	05/08/19 07:53	05-09-2019 09:16
S-8 South (6.5')	9E09003-03	Soil	05/08/19 07:57	05-09-2019 09:16
S-13 (11')	9E09003-04	Soil	05/08/19 11:01	05-09-2019 09:16
S-14 (11')	9E09003-05	Soil	05/08/19 11:05	05-09-2019 09:16
S-14 North (5.5')	9E09003-06	Soil	05/08/19 11:07	05-09-2019 09:16
S-14 South (5.5')	9E09003-07	Soil	05/08/19 11:09	05-09-2019 09:16
S-14 East (5.5')	9E09003-08	Soil	05/08/19 11:12	05-09-2019 09:16
S-12 (14')	9E09003-09	Soil	05/08/19 12:59	05-09-2019 09:16
S-12 North (7')	9E09003-10	Soil	05/08/19 13:19	05-09-2019 09:16
S-7 (12')	9E09003-11	Soil	05/08/19 14:07	05-09-2019 09:16
S-7 South (6')	9E09003-12	Soil	05/08/19 14:12	05-09-2019 09:16
S-7 North (6')	9E09003-13	Soil	05/08/19 14:14	05-09-2019 09:16
S-7 West (6')	9E09003-14	Soil	05/08/19 14:24	05-09-2019 09:16
S-2 (6.5')	9E09003-15	Soil	05/08/19 14:32	05-09-2019 09:16
S-2 South (3')	9E09003-16	Soil	05/08/19 14:42	05-09-2019 09:16
S-2 West (3')	9E09003-17	Soil	05/08/19 14:46	05-09-2019 09:16
S-2 North (3')	9E09003-18	Soil	05/08/19 14:47	05-09-2019 09:16

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-8 (13') 9E09003-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environme	ıtal Lab, l	L.P.				
Organics by GC									
Benzene	ND	0.00147	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Toluene	ND	0.00147	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Ethylbenzene	ND	0.00147	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (p/m)	ND	0.00294	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (o)	ND	0.00147	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		96.5 %	75-1	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		80.8 %	75-1	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	521	1.47	mg/kg dry	1	P9E0908	05/09/19	05/09/19	EPA 300.0	
% Moisture	32.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	by EPA Method 80	015M							
C6-C12	ND	36.8	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	36.8	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	36.8	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		103 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		113 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	36.8	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-8 North (6.5') 9E09003-02 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	nvironmen	tal Lab, I	P.				
Organics by GC									
Benzene	ND	0.00147	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Toluene	ND	0.00147	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Ethylbenzene	ND	0.00147	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (p/m)	ND	0.00294	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (o)	0.00191	0.00147	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		90.9 %	75-1.	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		100 %	75-1.	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Method	ds							
Chloride	606	1.47	mg/kg dry	1	P9E0908	05/09/19	05/09/19	EPA 300.0	
% Moisture	32.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	36.8	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	36.8	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	36.8	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %	70-1.	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		119 %	70-1.	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	36.8	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-8 South (6.5') 9E09003-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Timiye						Trepared	rmaryzed	Wethod	Trotes
	Peri	mian Basin E	invironmen	ıtal Lab, I	∠.P.				
Organics by GC									
Benzene	ND	0.00137	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Toluene	ND	0.00137	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Ethylbenzene	ND	0.00137	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00274	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (o)	ND	0.00137	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		82.1 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		100 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
General Chemistry Parameters by EPA / Stan	dard Metho	ds							
Chloride	590	6.85	mg/kg dry	5	P9E0908	05/09/19	05/09/19	EPA 300.0	
% Moisture	27.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EP	A Method 8	015M							
C6-C12	ND	34.2	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	34.2	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	34.2	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		117 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	34.2	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-13 (11') 9E09003-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmer	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00116	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Toluene	ND	0.00116	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Ethylbenzene	ND	0.00116	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00233	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (o)	ND	0.00116	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		88.0 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		102 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Method	ls							
Chloride	972	5.81	mg/kg dry	5	P9E0908	05/09/19	05/09/19	EPA 300.0	
% Moisture	14.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	29.1	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	29.1	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	29.1	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		105 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		115 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.1	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-14 (11') 9E09003-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Allaryte	Resuit	Liffill	Units	Dilution	Daten	ricpared	Anaryzed	MEHIOU	notes
	Peri	nian Basin E	Invironmen	tal Lab, I	P.				
Organics by GC									
Benzene	ND	0.00115	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Toluene	ND	0.00115	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Ethylbenzene	ND	0.00115	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (p/m)	ND	0.00230	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (o)	ND	0.00115	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		83.4 %	75-1.	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		112 %	75-1.	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
General Chemistry Parameters by EPA / Sta	ndard Metho	ds							
Chloride	1020	5.75	mg/kg dry	5	P9E0908	05/09/19	05/09/19	EPA 300.0	
% Moisture	13.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by E	PA Method 8	015M							
C6-C12	ND	28.7	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	28.7	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		106 %	70-1.	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		117 %	70-1.	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.7	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-14 North (5.5') 9E09003-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00102	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Toluene	ND	0.00102	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		82.8 %	75-1.	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		111 %	75-1.	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	630	5.10	mg/kg dry	5	P9E0908	05/09/19	05/09/19	EPA 300.0	
% Moisture	2.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	25.5	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-1.	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		115 %	70-1.	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-14 South (5.5') 9E09003-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Timiye						Trepared	Maryzea	Wichiod	rvotes
	Peri	nian Basin E	invironmen	ital Lab, I	∠.P.				
Organics by GC									
Benzene	ND	0.0143	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Toluene	ND	0.0143	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Ethylbenzene	ND	0.0143	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (p/m)	ND	0.0286	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (o)	ND	0.0143	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		86.0 %	75-1	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		111 %	75-1	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
General Chemistry Parameters by EPA / Stan	dard Metho	ds							
Chloride	3450	14.3	mg/kg dry	1	P9E0908	05/09/19	05/09/19	EPA 300.0	
% Moisture	30.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EP	A Method 8	015M							
C6-C12	ND	357	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	357	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	357	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		110 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		122 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	357	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-14 East (5.5') 9E09003-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environme	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00128	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Toluene	ND	0.00128	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Ethylbenzene	ND	0.00128	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (p/m)	ND	0.00256	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (o)	ND	0.00128	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		86.4 %	75-1	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		112 %	75-1	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	41.1	1.28	mg/kg dry	1	P9E0908	05/09/19	05/10/19	EPA 300.0	
% Moisture	22.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	oy EPA Method 80	015M							
C6-C12	ND	32.1	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	32.1	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	32.1	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		110 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		121 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	32.1	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-12 (14') 9E09003-09 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmer	ıtal Lab, I	L.P.				
Organics by GC									
Benzene	ND	0.00116	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Toluene	ND	0.00116	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Ethylbenzene	ND	0.00116	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (p/m)	ND	0.00233	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (o)	ND	0.00116	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		118 %	75-1	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		89.3 %	75-1	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	274	1.16	mg/kg dry	1	P9E0908	05/09/19	05/10/19	EPA 300.0	
% Moisture	14.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	29.1	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	29.1	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	29.1	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		104 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		114 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.1	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-12 North (7') 9E09003-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00137	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Toluene	ND	0.00137	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Ethylbenzene	ND	0.00137	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (p/m)	ND	0.00274	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Xylene (o)	ND	0.00137	mg/kg dry	1	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		104 %	75-1	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		82.0 %	75-1	25	P9E0906	05/09/19	05/09/19	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	1800	6.85	mg/kg dry	5	P9E0908	05/09/19	05/10/19	EPA 300.0	
% Moisture	27.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	34.2	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	34.2	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	34.2	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		107 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		118 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	34.2	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-7 (12') 9E09003-11 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	nvironmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00116	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Toluene	ND	0.00116	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Ethylbenzene	ND	0.00116	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00233	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (o)	ND	0.00116	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		82.4 %	75-1.	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		93.0 %	75-1.	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
General Chemistry Parameters by E	PA / Standard Method	ls							
Chloride	1420	5.81	mg/kg dry	5	P9E0908	05/09/19	05/10/19	EPA 300.0	
% Moisture	14.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C	C35 by EPA Method 80	015M							
C6-C12	75.4	29.1	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	833	29.1	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	123	29.1	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		111 %	70-1.	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		121 %	70-1.	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	1030	29.1	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

S-7 South (6') 9E09003-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00112	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		111 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		89.9 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	1100	5.62	mg/kg dry	5	P9E0908	05/09/19	05/10/19	EPA 300.0	
% Moisture	11.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	015M							
C6-C12	ND	28.1	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		112 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		123 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-7 North (6') 9E09003-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		nian Basin E				Trepareu	- mary zea		
Organics by GC				,					
Benzene	ND	0.00104	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		109 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		88.8 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
General Chemistry Parameters by EPA / Sta	ndard Metho	ds							
Chloride	1080	5.21	mg/kg dry	5	P9E0908	05/09/19	05/10/19	EPA 300.0	
% Moisture	4.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by E	PA Method 8	015M							
C6-C12	ND	26.0	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		120 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-7 West (6') 9E09003-14 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00114	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Toluene	ND	0.00114	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Ethylbenzene	ND	0.00114	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00227	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (o)	ND	0.00114	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		83.6 %	75-1.	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		101 %	75-1.	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ds							
Chloride	1240	11.4	mg/kg dry	10	P9E0908	05/09/19	05/10/19	EPA 300.0	
% Moisture	12.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	by EPA Method 80	015M							
C6-C12	ND	28.4	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		113 %	70-1.	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		125 %	70-1.	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-2 (6.5') 9E09003-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perr	nian Basin E	nvironmen	ıtal Lab, I	P.				
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		80.2 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		103 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
General Chemistry Parameters by EPA / Sta	andard Metho	ds							
Chloride	432	1.06	mg/kg dry	1	P9E0908	05/09/19	05/10/19	EPA 300.0	
% Moisture	6.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by F	EPA Method 8	015M							
C6-C12	ND	26.6	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		119 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		131 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-2 South (3') 9E09003-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin E	Environmen	ital Lab, I	L .P.				
Organics by GC									
Benzene	ND	0.00101	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Toluene	ND	0.00101	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		89.4 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		112 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Method	S							
Chloride	2.23	1.01	mg/kg dry	1	P9E0908	05/09/19	05/10/19	EPA 300.0	
% Moisture	1.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	15M							
C6-C12	ND	25.3	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		119 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-2 West (3') 9E09003-17 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		nian Basin E				Trepured	. mary zea	outou	110103
	1 (11	iliali Dasili E	anvii ominei	itai Lab, i	J.1 .				
Organics by GC									
Benzene	ND	0.00110	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Toluene	ND	0.00110	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		85.4 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		108 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
General Chemistry Parameters by EPA / Star	idard Metho	ds							
Chloride	2.76	1.10	mg/kg dry	1	P9E0908	05/09/19	05/10/19	EPA 300.0	
% Moisture	9.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by El	PA Method 8	015M							
C6-C12	ND	27.5	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		96.3 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		108 %	70-1	30	P9E0902	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-2 North (3') 9E09003-18 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Allalyte	Result	Lillit	Onts	Dilution	Daten	Trepared	Anaryzeu	Wictiou	Trotes
	Pern	ian Basin E	Environmen	tal Lab, I	L.P.				
Organics by GC									
Benzene	ND	0.00103	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		107 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		86.3 %	75-1	25	P9E0906	05/09/19	05/10/19	EPA 8021B	
General Chemistry Parameters by El	PA / Standard Method	ls							
Chloride	166	1.03	mg/kg dry	1	P9E0908	05/09/19	05/10/19	EPA 300.0	
% Moisture	3.0	0.1	%	1	P9E1002	05/10/19	05/10/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C	235 by EPA Method 80	15M							
C6-C12	ND	25.8	mg/kg dry	1	P9E0907	05/09/19	05/09/19	TPH 8015M	
>C12-C28	72.3	25.8	mg/kg dry	1	P9E0907	05/09/19	05/09/19	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P9E0907	05/09/19	05/09/19	TPH 8015M	
Surrogate: 1-Chlorooctane		93.4 %	70-1	30	P9E0907	05/09/19	05/09/19	TPH 8015M	
Surrogate: o-Terphenyl		101 %	70-1	30	P9E0907	05/09/19	05/09/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	72.3	25.8	mg/kg dry	1	[CALC]	05/09/19	05/09/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E0906 - General Preparation (GC))									
Blank (P9E0906-BLK1)				Prepared &	: Analyzed:	05/09/19				
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.0483		"	0.0600		80.5	75-125			
Surrogate: 4-Bromofluorobenzene	0.0523		"	0.0600		87.2	75-125			
LCS (P9E0906-BS1)				Prepared &	: Analyzed:	05/09/19				
Benzene	0.118	0.00100	mg/kg wet	0.100	-	118	70-130			
Toluene	0.120	0.00100	"	0.100		120	70-130			
Ethylbenzene	0.117	0.00100	"	0.100		117	70-130			
Xylene (p/m)	0.203	0.00200	"	0.200		102	70-130			
Xylene (o)	0.118	0.00100	"	0.100		118	70-130			
Surrogate: 1,4-Difluorobenzene	0.0732		"	0.0600		122	75-125			
Surrogate: 4-Bromofluorobenzene	0.0613		"	0.0600		102	75-125			
LCS Dup (P9E0906-BSD1)				Prepared &	: Analyzed:	05/09/19				
Benzene	0.114	0.00100	mg/kg wet	0.100		114	70-130	2.98	20	
Toluene	0.113	0.00100	"	0.100		113	70-130	6.14	20	
Ethylbenzene	0.110	0.00100	"	0.100		110	70-130	6.05	20	
Xylene (p/m)	0.187	0.00200	"	0.200		93.5	70-130	8.35	20	
Xylene (o)	0.112	0.00100	"	0.100		112	70-130	5.20	20	
Surrogate: 4-Bromofluorobenzene	0.0595		"	0.0600		99.2	75-125			
Surrogate: 1,4-Difluorobenzene	0.0681		"	0.0600		113	75-125			
Calibration Blank (P9E0906-CCB1)				Prepared &	Analyzed:	05/09/19				
Benzene	0.00	<u> </u>	mg/kg wet				<u> </u>	<u> </u>		
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.0484		"	0.0600		80.6	75-125			
Surrogate: 4-Bromofluorobenzene	0.0572		"	0.0600		95.3	75-125			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

	D 1	Reporting	** **	Spike	Source	A/PEG	%REC	nnn	RPD	37.4
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E0906 - General Preparation (GC	C)									
Calibration Blank (P9E0906-CCB2)				Prepared: 0)5/09/19 Aı	nalyzed: 05	/10/19			
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.0481		"	0.0600		80.1	75-125			
Surrogate: 4-Bromofluorobenzene	0.0649		"	0.0600		108	75-125			
Calibration Blank (P9E0906-CCB3)				Prepared: 0	05/09/19 Aı	nalyzed: 05	/10/19			
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.0470		"	0.0600		78.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.0533		"	0.0600		88.9	75-125			
Calibration Check (P9E0906-CCV1)				Prepared &	Analyzed:	05/09/19				
Benzene	0.117	0.00100	mg/kg wet	0.100		117	80-120			
Toluene	0.116	0.00100	"	0.100		116	80-120			
Ethylbenzene	0.113	0.00100	"	0.100		113	80-120			
Xylene (p/m)	0.191	0.00200	"	0.200		95.5	80-120			
Xylene (o)	0.113	0.00100	"	0.100		113	80-120			
Surrogate: 1,4-Difluorobenzene	0.0642		"	0.0600		107	75-125			
Surrogate: 4-Bromofluorobenzene	0.0611		"	0.0600		102	75-125			
Calibration Check (P9E0906-CCV2)				Prepared: 0	05/09/19 Aı	nalyzed: 05	/10/19			
Benzene	0.116	0.00100	mg/kg wet	0.100		116	80-120			
Toluene	0.116	0.00100	"	0.100		116	80-120			
Ethylbenzene	0.115	0.00100	"	0.100		115	80-120			
Xylene (p/m)	0.186	0.00200	"	0.200		92.8	80-120			
Xylene (o)	0.115	0.00100	"	0.100		115	80-120			
Surrogate: 4-Bromofluorobenzene	0.0618		"	0.0600		103	75-125			
Surrogate: 1,4-Difluorobenzene	0.0626		"	0.0600		104	75-125			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9E0906 - General Preparation (GC)										
Calibration Check (P9E0906-CCV3)				Prepared: (05/09/19 A	nalyzed: 05	/10/19			
Benzene	0.118	0.00100	mg/kg wet	0.100		118	80-120			
Toluene	0.116	0.00100	"	0.100		116	80-120			
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120			
Xylene (p/m)	0.189	0.00200	"	0.200		94.7	80-120			
Xylene (o)	0.115	0.00100	"	0.100		115	80-120			
Surrogate: 1,4-Difluorobenzene	0.0790		"	0.0600		132	75-125			S-GC
Surrogate: 4-Bromofluorobenzene	0.0653		"	0.0600		109	75-125			
Matrix Spike (P9E0906-MS1)	Sou	rce: 9E09003	S-18	Prepared: (05/09/19 A	nalyzed: 05	/10/19			
Benzene	0.0866	0.00103	mg/kg dry	0.103	ND	84.0	80-120			
Toluene	0.0905	0.00103	"	0.103	ND	87.8	80-120			
Ethylbenzene	0.102	0.00103	"	0.103	ND	98.6	80-120			
Xylene (p/m)	0.150	0.00206	"	0.206	ND	72.9	80-120			QM-07
Xylene (o)	0.0807	0.00103	"	0.103	ND	78.3	80-120			QM-07
Surrogate: 4-Bromofluorobenzene	0.0714		"	0.0619		115	75-125			
Surrogate: 1,4-Difluorobenzene	0.0718		"	0.0619		116	75-125			
Matrix Spike Dup (P9E0906-MSD1)	Sou	rce: 9E09003	3-18	Prepared: (05/09/19 A	nalyzed: 05	/10/19			
Benzene	0.0807	0.00103	mg/kg dry	0.103	ND	78.3	80-120	7.05	20	QM-07
Toluene	0.0811	0.00103	"	0.103	ND	78.6	80-120	11.0	20	QM-07
Ethylbenzene	0.0882	0.00103	"	0.103	ND	85.5	80-120	14.3	20	
Xylene (p/m)	0.127	0.00206	"	0.206	ND	61.7	80-120	16.6	20	QM-07
Xylene (o)	0.0647	0.00103	"	0.103	ND	62.8	80-120	22.0	20	QM-07, S-GC
Surrogate: 1,4-Difluorobenzene	0.0820		"	0.0619		133	75-125			S-GC
Surrogate: 4-Bromofluorobenzene	0.0705		"	0.0619		114	75-125			

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E0908 - *** DEFAULT PREP ***										
Blank (P9E0908-BLK1)				Prepared &	& Analyzed:	05/09/19				
Chloride	ND	1.00	mg/kg wet							
LCS (P9E0908-BS1)				Prepared &	& Analyzed:	05/09/19				
Chloride	416	1.00	mg/kg wet	400		104	80-120			
LCS Dup (P9E0908-BSD1)				Prepared &	& Analyzed:	05/09/19				
Chloride	408	1.00	mg/kg wet	400		102	80-120	1.98	20	
Calibration Blank (P9E0908-CCB1)				Prepared &	& Analyzed:	05/09/19				
Chloride	0.00		mg/kg wet	-						
Calibration Blank (P9E0908-CCB2)				Prepared:	05/09/19 A	nalyzed: 05	5/10/19			
Chloride	0.00		mg/kg wet							
Calibration Check (P9E0908-CCV1)				Prepared &	& Analyzed:	05/09/19				
Chloride	19.9	0.100	mg/kg wet				0-200			
Calibration Check (P9E0908-CCV2)				Prepared:	05/09/19 A	nalyzed: 05	5/10/19			
Chloride	21.1	0.100	mg/kg wet				0-200			
Calibration Check (P9E0908-CCV3)				Prepared:	05/09/19 A	nalyzed: 05	5/10/19			
Chloride	21.2	0.100	mg/kg wet	-		-	0-200			
Matrix Spike (P9E0908-MS1)	Sou	rce: 9E09003	-01	Prepared & Analyzed: 05/09/19						
Chloride	1400	1.47	mg/kg dry	735	521	120	80-120			
Matrix Spike (P9E0908-MS2)	Sou	rce: 9E09003	-11	Prepared: 05/09/19 Analyzed: 05/10/19						
Chloride	2140	5.81	mg/kg dry	581	1420	123	80-120			

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E0908 - *** DEFAULT PREP ***										
Matrix Spike Dup (P9E0908-MSD1)	Sour	rce: 9E09003	-01	Prepared &	& Analyzed:	05/09/19				
Chloride	1540	1.47	mg/kg dry	735	521	139	80-120	9.42	20	
Matrix Spike Dup (P9E0908-MSD2)	Sour	rce: 9E09003	-11	Prepared: (05/09/19 A	nalyzed: 05	/10/19			
Chloride	2110	5.81	mg/kg dry	581	1420	119	80-120	1.17	20	
Batch P9E1002 - *** DEFAULT PREP ***										
Blank (P9E1002-BLK2)				Prepared &	& Analyzed:	05/10/19				
% Moisture	ND	0.1	%							
Duplicate (P9E1002-DUP1)	Sour	rce: 9E09004	-08	Prepared &	& Analyzed:	05/10/19				
% Moisture	4.0	0.1	%		4.0			0.00	20	
Duplicate (P9E1002-DUP2)	Sour	rce: 9E09004	-35	Prepared &	& Analyzed:	05/10/19				
% Moisture	14.0	0.1	%		15.0			6.90	20	
Duplicate (P9E1002-DUP3)	Sour	rce: 9E09016	-01	Prepared &	& Analyzed:	05/10/19				
% Moisture	17.0	0.1	%		9.0			61.5	20	
Duplicate (P9E1002-DUP4)	Sour	rce: 9E09024	-09	Prepared &	k Analyzed:	05/10/19				
% Moisture	12.0	0.1	%		13.0			8.00	20	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

Result Limit Units Level Result WaREC Limits RPD Limit	Spike Source %REC RPD	•		Reporting		
Prepared & Analyzed: 05/09/19	Level Result %REC Limits RPD Limit Not	Level	Units	Limit	Result	Analyte
ND						Batch P9E0902 - TX 1005
C12-C28	Prepared & Analyzed: 05/09/19	Prepared &				Blank (P9E0902-BLK1)
Surrogate: I-Chlorooctane	et		mg/kg wet	25.0	ND	C6-C12
Name			"	25.0	ND	>C12-C28
Surrogate: O-Terphenyl 60.3 " 50.0 121 70-130			"	25.0	ND	>C28-C35
Prepared & Analyzed: 05/09/19 Prepared & Analyzed: 05/09/19	100 110 70-130	100	"		110	Surrogate: 1-Chlorooctane
C6-C12	50.0 121 70-130	50.0	"		60.3	Surrogate: o-Terphenyl
Surrogate: I-Chlorooctane	Prepared & Analyzed: 05/09/19	Prepared &				LCS (P9E0902-BS1)
Surrogate: 1-Chlorooctane	ret 1000 83.4 75-125	1000	mg/kg wet	25.0	834	C6-C12
Surrogate: 1-Chorooctane	1000 111 75-125	1000	"	25.0	1110	>C12-C28
Prepared & Analyzed: 05/09/19 C6-C12	100 117 70-130	100	"		117	Surrogate: 1-Chlorooctane
C6-C12	50.0 114 70-130	50.0	"		57.0	Surrogate: o-Terphenyl
Note	Prepared & Analyzed: 05/09/19	Prepared &				LCS Dup (P9E0902-BSD1)
Surrogate: 1-Chlorooctane 112 " 100 112 70-130 Surrogate: o-Terphenyl 55.6 " 50.0 111 70-130 Calibration Blank (P9E0902-CCB1) Prepared & Analyzed: 05/09/19 C6-C12 23.7 mg/kg wet >C12-C28 3.35 " Surrogate: 1-Chlorooctane 112 " 100 112 70-130 Surrogate: o-Terphenyl 60.5 " 50.0 121 70-130 Calibration Blank (P9E0902-CCB2) Prepared & Analyzed: 05/09/19 C6-C12 9.11 mg/kg wet >C12-C28 7.75 " Surrogate: 1-Chlorooctane 113 " 100 113 70-130	ret 1000 83.7 75-125 0.290 20	1000	mg/kg wet	25.0	837	C6-C12
Surrogate: o-Terphenyl 55.6 " 50.0 111 70-130 Calibration Blank (P9E0902-CCB1) Prepared & Analyzed: 05/09/19 C6-C12 23.7 mg/kg wet >C12-C28 3.35 " Surrogate: 1-Chlorooctane 112 " 100 112 70-130 Surrogate: o-Terphenyl 60.5 " 50.0 121 70-130 Calibration Blank (P9E0902-CCB2) Prepared & Analyzed: 05/09/19 C6-C12 9.11 mg/kg wet >C12-C28 7.75 " Surrogate: 1-Chlorooctane 113 " 100 113 70-130	1000 108 75-125 2.35 20	1000	"	25.0	1080	>C12-C28
Calibration Blank (P9E0902-CCB1) Prepared & Analyzed: 05/09/19 C6-C12 23.7 mg/kg wet >C12-C28 3.35 " Surrogate: 1-Chlorooctane 112 " 100 112 70-130 Surrogate: o-Terphenyl 60.5 " 50.0 121 70-130 Calibration Blank (P9E0902-CCB2) Prepared & Analyzed: 05/09/19 C6-C12 9.11 mg/kg wet >C12-C28 7.75 " Surrogate: 1-Chlorooctane 113 " 100 113 70-130	100 112 70-130	100	"		112	Surrogate: 1-Chlorooctane
C6-C12 23.7 mg/kg wet	50.0 111 70-130	50.0	"		55.6	Surrogate: o-Terphenyl
>C12-C28 3.35 " Surrogate: 1-Chlorooctane 112 " 100 112 70-130 Surrogate: o-Terphenyl 60.5 " 50.0 121 70-130 Calibration Blank (P9E0902-CCB2) Prepared & Analyzed: 05/09/19 C6-C12 9.11 mg/kg wet >C12-C28 7.75 " Surrogate: 1-Chlorooctane 113 " 100 113 70-130	Prepared & Analyzed: 05/09/19	Prepared &				Calibration Blank (P9E0902-CCB1)
Surrogate: 1-Chlorooctane	ret		mg/kg wet		23.7	C6-C12
Surrogate: o-Terphenyl 60.5 " 50.0 121 70-130 Calibration Blank (P9E0902-CCB2) Prepared & Analyzed: 05/09/19 C6-C12 9.11 mg/kg wet >C12-C28 7.75 " Surrogate: 1-Chlorooctane 113 " 100 113 70-130			"		3.35	>C12-C28
Calibration Blank (P9E0902-CCB2) Prepared & Analyzed: 05/09/19 C6-C12 9.11 mg/kg wet >C12-C28 7.75 " Surrogate: 1-Chlorooctane 113 " 100 113 70-130	100 112 70-130	100	"		112	Surrogate: 1-Chlorooctane
C6-C12 9.11 mg/kg wet >C12-C28 7.75 " Surrogate: 1-Chlorooctane 113 " 100 113 70-130	50.0 121 70-130	50.0	"		60.5	Surrogate: o-Terphenyl
>C12-C28 7.75 " Surrogate: 1-Chlorooctane 113 " 100 113 70-130	Prepared & Analyzed: 05/09/19	Prepared &				Calibration Blank (P9E0902-CCB2)
Surrogate: 1-Chlorooctane 113 " 100 113 70-130	ret	-	mg/kg wet		9.11	C6-C12
Surrogue. 1-Chioroociane 115 100 115 /0-150			"		7.75	>C12-C28
	100 113 70-130	100	"		113	Surrogate: 1-Chlorooctane
Surrogate: o-Terphenyl 61.6 " 50.0 123 70-130	50.0 123 70-130	50.0	"		61.6	Surrogate: o-Terphenyl

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E0902 - TX 1005										
Calibration Check (P9E0902-CCV1)				Prepared &	k Analyzed:	05/09/19				
C6-C12	469	25.0	mg/kg wet	500		93.8	85-115			
>C12-C28	543	25.0	"	500		109	85-115			
Surrogate: 1-Chlorooctane	96.6		"	100		96.6	70-130			
Surrogate: o-Terphenyl	49.4		"	50.0		98.8	70-130			
Calibration Check (P9E0902-CCV2)				Prepared &	ኔ Analyzed:	05/09/19				
C6-C12	508	25.0	mg/kg wet	500		102	85-115			
>C12-C28	561	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	98.3		"	100		98.3	70-130			
Surrogate: o-Terphenyl	50.2		"	50.0		100	70-130			
Calibration Check (P9E0902-CCV3)				Prepared &	ኔ Analyzed:	05/09/19				
C6-C12	573	25.0	mg/kg wet	500		115	85-115			
>C12-C28	545	25.0	"	500		109	85-115			
Surrogate: 1-Chlorooctane	114		"	100		114	70-130			
Surrogate: o-Terphenyl	56.8		"	50.0		114	70-130			
Duplicate (P9E0902-DUP1)	Sou	rce: 9E09003	3-17	Prepared &	ኔ Analyzed:	05/09/19				
C6-C12	20.8	27.5	mg/kg dry		ND				20	
>C12-C28	ND	27.5	"		16.1				20	
Surrogate: 1-Chlorooctane	109		"	110		99.3	70-130			
Surrogate: o-Terphenyl	61.5		"	54.9		112	70-130			
Batch P9E0907 - TX 1005										
Blank (P9E0907-BLK1)				Prepared &	ኔ Analyzed:	05/09/19				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	108		"	100		108	70-130			
Surrogate: o-Terphenyl	57.8		"	50.0		116	70-130			

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9E0907 - TX 1005										
LCS (P9E0907-BS1)				Prepared &	& Analyzed:	05/09/19				
C6-C12	1070	25.0	mg/kg wet	1000		107	75-125			
>C12-C28	1120	25.0	"	1000		112	75-125			
Surrogate: 1-Chlorooctane	117		"	100		117	70-130			
Surrogate: o-Terphenyl	55.9		"	50.0		112	70-130			
LCS Dup (P9E0907-BSD1)				Prepared &	& Analyzed:	05/09/19				
C6-C12	1070	25.0	mg/kg wet	1000		107	75-125	0.301	20	
>C12-C28	1110	25.0	"	1000		111	75-125	0.203	20	
Surrogate: 1-Chlorooctane	115		"	100		115	70-130			
Surrogate: o-Terphenyl	54.6		"	50.0		109	70-130			

Larson & Associates, Inc. Project: XTO EMSU Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ROI Received on Ice

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

recovery.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By: Date: 5/10

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO EMSU Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Permian Basin Environmental Lab, L.P.

LABORATORY: PHE	RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)	RELINQUISHED BY:(Signature) 5/1/4-9-11 PECEIVED BY:(Signature)	RELINQUISHED BY: (Signature) RECEIVED BY: (Signature)	2 (65) 15 1 14:32 + 4	11 (3)	7 North (6') 13 14 14 14 1	7 south (6), 12 14:12	2 North(7) 10 13:19	2 (14/) 3 1253 1 1 1	st(55)8	South (5/2/2 109)	1 North (55) 6 1 1 57	n (147) 5	(65) 3	7.モ 1. (30)が	(13') 1	ICE UNP	RES	ne/State:	A=AIR OT=OTHER	• .		N SSOCIQTOS, INC. Environmental Consultants 432-687-0901	507 N. Marienfeld, Ste. 200	DATE		
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☐ HAND DELIVERED			PR IT	LABORATORY:
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CATION OR NAME: ATO & MSU Sat 10			ssociates, Inc.	フ SSOC
LAB WORK ORDER#: QE09003	507 N. Marienfeld, Ste. 200 PO#:		¬ ∞	A arson &
5/9/19 PAGE 2 OF 2	DATE:			- .
CHAIN-OF-CUSTOD			-	

PERMIAN BASIN ENVIRONMENTAL LAB, LP 1400 Rankin Hwy Midland, TX 79701



Analytical Report

Prepared for:

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: XTO EMSU Sat 13 Project Number: 17-0193-01 Location: None Given

Lab Order Number: 9E14007



NELAP/TCEQ # T104704516-18-9

Report Date: 05/15/19

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Sample 1D	Laboratory ID	14141113	Date Sampleu	Date Received
S-10 (16')	9E14007-01	Soil	05/09/19 10:19	05-14-2019 09:00
S-10 South (8')	9E14007-02	Soil	05/09/19 10:24	05-14-2019 09:00
S-10 West (8')	9E14007-03	Soil	05/09/19 10:27	05-14-2019 09:00
S-10 North (8')	9E14007-04	Soil	05/09/19 10:33	05-14-2019 09:00
S-11 (18')	9E14007-05	Soil	05/09/19 14:55	05-14-2019 09:00

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

S-10 (16') 9E14007-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Peri	mian Basin E	nvironmen	tal Lab, l					
Organics by GC				-					-
Benzene	ND	0.00110	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Toluene	ND	0.00110	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	<u> </u>	103 %	75-12	?5	P9E1404	05/14/19	05/14/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		84.7 %	75-12	?5	P9E1404	05/14/19	05/14/19	EPA 8021B	
General Chemistry Parameters by EPA / St	andard Method	ls							
Chloride	926	5.49	mg/kg dry	5	P9E1405	05/14/19	05/14/19	EPA 300.0	
% Moisture	9.0	0.1	%	1	P9E1503	05/15/19	05/15/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by l	EPA Method 80)15M							
C6-C12	ND	27.5	mg/kg dry	1	P9E1402	05/14/19	05/14/19	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P9E1402	05/14/19	05/14/19	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P9E1402	05/14/19	05/14/19	TPH 8015M	
Surrogate: 1-Chlorooctane		109 %	70-13	30	P9E1402	05/14/19	05/14/19	TPH 8015M	
Surrogate: o-Terphenyl		120 %	70-13	30	P9E1402	05/14/19	05/14/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	05/14/19	05/14/19	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

S-10 South (8') 9E14007-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environme	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		106 %	75-1	25	P9E1404	05/14/19	05/14/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		89.4 %	75-1	25	P9E1404	05/14/19	05/14/19	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	s							
Chloride	960	5.56	mg/kg dry	5	P9E1405	05/14/19	05/14/19	EPA 300.0	
% Moisture	10.0	0.1	%	1	P9E1503	05/15/19	05/15/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	oy EPA Method 80	15M							
C6-C12	ND	27.8	mg/kg dry	1	P9E1402	05/14/19	05/14/19	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P9E1402	05/14/19	05/14/19	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P9E1402	05/14/19	05/14/19	TPH 8015M	
Surrogate: 1-Chlorooctane		120 %	70-1	30	P9E1402	05/14/19	05/14/19	TPH 8015M	
Surrogate: o-Terphenyl		135 %	70-1	30	P9E1402	05/14/19	05/14/19	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	05/14/19	05/14/19	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

S-10 West (8') 9E14007-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	nian Basin E	Environmen	tal Lab, l	P.				
Organics by GC									
Benzene	ND	0.00114	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Toluene	ND	0.00114	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Ethylbenzene	ND	0.00114	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Xylene (p/m)	ND	0.00227	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Xylene (o)	ND	0.00114	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		91.8 %	75-12	25	P9E1404	05/14/19	05/14/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		101 %	75-12	25	P9E1404	05/14/19	05/14/19	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	s							
Chloride	1290	5.68	mg/kg dry	5	P9E1405	05/14/19	05/14/19	EPA 300.0	
% Moisture	12.0	0.1	%	1	P9E1503	05/15/19	05/15/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	oy EPA Method 80	15M							
C6-C12	ND	28.4	mg/kg dry	1	P9E1402	05/14/19	05/14/19	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P9E1402	05/14/19	05/14/19	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P9E1402	05/14/19	05/14/19	TPH 8015M	
Surrogate: 1-Chlorooctane		114 %	70-13	80	P9E1402	05/14/19	05/14/19	TPH 8015M	
Surrogate: o-Terphenyl		128 %	70-13	30	P9E1402	05/14/19	05/14/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	05/14/19	05/14/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-10 North (8') 9E14007-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	ital Lab, l	 L .P.				
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		84.7 %	75-1.	25	P9E1404	05/14/19	05/14/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		94.5 %	75-1.	25	P9E1404	05/14/19	05/14/19	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ls							
Chloride	1640	5.56	mg/kg dry	5	P9E1405	05/14/19	05/14/19	EPA 300.0	
% Moisture	10.0	0.1	%	1	P9E1503	05/15/19	05/15/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	oy EPA Method 80	15M							
C6-C12	ND	27.8	mg/kg dry	1	P9E1402	05/14/19	05/14/19	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P9E1402	05/14/19	05/14/19	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P9E1402	05/14/19	05/14/19	TPH 8015M	
Surrogate: 1-Chlorooctane		106 %	70-1.	30	P9E1402	05/14/19	05/14/19	TPH 8015M	
Surrogate: o-Terphenyl		118 %	70-1.	30	P9E1402	05/14/19	05/14/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	05/14/19	05/14/19	calc	

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-11 (18') 9E14007-05 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmer	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		103 %	75-1	25	P9E1404	05/14/19	05/14/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		92.4 %	75-1	25	P9E1404	05/14/19	05/14/19	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ls							
Chloride	449	1.11	mg/kg dry	1	P9E1405	05/14/19	05/14/19	EPA 300.0	
% Moisture	10.0	0.1	%	1	P9E1503	05/15/19	05/15/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	by EPA Method 80	15M							
C6-C12	ND	27.8	mg/kg dry	1	P9E1402	05/14/19	05/14/19	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P9E1402	05/14/19	05/14/19	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P9E1402	05/14/19	05/14/19	TPH 8015M	
Surrogate: 1-Chlorooctane		112 %	70-1	30	P9E1402	05/14/19	05/14/19	TPH 8015M	
Surrogate: o-Terphenyl		126 %	70-1	30	P9E1402	05/14/19	05/14/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	05/14/19	05/14/19	calc	

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E1404 - General Preparation (C	GC)									
Blank (P9E1404-BLK1)				Prepared &	Analyzed:	05/14/19				
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.0521		"	0.0600		86.8	75-125			
Surrogate: 4-Bromofluorobenzene	0.0577		"	0.0600		96.2	75-125			
LCS (P9E1404-BS1)				Prepared &	z Analyzed:	05/14/19				
Benzene	0.118	0.00100	mg/kg wet	0.100		118	70-130			
Toluene	0.118	0.00100	"	0.100		118	70-130			
Ethylbenzene	0.107	0.00100	"	0.100		107	70-130			
Xylene (p/m)	0.200	0.00200	"	0.200		100	70-130			
Xylene (o)	0.113	0.00100	"	0.100		113	70-130			
Surrogate: 4-Bromofluorobenzene	0.0652		"	0.0600		109	75-125			
Surrogate: 1,4-Difluorobenzene	0.0659		"	0.0600		110	75-125			
LCS Dup (P9E1404-BSD1)				Prepared &	Analyzed:	05/14/19				
Benzene	0.116	0.00100	mg/kg wet	0.100		116	70-130	1.86	20	
Toluene	0.115	0.00100	"	0.100		115	70-130	1.86	20	
Ethylbenzene	0.116	0.00100	"	0.100		116	70-130	8.22	20	
Xylene (p/m)	0.195	0.00200	"	0.200		97.3	70-130	2.71	20	
Xylene (o)	0.113	0.00100	"	0.100		113	70-130	0.354	20	
Surrogate: 1,4-Difluorobenzene	0.0725		"	0.0600		121	75-125			
Surrogate: 4-Bromofluorobenzene	0.0628		"	0.0600		105	75-125			
Calibration Blank (P9E1404-CCB1)				Prepared &	z Analyzed:	05/14/19				
Benzene	0.00		mg/kg wet	<u> </u>					<u> </u>	
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.0589		"	0.0600		98.2	75-125			
Surrogate: 1,4-Difluorobenzene	0.0518		"	0.0600		86.3	75-125			

Permian Basin Environmental Lab, L.P.

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

RPD

%REC

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

Spike

Source

Reporting

		Reporting		Spike	Source		70KEC		KPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E1404 - General Preparation (C	GC)									
Calibration Blank (P9E1404-CCB2)				Prepared &	: Analyzed:	05/14/19				
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.0487		"	0.0600		81.2	75-125			
Surrogate: 4-Bromofluorobenzene	0.0535		"	0.0600		89.2	75-125			
Calibration Check (P9E1404-CCV1)				Prepared &	: Analyzed:	05/14/19				
Benzene	0.108	0.00100	mg/kg wet	0.100		108	80-120			
Toluene	0.109	0.00100	"	0.100		109	80-120			
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120			
Xylene (p/m)	0.181	0.00200	"	0.200		90.7	80-120			
Xylene (o)	0.105	0.00100	"	0.100		105	80-120			
Surrogate: 4-Bromofluorobenzene	0.0588		"	0.0600		98.0	75-125			
Surrogate: 1,4-Difluorobenzene	0.0633		"	0.0600		105	75-125			
Calibration Check (P9E1404-CCV2)				Prepared &	: Analyzed:	05/14/19				
Benzene	0.111	0.00100	mg/kg wet	0.100		111	80-120			
Toluene	0.114	0.00100	"	0.100		114	80-120			
Ethylbenzene	0.112	0.00100	"	0.100		112	80-120			
Xylene (p/m)	0.194	0.00200	"	0.200		96.8	80-120			
Xylene (o)	0.107	0.00100	"	0.100		107	80-120			
Surrogate: 1,4-Difluorobenzene	0.0604		"	0.0600		101	75-125			
Surrogate: 4-Bromofluorobenzene	0.0590		"	0.0600		98.4	75-125			
Calibration Check (P9E1404-CCV3)				Prepared: 0)5/14/19 Aı	nalyzed: 05	/15/19			
Benzene	0.112	0.00100	mg/kg wet	0.100		112	80-120			
Toluene	0.117	0.00100	"	0.100		117	80-120			
Ethylbenzene	0.115	0.00100	"	0.100		115	80-120			
Xylene (p/m)	0.199	0.00200	"	0.200		99.5	80-120			
Xylene (o)	0.114	0.00100	"	0.100		114	80-120			
Surrogate: 4-Bromofluorobenzene	0.0634		"	0.0600		106	75-125			
Surrogate: 1,4-Difluorobenzene	0.0770		"	0.0600		128	75-125			

Permian Basin Environmental Lab, L.P.

0.0743

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch P9E1404 -	General Pre	paration (GC)	

Surrogate: 4-Bromofluorobenzene

Matrix Spike (P9E1404-MS1)	Sour	ce: 9E10010	-06	Prepared: 0	5/14/19 A	nalyzed: 05	5/15/19			
Benzene	0.0660	0.00115	mg/kg dry	0.115	ND	57.4	80-120			
Toluene	0.0563	0.00115	"	0.115	ND	49.0	80-120			
Ethylbenzene	0.0741	0.00115	0.00115 "		ND	64.4	80-120			
Xylene (p/m)	0.132	0.00230	"	0.230	ND	57.4	80-120			
Xylene (o)	0.0702	0.00115	"	0.115	ND	61.0	80-120			
Surrogate: 4-Bromofluorobenzene	0.0633		"	0.0690		91.8	75-125			
Surrogate: 1,4-Difluorobenzene	0.0683		"	0.0690		99.1	75-125			
Matrix Spike Dup (P9E1404-MSD1)	Sour	ce: 9E10010	-06	Prepared: 0	5/14/19 A	nalyzed: 05	5/15/19			
Benzene	0.0685	0.00115	mg/kg dry	0.115	ND	59.6	80-120	3.66	20	
oluene	0.0598	0.00115	"	0.115	ND	52.1	80-120	6.04	20	
Ethylbenzene	0.0765	0.00115	"	0.115	ND	66.6	80-120	3.24	20	
Kylene (p/m)	0.120 0.00230 "				ND	52.0	80-120	9.73	20	
Zylene (o)	0.0682 0.00115 " 0.1				ND	59.3	80-120	2.86	20	
urrogate: 1,4-Difluorobenzene	"	0.0690		114	75-125					

0.0690

108

75-125

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E1405 - General Preparation (C	GC)									
Blank (P9E1405-BLK1)				Prepared &	k Analyzed:	05/14/19				
Chloride	ND	1.00	mg/kg wet							
LCS (P9E1405-BS1)				Prepared &	k Analyzed:	05/14/19				
Chloride	412	1.00	mg/kg wet	400		103	80-120			
LCS Dup (P9E1405-BSD1)				Prepared &	ն Analyzed:	05/14/19				
Chloride	419	1.00	mg/kg wet	400		105	80-120	1.60	20	
Calibration Blank (P9E1405-CCB1)				Prepared &	k Analyzed:	05/14/19				
Chloride	0.00		mg/kg wet							
Calibration Blank (P9E1405-CCB2)				Prepared: (05/14/19 A	nalyzed: 05	/15/19			
Chloride	0.0260		mg/kg wet							
Calibration Check (P9E1405-CCV1)				Prepared &	k Analyzed:	05/14/19				
Chloride	20.5		mg/kg	20.0		102	0-200			
Calibration Check (P9E1405-CCV2)				Prepared: (05/14/19 A	nalyzed: 05	/15/19			
Chloride	20.1		mg/kg	20.0		100	0-200			
Calibration Check (P9E1405-CCV3)				Prepared: (05/14/19 A	nalyzed: 05	/15/19			
Chloride	20.7		mg/kg	20.0		103	0-200			
Matrix Spike (P9E1405-MS1)	Sou	rce: 9E14007	'-01	Prepared &	t Analyzed:	05/14/19				
Chloride	3790	5.49	mg/kg dry	2750	926	104	80-120			
Matrix Spike (P9E1405-MS2)	Sou	rce: 9E14008	3-06	Prepared: (05/14/19 A	nalyzed: 05	/15/19			
Chloride	12300	11.4	mg/kg dry	11400	987	99.3	80-120			

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting	Spike	Source		%REC		RPD			
Analyte	Result Limit Units Le				Result	%REC	Limits	RPD	Limit	Notes	
Batch P9E1405 - General Preparation (GC)											
Matrix Spike Dup (P9E1405-MSD1)	Sourc	e: 9E14007-	Prepared & Analyzed: 05/14/19								
Chloride	3780	5.49	mg/kg dry	2750	926	104	80-120	0.420	20		
Matrix Spike Dup (P9E1405-MSD2)	Sourc	e: 9E14008-	06	Prepared: 0)5/14/19 Ar	nalyzed: 05	/15/19				
Chloride	12500	11.4	mg/kg dry	11400	987	101	80-120	1.68	20		
Batch P9E1503 - *** DEFAULT PREP ***											
Blank (P9E1503-BLK1)				Prepared &	Analyzed:	05/15/19					
% Moisture	ND	0.1	%								
Duplicate (P9E1503-DUP1)	Sourc	e: 9E14010-	13	Prepared &	: Analyzed:	05/15/19					
% Moisture	8.0	0.1	%		8.0			0.00	20		

Larson & Associates, Inc. Project: XTO EMSU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E1402 - TX 1005										
Blank (P9E1402-BLK1)				Prepared &	Analyzed:	05/14/19				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	115		"	100		115	70-130			
Surrogate: o-Terphenyl	61.1		"	50.0		122	70-130			
LCS (P9E1402-BS1)				Prepared &	Analyzed:	05/14/19				
C6-C12	2030	25.0	mg/kg wet	2000		101	75-125			
>C12-C28	2150	25.0	"	2000		108	75-125			
Surrogate: 1-Chlorooctane	114		"	100		114	70-130			
Surrogate: o-Terphenyl	54.4		"	50.0		109	70-130			
LCS Dup (P9E1402-BSD1)				Prepared &	Analyzed:	05/14/19				
C6-C12	2060	25.0	mg/kg wet	2000		103	75-125	1.31	20	
>C12-C28	2210	25.0	"	2000		110	75-125	2.47	20	
Surrogate: 1-Chlorooctane	115		"	100		115	70-130			
Surrogate: o-Terphenyl	56.0		"	50.0		112	70-130			
Calibration Blank (P9E1402-CCB1)				Prepared &	Analyzed:	05/14/19				
C6-C12	13.5		mg/kg wet							
>C12-C28	9.32		"							
Surrogate: 1-Chlorooctane	108		"	100		108	70-130			
Surrogate: o-Terphenyl	60.1		"	50.0		120	70-130			
Calibration Blank (P9E1402-CCB2)				Prepared &	Analyzed:	05/14/19				
C6-C12	14.1		mg/kg wet	-						
>C12-C28	18.0		"							
Surrogate: 1-Chlorooctane	112		"	100		112	70-130			
Surrogate: o-Terphenyl	62.2		"	50.0		124	70-130			

Permian Basin Environmental Lab, L.P.

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E1402 - TX 1005										
Calibration Check (P9E1402-CCV1)				Prepared &	Analyzed:	05/14/19				
C6-C12	1050	25.0	mg/kg wet	1000		105	85-115			
>C12-C28	1170	25.0	"	1000		117	85-115			
Surrogate: 1-Chlorooctane	108		"	100		108	70-130			
Surrogate: o-Terphenyl	54.1		"	50.0		108	70-130			
Calibration Check (P9E1402-CCV2)				Prepared &	Analyzed:	05/14/19				
C6-C12	1070	25.0	mg/kg wet	1000		107	85-115			
>C12-C28	1130	25.0	"	1000		113	85-115			
Surrogate: 1-Chlorooctane	111		"	100		111	70-130			
Surrogate: o-Terphenyl	57.3		"	50.0		115	70-130			
Calibration Check (P9E1402-CCV3)				Prepared &	z Analyzed:	05/14/19				
C6-C12	1100	25.0	mg/kg wet	1000		110	85-115			
>C12-C28	1100	25.0	"	1000		110	85-115			
Surrogate: 1-Chlorooctane	115		"	100		115	70-130			
Surrogate: o-Terphenyl	57.4		"	50.0		115	70-130			
Duplicate (P9E1402-DUP1)	Sou	rce: 9E14007	7-05	Prepared &	z Analyzed:	05/14/19				
C6-C12	13.7	27.8	mg/kg dry	·	14.8	·	·	7.79	20	·
>C12-C28	ND	27.8	"		12.0				20	
Surrogate: 1-Chlorooctane	122		"	111		110	70-130			
Surrogate: o-Terphenyl	68.3		"	55.6		123	70-130			

Larson & Associates, Inc. Project: XTO EMSU Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ROI Received on Ice

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

	Dien	Devou C		
Report Approved By:			Date:	5/15/2019

P AR

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

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PERMIAN BASIN ENVIRONMENTAL LAB, LP 1400 Rankin Hwy Midland, TX 79701



Revised Analytical Report

Prepared for:

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: XTO ESMU Sat 13 Project Number: 17-0193-01

Location:

Lab Order Number: 9E14008



NELAP/TCEQ # T104704516-18-9

Report Date: 05/15/19

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-7 (17')	9E14008-01	Soil	05/13/19 10:14	05-14-2019 09:00
S-7 South	9E14008-02	Soil	05/13/19 10:20	05-14-2019 09:00
S-7 North	9E14008-03	Soil	05/13/19 10:30	05-14-2019 09:00

05/15/2019 PBELAB Staff was advised that samples S-7,1 North, S-7.1 South, and S-7.1 (14') were not needed. This report reflects the removal of those three samples.

Total Petroleum Hydrocarbon C6-C35

calc

Larson & Associates, Inc. Project: XTO ESMU Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-7 (17') 9E14008-01 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permia	ın Basin E	Environmenta	al Lab, l	L.P.				
General Chemistry Parameters by El	PA / Standard Methods								
% Moisture	32.0	0.1	%	1	P9E1503	05/15/19	05/15/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C	35 by EPA Method 8015	M							
C6-C12	ND	36.8	mg/kg dry	1	P9E1401	05/14/19	05/14/19	TPH 8015M	
>C12-C28	ND	36.8	mg/kg dry	1	P9E1401	05/14/19	05/14/19	TPH 8015M	
>C28-C35	ND	36.8	mg/kg dry	1	P9E1401	05/14/19	05/14/19	TPH 8015M	
Surrogate: 1-Chlorooctane		110 %	70-130)	P9E1401	05/14/19	05/14/19	TPH 8015M	
Surrogate: o-Terphenyl		123 %	70-130)	P9E1401	05/14/19	05/14/19	TPH 8015M	

36.8 mg/kg dry

ND

[CALC]

05/14/19

05/14/19

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-7 South 9E14008-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin F	Environmen	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00115	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Toluene	ND	0.00115	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Ethylbenzene	ND	0.00115	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Xylene (p/m)	ND	0.00230	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Xylene (o)	ND	0.00115	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		95.6 %	75-1.	25	P9E1404	05/14/19	05/14/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		90.1 %	75-1.	25	P9E1404	05/14/19	05/14/19	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ls							
Chloride	1250	11.5	mg/kg dry	10	P9E1405	05/14/19	05/14/19	EPA 300.0	
% Moisture	13.0	0.1	%	1	P9E1503	05/15/19	05/15/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	oy EPA Method 80	15M							
C6-C12	ND	28.7	mg/kg dry	1	P9E1401	05/14/19	05/14/19	TPH 8015M	
>C12-C28	ND	28.7	mg/kg dry	1	P9E1401	05/14/19	05/14/19	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P9E1401	05/14/19	05/14/19	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %	70-1.	30	P9E1401	05/14/19	05/14/19	TPH 8015M	
Surrogate: o-Terphenyl		120 %	70-1.	30	P9E1401	05/14/19	05/14/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.7	mg/kg dry	1	[CALC]	05/14/19	05/14/19	calc	

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

> S-7 North 9E14008-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin I	Environme	ntal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00110	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Toluene	ND	0.00110	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P9E1404	05/14/19	05/14/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		99.2 %	75-1	25	P9E1404	05/14/19	05/14/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		88.2 %	75-1	25	P9E1404	05/14/19	05/14/19	EPA 8021B	
General Chemistry Parameters by EPA	Standard Method	ls							
Chloride	765	5.49	mg/kg dry	5	P9E1405	05/14/19	05/14/19	EPA 300.0	
% Moisture	9.0	0.1	%	1	P9E1503	05/15/19	05/15/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 l	oy EPA Method 80	15M							
C6-C12	ND	27.5	mg/kg dry	1	P9E1401	05/14/19	05/14/19	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P9E1401	05/14/19	05/14/19	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P9E1401	05/14/19	05/14/19	TPH 8015M	
Surrogate: 1-Chlorooctane		107 %	70-1	30	P9E1401	05/14/19	05/14/19	TPH 8015M	
Surrogate: o-Terphenyl		117 %	70-1	30	P9E1401	05/14/19	05/14/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	05/14/19	05/14/19	calc	

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9E1404 - General Preparation (C	GC)									
Blank (P9E1404-BLK1)	, ,			Prepared &	: Analyzed:	05/14/19				
Benzene	ND	0.00100	mg/kg wet		<u> </u>					
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.0521		"	0.0600		86.8	75-125			
Surrogate: 4-Bromofluorobenzene	0.0577		"	0.0600		96.2	75-125			
LCS (P9E1404-BS1)				Prepared &	Analyzed:	05/14/19				
Benzene	0.118	0.00100	mg/kg wet	0.100		118	70-130			
Toluene	0.118	0.00100	"	0.100		118	70-130			
Ethylbenzene	0.107	0.00100	"	0.100		107	70-130			
Xylene (p/m)	0.200	0.00200	"	0.200		100	70-130			
Xylene (o)	0.113	0.00100	"	0.100		113	70-130			
Surrogate: 1,4-Difluorobenzene	0.0659		"	0.0600		110	75-125			
Surrogate: 4-Bromofluorobenzene	0.0652		"	0.0600		109	75-125			
LCS Dup (P9E1404-BSD1)				Prepared &	Analyzed:	05/14/19				
Benzene	0.116	0.00100	mg/kg wet	0.100		116	70-130	1.86	20	
Toluene	0.115	0.00100	"	0.100		115	70-130	1.86	20	
Ethylbenzene	0.116	0.00100	"	0.100		116	70-130	8.22	20	
Xylene (p/m)	0.195	0.00200	"	0.200		97.3	70-130	2.71	20	
Xylene (o)	0.113	0.00100	"	0.100		113	70-130	0.354	20	
Surrogate: 4-Bromofluorobenzene	0.0628		"	0.0600		105	75-125			
Surrogate: 1,4-Difluorobenzene	0.0725		"	0.0600		121	75-125			
Calibration Blank (P9E1404-CCB1)				Prepared &	Analyzed:	05/14/19				
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.0518		"	0.0600		86.3	75-125			
Surrogate: 4-Bromofluorobenzene	0.0589		"	0.0600		98.2	75-125			

Permian Basin Environmental Lab, L.P.

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

RPD

%REC

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

Spike

Source

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E1404 - General Preparation (C	GC)									
Calibration Blank (P9E1404-CCB2)				Prepared &	: Analyzed:	05/14/19				
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Kylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.0487		"	0.0600		81.2	75-125			
Gurrogate: 4-Bromofluorobenzene	0.0535		"	0.0600		89.2	75-125			
Calibration Check (P9E1404-CCV1)				Prepared &	Analyzed:	05/14/19				
Benzene	0.108	0.00100	mg/kg wet	0.100		108	80-120			
Toluene	0.109	0.00100	"	0.100		109	80-120			
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120			
Xylene (p/m)	0.181	0.00200	"	0.200		90.7	80-120			
Xylene (o)	0.105	0.00100	"	0.100		105	80-120			
Surrogate: 1,4-Difluorobenzene	0.0633		"	0.0600		105	75-125			
Surrogate: 4-Bromofluorobenzene	0.0588		"	0.0600		98.0	75-125			
Calibration Check (P9E1404-CCV2)				Prepared &	Analyzed:	05/14/19				
Benzene	0.111	0.00100	mg/kg wet	0.100		111	80-120			
Γoluene	0.114	0.00100	"	0.100		114	80-120			
Ethylbenzene	0.112	0.00100	"	0.100		112	80-120			
Xylene (p/m)	0.194	0.00200	"	0.200		96.8	80-120			
Xylene (o)	0.107	0.00100	"	0.100		107	80-120			
Surrogate: 4-Bromofluorobenzene	0.0590		"	0.0600		98.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.0604		"	0.0600		101	75-125			
Calibration Check (P9E1404-CCV3)				Prepared: 0)5/14/19 Aı	nalyzed: 05	/15/19			
Benzene	0.112	0.00100	mg/kg wet	0.100		112	80-120			
Toluene	0.117	0.00100	"	0.100		117	80-120			
Ethylbenzene	0.115	0.00100	"	0.100		115	80-120			
Xylene (p/m)	0.199	0.00200	"	0.200		99.5	80-120			
Kylene (o)	0.114	0.00100	"	0.100		114	80-120			
Surrogate: 1,4-Difluorobenzene	0.0770		"	0.0600		128	75-125			
Surrogate: 4-Bromofluorobenzene	0.0634		"	0.0600		106	75-125			

Permian Basin Environmental Lab, L.P.

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Matrix Spike (P9E1404-MS1)	Sour	ce: 9E10010	-06	Prepared: 0	5/14/19 A	nalyzed: 0:	5/15/19			
Benzene	0.0660	0.00115	mg/kg dry	0.115	ND	57.4	80-120			
Toluene	0.0563	0.00115	"	0.115	ND	49.0	80-120			
Ethylbenzene	0.0741	0.00115	"	0.115	ND	64.4	80-120			
Xylene (p/m)	0.132	0.00230	"	0.230	ND	57.4	80-120			
Xylene (o)	0.0702	0.00115	"	0.115	ND	61.0	80-120			
Surrogate: 4-Bromofluorobenzene	0.0633		"	0.0690		91.8	75-125			
Surrogate: 1,4-Difluorobenzene	0.0683		"	0.0690		99.1	75-125			
Matrix Spike Dup (P9E1404-MSD1)	Sour	ce: 9E10010	-06	Prepared: 0	5/14/19 A	nalyzed: 0:	5/15/19			
Benzene	0.0685	0.00115	mg/kg dry	0.115	ND	59.6	80-120	3.66	20	
Toluene	0.0598	0.00115	"	0.115	ND	52.1	80-120	6.04	20	
T-1 #	0.0565	0.00115		0.115) ID		00.100	2.24	20	

Watti Spike Bup (1)E1404-WiSB1)	Sour	cc. 7L10010-00	U .	rrepared. o.	J/ I I/ I / I I	mary zea. oz	715717			
Benzene	0.0685	0.00115 m	ng/kg dry	0.115	ND	59.6	80-120	3.66	20	
Toluene	0.0598	0.00115	"	0.115	ND	52.1	80-120	6.04	20	
Ethylbenzene	0.0765	0.00115	"	0.115	ND	66.6	80-120	3.24	20	
Xylene (p/m)	0.120	0.00230	"	0.230	ND	52.0	80-120	9.73	20	
Xylene (o)	0.0682	0.00115	"	0.115	ND	59.3	80-120	2.86	20	
Surrogate: 1,4-Difluorobenzene	0.0785		"	0.0690		114	75-125			
Surrogate: 4-Bromofluorobenzene	0.0743		"	0.0690		108	75-125			

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	·
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P9E1405 - General Preparation (GC)										
Blank (P9E1405-BLK1)				Prepared &	Analyzed:	05/14/19				
Chloride	ND	1.00	mg/kg wet							
LCS (P9E1405-BS1)				Prepared &	Analyzed:	05/14/19				
Chloride	412	1.00	mg/kg wet	400		103	80-120			
LCS Dup (P9E1405-BSD1)				Prepared &	Analyzed:	05/14/19				
Chloride	419	1.00	mg/kg wet	400		105	80-120	1.60	20	
Calibration Blank (P9E1405-CCB1)				Prepared &	Analyzed:	05/14/19				
Chloride	0.00		mg/kg wet							
Calibration Blank (P9E1405-CCB2)				Prepared: 0)5/14/19 At	nalyzed: 05	/15/19			
Chloride	0.0260		mg/kg wet							
Calibration Check (P9E1405-CCV1)				Prepared &	Analyzed:	05/14/19				
Chloride	20.5		mg/kg	20.0		102	0-200			
Calibration Check (P9E1405-CCV2)				Prepared: 0)5/14/19 Aı	nalyzed: 05	/15/19			
Chloride	20.1		mg/kg	20.0		100	0-200			
Calibration Check (P9E1405-CCV3)				Prepared: 0)5/14/19 At	nalyzed: 05	/15/19			
Chloride	20.7		mg/kg	20.0		103	0-200			
Matrix Spike (P9E1405-MS1)	Sou	ırce: 9E14007	'-01	Prepared &	Analyzed:	05/14/19				
Chloride	3790	5.49	mg/kg dry	2750	926	104	80-120			
Matrix Spike (P9E1405-MS2)	Sou	ırce: 9E14008	3-06	Prepared: 0)5/14/19 At	nalyzed: 05	/15/19			
Chloride	12300	11.4	mg/kg dry	11400	987	99.3	80-120			

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson Fax: (432) 687-0456

General Chemistry Parameters by EPA / Standard Methods - Quality Control Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9E1405 - General Preparation (GC)										
Matrix Spike Dup (P9E1405-MSD1)	Sour	ce: 9E14007-	-01	Prepared &	Analyzed:	05/14/19				
Chloride	3780	5.49	mg/kg dry	2750	926	104	80-120	0.420	20	
Matrix Spike Dup (P9E1405-MSD2)	Sour	ce: 9E14008-	-06	Prepared: ()5/14/19 Aı	nalyzed: 05	/15/19			
Chloride	12500	11.4	mg/kg dry	11400	987	101	80-120	1.68	20	
Batch P9E1503 - *** DEFAULT PREP ***										
Blank (P9E1503-BLK1)				Prepared &	Analyzed:	05/15/19				
% Moisture	ND	0.1	%			·	·	·		·
Duplicate (P9E1503-DUP1)	Sour	ce: 9E14010-	-13	Prepared &	z Analyzed:	05/15/19				
% Moisture	8.0	0.1	%		8.0			0.00	20	

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	
Batch P9E1401 - TX 1005											
Blank (P9E1401-BLK1)	Prepared & Analyzed: 05/14/19										
C6-C12	ND	25.0	mg/kg wet								
>C12-C28	ND	25.0	"								
>C28-C35	ND	25.0	"								
Surrogate: 1-Chlorooctane	126		"	100		126	70-130				
Surrogate: o-Terphenyl	68.4		"	50.0		137	70-130			S-GC	
LCS (P9E1401-BS1)	Prepared & Analyzed: 05/14/19										
C6-C12	2130	25.0	mg/kg wet	2000		106	75-125				
>C12-C28	2180	25.0	"	2000		109	75-125				
Surrogate: 1-Chlorooctane	123		"	100		123	70-130				
Surrogate: o-Terphenyl	57.3		"	50.0		115	70-130				
LCS Dup (P9E1401-BSD1)				Prepared &	Analyzed:	05/14/19					
C6-C12	2130	25.0	mg/kg wet	2000		107	75-125	0.135	20		
>C12-C28	2190	25.0	"	2000		109	75-125	0.317	20		
Surrogate: 1-Chlorooctane	124		"	100		124	70-130				
Surrogate: o-Terphenyl	59.0		"	50.0		118	70-130				
Calibration Blank (P9E1401-CCB1)	Prepared & Analyzed: 05/14/19										
C6-C12	9.53		mg/kg wet								
>C12-C28	19.8		"								
Surrogate: 1-Chlorooctane	115		"	100		115	70-130				
Surrogate: o-Terphenyl	64.3		"	50.0		129	70-130				
Calibration Blank (P9E1401-CCB2)	Prepared: 05/14/19 Analyzed: 05/15/19										
C6-C12	8.68		mg/kg wet			-					
>C12-C28	23.6		"								
Surrogate: 1-Chlorooctane	113		"	100		113	70-130				
Surrogate: o-Terphenyl	62.6		"	50.0		125	70-130				

Permian Basin Environmental Lab, L.P.

Larson & Associates, Inc. Project: XTO ESMU Sat 13

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	
Batch P9E1401 - TX 1005											
Calibration Check (P9E1401-CCV1)	Prepared & Analyzed: 05/14/19										
C6-C12	1100	25.0	mg/kg wet	1000		110	85-115				
>C12-C28	1100	25.0	"	1000		110	85-115				
Surrogate: 1-Chlorooctane	115		"	100		115	70-130				
Surrogate: o-Terphenyl	57.4		"	50.0		115	70-130				
Calibration Check (P9E1401-CCV2)	Prepared: 05/14/19 Analyzed: 05/15/19										
C6-C12	1070	25.0	mg/kg wet	1000		107	85-115				
>C12-C28	1120	25.0	"	1000		112	85-115				
Surrogate: 1-Chlorooctane	110		"	100		110	70-130				
Surrogate: o-Terphenyl	55.4		"	50.0		111	70-130				
Calibration Check (P9E1401-CCV3)	Prepared: 05/14/19 Analyzed: 05/15/19										
C6-C12	1070	25.0	mg/kg wet	1000		107	85-115				
>C12-C28	1140	25.0	"	1000		114	85-115				
Surrogate: 1-Chlorooctane	114		"	100		114	70-130				
Surrogate: o-Terphenyl	57.6		"	50.0		115	70-130				
Duplicate (P9E1401-DUP1)	Source: 9E13006-03			Prepared: 05/14/19 Analyzed: 05/15/19							
C6-C12	ND	125	mg/kg wet		ND			<u> </u>	20	<u> </u>	
>C12-C28	887	125	"		202			126	20		
Surrogate: 1-Chlorooctane	99.8		"	100		99.8	70-130				
Surrogate: o-Terphenyl	57.6		"	50.0		115	70-130				

Larson & Associates, Inc. Project: XTO ESMU Sat 13 Fax: (432) 687-0456

P.O. Box 50685 Project Number: 17-0193-01 Midland TX, 79710 Project Manager: Mark Larson

Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ROI Received on Ice

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

	Drew	Davier (
Report Approved By:			Date:	5/15/2019

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

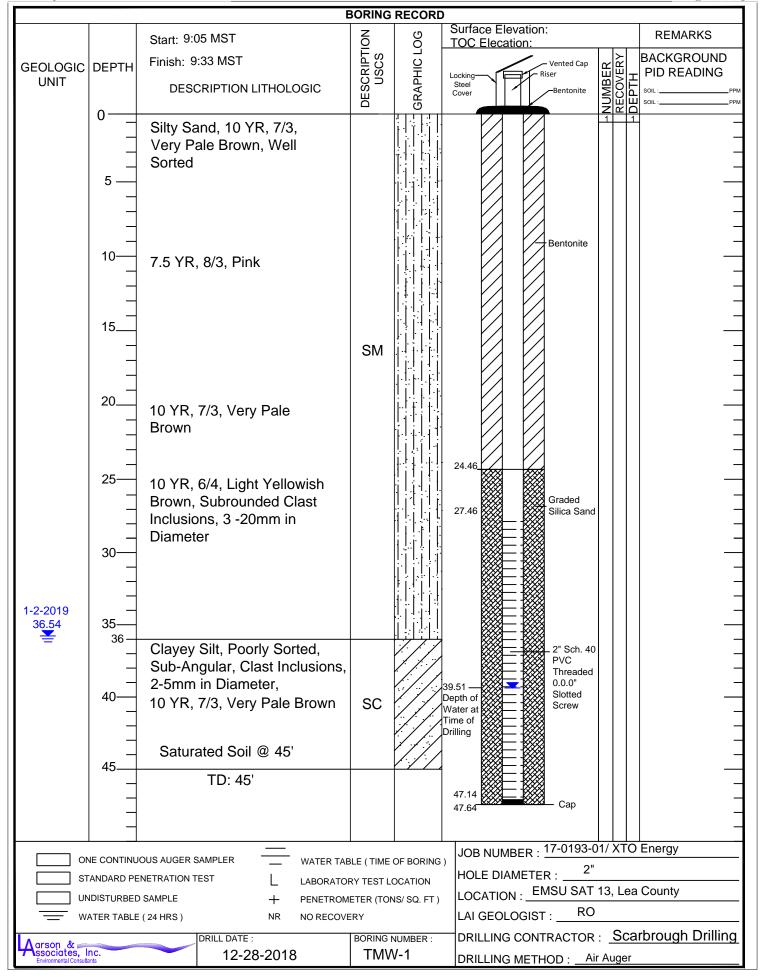
Permian Basin Environmental Lab, L.P.

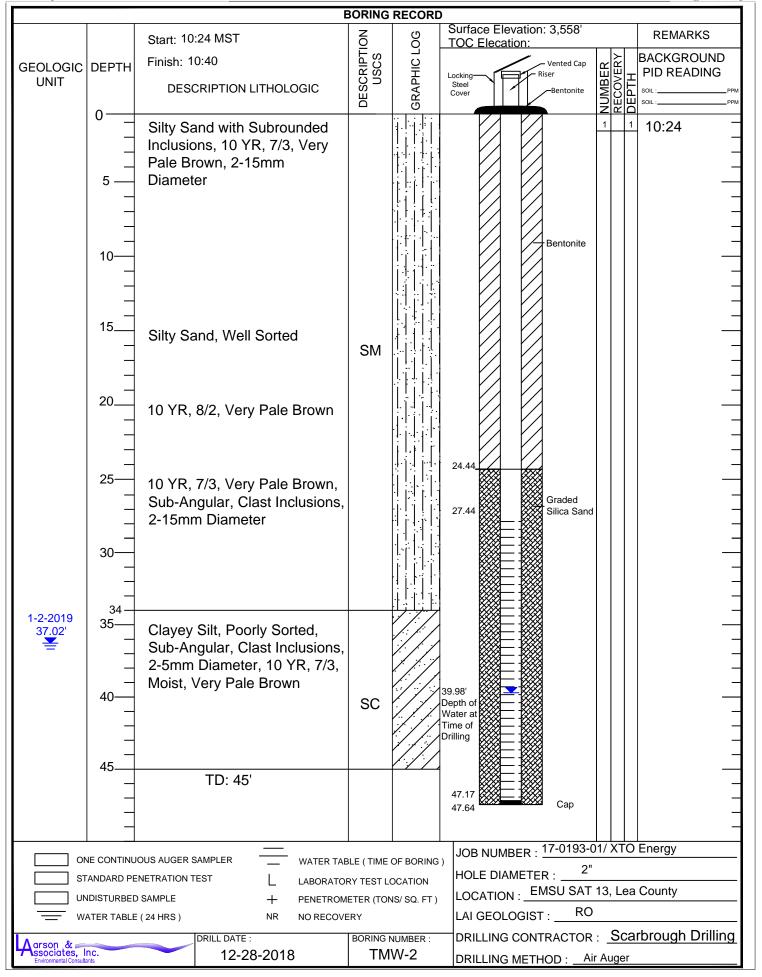
The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

LABORATORY: PAEL	RELINQUISHED BY:(Signature)	RELINQUISHED BY:(Signature) 5/	RELINQUISHED BY SIGNAMIN 514	TOTAL	/2024	1 7:4	16:01	A.M.			1 (1) (1) (1) (1)	11 7 9 440S 17-5	54 1	h 3 1		1 5/8/15 1 (-11) 7-5	Field Lab# Date	TIME ZONE: Time zone/State:	Yes A=AIR OT=OTHER		Environmental Consultants Data Reported to:	Ž	290	of 44
	DATE/TIME RECEIVED BY: (Signature)	PATE/TIME: DO RECEIVED BY/Stgnature)	DATE/TIME RECEIVED BY: (Signature)								13:16 1 1 1 1 1	: O.	1: O4	0.30	0:20 1	10:14 S 41:01	ICE	tainers NaOH (<u> </u>	NT PRESERVATION	432-687-0901	507 N. Marienfeld, Ste. 200 Midland, TX 79701		
HANI	OTHER [] CARE	dema	JND TIME								+										LAI PROJECT #: 17-0192	6114119		
HAND DELIVERED	CARRIER BILL#	IHERM#: BROKEN □ INTAG	24 6.4 24 6.4												X						0.01 collector: 10	PAGE 1 OF 14 LAB WORK ORDER#: $UE 14008$ ge and $UE 14008$	CHAIN-OF-CUSTO	

Appendix D

Boring Logs and Well Completion Records

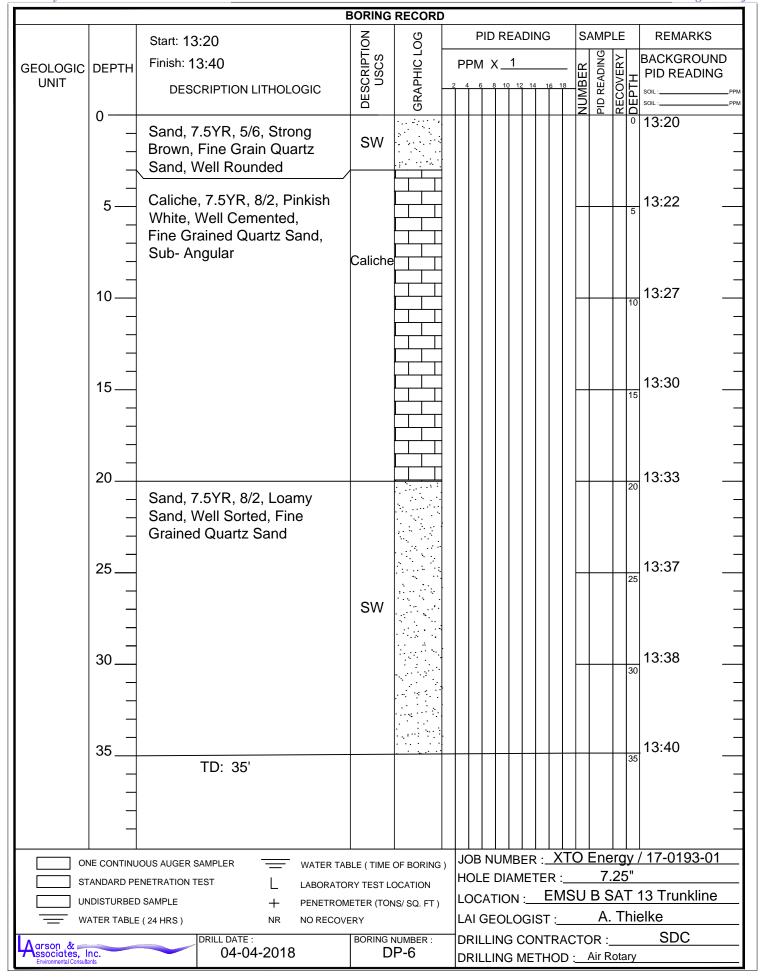




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		Start: 12	2:04	NO N		90		PII) R	REAL	DINO	3	s	AMP	LE	Ξ.	REMARKS
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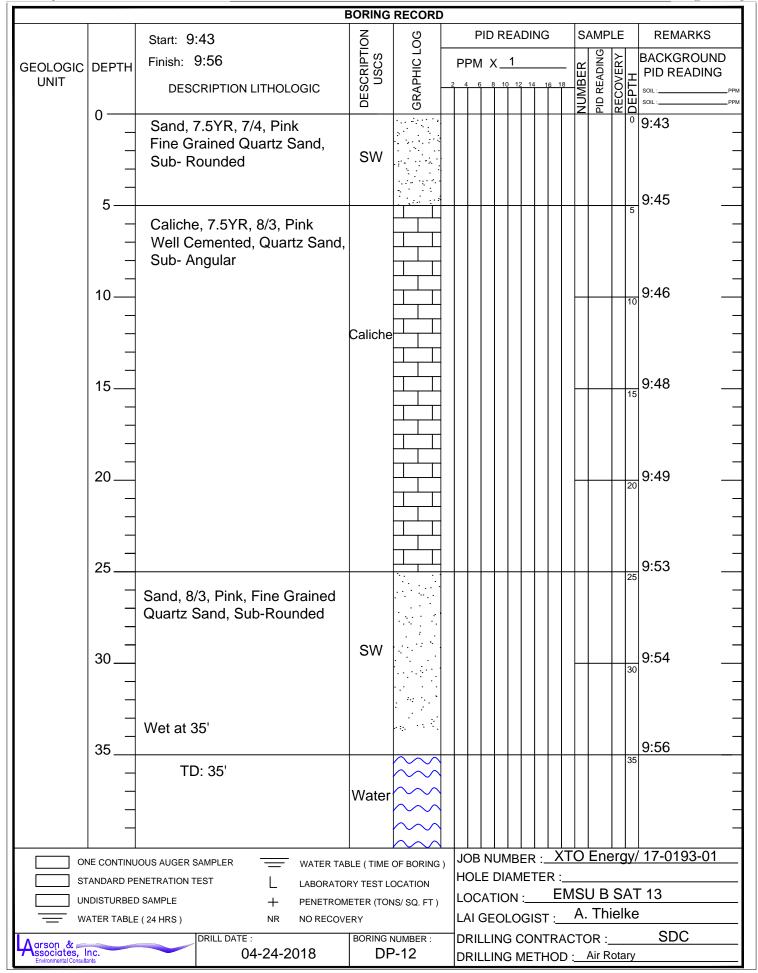


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Environmental Consulta	tants					ام	VILL	1110	101	_ 11	טטי	_	1		<i>J</i>		_

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Agrson & Ssociates, In Environmental Consulta			DRILL DATE : 04-24-201	10	BORING I	NUMBER :	DRII							OR : Air F		ır.,	SDC

Appendix E

Photographs



Trunk Line Release (1RP-4832) Viewing North, July 5, 2018



Trunk Line Release (1RP-4832) Viewing South, July 5, 2018



Excavation Area Viewing Northwest, December 4, 2018



Excavation Area Viewing Southeast, December 4, 2018



Second Release (1RP-5340) in Excavation Viewing South, January 17, 2019



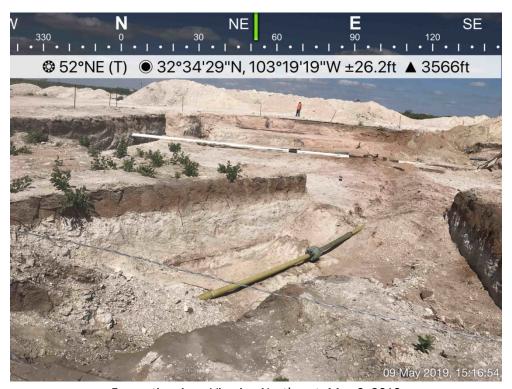
Second Release (1RP-5340) in Excavation Viewing East, January 17, 2019



Lined Excavation Prior to Cutting and Purging the Flowline, March 8, 2019



Excavation Area Viewing West, May 9, 2019



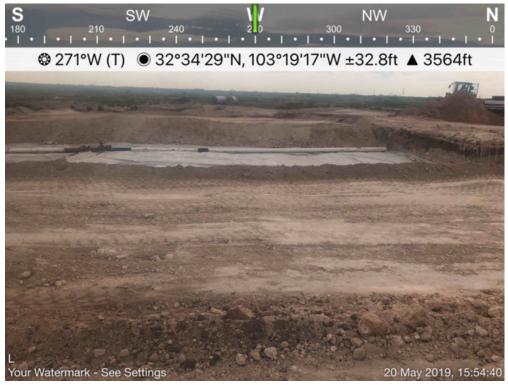
Excavation Area Viewing Northeast, May 9, 2019



Liner Installation Viewing Southwest, May 17, 2019



Liner Installation Viewing West, May 17, 2019



Excavation Backfilling Viewing West, May 20, 2019



Excavation Backfilling Prior to Installing New Fiberglass Line Viewing South



Sand Padding over Flowlines Viewing East, June 12, 2019



Caliche Filled Excavation to 1.5 feet bgs Viewing South, June 17, 2019



Completed Excavation Backfilling Viewing Northeast, June 20, 2019



Completed Excavation Backfilling Viewing West, June 20, 2019

Appendix F

OSE Permit

Tom Blaine, P.E. State Engineer



Roswell Office 1900 WEST SECOND STREET ROSWELL, NM 88201

STATE OF NEW MEXICO OFFICE OF THE STATE ENGINEER

Trn Nbr: 635652 File Nbr: L 14590

Dec. 12, 2018

SHELBY PENNINGTON XTO ENERGY INC 6401 HOLIDAY HILL ROAD BUILDING 5 MIDLAND, TX 79707

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

- * If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.
- * If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.
- * The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.
- * This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,

Andrew Dennis (575)622-6521

Enclosure

explore

File No. L-14590



NEW MEXICO OFFICE OF THE STATE ENGINEER

APPLICATION FOR PERMIT TO DRILL A WELL WITH NO CONSUMPTIVE USE OF WATER



(check applicable box):

For fees, s	ee State Engineer wet	osite: http	://www.ose.state.r	nm.us/			
Purpose:	And / Or Recovery		Geo-Thermal				
☐ Exploratory ☐ Construction Site	e De-Watering		Other (Describe	e):			
☐ Mineral De-Wate	ering						
A separate permit will be required to apply wate	r to beneficial use.						
☐ Temporary Request - Requested Start Date:			Reques	ted End Date:			
Plugging Plan of Operations Submitted? Ye	es 🗌 No						
1. APPLICANT(S)						,	
Name: XTO Energy, Inc.		Name:				F-3	
Contact or Agent: check here Shelby Pennington	f Agent 🗌	Contac	ct or Agent:	cł	heck here	if Agent [
Mailing Address: 6401 Holiday Hill Road, Build	ding 5	Mailing	Address:			Un Un	
City: Midland	02-36-0056-0052	City				:	24(2x
State: TX Zip Code: 79	7-7	State:		Zip	Code:	Ü	88
Phone: (281)723-9353 Phone (Work): (432) 571-8276	Home 🖾 Cell	Phone Phone	: (Work):] Home [] Cell	
E-mail (optional): Shelby_Pennington@xtoene	ergy.com	E-mail	(optional):				
	FOR OSE INTERNA File Number:	- 14 5	590	Application for F Trn Number:	2 - Permit, Form 6 3 5		103 ev 4/12/12

PCW/LOG Due Date:

12/12/19

2. WELL(S) Describe the well(s) applicable to this application.

(Lat/Long - WGS84).			State Plane (NAD 83), UTM (NAD 83), <u>or</u> Latitu	de/Longi	tude
☐ NM State Plane (NAD83) ☑ NM West Zone ☐ NM East Zone	(Feet)	ustomers, provide JTM (NAD83) (Met]Zone 12N]Zone 13N	ers) Lat/Long (WGS84) (to 1/10 th of second)	the near	est
☐ NM Central Zone Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves, Section, Township, - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name	Range) C	DR .
TMW-1	103°19'18.6479" w	32°34'30.2635"n	SW/4, NE/4 S14 T20S R37, Lea County, NM	E	
TMW-2	103°19'17.6548'' w	32°34'28.2199"n		-	

NOTE: If more well locations Additional well descriptions	s need to be describ s are attached:	ed, complete forr Yes ⊠ No	n WR-08 (Attachment 1 – POD Descriptions) If yes, how many		
Other description relating well					
Well is on land owned by: Jim	ımy Cooper		Andrew Committee	**********	
		Il needs to be des	cribed, provide attachment. Attached?	Yes 🗌	No
Approximate depth of well (fee	et); 45.00		Outside diameter of well casing (inches): 2.00		
Driller Name: Layne Scarbore	ough		Oriller License Number: WD-1188		
B. ADDITIONAL STATEMENTS	OR EXPLANATION	S			×
Wells will be used to delinear	te and monitor grou	ndwater contamin	ation for up to 2 years.		35
				- 4 - 5	
				9	
				ū	30F
		OR OSE INTERNAL	LISE Application for	Permit For	m wr-07

File Number:

Trn Number:

	Pollution Control and/or Recovery:	Construction	Mine De-Watering:
☐ Include a	Include a plan for pollution	De-Watering:	☐ Include a plan for pollution control/recovery, that includes the following:
description of any proposed	control/recovery, that includes the following:	Include a description of the proposed dewatering	A description of the need for mine
pump test, if	☐ A description of the need for the	operation,	dewatering.
applicable.	pollution control or recovery operation.	☐ The estimated duration of	☐ The estimated maximum period of time
	☐ The estimated maximum period of	the operation,	for completion of the operation.
<i>a</i>	time for completion of the operation. The annual diversion amount.	☐ The maximum amount of water to be diverted.	☐ The source(s) of the water to be diverted ☐The geohydrologic characteristics of the
	The annual diversion amount. The annual consumptive use	A description of the need	aquifer(s).
	amount	for the dewatering operation,	☐The maximum amount of water to be
	☐ The maximum amount of water to be	and,	diverted per annum.
	diverted and injected for the duration of	☐ A description of how the diverted water will be disposed	☐The maximum amount of water to be diverted for the duration of the operation.
	the operation. The method and place of discharge.	of.	The quality of the water.
Monitoring:	☐ The method of measurement of	Geo-Thermal:	☐The method of measurement of water
Include the	water produced and discharged.	☐ Include a description of the	diverted.
reason for the	The source of water to be injected.	geothermal heat exchange	☐ The recharge of water to the aquifer. ☐ Description of the estimated area of
monitoring well, and,	The method of measurement of water injected.	project, The amount of water to be	hydrologic effect of the project.
Well, and, ☑ The	☐ The characteristics of the aquifer.	diverted and re-injected for the	The method and place of discharge.
duration	The method of determining the	project,	☐An estimation of the effects on surface
of the planned	resulting annual consumptive use of water and depletion from any related	☐ The time frame for	water rights and underground water rights from the mine dewatering project.
monitoring.	stream system.	constructing the geothermal heat exchange project, and,	A description of the methods employed to
	Proof of any permit required from the	The duration of the project.	estimate effects on surface water rights and
	New Mexico Environment Department.	☐ Preliminary surveys, design	underground water rights.
	An access agreement if the	data, and additional information shall be included to	☐Information on existing wells, rivers, springs, and wetlands within the area of
	applicant is not the owner of the land on which the pollution plume control or	provide all essential facts	hydrologic effect.
	recovery well is to be located.	relating to the request.	
	A	CKNOWLEDGEMENT	
I, We (name of	applicant(s)), She	lby Pennington	
	Р	rint Name(s)	
affirm that the fo	pregoing statements are true to the best of	(my, our) knowledge and belief.	
Shell	ry & Pennington		
Applicant Signa		Applicant Signature	Э
			~ ~
	ACTION	OF THE STATE ENGINEER	
	ACTION	OF THE STATE ENGINEER This application is:	NOS TO
	ACTION : ⊠approved	This application is:	☐ denied
provided it is r Mexico nor de	approved to the detriment of any others	This application is: partially approved having existing rights, and is not of	contrary to the conservation of water in New
Mexico nor de	approved not exercised to the detriment of any others trimental to the public welfare and further s	This application is: partially approved having existing rights, and is not oubject to the attached conditions of	contrary to the conservation of water in New f approval
Mexico nor de Witness my har	approved not exercised to the detriment of any others trimental to the public welfare and further so and and seal this	This application is: partially approved having existing rights, and is not oubject to the attached conditions of the cember 20 18 18	contrary to the conservation of water in New
Mexico nor de Witness my har	approved not exercised to the detriment of any others trimental to the public welfare and further s	This application is: partially approved having existing rights, and is not oubject to the attached conditions of the cember 20 18 18	contrary to the conservation of water in New f approval
Mexico nor de	approved not exercised to the detriment of any others trimental to the public welfare and further so and and seal this	This application is: partially approved having existing rights, and is not oubject to the attached conditions of the cember 20 18 18	contrary to the conservation of water in New f approval
Mexico nor de Witness my har	approved not exercised to the detriment of any others trimental to the public welfare and further so and and seal this	This application is: partially approved having existing rights, and is not oubject to the attached conditions of the cember 20 18 18	contrary to the conservation of water in New f approval
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Mexico nor de Witness my har To By: Signature	approved not exercised to the detriment of any others trimental to the public welfare and further so and and seal this	This application is: partially approved having existing rights, and is not of ubject to the attached conditions of ecember 20 18 eeer State Engineer Print	contrary to the conservation of water in New f approval
Mexico nor de Witness my har To By: Signature	approved not exercised to the detriment of any others trimental to the public welfare and further so and and seal this	This application is: partially approved having existing rights, and is not of ubject to the attached conditions of ecember 20 18 eeer State Engineer Print	contrary to the conservation of water in New f approval
Mexico nor de Witness my har To By: Signature Title: Juan	approved not exercised to the detriment of any others trimental to the public welfare and further so and and seal this	This application is: partially approved having existing rights, and is not oubject to the attached conditions of ecember 20 18 teer	contrary to the conservation of water in New f approval
Mexico nor de Witness my har To By: Signature Title: Juan	approved not exercised to the detriment of any others trimental to the public welfare and further so and and seal this	This application is: partially approved having existing rights, and is not of ubject to the attached conditions of ecember 20 18 teer	for the engineer Application for Permit, Form wr-07
Mexico nor de Witness my har To By: Signature Title: Juan	approved not exercised to the detriment of any others trimental to the public welfare and further so and and seal this	This application is: partially approved having existing rights, and is not of ubject to the attached conditions of ecember 20 18 teer	contrary to the conservation of water in New f approval. for the engineer

NEW MEXICO STATE ENGINEER OFFICE PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

- The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.
- The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.

 The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.
- 17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.
- 17-Q The State Engineer retains jurisdiction over this permit.
- 17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.
- LOG The Point of Diversion L 14590 POD1 must be completed and the Well Log filed on or before 12/12/2019.
- LOG The Point of Diversion L 14590 POD2 must be completed and the Well Log filed on or before 12/12/2019.

Trn Desc: <u>L 14590 POD1-2</u> File Number: <u>L 14590</u> Trn Number: 635652

NEW MEXICO STATE ENGINEER OFFICE PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

IT IS THE PERMITTEES RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

ACTION OF STATE ENGINEER

Notice of Intention Rcvd: Date Rcvd. Corrected: Formal Application Rcvd: 11/05/2018 Pub. of Notice Ordered: Date Returned - Correction: Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 12 day of Dec A.D., 2018

Tom Blaine, P.E.

Engineer

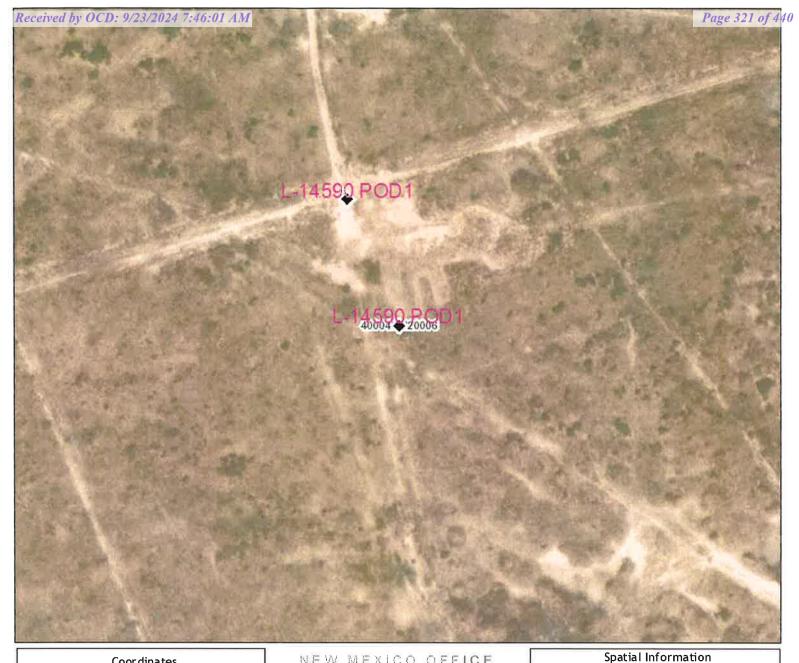
JUAN HERNANDEZ

7912 00

 Trn Desc:
 L 14590 POD1-2
 File Number:
 L 14590

 Trn Number:
 635652

page: 3



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 657523.637

Northing 3605422.777

State Plane - NAD 83 (f) - Zone E

Easting 852923.187

Northing 574421.249

Degrees Minutes Seconds

Latitude 32:34:30.263500 Longitude -103:19:18.647900

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER 1:2,257

Image Info

Source: DigitalGlobe Date: 10/27/2016

Resolution (m):0.5 Accuracy (m): 10.16

Coord Search Location

> WRAB Abstract Project Areas

Lea County Parcels 2018

Sections Released to Imaging: 10/1/2024 2:21:44 PM

POD Information Owner: XTO Energy, Inc.

File Number: L-14590 POD1&2

OSE Administrative Area: Lea

Groundwater Basin: Lea County

Abstract Area: Lea County
Sub-Basin: Landreth-Monumnet Draws
Land Grant: Not in Land Grant

Lea County Critical Management Area

SENESWNE Qtr of Sec 14 of 020S 036E

calculated and are only approximations

Derived from CADNSDI- Qtr Sec. locations are

County: Lea

Restrictions:

PLSS Description

POD Status: NoData Permit Status: NoData Permit Use: NoData Purpose: MON

A. Dennis

12/12/2018



October 19, 2018

Office of the State Engineer, District II
Water Resources Manager I
1900 West Second Street; Roswell, NM 88201-1712

ATT: Bill Duemling

Re: RP-4721

EMSU Satellite 13 Trunk Line Release – Landowner Approval to Install Monitoring Wells Unit K (SE/4, NE/4), Section 14, Township 20 South, Range 36 East, Lea County, New Mexico

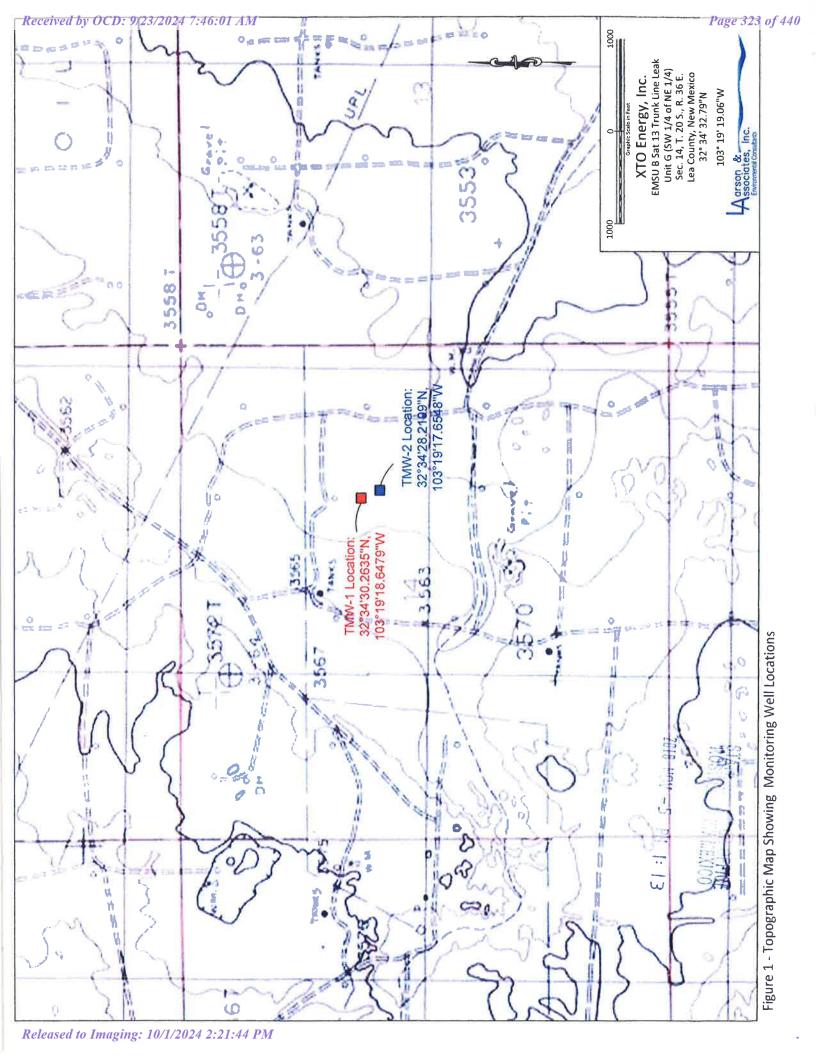
Dear Mr. Duemling:

As required by the State of New Mexico Oil Conservation Division (NMOCD), I (Jimmie Cooper) grant approval to XTO Energy, Inc., to install monitoring wells as required by the New Mexico Oil Conservation Division (OCD) on the above captioned property located in Lea County, New Mexico.

Sincerely,

Jimmie Cooper

Jimmie Cooper Family Trust



October 19, 2018

Office of the State Engineer, District II
Water Resources Manager I
1900 West Second Street; Roswell, NM 88201-1712

ATT: Bill Duemling

Re: RP-4721 EMSU Satellite 13 Trunk Line Release – Landowner Approval to Install Monitoring Wells

Unit K (SE/4, NE/4), Section 14, Township 20 South, Range 36 East, Lea County, New

Mexico

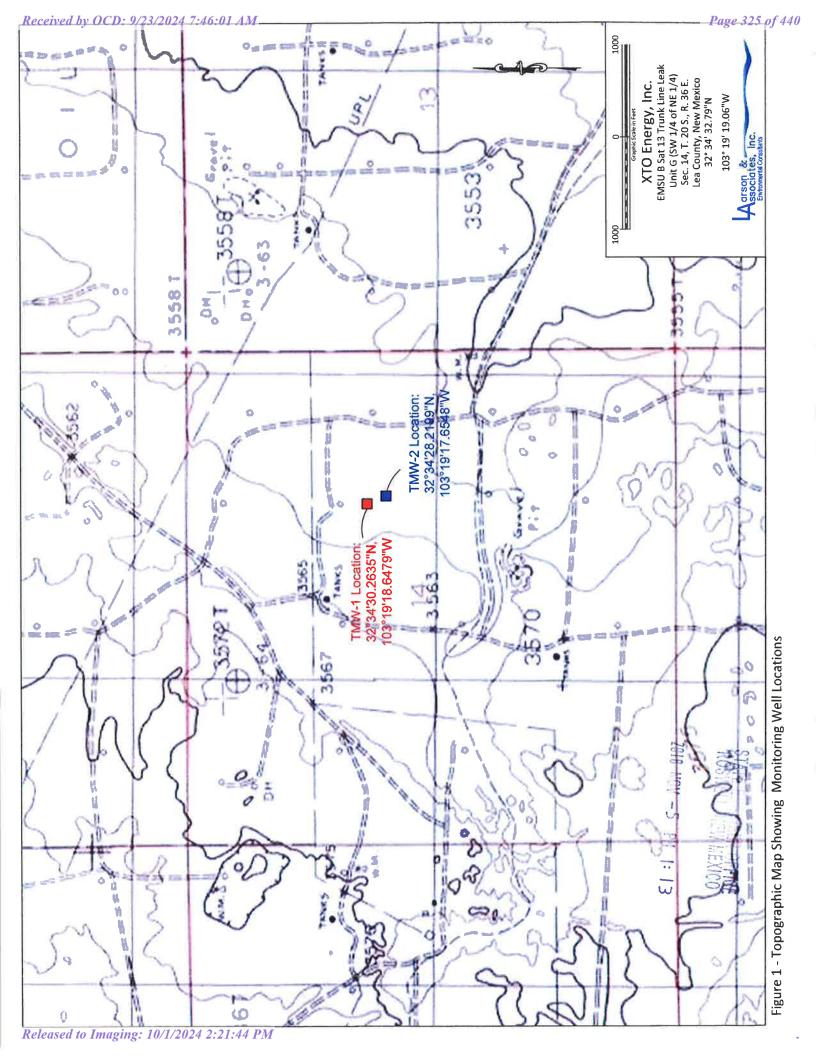
Dear Mr. Duemling:

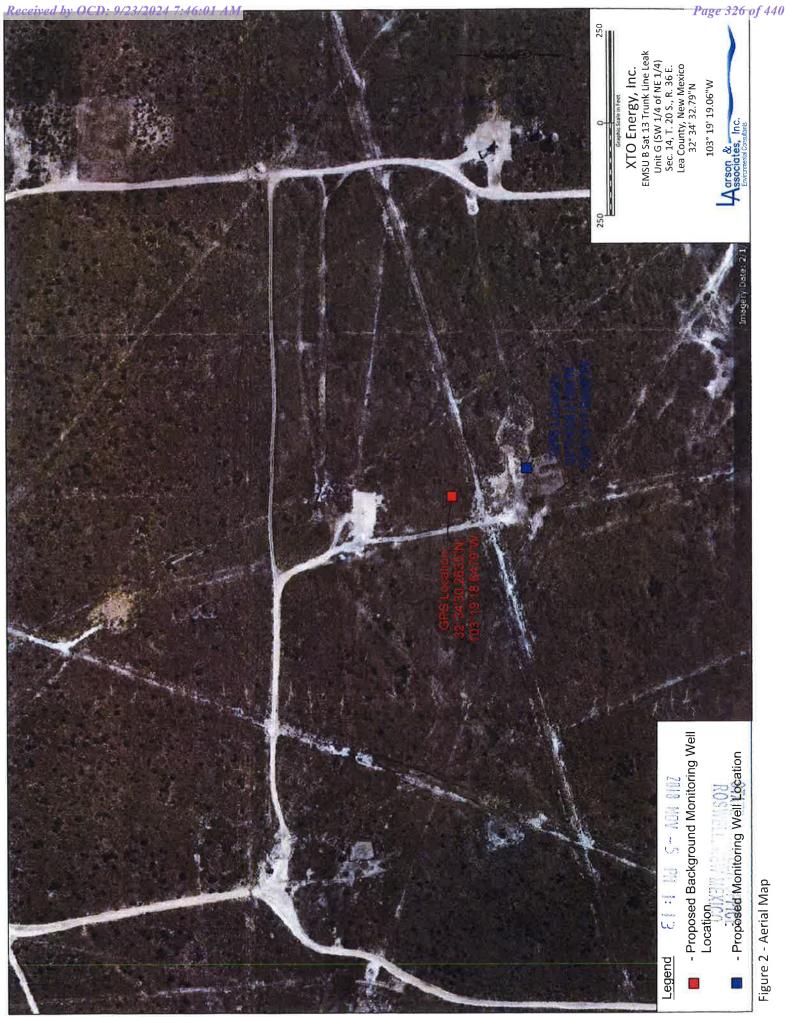
As required by the State of New Mexico Oil Conservation Division (NMOCD), I (Jimmie Cooper) grant approval to XTO Energy, Inc., to install monitoring wells as required by the New Mexico Oil Conservation Division (OCD) on the above captioned property located in Lea County, New Mexico.

Sincerely,

Jimmie Cooper

Jimmie Cooper Family Trust





Released to Imaging: 10/1/2024 2:21:44 PM



October 31, 2018

New Mexico Office of the State Engineer 1900 W 2nd Street Roswell, NM 88201

ATT: Bill Duemling

Re: Temporary Monitoring Well Permit Application

Larson & Associates, Inc. (LIA), on behalf of XTO Energy, Inc. (XTO), submits the enclosed application and fee (\$10.00) for completing two (2) temporary monitoring wells in Unit G (SW/4, NE/E), Section 14, Township 20 South and Range 36 East in Lea County, New Mexico. Please see attached drawing for the proposed well locations. The wells will be installed on land owned by Jimmy Cooper (Jimmy Cooper Family Trust). Please see attached letter granting permission from the landowner to install the wells. Please contact Shelby Pennington with XTO at (432) 682-8873 or Shelby Pennington@xtoenergy.com or me, if you have questions.

Sincerely,

Larson & Associates, Inc.

Mark J. Larson, P.G. President/Sr. Hydrogeologist

Encl.

cc: Shelby Pennington

ROSTELL

507 North Marienfeld, Suite 205 ♦ Midland, Texas 79701 ♦ Ph. (432) 687-0901 ♦ Fax (432) 687-0456

Appendix G

Waste Manifests

The state of the s	
SUNDANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231 (575) 394-2511	TICKET No. 490455
LEASE OPERATOR/SHIPPER/COMPANY: X+O	GENERATOR COMPANY MAN'S NAME: RIG NAME AND NUMBER RIG NAME AND NUMBER
TYPE OF MATERIA [] Production Water	Soil] Jet Out
Description:	C-133# (DC

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB GEOTHERMAL ENERGY. TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the FACILITY FOR DISPOSAL. above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

/ Ille	1008	
DRIVER: (SIGNATURE)	Har	
CENTATIVE:	-4110	

FACILITY REPRESENTATIVE: Pink - Transporter (SIGNATURE)

Canary - Sundance Acct #1

and the state of t
SUNDANCE SERVICES, Inc. TICKET No. 490433 P.O. Box 1737 Eunice, New Mexico 88231 (575) 394-2511
P.O. Box 1737 Edition (575) 394-2511
TIME 9:50 AM/PM
LEASE OPERATION
CENERATOR COMPANY CONTRACTOR COMPANY
TO COMPANY: STORE TO THE STORE THE S
TRANSPORTER COMPANY VEHICLE NO: 30 RIG NAME AND NUMBER TRANSPORTER COMPANY RIG NAME AND NUMBER
DATE: 12-6-18 AND NUMBER
CHARGETO: X+O
TYPEOI WILL
r 1 Drilling Fluids
[] Production Water [] Contaminated Soil [] Call Out
[] Tank Bottoms [] BS&W Content:
[] Solids C-133# LPG.
Description: []
RRC or API # : Y/J YARD
[] BBLS. SUIPPED WITH THIS JOB
VOLUME OF MATERIAL [] BBLS. VOLUME OF THE MATERIALS SHIPPED WITH THIS JOB OF THE MATERIAL SHIPPED HEREWITH IS
VOLUME OF MATERIAL [] BBLS. : VOLUME OF MATERIAL [] BBLS. : VOLUME OF MATERIAL SHIPPED WITH THIS JOB AND MATERIAL SHIPPED HEREWITH IS SHIPPED HEREWITH IS AND MATERIAL SHIPPED HEREWITH IS SHIPPED HEREWITH IS AND MATERIAL SHIPPED H
AC A CONDITION TO SUNDANCE SERVICES, INC. 3 THAT THE WASTE TO 1976, AS AMENDED THOMAS RELATED AND REGULATIONS RELATED

MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL TOTIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY GEOTHERMAL ENERGY. OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional FACILITY FOR DISPOSAL. materials were added to this load, and that the material was delivered without incident.

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DRIVER: (SIGNATURE)		1	1 60	
15.5		Sapt -	711/	

FACILITY REPRESENTATIVE:

(SIGNATURE) Canary - Sundance Acct #1 Pink - Transporter

White - Sundance

	Edition to the contract of the
SUNDANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231 (575) 394-2511	TICKET No. 490418
LEASE OPERATOR/SHIPPER/COMPANY: LEASE NAME: 13 TRANSPORTER COMPANY: VEHICLE NO: VEHICLE	GENERATOR COMPANY MAN'S NAME: RIG NAME AND NUMBER RIG NAME
[] Tank Bottoms [] Solids	Fluids [] Kinsate minated Soil [] Jet Out Content: [] Call Out
Description: RRC or API # VOLUME OF MATERIAL [] BBLS:	C-133# () YARD: [] FEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB SHIPPED HEREWITH IS

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB GEOTHERMAL ENERGY. TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the FACILITY FOR DISPOSAL. above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

Canary - Sundance Acct #1

Pink - Transporter

The last of the last of the second se
SUNDANCE SERVICES, Inc. TICKET No. 490419
LEASE OPERATOR/SHIPPER/COMPANY: LEASE NAME: TIME 8 9 AM/PM LEASE NAME: GENERATOR COMPANY TRANSPORTER COMPANY: VEHICLE NO: 9 IRIG NAME VEHICLE NO: 9 IRIG NAME
CHARGE TO:
[] Production Water [] Contaminated Soil [] Tank Bottoms [] BS&W Content:
Description: C-133# (PC).
VOLUME OF MATERIAL [] BBLS. : [] YARD :: []

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional FACILITY FOR DISPOSAL. materials were added to this load, and that the material was delivered without incident.

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DRIVER: (SIGNATURE)	DA.
FACILITY REPRESENTATIVE: (SIGNATURE)	Pink - Transporter

Canary - Sundance Acct #1

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I have seen to the control of the
SUNDANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231 (575) 394-2511 TICKET No. 490434
LEASE OPERATOR/SHIPPER/COMPANY: X+O LEASE NAME: 6M5U 59+ #13 TIME 9.50 AM/PM TRANSPORTER COMPANY: 5D12 TRANSPORTER COMPANY: 5D12 DATE: 7-6-18 VEHICLE NO: 39 RIG NAME AND NUMBER 575-394-3362 AND NUMBER 575-394-3362
TYPE OF MATERIAL [] Production Water
PRIC or API # VOLUME OF MATERIAL [] BBLS. : [] YARD : [] VOLUME OF MATERIAL SHIPPED WITH THIS JOB ANTERIAL SHIPPED HEREWITH IS

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

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DRIVER:	Chuco.
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TA CILITY PEPRESENTATIVE:	114

FACILITY REPRESENTATIV (SIGNATURE)

Canary - Sundance Acct #1

Pink - Transporter

Released to Imaging: 10/1/2024 Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004 White - Sundance

P.O. Box 1737 Eunice, New Mexic (575) 394-2511		TICKET No.	490457
LEASE OPERATOR/SHIPPER/COMPANY:			
LEASE NAME: EMSU Sat #	13		
TRANSPORTER COMPANY: SOR		TIME	11:50 AM/PM
DATE: 12 - 6-18 VEHICLE NO: 29	GE	NERATOR COMPANY MAN'S NAME: 50	+ Colfman
CHARGE TO: X 10		RIG NAME AND NUMBER 575 -	394-3362
TYPE OF MATERIAL			
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	I / Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	90		
RRC or API #		C-133#	ea.
VOLUME OF MATERIAL [] BBLS	_: [YARD_	20:	[]

GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER:	and	Laureo	•
(SIGNATURE)		110	
EACH ITY DEDDESENTATI	VE.	that	

(SIGNATURE)

FACILITY FOR DISPOSAL.

White - Sundance Canary - Sundance Acct #1

Pink - Transporter

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A STATE OF THE PARTY OF THE PAR	Service of the servic
SUNDANCE SERVIC P.O. Box 1737 Eunice, New Mexico (575) 394-2511	ES, Inc. TICKET No. 490142
LEASE OPERATOR/SHIPPER/COMPANY: LEASE NAME: A SOLUTION S	GENERATOR COMPANY MAN'S NAME: RIG NAME AND NUMBER TIME 3 5 1 AM/PM TIME 3 5 1 AM/PM FINANCE STS - 2514 - 3362
CHARGETO: X+O	AND NUMBER
[] Production Water [] Tank Bottoms [] Solids	[] Drilling Fluids [] Rinsate [] Contaminated Soil [] Jet Out [] BS&W Content: [] Call Out
Description:	C-133# (ll.
RRC or API # VOLUME OF MATERIAL [] BBLS.	
GEDWICE	ES INC'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:	X	an	U
DINIVER	(SIGNATURE)	1	

FACILITY REPRESENTATIVE: (SIGNATURE)

Canary - Sundance Acct #1

Pink - Transporter

White - Sundance Canary - Sundance reserve.com • Form#SDI-004

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SUNDANCE SERVI P.O. Box 1737 Eunice, New Mex (575) 394-2511		TICKET No. 490276
LEASE OPERATOR/SHIPPER/COMPANY:)	
LEASE NAME: EMSU # SCH	#13	
TRANSPORTER COMPANY:		TIME AM/PM
DATE: 12-5-18 VEHICLE NO: 29	GEI	NERATOR COMPANY SOFT KOLD WA
CHARGETO: V+O		RIG NAME AND NUMBER 575-394)-3362
T)	YPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	α	
RRC or API #		C-133# (PO).
VOLUME OF MATERIAL [] BBLS	_: [] YARD_	<i>20</i> : [1

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:	(Give
(SIGNATURE)	
	1/2
FACILITY REPRESENTATIVE:	16
(SIGNATURE)	9/10

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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SUNDANCE SERV P.O. Box 1737 Eunice, New M (575) 394-2511	TICES, Inc.	TICKET No. 490254
	N	
LEASE OPERATOR/SHIPPER/COMPANY:	0	
LEASE NAME: EMSU Sut	#13	
TRANSPORTER COMPANY: 1		TIME // OC AM/PM
DATE: 12-5-18 VEHICLE NO: 20	GENE	RATOR COMPANY SOUTH Keulmay
CHARGE TO:		GNAME 575-394-3362
	TYPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	11 Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	(h)	
RRC or API #		C-133# (PC).
VOLUME OF MATERIAL [] BBLS	: [] YARD	20_: []

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:	wa Chino:	
(SIGNATURE)		
FACILITY REPRESENTATIVE:	· Kani	
	(SIGNATURE)	

White - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Mexi (575) 394-2511	CES, Inc.	TICKET No. 490223		
LEASE OPERATOR/SHIPPER/COMPANY:	0			
LEASE NAME: EMSU SCIT	#13	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		
TRANSPORTER COMPANY:		TIME 8 3 (AM/PM		
DATE: / 9 - 5 - 18 VEHICLE NO: 30	GE	ENERATOR COMPANY SUTT LAUTINAL MAN'S NAME:		
CHARGETO: X+O		RIG NAME AND NUMBER 575 - 394-336.2		
TYPE OF MATERIAL				
[] Production Water	[] Drilling Fluids	[] Rinsate		
[] Tank Bottoms	[] Contaminated Soi	[] Jet Out		
[] Solids	[] BS&W Content:	[] Call Out		
Description:	00			
RRC or API #		C-133# (A.C.		
VOLUME OF MATERIAL [] BBLS	_: []YARD_	20_: [1		
	S INCIS ACCEPTANCE OF	THE MATERIALS SHIPPED WITH THIS JOB		

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER: Vary	10/28e2
(SIGNATURE)	
FACILITY REPRESENTATIVE:	KAR
ISIGNA	TURE

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Mex (575) 394-2511		TICKET No. 490243		
LEASE OPERATOR/SHIPPER/COMPANY:	10			
LEASE NAME: FMSU SOIT	#13	(1116)		
TRANSPORTER COMPANY: SDP		TIME /0:4/ AM/PM		
DATE: 12-5-18 VEHICLE NO: 36) GENEF	MAN'S NAME:		
CHARGETO: X 7-0		GNAME 575-394,3362		
TYPE OF MATERIAL				
[] Production Water	[] Drilling Fluids	[] Rinsate		
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out		
[] Solids	[] BS&W Content:	[] Call Out		
Description:	00			
RRC or API #		C-133# Lea-		
VOLUME OF MATERIAL [] BBLS	: [X] YARD	20 : []		
AS A CONDITION TO SUNDANCE SERVICE	ES, INC:S ACCEPTANCE OF TH	IE MATERIALS SHIPPED WITH THIS JOB		

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DF	RIV	ER	:	

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Mes (575) 394-2511	ICES, Inc.	TICKET No. 490081
LEASE OPERATOR/SHIPPER/COMPANY:	6	
LEASE NAME: EMSU SOIT #	+13	
TRANSPORTER COMPANY: SDD		TIME / AM/PM
DATE: /2-4-18 VEHICLE NO: 3	GE	ENERATOR COMPANY MAN'S NAME: COLT COCTOMAN
CHARGE TO: X+O		RIG NAME AND NUMBER 575 - 3914 - 3862
Т	YPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	an an	
RRC or API #		C-133# (Pa.
VOLUME OF MATERIAL [] BBLS	_: I_/ YARD_	20_: []

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:	mile Carell
(SIGNATURE)	
FACILITY REPRESENTATIVE:	DOG.
(SIGNATI	URE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Mes (575) 394-2511	ICES, Inc.	TICKET No.	490112
LEASE OPERATOR/SHIPPER/COMPANY:	Xto		
LEASE NAME: ENISU SOIT #	-13		
TRANSPORTER COMPANY: SDI2		TIM	E / / AM/PM
DATE: 12-4-18 VEHICLE NO: 3/	GENER	RATOR COMPANY MAN'S NAME:	H Coleman
CHARGE TO:		S NAME ND NUMBER 375 -	394-3362
T	YPE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	<i>a</i>		
RRC or API #		C-133#	Pa.
VOLUME OF MATERIAL [] BBLS	_: [YARD	70:	[]

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:	10mily	(Will)	
FACILITY REPRESENTATION	/E:	ASO.	
	(SIGNATURE)	7 10,	

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Mex (575) 394-2511		TICKET No. 490050	
LEASE OPERATOR/SHIPPER/COMPANY:)		200
LEASE NAME: 91 EMSU SCIT	4 # 13		
TRANSPORTER COMPANY: SD/2		TIME 8 13 AM/PM	1
DATE: 12-4-18 VEHICLE NO: 3/	GE	ENERATOR COMPANY SOH COLEMAN'S NAME:)
CHARGE TO:		RIG NAME AND NUMBER 575 - 3914-336	2
The second secon	YPE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	<u>op</u>		
RRC or API #		C-133# (PC).	
VOLUME OF MATERIAL [] BBLS	_: I YARD_	20_: []	

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:	ando.
(SIGNATURE)	
FACILITY REPRESENTATIVE:	KIA.
(SIGNATURE)	, 00

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

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P.O. Box 1737 Eunice, New Mexi (575) 394-2511		TICKET No. 490113
LEASE OPERATOR/SHIPPER/COMPANY: X		
LEASE NAME: EMSU SOIL #	13	
TRANSPORTER COMPANY:		TIME / 49 AM/PM
DATE: 12-4-18 VEHICLE NO: 30	GEI	NERATOR COMPANY SWITT OF FINGE
CHARGETO: Y+O		RIG NAME AND NUMBER 575-30143362
ТҮ	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	do	
RRC or API #		C-133# (la.
VOLUME OF MATERIAL [] BBLS	_: [] YARD	20 : [1]

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:	1011	
(SIGNATURE)	/	1/-0:
FACILITY REPRESENTATIVE:		X06
	(SIGNATURE)	, 00

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Mex (575) 394-2511	ICES, Inc.	TICKET No. 490083
LEASE OPERATOR/SHIPPER/COMPANY:	0	
LEASE NAME: EMSU Sat #	+ 13	
TRANSPORTER COMPANY:		TIME 10:09 AM/PM
DATE: 12-4-18 VEHICLE NO: 30	GEN	BERATOR COMPANY MAN'S NAME: COTT CULMAN
CHARGE TO:		RIGNAME AND NUMBER 575-3914-3362
Т	YPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	α	
RRC or API #		C-133# RG.
VOLUME OF MATERIAL [] BBLS	_: []YARD_	20: []

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

Canary - Sundance Acct #1

Pink - Transporter

White - Sundance Released to Imaging: 10/1/2024 2:21:44 PM
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P.O. Box 1737 Eunice, New Me (575) 394-2511		TICKET No. 490051
LEASE OPERATOR/SHIPPER/COMPANY:	V	
LEASE NAME: EMISU SQ1 #	+13	
TRANSPORTER COMPANY: SINE		TIME 8 14 AM/PM
DATE: 12-4-18 VEHICLE NO: 09	GENERA	TOR COMPANY SIGHT CORMAN
CHARGETO: X 70		NAME 575-394-336Z
TYPE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	<i>a</i> b	
RRC or API #		C-133# (PG.
VOLUME OF MATERIAL [] BBLS	_: V1 YARD_2	<u>): []</u>

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:	
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FACILITY REPRESENTATIVE	(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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SUNDANCE SERV P.O. Box 1737 Eunice, New M (575) 394-2511	VICES, Inc. lexico 88231	TICKET No. 489	518
LEASE OPERATOR/SHIPPER/COMPANY:	()		
LEASE NAME: En 1811 Soit	13		
TRANSPORTER COMPANY:		TIME / 12	2 AM/PM
DATE: 1-30-18 VEHICLE NO: 03	GENEF	RATOR COMPANY MAN'S NAME: OUT KO	jutniai
CHARGE TO: 1+0		GNAME ND NUMBER \$75-314	-3362
	TYPE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	a		
RRC or API #		C-133# (PA	
VOLUME OF MATERIAL [] BBLS	: 1 YARD	20: []_	
AS A CONDITION TO SUNDANCE SERVIC	CES, INC.'S ACCEPTANCE OF THE	E MATERIALS SHIPPED WITH	THIS JOB

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER: Mey	Melly
(SIGNATURE)	/
FACILITY REPRESENTATIVE:	420

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Me (575) 394-2511	ICES, Inc. exico 88231 TICKET No. 489924
LEASE OPERATOR/SHIPPER/COMPANY:	0
LEASE NAME: EMSU SOIT 7	# 13
TRANSPORTER COMPANY: SOR.	TIME /2:52 AM/PM
DATE: 12-3-18 VEHICLE NO: 22	GENERATOR COMPANY MAN'S NAME:
CHARGE TO: X + C	RIG NAME AND NUMBER 575-3914-336
T	YPE OF MATERIAL
[] Production Water	[] Drilling Fluids [] Rinsate
[] Tank Bottoms	[] Contaminated Soil [] Jet Out
[] Solids	[] BS&W Content: [] Call Out
Description:	(h)
RRC or API #	C-133# (pa.
VOLUME OF MATERIAL [] BBLS	_::: []
AS A CONDITION TO SUNDANCE SERVICE	S. Wells a service

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:	
(SIGNATURE)	1-3
FACILITY REPRESENTATIVE:	KO
(SIGNATURE)	

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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SUNDANCE SERV. P.O. Box 1737 Eunice, New Me (575) 394-2511	ICES, Inc.	TICKET No. 489893
LEASE OPERATOR/SHIPPER/COMPANY: X 4)	
LEASE NAME: + mou sat #	13	
TRANSPORTER COMPANY:		TIME 10: 3 2 AM/PM
DATE:/ Z-3-18 VEHICLE NO: 22	GEN	JERATOR COMPANY MAN'S NAME: COH Kaufman
CHARGE TO: X+O		RIG NAME AND NUMBER 575 - 794-3362
Т	YPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	M Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	00	
RRC or API #		C-133# (20)
VOLUME OF MATERIAL [] BBLS	: [/ʃ YARD	/2: []
AS A CONDITION TO SUNDANCE SERVICE		

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance Canary

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Mexi (575) 394-2511	CES, Inc.	TICKET No. 489873
LEASE OPERATOR/SHIPPER/COMPANY:)	
LEASE NAME: EMSU SOH I	113	
TRANSPORTER COMPANY: SDR		TIME 8-13 AM/PM
DATE: 12-3-18 VEHICLE NO: 22		GENERATOR COMPANY ROLL & COLT Karpman
CHARGE TO:		RIG NAME AND NUMBER 575-3911-3362.
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated So	oil [] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	<u>(h</u>	
RRC or API #		C-133# (PQ).
VOLUME OF MATERIAL [] BBLS	_: [X] YARD.	12: 11
AS A CONDITION TO SUNDANCE SERVICES,	INC:'S ACCEPTANCE OF	F THE MATERIALS SHIPPED WITH THIS JOB

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER: Project for		
(SIGNATURE)	/	
FACILITY REPRESENTATIVE:	\$\langle \cdot\;	
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White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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Control of the Contro		THE RESERVE OF THE PERSON OF T
P.O. Box 1737 Eunice, New Mex (575) 394-2511	CES, Inc.	TICKET No. 489923
LEASE OPERATOR/SHIPPER/COMPANY:)	
LEASE NAME: EMSO Sat	#18	
TRANSPORTER COMPANY:		TIME (2:5) AM/PM
DATE: 12-3-18 VEHICLE NO: 31		GENERATOR COMPANY MAN'S NAME: COTT KAUT MAN'S NAME:
CHARGE TO:		RIG NAME AND NUMBER 575 - 394 - 3762
Т	YPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	Contaminated So	oil [] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	ap	
RRC or API #		C-133# (eq.
VOLUME OF MATERIAL [] BBLS	_: []YARD	20: [1

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

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FACILITY REPRESENTATIVE:

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Pink - Transporter

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P.O. Box 1737 Eunice, New Mex (575) 394-2511		TICKET No. 489896
LEASE OPERATOR/SHIPPER/COMPANY:)	
LEASE NAME: EMSU Sat 7	413	
TRANSPORTER COMPANY: 502		TIME 10:50 AM/PM
DATE: 12-2-18 VEHICLE NO: 03	1	GENERATOR COMPANY OH KAULMAN'S NAME:
CHARGE TO:		RIG NAME AND NUMBER 575-394-3362
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	Contaminated So	oil [] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	9	
RRC or API #		C-133# (PC) -
VOLUME OF MATERIAL [] BBLS	_: [/] YARD	20: []
AC A CONDITION TO CUMPANCE CONTRACT		

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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FACILITY REPRESENTATIVE:	A	

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Pink - Transporter

P.O. Box 1737 Eunice, New Mex (575) 394-2511		TICKET No. 489872
LEASE OPERATOR/SHIPPER/COMPANY:		
LEASE NAME: ENSU SOLT	#13	
TRANSPORTER COMPANY: 502		TIME 8 10 AM/PM
DATE: 12 -3 - 18 VEHICLE NO: MAN	031 GE	NERATOR COMPANY SCOTT KOUGHNOUS
CHARGE TO:		RIG NAME AND NUMBER 575 - 394 - 3362
	YPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	DI Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	cp	
RRC or API #		C-133# (PQ.
VOLUME OF MATERIAL [] BBLS	_: YARD_	20 : [1
	1	

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Me (575) 394-2511	ICES, Inc. exico 88231 TICKET No. 489897
LEASE OPERATOR/SHIPPER/COMPANY:	0
LEASE NAME: TYSU SOIT T	#13
TRANSPORTER COMPANY: SOR	TIME 10.53 (AM/PM
DATE: 12-3-18 VEHICLE NO: 29	GENERATOR COMPANY MAN'S NAME: SOLT KULTURE
CHARGE TO: Y+O	RIGNAME AND NUMBER 575-394-3362
7	TYPE OF MATERIAL
[] Production Water	[] Drilling Fluids [] Rinsate
[] Tank Bottoms	[] Contaminated Soil [] Jet Out
[] Solids	[] BS&W Content: [] Call Out
Description:	0
RRC or API #	C-133# (PC).
VOLUME OF MATERIAL [] BBLS	_: []:

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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FACILITY REPRESENTATIVE:	76
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Pink - Transporter

	The state of the s	
P.O. Box 1737 Eunice, New M (575) 394-2511	TICES, Inc.	TICKET No. 489925
LEASE OPERATOR/SHIPPER/COMPANY:	40	
LEASE NAME: Ems () Sat	# 12	
TRANSPORTER COMPANY:	H 13	TIME 2.55 AM/PM
DATE: 12-3-18 VEHICLE NO: 20] GE	TIME AM/PM ENERATOR COMPANY MAN'S NAME:
CHARGE TO: X+O		RIG NAME AND NUMBER 375-394-3367
7	YPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	90	
RRC or API #		C-133# (/ / /)
VOLUME OF MATERIAL [] BBLS	: [] YARD	20: 11

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER: (SIGNATURE)	
FACILITY REPRESENTATIVE: (SIGNATURE)	Do .

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White - Sundance Canary - Sundance Acct #1 Pi

Pink - Transporter

	497-5	A STATE OF THE STA		
P.O. Box 1737 Eunice, New N (575) 394-2511		TICKET No. 489875		
LEASE OPERATOR/SHIPPER/COMPANY:	HO			
LEASE NAME: EMSU SOF	413			
TRANSPORTER COMPANY:		TIME 8: 24 AM/PM		
DATE: 2-3-18 VEHICLE NO: 2	9 GENER	ATOR COMPANY SOUTH Kautma		
CHARGE TO:		NAME D NUMBER 575 - 394 336 2		
TYPE OF MATERIAL				
[] Production Water	[] Drilling Fluids	[] Rinsate		
[] Tank Bottoms	Contaminated Soil	[] Jet Out		
[] Solids	[] BS&W Content:	[] Call Out		
Description:	an			
RRC or API #		C-133# CPA.		
VOLUME OF MATERIAL [] BBLS	: [] YARD	20 : []		
AS A CONDITION TO SUNDANCE SERVICE	CES, INC'S ACCEPTANCE OF THE	MATERIALS SHIPPED WITH THIS LOR		

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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FACILITY REPRESENTATIVE:	402
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White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New M (575) 394-2511	VICES, Inc. lexico 88231	TICKET No.	4893	58
LEASE OPERATOR/SHIPPER/COMPANY:	rO Cr			
LEASE NAME: EMSU SCITT	13			
TRANSPORTER COMPANY: SOR.		1	TIME 2:15	AM/PM
DATE: 11-29-18 VEHICLE NO: 00	GE	ENERATOR COMPANY MAN'S NAME:	oft Kan	Ama
CHARGE TO: X+O		RIG NAME AND NUMBER (575)394-3	362
	TYPE OF MATERIAL			
[] Production Water	[] Drilling Fluids	[] Rinsa	nte	
[] Tank Bottoms	[] Contaminated Soil	[] Jet O	ut	
[] Solids	[] BS&W Content:	[] Call (Out	
Description:	(h)			
RRC or API#		C-133#	(eq.	
VOLUME OF MATERIAL [] BBLS	: [X] YARD_	20 :	[]	
AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB				

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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FACILITY REPRESENTATIVE:	KD.
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White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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SUNDANCE SERV P.O. Box 1737 Eunice, New M (575) 394-2511	VICES, Inc. Mexico 88231	TICKET No. 489352
LEASE OPERATOR/SHIPPER/COMPANY:	()	
LEASE NAME: ENTSU SOIL #	13	
TRANSPORTER COMPANY: Sp. 2		TIME / C/ AM/PM
DATE://- 29- 18 VEHICLE NO: //	GEN	NERATOR COMPANY MAN'S NAME: SOFT KONTON
CHARGE TO: Y / U		RIG NAME AND NUMBER (575) 394-3767
	TYPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	1 Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	a	
RRC or API #		C-133# ClC1.
VOLUME OF MATERIAL [] BBLS	: YARD	12_: []
AS A CONDITION TO SUMPLIFICATION		

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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FACILITY REPRESENTATIVE:

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Pink - Transporter

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P.O. Box 1737 Eunice, New Mex (575) 394-2511	CES, Inc.	TICKET No. 489456
LEASE OPERATOR/SHIPPER/COMPANY:	0	
LEASE NAME: EMISU Scit 7	# 13	
TRANSPORTER COMPANY: 502		TIME 8.09 AM/PM
DATE: 11-30-18 VEHICLE NO: 011	GE	NERATOR COMPANY MAN'S NAME: SCOTH KANTMAN
CHARGETO: A X + O		RIG NAME AND NUMBER 57/5-39/4-3362
Т	YPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	a)	
RRC or API #		C-133# (PQ.
VOLUME OF MATERIAL [] BBLS	_: [\]YARD_	12_: []
AS A CONDITION TO SUNDANCE SERVICES	S. INC'S ACCEPTANCE OF T	THE MATERIALS SHIPPED WITH THIS JOB

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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FACILITY REPRESENTATIVE: (SIGNATURE)	PA-

White - Sundance

Canary - Sundance Acct #1 Pink - Transporter

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P.O. Box 1737 Eunice, New Mex (575) 394-2511		TICKET No. 489471		
LEASE OPERATOR/SHIPPER/COMPANY:	0			
LEASE NAME: EMSU Sat #	t+3			
TRANSPORTER COMPANY: 502		TIME 9.5/AM/PM		
DATE: 11-30-18 VEHICLE NO: 027	GENERA*	TOR COMPANY SCOTT KOOFMAN'S NAME: SCOTT KOOFMAN		
CHARGE TO: X + U		NAME 3-15-394-3362		
TYPE OF MATERIAL				
[] Production Water	[] Drilling Fluids	[] Rinsate		
[] Tank Bottoms	M Contaminated Soil	[] Jet Out		
[] Solids	[] BS&W Content:	[] Call Out		
Description:	00			
RRC or API #		C-133# (-eC)		
VOLUME OF MATERIAL [] BBLS	_: \[\text{YARD} \] \[\] \[\]	: [1		

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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FACILITY REPRESENTATIVE:	42
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White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Mexico (575) 394-2511	CES, Inc. TICKET No. 48945	5
LEASE OPERATOR/SHIPPER/COMPANY:		
LEASE NAME: FWSU SCH 13		
TRANSPORTER COMPANY:	TIME8:07 (AI	M/PM
DATE: /1-30-18 VEHICLE NO: 622	GENERATOR COMPANY MAN'S NAME:	mai
CHARGE TO: X+O	RIG NAME AND NUMBER S75 - 394-2	362
TYP	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids [] Rinsate	
[] Tank Bottoms	[] Contaminated Soil [] Jet Out	
[] Solids	[] BS&W Content: [] Call Out	
Description:	00	
RRC or API #	C-133# (+a.	
VOLUME OF MATERIAL [] BBLS	: [] YARD 2 : []	
AC A CONDITION TO SUMPLY OF		

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER: (SIGNATURE)

FACILITY REPRESENTATIVE: (SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Mexico (575) 394-2511	CES, Inc. 088231 TI	CKET No. 489472
LEASE OPERATOR/SHIPPER/COMPANY:)	
LEASE NAME: EMSU Sat +	± 13	
TRANSPORTER COMPANY: 502		TIME 9 - AM/PM
DATE://-30-/8 VEHICLE NO: 0//	GENERATOR CO MAN'	OMPANY SOUTH Kausman
CHARGE TO: X / ()	RIG NAME AND NUMB	BER 575-394-3362
TYF	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	a	
RRC or API #		C-133# (car.
VOLUME OF MATERIAL [] BBLS	: X YARD 12	: []

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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FACILITY REPRESENTATIVE:	to the same of the

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Mex (575) 394-2511		TICKET No. 489494
LEASE OPERATOR/SHIPPER/COMPANY: X	O	
LEASE NAME: Emsu sat 13		
TRANSPORTER COMPANY: 002		TIME / 1:36 AM/PM
DATE: 11-30-18 VEHICLE NO: 011	GE	NERATOR COMPANY SCOTT KANTON
CHARGE TO: X+O		RIG NAME AND NUMBER (375) 394-3362
Т	YPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[4] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:		
RRC or API #		C-133# Lea.
VOLUME OF MATERIAL [] BBLS	_: 1 YARD_	12_: [1]

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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FACILITY REPRESENTATIVE:	A.
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White - Sundance

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L L		
P.O. Box 1737 Eunice, New Mexic (575) 394-2511	CES, Inc.	ICKET No. 489454
LEASE OPERATOR/SHIPPER/COMPANY:		
LEASE NAME: EMSU SOIT 13		
TRANSPORTER COMPANY: SDR		TIME 8:02 AM/PM
DATE: 11-30-18 VEHICLE NO: 030	GENERATOR CO MAN	0
CHARGE TO: X+O	RIG NAME AND NUMI	BER
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	DI Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	on	
RRC or API #		C-133# (PQ.
VOLUME OF MATERIAL [] BBLS	: 0 YARD 20	: []
AS A CONDITION TO SUNDANCE SERVICES.	INC'S ACCEPTANCE OF THE MAT	EDIALS SHIPPED WITH THIS LOP

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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FACILITY REPRESENTATIVE	da.
	(SIGNATURE)

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

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P.O. Box 1737 Eunice, New M (575) 394-2511	VICES, Inc. Mexico 88231	TICKET No. 489496
LEASE OPERATOR/SHIPPER/COMPANY: X	0	
LEASE NAME: EMSU Sat	+ #13	
TRANSPORTER COMPANY: OPE		TIME //: 40 AM/PM
DATE: /1_ 30-/8 VEHICLE NO: 3) 6	GENERATOR COMPANY SEATH KAOFMAI
CHARGETO: X+O		RIG NAME AND NUMBER (575) 394 3367
	TYPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soi	il [] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	00	
RRC or API #		C-133# (la·
VOLUME OF MATERIAL [] BBLS	: [] YARD_	20_: [1
AS A CONDITION TO SUNDANCE SERVICE	CES, INC.'S ACCEPTANCE OF	THE MATERIALS SHIPPED WITH THIS JOB

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New (575) 394-251	Mexico 88231	TICKET No. 489474		
LEASE OPERATOR/SHIPPER/COMPANY:	10			
LEASE NAME: EMSU SOIT	13			
TRANSPORTER COMPANY: 502		TIME O AM/PM		
DATE: 11-20-18 VEHICLE NO: 30	() GE	ENERATOR COMPANY SCOTT Kartina		
CHARGE TO: X+O		RIG NAME AND NUMBER 375 - 394-3362		
TYPE OF MATERIAL				
[] Production Water	[] Drilling Fluids	[] Rinsate		
[] Tank Bottoms	Contaminated Soil	[] Jet Out		
[] Solids	[] BS&W Content:	[] Call Out		
Description:	do			
RRC or API #		C-133# (PC).		
VOLUME OF MATERIAL [] BBLS	: [] YARD_	20 : []		

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance Canary - Sundance Acct #1

Pink - Transporter

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	The second secon	
P.O. Box 1737 Eunice, New Mi (575) 394-2511	ICES, Inc.	TICKET No. 489340
LEASE OPERATOR/SHIPPER/COMPANY:)	
LEASE NAME: EMSO Satt 1	3	
TRANSPORTER COMPANY: SDD		TIME (2:14 AM/PM)
DATE: 11-29-18 VEHICLE NO: 00(9	SENERATOR COMPANY MAN'S NAME: 1244 Karofynany
CHARGE TO: (1)		RIG NAME AND NUMBER (575) 2941-3362
7	TYPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated So	l [] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	ch	
RRC or API #		C-133# (PG).
VOLUME OF MATERIAL [] BBLS	: [] YARD_	20: []

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:_

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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SUNDANCE SERV	ICES, Inc.	TICKET No. 489319	
(575) 394-2511		116111101 403013	
LEASE OPERATOR/SHIPPER/COMPANY:	O		
LEASE NAME: EMSU Satt #	(3		
TRANSPORTER COMPANY: D		TIME /O. 30 AM/PM	
DATE: 1.2918 VEHICLE NO: OO(GENER	RATOR COMPANY MAN'S NAME: 2'0++ Kautman	
CHARGE TO: Y/W		SNAME 575-394-336Z	
TYPE OF MATERIAL			
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	00		
RRC or API #		C-133# (eG.	
VOLUME OF MATERIAL [] BBLS	_: YARD_7	'U: []	

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance Canary - Su

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Me (575) 394-2511	ICES, Inc.	TICKET No. 489301		
LEASE OPERATOR/SHIPPER/COMPANY:	10			
LEASE NAME: EMSU SO	ttelite #3			
TRANSPORTER COMPANY: 500		TIME AM/PM		
DATE: 1-29-18 VEHICLE NO:	GENERA	ATOR COMPANY SOLL COMPANY MAN'S NAME:		
CHARGE TO: X+O		NAME D NUMBER		
TYPE OF MATERIAL				
[] Production Water	[] Drilling Fluids	[] Rinsate		
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out		
[] Solids	[] BS&W Content:	[] Call Out		
Description:	00			
RRC or API #		C-133#		
VOLUME OF MATERIAL [] BBLS	_: [1 YARD_2]	: []		

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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FACILITY REPRESENTATIVE:	1	X h	4		

TACILITY REPRESENTATIVE:

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White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Mexi (575) 394-2511	CES, Inc. ico 88231 TICKET No. 489298
LEASE OPERATOR/SHIPPER/COMPANY:	
LEASE NAME: 9 (VS() STATE	10 #13
TRANSPORTER COMPANY: 300	TIME 8 W AM/PM
DATE: 1-29-3 VEHICLE NO:	GENERATOR COMPANY MAN'S NAME:
CHARGE TO:	RIG NAME AND NUMBER 5 75 394-
TY	PE OF MATERIAL
[] Production Water	[] Drilling Fluids [] Rinsate
[] Tank Bottoms	[] Contaminated Soil [] Jet Out
[] Solids	[] BS&W Content: [] Call Out
Description:	00
RRC or API #	C-133#
VOLUME OF MATERIAL [] BBLS	_: []: []
AS A CONDITION TO SUNDANICE SERVICES	

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:_

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

Canary - Sundance Acct #1

Pink - Transporter

White - Sundance Cana Released to Imaging: 10/1/2024 2:21:44 PM

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SUNDANCE SERVIC P.O. Box 1737 Eunice, New Mexic (575) 394-2511		TICKET No. 489311
LEASE OPERATOR/SHIPPER/COMPANY:)	
LEASE NAME: EMSU SOH #	13	
TRANSPORTER COMPANY: SDR		TIME 9.50 AM/PM
DATE: //- 29-18 VEHICLE NO: 0//	Gl	ENERATOR COMPANY MAN'S NAME: COTT Kaufman
CHARGE TO: X +O		RIG NAME AND NUMBER 575-394-3362
TYI	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	Contaminated Soil	l [] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	db	
RRC or API #		C-133# (-PQ.
VOLUME OF MATERIAL [] BBLS	_: [/] YARD_	12: [1

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER: feonals freuin	
(SIGNATURE)	1/1
FACILITY REPRESENTATIVE:	KAO
(SIGNATURE)	7/10

White - Sundance Canary - Sundance Acct #1

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Pink - Transporter

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SUNDANCE SER P.O. Box 1737 Eunice, Nev (575) 394-25	v Mexico 88231	TICKET No. 489331
LEASE OPERATOR/SHIPPER/COMPANY:	(41)	
LEASE NAME: EMSU Satt 7	713	
TRANSPORTER COMPANY:		TIME / 1: 25 AM/PM
DATE: 11- 39-18 VEHICLE NO: 0	GEN	ERATOR COMPANY STOTE KAUFMAN
CHARGETO: X+O		RIGNAME S75-394 -3362.
	TYPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	ch	
RRC or API #		C-133# (PQ.
VOLUME OF MATERIAL [] BBLS	: YARD	12_: []

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DRIVER: 1 e 6 no	es trading	
(SIGNATURE)	116	
FACILITY REPRESENTATIVE	f-Co	

Released to Imaging: 10/1/2024 2:21:44 Panary - Sundance Acct #1

SUNDANCE SERV P.O. Box 1737 Eunice, New Me (575) 394-2511	ICES, Inc. TICKET No. 489216
LEASE OPERATOR/SHIPPER/COMPANY:	0
LEASE NAME: 9 M S	atteliket B
TRANSPORTER COMPANY:	TIME AM/PM
DATE: 6 SVEHICLE NO:	GENERATOR COMPANY MAN'S NAME:
CHARGE TO:	RIG NAME AND NUMBER S 3 1 3 3 5
T	YPE OF MATERIAL
[] Production Water	[] Drilling Fluids [] Rinsate
[] Tank Bottoms	[] Contaminated Soil [] Jet Out
[] Solids	[] BS&W Content: [] Call Out
Description:	
RRC or API #	C-133#
VOLUME OF MATERIAL [] BBLS	_: []_YARD: []

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DRIVER: TEOGORG	1184. 20 K	
(SIGNATURE) FACILITY REPRESENTATIVE:	4909	

Released to Imaging: 10/1/2024 2:21:44 Farary - Sundance Acct #1

P.O. Box 1737 Eunice, New Mexi (575) 394-2511	CES, Inc.	TICKET No. 489215
LEASE OPERATOR/SHIPPER/COMPANY:	0 ~ ,	
LEASE NAME: PMSU SC	ittelle H	13
TRANSPORTER COMPANY:		TIME AM/PM
DATE: - de- EVEHICLE NO: de	GENERA	ATOR COMPANY ANY S NAME:
CHARGE TO:		NAME 5 7 7894-392
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:		
RRC or API #		C-133#
VOLUME OF MATERIAL [] BBLS	_: [] YARD	: []

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DRIVER: 4 Line 19		
(SIGNATURE)	41/2010	
FACILITY REPRESENTATIVE:	Willia	
	The state of the s	

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		The state of the s
SUNDANCE SERV P.O. Box 1737 Eunice, New (575) 394-2511	Mexico 88231	TICKET No. 489332
LEASE OPERATOR/SHIPPER/COMPANY:	110	
LEASE NAME: EMSU Satt	#13	
TRANSPORTER COMPANY: Spk.		TIME //: < AM/PM
DATE: 11-39-18 VEHICLE NO: 0	22 GENEF	ATOR COMPANY SOUTH KAUTMA
CHARGE TO: X +0		SNAME (375) 394-3362
	TYPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	1 Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	do	
RRC or API #		C-133# (PG.
VOLUME OF MATERIAL [] BBLS	: Î] YARD	2_: []

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DRIVER: (SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

Pink - Transporter

Released to Imaging: 10/1/2024 2:21:44 Papary - Sundance Acct #1

P.O. Box 1737 Eunice, New Mexi (575) 394-2511	CES, Inc.	TICKET No. 489312
LEASE OPERATOR/SHIPPER/COMPANY:)	
LEASE NAME: EMSU Satt	# 13	
TRANSPORTER COMPANY:		TIME 9:52 AM/PM
DATE: 11-29-18 VEHICLE NO: 022	GI	ENERATOR COMPANY MAN'S NAME:
CHARGE TO: Y +7)		RIG NAME AND NUMBER 575-294-2862
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	M Contaminated Soil	l [] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	(n)	
RRC or API #		C-133# (AG.
VOLUME OF MATERIAL [] BBLS	_: [\] YARD_	

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DRIVER:

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FACILITY REPRESENTATIVE:

(SIGNATURE)

Pink - Transporter

Released to Imaging: 10/1/2024 2:21:44 Papary - Sundance Acct #1

Coordor from Voyting Counting Co.

P.O. Box 1737 Eunice, New Mexi (575) 394-2511	CES, Inc.	TICKET No. 489299
LEASE OPERATOR/SHIPPER/COMPANY:		
LEASE NAME: EMSU SATTO	ile	
TRANSPORTER COMPANY: 502		TIME 8:14/AM/PM
DATE: 1-29-19 VEHICLE NO: 22	GEN	BERATOR COMPANY MAN'S NAME:
CHARGE TO:		RIG NAME AND NUMBER
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:		
RRC or API#		C-133#
VOLUME OF MATERIAL [] BBLS	_: YARD]: []

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

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SUNDANCE SERVIC P.O. Box 1737 Eunice, New Mexico (575) 394-2511			
LEASE OPERATOR/SHIPPER/COMPANY:	Energy.		
LEASE NAME: EMSU SOIT 13			
TRANSPORTER COMPANY:	TIME 12:06 AM/PM		
DATE: 11-19-18 VEHICLE NO: 11	GENERATOR COMPANY MAN'S NAME: Scott Kaufman		
CHARGETO:	RIG NAME		
TYPE OF MATERIAL			
[] Production Water	[] Drilling Fluids [] Rinsate		
[] Tank Bottoms	[] Jet Out		
cat.	[] BS&W Content: [] Call Out		
Description:			
RRC or API #	C-133# (& C.		
VOLUME OF MATERIAL [] BBLS	: []:		

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER: 1000000	Freding of
(SIGNATURE)	
FACILITY REPRESENTATIVE:	to.
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White - Sundance Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Mexico (575) 394-2511		CKET No. 488147	
LEASE OPERATOR/SHIPPER/COMPANY:			
LEASE NAME: EMSU Sat 13			
TRANSPORTER COMPANY: SDR		TIME 8:39 AM/PM	
DATE://-19-18 VEHICLE NO: 006	GENERATOR CO MAN'	OMPANY Scott Kaufman	
CHARGE TO: X+O	RIG NAME AND NUMB	BER(575)-394-3368	
TYPE OF MATERIAL			
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	1 Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	qo		
RRC or API #		C-133# Lea.	
VOLUME OF MATERIAL [] BBLS	: XYARD 20	: []	

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DRIVER: 1 1/4/1 V-1/2/4	
(SIGNATURE)	
FACILITY REPRESENTATIVE:	402
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White - Sundance Canary - Sundance Acct #1

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P.O. Box 1737 Eunice, New Mexico (575) 394-2511			
LEASE OPERATOR/SHIPPER/COMPANY:			
LEASE NAME: Emsu sat 13			
TRANSPORTER COMPANY: SDZ	TIME /0.3/AM/PM		
DATE: 11-19-18 VEHICLE NO: 006	GENERATOR COMPANY ROTH KAUFMAN		
CHARGETO: Y+O	RIG NAME S75-394-3363		
TYPE OF MATERIAL			
[] Production Water	[] Drilling Fluids [] Rinsate		
[] Tank Bottoms	Contaminated Soil [] Jet Out		
[] Solids	[] BS&W Content: [] Call Out		
Description:	ab		
RRC or API #	C-133# Pa.		
VOLUME OF MATERIAL [] BBLS.	: XYARD: []		

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DRIVER: 1 // of yesfell	
FACILITY REPRESENTATIVE:	420
(SIGNATURE)	1 ()

White - Sundance Canary - Sundance Acct #1

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SUNDANCE SERVI P.O. Box 1737 Eunice, New Mexi (575) 394-2511	CES, Inc.	TICKET No. 488181	
LEASE OPERATOR/SHIPPER/COMPANY:			
LEASE NAME: EMSU SOF 13			
TRANSPORTER COMPANY: SDR		TIME (2: 45 AM/PM)	
DATE: 11-19-18 VEHICLE NO: 00() GE	MAN'S NAME: SCUTT KCIUTING	
CHARGETO: X + O		RIG NAME AND NUMBER 575 - 3914 - 3262	
TYPE OF MATERIAL			
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	ob		
RRC or API #		C-133# L&A.	
VOLUME OF MATERIAL [] BBLS	_: [\] YARD_	20: [1	

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DRIVER: THO House	
(SIGNATURE)	0 / -
EACH ITY DEDDECEMENT OF	VMbx.
FACILITY REPRESENTATIVE:	1 (19)
(SIGNATURE)	1 1/1/

Released to Imaging: 10/1/2024 2:21:44 Papary - Sundance Acct #1

P.O. Box 1737 Eunice, New Mexico (575) 394-2511		TICKET No. 488409	
LEASE OPERATOR/SHIPPER/COMPANY:			
LEASE NAME: ENSU SOIT 13			
TRANSPORTER COMPANY: SDZ		TIME 8:22 AM/PM	
DATE: / 1 - Z 1 - 1 8 VEHICLE NO: /	GE	NERATOR COMPANY SCOTT VOICEMENT	
CHARGETO: X+O		RIG NAME AND NUMBER 575-3914-3362	
TYPE OF MATERIAL			
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	00		
RRC or API #		C-133# (ea.	
VOLUME OF MATERIAL []BBLS: []YARD: []			

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER: feogono	out.Mx
(SIGNATURE)	
	1/ 1/2

FACILITY REPRESENTATIVE:

(SIGNATURE)

Pink - Transporter

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P.O. Box 1737 Eunice, New Mex (575) 394-2511		TICKET No. 488429	
LEASE OPERATOR/SHIPPER/COMPANY:			
LEASE NAME: ENSU SOH 13			
TRANSPORTER COMPANY:		TIME 10:15 AM/PM	
DATE: 11 - 21 - 18 VEHICLE NO: /	GEN	ERATOR COMPANY SUCH Kaufman	
CHARGE TO: X		RIG NAME 4ND NUMBER 515-394-3362	
TYPE OF MATERIAL			
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	M Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	ab		
RRC or API #		C-133# (PC).	
VOLUME OF MATERIAL [] BBLS	: [] YARD	12_: [1]	

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER: YEOROLO	desina-1	
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	1/1/	
FACILITY REPRESENTATIVE:	12/11.	
THE THE TEST TO TH	4/19	

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Released to Imaging: 10/1/2024 2:21:44 PM
Reorder from: Vertigo Creative Services LLC · www.VertigoCreative.com · Form#SDI-004

SUNDANCE SERV P.O. Box 1737 Eunice, New Me (575) 394-2511	
LEASE OPERATOR/SHIPPER/COMPANY:	10
LEASE NAME: 8 MSU S	rito00, to H12
TRANSPORTER COMPANY:	TIME 9:41 (AM/PM
DATE: 0 8- VEHICLE NO:	GENERATOR COMPANY SCOT Kauffron
CHARGE TO:	RIG NAME (AND NUMBER 575) 394-336
٦	TYPE OF MATERIAL
[] Production Water	[] Drilling Fluids [] Rinsate
[] Tank Bottoms	[] Contaminated Soil [] Jet Out
[] Solids	[] BS&W Content: [] Call Out
Description:	
RRC or API #	C-133#
VOLUME OF MATERIAL [] BBLS	: []:
AS A CONDITION TO SUNDANCE SERVICE	ES. INC'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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FACILITY REPRESENTATIVE:

White - Sundance Canary - Sundance Acct #1

Pink - Transporter

Released to Imaging: 10/1/2024 2:21:44 PM

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

SUNDANCE SERVI P.O. Box 1737 Eunice, New Mexi (575) 394-2511		TICKET No. 489168
LEASE OPERATOR/SHIPPER/COMPANY:	200 1 1	
LEASE NAME: CYSUL RELEASE	WW #13	
TRANSPORTER COMPANY:		TIME & AM/PM
DATE: JO VEHICLE NO:	GENE	RATOR COMPANY MAN'S NAME:
CHARGE TO:		GNAME (575) 394-3962
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[/] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	00	
RRC or API #		C-133#
VOLUME OF MATERIAL [] BBLS	_: [/ YARD/]: [1]
AS A CONDITION TO SUNDANCE SERVICES	S INC'S ACCEPTANCE OF TH	E MATERIALS SHIPPED WITH THIS JOB

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER: 1000000 CM	cuino -	
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FACILITY REPRESENTATIVE:	XXX	

(SIGNATURE)

Pink - Transporter

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P.O. Box 1737 Eunice, New Mexi (575) 394-2511		TICKET No. 489106
LEASE OPERATOR/SHIPPER/COMPANY:)	
LEASE NAME: adde Ligh	1+ #13	
TRANSPORTER COMPANY:		TIME O S AM/PM
DATE: -27-16 VEHICLE NO:	GEF	NERATOR COMPANY MAN'S NAME:
CHARGE TO:		RIGNAME AND NUMBER (575) 3911-362
ТҮ	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	00	
RRC or API #		C-133#
VOLUME OF MATERIAL [] BBLS	_: [] YARD_	(D: [1]

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER: Leggo	200	TAP	VIN	978	
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FACILITY REPRESENTATIVE:		MG	VI	/	

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P.O. Box 1737 Eunice, New Mexic (575) 394-2511		TICKET No. 489194
LEASE OPERATOR/SHIPPER/COMPANY:		
LEASE NAME: SMSU SW	delitet	[3]
TRANSPORTER COMPANY:		TIME \ AM/PM
DATE: S- VEHICLE NO:	Gl	ENERATOR COMPANY SOLO COMPANY MAN'S NAME:
CHARGE TO:		RIGNAME AND NUMBER 5)5) 394 - 336
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	00	
RRC or API #		C-133#
VOLUME OF MATERIAL [] BBLS	_: []YARD_	10: [1]

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

Pink - Transporter

Released to Imaging: 10/1/2024 2:21:44 PM-nary - Sundance Acct #1

SUNDANCE SERV P.O. Box 1737 Eunice, New (575) 394-251	Mexico 88231	TICKET No. 489167
LEASE OPERATOR/SHIPPER/COMPANY:	0	
LEASE NAME: 8 MSU Sa	Helik #13	
TRANSPORTER COMPANY: 50/2		TIME AM/PM
DATE: - 25 6 VEHICLE NO: 0	dd GENERA	ATOR COMPANY OF COMPANY MAN'S NAME:
CHARGE TO:		NAME (575) 394-3962
	TYPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	00	
RRC or API #		C-133#
VOLUME OF MATERIAL [] BBLS	: [] YARD_	: []

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

Released to Imagings 16/1/2020 2:21:44 PM nary - Sundance Acct #1

	Traseu in the state of the stat	
SUNDANCE SERVI P.O. Box 1737 Eunice, New Mex (575) 394-2511		TICKET No. 489193
LEASE OPERATOR/SHIPPER/COMPANY:	7)	
LEASE NAME: 8 MSU Satte	Tile #13	
TRANSPORTER COMPANY:		TIME \\ \ AM/PM
DATE: VEHICLE NO: 23		GENERATOR COMPANY MAN'S NAME:
CHARGETO: 902		RIG NAME AND NUMBER 5 15 3943362
TY	YPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Se	oil [] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	00	
RRC or API #		C-133#
VOLUME OF MATERIAL [] BBLS	_: [] YARD	: [1

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

Released to Imaging: 18/1/2024 2:21:44 panary - Sundance Acct #1

SUNDANCE SEI P.O. Box 1737 Eunice, N (575) 394-2	ew Mexico 88231	TICKET No.	89181
LEASE OPERATOR/SHIPPER/COMPANY:	X+70		
LEASE NAME: EMSO S	Satelite #13		0
TRANSPORTER COMPANY: 5 02		TIME	937 AM/PM
DATE: 8-18 VEHICLE NO:	aa GENERA	TOR COMPANY MAN'S NAME:	· Coffman
CHARGETO: XTO		NAME NUMBER (575)	394-3362
	TYPE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	00		
RRC or API #		C-133#	
VOLUME OF MATERIAL [] BBLS	: [].YARD		[][

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

Released to Imaghing 16/17/2024 2:21:44 PM nary - Sundance Acct #1

SUNDANCE SERVI P.O. Box 1737 Eunice, New Mex (575) 394-2511		TICKET No. 489075
LEASE OPERATOR/SHIPPER/COMPANY:) ,,	
LEASE NAME: Satelle Light	+ #119	11 -
TRANSPORTER COMPANY:		TIME 1. 73 AM/PM
DATE: 137-16 VEHICLE NO: 26		GENERATOR COMPANY MAN'S NAME: 2011 (1994)
CHARGE TO:	and the second second	RIG NAME AND NUMBER OF 15413362
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated So	oil [] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	00	
RRC or API #		C-133#
VOLUME OF MATERIAL [] BBLS	_: [] YARD	12: []
	-	

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DRIVER:_

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

1 Pink - Transporter

Released to Imaging: 16/1/2024 2:21:44 Panary - Sundance Acct #1

der from: Vertigo Creative Services LLC . www.VertigoCreative.com ... Form#SDL

P.O. Box 1737 Eunice, New Me (575) 394-2511	ICES, Inc.	TICKET No. 489058
LEASE OPERATOR/SHIPPER/COMPANY:		
LEASE NAME: Add Lease 110	111-13	
TRANSPORTER COMPANY:		TIME 9.2 (AM/PM
DATE: //-2/-/6 VEHICLE NO: //	GEN	NERATOR COMPANY MAN'S NAME:
CHARGE TO:		RIG NAME AND NUMBER 575) 394-3362
Т	YPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:		
RRC or API #		C-133#
VOLUME OF MATERIAL [] BBLS	: [] YARD	d: [1]

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DRIVER:_

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance Canary - Sundance Acct #1

Released to Imaging: 10/1/2024 2:21:44 PM

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

SUNDANCE SERV P.O. Box 1737 Eunice, New M (575) 394-2511	Mexico 88231	TICKET No.	489060
LEASE OPERATOR/SHIPPER/COMPANY:	(17)		
LEASE NAME: Saddle LI	aht 13		00 5
TRANSPORTER COMPANY:		TIME	9.55 AM/PM
DATE: 1/27-16 VEHICLE NO:)//	GENERATOR COMPANY MAN'S NAME:	tt Kautmas
CHARGETO:		RIG NAME AND NUMBER	394-3202
	TYPE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	[] Contaminated So	oil [] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	9 - Table 1
Description:	00		
RRC or API #		C-133#	
VOLUME OF MATERIAL [] BBLS	:: YARD	1d:	[]

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

Pink - Transporter

Released to Imaging: 184020292:21:44 panary - Sundance Acct #1

P.O. Box 1737 Eunice, New M (575) 394-2511		TICKET No. 489093	1
LEASE OPERATOR/SHIPPER/COMPANY:	70 /		
LEASE NAME: Saddle Ligh	nF#13		
TRANSPORTER COMPANY: 502		TIME / GA	M/PM
DATE: VEHICLE NO:	Gl	ENERATOR COMPANY MAN'S NAME:	man
CHARGETO: 7		RIG NAME AND NUMBER 575 3914	3360
	TYPE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	00		
RRC or API #		C-133#	
VOLUME OF MATERIAL [] BBLS	: [] YARD_	: 11	

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER: 100001	CO Marie Me	
(SIGNATURE)	44000	
FACILITY REPRESENTATIVE:	Godelio	
(CICNA)	TUPE	

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P.O. Box 1737 Eunice, New Mexicon (575) 394-2511		TICKET No. 489076
LEASE OPERATOR/SHIPPER/COMPANY:	()	
LEASE NAME: Sandalle light	4#13	
TRANSPORTER COMPANY: 500		TIME // AM/PM
DATE: 127/6 VEHICLE NO:	GE	ENERATOR COMPANY MAN'S NAME:
CHARGE TO:		RIG NAME AND NUMBER 515 314 3262
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	00	
RRC or API #		C-133#
VOLUME OF MATERIAL [] BBLS	_: [] YARD_	J : []

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DRIVER: 40001	a styleu. no	of the second
(SIGNATURE)	940	
FACILITY REPRESENTATIVE	0 \ ()	

White - Sundance Canary - Sundance Acct #1 Pink - Transporter

Released to Imaging: 10/1/2024 2:21:44 PM

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P.O. Box 1737 Eunice, New Mex (575) 394-2511		TICKET No. 494266
LEASE OPERATOR/SHIPPER/COMPANY:	7)	
LEASE NAME: 5 MSU SAL	ellele 13	
TRANSPORTER COMPANY:	1. Mata	TIME / AM/PM
DATE: VEHICLE NO: 3		OR COMPANY MAN'S NAME:
CHARGE TO:	RIG N AND	AME 081-133-9353
Т	YPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[/ Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	00	
RRC or API #	, a	C-133#
VOLUME OF MATERIAL [] BBLS	_: [/] YARD	. []

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DRIVER: Mad	careat Vallz -
(SIGNATURE)	
FACILITY REPRESENTATIVE:	(CONSTINE)

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White - Sundance Canary - Sundance Acct #1

Pink - Transporter

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SUNDANCE SERVI P.O. Box 1737 Eunice, New Mex (575) 394-2511		TICKET No. 494284
LEASE OPERATOR/SHIPPER/COMPANY:	Una 1 15	
LEASE NAME: MOU DUT	ellite, 15	4- 2- 6-
TRANSPORTER COMPANY:	7. Water	TIME 10.09 AM/PM
DATE: VEHICLE NO:	GE	ENERATOR COMPANY MAN'S NAME:
CHARGE TO:		RIG NAME AND NUMBER 7-933-933
TY	YPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	00	
RRC or API #		C-133#
VOLUME OF MATERIAL [] BBLS	: [_] YARD_	20: [1]

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

Released to Imaging: 10/1/2024 2:21:44 PM

P.O. Box 1737 Eunice, New Mexico (575) 394-2511	TICUET NI - REPORT
LEASE OPERATOR/SHIPPER/COMPANY:	
LEASE NAME: EMSU Satel	Cito. 13.
TRANSPORTER COMPANY: 502	M. Mata TIME/2:27 AM/PM
DATE: 1-9-19 VEHICLE NO: 30	GENERATOR COMPANY MAN'S NAME: Show Honnin
CHARGE TO:	RIG NAME AND NUMBER 36 - 93 - 93 -
TYF	E OF MATERIAL
[] Production Water	[] Drilling Fluids [] Rinsate
[] Tank Bottoms	[] Contaminated Soil [] Jet Out
[] Solids	[] BS&W Content: [] Call Out
Description:	OP
RRC or API #	C-133#
VOLUME OF MATERIAL [] BBLS	: tyard: []:

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DRIVER: MAN	const.	110	13				4
(SIGNATURE)	L	10	0	0			
FACILITY REPRESENTATIVE:	77)	4	0()	20	1		

(SIGNATURE)

White - Sundance Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

P.O. Box 1737 Eunice, New Mexico (575) 394-2511		TICKET No. 494	286
LEASE OPERATOR/SHIPPER/COMPANY:	0001 -		
LEASE NAME:	tellet 1.	?	
TRANSPORTER COMPANY:		TIME	35 AM/PM
DATE: 17-18 VEHICLE NO: 36	GENER	RATOR COMPANY MAN'S NAME:	Hemma
CHARGE TO:		S NAME OS 1-135	- 9353
TYF	PE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	00		
RRC or API #	1 -	C-133#	
VOLUME OF MATERIAL [] BBLS	: [/] YARD]: []_	

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC $\, \cdot \,$ www.VertigoCreative.com $\, \cdot \,$ Form#SDI-004

SUNDANCE SERVI P.O. Box 1737 Eunice, New Mexi (575) 394-2511		TICKET No. 494285
LEASE OPERATOR/SHIPPER/COMPANY:	0,00	1
LEASE NAME:	Satolly	ite 13
TRANSPORTER COMPANY:		TIME AM/PM
DATE: 4-9-17 VEHICLE NO: 20	C	GENERATOR COMPANY MAN'S NAME:
CHARGE TO:		RIG NAME AND NUMBER
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soi	il [] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	O()	
RRC or API #		C-133#
VOLUME OF MATERIAL [] BBLS	_: [YARD_	00: [1]

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER: David	Thypeto	
(SIGNATURE)	UW DI	7
FACILITY REPRESENTATIVE:	La lal	5
	SIGNATURE)	

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

P.O. Box 1737 Eunice, New Mexic (575) 394-2511		TICKET No. 494278
LEASE OPERATOR/SHIPPER/COMPANY:	CFO	
LEASE NAME: 4 M50 Sales	106 13	
TRANSPORTER COMPANY:		TIME // AM/PM
DATE: 1918 VEHICLE NO: 29	GEI	NERATOR COMPANY MAN'S NAME:
CHARGE TO:		RIG NAME AND NUMBER
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	00	
RRC or API #		C-133#
VOLUME OF MATERIAL [] BBLS	_: [] YARD	10: [1]

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:	1	//		
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FACILITY REPRESENTATIVE:	1	VO()	1/3	

(SIGNATURE)

White - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

P.O. Box 1737 Eunice, New Mer (575) 394-2511		TICKET No. 494241
LEASE OPERATOR/SHIPPER/COMPANY:	D1001	
LEASE NAME: 8M DU S	atellite 13	, (0, (0)
TRANSPORTER COMPANY:	n. Mata	TIME () (AM/PM
DATE: -9-/ VEHICLE NO: /		OR COMPANY MAN'S NAME: STOWN TO MAN'S NAME:
CHARGETO:	RIG N AND	IAME NUMBER 201-723-9353
Т	YPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	60	
RRC or API #		C-133#
VOLUME OF MATERIAL [] BBLS.	: [YARD	: []

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:_	
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(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

P.O. Box 1737 Eunice, New Mexic (575) 394-2511		ICKET No. 494265
LEASE OPERATOR/SHIPPER/COMPANY:) . 00.1	
LEASE NAME: 9M5//	Vitallete 13	6
TRANSPORTER COMPANY:	1. Mala	TIME 10 % AM/PM
DATE: -9-/X VEHICLE NO: /2	GENERATOR O MAN	OMPANY Sheller Roma
CHARGE TO:	RIG NAME AND NUM	
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
	[] Diming ridius	[] misate
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out
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ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER: Acknown	6 5		
(SIGNATURE)	60	00	
FACILITY REPRESENTATIVE:	1/	V Vo	

(SIGNATURE)

White - Sundance Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

SUNDANCE SERVI P.O. Box 1737 Eunice, New Mes (575) 394-2511		TICKET No. 494258
LEASE OPERATOR/SHIPPER/COMPANY:	1) 001	,
LEASE NAME:	atellite 1	3
TRANSPORTER COMPANY:		TIME 4.5% AM/PM
DATE: 913 VEHICLE NO: 99	GENE	RATOR COMPANY MAN'S NAME:
CHARGETO:		IGNAME NO NUMBER 191-73-935
Т	YPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	00	
RRC or API #	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	C-133#
VOLUME OF MATERIAL [] BBLS	: [_1_YARD	90: [1

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

Released to Imaging: 10/1/2024 2:21:44 PM

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SUNDANCE SERVICES, Inc. TICKET No. 494242 PO. BOX 1737 Eunice, New Mexico 88231
II. CTINDANCE SERVICES
SUNDANCE SER, New Mexico 88231 P.O. Box 1737 Eunice, New Mexico 88231 (575) 394-2511
LEASE OPERATOR/SHIPPER/COMPANY: LEASE OPERATOR/SHIPPER/COMPANY: TIME AM/PM TIME AM/PM
GENERATOR COUNTY
TRANSPORTER COMPANY:
DATE: VEHICLE NO. RIG IVAND NUMBER AND NUMBER
CHARGETO: TYPE OF MATERIAL [] Rinsate
r 1 Drilling Fluids
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AS A CONDITION TO SUNDANCE SERVICES, WARRANTS THAT THE TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE SEQ., AND REGULATIONS RELATED TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE SEQ., AND REGULATIONS RELATED AND TICKET, OPERATOR THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS THAT THE WASTE TICKET, AND OTHER WASTE MATERIAL GAS OR TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THE WASTE AND OTHER WASTE TO THE WASTE THE WATERIAL SHIPPED WITH THIS JOB ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF THE MATERIALS SHIPPED WITH THIS JOB ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF THE MATERIAL DELIVERED BY ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF THE MATERIAL DELIVERED BY ASSOCIATED WITH THE SERVICES, INC.'S ACCEPTANCE OF THE MATERIAL SERVICES, INC.'S
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TO TIME, 40 U.S.C. 9 US THE EXEMPTION AT LOPMENT OR PRODUCT. THERETO, BY VIRTUE OF THE EXPLORATION, DEVELOPMENT OR PRODUCT. THERETO, BY VIRTUE OF THE EXPLORATION, DEVELOPMENT OR PRODUCT. ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCT. ASSOCIATED WITH THE MATERIAL SHIPPED WITHTHIS JOB ASSOCIATED BY GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIAL DELIVERED BY THAT ONLY THE MATERIAL DELIVERED BY THAT ONLY THE MATERIAL DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL SHIPPED WITHTHIS JOB ASSOCIATED BY THE MATERIAL DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITHTHIS JOB ASSOCIATED BY THE MATERIAL DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIAL DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIAL DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIAL DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIAL DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIAL DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIAL DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIAL DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIAL DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIAL SHIPPED WITH THE M
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TICKET. TRANSPORTER TO TRANSPORTER IS TO TRANSPO
materials its
DRIVER: (SIGNATURE)
Signature: Pink - Transporter
White - Sundance Canary - Sundance ACCL # 1 White - Sundance Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004
Reorder from: Vertigo Creative

P.O. Box 1737 Eunice, New Mexi (575) 394-2511		TICKET No. 494	240
LEASE OPERATOR/SHIPPER/COMPANY:			
LEASE NAME: 9 M S 14 S 4	101 A 10		
TRANSPORTER COMPANY:	alle 15	TIMEQ	1/- 604/004
DATE: 9-1 VEHICLE NO: 20	GF	TIME PIERATOR COMPANY	AM/PM
VEHICLE NO. 29		MAN'S NAME:	1 HE MOST
CHARGE TO:		RIG NAME AND NUMBER	3-9353
Т	PE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	OP		
RRC or API #	/ 10	C-133#	
VOLUME OF MATERIAL [] BBLS	_: [] YARD_		

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:	1		
(SIGNATURE) FACILITY REPRESENTATIVE:	Ellal.	7	
	(SIGNATURE)		

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

SUNDANCE SERVI P.O. Box 1737 Eunice, New Mer (575) 394-2511		TICKET No. 4943	88
LEASE OPERATOR/SHIPPER/COMPANY:	0,,,,		
LEASE NAME: CMSU Sal	cellite #13		_
TRANSPORTER COMPANY:		TIME 7:53	AM/PM
DATE: - 0-9 VEHICLE NO: 3		DR COMPANY STORES NAME:	minst
CHARGE TO:	RIG NA	AME IUMBER	
Т	YPE OF MATERIAL	2	
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	00		_
RRC or API #		C-133#	
VOLUME OF MATERIAL [] BBLS	_: t/1 YARD	: []	

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:	· John	unda	600	()	
(SIGNATURE)	P	UX	76		
FACILITY REPRESENTA	TIVE:	100	100		
	(SIGNATURE)				

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

P.O. Box 1737 Eunice, New I (575) 394-2511	Mexico 88231	TICKET No.	494408
LEASE OPERATOR/SHIPPER/COMPANY:	40		
LEASE NAME: EMSU Sat 7	42		
TRANSPORTER COMPANY: SDR		TIM	ME 9:42 AM/PM
DATE: / - 10 - 19 VEHICLE NO: 2	9 GE	NERATOR COMPANY She	164 Penning
CHARGE TO: X+O		RIG NAME AND NUMBER 28 /	- 723-9353
	TYPE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Ou	t
Description:	a		
RRC or API #		C-133#	Lea!
VOLUME OF MATERIAL [] BBLS	: [](YARD	20 :	[]

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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1 11	R۱۱	/ -	₩.

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

P.O. Box 1737 Eunice, New Mexic (575) 394-2511	CES, Inc.	TICKET No. 494418
LEASE OPERATOR/SHIPPER/COMPANY:)	
LEASE NAME: EMSU Sat #	<i>‡ 13</i>	
TRANSPORTER COMPANY: SDP		TIME /O.Z / AM/PM
DATE: 1-10-19 VEHICLE NO: 30	GE	NERATOR COMPANY Selby Demino
CHARGETO: V+O		RIG NAME AND NUMBER 281-723-9353
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	90	
RRC or API #		C-133# (00·
VOLUME OF MATERIAL [] BBLS	_: YARD_	w: []

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

CERVICES, Inc. TICKET No. 494417	
SUNDANCE SERVICES, Inc. TICKET No. 494411	
SUNDANCE SER, New Mexico 88231 P.O. Box 1737 Eunice, New Mexico 88231 (575) 394-2511	
LEASE OPERATOR/SHIPPER/COMPANY: X+O LEASE OPERATOR/SHIPPER/COMPANY: 43 TIME 10: 18 AM/PM	
LEASE OPERATOR COMPANY SALES OF THE SECONDARY	
LEAD - COMPANY: SDK	
ANDINOMO	
DATE: /- /0-17	-
CHARGE TO: TYPE OF MATERIAL [] Rinsate	
1 Drilling Fluids 1 1 let Out	
Production Water Contaminated Soil [] Call Out	
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VOLUME OF MATERIAL [] BBLS. VOLUME OF MATERIAL [] BBLS. AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIAL SHIPPED WITH THIS JOB AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIAL SHIPPED HEREWITH IS AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE WASTE MATERIAL SHIPPED HEREWITH IS AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE WASTE MATERIAL SHIPPED HEREWITH IS AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THE WASTE OF T	
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nink - Transporter	
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White - Sundance Canary - Sundance Acct #1 White - Sundance Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004	
Reorder from: Vertigo Cross	

SUNDANCE SERVICES, I P.O. Box 1737 Eunice, New Mexico 88231 (575) 394-2511	nc. TICKET No. 494386
LEASE OPERATOR/SHIPPER/COMPANY:	11
LEASE NAME: ONSU Satellite	#13
TRANSPORTER COMPANY: 502	TIME / AM/PM
DATE: 1-9-19 VEHICLE NO: 29	GENERATOR COMPANY MAN'S NAME: Sheller Homing
CHARGETO:	RIG NAME AND NUMBER
TYPE OF MA	ATERIAL
[] Production Water [] Drillir	ng Fluids [] Rinsate
[] Tank Bottoms [] Conta	aminated Soil [] Jet Out
[] Solids [] BS&W	/ Content: [] Call Out
Description:	00
RRC or API #	C-133#
VOLUME OF MATERIAL [] BBLS:	[YARD : []

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER:_

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

SUNDANCE SERVIC P.O. Box 1737 Eunice, New Mexico (575) 394-2511	ES, Inc.	TICKET No. 494390
LEASE OPERATOR/SHIPPER/COMPANY: LEASE NAME: TRANSPORTER COMPANY: DATE: VEHICLE NO:	RIG N	OR COMPANY MAN'S NAME: AM/PM PMAN'S NAME: AM/PM
CHARGE TO:	AND	NUMBER
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
	[] Contaminated Soil	[] Jet Out
[] Tank Bottoms [] Solids	[] BS&W Content:	[] Call Out
Description:	00	
		C-133#
RRC or API # VOLUME OF MATERIAL [] BBLS	: TYARD	. [1
		SUIDDED WITH THIS IOR

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

P.O. Box 1737 Eunice, New Mexico (575) 394-2511	88231 TICKI	ET No. 494391
LEASE OPERATOR/SHIPPER/COMPANY:	* 12 1 1 =	
LEASE NAME: EMOU SO	tellete #13	
TRANSPORTER COMPANY: 5D2		TIME SAM/PM
DATE: - 0-19 VEHICLE NO: 80	GENERATOR COMPA MAN'S NAI	
CHARGE TO:	RIG NAME AND NUMBER	
TYF	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids [] Rinsate
[] Tank Bottoms	[] Contaminated Soil [] Jet Out
[] Solids	[] BS&W Content: [] Call Out
Description:	00	
RRC or API #		C-133#
VOLUME OF MATERIAL [] BBLS	: JYARD	_: []

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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וט	AI.	VE	n. /

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

 $Reorder from: Vertigo\ Creative\ Services\ LLC \quad \cdot \quad www. Vertigo\ Creative.com \quad \cdot \quad Form \#SDI-004$

P.O. Box 1737 Eunice, New Mexi (575) 394-2511		TICKET No. 494	321
LEASE OPERATOR/SHIPPER/COMPANY:	Danis		
LEASE NAME: EM Soll Sott	Wete 13		
TRANSPORTER COMPANY:		TIME 2	S-AM/PM)
DATE: - 9 - (VEHICLE NO:)	GEN	MAN'S NAME: Shellon	Pennic
CHARGETO:		RIG NAME AND NUMBER	
TY	PE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	_00		
RRC or API #	,	C-133#	
VOLUME OF MATERIAL [] BBLS	_: [] YARD_	90: [1_	

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

Released to Imaging: 10/1/2024 2:21:44 PM

SUNDANCE SER P.O. Box 1737 Eunice, New (575) 394-251	Mexico 88231	TICKET No.	494316
LEASE OPERATOR/SHIPPER/COMPANY:	(10 + 00 ·		
LEASE NAME:	Salellite, 1	31	
TRANSPORTER COMPANY:	Il M. Mala	TIM	E AM/PM
DATE: 49 VEHICLE NO:	30 GENE	RATOR COMPANY MAN'S NAME:	olby Romo
CHARGETO:		IG NAME ND NUMBER	733-935
	TYPE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	60		
RRC or API #	γ	C-133#	
VOLUME OF MATERIAL [] BBLS	: [/] YARD	0:	[]

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

The state of the s	
SUNDANCE SERVIC P.O. Box 1737 Eunice, New Mexic (575) 394-2511	CES, Inc. TICKET No. 494315
LEASE OPERATOR/SHIPPER/COMPANY: LEASE NAME:	Patellite B TIME D. 2 AM/PM
TRANSPORTER COMPANY: DATE: -9 9 VEHICLE NO: /) CHARGE TO:	GENERATOR COMPANY MAN'S NAME: RIG NAME AND NUMBER AND NUMBER
	YPE OF MATERIAL
[] Production Water [] Tank Bottoms [] Solids	[] Drilling Fluids [] Rinsate [] Contaminated Soil [] Jet Out [] BS&W Content: [] Call Out
Description:	C-133#
RRC or API # VOLUME OF MATERIAL [] BBLS.	: [] YARD D : []
	A SCENTANCE OF THE MATERIALS SHIPPED WITH THIS JOB

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

Canary - Sundance Acct #1

Pink - Transporter

White - Sundance Carrary Surross

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

P.O. Box 1737 Eunice, New Mexi (575) 394-2511		TICKET No.	494308
LEASE OPERATOR/SHIPPER/COMPANY:), 0		
LEASE NAME: 9 MSU SO	teletto		
TRANSPORTER COMPANY:		TIM	IE / S AM/PM
DATE: 4 9 VEHICLE NO:	GEN	NERATOR COMPANY MAN'S NAME:	The Hamin
CHARGE TO:		RIG NAME AND NUMBER 081	-733-933
TY	PE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	[] Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	00		
RRC or API #		C-133#	
VOLUME OF MATERIAL [] BBLS	_: [1_YARD_	10:	[]

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

SUNDANCE SERVI P.O. Box 1737 Eunice, New Mexi (575) 394-2511		TICKET No. 494320
LEASE OPERATOR/SHIPPER/COMPANY:	1)	
LEASE NAME: 4 MSU 5	dellite	13
TRANSPORTER COMPANY:		TIME AM/PM
DATE: VEHICLE NO: 36		GENERATOR COMPANY TO BY PROTECT
CHARGETO:		RIG NAME AND NUMBER
TY	PE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	[] Contaminated So	il [] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	00	
RRC or API #		C-133#
VOLUME OF MATERIAL [] BBLS	_: []YARD_	90: 11=

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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D	RI	٧	E	R	:	

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004

JANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231

Business: (575) 394-2511 Disposal: (575) 390-7842

TICKET No. 509062

LEASE OPERATOR/SHIPPER/COMPAI	νγ: χ/()			DATE: 77 / 7
LEASE NAME: (1705)	C. 01 + H	12,		TIME: () (S AM/RM)
RIG NAME & NUMBER:				VEHICLE NO: 2
TRANSPORTER COMPANY:	V.		PHO	NE:
GENERATOR COMPANY MAN'S NAM	IE: Taray Jary	Kendini	(Region) PHO	NE:(727) D2(4-) 05(
CHARGE TO:				
TYPE OF [] Tank B MATERIAL [] Solids Description:		illing Fluids ntaminated Soil	[] Rinsate [] Jet Out	[] BS&W Content:
VOLUME OF []BBLS MATERIAL	:	[为 YARD	<u> </u>	[]
RRC or API #		***************************************	C-133#	
	JOB TICKE HEREWITH AS AMEND JOBILLING DEVELOPM ALSO AS A THIS JOB T BY OPERA SERVICES, WE Transporter loaded it was tendered by the and that the material	I, OPERATOR/SHIPPER RE IS MATERIAL EXEMPT FR DED FROM TIME TO TIME, SEQ., AND REGULATION: FLUIDS, PRODUCED WATI SENT OR PRODUCTION OF CONDITION TO SUNDANCE ICKET. TRANSPORTER REF TOR/SHIPPER TO TRANSI INC:S FACILITY FOR DISP INC above describe Was delivered with	PRESENTS AND WARRAN' OM THE RESOURCE, CONS 40 U.S.C. § 6901, et so 5 RELATED THERETO, BY ERS, AND OTHER WASTE CRUDE OIL OR NATURAL G ESERVICES, INC'S ACCEPT PRESENTS AND WARRANT PORTER IS NOW DELIVE OSAL. resented by this To d shipper. This wi shout incident.	ll certify that no additional
White - Sundance	Canary - St	undance Acct #1	Pink - Tra	nsporter
Reorder from: \	/ertigo Creative Services LLC	• www.VertigoCreati	ve.com • Form#SDI-00	94b

IFEST

P.O. Box 1737 Eunice, New Mexico 88231 Business: (575) 394-2511 • Disposal: (575) 390-7842 OPERATOR/SHIPPER/COMPANY:	TICKET No. 509064	
EASE NAME:	DATE: 5 7 - 1 9	
RIG NAME & NUMBER:	TIME: 2 2 6 AM/PM)	
TRANSPORTER COMPANY:	VEHICLE NO:	
GENERATOR COMPANY MANUS NAME	PHONE:	*.
CHARGETO	PHONE:((3).924.305	
Solids	[] Rinsate [] BS&W Content:	PANIFE
VOLUME OF []BBLS. : X 1 YARD 7		THE LA STREET, WILLIAM STREET, SANCLING
RRC or API #	-133# (+G,	
HEREWITH IS MATERIAL EXEMPT FROM THE AS AMENDED FROM TIME TO TIME, 40 U.S. 361.001 et seq., and regulations relate Drilling Fluids, produced waters, and Development or production of crude of ALSO AS A CONDITION TO SUNDANCE SERVICE THIS JOB TICKET, TRANSPORTER REORIES FATO	IC'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS ITS AND WABRANTS THAT THE WASTE MATERIAL SHIPPED RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 10 THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED OTHER WASTE ASSOCIATED WITH THE EXPLORATION, IL OR NATURAL GAS OR GEOTHERMAL ENERGY. S, INC'S ACCEPTANCE OF THE MATERIAL SHIPPED WITH AND WARRANTS THAT ONLY THE MATERIAL DELIVERED S NOW DELIVERED BY TRANSPORTER TO SUNDANCE and by this Transporter Statement at the oper. This will certify that no additional cident.	
FACILITY REPRESENTATIVE:		
(SIGNATURE) White - Sundance Canary - Sundance Acct #1	Pink - Transporter	
Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com •	- Independent	

MANIFEST

JUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231 Business: (575) 394-2511 • Disposal: (575) 390-7842 TICKET No. 509063

DATE: 5 LEASE OPERATOR/SHIPPER/COMPANY: 30 am/ém TIME: LEASE NAME: VEHICLE NO: RIG NAME & NUMBER: PHONE: TRANSPORTER COMPANY: PHONE: (72 3 3 22 7) notrixion GENERATOR COMPANY MAN'S NAME: CHARGE TO: [] BS&W Content: [] Rinsate [] Drilling Fluids [] Tank Bottoms TYPE OF [] Jet Out [] Contaminated Soil MATERIAL [] Solids Description: _ []_ [] BBLS._____: **VOLUME OF** MATERIAL C-133# RRC or API# AS A CONDITION TO SUNDANCE SERVICES, INC:S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED STICKERS, CODES, NUMBERS, ETC. HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., and regulations related thereto, by virtue of the exemption afforded DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident. DRIVER: (SIGNATURE) **FACILITY REPRESENTATIVE:** Canary - Sundance Acct #1 Pink - Transporter White - Sundance Reorder from: Vertigo Creative Services LLC + www.VertigoCreative.com + Form#5DI-004b

SUNDANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231 Business: (575) 394-2511 · Disposal: (575) 390-7842	KET No. 509060
LEASE OPERATOR/SHIPPER/COMPANY:	DATE: 5 7 19.
LEASE NAME: Erros V Soutellite 12	TIME: 2 / C AM/PM
RIG NAME & NUMBER:	VEHICLE NO:
TRANSPORTER COMPANY:	HONE:
GENERATOR COMPANY MAN'S NAME: PARTIE	HONE: 1977 3360
CHARGE TO: X 10	
TYPE OF [] Tank Bottoms [] Drilling Fluids [] Rinsa MATERIAL [] Solids [] Contaminated Soil [] Jet Or Description:	
VOLUME OF [] BBLS: [) YARD /2 :	[]
RRC or API # C-133#	L&G.
STICKERS, CODES, NUMBERS, ETC. AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTA JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARR HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, C AS A MENDED FROM TIME TO TIME, 40 U.S.C. § 6901, e 361.001 et seq., AND REGULATIONS RELATED THERETO, DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WA DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATUR. ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACC THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARR BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DEI SERVICES, INC.'S FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transporter loaded the material represented by this above described location, and that it was tendered by the above described shipper. This materials were added to this load, and that the material was delivered without incident.	ANTS THAT THE WASTE MATERIAL SHIPPED ONSERVATION AND RECOVERY ACT OF 1976, t seq., THE NM HEALTH AND SAF. CODE & BY VIRTUE OF THE EXEMPTION AFFORDED STE ASSOCIATED WITH THE EXPLORATION, AL GAS OR GEOTHERMAL ENERGY. EPTANCE OF THE MATERIALS SHIPPED WITH ANTS THAT ONLY THE MATERIAL DELIVERED LIVERED BY TRANSPORTER TO SUNDANCE
DRIVER: (SIGNATURE) FACILITY REPRESENTATIVE:	
(SIGNATURE)	

Canary - Sundance Acct #1

Reorder from: Vertigo Creative Services LLC + www.VertigoCreative.com + Form#SDI-004b

Pink - Transporter

Received by OCD: 9/23/2024 7:46:01 AM SUNDANCE SERVICES, Inc.	
P.O. Box 1737 Eunice, New Mexico 88231 Business: (575) 394-2511 • Disposal: (575) 390-7842	TICKET No. 509421
LEASE OPERATOR/SHIPPER/COMPANY:	DATE: (7 () (9)
LEASE NAME: (1) (U) SOLIT HILL (2)	TIME: 7 7 4 AM/PM)
RIG NAME & NUMBER:	VEHICLE NO: 2
TRANSPORTER COMPANY:	PHONE:
GENERATOR COMPANY MAN'S NAME: POPT KACHINICH) PHONE: 430 004 - 40
CHARGE TO: // (
TYPE OF [] Tank Bottoms [] Drilling Fluids []	Rinsate [] BS&W Content:
25 N W refrance Barrie E W &	Jet Out
Description:	
VOLUME OF BBLS. : [1] YARD TO A	: []
RRC or API # C-1	33# { ₁ (, , , , , , , , , , , , , , , , , ,
JOB TICKERS, CODES, NOMBERS, ETC. JOB TICKET, OPERATOR/SHIPPER REPRESENTS. HEREWITH IS MATERIAL EXEMPT FROM THE RE AS AMENDED FROM TIME TO TIME, 40 U.S.C. 361.001 et seq., AND REGULATIONS RELATED DRILLING FLUIDS, PRODUCED WATERS, AND (DEVELOPMENT OR PRODUCTION OF CRUDE OIL ALSO AS A CONDITION TO SUNDANCE SERVICES, THIS JOB TICKET, TRANSPORTER REPRESENTS J	INC'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH AND WARRANTS THAT ONLY THE MATERIAL DELIVERED NOW DELIVERED BY TRANSPORTER TO SUNDANCE
above described location, and that it was tendered by the above described shipp materials were added to this load, and that the material was delivered without ind	er. This will certify that no additional
DRIVER: (SIĞNATURE)	
FACILITY REPRESENTATIVE:	

Canary - Sundance Acct #1

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004b

Pink - Transporter

(SIGNATURE)



SUNDANCE SERVICES, Inc.

TICKET No. 509439

P.O. Box 1737 Eunice, New Mexico 88231 Business: (575) 394-2511 • Disposal: (575) 390-7842							
LEASE OPERATOR/SHIPPER/COMPANY: X + () DATE: 5-9-/9							
LEASE NAME: (1) 130 SC14 # 12	TIME: () () AM/PM)						
RIG NAME & NUMBER: VEHICLE NO: 2/							
TRANSPORTER COMPANY: PHC							
GENERATOR COMPANY MAN'S NAME: COLD COLD PHONE:							
CHARGETO: Y 1-7							
TYPE OF [] Tank Bottoms [] Drilling Fluids [] Rinsate MATERIAL [] Solids [] Contaminated Soil [] Jet Out Description:	[] BS&W Content:						
VOLUME OF BBLS. : [\]-YARD 7 - :	[]						
RRC or API # C-133#	604						
AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANC JOB TICKERS, CODES, NUMBERS, ETC. JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRAN HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CON AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et s 361.001 et seq., AND REGULATIONS RELATED THERETO, BY DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTI DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANC THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRAN BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIV SERVICES, INC.'S FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transporter loaded the material represented by this T above described location, and that it was tendered by the above described shipper. This w materials were added to this load, and that the material was delivered without incident.	ITS THAT THE WASTE MATERIAL SHIPPED SERVATION AND RECOVERY ACT OF 1976, eq., THE NM HEALTH AND SAF. CODE S VIRTUE OF THE EXEMPTION AFFORDED E ASSOCIATED WITH THE EXPLORATION, GAS OR GEOTHERMAL ENERGY. TANCE OF THE MATERIALS SHIPPED WITH TS THAT ONLY THE MATERIAL DELIVERED ERED BY TRANSPORTER TO SUNDANCE FRANSPORTER TO SUNDANCE						
DRIVER: (SIGNATURE)							
FACILITY REPRESENTATIVE:							
(SIGNATURE)							
White - Sundance Canary - Sundance Acct #1 Pink - Tr Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-C	ansporter 1046						

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 Ш	

P.O. Box 1737 Eunice, New Mexico 88231 Business: (575) 394-2511 • Disposal: (575) 390-7842	TNo. 509386
LEASE OPERATOR/SHIPPER/COMPANY:	DATE: 7 ///
LEASE NAME: (1) 10 10 10 4 13	TIME:) //AM/PM
RIG NAME & NUMBER:	VEHICLE NO:
TRANSPORTER COMPANY: PHO	NE:
GENERATOR COMPANY MAN'S NAME: COMPANY MAN'S NAME: PHO	NE: 1/ 1. /. 1/ 1
CHARGE TO: 1/10	
TYPE OF [] Tank Bottoms [] Drilling Fluids [] Rinsate	[] BS&W Content:
MATERIAL [] Solids [] Contaminated Soil [] Jet Out	
Description:	
VOLUME OF []BBLS. : []YARD :	
RRC or API # C-133#	(46.
AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANT HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONS AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et se 361.001 et seq., AND REGULATIONS RELATED THERETO, BY DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL G ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPT THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANT BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVE SERVICES, INC.'S FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transporter loaded the material represented by this Tr above described location, and that it was tendered by the above described shipper. This will materials were added to this load, and that the material was delivered without incident.	IS THAT THE WASTE MATERIAL SHIPPED ERVATION AND RECOVERY ACT OF 1976, eq., THE NM HEALTH AND SAF. CODE S VIRTUE OF THE EXEMPTION AFFORDED ASSOCIATED WITH THE EXPLORATION, AS OR GEOTHERMAL ENERGY. ANCE OF THE MATERIALS SHIPPED WITH S THAT ONLY THE MATERIAL DELIVERED RED BY TRANSPORTER TO SUNDANCE ansporter Statement at the II certify that no additional
DRIVER: (SIGNATURE) FACILITY REPRESENTATIVE: (SIGNATURE)	
	insporter

SUN	P.O. Box 1737 Eunice, New 1 ness: (575) 394-2511 · Disp	Mexico 88231	TICKI	ET No. 508343
LEASE OPERATOR/SI	HIPPER/COMPANY:	<i>1</i> 0	and Administration of the Control of	DATE: 7-17
LEASE NAME:	m 160 5a.	1 41 13		TIME: // / / (AM/PM
RIG NAME & NUMBE	ER:			VEHICLE NO:
TRANSPORTER COM	IPANY: STAZ		PHO	NE:
GENERATOR COMPA	ANY MAN'S NAME:	Sta Kraylano	PHO	NE: 41) 21/ 16/24
CHARGE TO:	X 1-()			
TYPE OF	[] Tank Bottoms	[] Drilling Fluids	[] Rinsate	[] BS&W Content:
MATERIAL	[] Solids	[] Contaminated Soil	[] Jet Out	
Description:		(4)		
VOLUME OF MATERIAL	[] BBLS	: [´] YARD	<u> </u>	
RRC or API#			C-133#	(-4)
STICKERS, CO	DES, NUMBERS, ETC.	JOB TICKET, OPERATOR/SHIPPER REI HEREWITH IS MATERIAL EXEMPT FRO AS AMENDED FROM TIME TO TIME, 361.001 et seq., and regulations Drilling Fluids, produced wate Development or production of of ALSO AS A CONDITION TO SUNDANCE THIS JOB TICKET. TRANSPORTER REF	PRESENTS AND WARRAN OM THE RESOURCE, CON 40 U.S.C. § 6901, et s 8 RELATED THERETO, BY ERS, AND OTHER WASTE CRUDE OIL OR NATURAL SERVICES, INC.'S ACCEP PRESENTS AND WARRAN PORTER IS NOW DELIVI	E OF THE MAYERIALS SHIPPED WITH THIS TS THAT THE WASTE MATERIAL SHIPPED SERVATION AND RECOVERY ACT OF 1976, eq., THE NM HEALTH AND SAF. CODE \$ VIRTUE OF THE EXEMPTION AFFORDED E ASSOCIATED WITH THE EXPLORATION, GAS OR GEOTHERMAL ENERGY. TANCE OF THE MATERIALS SHIPPED WITH TS THAT ONLY THE MATERIAL DELIVERED ERED BY TRANSPORTER TO SUNDANCE
above described lo	cation, and that it was ten led to this load, and that th ULLA	orter loaded the material repr ndered by the above describe ne material was delivered with	d shipper. This w	•
FACILITY REP	RESENTATIVE:	<u> </u>		
	(SIGNATURE)	F.		
v	Vhite - Sundance	Canary - Sundance Acct #1	Pink - Tr	ansporter

Reorder from: Vertigo Creative Services LLC + www.VertigoCreative.com + Form#SDI-004b

Received by GRIBANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231	CKET No. 509381
Business: (575) 394-2511 • Disposal: (575) 390-7842	
LEASE OPERATOR/SHIPPER/COMPANY:	DATE: */ //
LEASE NAME: 610130 SOLE # 13	TIME: / / // AM/PM/
RIG NAME & NUMBER:	VEHICLE NO: /
TRANSPORTER COMPART.	PHONE:
GENERATOR COMPANY MAN'S NAME:	PHONE: 14 3 2 3 4 4 6 2 9
CHARGE TO: / /-O	
TYPE OF [] Tank Bottoms [] Drilling Fluids [] Rin	sate [] BS&W Content:
MATERIAL [] Solids [] Contaminated Soil [] Jet	Out
Description:	
VOLUME OF [] BBLS. : [] YARD	: []
RRC or API # C-133#	(46.
AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCE STICKERS, CODES, NUMBERS, ETC. AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCE JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND W HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 691 361.001 et seq., AND REGULATIONS RELATED THERE DRILLING FLUIDS, PRODUCTION OF CRUDE OIL OR NA DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NA ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S THIS JOB TICKET. TRANSPORTER REPRESENTS AND W BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW SERVICES, INC.'S FACILITY FOR DISPOSAL.	VARRANTS THAT THE WASTE MATERIAL SHIPPED CE, CONSERVATION AND RECOVERY ACT OF 1976, OI, et seq., the NM Health and Saf. Code Seto, by virtue of the exemption afforded i waste associated with the exploration, atural gas or geothermal energy. Secreptance of the materials shipped with varrants that only the material delivered by delivered to sundance
THIS WILL CERTIFY that the above Transporter loaded the material represented by above described location, and that it was tendered by the above described shipper. I materials were added to this load, and that the material was delivered without incide DRIVER: (SIGNATURE) FACILITY REPRESENTATIVE: (SIGNATURE)	inis will certify that no additional
White - Sundance Canary - Sundance Acct #1 Pi	nk - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004b

Received by OCR BARCE SERVICES, Inc.

## SUNDANCE SERVICES, Inc. P.O. Box 1737 Eunice, New Mexico 88231 Business: (575) 394-2511 Disposal: (575) 390-7842	TICKET No. 509344
LEASE OPERATOR/SHIPPER/COMPANY:	DATE:
LEASE NAME: (1 1 1 1 1 1 1 1 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1	TIME: / / / AM/PM
RIG NAME & NUMBER:	VEHICLE NO: ↓ /
TRANSPORTER COMPANY:	PHONE:
GENERATOR COMPANY MAN'S NAME:	PHONE: (1) 787 - 1
CHARGE TO: >/()	
TYPE OF [] Tank Bottoms [] Drilling Fluids [] Rin MATERIAL [] Solids [] Contaminated Soil [] Jet Description:	
VOLUME OF [] BBLS: [V] YARD	: []
RRC or API # C-133#	(20,
AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCE JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND W HEREWITH IS MATERIAL EXEMPT FROM THE RESOURC AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 69C 361.001 et seq., AND REGULATIONS RELATED THERE DRILLING FLUIDS, PRODUCED WATERS, AND OTHER DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NAT ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S THIS JOB TICKET, TRANSPORTER REPRESENTS AND W, BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW SERVICES, INC.'S FACILITY FOR DISPOSAL.	ARRANTS THAT THE WASTE MATERIAL SHIPPED BE, CONSERVATION AND RECOVERY ACT OF 1976, DI, et seq., THE NM HEALTH AND SAF. CODE SOLOTOR, BY VIRTUE OF THE EXEMPTION AFFORDED WASTE ASSOCIATED WITH THE EXPLORATION, TURAL GAS OR GEOTHERMAL ENERGY. ACCEPTANCE OF THE MATERIALS SHIPPED WITH ARRANTS THAT ONLY THE MATERIAL DELIVERED
THIS WILL CERTIFY that the above Transporter loaded the material represented by to above described location, and that it was tendered by the above described shipper. The materials were added to this load, and that the material was delivered without incident DRIVER:	his will certify that no additional
(SIGNATURE) FACILITY REPRESENTATIVE: (SIGNATURE)	
White - Sundance Canary - Sundance Acct #1 Pin	k - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004b

OCD: 9/23/2024 7:46:01 AM SUNDANCE SERVICES, Inc. TICKET No. 509436 P.O. Box 1737 Eunice, New Mexico 88231 Business: (575) 394-2511 . Disposal: (575) 390-7842 LEASE OPERATOR/SHIPPER/COMPANY: DATE: LEASE NAME: TIME: C/AM/PM> RIG NAME & NUMBER: **VEHICLE NO:** TRANSPORTER COMPANY: PHONE: GENERATOR COMPANY MAN'S NAME: PHONE: (パス) . シミリ・スのマ CHARGE TO: [] Tank Bottoms TYPE OF [] Drilling Fluids [] Rinsate [] BS&W Content: MATERIAL [] Solids Contaminated Soil [] Jet Out Description: **VOLUME OF** []BBLS. [] YARD. MATERIAL RRC or API# C-133# 40. AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS STICKERS, CODES, NUMBERS, ETC. JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., and regulations related thereto, by virtue of the exemption afforded DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident. DRIVER: (SIGNATURE) **FACILITY REPRESENTATIVE:** (SIGNATURE) White - Sundance Canary - Sundance Acct #1 Pink - Transporter Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004b

	OANCE SERV P.O. Box 1737 Eunice, New Mass: (575) 394-2511 · Dispo	Mexico 88231	TICKE	TNo. 509225
LEASE OPERATOR/SHI	PPER/COMPANY:	Ò		DATE: 5 6 19
LEASE NAME: (, ,)	980 Sqt +	+ 13		TIME: /:55 AM/RM)
RIG NAME & NUMBER:	•			VEHICLE NO:
TRANSPORTER COMPA	ANY: JYJYZ.		РНО	NE:
GENERATOR COMPAN	IY MAN'S NAME:	COLL KOWERVE	PHO	NE: (195.224 8330
CHARGE TO:	XIO .			
TYPE OF MATERIAL Description:	[] Tank Bottoms	[] Drilling Fluids [N] Contaminated Soil	[] Rinsate	[] BS&W Content:
VOLUME OF MATERIAL	[]BBLS	_: 1 YARD	·	[]
RRC or API #			C-133# (ECI.
STICKERS, COD	ES, NUMBERS, ETC.	361.001 et seq., AND REGULATIONS RE DRILLING FLUIDS, PRODUCED WATERS, DEVELOPMENT OR PRODUCTION OF CRU ALSO AS A CONDITION TO SUNDANCE SEI THIS JOB TICKET. TRANSPORTER REPRES BY OPERATOR/SHIPPER TO TRANSPOR	SENTS AND WARRAN THE RESOURCE, CON: U.S.C. § 6901, et si ELATED THERETO, BY AND OTHER WASTE DE OIL OR NATURAL (RVICES, INC.'S ACCEP SENTS AND WARRAN TER IS NOW DELIVI	TS THAT THE WASTE MATERIAL SHIPPED SERVATION AND RECOVERY ACT OF 1976, eq., THE NM HEALTH AND SAF. CODE & VIRTUE OF THE EXEMPTION AFFORDED ASSOCIATED WITH THE EXPLORATION, EAS OR GEOTHERMAL ENERGY. TANCE OF THE MATERIALS SHIPPED WITH
above described loca	ition, and that it was ten	L' SERVICES, INC.'S FACILITY FOR DISPOSA orter loaded the material repres ndered by the above described s ne material was delivered witho	ented by this Ti shipper, This w	

Canary - Sundance Acct #1

Reorder from: Vertigo Creative Services LLC + www.VertigoCreative.com + Form#SDI-004b

Pink - Transporter ·

DRIVER:

(SIGNATURE) **FACILITY REPRESENTATIVE:**

White - Sundance

(SIGNATURE)

Page 431 of 440 SUNDANCE SERVICES, Inc. TICKET No. 509169 P.O. Box 1737 Eunice, New Mexico 88231 Business: (575) 394-2511 • Disposal: (575) 390-7842 LEASE OPERATOR/SHIPPER/COMPANY: DATE: LEASE NAME: TIME: / \ // S/AMYPM RIG NAME & NUMBER: **VEHICLE NO:** TRANSPORTER COMPANY: PHONE: GENERATOR COMPANY MAN'S NAME: PHONE: (14) 23(1.3634 CHARGE TO: [] Tank Bottoms [] Drilling Fluids [] Rinsate [] BS&W Content: TYPE OF MATERIAL [] Contaminated Soil [] Solids [] Jet Out Description: **VOLUME OF** [] BBLS._____: []_____ MATERIAL RRC or API# C-133# AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS STICKERS, CODES, NUMBERS, ETC. JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seg., and regulations related thereto, by virtue of the exemption afforded DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEDTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident. DRIVER: (SIGNATURE) **FACILITY REPRESENTATIVE:** White - Sundance Canary - Sundance Acct #1

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Received by OCD: 9/23/2024 7:46:01 AM Page 432 of 440 SUNDANCE SERVICES, Inc. 509258 TICKET No. P.O. Box 1737 Eunice, New Mexico 88231 Business: (575) 394-2511 • Disposal: (575) 390-7842 LEASE OPERATOR/SHIPPER/COMPANY: DATE: LEASE NAME: | | | .-j- j TIME: (AM/PM RIG NAME & NUMBER: **VEHICLE NO:** 11 TRANSPORTER COMPANY: PHONE: GENERATOR COMPANY MAN'S NAME: PHONE: (1.17) CHARGE TO: [] Drilling Fluids [] Tank Bottoms [] Rinsate [] BS&W Content: TYPE OF MATERIAL [] Solids [Contaminated Soil [] Jet Out 617 Description: **VOLUME OF** 10 [A] YARD [] BBLS.____ []__ MATERIAL RRC or API# C-133# 1861 AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS STICKERS, CODES, NUMBERS, ETC. JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERVICES, INC:S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident. DRIVER: (SIGNATURE) **FACILITY REPRESENTATIVE:** (SIGNATURE) White - Sundance Canary - Sundance Acct #1 Pink - Transporter Reorder from: Vertigo Creative Services LLC · www.VertigoCreative.com · Form#SDI-004b

Page 433 of 440 Received by OCD: 9/23/2024 7:46:01 AM E SERVICES, Inc. 509259 TICKET No. P.O. Box 1737 Eunice, New Mexico 88231 Business: (575) 394-2511 • Disposal: (575) 390-7842 DATE: LEASE OPERATOR/SHIPPER/COMPANY: TIME: / > 7 AM/₽M LEASE NAME: **VEHICLE NO:** RIG NAME & NUMBER: PHONE: TRANSPORTER COMPANY: PHONE: (175, 231, 50 GENERATOR COMPANY MAN'S NAME: **CHARGE TO:** [] BS&W Content: [] Rinsate [] Drilling Fluids [] Tank Bottoms TYPE OF [] Jet Out MATERIAL [] Contaminated Soil [] Solids Description: **VOLUME OF** [\] YARD____ [] BBLS.____: **MATERIAL** C-133# RRC or API# AS A CONDITION TO SUNDANCE SERVICES, INC:S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED STICKERS, CODES, NUMBERS, ETC. HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident. **FACILITY REPRESENTATIVE:**

Canary - Sundance Acct #1

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004b

Pink - Transporter

Bus	P.O. Box 1737 Eunice, Ne siness: (575) 394-2511 • Di		HUNE	(No. 509227
LEASE OPERATOR/S	SHIPPER/COMPANY:	XIO		DATE: 5 8 /7
LEASE NAME:	11150 Sa			TIME: / C / AM/PM
RIG NAME & NUMB	ER:			VEHICLE NO: 3/
TRANSPORTER COM	MPANY: 5101/		PHON	E:
GENERATOR COMP	ANY MAN'S NAME:	20011 Knoft) yoyyoy PHON	E 1/2 221 325
CHARGE TO:	110			
TYPE OF MATERIAL	[] Tank Bottoms	[] Drilling Fluids [☑ Contaminated Soil	[] Rinsate [] Jet Out	[] BS&W Content:
Description:		<u> </u>		
VOLUME OF MATERIAL	[]BBLS	: <u>j/yard2</u>	<u>.</u> :	[]
RRC or API#				/
,		AS A CONDITION TO SUMMANCE SERVICE		CC/.
STICKERS, CO	DES, NUMBERS, ETC.	HEREWITH IS MATERIAL EXEMPT FROM T AS AMENDED FROM TIME TO TIME, 40 361.001 et seq., and regulations re Drilling fluids, produced waters, Development or production of crui ALSO AS A CONDITION TO SUNDANCE SER THIS JOB TICKET. TRANSPORTER REPRES BY OPERATOR/SHIPPER TO TRANSPORT	S, INC.'S ACCEPTANCE OF SENTS AND WARRANTS THE RESOURCE, CONSEP U.S.C. § 6901, et seq. LATED THERETO, BY VII AND OTHER WASTE AS DE OIL OR NATURAL GAS VICES, INC.'S ACCEPTAN ENTS AND WARRANTS T ER IS NOW DELIVERE	F THE MATERIALS SHIPPED WITH THIS THAT THE WASTE MATERIAL SHIPPED AVATION AND RECOVERY ACT OF 1976, THE NM HEALTH AND SAF. CODE S RTUE OF THE EXEMPTION AFFORDED ASSOCIATED WITH THE EXPLORATION, OR GEOTHERMAL ENERGY. CE OF THE MATERIALS SHIPPED WITH HAT ONLY THE MATERIAL DELIVERED
THIS WILL CERTI	FY that the above Transportation, and that it was te	JOB TICKET, OPERATOR/SHIPPER REPRES HEREWITH IS MATERIAL EXEMPT FROM 1 AS AMENDED FROM TIME TO TIME, 40 361.001 et seq., and regulations re Drilling Fluids, produced waters, Development or production of Crui ALSO AS A CONDITION TO SUNDANCE SER THIS JOB TICKET. TRANSPORTER REPRES	S, INC.'S ACCEPTANCE OF SENTS AND WARRANTS THE RESOURCE, CONSEP U.S.C. § 6901, et seq. LATED THERETO, BY VII AND OTHER WASTE AS DE OIL OR NATURAL GAS VICES, INC.'S ACCEPTAN ENTS AND WARRANTS TER IS NOW DELIVERE CENTED BY THIS WILL	F THE MATERIALS SHIPPED WITH THIS THAT THE WASTE MATERIAL SHIPPED IVATION AND RECOVERY ACT OF 1976, THE NM HEALTH AND SAF, CODE S STUE OF THE EXEMPTION AFFORDED ISSOCIATED WITH THE EXPLORATION, OR GEOTHERMAL ENERGY. CE OF THE MATERIALS SHIPPED WITH HAT ONLY THE MATERIAL DELIVERED D BY TRANSPORTER TO SUNDANCE

Received by OCD; 9/23/2024 7:46:01 AM Page 435 of 440 SUNDANCE SERVICES, Inc. 509170 TICKET No. P.O. Box 1737 Eunice, New Mexico 88231 Business: (575) 394-2511 • Disposal: (575) 390-7842 LEASE OPERATOR/SHIPPER/COMPANY: DATE: LEASE NAME: () (AM/PM RIG NAME & NUMBER: **VEHICLE NO:** TRANSPORTER COMPANY: PHONE: GENERATOR COMPANY MAN'S NAME: PHONE: (12) 324 X O44 MULTINGE CHARGE TO: [] Tank Bottoms [] Drilling Fluids [] Rinsate TYPE OF [] BS&W Content: MATERIAL [] Solids ✓ Contaminated Soil [] Jet Out Description: **VOLUME OF** [⊠ YARD []BBLS. []____ **MATERIAL** RRC or API# C-133# AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS STICKERS, CODES, NUMBERS, ETC. JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., and regulations related thereto, by virtue of the exemption afforded DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident. **FACILITY REPRESENTATIVE:** (SIGNATURE)

Canary - Sundance Acct #1

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Pink - Transporter

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER:		1	<u> </u>	 	
(SIGNATURE)			1		
FACILITY REPRESENTATIVE:		25 F	2	 	
·	(SIGNATURE)				
		Plant of	" <i>()</i>		

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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Business: (575) 394-2511 · Disposal: (575) 390-7842	TICKET No. 509226
LEASE OPERATOR/SHIPPER/COMPANY:	DATE: 5 6 19
LEASE NAME: (1)750 SOH #173	TIME: / 3 7 AM/RM
RIG NAME & NUMBER:	VEHICLE NO: ろ
TRANSPORTER COMPANY: 5/5/2	PHONE:
GENERATOR COMPANY MAN'S NAME: SCOLE VOLO	DUONE
CHARGETO: VICO	
TYPE OF [] Tank Bottoms [] Drilling Fluids MATERIAL [] Solids [] Contaminated Soil Description:	[] Rinsate [] BS&W Content:
VOLUME OF []BBLS: []YARD	<u> </u>
RRC or API #	C-133# (-/-/-/-
STICKERS, CODES, NUMBERS, ETC. JOB TICKET, OPERATOR/SHIPPER I HEREWITH IS MATERIAL EXEMPT AS AMENDED FROM TIME TO TIM 361.001 et seq., AND REGULATION DRILLING FLUIDS, PRODUCTION O DEVELOPMENT OR PRODUCTION TO SUNDAN THIS JOB TICKET, TRANSPORTER	RVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, I.E., 40 U.S.C. § 6901, et seq., the NM HEALTH AND SAF. CODE § INSTITUTE OF THE EXEMPTION AFFORDED ATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, IF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY. INCESERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY TRANSPORTER TO SUNDANCE SPOSAL.
THIS WILL CERTIFY that the above Transporter loaded the material reabove described location, and that it was tendered by the above described materials were added to this load, and that the material was delivered with the material read was delivered with the material read was delivered with the material was delivered	bed shipper. This will certify that no additional
White - Sundance Canary - Sundance Acct #	1 Pink - Transporter

Reorder from: Vertigo Creative Services LLC + www.VertigoCreative.com + Form#SDI-004b

Page 438 of 440 Received by OCD: 9/23/2024 7:46:01 AM-UNDANCE SERVICES, Inc. 509168 TICKET No. P.O. Box 1737 Eunice, New Mexico 88231 77677 Business: (575) 394-2511 • Disposal: (575) 390-7842 141 DATE: LEASE OPERATOR/SHIPPER/COMPANY: TIME: / () / / / (AM)PM LEASE NAME: VEHICLE NO: RIG NAME & NUMBER: PHONE: TRANSPORTER COMPANY: Salado PHONE: 423.034 GENERATOR COMPANY MAN'S NAME: 4-14 **CHARGETO:** [] BS&W Content: [] Rinsate [] Drilling Fluids [] Tank Bottoms TYPE OF [] Jet Out [] Contaminated Soil MATERIAL [] Solids Description: $\mathbb{Z}(t)$ []_____ **VOLUME OF** .[←] YARD [] BBLS._____: MATERIAL C-133# RRC or API# AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED STICKERS, CODES, NUMBERS, ETC. HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., and regulations related thereto, by virtue of the exemption afforded DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC:S FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident. DRIVER: (SIGNATURE)

Canary - Sundance Acct #1

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Pink - Transporter

FACILITY REPRESENTATIVE:

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

COMMENTS

Action 199268

COMMENTS

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	199268
	Action Type:
	[IM-SD] Incident File Support Doc (ENV) (IM-BNF)

COMMENTS

Cre	eated By	Comment	Comment Date
а	maxwell	Historical document upload	3/21/2023

District I
1625 N. French Dr., Hobbs, NM 88240
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CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Soil remediation portion has been approved for closure as installation of a 20' mil liner and confirmation samples collected every 50' have been completed and previously approved by the OCD. Additionally, groundwater has been confirmed to be impacted by the pipeline release as demonstrated by lab analyses from TMW1 and TMW2. As a result of this, please proceed to furnish a stage 1 abatement plan as XTO Energy has partially proposed in section 4.2 Monitoring Wells. This proposal is required to follow the provisions under section 19.15.30.13 NMAC ABATEMENT PLAN PROPOSAL. XTO Energy has sixty (60) days from this approval date (10.01.2024) to submit a stage 1 abatement plan to fully characterize the release and impact to groundwater for this incident. Lastly, please upload the stage 1 abatement plan for both incident numbers, [nOY1727250040] [nCH1903648978]	10/1/2024