Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAB1809356513
District RP	2RP-4686
Facility ID	
Application ID	

Closure

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

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

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

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Adrian Baker Title: SSHE Coordinator

Signature: Adrian Baker Date: 9-13-2021

email: adrian.baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: Robert Hamlet Date: 4/1/2022

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Robert Hamlet Date: 4/1/2022

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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

Incident ID	NAB1809356513
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Release Notification

Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #: 2RP-4686
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude N 32.152350 Longitude W -104.018310
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Cattle Baron #001Y	Site Type: Production Well Facility
Date Release Discovered: 3/15/2018	API# *(if applicable):* 30-015-44130

Unit Letter	Section	Township	Range	County
P	6	25S	29E	Eddy

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls):	Volume Recovered (bbls):
☒ Produced Water	Volume Released (bbls): 6.5	Volume Recovered (bbls): 6
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
A 2-inch Kimray dump developed a hole due to abrasive corrosion by sand moving through equipment. The dump was replaced. Free-standing fluids were recovered.

State of New Mexico
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? Release volume was less than 25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? NA	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:
N/A

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial 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.

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Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 2-21-2020

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: Date:

Incident ID	NAB1809356513
District RP	2RP-4686
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<50 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ 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 ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ 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 ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

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

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

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

State of New Mexico
Oil Conservation Division

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Printed Name: Adrian Baker Title: SSHE Coordinator

Signature: Adrian Baker Date: 9-13-2021

email: adrian.baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: Date:

Incident ID	NAB1809356513
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Printed Name: Adrian Baker Title: SSHE Coordinator

Signature: Adrian Baker Date: 9-13-2021

email: adrian.baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

WSP USA
3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

September 14, 2021

District II
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

RE: Closure Request Addendum
Cattle Baron State #001Y
Remediation Permit Number 2RP-4686/Incident Number NAB1809356513
Eddy County, New Mexico

To Whom It May Concern:

WSP USA Inc. (WSP) on behalf of XTO Energy, Inc. (XTO), presents the following addendum to a Closure Request submitted April 10, 2020. This Addendum provides an update to the depth to groundwater determination and excavation activities completed at the Cattle Baron State #001Y (Site), located in Unit P, Section 6, Township 25 South, Range 29 East, in Eddy County, New Mexico (Figure 1), in response to the denial of the Closure Request by the New Mexico Oil Conservation Division (NMOCD). In the denial, NMOCD expressed concern that the depth to groundwater assessment may not be sufficient. Based on the additional depth to groundwater determination and excavation activities described below, XTO is requesting no further action (NFA) for Remediation Permit (RP) Number 2RP-4686/Incident Number NAB1809356513.

BACKGROUND

On April 10, 2020, WSP submitted a Closure Request to the NMOCD for the March 15, 2018 Kimray dump release of 6.5 barrels (bbls) of produced water onto the surface of the well pad. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids; approximately 6 bbls of freestanding fluids were recovered. XTO reported the release to the NMOCD on a Form C-141 on March 30, 2018. The release was assigned RP Number 2RP-4686/ Incident Number NAB1809356513.

The Closure Request detailed site characterization according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Based on the site characterization, the following Closure Criteria were applied:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg

- TPH: 2,500 mg/kg
- Chloride: 10,000 mg/kg

Site assessment and soil sampling activities were conducted to assess for potential soil impacts resulting from the March 15, 2018, produced water release at the Site. All except 0.5 bbls of released fluids were recovered during initial response activities. Ten potholes (PH01 through PH10) were advanced within and around the release extent to assess for the presence or absence of impacted soil. Laboratory analytical results for the soil samples collected from potholes PH01 through PH10, from depths ranging from 0.5 feet to 19.5 feet bgs, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the applied Closure Criteria. The pothole soil sample locations are depicted on Figure 2. Based on visual observations, field screening activities, and laboratory analytical results, no impacted soil, as defined by the Closure Criteria, was identified as a result of the release and no further remediation activities were completed.

On April 24, 2020, NMOCD denied the Closure Request for RP Number 2RP-4686/Incident Number NAB1809356513 for the following reason:

- *When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided. If evidence of depth to ground water within a ½ mile radius of the site cannot be provided, impacted soils will need to meet Table 1 Closure Criteria for ground water at a depth of 50 feet or less.*
    - *If you feel the depth to groundwater is >50', a shallow borehole can be drilled to 51' allowing for verification of the depth. If water is not visible after reaching bottom-hole and waiting 72 hours, the OCD will accept this as evidence. We would just need a copy of the driller's log.*

ADDITIONAL DEPTH TO GROUNDWATER ASSESSMENT ACTIVITIES

In an effort to confirm the depth to groundwater determination, WSP oversaw installation a soil boring within 0.5 miles of the Site utilizing a truck-mounted hollow-stem auger rig. Soil boring C-4493 was drilled to a depth of 57 feet bgs. The location of the borehole is approximately 625 feet east of the site and is depicted on Figure 1. A WSP geologist logged and described soils continuously. Groundwater was encountered in the soil boring at approximately 37 feet bgs. The borehole was left open for over 72 hours to allow for equilibration of groundwater levels within the temporary boring casing. After the 72-hour waiting period, it was confirmed that groundwater beneath the Site was approximately 37 feet bgs. The Well Record and Log is included in Attachment 1.

Prior to abandoning the soil boring, a water sample (WS01) was collected for analysis of total dissolved solids (TDS) by Standard Method (SM) 2540C. Laboratory analytical results for water

sample WS01, indicated a TDS concentration of 13,600 milligrams per liter (mg/L). The laboratory analytical report is attached. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. Based on depth to water less feet 50 bgs, the following revised Closure Criteria apply at the Site:

- Benzene: 10 milligrams per kilogram (mg/kg)
- BTEX: 50 mg/kg
- TPH: 100 mg/kg
- Chloride: 600 mg/kg

TPH and BTEX concentrations were below laboratory detection limits in all pothole delineation samples collected at the Site. Chloride concentrations in the pothole delineation samples ranged from 15 mg/kg to 2,790 mg/kg, at depths ranging from 0.5 feet to 19.5 feet bgs. Due to the small volume (0.5 bbls) of unrecovered released produced water and known variable naturally occurring chloride concentrations in the surrounding area, advancement of background soil borings was scheduled to establish a naturally occurring chloride concentration to be applied at the Site per Table 1 of 19.15.29.12 NMAC, "Numerical limits or natural background level, whichever is greater."

BACKGROUND SOIL BORINGS AND ANALYTICAL RESULTS

On April 12, 2021, WSP personnel returned to the Site to advance background soil borings in order to establish naturally occurring chloride concentrations in the area. Two background soil borings (BG01 and BG02) were advanced via hand auger in the undisturbed pasture area approximately 180 feet south and 350 feet southwest of the release location. Soil from the borings was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Soil samples were collected from the background soil borings from depths ranging from 4 feet to 20 feet bgs. Field screening results and observations for the background soil borings were logged on lithologic/soil sampling logs, which are included in Attachment 2. The background soil boring locations are shown on Figure 3.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Midland, Texas, for analysis of BTEX following United States Environmental Protection Agency (USEPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following USEPA Method 8015M/D; and chloride following USEPA Method 300.0.

Laboratory analytical results for the soil samples collected from background soil borings BG01 and BG02 indicated that naturally occurring chloride concentrations ranged from 48 mg/kg to 1,750 mg/kg at depths ranging from 4 feet to 20 feet bgs.

Six additional background sample locations (BG01 through BG06) were advanced in the pasture area northeast of the Site during January 2020, to characterize background chloride concentrations during remediation of a separate release. Laboratory analytical results for the soil samples collected from background locations BG01 through BG06, indicated that naturally occurring chloride concentrations ranged from 31 mg/kg to 2,030 mg/kg at depths ranging from 1-foot to 4 feet bgs. The background soil boring locations are shown on Figure 3. The background soil sample analytical results are summarized on Table 1.

Based on the laboratory analytical results for the background soil samples, a naturally occurring chloride concentration of 2,030 mg/kg was established for the Site. Upon review of the laboratory analytical results for the original pothole PH01 through PH10 delineation soil samples, two samples were identified with chloride concentrations exceeding a background chloride concentration of 2,030 mg/kg. Delineation sample PH05, collected at 3 feet bgs, contained a chloride concentration of 2,790 mg/kg and delineation sample PH06, collected at 8 feet bgs contained a chloride concentration of 2,060 mg/kg. Subsequent vertical delineation samples collected at 17 feet bgs from potholes PH05 and PH06, indicated that chloride concentrations were below background levels.

The elevated chloride concentration detected at 8 feet bgs in PH06 is only 30 mg/kg higher than the established background concentration of 2,030 mg/kg and occurs at a similar depth and lithology as other elevated results, including from the background samples. Chloride field screening results from soil samples collected above 8 feet bgs in PH06 are low, indicating the elevated chloride is not the result of migration from the ground surface directly above. These observations suggest the chloride concentration of 2,060 mg/kg is related to naturally occurring conditions and WSP proposes to leave it in place. The soil sample collected from the bottom of PH06 (17 feet bgs) is 878 mg/kg, within background and exhibiting a decreasing trend above depth of groundwater.

EXCAVATION ACTIVITIES

Although the elevated chloride detected in PH05 at 3 feet bgs is likely unrelated to the release, WSP personnel returned to the Site on June 9, 2021, to oversee excavation activities around pothole PH05. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride. Following removal of impacted soil, WSP collected 5-point composite soil samples every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by depositing five aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples SW01 and SW02 were collected from the sidewalls of the excavation from depths ranging from ground

surface to 3.5 feet bgs. Composite soil samples FS01 and FS02 were collected from the floor of the excavation from a depth of 3.5 feet bgs. The excavation extent and excavation soil sample locations are depicted on Figure 4. Photographic documentation was conducted during the Site visits. A photographic log is included in Attachment 3. The soil samples were handled and analyzed as previously described. The soil sample analytical results are summarized on Table 1 and the complete laboratory analytical reports are included in Attachment 4.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the March 15, 2018 release of produced water and NMOCD denial of the original Closure Request. Site assessment activities established depth to groundwater as 37 feet bgs. The shallow depth to groundwater affected Closure Criteria, resulting in application of the most stringent standard, including 600 mg/kg chloride. However, the investigation identified naturally occurring elevated chloride concentrations greater than 2,000 mg/kg in the subsurface. Chloride concentrations likely exceeding background were identified in one limited area. The impacted soil was excavated there, and laboratory analytical results for the excavation soil samples indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Site Closure Criteria. Delineation samples indicate all other soil is within range of documented background concentrations.

In addition to the presence of naturally occurring elevated chloride in soil, a background groundwater sample contained elevated TDS exceeding 10,000 mg/L. Groundwater containing greater than 10,000 mg/L TDS is not protectable as derived from the objective of 19.15.30 of the New Mexico Administrative Code (NMAC), which is to abate pollution of groundwater that has a background concentration of 10,000 mg/L or less TDS. The 10,000 mg/L TDS threshold is further used in 20.6.2 NMAC, which states the purpose of the water quality standards are to protect groundwater with concentrations of less than 10,000 mg/L of TDS. If the groundwater is naturally of such poor quality as to be unprotectable, the application of the most stringent standard is unnecessary, as the site characterization does not identify any other nearby receptors that may trigger the most stringent Closure Criteria. The remaining soil represented by laboratory analytical data contains chloride ranging from 15.6 mg/kg to 2,060 mg/kg and meets the originally proposed Closure Criteria of 10,000 mg/kg.

Based on excavation of soil containing chloride concentrations exceeding naturally occurring background concentrations and all remaining chloride concentrations meeting background concentrations and meeting the Closure Criteria established for deeper groundwater because shallow groundwater is not freshwater, XTO respectfully requests no further action for Incident Number RP Number 2RP-4686/ Incident Number NAB1809356513. XTO backfilled the excavation with material purchased locally and recontoured the Site to match pre-existing site conditions.

If you have any questions or comments, please do not hesitate to contact Ms. Ashley Ager at (970) 385-1096 or Ashley.Ager@wsp.com.

Sincerely,

WSP USA, INC.

Anna Byers
Consultant, Geologist

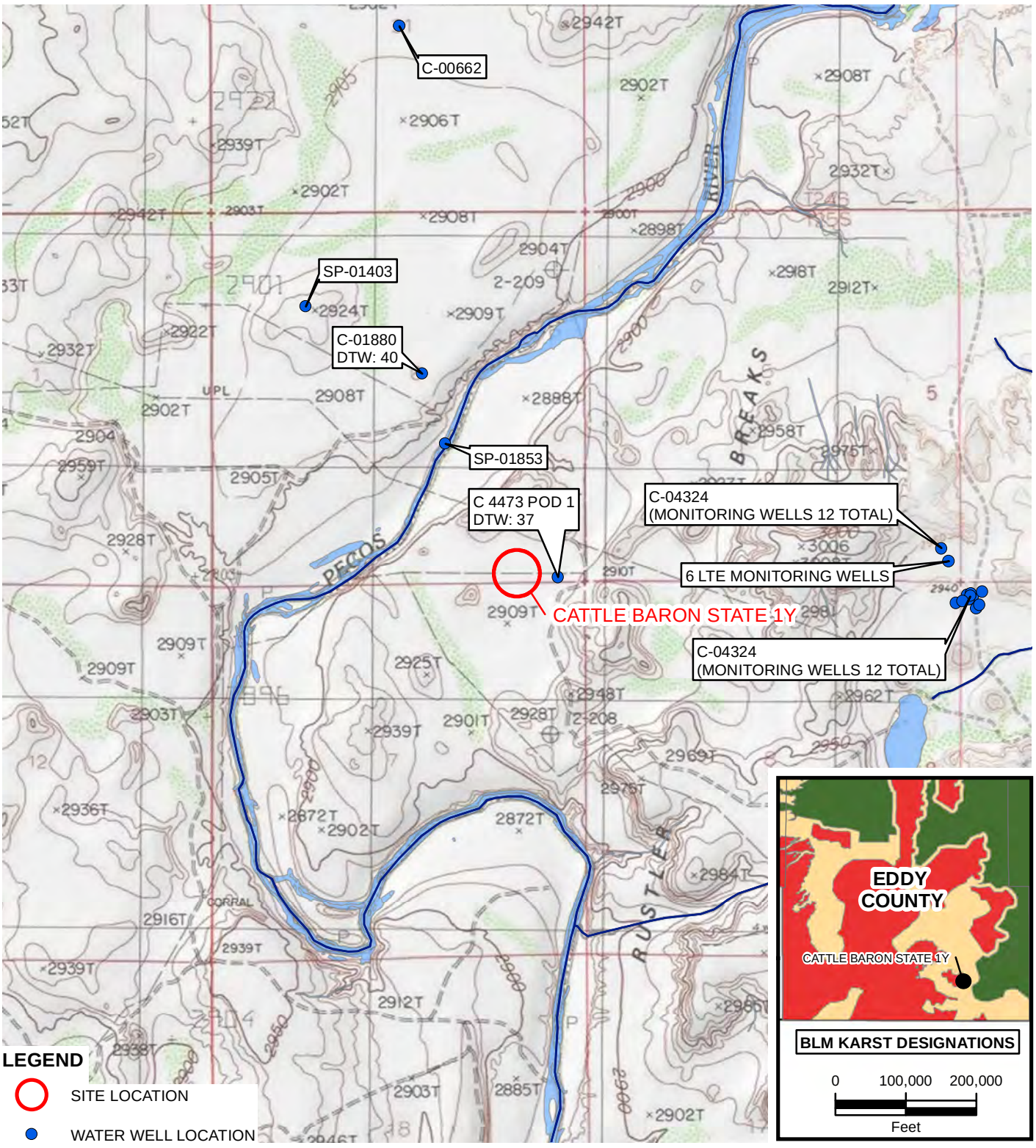
Ashley L. Ager, P.G.
Managing Director, Geologist

cc: Adrian Baker, XTO
Ryan Mann, New Mexico State Land Office

Attachments:

Figure 1	Site Location Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Background Soil Sample Locations
Figure 4	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Table 2	Background Soil Sample Analytical Results
Attachment 1	Well Record and Log
Attachment 2	Lithologic/Soil Sampling Logs
Attachment 3	Photographic Log
Attachment 4	Laboratory Analytical Reports

FIGURES



NOTE: REMEDIATION PERMIT NUMBER 2RP-4686
DTW: DEPTH TO WATER IN FEET

FIGURE 1
POTENTIAL RECEPTOR MAP
CATTLE BARON STATE 1Y
UNIT P SEC 6 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918100_CATTLE_BARON_STATE_1Y\012918100_FIG01_RECEPTOR_SL.mxd

LEGEND

- RELEASE LOCATION
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- ELECTRIC LINE
- RELEASE EXTENT

NOTE: REMEDIATION PERMIT NUMBER 2RP-4686

IMAGE COURTESY OF ESRI

0 30 60
Feet

N

FIGURE 2
DELINEATION SOIL SAMPLE LOCATIONS
CATTLE BARON STATE 1Y
UNIT P SEC 6 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918100_CATTLE_BARON_STATE_1Y\012918100_FIG02_DELINEATION_2019.mxd

LEGEND

- RELEASE LOCATION
- BACKGROUND SOIL SAMPLE
- RELEASE EXTENT

IMAGE COURTESY OF ESRI

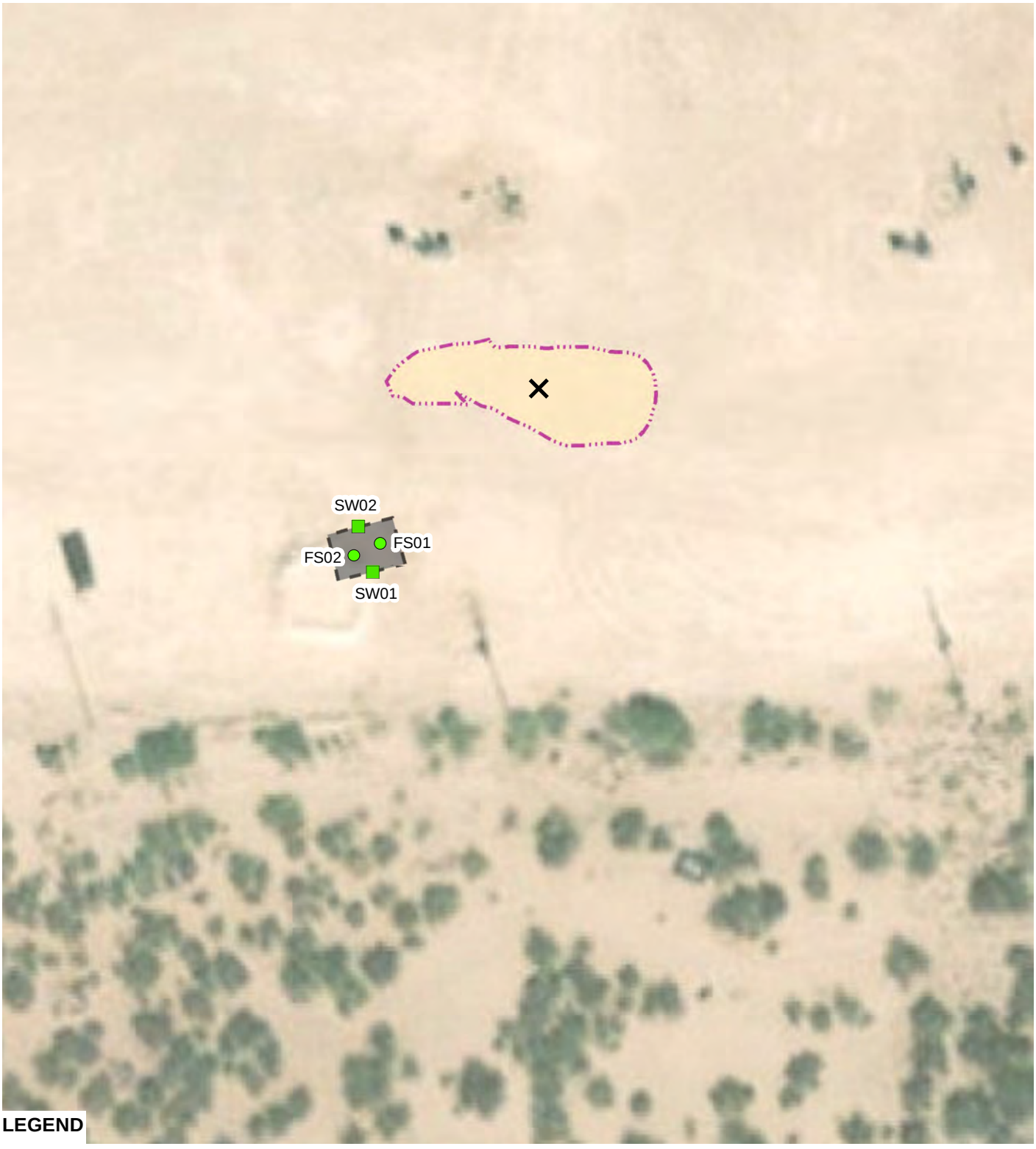
0 200 400
Feet

N

NOTE: REMEDIATION PERMIT NUMBER 2RP-4686
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 3
BACKGROUND SOIL SAMPLE LOCATIONS
CATTLE BARON STATE 1Y
UNIT P & A SEC 6 & 8 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918100_CATTLE_BARON_STATE_1Y\012918100_FIG02_BACKGROUND_2021.mxd



LEGEND

- RELEASE LOCATION
- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- RELEASE EXTENT
- EXCAVATION EXTENT

NOTE: REMEDIATION PERMIT NUMBER 2RP-4686
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

0 50 100
Feet

N

FIGURE 4
EXCAVATION SOIL SAMPLE LOCATIONS
CATTLE BARON STATE 1Y
UNIT P & A SEC 6 & 8 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918100_CATTLE_BARON_STATE_1Y\012918100_FIG03_EXCAVATION_2021.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

CATTLE BARRON STATE #001Y
REMEDIATION PERMIT NUMBER 2RP-4686
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	**50**	NE	NE	NE	**NE**	**100**	**600**
Background Concentration			NE	NE	NE	NE	NE	NE	NE	**2,030**
DELINEATION SOIL SAMPLES										
PH01	0.5	10/14/2019	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	15.6
PH01A	4.5	07/09/2019	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	611
PH01B	12	07/09/2019	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	356
PH01C	17	07/09/2019	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	1,270
PH02	0.5	07/10/2019	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	769
PH02A	4.5	07/10/2019	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	190
PH03	4.5	07/10/2019	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	1,290
PH03A	12	07/10/2019	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	1,480
PH03B	19.5	07/10/2019	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	1,110
PH04	8	07/10/2019	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	1,270
PH04A	15	07/10/2019	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	958
PH05	3	07/11/2019	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**2,790**
PH05A	17	07/11/2019	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	1,200
PH06	8	07/16/2019	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	2,060
PH06A	17	07/16/2019	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	878
PH07	13	07/16/2019	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	845
PH07A	16	07/16/2019	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	911
PH08	8	07/16/2019	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	1,540
PH08A	17.5	07/16/2019	<0.00201	<0.00201	<15.0	63.3	18.1	63.3	81.4	198
PH09	0.5	10/14/2019	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	137
PH09A	8	07/16/2019	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	790
PH09B	18	07/16/2019	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	816
PH010	10	07/15/2019	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	996
PH010A	19.5	07/15/2019	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	683

TABLE 1
SOIL ANALYTICAL RESULTS

CATTLE BARRON STATE #001Y
REMEDIATION PERMIT NUMBER 2RP-4686
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	**50**	NE	NE	NE	**NE**	**100**	**600**
Background Concentration			NE	NE	NE	NE	NE	NE	NE	**2,030**
BACKGROUND SOIL SAMPLES										
BG01 (South)	4	04/12/2021	<0.00200	<0.00200	<50.0	<50.0	<50.0	73.3	<50.0	419
BG01A	6	04/12/2021	0.00201	0.00201	<49.9	<49.9	<49.9	67.6	<49.9	1,050
BG01B	10	04/12/2021	<0.00202	<0.00202	<49.8	<49.8	<49.8	66.1	<49.8	1,630
BG01C	14	04/12/2021	<0.00199	<0.00199	<49.9	<49.9	<49.9	71.2	<49.9	1,750
BG01D	16	04/12/2021	0.00207	0.00207	<49.9	<49.9	<49.9	122	<49.9	1,330
BG01E	20	04/12/2021	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	313
BG02 (Southwest)	4	04/12/2021	0.00965	0.00965	<50.0	<50.0	<50.0	<50.0	<50.0	48.3
BG02A	6	04/12/2021	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	413
BG02B	10	04/12/2021	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	409
BG02C	12	04/12/2021	0.00231	0.00231	<49.8	<49.8	<49.8	<49.8	<49.8	664
BG02D	14	04/12/2021	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	880
BG02E	16	04/12/2021	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	111
BG01 (Northeast)	1	01/23/2020	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	31.2
BG01A	3	01/23/2020	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	1,610
BG01B	4	01/23/2020	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	1,320
BG02 (Northeast)	1	01/23/2020	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	288
BG02A	3	01/23/2020	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	575
BG02B	4	01/23/2020	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	568
BG03 (Northeast)	1	01/23/2020	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	170
BG03A	3	01/23/2020	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	924
BG03B	4	01/23/2020	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	1,260
BG04 (Northeast)	1	01/23/2020	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	35.8
BG04A	3	01/23/2020	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	694
BG04B	4	01/23/2020	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	809
BG05 (Northeast)	1	01/23/2020	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	768
BG05A	3	01/23/2020	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	2,030
BG05B	4	01/23/2020	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	1,670
BG06 (Northeast)	1	01/23/2020	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	244
BG06A	3	01/23/2020	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	1,590
BG06B	4	01/23/2020	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	1,920

TABLE 1
SOIL ANALYTICAL RESULTS

CATTLE BARRON STATE #001Y
REMEDIATION PERMIT NUMBER 2RP-4686
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	**50**	NE	NE	NE	**NE**	**100**	**600**
Background Concentration			NE	NE	NE	NE	NE	NE	NE	**2,030**
EXCAVATION SOIL SAMPLES										
FS01	3.5	06/09/2021	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	<49.8	575
FS02	3.5	06/09/2021	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	568
SW01	0 - 3.5	06/09/2021	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	427
SW02	0 - 3.5	06/09/2021	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	148

Notes:
bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
mg/kg - milligrams per kilogram
NE - not established
NMOCD - New Mexico Oil Conservation Division
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29
DRO - diesel range organics
GRO - gasoline range organics
ORO - oil range organics
TPH - total petroleum hydrocarbons
Bold - indicates result exceeds the applicable regulatory standard or background
< - indicates result is below laboratory reporting limits
Grey text - indicates sample that was excavated

ATTACHMENT 1: REFERENCED WELL RECORD

Atkins ENGINEERING ASSOCIATES INC.
2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

12/16/2020

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-4493 Pod1

To whom it may concern:

Attached please find a well record and a plugging record, in duplicate, for a one (1) soil borings, C-4493 Pod1.

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

APPLICANT COPY

Lucas Middleton

OSE DII DEC 17 2020 PM1:54

Enclosures: as noted above

OSE DIT DEC 17 2020 PM1:54

PLUGGING RECORD

APPLICANT COPY

NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4493-POD1

Well owner: XTO ENERGY (Kyle Littrell) Phone No.: 432.682.8873

Mailing address: 6401 Holiday Hill Dr.

City: Midland State: Texas Zip code: 79707

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)

2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/21

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Shane Eldridge

4) Date well plugging began: 11/23/2020 Date well plugging concluded: 11/23/2020

5) GPS Well Location: Latitude: 32 deg, 9 min, 9.09 sec
Longitude: -104 deg, 0 min, 58.81 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 40 ft below ground level (bgl), by the following manner: weighted tape

7) Static water level measured at initiation of plugging: 37.05 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 11/12/2020

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

Version: September 8, 2009
Page 1 of 2

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10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-40' Portland Type I/II Neat Cement	Approx. 124 gallons	117 gallons	Augers	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

I, Jackie D. Atkins, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Jack Atkins

Signature of Well Driller

12/15/2020

Date

Version: September 8, 2009
Page 2 of 2

2020-12-15_C-4493_POD1_OSE_Well Record and Log_CAttle-forsign

Final Audit Report 2020-12-15

Created:	2020-12-15
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAnq4xUbZe1ADExmp8BGfUeuw8WVrl_oBj

"2020-12-15_C-4493_POD1_OSE_Well Record and Log_CAttle-forsign" History

Document created by Lucas Middleton (lucas@atkinseng.com)
2020-12-15 - 8:38:23 PM GMT- IP address: 69.21.248.123

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Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2020-12-15 - 11:12:51 PM GMT - Time Source: server- IP address: 74.50.153.115

Agreement completed.
2020-12-15 - 11:12:51 PM GMT

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (BH-01)	n/a	C-4493

WELL OWNER NAME(S)	PHONE (OPTIONAL)
XTO Energy (Kyle Littrell)	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
6401 Holiday Hill Dr.	Midland	TX	79707

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32°	9'	9.09"	N
	LONGITUDE	-104°	0'	58.81"	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SE NE SE Sec. 6 T25S R29E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
11/18/2020	11/18/2020	temporary well material	57	±39

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 37.05

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	57	±8.5	Boring- HSA	--	--	--	--

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 1 OF 2

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4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	1	1	Caliche, Poorly consolidated, with gravel, Off -White -Light Brown	Y ✓ N	
1	2	1	Sand, Very fine- grained,poorly-graded, with caliche ,Brown	Y ✓ N	
2	14	12	Caliche, Moderately consolidated, with gravel, Off -White -Light Brown, Moist	Y ✓ N	
14	29	15	Siltstone, poorly consolidated, low plasticity, cohesive, with sand, Brown, Moist	Y ✓ N	
29	57	28	Silty Sandstone, Very fine-grained, well consolidated, trace pebbles, wet	✓ Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring plugged using Portland Type I/II neat cement 94 lbs sack per 5.2 gallons of water.
Logs adapted from LTE on-site geologist.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Shane Eldridge

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins — Jackie D. Atkins — 12/15/20

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

ATTACHMENT 2: LITHOLOGIC/SAMPLING LOG

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: BG01	Date: 4/12/2021
Site Name: Cattle Baron State 1Y	
RP or Incident Number: 2RP-4686	
WSP Job Number: TE012918100	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By SL/TC	Method: Hand Auger/ Core Drill		
Lat/Long: 32.151729,-104.018387	Field Screening: Chloride, PID	Hole Diameter: 4"	Total Depth: 20'

Comments:
Field screening values include 60% correction factor, TD @ 20'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						1		0-8'	Sand, fine grained, well sorted, brown, no odor, no stain trace silt
D	<186	0.0	N		2	2			
						3			
D	870	0.0	N	BG01	4	4	SP-SM		
						5			
D	1651	0.0	N	BG01A	6	6			
						7			
D	1235	0.0	N		8	8			
						9		8'-18'	Sandey clay, fine grained, well sorted, brown, no odor, no stain, cohesive, low plasticity
D	2618	0.0	N	BG01B	10	10			
						11			
D	1235	0.0	N		12	12			
						13	SP-SC		
D	2304	0.0	N	BG01C	14	14		14'-18'	no plasticity
						15			
D	1894	0.0	N	BG01D	16	16			
						17			
D	1139	0.0	N		18	18			
						19	CCHE	18'-20'	Caliche w/ sandey clay, no odor, no stain, brown-tan, medium-fine grain, moderately sorted, cohesive, low plasticity
M	320	0.0	N	BG01E	20	20			
						21			TD @ 20'
						22			
						23			
						24			
						25			

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: BG02	Date: 4/12/2021
Site Name: Cattle Baron State 1Y	
RP or Incident Number: 2RP-4686	
WSP Job Number: TE012918100	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By SL/TC	Method: Hand Auger/ Core Drill		
Lat/Long: 32.151721,-104.019470	Field Screening: Chloride, PID	Hole Diameter: 4"	Total Depth: 16'

Comments:
Field screening values include 60% correction factor, TD @ 16'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						1		0-14' Sand, fine grained, well sorted, brown, no odor, no stain trace silt
D	<186	0.0	N		2	2		
						3		
D	<186	0.0	N	BG02	4	4		
						5		
D	870	0.0	N	BG02A	6	6		
						7	SP-SM	
D	<186	0.0	N		8	8		
						9		
D	1139	0.0	N	BG02B	10	10		
						11		
D	1542	0.1	N	BG02C	12	12		-12'-14' Caliche gravel, tan, some
						13		
D	1139	0.1	N	BG02D	14	14		
						15	CCHE	14'-16' Caliche w/ sand, no odor, no stain, medium-fine grained, moderately sorted, tan-brown
M	268	0.1	N	BG02E	16	16		
						17		TD @16'
						18		
						19		
						20		
						21		
						22		
						23		
						24		
						25		

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Identifier:	Date:
BG01	1.23.20
Project Name: Goldenchild CTB	RP Number: 2RP-4777
Logged By: SL	Method: Trackhoe
Lat/Long:	Field Screening: PID ~~Chloride~~
Hole Diameter: —	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: TD @ 4.5'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			0-4.5
D	4186	0.0	N	PH08	1	1		Silty sand, fine grained, poorly graded, no odor, no stain, trace caliche
D	794	0.0	N		2		SM	
D	2157	0.0	N	PH08A	3	3		
D	1894	0.0	N	PH08B	4	4		-4- increase in caliche
D	1894	0.0	N					
					5			TD @ 4.5'
					6			
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Identifier:	Date:
BG02	1-23-20
Project Name: Goldenchild CTB	RP Number: 2RP-4777
Logged By: SL	Method: Trackhoe
Lat/Long:	Field Screening: PID Chloride / Hole Diameter: — / Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: TD @ 4.5'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			0-4.5
D	1139	0.0	N	PH09	1	1		Silty sand, fine grained, poorly graded, no odor, no stain, trace caliche
D	1542	0.0	N		2		SM	
D	320	0.0	N	PH09A	3	3		
D	640	0.0	N	PH09B	4	4		
D	640	0.0	N					
					5			TD @ 4.5'
					6			
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Identifier:	Date:
BG03	1.23.20
Project Name:	**RP Number:**
Goldenchild CTB	2RP-4777
Logged By: SL	**Method:** Trackhoe
Lat/Long:	**Field Screening:** PID / Chloride
Hole Diameter:	**Total Depth:** 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: TD @ 4.5'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	187	0.0	N	PH10	0			0-4.5'
D	224	0.0	N		1	1		silty sand, Brown, no odor no stain
D	1235	0.0	N		2		SM	fine, poorly graded, trace caliche
D	1235	0.0	N	PH10A	3	3		-3 - increase caliche gravel
D	870	0.0	N	PH10B	4	4		
					5			TD @ 4.5'
					6			
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Identifier: BG04	Date: 1-23-20
Project Name: Golden child CTB	RP Number: 2RP-4777
Logged By: SL	Method: Trackhoe
Field Screening: (PID) (Chloride)	Hole Diameter: —
Lat/Long:	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: TD @ 4.5'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	<186	0.0	N	PH11	1	1	SM	0-4.5' Silty sand, brown, no odor, no stain fine, poorly graded, trace caliche
D	<186	0.0	N		2			
D	960	0.0	N	PH11A	3	3		
D	1139	0.0	N	PH11B	4	4		
D	1043	0.0	N		5			TD @ 4.5'
					6			
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Identifier:	Date:
BG05	1.23.20
Project Name: Goldenchild CTB	RP Number: 2RP-4777
Logged By: SL	Method: Track hoe
Lat/Long:	Field Screening: PID Chloride
Hole Diameter: —	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: TD @ 4.5'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			0-4.5'
D	870	0.0	N	PH12	1	1		Silty sand, Brown, no odor, no stain, fine grained, poorly sorted, trace caliché
D	1542	0.0	N		2		Sm	
D	2157	0.0	N	PH12A	3	3		
D	1542	0.0	N	PH12B	4	4		4- increase caliche gravel
D	1434	0.0	N					
					5			TD @ 4.5'
					6			
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Identifier: BG06	Date: 1.23.20
Project Name: Goldenchild CTB	RP Number: 2RP-4777
Logged By: SL	Method: Trackhoe
Hole Diameter:	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: (PID) Chloride

Comments: TD @ 4.5'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			0-4.5'
D	320	0.0	N	PH13	1	1		Silty Sand, Brown, no odor, no stain, fine grained, poorly graded trace caliche
D	960	0.0	N		2		Sm	
D	2022	0.0	N	PH13A	3	3		
D	2022	0.0	N	PH13B	4	4		-4- caliche gravel increase
D	1651	0.0	N					
					5			TD @ 4.5'
					6			
					7			
					8			
					9			
					10			
					11			
					12			

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Cattle Baron State #001Y Eddy County, New Mexico	2RP-4686 / Incident ID NAB1809356513

Photo No.	Date
1	July 16, 2019

View of release area during site assessment activities.

Photo No.	Date
2	July 16, 2019

View of release area during site assessment activities.

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Cattle Baron State #001Y Eddy County, New Mexico	2RP-4686 / Incident ID NAB1809356513

Photo No.	Date
3	June 9, 2021

View of excavation activities.

Photo No.	Date
4	June 9, 2021

View of excavation activities.

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

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Certificate of Analysis Summary 678869

LT Environmental, Inc., Arvada, CO

Project Name: Cattle Baron Stole 1Y

Project Id: TE012918100
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 11.24.2020 08:00
Report Date: 12.02.2020 15:55
Project Manager: Jessica Kramer

Analysis Requested								
	Lab Id:	678869-001						
	Field Id:	BH01						
	Depth:							
	Matrix:	WATER						
	Sampled:	11.23.2020 15:55						
Chloride by EPA 300	***Extracted:***	11.25.2020 10:40						
	Analyzed:	12.01.2020 11:38						
	Units/RL:	mg/L	RL					
Chloride		7420 X	250					
TDS by SM2540C SUB: T104704215-20-38	***Extracted:***							
	Analyzed:	11.30.2020 12:24						
	Units/RL:	mg/L	RL					
Total Dissolved Solids		13600	5.00					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

eurofins | Environment Testing Xenco

Analytical Report 678869

for

LT Environmental, Inc.

Project Manager: Dan Moir

Cattle Baron Stole 1Y

TE012918100

12.02.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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12.02.2020

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **678869**
Cattle Baron Stole 1Y
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 678869. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 678869 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 678869

LT Environmental, Inc., Arvada, CO

Cattle Baron Stole 1Y

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	W	11.23.2020 15:55		678869-001

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CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Cattle Baron Stole 1Y

Project ID: *TE012918100*
Work Order Number(s): *678869*

Report Date: *12.02.2020*
Date Received: *11.24.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3143570 Chloride by EPA 300

Lab Sample ID 678869-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 678869-001.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

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Certificate of Analytical Results 678869

LT Environmental, Inc., Arvada, CO

Cattle Baron Stole 1Y

Sample Id: **BH01** Matrix: Water Date Received:11.24.2020 08:00

Lab Sample Id: 678869-001 Date Collected: 11.23.2020 15:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 11.25.2020 10:40 % Moisture:

Seq Number: 3143570

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7420**	250	mg/L	12.01.2020 11:38	X	500

Analytical Method: TDS by SM2540C

Tech: LET

Analyst: LET % Moisture:

Seq Number: 3143445 SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**13600**	5.00	mg/L	11.30.2020 12:24		1

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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QC Summary 678869

LT Environmental, Inc.

Cattle Baron Stole 1Y

Analytical Method: **Chloride by EPA 300** Prep Method: E300P

Seq Number: 3143570 Matrix: Water Date Prep: 11.25.2020

MB Sample Id: 7715977-1-BLK LCS Sample Id: 7715977-1-BKS LCSD Sample Id: 7715977-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.500	25.0	24.0	96	23.7	95	90-110	1	20	mg/L	12.01.2020 11:16	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P

Seq Number: 3143570 Matrix: Water Date Prep: 11.25.2020

Parent Sample Id: 678869-001 MS Sample Id: 678869-001 S MSD Sample Id: 678869-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7420	10000	16300	89	16200	88	90-110	1	20	mg/L	12.01.2020 11:43	X

Analytical Method: **TDS by SM2540C**

Seq Number: 3143445 Matrix: Water

MB Sample Id: 3143445-1-BLK LCS Sample Id: 3143445-1-BKS LCSD Sample Id: 3143445-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	948	95	1000	100	80-120	5	10	mg/L	11.30.2020 12:24	

Analytical Method: **TDS by SM2540C**

Seq Number: 3143445 Matrix: Drinking Water

Parent Sample Id: 678760-001 MD Sample Id: 678760-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1130	1220	8	10	mg/L	11.30.2020 12:24	

Analytical Method: **TDS by SM2540C**

Seq Number: 3143445 Matrix: Water

Parent Sample Id: 679029-001 MD Sample Id: 679029-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	2010	2020	0	10	mg/L	11.30.2020 12:24	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Work Order No: 678869

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy Inc.
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432.236.3849	Email:	bbelill@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Cattle Baron Stak 1H	Turn Around	
Project Number:	TE012918100	Routine	☑
P.O. Number:	2RP-4686	Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT				
Temperature (°C):	1.6/1.4	Temp Blank:	(Yes) No	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID	TNM007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	2	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers			Chloride (EPA 300.0)	TDS
BH01	W	11/23/22	1555	—	2			X	X

BTD 11/23/22

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 **200.8 / 6020:** 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		11/24/22 @ 0800	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number : 73870

Date/Time:	11.24.2020	Created by:	Cloe Clifton	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Houston**	Air Bill No.:	772177764388	E-Mail:	jessica.kramer@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
678869-001	W	BH01	11.23.2020 15:55	SM2540C	TDS by SM2540C	12.02.2020	**11.30.2020 15:55**	JKR	TDS	

Inter Office Shipment or Sample Comments:

Relinquished By: Cloe Clifton

Date Relinquished: 11.24.2020

Received By: Sandra Torres

Date Received: 11.25.2020

Cooler Temperature: 0.8

Environment Testing Xenco

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 73870

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : HOU-188

Sent By: Cloe Clifton **Date Sent:** 11.24.2020 02.43 PM

Received By: Sandra Torres **Date Received:** 11.25.2020 09.30 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.8	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 *Custody Seals Signed and dated for Containers/coolers	**N/A**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Sandra Torres Date: 11.25.2020

Sandra Torres

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11.24.2020 08.00.00 AM

Work Order #: 678869

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.4	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Samples sent to Stafford.
#18 Water VOC samples have zero headspace?	**No**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Cloe Clifton Date: 11.24.2020

Checklist reviewed by: Jessica Kramer Date: 11.25.2020

Jessica Kramer

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-793-1
Laboratory Sample Delivery Group: TE012918100
Client Project/Site: Cattle Baron State 1Y

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Aimee Cole

JKramer

Authorized for release by:
6/15/2021 12:33:38 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Laboratory Job ID: 890-793-1
SDG: TE012918100

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-793-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-793-1
SDG: TE012918100

Job ID: 890-793-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-793-1

Receipt
The samples were received on 6/9/2021 4:32 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS01 (890-793-1), FS02 (890-793-2), SW01 (890-793-3) and SW02 (890-793-4).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: FS01 (890-793-1), FS02 (890-793-2), SW01 (890-793-3) and SW02 (890-793-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-793-1
SDG: TE012918100

Client Sample ID: FS01

Lab Sample ID: 890-793-1
Matrix: Solid

Date Collected: 06/09/21 13:00
Date Received: 06/09/21 16:32
Sample Depth: - 3.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/11/21 09:00	06/11/21 11:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/11/21 09:00	06/11/21 11:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/11/21 09:00	06/11/21 11:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/11/21 09:00	06/11/21 11:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/11/21 09:00	06/11/21 11:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/11/21 09:00	06/11/21 11:39	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/11/21 09:00	06/11/21 11:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*06/11/21 09:00*	*06/11/21 11:39*	*1*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*	*06/11/21 09:00*	*06/11/21 11:39*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/11/21 15:21	06/14/21 00:25	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/11/21 15:21	06/14/21 00:25	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/11/21 15:21	06/14/21 00:25	1
Total TPH	<49.8	U	49.8		mg/Kg		06/11/21 15:21	06/14/21 00:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*06/11/21 15:21*	*06/14/21 00:25*	*1*
o-Terphenyl	*82*		*70 - 130*	*06/11/21 15:21*	*06/14/21 00:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**575**	**F1**	5.02		mg/Kg			06/14/21 14:28	1

Client Sample ID: FS02

Lab Sample ID: 890-793-2
Matrix: Solid

Date Collected: 06/09/21 13:03
Date Received: 06/09/21 16:32
Sample Depth: - 3.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/11/21 09:00	06/11/21 12:00	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/11/21 09:00	06/11/21 12:00	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/11/21 09:00	06/11/21 12:00	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/11/21 09:00	06/11/21 12:00	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/11/21 09:00	06/11/21 12:00	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/11/21 09:00	06/11/21 12:00	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/11/21 09:00	06/11/21 12:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*06/11/21 09:00*	*06/11/21 12:00*	*1*
1,4-Difluorobenzene (Surr)	*128*		*70 - 130*	*06/11/21 09:00*	*06/11/21 12:00*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-793-1
SDG: TE012918100

Client Sample ID: FS02

Lab Sample ID: 890-793-2
Matrix: Solid
Date Collected: 06/09/21 13:03
Date Received: 06/09/21 16:32
Sample Depth: - 3.5

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/11/21 15:21	06/14/21 01:28	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/11/21 15:21	06/14/21 01:28	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/11/21 15:21	06/14/21 01:28	1
Total TPH	<49.8	U	49.8		mg/Kg		06/11/21 15:21	06/14/21 01:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*06/11/21 15:21*	*06/14/21 01:28*	*1*
o-Terphenyl	*83*		*70 - 130*	*06/11/21 15:21*	*06/14/21 01:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**568**		5.00		mg/Kg			06/14/21 14:42	1

Client Sample ID: SW01

Lab Sample ID: 890-793-3
Matrix: Solid
Date Collected: 06/09/21 13:45
Date Received: 06/09/21 16:32
Sample Depth: 0 - 3.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/11/21 09:00	06/11/21 12:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/11/21 09:00	06/11/21 12:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/11/21 09:00	06/11/21 12:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/11/21 09:00	06/11/21 12:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/11/21 09:00	06/11/21 12:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/11/21 09:00	06/11/21 12:21	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/11/21 09:00	06/11/21 12:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*06/11/21 09:00*	*06/11/21 12:21*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*06/11/21 09:00*	*06/11/21 12:21*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/11/21 15:21	06/14/21 01:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/11/21 15:21	06/14/21 01:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/11/21 15:21	06/14/21 01:48	1
Total TPH	<50.0	U	50.0		mg/Kg		06/11/21 15:21	06/14/21 01:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*06/11/21 15:21*	*06/14/21 01:48*	*1*
o-Terphenyl	*93*		*70 - 130*	*06/11/21 15:21*	*06/14/21 01:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**427**		4.99		mg/Kg			06/14/21 14:47	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-793-1
SDG: TE012918100

Client Sample ID: SW02

Date Collected: 06/09/21 13:47
Date Received: 06/09/21 16:32
Sample Depth: 0 - 3.5

Lab Sample ID: 890-793-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/11/21 09:00	06/11/21 12:42	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/11/21 09:00	06/11/21 12:42	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/11/21 09:00	06/11/21 12:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/11/21 09:00	06/11/21 12:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/11/21 09:00	06/11/21 12:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/11/21 09:00	06/11/21 12:42	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/11/21 09:00	06/11/21 12:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*06/11/21 09:00*	*06/11/21 12:42*	*1*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*	*06/11/21 09:00*	*06/11/21 12:42*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/11/21 15:21	06/14/21 02:09	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/11/21 15:21	06/14/21 02:09	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/11/21 15:21	06/14/21 02:09	1
Total TPH	<49.8	U	49.8		mg/Kg		06/11/21 15:21	06/14/21 02:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*06/11/21 15:21*	*06/14/21 02:09*	*1*
o-Terphenyl	*88*		*70 - 130*	*06/11/21 15:21*	*06/14/21 02:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**148**		5.01		mg/Kg			06/14/21 14:52	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-793-1
SDG: TE012918100

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-793-1	FS01	105	74
890-793-2	FS02	99	128
890-793-3	SW01	85	116
890-793-4	SW02	105	123
LCS 880-3990/1-A	Lab Control Sample	102	125
LCSD 880-3990/2-A	Lab Control Sample Dup	90	110
MB 880-3955/5-A	Method Blank	103	93
MB 880-3990/5-A	Method Blank	109	106

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-793-1	FS01	84	82
890-793-1 MS	FS01	92	84
890-793-1 MSD	FS01	98	86
890-793-2	FS02	84	83
890-793-3	SW01	90	93
890-793-4	SW02	86	88
LCS 880-4045/2-A	Lab Control Sample	93	86
LCSD 880-4045/3-A	Lab Control Sample Dup	90	86
MB 880-4045/1-A	Method Blank	96	101

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-793-1
SDG: TE012918100

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3955/5-A
Matrix: Solid
Analysis Batch: 3957

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3955

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.002142		0.00200		mg/Kg		06/10/21 09:06	06/10/21 12:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/10/21 09:06	06/10/21 12:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/10/21 09:06	06/10/21 12:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/10/21 09:06	06/10/21 12:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/10/21 09:06	06/10/21 12:42	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/10/21 09:06	06/10/21 12:42	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/10/21 09:06	06/10/21 12:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*06/10/21 09:06*	*06/10/21 12:42*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*06/10/21 09:06*	*06/10/21 12:42*	*1*

Lab Sample ID: MB 880-3990/5-A
Matrix: Solid
Analysis Batch: 3957

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3990

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/10/21 14:34	06/10/21 23:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/10/21 14:34	06/10/21 23:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/10/21 14:34	06/10/21 23:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/10/21 14:34	06/10/21 23:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/10/21 14:34	06/10/21 23:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/10/21 14:34	06/10/21 23:41	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/10/21 14:34	06/10/21 23:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*06/10/21 14:34*	*06/10/21 23:41*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*06/10/21 14:34*	*06/10/21 23:41*	*1*

Lab Sample ID: LCS 880-3990/1-A
Matrix: Solid
Analysis Batch: 3957

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3990

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1030		mg/Kg		103	70 - 130		
Toluene			0.100	0.1063		mg/Kg		106	70 - 130		
Ethylbenzene			0.100	0.1004		mg/Kg		100	70 - 130		
m-Xylene & p-Xylene			0.200	0.2014		mg/Kg		101	70 - 130		
o-Xylene			0.100	0.1001		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*125*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-793-1
SDG: TE012918100

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-3990/2-A
Matrix: Solid
Analysis Batch: 3957

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3990

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08838		mg/Kg		88	70 - 130	15	35
Toluene			0.100	0.09654		mg/Kg		97	70 - 130	10	35
Ethylbenzene			0.100	0.08602		mg/Kg		86	70 - 130	15	35
m-Xylene & p-Xylene			0.200	0.1727		mg/Kg		86	70 - 130	15	35
o-Xylene			0.100	0.08626		mg/Kg		86	70 - 130	15	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-4045/1-A
Matrix: Solid
Analysis Batch: 4069

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4045

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/11/21 15:21	06/13/21 23:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/11/21 15:21	06/13/21 23:23	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/11/21 15:21	06/13/21 23:23	1
Total TPH	<50.0	U	50.0		mg/Kg		06/11/21 15:21	06/13/21 23:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*06/11/21 15:21*	*06/13/21 23:23*	*1*
o-Terphenyl	*101*		*70 - 130*	*06/11/21 15:21*	*06/13/21 23:23*	*1*

Lab Sample ID: LCS 880-4045/2-A
Matrix: Solid
Analysis Batch: 4069

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4045

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	864.4		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1006		mg/Kg		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*93*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

Lab Sample ID: LCSD 880-4045/3-A
Matrix: Solid
Analysis Batch: 4069

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4045

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	800.7		mg/Kg		80	70 - 130	8	20

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-793-1
SDG: TE012918100

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-4045/3-A
Matrix: Solid
Analysis Batch: 4069

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4045

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)			1000	982.3		mg/Kg		98	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

Lab Sample ID: 890-793-1 MS
Matrix: Solid
Analysis Batch: 4069

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 4045

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	999	877.0		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	999	1095		mg/Kg		110	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

Lab Sample ID: 890-793-1 MSD
Matrix: Solid
Analysis Batch: 4069

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 4045

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	966.2		mg/Kg		95	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	<49.8	U	998	1174		mg/Kg		118	70 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*98*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-4021/1-A
Matrix: Solid
Analysis Batch: 4092

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/14/21 14:13	1

Lab Sample ID: LCS 880-4021/2-A
Matrix: Solid
Analysis Batch: 4092

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	248.6		mg/Kg		99	90 - 110		

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-793-1
SDG: TE012918100

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-4021/3-A
Matrix: Solid
Analysis Batch: 4092

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	248.8		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-793-1 MS
Matrix: Solid
Analysis Batch: 4092

Client Sample ID: FS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	575	F1	250	795.9	F1	mg/Kg		88	90 - 110		

Lab Sample ID: 890-793-1 MSD
Matrix: Solid
Analysis Batch: 4092

Client Sample ID: FS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	575	F1	250	796.0	F1	mg/Kg		88	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-793-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

GC VOA

Prep Batch: 3955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-3955/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 3957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-793-1	FS01	Total/NA	Solid	8021B	3990
890-793-2	FS02	Total/NA	Solid	8021B	3990
890-793-3	SW01	Total/NA	Solid	8021B	3990
890-793-4	SW02	Total/NA	Solid	8021B	3990
MB 880-3955/5-A	Method Blank	Total/NA	Solid	8021B	3955
MB 880-3990/5-A	Method Blank	Total/NA	Solid	8021B	3990
LCS 880-3990/1-A	Lab Control Sample	Total/NA	Solid	8021B	3990
LCSD 880-3990/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3990

Prep Batch: 3990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-793-1	FS01	Total/NA	Solid	5035	
890-793-2	FS02	Total/NA	Solid	5035	
890-793-3	SW01	Total/NA	Solid	5035	
890-793-4	SW02	Total/NA	Solid	5035	
MB 880-3990/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3990/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3990/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 4045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-793-1	FS01	Total/NA	Solid	8015NM Prep	
890-793-2	FS02	Total/NA	Solid	8015NM Prep	
890-793-3	SW01	Total/NA	Solid	8015NM Prep	
890-793-4	SW02	Total/NA	Solid	8015NM Prep	
MB 880-4045/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-4045/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-4045/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-793-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-793-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 4069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-793-1	FS01	Total/NA	Solid	8015B NM	4045
890-793-2	FS02	Total/NA	Solid	8015B NM	4045
890-793-3	SW01	Total/NA	Solid	8015B NM	4045
890-793-4	SW02	Total/NA	Solid	8015B NM	4045
MB 880-4045/1-A	Method Blank	Total/NA	Solid	8015B NM	4045
LCS 880-4045/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	4045
LCSD 880-4045/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	4045
890-793-1 MS	FS01	Total/NA	Solid	8015B NM	4045
890-793-1 MSD	FS01	Total/NA	Solid	8015B NM	4045

QC Association Summary

Client: WSP USA Inc. Job ID: 890-793-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

HPLC/IC

Leach Batch: 4021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-793-1	FS01	Soluble	Solid	DI Leach	
890-793-2	FS02	Soluble	Solid	DI Leach	
890-793-3	SW01	Soluble	Solid	DI Leach	
890-793-4	SW02	Soluble	Solid	DI Leach	
MB 880-4021/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-4021/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-4021/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-793-1 MS	FS01	Soluble	Solid	DI Leach	
890-793-1 MSD	FS01	Soluble	Solid	DI Leach	

Analysis Batch: 4092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-793-1	FS01	Soluble	Solid	300.0	4021
890-793-2	FS02	Soluble	Solid	300.0	4021
890-793-3	SW01	Soluble	Solid	300.0	4021
890-793-4	SW02	Soluble	Solid	300.0	4021
MB 880-4021/1-A	Method Blank	Soluble	Solid	300.0	4021
LCS 880-4021/2-A	Lab Control Sample	Soluble	Solid	300.0	4021
LCSD 880-4021/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	4021
890-793-1 MS	FS01	Soluble	Solid	300.0	4021
890-793-1 MSD	FS01	Soluble	Solid	300.0	4021

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-793-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

Client Sample ID: FS01 Lab Sample ID: 890-793-1

Date Collected: 06/09/21 13:00 **Matrix: Solid**
Date Received: 06/09/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3990	06/11/21 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3957	06/11/21 11:39	KL	XEN MID
Total/NA	Prep	8015NM Prep			4045	06/11/21 15:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4069	06/14/21 00:25	AM	XEN MID
Soluble	Leach	DI Leach			4021	06/11/21 11:46	CH	XEN MID
Soluble	Analysis	300.0		1	4092	06/14/21 14:28	CH	XEN MID

Client Sample ID: FS02 Lab Sample ID: 890-793-2

Date Collected: 06/09/21 13:03 **Matrix: Solid**
Date Received: 06/09/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3990	06/11/21 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3957	06/11/21 12:00	KL	XEN MID
Total/NA	Prep	8015NM Prep			4045	06/11/21 15:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4069	06/14/21 01:28	AM	XEN MID
Soluble	Leach	DI Leach			4021	06/11/21 11:46	CH	XEN MID
Soluble	Analysis	300.0		1	4092	06/14/21 14:42	CH	XEN MID

Client Sample ID: SW01 Lab Sample ID: 890-793-3

Date Collected: 06/09/21 13:45 **Matrix: Solid**
Date Received: 06/09/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3990	06/11/21 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3957	06/11/21 12:21	KL	XEN MID
Total/NA	Prep	8015NM Prep			4045	06/11/21 15:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4069	06/14/21 01:48	AM	XEN MID
Soluble	Leach	DI Leach			4021	06/11/21 11:46	CH	XEN MID
Soluble	Analysis	300.0		1	4092	06/14/21 14:47	CH	XEN MID

Client Sample ID: SW02 Lab Sample ID: 890-793-4

Date Collected: 06/09/21 13:47 **Matrix: Solid**
Date Received: 06/09/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3990	06/11/21 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3957	06/11/21 12:42	KL	XEN MID
Total/NA	Prep	8015NM Prep			4045	06/11/21 15:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4069	06/14/21 02:09	AM	XEN MID
Soluble	Leach	DI Leach			4021	06/11/21 11:46	CH	XEN MID
Soluble	Analysis	300.0		1	4092	06/14/21 14:52	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-793-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-793-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-793-1
SDG: TE012918100

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-793-1	FS01	Solid	06/09/21 13:00	06/09/21 16:32	- 3.5
890-793-2	FS02	Solid	06/09/21 13:03	06/09/21 16:32	- 3.5
890-793-3	SW01	Solid	06/09/21 13:45	06/09/21 16:32	0 - 3.5
890-793-4	SW02	Solid	06/09/21 13:47	06/09/21 16:32	0 - 3.5

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Crasbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Work Order No: _____

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6/15/2021

Project Manager:	Aimee Cole	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(720) 384-7365	Email:	aimee.cole@wsp.com, fatima.smith@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Cattle Baron State 1Y	Turn Around	
Project Number:	TE012918100	Routine	☑
Project Location	Eddy county	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	3.2 / 3.0	Thermometer ID	
Received Intact:	Yes No	T-NM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.7
Sample Custody Seals:	Yes No N/A	Total Containers:	

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
	FS01	S	6/9/21	1300	3.5'	1	X	X	X
	FS02	S	6/9/21	1303	3.5'	1	X	X	X
	SW01	S	6/9/21	1345	0-3.5'	1	X	X	X
	SW02	S	6/9/21	1347	0-3.5'	1	X	X	X

890-793 Chain of Custody

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			6/9/21 16:29	2		
3				4		
5				6		

Revised Date 022619 Rev. 2019.1

Incident = NAB1809356513 (2RP-4686)
CC 1579616 61001
API 30-015-44130

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-256 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-793-1
Address: 1211 W Florida Ave	Due Date Requested: 6/15/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: Cattle Baron State 1Y	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8016NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
FS01 (890-793-1)	6/9/21	13 00 Mountain		Solid			X	X	X	1	
FS02 (890-793-2)	6/9/21	13 03 Mountain		Solid			X	X	X	1	
SW01 (890-793-3)	6/9/21	13 45 Mountain		Solid			X	X	X	1	
SW02 (890-793-4)	6/9/21	13 47 Mountain		Solid			X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:
Relinquished by: Gabby Ordonez	Date/Time: 6/10/21	Company	Received by: Date/Time: 6-11-21 1130a.m Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company
Relinquished by	Date/Time:	Company	Received by: Date/Time: Company

Custody Seals Intact ∆ Yes ∆ No	Custody Seal No
Cooler Temperature(s) °C and Other Remarks.	

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-793-1
SDG Number: TE012918100

Login Number: 793
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-793-1
SDG Number: TE012918100

Login Number: 793
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 06/11/21 11:40 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-519-1
Laboratory Sample Delivery Group: TE012918100
Client Project/Site: Cattle Baron State 1Y
Revision: 1

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Dan Moir

JKramer

Authorized for release by:
4/20/2021 12:41:18 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Laboratory Job ID: 890-519-1
SDG: TE012918100

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-519-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

Job ID: 890-519-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-519-1

Receipt
The samples were received on 4/13/2021 4:17 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: BG01 (890-519-1), BG01A (890-519-2), BG01B (890-519-3), BG01C (890-519-4), BG01D (890-519-5) and BG01E (890-519-6).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: BG01B (890-519-3) and BG01D (890-519-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-1802 and analytical batch 880-1775 recovered outside control limits for the following analytes: < Gasoline Range Organics (GRO)-C6-C10>.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

Client Sample ID: BG01

Date Collected: 04/12/21 09:30
Date Received: 04/13/21 16:17
Sample Depth: - 4

Lab Sample ID: 890-519-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 00:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 00:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 00:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/14/21 14:45	04/15/21 00:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 00:32	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/14/21 14:45	04/15/21 00:32	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 00:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*04/14/21 14:45*	*04/15/21 00:32*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*04/14/21 14:45*	*04/15/21 00:32*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+ *1	50.0		mg/Kg		04/14/21 14:55	04/15/21 03:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/14/21 14:55	04/15/21 03:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/14/21 14:55	04/15/21 03:23	1
Total TPH	<50.0	U	50.0		mg/Kg		04/14/21 14:55	04/15/21 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*04/14/21 14:55*	*04/15/21 03:23*	*1*
o-Terphenyl	*94*		*70 - 130*	*04/14/21 14:55*	*04/15/21 03:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**419**		4.97		mg/Kg			04/18/21 15:39	1

Client Sample ID: BG01A

Date Collected: 04/12/21 09:40
Date Received: 04/13/21 16:17
Sample Depth: - 6

Lab Sample ID: 890-519-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00201**		0.00198		mg/Kg		04/14/21 14:45	04/15/21 00:52	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/14/21 14:45	04/15/21 00:52	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/14/21 14:45	04/15/21 00:52	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		04/14/21 14:45	04/15/21 00:52	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/14/21 14:45	04/15/21 00:52	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		04/14/21 14:45	04/15/21 00:52	1
Total BTEX	**0.00201**		0.00198		mg/Kg		04/14/21 14:45	04/15/21 00:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*04/14/21 14:45*	*04/15/21 00:52*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*04/14/21 14:45*	*04/15/21 00:52*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

Client Sample ID: BG01A

Date Collected: 04/12/21 09:40
Date Received: 04/13/21 16:17
Sample Depth: - 6

Lab Sample ID: 890-519-2
Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *+ *1	49.9		mg/Kg		04/14/21 14:55	04/15/21 03:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/14/21 14:55	04/15/21 03:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/14/21 14:55	04/15/21 03:44	1
Total TPH	<49.9	U	49.9		mg/Kg		04/14/21 14:55	04/15/21 03:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*04/14/21 14:55*	*04/15/21 03:44*	*1*
o-Terphenyl	*118*		*70 - 130*	*04/14/21 14:55*	*04/15/21 03:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1050**		4.99		mg/Kg			04/18/21 15:44	1

Client Sample ID: BG01B

Date Collected: 04/12/21 10:00
Date Received: 04/13/21 16:17
Sample Depth: - 10

Lab Sample ID: 890-519-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/14/21 14:45	04/15/21 01:13	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/14/21 14:45	04/15/21 01:13	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/14/21 14:45	04/15/21 01:13	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		04/14/21 14:45	04/15/21 01:13	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/14/21 14:45	04/15/21 01:13	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		04/14/21 14:45	04/15/21 01:13	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		04/14/21 14:45	04/15/21 01:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*04/14/21 14:45*	*04/15/21 01:13*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*04/14/21 14:45*	*04/15/21 01:13*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *+ *1	49.8		mg/Kg		04/14/21 14:55	04/15/21 04:05	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/14/21 14:55	04/15/21 04:05	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/14/21 14:55	04/15/21 04:05	1
Total TPH	<49.8	U	49.8		mg/Kg		04/14/21 14:55	04/15/21 04:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*04/14/21 14:55*	*04/15/21 04:05*	*1*
o-Terphenyl	*121*		*70 - 130*	*04/14/21 14:55*	*04/15/21 04:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1630**		24.8		mg/Kg			04/18/21 15:49	5

Client Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

Client Sample ID: BG01C

Date Collected: 04/12/21 10:25
Date Received: 04/13/21 16:17
Sample Depth: - 14

Lab Sample ID: 890-519-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 01:34	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 01:34	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 01:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/14/21 14:45	04/15/21 01:34	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 01:34	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/14/21 14:45	04/15/21 01:34	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 01:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*04/14/21 14:45*	*04/15/21 01:34*	*1*
1,4-Difluorobenzene (Surr)	*122*		*70 - 130*	*04/14/21 14:45*	*04/15/21 01:34*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *+ *1	49.9		mg/Kg		04/14/21 14:55	04/15/21 04:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/14/21 14:55	04/15/21 04:27	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/14/21 14:55	04/15/21 04:27	1
Total TPH	<49.9	U	49.9		mg/Kg		04/14/21 14:55	04/15/21 04:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*04/14/21 14:55*	*04/15/21 04:27*	*1*
o-Terphenyl	*112*		*70 - 130*	*04/14/21 14:55*	*04/15/21 04:27*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1750**		25.0		mg/Kg			04/18/21 15:54	5

Client Sample ID: BG01D

Date Collected: 04/12/21 10:45
Date Received: 04/13/21 16:17
Sample Depth: - 16

Lab Sample ID: 890-519-5

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00207**		0.00198		mg/Kg		04/14/21 14:45	04/15/21 01:54	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/14/21 14:45	04/15/21 01:54	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/14/21 14:45	04/15/21 01:54	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		04/14/21 14:45	04/15/21 01:54	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/14/21 14:45	04/15/21 01:54	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		04/14/21 14:45	04/15/21 01:54	1
Total BTEX	**0.00207**		0.00198		mg/Kg		04/14/21 14:45	04/15/21 01:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*04/14/21 14:45*	*04/15/21 01:54*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*04/14/21 14:45*	*04/15/21 01:54*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

Client Sample ID: BG01D

Date Collected: 04/12/21 10:45
Date Received: 04/13/21 16:17
Sample Depth: - 16

Lab Sample ID: 890-519-5

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *+ *1	49.9		mg/Kg		04/14/21 14:55	04/15/21 04:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/14/21 14:55	04/15/21 04:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/14/21 14:55	04/15/21 04:48	1
Total TPH	<49.9	U	49.9		mg/Kg		04/14/21 14:55	04/15/21 04:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*04/14/21 14:55*	*04/15/21 04:48*	*1*
o-Terphenyl	*116*		*70 - 130*	*04/14/21 14:55*	*04/15/21 04:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1330**		24.8		mg/Kg			04/18/21 18:07	5

Client Sample ID: BG01E

Date Collected: 04/12/21 12:00
Date Received: 04/13/21 16:17
Sample Depth: - 20

Lab Sample ID: 890-519-6

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 02:15	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 02:15	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 02:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/14/21 14:45	04/15/21 02:15	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 02:15	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/14/21 14:45	04/15/21 02:15	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 02:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*04/14/21 14:45*	*04/15/21 02:15*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*04/14/21 14:45*	*04/15/21 02:15*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *+ *1	49.8		mg/Kg		04/14/21 14:55	04/15/21 05:09	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/14/21 14:55	04/15/21 05:09	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/14/21 14:55	04/15/21 05:09	1
Total TPH	<49.8	U	49.8		mg/Kg		04/14/21 14:55	04/15/21 05:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*129*		*70 - 130*	*04/14/21 14:55*	*04/15/21 05:09*	*1*
o-Terphenyl	*126*		*70 - 130*	*04/14/21 14:55*	*04/15/21 05:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**313**		5.05		mg/Kg			04/18/21 18:22	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-519-1	BG01	101	111
890-519-1 MS	BG01	90	114
890-519-1 MSD	BG01	93	110
890-519-2	BG01A	102	116
890-519-3	BG01B	112	105
890-519-4	BG01C	109	122
890-519-5	BG01D	115	96
890-519-6	BG01E	96	101
LCS 880-1779/1-A	Lab Control Sample	87	103
LCSD 880-1779/2-A	Lab Control Sample Dup	93	109
MB 880-1766/5-A	Method Blank	123	110
MB 880-1779/5-A	Method Blank	116	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-519-1	BG01	95	94
890-519-2	BG01A	120	118
890-519-3	BG01B	121	121
890-519-4	BG01C	109	112
890-519-5	BG01D	109	116
890-519-6	BG01E	129	126
LCS 880-1802/2-A	Lab Control Sample	119	108
LCSD 880-1802/3-A	Lab Control Sample Dup	113	99
MB 880-1802/1-A	Method Blank	115	116

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-1766/5-A
Matrix: Solid
Analysis Batch: 1767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1766

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 13:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*04/14/21 08:56*	*04/14/21 13:09*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*04/14/21 08:56*	*04/14/21 13:09*	*1*

Lab Sample ID: MB 880-1779/5-A
Matrix: Solid
Analysis Batch: 1767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1779

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 00:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 00:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 00:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/14/21 14:45	04/15/21 00:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 00:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/14/21 14:45	04/15/21 00:10	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 00:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*04/14/21 14:45*	*04/15/21 00:10*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*04/14/21 14:45*	*04/15/21 00:10*	*1*

Lab Sample ID: LCS 880-1779/1-A
Matrix: Solid
Analysis Batch: 1767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1779

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07945		mg/Kg		79	70 - 130		
Toluene			0.100	0.08727		mg/Kg		87	70 - 130		
Ethylbenzene			0.100	0.07968		mg/Kg		80	70 - 130		
m-Xylene & p-Xylene			0.200	0.1691		mg/Kg		85	70 - 130		
o-Xylene			0.100	0.08270		mg/Kg		83	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-1779/2-A
Matrix: Solid
Analysis Batch: 1767

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08414		mg/Kg		84	70 - 130	6	35
Toluene			0.100	0.09461		mg/Kg		95	70 - 130	8	35
Ethylbenzene			0.100	0.09048		mg/Kg		90	70 - 130	13	35
m-Xylene & p-Xylene			0.200	0.1824		mg/Kg		91	70 - 130	8	35
o-Xylene			0.100	0.09024		mg/Kg		90	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 890-519-1 MS
Matrix: Solid
Analysis Batch: 1767

Client Sample ID: BG01
Prep Type: Total/NA
Prep Batch: 1779

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.0996	0.07296		mg/Kg		72	70 - 130
Toluene	<0.00200	U	0.0996	0.07932		mg/Kg		80	70 - 130
Ethylbenzene	<0.00200	U	0.0996	0.07495		mg/Kg		75	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1527		mg/Kg		77	70 - 130
o-Xylene	<0.00200	U	0.0996	0.07436		mg/Kg		75	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: 890-519-1 MSD
Matrix: Solid
Analysis Batch: 1767

Client Sample ID: BG01
Prep Type: Total/NA
Prep Batch: 1779

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.101	0.08195		mg/Kg		80	70 - 130	12	35
Toluene	<0.00200	U	0.101	0.08402		mg/Kg		83	70 - 130	6	35
Ethylbenzene	<0.00200	U	0.101	0.08201		mg/Kg		81	70 - 130	9	35
m-Xylene & p-Xylene	<0.00399	U	0.202	0.1653		mg/Kg		82	70 - 130	8	35
o-Xylene	<0.00200	U	0.101	0.08134		mg/Kg		81	70 - 130	9	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-1802/1-A
Matrix: Solid
Analysis Batch: 1775

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1802

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/14/21 14:55	04/14/21 21:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/14/21 14:55	04/14/21 21:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/14/21 14:55	04/14/21 21:04	1
Total TPH	<50.0	U	50.0		mg/Kg		04/14/21 14:55	04/14/21 21:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*04/14/21 14:55*	*04/14/21 21:04*	*1*
o-Terphenyl	*116*		*70 - 130*	*04/14/21 14:55*	*04/14/21 21:04*	*1*

Lab Sample ID: LCS 880-1802/2-A
Matrix: Solid
Analysis Batch: 1775

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1802

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1533	*+	mg/Kg		153	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1188		mg/Kg		119	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*119*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: LCSD 880-1802/3-A
Matrix: Solid
Analysis Batch: 1775

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1802

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1220	*1	mg/Kg		122	70 - 130	23	20
Diesel Range Organics (Over C10-C28)			1000	1067		mg/Kg		107	70 - 130	11	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*99*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1916/1-A
Matrix: Solid
Analysis Batch: 1954

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/18/21 13:21	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-1916/2-A
Matrix: Solid
Analysis Batch: 1954

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	256.5		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-1916/3-A
Matrix: Solid
Analysis Batch: 1954

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	256.0		mg/Kg		102	90 - 110	0	20

Lab Sample ID: MB 880-1918/1-A
Matrix: Solid
Analysis Batch: 1955

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/18/21 16:20	1

Lab Sample ID: LCS 880-1918/2-A
Matrix: Solid
Analysis Batch: 1955

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	250.0		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-1918/3-A
Matrix: Solid
Analysis Batch: 1955

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	249.2		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

GC VOA

Prep Batch: 1766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-1766/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 1767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-519-1	BG01	Total/NA	Solid	8021B	1779
890-519-2	BG01A	Total/NA	Solid	8021B	1779
890-519-3	BG01B	Total/NA	Solid	8021B	1779
890-519-4	BG01C	Total/NA	Solid	8021B	1779
890-519-5	BG01D	Total/NA	Solid	8021B	1779
890-519-6	BG01E	Total/NA	Solid	8021B	1779
MB 880-1766/5-A	Method Blank	Total/NA	Solid	8021B	1766
MB 880-1779/5-A	Method Blank	Total/NA	Solid	8021B	1779
LCS 880-1779/1-A	Lab Control Sample	Total/NA	Solid	8021B	1779
LCSD 880-1779/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1779
890-519-1 MS	BG01	Total/NA	Solid	8021B	1779
890-519-1 MSD	BG01	Total/NA	Solid	8021B	1779

Prep Batch: 1779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-519-1	BG01	Total/NA	Solid	5035	
890-519-2	BG01A	Total/NA	Solid	5035	
890-519-3	BG01B	Total/NA	Solid	5035	
890-519-4	BG01C	Total/NA	Solid	5035	
890-519-5	BG01D	Total/NA	Solid	5035	
890-519-6	BG01E	Total/NA	Solid	5035	
MB 880-1779/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1779/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1779/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-519-1 MS	BG01	Total/NA	Solid	5035	
890-519-1 MSD	BG01	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 1775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-519-1	BG01	Total/NA	Solid	8015B NM	1802
890-519-2	BG01A	Total/NA	Solid	8015B NM	1802
890-519-3	BG01B	Total/NA	Solid	8015B NM	1802
890-519-4	BG01C	Total/NA	Solid	8015B NM	1802
890-519-5	BG01D	Total/NA	Solid	8015B NM	1802
890-519-6	BG01E	Total/NA	Solid	8015B NM	1802
MB 880-1802/1-A	Method Blank	Total/NA	Solid	8015B NM	1802
LCS 880-1802/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1802
LCSD 880-1802/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1802

Prep Batch: 1802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-519-1	BG01	Total/NA	Solid	8015NM Prep	
890-519-2	BG01A	Total/NA	Solid	8015NM Prep	
890-519-3	BG01B	Total/NA	Solid	8015NM Prep	
890-519-4	BG01C	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

GC Semi VOA (Continued)

Prep Batch: 1802 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-519-5	BG01D	Total/NA	Solid	8015NM Prep	
890-519-6	BG01E	Total/NA	Solid	8015NM Prep	
MB 880-1802/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1802/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1802/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 1916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-519-1	BG01	Soluble	Solid	DI Leach	
890-519-2	BG01A	Soluble	Solid	DI Leach	
890-519-3	BG01B	Soluble	Solid	DI Leach	
890-519-4	BG01C	Soluble	Solid	DI Leach	
MB 880-1916/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1916/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1916/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 1918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-519-5	BG01D	Soluble	Solid	DI Leach	
890-519-6	BG01E	Soluble	Solid	DI Leach	
MB 880-1918/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1918/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1918/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 1954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-519-1	BG01	Soluble	Solid	300.0	1916
890-519-2	BG01A	Soluble	Solid	300.0	1916
890-519-3	BG01B	Soluble	Solid	300.0	1916
890-519-4	BG01C	Soluble	Solid	300.0	1916
MB 880-1916/1-A	Method Blank	Soluble	Solid	300.0	1916
LCS 880-1916/2-A	Lab Control Sample	Soluble	Solid	300.0	1916
LCSD 880-1916/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1916

Analysis Batch: 1955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-519-5	BG01D	Soluble	Solid	300.0	1918
890-519-6	BG01E	Soluble	Solid	300.0	1918
MB 880-1918/1-A	Method Blank	Soluble	Solid	300.0	1918
LCS 880-1918/2-A	Lab Control Sample	Soluble	Solid	300.0	1918
LCSD 880-1918/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1918

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

Client Sample ID: BG01
Date Collected: 04/12/21 09:30
Date Received: 04/13/21 16:17

Lab Sample ID: 890-519-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1779	04/14/21 14:45	KL	XM
Total/NA	Analysis	8021B		1	1767	04/15/21 00:32	KL	XM
Total/NA	Prep	8015NM Prep			1802	04/14/21 14:55	DM	XM
Total/NA	Analysis	8015B NM		1	1775	04/15/21 03:23	AJ	XM
Soluble	Leach	DI Leach			1916	04/16/21 19:55	SC	XM
Soluble	Analysis	300.0		1	1954	04/18/21 15:39	CH	XM

Client Sample ID: BG01A
Date Collected: 04/12/21 09:40
Date Received: 04/13/21 16:17

Lab Sample ID: 890-519-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1779	04/14/21 14:45	KL	XM
Total/NA	Analysis	8021B		1	1767	04/15/21 00:52	KL	XM
Total/NA	Prep	8015NM Prep			1802	04/14/21 14:55	DM	XM
Total/NA	Analysis	8015B NM		1	1775	04/15/21 03:44	AJ	XM
Soluble	Leach	DI Leach			1916	04/16/21 19:55	SC	XM
Soluble	Analysis	300.0		1	1954	04/18/21 15:44	CH	XM

Client Sample ID: BG01B
Date Collected: 04/12/21 10:00
Date Received: 04/13/21 16:17

Lab Sample ID: 890-519-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1779	04/14/21 14:45	KL	XM
Total/NA	Analysis	8021B		1	1767	04/15/21 01:13	KL	XM
Total/NA	Prep	8015NM Prep			1802	04/14/21 14:55	DM	XM
Total/NA	Analysis	8015B NM		1	1775	04/15/21 04:05	AJ	XM
Soluble	Leach	DI Leach			1916	04/16/21 19:55	SC	XM
Soluble	Analysis	300.0		5	1954	04/18/21 15:49	CH	XM

Client Sample ID: BG01C
Date Collected: 04/12/21 10:25
Date Received: 04/13/21 16:17

Lab Sample ID: 890-519-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1779	04/14/21 14:45	KL	XM
Total/NA	Analysis	8021B		1	1767	04/15/21 01:34	KL	XM
Total/NA	Prep	8015NM Prep			1802	04/14/21 14:55	DM	XM
Total/NA	Analysis	8015B NM		1	1775	04/15/21 04:27	AJ	XM
Soluble	Leach	DI Leach			1916	04/16/21 19:55	SC	XM
Soluble	Analysis	300.0		5	1954	04/18/21 15:54	CH	XM

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

Client Sample ID: BG01D
Date Collected: 04/12/21 10:45
Date Received: 04/13/21 16:17

Lab Sample ID: 890-519-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1779	04/14/21 14:45	KL	XM
Total/NA	Analysis	8021B		1	1767	04/15/21 01:54	KL	XM
Total/NA	Prep	8015NM Prep			1802	04/14/21 14:55	DM	XM
Total/NA	Analysis	8015B NM		1	1775	04/15/21 04:48	AJ	XM
Soluble	Leach	DI Leach			1918	04/16/21 20:07	SC	XM
Soluble	Analysis	300.0		5	1955	04/18/21 18:07	CH	XM

Client Sample ID: BG01E
Date Collected: 04/12/21 12:00
Date Received: 04/13/21 16:17

Lab Sample ID: 890-519-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1779	04/14/21 14:45	KL	XM
Total/NA	Analysis	8021B		1	1767	04/15/21 02:15	KL	XM
Total/NA	Prep	8015NM Prep			1802	04/14/21 14:55	DM	XM
Total/NA	Analysis	8015B NM		1	1775	04/15/21 05:09	AJ	XM
Soluble	Leach	DI Leach			1918	04/16/21 20:07	SC	XM
Soluble	Analysis	300.0		1	1955	04/18/21 18:22	CH	XM

Laboratory References:
XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-519-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XM
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XM
300.0	Anions, Ion Chromatography	MCAWW	XM
5035	Closed System Purge and Trap	SW846	XM
8015NM Prep	Microextraction	SW846	XM
DI Leach	Deionized Water Leaching Procedure	ASTM	XM

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-519-1
SDG: TE012918100

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-519-1	BG01	Solid	04/12/21 09:30	04/13/21 16:17	- 4
890-519-2	BG01A	Solid	04/12/21 09:40	04/13/21 16:17	- 6
890-519-3	BG01B	Solid	04/12/21 10:00	04/13/21 16:17	- 10
890-519-4	BG01C	Solid	04/12/21 10:25	04/13/21 16:17	- 14
890-519-5	BG01D	Solid	04/12/21 10:45	04/13/21 16:17	- 16
890-519-6	BG01E	Solid	04/12/21 12:00	04/13/21 16:17	- 20

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(303) 887-2946	Email:	Spencer.Lo@wsp.com,Aimee.Cole@wsp.com,Dan.Moir@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Cattle Baron State 1Y	Turn Around	
Project Number:	TE012918100	Routine	☐
P.O. Number:		Rush:	
Sampler's Name:	Travis Casey/Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.4	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	2.4
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BG01	S	4/12/2021	930	4'	1	X	X	X
BG01A	S	4/12/2021	940	6'	1	X	X	X
BG01B	S	4/12/2021	1000	10'	1	X	X	X
BG01C	S	4/12/2021	1025	14'	1	X	X	X
BG01D	S	4/12/2021	1045	16'	1	X	X	X
BG01E	S	4/12/2021	1200	20'	1	X	X	X

ANALYSIS REQUEST


890-519 Chain of Custody

Work Order Notes

Cost Center: 1579661001
API: 30-015-44130
Incident ID: 2RP-4686

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Gabby Ordonez	4/13/21 16:17	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-519-1
SDG Number: TE012918100

Login Number: 519
List Number: 1
Creator: Ordonez, Gabby

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-519-1
SDG Number: TE012918100

Login Number: 519
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 04/14/21 02:37 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-520-1
Laboratory Sample Delivery Group: TE012918100
Client Project/Site: Cattle Baron State 1Y

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Dan Moir

JKramer

Authorized for release by:
4/19/2021 1:24:47 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Laboratory Job ID: 890-520-1
SDG: TE012918100

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-520-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-520-1
SDG: TE012918100

Job ID: 890-520-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-520-1

Receipt
The samples were received on 4/13/2021 4:17 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: BG02 (890-520-1), BG02A (890-520-2), BG02B (890-520-3), BG02C (890-520-4), BG02D (890-520-5) and BG02E (890-520-6).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: BG02 (890-520-1), BG02A (890-520-2) and BG02C (890-520-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-520-1
SDG: TE012918100

Client Sample ID: BG02

Lab Sample ID: 890-520-1
Matrix: Solid
Date Collected: 04/12/21 12:20
Date Received: 04/13/21 16:17
Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00965**		0.00198		mg/Kg		04/14/21 14:45	04/15/21 02:35	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/14/21 14:45	04/15/21 02:35	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/14/21 14:45	04/15/21 02:35	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		04/14/21 14:45	04/15/21 02:35	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/14/21 14:45	04/15/21 02:35	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		04/14/21 14:45	04/15/21 02:35	1
Total BTEX	**0.00965**		0.00198		mg/Kg		04/14/21 14:45	04/15/21 02:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*164*	*S1+*	*70 - 130*	*04/14/21 14:45*	*04/15/21 02:35*	*1*
1,4-Difluorobenzene (Surr)	*66*	*S1-*	*70 - 130*	*04/14/21 14:45*	*04/15/21 02:35*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/14/21 08:54	04/14/21 19:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+ *1	50.0		mg/Kg		04/14/21 08:54	04/14/21 19:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/14/21 08:54	04/14/21 19:59	1
Total TPH	<50.0	U	50.0		mg/Kg		04/14/21 08:54	04/14/21 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*04/14/21 08:54*	*04/14/21 19:59*	*1*
o-Terphenyl	*105*		*70 - 130*	*04/14/21 08:54*	*04/14/21 19:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**48.3**		5.02		mg/Kg			04/18/21 18:27	1

Client Sample ID: BG02A

Lab Sample ID: 890-520-2
Matrix: Solid
Date Collected: 04/12/21 12:25
Date Received: 04/13/21 16:17
Sample Depth: - 6

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/14/21 14:45	04/15/21 02:56	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/14/21 14:45	04/15/21 02:56	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/14/21 14:45	04/15/21 02:56	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		04/14/21 14:45	04/15/21 02:56	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/14/21 14:45	04/15/21 02:56	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		04/14/21 14:45	04/15/21 02:56	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		04/14/21 14:45	04/15/21 02:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*04/14/21 14:45*	*04/15/21 02:56*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*04/14/21 14:45*	*04/15/21 02:56*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-520-1
SDG: TE012918100

Client Sample ID: BG02A

Lab Sample ID: 890-520-2
Matrix: Solid
Date Collected: 04/12/21 12:25
Date Received: 04/13/21 16:17
Sample Depth: - 6

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		04/14/21 08:54	04/14/21 20:21	1
Diesel Range Organics (Over C10-C28)	<50.1	U *+ *1	50.1		mg/Kg		04/14/21 08:54	04/14/21 20:21	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		04/14/21 08:54	04/14/21 20:21	1
Total TPH	<50.1	U	50.1		mg/Kg		04/14/21 08:54	04/14/21 20:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*04/14/21 08:54*	*04/14/21 20:21*	*1*
o-Terphenyl	*92*		*70 - 130*	*04/14/21 08:54*	*04/14/21 20:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**413**		5.04		mg/Kg			04/19/21 08:36	1

Client Sample ID: BG02B

Lab Sample ID: 890-520-3
Matrix: Solid
Date Collected: 04/12/21 12:35
Date Received: 04/13/21 16:17
Sample Depth: - 10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 03:17	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 03:17	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 03:17	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/14/21 14:45	04/15/21 03:17	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 03:17	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/14/21 14:45	04/15/21 03:17	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 03:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*04/14/21 14:45*	*04/15/21 03:17*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*04/14/21 14:45*	*04/15/21 03:17*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 04:48	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 04:48	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 04:48	1
Total TPH	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 04:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*04/14/21 13:20*	*04/15/21 04:48*	*1*
o-Terphenyl	*108*		*70 - 130*	*04/14/21 13:20*	*04/15/21 04:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**409**		5.05		mg/Kg			04/18/21 18:33	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-520-1
SDG: TE012918100

Client Sample ID: BG02C

Lab Sample ID: 890-520-4
Matrix: Solid
Date Collected: 04/12/21 12:45
Date Received: 04/13/21 16:17
Sample Depth: - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00231**		0.00200		mg/Kg		04/14/21 14:45	04/15/21 03:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 03:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 03:37	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/14/21 14:45	04/15/21 03:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 03:37	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/14/21 14:45	04/15/21 03:37	1
Total BTEX	**0.00231**		0.00200		mg/Kg		04/14/21 14:45	04/15/21 03:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*04/14/21 14:45*	*04/15/21 03:37*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*04/14/21 14:45*	*04/15/21 03:37*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 05:09	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 05:09	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 05:09	1
Total TPH	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 05:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*04/14/21 13:20*	*04/15/21 05:09*	*1*
o-Terphenyl	*98*		*70 - 130*	*04/14/21 13:20*	*04/15/21 05:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**664**		5.05		mg/Kg			04/18/21 18:38	1

Client Sample ID: BG02D

Lab Sample ID: 890-520-5
Matrix: Solid
Date Collected: 04/12/21 13:15
Date Received: 04/13/21 16:17
Sample Depth: - 14

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		04/14/21 14:45	04/15/21 05:41	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/14/21 14:45	04/15/21 05:41	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/14/21 14:45	04/15/21 05:41	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		04/14/21 14:45	04/15/21 05:41	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/14/21 14:45	04/15/21 05:41	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		04/14/21 14:45	04/15/21 05:41	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		04/14/21 14:45	04/15/21 05:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*04/14/21 14:45*	*04/15/21 05:41*	*1*
1,4-Difluorobenzene (Surr)	*56*	*S1-*	*70 - 130*	*04/14/21 14:45*	*04/15/21 05:41*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-520-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

Client Sample ID: BG02D — Lab Sample ID: 890-520-5

Date Collected: 04/12/21 13:15
Date Received: 04/13/21 16:17
Matrix: Solid
Sample Depth: - 14

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 05:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 05:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 05:30	1
Total TPH	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 05:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*04/14/21 13:20*	*04/15/21 05:30*	*1*
o-Terphenyl	*99*		*70 - 130*	*04/14/21 13:20*	*04/15/21 05:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**880**		4.98		mg/Kg			04/19/21 08:41	1

Client Sample ID: BG02E — Lab Sample ID: 890-520-6

Date Collected: 04/12/21 14:15
Date Received: 04/13/21 16:17
Matrix: Solid
Sample Depth: - 16

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 06:02	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 06:02	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 06:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/14/21 14:45	04/15/21 06:02	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 06:02	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/14/21 14:45	04/15/21 06:02	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/14/21 14:45	04/15/21 06:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*04/14/21 14:45*	*04/15/21 06:02*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*04/14/21 14:45*	*04/15/21 06:02*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/15/21 08:24	04/15/21 14:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/15/21 08:24	04/15/21 14:42	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/15/21 08:24	04/15/21 14:42	1
Total TPH	<49.9	U	49.9		mg/Kg		04/15/21 08:24	04/15/21 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*04/15/21 08:24*	*04/15/21 14:42*	*1*
o-Terphenyl	*87*		*70 - 130*	*04/15/21 08:24*	*04/15/21 14:42*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**111**		4.97		mg/Kg			04/18/21 18:45	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-520-1
SDG: TE012918100

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-520-1	BG02	164 S1+	66 S1-
890-520-2	BG02A	112	111
890-520-3	BG02B	104	109
890-520-4	BG02C	119	115
890-520-5	BG02D	126	56 S1-
890-520-6	BG02E	108	103
LCS 880-1779/1-A	Lab Control Sample	87	103
LCSD 880-1779/2-A	Lab Control Sample Dup	93	109
MB 880-1766/5-A	Method Blank	123	110
MB 880-1779/5-A	Method Blank	116	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-520-1	BG02	111	105
890-520-2	BG02A	99	92
890-520-3	BG02B	112	108
890-520-4	BG02C	106	98
890-520-5	BG02D	106	99
890-520-6	BG02E	91	87
LCS 880-1765/2-A	Lab Control Sample	110	92
LCS 880-1794/2-A	Lab Control Sample	104	94
LCS 880-1813/2-A	Lab Control Sample	98	87
LCSD 880-1765/3-A	Lab Control Sample Dup	145 S1+	141 S1+
LCSD 880-1794/3-A	Lab Control Sample Dup	101	89
LCSD 880-1813/3-A	Lab Control Sample Dup	96	85
MB 880-1765/1-A	Method Blank	100	99
MB 880-1794/1-A	Method Blank	107	103
MB 880-1813/1-A	Method Blank	97	94

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-520-1
SDG: TE012918100

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-1766/5-A
Matrix: Solid
Analysis Batch: 1767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1766

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 13:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*04/14/21 08:56*	*04/14/21 13:09*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*04/14/21 08:56*	*04/14/21 13:09*	*1*

Lab Sample ID: MB 880-1779/5-A
Matrix: Solid
Analysis Batch: 1767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1779

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 00:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 00:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 00:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/14/21 14:45	04/15/21 00:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 00:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/14/21 14:45	04/15/21 00:10	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/14/21 14:45	04/15/21 00:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*04/14/21 14:45*	*04/15/21 00:10*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*04/14/21 14:45*	*04/15/21 00:10*	*1*

Lab Sample ID: LCS 880-1779/1-A
Matrix: Solid
Analysis Batch: 1767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1779

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07945		mg/Kg		79	70 - 130		
Toluene			0.100	0.08727		mg/Kg		87	70 - 130		
Ethylbenzene			0.100	0.07968		mg/Kg		80	70 - 130		
m-Xylene & p-Xylene			0.200	0.1691		mg/Kg		85	70 - 130		
o-Xylene			0.100	0.08270		mg/Kg		83	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-520-1
SDG: TE012918100

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-1779/2-A
Matrix: Solid
Analysis Batch: 1767

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08414		mg/Kg		84	70 - 130	6	35
Toluene			0.100	0.09461		mg/Kg		95	70 - 130	8	35
Ethylbenzene			0.100	0.09048		mg/Kg		90	70 - 130	13	35
m-Xylene & p-Xylene			0.200	0.1824		mg/Kg		91	70 - 130	8	35
o-Xylene			0.100	0.09024		mg/Kg		90	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-1765/1-A
Matrix: Solid
Analysis Batch: 1773

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1765

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/14/21 08:54	04/14/21 11:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/14/21 08:54	04/14/21 11:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/14/21 08:54	04/14/21 11:26	1
Total TPH	<50.0	U	50.0		mg/Kg		04/14/21 08:54	04/14/21 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*04/14/21 08:54*	*04/14/21 11:26*	*1*
o-Terphenyl	*99*		*70 - 130*	*04/14/21 08:54*	*04/14/21 11:26*	*1*

Lab Sample ID: LCS 880-1765/2-A
Matrix: Solid
Analysis Batch: 1773

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1765

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1249		mg/Kg		125	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1042		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*110*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

Lab Sample ID: LCSD 880-1765/3-A
Matrix: Solid
Analysis Batch: 1773

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1765

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1300		mg/Kg		130	70 - 130	4	20

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QC Sample Results

Client: WSP USA Inc. Job ID: 890-520-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-1765/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 1773 **Prep Batch: 1765**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)			1000	1565	*+ *1	mg/Kg		156	70 - 130	40	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*145*	*S1+*	*70 - 130*
o-Terphenyl	*141*	*S1+*	*70 - 130*

Lab Sample ID: MB 880-1794/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 1773 **Prep Batch: 1794**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/14/21 21:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/14/21 21:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/14/21 21:04	1
Total TPH	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/14/21 21:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*04/14/21 13:20*	*04/14/21 21:04*	*1*
o-Terphenyl	*103*		*70 - 130*	*04/14/21 13:20*	*04/14/21 21:04*	*1*

Lab Sample ID: LCS 880-1794/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 1773 **Prep Batch: 1794**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1153		mg/Kg		115	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1031		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*94*		*70 - 130*

Lab Sample ID: LCSD 880-1794/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 1773 **Prep Batch: 1794**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1282		mg/Kg		128	70 - 130	11	20
Diesel Range Organics (Over C10-C28)			1000	975.5		mg/Kg		98	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*101*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-520-1
SDG: TE012918100

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-1794/3-A
Matrix: Solid
Analysis Batch: 1773

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1794

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	89		70 - 130

Lab Sample ID: MB 880-1813/1-A
Matrix: Solid
Analysis Batch: 1820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1813

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 11:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 11:52	1
OIl Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 11:52	1
Total TPH	<50.0	U	50.0		mg/Kg		04/15/21 08:24	04/15/21 11:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	04/15/21 08:24	04/15/21 11:52	1
o-Terphenyl	94		70 - 130	04/15/21 08:24	04/15/21 11:52	1

Lab Sample ID: LCS 880-1813/2-A
Matrix: Solid
Analysis Batch: 1820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1813

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1201		mg/Kg		120	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	968.0		mg/Kg		97	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	87		70 - 130

Lab Sample ID: LCSD 880-1813/3-A
Matrix: Solid
Analysis Batch: 1820

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1813

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1074		mg/Kg		107	70 - 130	11	20
Diesel Range Organics (Over C10-C28)			1000	942.8		mg/Kg		94	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	85		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-520-1
SDG: TE012918100

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1918/1-A
Matrix: Solid
Analysis Batch: 1955

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/18/21 16:20	1

Lab Sample ID: LCS 880-1918/2-A
Matrix: Solid
Analysis Batch: 1955

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	250.0		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-1918/3-A
Matrix: Solid
Analysis Batch: 1955

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	249.2		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-520-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

GC VOA

Prep Batch: 1766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-1766/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 1767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-520-1	BG02	Total/NA	Solid	8021B	1779
890-520-2	BG02A	Total/NA	Solid	8021B	1779
890-520-3	BG02B	Total/NA	Solid	8021B	1779
890-520-4	BG02C	Total/NA	Solid	8021B	1779
890-520-5	BG02D	Total/NA	Solid	8021B	1779
890-520-6	BG02E	Total/NA	Solid	8021B	1779
MB 880-1766/5-A	Method Blank	Total/NA	Solid	8021B	1766
MB 880-1779/5-A	Method Blank	Total/NA	Solid	8021B	1779
LCS 880-1779/1-A	Lab Control Sample	Total/NA	Solid	8021B	1779
LCSD 880-1779/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1779

Prep Batch: 1779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-520-1	BG02	Total/NA	Solid	5035	
890-520-2	BG02A	Total/NA	Solid	5035	
890-520-3	BG02B	Total/NA	Solid	5035	
890-520-4	BG02C	Total/NA	Solid	5035	
890-520-5	BG02D	Total/NA	Solid	5035	
890-520-6	BG02E	Total/NA	Solid	5035	
MB 880-1779/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1779/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1779/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 1765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-520-1	BG02	Total/NA	Solid	8015NM Prep	
890-520-2	BG02A	Total/NA	Solid	8015NM Prep	
MB 880-1765/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1765/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1765/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 1773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-520-1	BG02	Total/NA	Solid	8015B NM	1765
890-520-2	BG02A	Total/NA	Solid	8015B NM	1765
890-520-3	BG02B	Total/NA	Solid	8015B NM	1794
890-520-4	BG02C	Total/NA	Solid	8015B NM	1794
890-520-5	BG02D	Total/NA	Solid	8015B NM	1794
MB 880-1765/1-A	Method Blank	Total/NA	Solid	8015B NM	1765
MB 880-1794/1-A	Method Blank	Total/NA	Solid	8015B NM	1794
LCS 880-1765/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1765
LCS 880-1794/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1794
LCSD 880-1765/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1765
LCSD 880-1794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1794

QC Association Summary

Client: WSP USA Inc. Job ID: 890-520-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

GC Semi VOA

Prep Batch: 1794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-520-3	BG02B	Total/NA	Solid	8015NM Prep	
890-520-4	BG02C	Total/NA	Solid	8015NM Prep	
890-520-5	BG02D	Total/NA	Solid	8015NM Prep	
MB 880-1794/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1794/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Prep Batch: 1813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-520-6	BG02E	Total/NA	Solid	8015NM Prep	
MB 880-1813/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1813/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1813/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 1820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-520-6	BG02E	Total/NA	Solid	8015B NM	1813
MB 880-1813/1-A	Method Blank	Total/NA	Solid	8015B NM	1813
LCS 880-1813/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1813
LCSD 880-1813/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1813

HPLC/IC

Leach Batch: 1918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-520-1	BG02	Soluble	Solid	DI Leach	
890-520-2	BG02A	Soluble	Solid	DI Leach	
890-520-3	BG02B	Soluble	Solid	DI Leach	
890-520-4	BG02C	Soluble	Solid	DI Leach	
890-520-5	BG02D	Soluble	Solid	DI Leach	
890-520-6	BG02E	Soluble	Solid	DI Leach	
MB 880-1918/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1918/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1918/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 1955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-520-1	BG02	Soluble	Solid	300.0	1918
890-520-2	BG02A	Soluble	Solid	300.0	1918
890-520-3	BG02B	Soluble	Solid	300.0	1918
890-520-4	BG02C	Soluble	Solid	300.0	1918
890-520-5	BG02D	Soluble	Solid	300.0	1918
890-520-6	BG02E	Soluble	Solid	300.0	1918
MB 880-1918/1-A	Method Blank	Soluble	Solid	300.0	1918
LCS 880-1918/2-A	Lab Control Sample	Soluble	Solid	300.0	1918
LCSD 880-1918/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1918

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-520-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

Client Sample ID: BG02 Lab Sample ID: 890-520-1

Date Collected: 04/12/21 12:20 **Matrix: Solid**
Date Received: 04/13/21 16:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1779	04/14/21 14:45	KL	XM
Total/NA	Analysis	8021B		1	1767	04/15/21 02:35	KL	XM
Total/NA	Prep	8015NM Prep			1765	04/14/21 08:54	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/14/21 19:59	AJ	XM
Soluble	Leach	DI Leach			1918	04/16/21 20:07	SC	XM
Soluble	Analysis	300.0		1	1955	04/18/21 18:27	CH	XM

Client Sample ID: BG02A Lab Sample ID: 890-520-2

Date Collected: 04/12/21 12:25 **Matrix: Solid**
Date Received: 04/13/21 16:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1779	04/14/21 14:45	KL	XM
Total/NA	Analysis	8021B		1	1767	04/15/21 02:56	KL	XM
Total/NA	Prep	8015NM Prep			1765	04/14/21 08:54	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/14/21 20:21	AJ	XM
Soluble	Leach	DI Leach			1918	04/16/21 20:07	SC	XM
Soluble	Analysis	300.0		1	1955	04/19/21 08:36	CH	XM

Client Sample ID: BG02B Lab Sample ID: 890-520-3

Date Collected: 04/12/21 12:35 **Matrix: Solid**
Date Received: 04/13/21 16:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1779	04/14/21 14:45	KL	XM
Total/NA	Analysis	8021B		1	1767	04/15/21 03:17	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 04:48	AJ	XM
Soluble	Leach	DI Leach			1918	04/16/21 20:07	SC	XM
Soluble	Analysis	300.0		1	1955	04/18/21 18:33	CH	XM

Client Sample ID: BG02C Lab Sample ID: 890-520-4

Date Collected: 04/12/21 12:45 **Matrix: Solid**
Date Received: 04/13/21 16:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1779	04/14/21 14:45	KL	XM
Total/NA	Analysis	8021B		1	1767	04/15/21 03:37	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 05:09	AJ	XM
Soluble	Leach	DI Leach			1918	04/16/21 20:07	SC	XM
Soluble	Analysis	300.0		1	1955	04/18/21 18:38	CH	XM

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-520-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

Client Sample ID: BG02D — Lab Sample ID: 890-520-5

Date Collected: 04/12/21 13:15 **Matrix: Solid**
Date Received: 04/13/21 16:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1779	04/14/21 14:45	KL	XM
Total/NA	Analysis	8021B		1	1767	04/15/21 05:41	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 05:30	AJ	XM
Soluble	Leach	DI Leach			1918	04/16/21 20:07	SC	XM
Soluble	Analysis	300.0		1	1955	04/19/21 08:41	CH	XM

Client Sample ID: BG02E — Lab Sample ID: 890-520-6

Date Collected: 04/12/21 14:15 **Matrix: Solid**
Date Received: 04/13/21 16:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1779	04/14/21 14:45	KL	XM
Total/NA	Analysis	8021B		1	1767	04/15/21 06:02	KL	XM
Total/NA	Prep	8015NM Prep			1813	04/15/21 08:24	DM	XM
Total/NA	Analysis	8015B NM		1	1820	04/15/21 14:42	AJ	XM
Soluble	Leach	DI Leach			1918	04/16/21 20:07	SC	XM
Soluble	Analysis	300.0		1	1955	04/18/21 18:45	CH	XM

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-520-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-520-1
Project/Site: Cattle Baron State 1Y SDG: TE012918100

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XM
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XM
300.0	Anions, Ion Chromatography	MCAWW	XM
5035	Closed System Purge and Trap	SW846	XM
8015NM Prep	Microextraction	SW846	XM
DI Leach	Deionized Water Leaching Procedure	ASTM	XM

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Cattle Baron State 1Y

Job ID: 890-520-1
SDG: TE012918100

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-520-1	BG02	Solid	04/12/21 12:20	04/13/21 16:17	- 4
890-520-2	BG02A	Solid	04/12/21 12:25	04/13/21 16:17	- 6
890-520-3	BG02B	Solid	04/12/21 12:35	04/13/21 16:17	- 10
890-520-4	BG02C	Solid	04/12/21 12:45	04/13/21 16:17	- 12
890-520-5	BG02D	Solid	04/12/21 13:15	04/13/21 16:17	- 14
890-520-6	BG02E	Solid	04/12/21 14:15	04/13/21 16:17	- 16

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page \ of \

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(303) 887-2946	Email:	Spencer.Lo@wsp.com,Aimee.Cole@wsp.com,Dan.Moir@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Cattle Baron State 1Y	Turn Around	
Project Number:	TE012918100	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Travis Casey/Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.6	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	2.4
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

ANALYSIS REQUEST

890-520 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BG02	S	4/12/2021	1220	4'	1	X	X	X
BG02A	S	4/12/2021	1225	6'	1	X	X	X
BG02B	S	4/12/2021	1235	10'	1	X	X	X
BG02C	S	4/12/2021	1245	12'	1	X	X	X
BG02D	S	4/12/2021	1315	14'	1	X	X	X
BG02E	S	4/12/2021	1415	16'	1	X	X	X

Work Order Notes

Cost Center: 1579661001
API: 30-015-44130
Incident ID: 2RP-4686

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Gabby Ordonez	4/13/21 10:17	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-520-1
SDG Number: TE012918100

Login Number: 520
List Number: 1
Creator: Ordonez, Gabby

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-520-1
SDG Number: TE012918100

Login Number: 520
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 04/14/21 02:37 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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
District IV
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

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 66007
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The closure report is approved. For future reference, BG01 (Northeast) through BG06 (Northeast) are much too close to activity. Background soil samples taken in or adjacent to soil that is absent vegetation are generally not good locations to focus on background samples.	4/1/2022