



December 30, 2025

New Mexico Oil Conservation Division

1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: Closure Request
Corral Canyon 10 East CTB Pipeline
Incident Number NAPP2036549855
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document additional delineation activities and request no further action (NFA) for Incident Number NAPP2036549855 at the Corral Canyon 10 East Central Tank Battery (CTB) Pipeline (Site). A *Remediation Work Plan* detailing Site assessment, soil sampling, remediation activities, and liner installations that occurred in response to the release of crude oil and produced water at the Site and requesting a deferral of final remediation of soil containing elevated chloride concentrations immediately surrounding a 16-inch fiberglass active pipeline for safety purposes was submitted to the New Mexico Oil Conservation Division (NMOCD) on September 10, 2021. The *Remediation Work Plan* applied the strictest Closure Criteria to the Site due to the proximity of a wetland underlying the Site. The NMOCD denied the deferral and requested additional vertical delineation data as well as a Do Not Dig order from the pipeline owner. A *Variance and Closure Request* summarizing additional delineation results and providing the requested Do Not Dig letter for the pipeline was submitted on July 11, 2025. The NMOCD denied the *Variance and Closure Request* stating that remediation must occur around the off-pad pipeline or an alternative solution should be provided. In response to the NMOCD's denial, Site receptors were re-evaluated to confirm the Closure Criteria were applicable. Based on excavation activities, liner installations, soil sampling laboratory analytical results, and re-evaluation of Site receptors, XTO is requesting NFA for Incident Number NAPP2036549855.

RELEASE BACKGROUND

The Site is located in Unit C, Section 10, Township 25 South, Range 29 East, in Eddy County, New Mexico (32.15158°, -103.97361°) and is associated with oil and gas exploration and production operations on Federal land managed by the Bureau of Land Management (BLM). A Site Location Map is provided as Figure 1.

On December 16, 2020, XTO personnel observed produced water surfacing at two locations from a buried high-pressure produced water pipeline. Approximately 1.2 barrels (bbls) of crude oil and 59 bbls of produced water were released onto the surrounding pipeline right-of-way (ROW) that is directly north of an active tank battery. A vacuum truck was dispatched to the Site to recover free-standing fluid; approximately 1.0 bbl of crude oil and 49.25 bbls of produced water were recovered. XTO immediately reported the release to the NMOCD via email on December 17, 2020. A Release Notification and Corrective Action Form C-141 (Form C-141) was submitted on December 29, 2020. The release was assigned Incident Number NAPP2036549855.

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As documented in the *Remediation Work Plan*, immediately following the release, XTO operations exposed the buried produced water pipeline for repair and completed initial excavation activities at the two release locations. The release areas were located on the east and west sides of an active lease road that travels north-south through the pipeline ROW. Approximately 2,400 cubic yards of impacted soil were removed by XTO operations while repairing the pipeline at the two release points.

An additional 110 cubic yards of impacted soil were removed from the eastern excavation based on visual inspection and field screening results following the pipeline repairs. Six 5-point composite samples (FS01 through FS03 and FS05 through FS07) were collected from the floor of the excavation at a depth of 8 feet below ground surface (bgs). Thirteen composite samples (SW01 through SW11, SW21 and SW22) were collected from the sidewalls of the eastern excavation at depths ranging from the ground surface to 8 feet bgs. Based on elevated field screening results, excavation samples FS02, SW03, and SW05 were not submitted for laboratory analysis (sample name FS04 was inadvertently omitted from the sample nomenclature). Sample locations SW01, SW02 and SW07 were over-excavated to remove chloride results above Closure Criteria. Laboratory analytical results for the western sidewall (sidewall sample SW11) and central floor samples (FS01, FS05, and FS06) reported chloride concentrations exceeding the initial Closure Criteria. Floor samples FS01 and FS02 were collected within 2 feet of the pipeline, as close as XTO safety policy allows for soil removal. Additional excavation of impacted soil in the areas around floor samples FS05 and FS06 was limited by the depth and slope instability of the excavation. Further excavation of impacted soil to the west beyond sidewall sample SW11 was limited by the proximity of active pipelines and the lease road that provides access to the tank battery. Potholes PH01 through PH08 were advanced via backhoe surrounding the eastern release to assess the lateral extent of impacted soil. Potholes PH01 through PH08 were advanced to depths ranging from 4 feet to 8 feet bgs. Delineation soil samples were collected from each pothole at depths ranging from 2 feet to 8 feet bgs. Laboratory analytical results from PH01 through PH08 reported benzene, toluene, ethylbenzene and total xylenes (BTEX), total petroleum hydrocarbons (TPH), and chloride concentrations compliant with the initial Closure Criteria and successfully defined the lateral extent of the impacted soil.

After visual inspection and field screening of the western repair excavation, an additional 150 cubic yards of impacted soil were removed. Three 5-point composite samples (FS08 through FS10) were collected from the floor of the excavation at a depth of 12 feet bgs. Composite samples SW12 through SW20 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 12 feet bgs. Sample locations SW15 and SW16 were over-excavated since both locations reported chloride levels exceeding Closure Criteria. The repair excavation extended into clean soil and there was no sidewall to sample to confirm removal of impacts to the west. Laboratory analytical results for floor samples FS08 and FS09 reported chloride concentrations above the previously applied Closure Criteria. Floor samples FS08 and FS09 were collected near the active, 16-inch high-pressure fiberglass water pipeline. Further excavation of impacted soil beneath or within 2 feet of the fiberglass water pipeline was deemed unsafe by XTO safety policy. Since all sidewall samples in the western excavation met the NMOCD Closure Criteria, no lateral delineation was necessary for the western release. Figures 2A and 2B illustrate the excavation soil sample locations for the eastern and western excavations, respectively, and Figure 3 shows the delineation soil sample locations collected during the Site activities.

Due to the nature of the release, remaining chloride impacts in the floor of the excavation, and safety concerns for completing additional vertical excavation around the active, 16-inch high-pressure fiberglass line, installation of an impermeable liner in the open excavation was determined to be the most suitable option for mitigating chloride impacts to the subsurface. Two 20-mil impermeable liners were installed in the floor of both excavations. The liners were installed at approximately 8 feet bgs in the eastern excavation and 12 feet bgs in the western excavation. Upon completion of the liner

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installations, the excavation areas were backfilled with locally procured topsoil and recontoured to match pre-existing Site conditions.

The *Remediation Work Plan* documenting the above-discussed remediation and delineation activities completed at the Site was submitted to the NMOCD on September 10, 2021. Since the excavations were backfilled, XTO proposed drilling boreholes near the eastern and western release points to provide vertical delineation of the impacted soil left in place. Following vertical delineation of the releases, XTO proposed submitting a deferral request after receiving NMOCD's approval of the *Remediation Work Plan*.

On October 7, 2021, NMOCD denied the *Remediation Work Plan* for Incident Number nAPP2036549855 for the following reasons:

- *When submitting data for deferment, analytical data was insufficient. Data was missing between 0-12ft. For future reports please include data depicting contamination levels intermittently as you progress to target depth.*
- *The OCD requests a do not dig order from the pipeline owner to be submitted with next report.*

In response to the denial of the *Remediation Work Plan*, two borings (BH01 and BH02) were advanced to a depth of 20 feet bgs using a track-mounted hollow-stem auger drill rig near the eastern and western release points to provide vertical delineation of the impacted soil left in place. The boreholes were advanced as close as possible to the release points while maintaining a safe distance from the buried high-pressure line and the installed liners. Soil boring BH01 was advanced within the prior east excavation footprint and samples were collected at 8 feet, 12 feet, 16 feet, and 20 feet bgs. Soil boring BH02 was drilled within the previous west excavation and samples were collected at 12 feet, 14 feet, and 16 feet bgs. Laboratory analytical results confirmed that impacted soil from the releases was fully defined both laterally and vertically to strictest Closure Criteria as requested by NMOCD in the *Remediation Work Plan* denial response. The lateral extent of the eastern release was defined by previously collected sampling locations PH01 through PH08, and the vertical extent of chloride exceedances was defined by sampling location BH01. Since all sidewall samples in the western excavation met the most stringent Closure Criteria, no lateral delineation was necessary for the western area. Samples collected from BH02 advanced within the previous western excavation extent vertically defined chloride concentrations exceeding 600 milligrams per kilogram (mg/kg) to less than 16 feet bgs. Remaining constituents of concern (COC) concentrations following excavation were compliant with the strictest Closure Criteria, with the exception of soil surrounding the active 16-inch fiberglass flowline close to the release points and/or in close proximity to the lease road that provides access to the tank battery. A *Variance and Closure Request* summarizing the additional delineation, providing a Do Not Dig letter signed by XTO, and including the *Remediation Work Plan* was submitted to the NMOCD on July 11, 2025 (Appendix A).

On September 3, 2025, NMOCD denied the *Variance and Closure Request* for Incident Number nAPP2036549855 for the following reason:

- *Deferral in area not reasonably needed for production operations (off-pad) is denied. Must remediate around pipeline using hydro-excavation, manual equipment, or provide an alternative solution.*

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CLOSURE CRITERIA

Following the denial of the *Variance and Closure Request*, the Site receptors were re-evaluated in greater detail to better understand the risk to receptors. The *Remediation Work Plan* detailed Site characterization according to Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, (19.15.29) of the New Mexico Administrative Code (NMAC) and determined the strictest Closure Criteria should be applied to the Site. A more comprehensive evaluation of the Site receptors was completed, and the results are summarized below.

- The closest continuously flowing watercourse to the Site is the Pecos River located over 9,700 feet north of the Site.
- The western excavation is located near a wetland designated area according to the United States Fish and Wildlife National Wetlands Inventory. The classification code for the wetland is R4SBJ, which refers to an Intermittently Flooded Streambed Riverine indicating water may only be present part of the year as a result of precipitation events. The Intermittently Flooded (J) classification states that surface water may not be observed for weeks, months or even years. The start of the wetland is mapped approximately 200 feet upslope of the excavation in the southwest direction. The mapping was completed using photo interpretation from review of 2014 aerial photographs. Figure 4 illustrates the topography of the Site with respect to the wetland. The riverine was dry during the Site visits conducted as part of the delineation and remediation activities of this Site. Review of available aerial photographs does not show surface water present in this drainage. Since the releases occurred topographically downgradient of the mapped wetland, impacts from the release are highly unlikely to affect the riverine. The Site is greater than 1 mile from a lakebed, sinkhole or playa lake.
- The Site is greater than 300 feet from an occupied residence, school, hospital, institution, or church. The measured distance between the Site and these types of structures is greater than 5 miles.
- The Site is located greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is more than 1 mile from any well or spring, greater than 0.5 miles from the 100-year floodplain, and more than 5 miles from a subsurface mine.
- The Site is located in a medium potential karst designation area; however, the release and remedial activities occurred prior to December 1, 2024, the effective date of the NMOCD published *Karst Potential Occurrence Zones Public Notice*.
- Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest available groundwater well data (Figure 1). Soil boring C-4525 is located roughly 900 feet southeast of the Site and reports the depth to groundwater at greater than 110 feet bgs. The soil boring was properly abandoned utilizing drill cuttings and hydrated bentonite chips on June 8, 2021.

Since the release and remediation activities occurred prior to the implementation of the *Karst Potential Occurrence Zones Public Notice*, the mapped wetland is topographically upgradient of the release areas and dry except during precipitation events, liners are present to prevent vertical migration of surface water through impacted soil, and the depth to groundwater is greater than 110 feet bgs, XTO requests a variance to apply the following Closure Criteria to the Site:

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- Benzene: 10 milligrams per kilogram (mg/kg)
- BTEX: 50 mg/kg
- 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

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH will apply to the top 4 feet of the Site per NMAC 19.15.29.13.D (1).

DELINEATION SOIL SAMPLING ACTIVITIES

The previously collected delineation and excavation soil sampling results were compared to the proposed revised above-listed Closure Criteria. Sidewall soil sample location SW11 collected at depths ranging from ground surface to 8 feet bgs exceeded the reclamation requirement for the top four feet of soil. All other delineation and final excavation soil sample locations were compliant with the revised Closure Criteria and reclamation requirement where applicable.

On September 24, 2025, 5-point composite soil samples were collected at previous excavation soil sample location SW11 using a hand auger. One composite sample was collected at depths ranging from ground surface to 4 feet bgs (SW11A), and a second composite sample was collected at depths ranging from 4 feet to 8 feet bgs (SW11B). The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. All soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. 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 samples were transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of BTEX using United States Environmental Protection Agency (EPA) Method 8021B; TPH following EPA Method 8015M/D; and chloride following Standard Method 4500. The sampling locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are illustrated on Figure 2A.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results from SW11A and SW11B report COC concentrations compliant with the revised Closure Criteria for the Site and the reclamation requirement in the top four feet of soil. Furthermore, all delineation and final excavation soil samples are compliant with the revised Closure Criteria and the reclamation requirement where applicable. Current and historical laboratory analytical results are summarized in Table 1, and laboratory analytical reports from sampling locations SW11A and SW11B are included in Appendix B.

CLOSURE REQUEST

Site assessment, delineation soil sampling, excavation, excavation soil sampling, and liner installation activities were conducted at the Site to address the extent of impacted soil from the December 16, 2020, crude oil and produced water release (Incident Number nAPP2036549855). A total of approximately 2,660 cubic yards of soil were removed from the Site during pipeline repairs and remediation activities. The eastern excavation measured roughly 1,300 square feet extending to a depth of 8 feet bgs, and the

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final western excavation extent measured approximately 400 square feet completed to a depth of 12 feet bgs. Two 20-mil impermeable liners were installed in the floor of both excavations at depths of approximately 8 feet bgs in the eastern excavation and 12 feet bgs in the western excavation prior to backfilling activities. Impacted soil was excavated to the reclamation requirement within the top four feet of soil and to the revised Closure Criteria at depths greater than 4 feet bgs. Groundwater is documented to be greater than 100 feet bgs beneath the Site, and the mapped wetland located approximately 200 feet from the excavation extents was determined to be topographically upgradient from the releases so is highly unlikely to be impacted from the releases.

XTO believes the remedial actions conducted at the Site are protective of human health, the environment, and groundwater and address all deficiencies as noted in the original *Remediation Work Plan* and *Variance and Closure Request* denial responses. As such, XTO requests no further action (NFA) for Incident Number NAPP2036549855.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC



Katherine Kahn, P.G. (licensed in Wyoming)
Senior Managing Geologist



Tacoma Morrissey, MS., P.G. (licensed in Texas)
Associate Principal

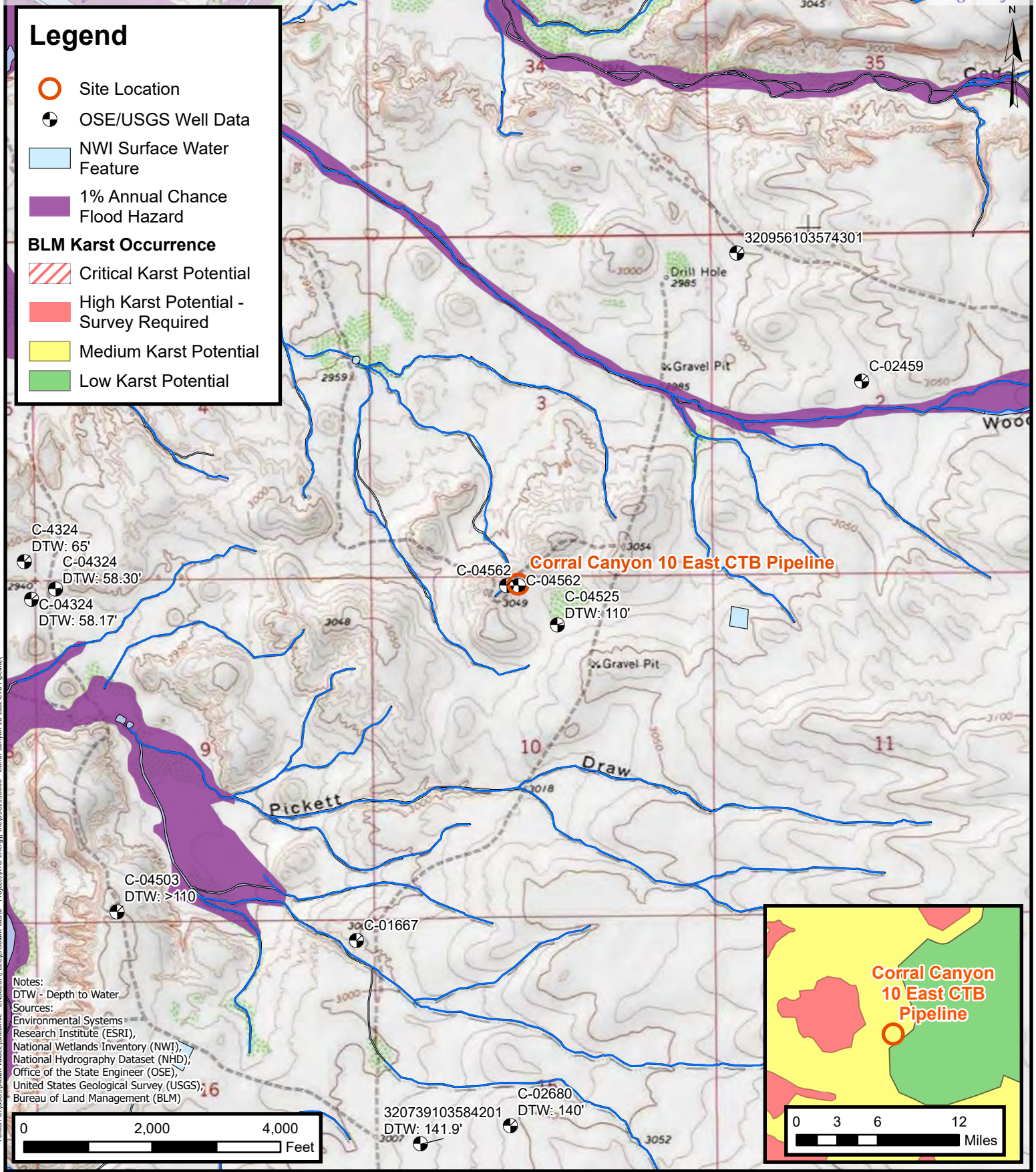
cc: Dale Woodall, XTO
Richard Kotzure, XTO
Bureau of Land Management

Appendices:

- Figure 1 Site Location Map
- Figure 2A Excavation Soil Sample Locations – Eastern Extent
- Figure 2B Excavation Soil Sample Locations – Western Extent
- Figure 3 Delineation Soil Sample Locations
- Figure 4 Site Receptor Map
- Table 1 Soil Sample Analytical Results
- Appendix A July 11, 2025 *Variance and Closure Request*
- Appendix B 2025 Laboratory Analytical Reports and Chain-of-Custody Documentation



FIGURES



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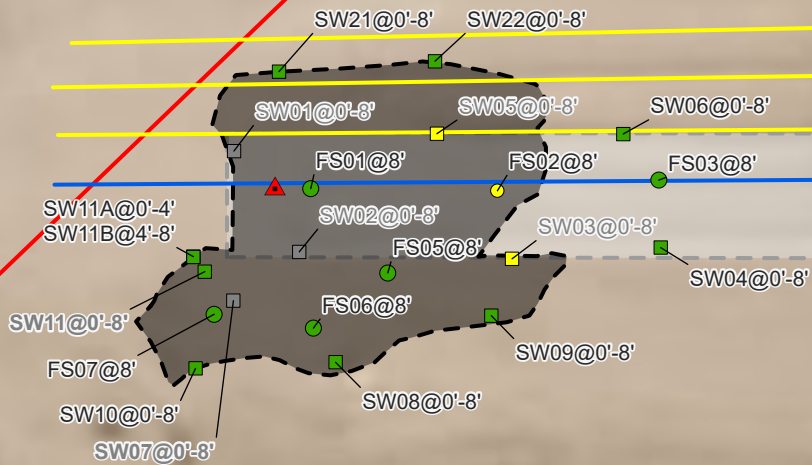
Site Location Map
 XTO Energy, Inc
 Corral Canyon 10 East CTB Pipeline
 Incident Number: NAPP2036549855
 Unit C, Section 10, T 25S, R 29E
 Eddy County, New Mexico

FIGURE
1

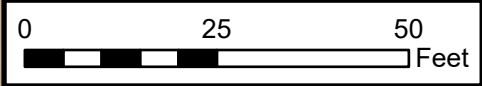
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Legend

- ▲ Point of Release
- Floor Sample in Compliance with Applicable Closure Criteria
- Soil Sample Location Field Screened Only
- Sidewall Sample in Compliance with Applicable Closure Criteria
- Sidewall Sample Location Field Screened Only
- Sidewall Sample with Concentrations Previously Exceeding Applicable Closure Criteria and Has Been Excavated
- Electric Utility Line
- Subsurface Gas Line
- Water Utility Line
- Excavation Extent
- Repair Excavation



Notes:
 Sample ID @ Depth Below Ground Surface
 Grey text indicates soil sample removed during excavation activities



Sources:
Azure Maps

Excavation Soil Sample Locations – Eastern Extent

XTO Energy, Inc
 Corral Canyon 10 East CTB Pipeline
 Incident Number: NAPP2036549855
 Unit C, Section 10, T 25S, R 29E
 Eddy County, New Mexico

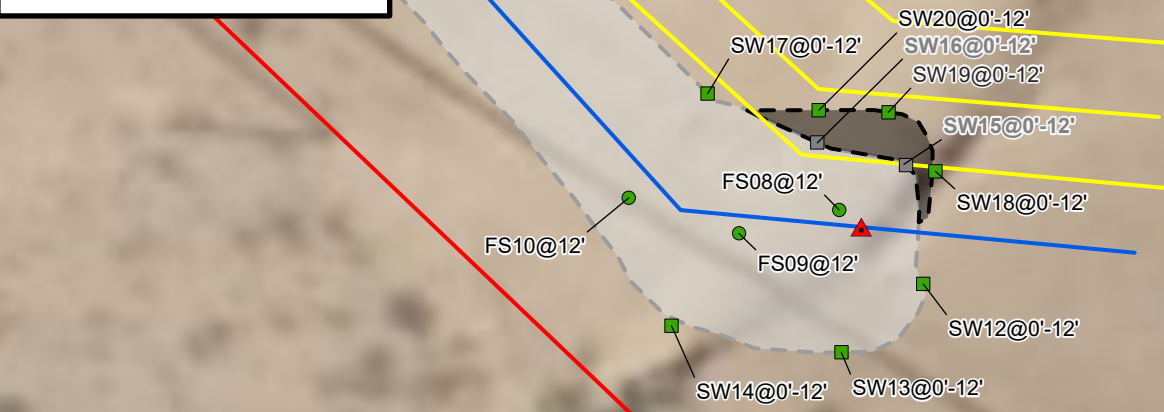
**FIGURE
 2A**



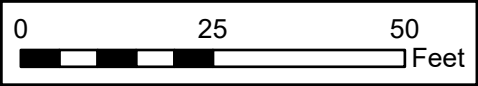
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Legend

- ▲ Point of Release
- Floor Sample in Compliance with Applicable Closure Criteria
- Sidewall Sample in Compliance with Applicable Closure Criteria
- Sidewall Sample with Concentrations Previously Exceeding Applicable Closure Criteria and Has Been Excavated
- Electric Utility Line
- Subsurface Gas Line
- Water Utility Line
- Excavation Extent
- Repair Excavation



Notes:
 Sample ID @ Depth Below Ground Surface
 Grey text indicates soil sample removed during excavation activities



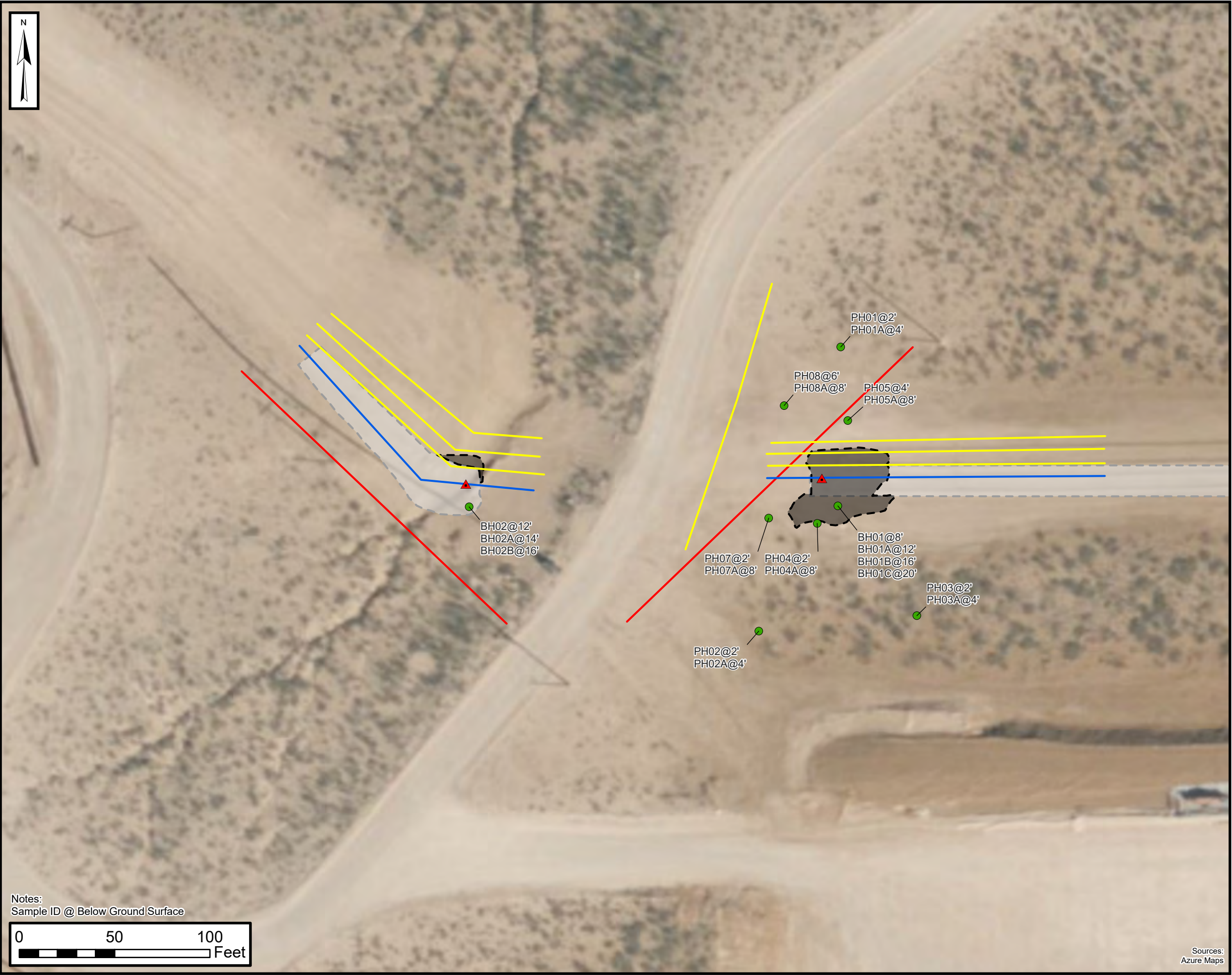
Sources:
Azure Maps

Excavation Soil Sample Locations – Western Extent

XTO Energy, Inc
 Corral Canyon 10 East CTB Pipeline
 Incident Number: NAPP2036549855
 Unit C, Section 10, T 25S, R 29E
 Eddy County, New Mexico

**FIGURE
 2B**





Legend

- ▲ Point of Release
- Delineation Soil Sample in Compliance with Applicable Closure Criteria
- Electric Utility Line
- Subsurface Gas Line
- Water Utility Line
- Excavation Extent
- Repair Excavation



Delineation Soil Sample Locations

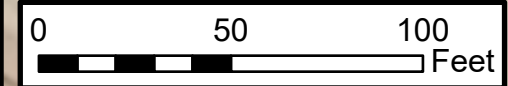
XTO Energy, Inc
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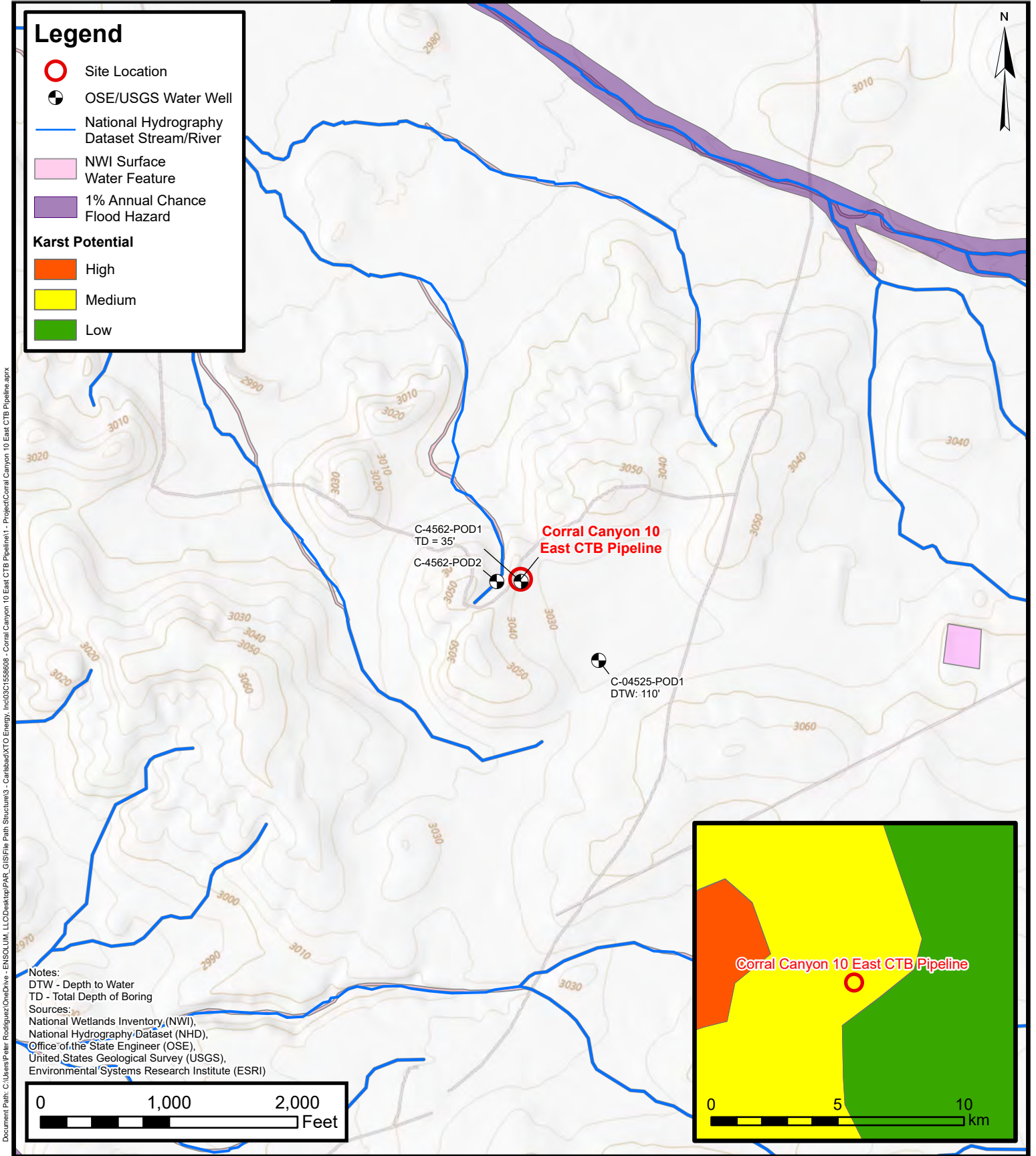
Figure 3

Incident Number: NAPP2036549855

Notes:
Sample ID @ Below Ground Surface



Sources:
Azure Maps



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Site Receptor Map

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FIGURE
4



TABLE



**TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Corral Canyon 10 East CTB Pipeline
XTO Energy, Inc
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
NMOCD Reclamation Requirement for the top four feet			NE	NE	NE	NE	NE	NE	100	600
Delineation Soil Samples										
PH01	03/18/2021	2	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	40.0
PH01A	03/18/2021	4	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	28.7
PH02	03/18/2021	2	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	20.4
PH02A	03/18/2021	4	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	25.6
PH03	03/18/2021	2	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	18.8
PH03A	03/18/2021	4	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	36.9
PH04	03/08/2021	2	<0.00200	0.00247	<50.0	<50.0	<50.0	<50.0	<50.0	144
PH04A	03/08/2021	8	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	195
PH05	03/08/2021	4	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	418
PH05A	03/08/2021	8	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	23.3
PH07	03/09/2021	2	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	121
PH07A	03/09/2021	8	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	85.5
PH08	03/09/2021	6	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	166
PH08A	03/09/2021	8	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	117
BH01	10/05/2021	8	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	157
BH01A	10/05/2021	12	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	26.6
BH01B	10/05/2021	16	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	13.4
BH01C	10/05/2021	20	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	15.5
BH02	10/05/2021	12	<0.00202	<0.00404	<49.8	<49.8	<49.8	<49.8	<49.8	787
BH02A	10/05/2021	14	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	1,020
BH02B	10/05/2021	16	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	380
Excavation Soil Samples										
Eastern Excavation Samples										
FS01	03/08/2021	8	<0.00200	0.0242	<50.0	<50.0	<50.0	<50.0	<50.0	9,860
FS03	03/05/2021	8	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	374
FS05	03/15/2021	8	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	5,460
FS06	03/15/2021	8	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	3,140
FS07	04/01/2021	8	0.00281	0.00281	56.8	<50.1	<50.1	56.8	56.8	201
SW01	03/08/2021	0-8	<0.00202	1.29	<50.0	<50.0	<50.0	<50.0	<50.0	4,920
SW02	03/08/2021	0-8	<0.00200	0.0216	<49.9	<49.9	<49.9	<49.9	<49.9	9,160
SW04	03/05/2021	0 - 8	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	45.9



**TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Corral Canyon 10 East CTB Pipeline
XTO Energy, Inc
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCDC Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
NMOCDC Reclamation Requirement for the top four feet			NE	NE	NE	NE	NE	NE	100	600
SW06	03/05/2021	0 - 8	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	84.6
SW07	03/15/2021	0 - 8	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	2,480
SW08	03/15/2021	0 - 8	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	94.6
SW09	03/15/2021	0 - 8	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	88.3
SW10	04/01/2021	0 - 8	<0.00202	<0.00202	62.9	<50.0	<50.0	62.9	62.9	68.3
SW11	04/01/2021	0 - 8	0.00214	0.00214	<50.0	<50.0	<50.0	<50.0	<50.0	1,380
SW11A	09/24/2025	0 - 4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	304
SW11B	09/24/2025	4 - 8	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	992
SW21	06/02/2021	0 - 8	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	116
SW22	06/02/2021	0 - 8	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	51.4
Western Excavation Samples										
FS08	05/25/2021	12	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	1,910
FS09	05/25/2021	12	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	3,550
FS10	05/25/2021	12	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	201
SW12	05/18/2021	0 - 12	<0.00200	0.00446	<50.0	<50.0	<50.0	<50.0	<50.0	36.0
SW13	05/18/2021	0 - 12	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	41.6
SW14	05/18/2021	0 - 12	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	218
SW15	05/18/2021	0 - 12	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	2,290
SW16	05/18/2021	0 - 12	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	670
SW17	05/18/2021	0 - 12	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	151
SW18	05/27/2021	0 - 12	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	<49.8	397
SW19	05/27/2021	0 - 12	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	141
SW20	05/27/2021	0 - 12	<0.00198	<0.00397	<49.8	<49.8	<49.8	<49.8	<49.8	181

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCDC: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCDC Table I Closure Criteria or reclamation requirement where applicable.

NE: not established

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities

Grey text indicates soil location resampled



APPENDIX A

July 11, 2025
Variance and Closure Request



July 11, 2025

New Mexico Oil Conservation Division

1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: Variance and Closure Request
Corral Canyon 10 East CTB Pipeline
Incident Number NAPP2036549855
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared this *Variance and Closure Request* to document additional delineation activities and request a variance to leave soil containing elevated chloride concentrations in place immediately adjacent to an active pipeline and no further action (NFA) for Incident Number NAPP2036549855 at the Corral Canyon 10 East Central Tank Battery (CTB) Pipeline (Site). A *Remediation Work Plan* detailing site assessment, soil sampling, remediation activities, and liner installations that occurred in response to the release of crude oil and produced water at the Site and requesting a deferral of final remediation of soil containing elevated chloride concentrations immediately surrounding an 16-inch fiberglass active pipeline for safety purposes was submitted to the New Mexico Oil Conservation Division (NMOCD) on September 10, 2021. The NMOCD denied the variance and requested additional vertical delineation data as well as a do not dig order from the pipeline owner. This *Variance and Closure Request* summarizes additional delineation results and provides the NMOCD requested do not dig letter for the pipeline. Based on excavation activities, liner installations, and soil sampling laboratory analytical results, XTO is again requesting a variance to final remediation of soil impacts around an active high-pressure fiberglass pipeline until major Site construction, deconstruction, or pipeline abandonment and NFA for Incident Number NAPP2036549855. Following evaluation of the Site receptors versus the risk to worker safety, Ensolum and XTO believe leaving the soil in place is equally or more protective of public health and the environment.

RELEASE BACKGROUND

The Site is located in Unit C, Section 10, Township 25 South, Range 29 East, in Eddy County, New Mexico (32.15158°, -103.97361°) and is associated with oil and gas exploration and production operations on Federal land managed by the Bureau of Land Management (BLM; Figure 1).

On December 16, 2020, XTO personnel observed produced water surfacing at two locations from a buried high-pressure produced water pipeline. Approximately 1.2 barrels (bbls) of crude oil and 59.05 bbls of produced water were released onto the surrounding pipeline right-of-way (ROW) that is directly north of an active tank battery. A vacuum truck was dispatched to the Site to recover free-standing fluid; approximately 1.0 bbl of crude oil and 49.25 bbls of produced water were recovered. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on December 17, 2020. A Release Notification and Corrective Action Form C-141 (Form C-141) was submitted on December 29, 2020. The release was assigned Incident Number NAPP2036549855.

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Variance and Closure Request
Corral Canyon 10 East CTB Pipeline

As documented in the *Remediation Work Plan*, immediately following the release XTO operations exposed the buried produced water pipeline for repair and completed initial excavation activities at the two release locations. The release areas were located on the east and west sides of an active lease road that travels north-south through the pipeline ROW. Approximately 2,400 cubic yards of impacted soil were removed by XTO operations while repairing the pipeline at the two release points.

An additional 110 cubic yards of impacted soil was removed from the eastern excavation based on visual inspection and field screening. Six 5-point composite samples (FS01 through FS03, and FS05 through FS07) were collected from the floor of the excavation from a depth of 8 feet below ground surface (bgs). Thirteen composite samples (SW01 through SW11, SW21 and SW22) were collected from the sidewalls of the eastern excavation from depths ranging from the ground surface to 8 feet bgs. Based on elevated field screening results, excavation samples FS02, SW03, and SW05 were not submitted for laboratory analysis (sample name FS04 inadvertently was omitted from the sample nomenclature). Sample locations SW01, SW02 and SW07 were overexcavated to remove chloride results above Closure Criteria. Laboratory analytical results and/or field screening results for the western sidewall (sidewall sample SW11) and central floor samples (FS01, FS05, and FS06) reported chloride concentrations above the Closure Criteria. Floor samples FS01 and FS02 were collected within 2 feet of the pipeline, as close as XTO safety policy allows for soil removal. Additional excavation of impacted soil in the areas around floor samples FS05 and FS06 was limited by the depth and slope instability of the excavation. Further excavation of impacted soil to the west beyond sidewall sample SW11 was limited by the proximity of active pipelines and the lease road that provides access to the tank battery. Potholes PH01 through PH08 were advanced via backhoe surrounding the eastern release to assess the lateral extent of impacted soil. Potholes PH01 through PH08 were advanced to depths ranging from 4 feet to 8 feet bgs. Delineation soil samples were collected from each pothole from depths ranging from 2 feet to 8 feet bgs. Laboratory analytical results reported benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria and successfully defined the lateral extent of the impacted soil.

After visual inspection and field screening of the western repair excavation, an additional 150 cubic yards of impacted soil was removed. Three 5-point composite samples (FS08 through FS10) were collected from the floor of the excavation at a depth of 12 feet bgs. Composite samples SW12 through SW20 were collected from the sidewalls of the excavation from depths ranging from the ground surface to 12 feet bgs. Sample locations SW15 and SW16 were overexcavated since both locations reported chloride levels exceeding Closure Criteria. The repair excavation extended into clean soil and there was no sidewall to sample to confirm removal of impacts to the west. Laboratory analytical results for floor samples FS08 and FS09 reported chloride concentrations that exceeded the Closure Criteria. Floor samples FS08 and FS09 were collected near the active, 16-inch high-pressure fiberglass water pipeline. Further excavation of impacted soil beneath or within 2 feet of the fiberglass water pipeline was deemed unsafe by XTO safety policy. Since all sidewall samples in the western excavation met NMOCD Closure Criteria, no lateral delineation was necessary for the western release.

Due to the nature of the release, remaining chloride impacts in the floor of the excavation, and safety concerns for completing additional vertical excavation around the active, 16-inch high-pressure fiberglass line, installation of an impermeable liner in the open excavation was determined to be the most suitable option for mitigating chloride impacts to the subsurface. A 20-mil impermeable liner was installed in the floor of both excavations. The liner was installed at approximately 8 feet bgs in the eastern excavation and 12 feet bgs in the western excavation. Upon completion of the liner installation, the excavation areas were backfilled with locally procured topsoil and recontoured to match pre-existing Site conditions.

Since the excavations were backfilled, XTO proposed to drill boreholes near the eastern and western release points to provide vertical delineation of the impacted soil left in place. Following vertical

XTO Energy, Inc
Variance and Closure Request
Corral Canyon 10 East CTB Pipeline

delineation of the releases, XTO proposed to submit a deferral request after receiving NMOCD's approval of the *Remediation Work Plan* (Appendix A).

On October 7, 2021, NMOCD denied the *Remediation Work Plan* for Incident Number nAPP2036549855 for the following reasons:

- *Variance to defer on pipeline right-of-way denied.*
- *When submitting data for deferment, analytical data was insufficient. Data was missing between 0-12ft. For future reports please include data depicting contamination levels intermittently as you progress to target depth.*
- *The OCD request a do not dig order from the pipeline owner to be submitted with next report.*

CLOSURE CRITERIA

The *Remediation Work Plan* detailed site characterization according to Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, (19.15.29) of the New Mexico Administrative Code (NMAC). Based on the results of the site characterization, the following Closure Criteria applies:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

ADDITIONAL DELINEATION SOIL ACTIVITIES

On October 5, 2021, two borings (BH01 and BH02) were advanced to a depth of 20 feet bgs using a track-mounted hollow-stem auger drill rig near the eastern and western release points to provide vertical delineation of the impacted soil left in place. The boreholes were advanced as close as possible to the release points while maintaining a safe distance from the buried high-pressure line and the installed liners. Soil from the boreholes was field screened for volatile organic compounds (VOCs) utilizing a photoionization detector (PID) and chloride using Hach[®] chloride QuanTab[®] test strips, respectively. Soil boring BH01 was advanced within the prior east excavation footprint and samples were collected at 8 feet, 12 feet, 16 feet, and 20 feet bgs. Soil boring BH02 was drilled within the previous west excavation and samples were collected at 12 feet, 14 feet, and 16 feet bgs.

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 transported under strict chain-of-custody procedures to Eurofins Xenco (Eurofins) in Carlsbad, New Mexico, for analysis of the following COCs: BTEX following United States EPA Method 8021B; TPH-GRO, TPH-DRO, and TPH-ORO following EPA Method 8015M/D; and chloride following EPA Method 300.0.

The borehole locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Field screening results and lithology observations for BH01 and BH02 were recorded on boring logs, which are included in Appendix B. Photographs of the Site during delineation activities are included in Appendix C.

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Corral Canyon 10 East CTB Pipeline

LABORATORY ANALYTICAL RESULTS

Following delineation activities, laboratory analytical results confirm that impacted soil from the releases was fully defined both laterally and vertically to Closure Criteria as requested by NMOCD in the *Remediation Work Plan* denial response. The lateral extent of the eastern release was defined by previously collected sampling locations PH01 through PH08, and the vertical extent of chloride exceedances was defined by sampling location BH01. Since all sidewall samples in the western excavation met NMOCD Closure Criteria, no lateral delineation was necessary for the western area. Samples collected from BH02 advanced within the previous western excavation extent vertically defined chloride exceedances to less than 16 feet bgs.

Remaining COC concentrations following excavation are in compliance with Closure Criteria, with the exception of soil surrounding the active 16-inch fiberglass flowline close to the release points and/or in close proximity to the lease road that provides access to the tank battery. Current and historical laboratory analytical results are summarized in Table 1, and laboratory analytical reports from sampling locations BH01 and BH02 are included in Appendix D.

RECLAMATION PLAN

The ROW where the releases occurred is currently in operation for oil and gas production purposes. As such, the release areas are not expected to be reclaimed until the abandonment of the pipeline. Requirements of 19.2.100.67 NMAC will be addressed prior to, during, and after the decommissioning of the pipeline.

VARIANCE AND CLOSURE REQUEST

Site assessment, delineation soil sampling, excavation, excavation soil sampling, and liner installation activities were conducted at the Site to address the extent of impacted soil from the December 16, 2020 crude oil and produced water release (Incident Number nAPP2036549855). A total of approximately 2,660 cubic yards of soil were excavated from the Site during repair and remediation excavations. The volume of impacted soil removed from the eastern excavation during remediation was approximately 460 cubic yards, and the volume of impacted soil excavated from the western excavation during remediation was estimated at 482 cubic yards. Impacted soil was removed to the maximum extent practicable in both excavations; however, residual impacted soil was left in place immediately surrounding an active, 16-inch high-pressure fiberglass produced water pipeline for compliance with XTO safety policy. Further excavation beneath or around the pipeline was not feasible due to the presence of the pipeline and the slope at which the pipeline was installed. Laboratory analytical results for sidewall sample SW11 indicated that impacted soil was left in place in the western sidewall of the eastern excavation. Further excavation beyond sample SW11 was limited by the proximity of additional active pipelines and the lease road that supports the entry into the tank battery (reference photos 3 and 4 in Appendix C).

XTO is requesting a variance to leave the elevated chloride impacted soil in place surrounding the active, 16-inch high-pressure fiberglass produced water pipeline at two locations and in the sidewall nearest the pipeline ROW. XTO will complete final remediation during any future major construction/alteration of the pipeline ROW or road or abandonment of the pipeline, whichever occurs first. The elevated chloride from the eastern release point reported at FS01, FS05, FS06, and SW11 ranges from 1,380 to 9,860 mg/kg. The eastern release extent is delineated laterally by excavation samples SW04, SW06, SW08 through SW10, SW21, SW22, FS03, and FS07 and delineation soil samples PH01/PH01A through PH08/PH08A and vertically by soil samples BH01/BH01A/BH01B/BH01C. An estimated 152 cubic yards of impacted soil remains in place at the eastern excavation, assuming a maximum 4-foot depth based on the excavation and delineation soil samples that were compliant with Closure Criteria (Figure 3). In

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 Variance and Closure Request
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the western excavation, the elevated chloride from floor samples FS08 and FS09 reported concentrations of 1,910 and 3,550 mg/kg, respectively. The western release extent is delineated laterally by excavation samples SW12 through SW14, SW17 through SW20, and FS10 and delineated vertically by soil sample BH02B. An estimated 64 cubic yards of impacted soil remains in place at the western excavation, assuming a maximum 4-foot depth based on the excavation and delineation soil samples that were compliant with Closure Criteria (Figure 3). The majority of the impacts in both excavations are located beneath 20-mil impermeable liners.

Ensolum and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. XTO owns and operates the pipeline. As requested by the NMOCD in the denial response to the *Remediation Work Plan*, a Do Not Dig letter signed by XTO is attached in Appendix E. Since there is little risk to the environment, but high risk to worker safety and equipment, leaving the material in place is equally or more protective of public health and environment. The majority of the released fluids were recovered during initial response activities, the impacted soil remaining in place is limited to the area immediately around the fiberglass produced water pipeline, removal of impacted soil has been completed to the maximum extent practicable, an impermeable liner was installed in the floor of the excavations to prevent future migration of chlorides, and groundwater is documented to be greater than 100 feet bgs beneath the Site. No impacted soil remains in the top 8 feet of the subsurface, eliminating risk of impact to vegetation or surface water.

XTO believes the remedial actions conducted at the Site are protective of human health, the environment, and groundwater and address all deficiencies as noted in the original *Remediation Work Plan* denial responses. As such, XTO requests a variance for samples FS01, FS05, FS06, SW11, FS08 and FS09 and no further action (NFA) for Incident Number NAPP2036549855.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC



Katherine Kahn, P.G.
 Senior Managing Geologist



Tacoma Morrissey, MS
 Associate Principal

cc: Dale Woodall, XTO
 Kaylan Dirkx, XTO
 Bureau of Land Management

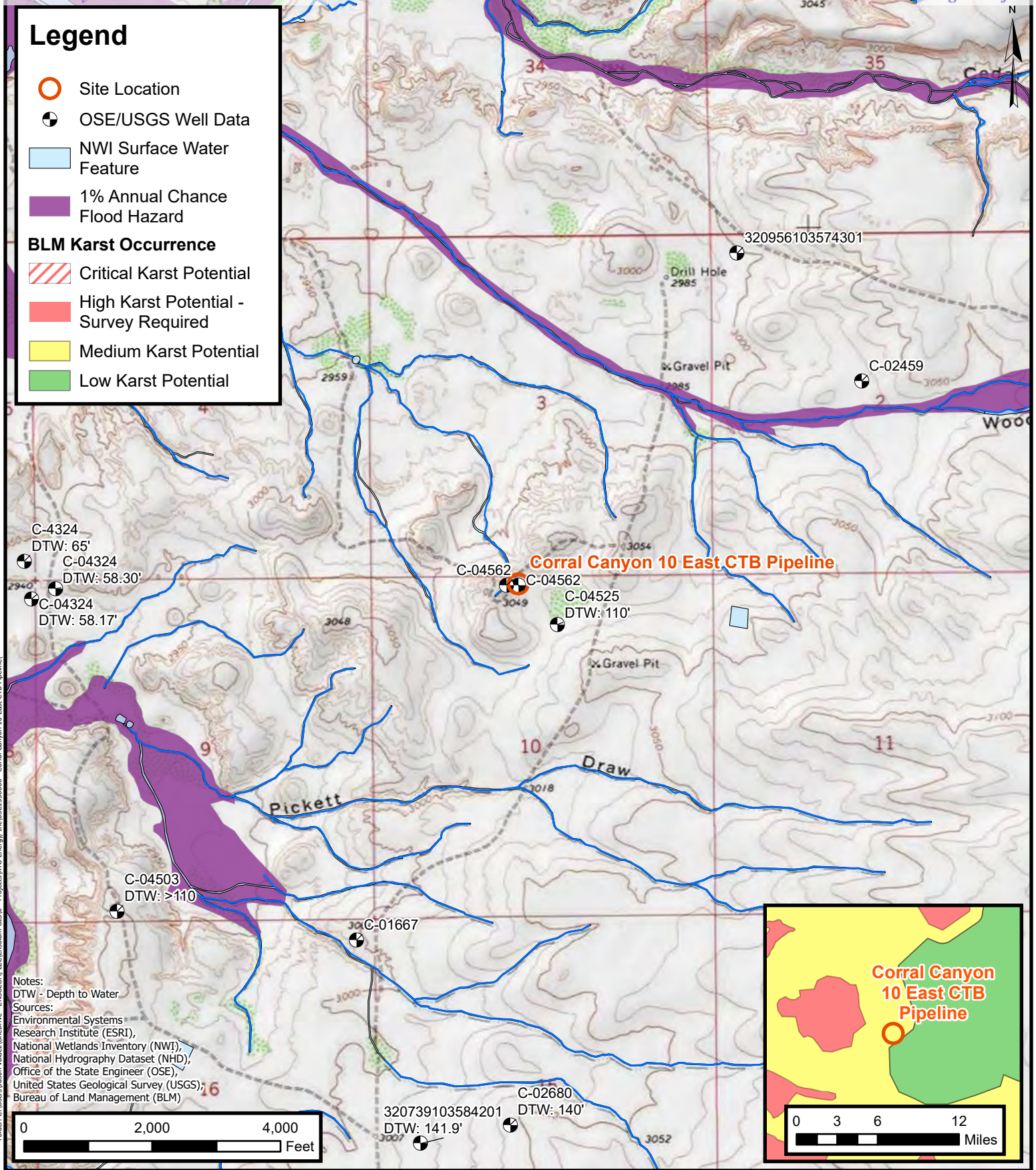
Appendices:

Figure 1 Site Receptor Map
 Figure 2 Delineation Soil Sample Locations
 Figure 3 Areas of Requested Deferral
 Table 1 Soil Sample Analytical Results
 Appendix A September 10, 2021 *Remediation Work Plan*
 Appendix B Boring Logs
 Appendix C Photographic Log
 Appendix D Laboratory Analytical Reports and Chain-of-Custody Documentation
 Appendix E XTO Do Not Dig Letter



FIGURES





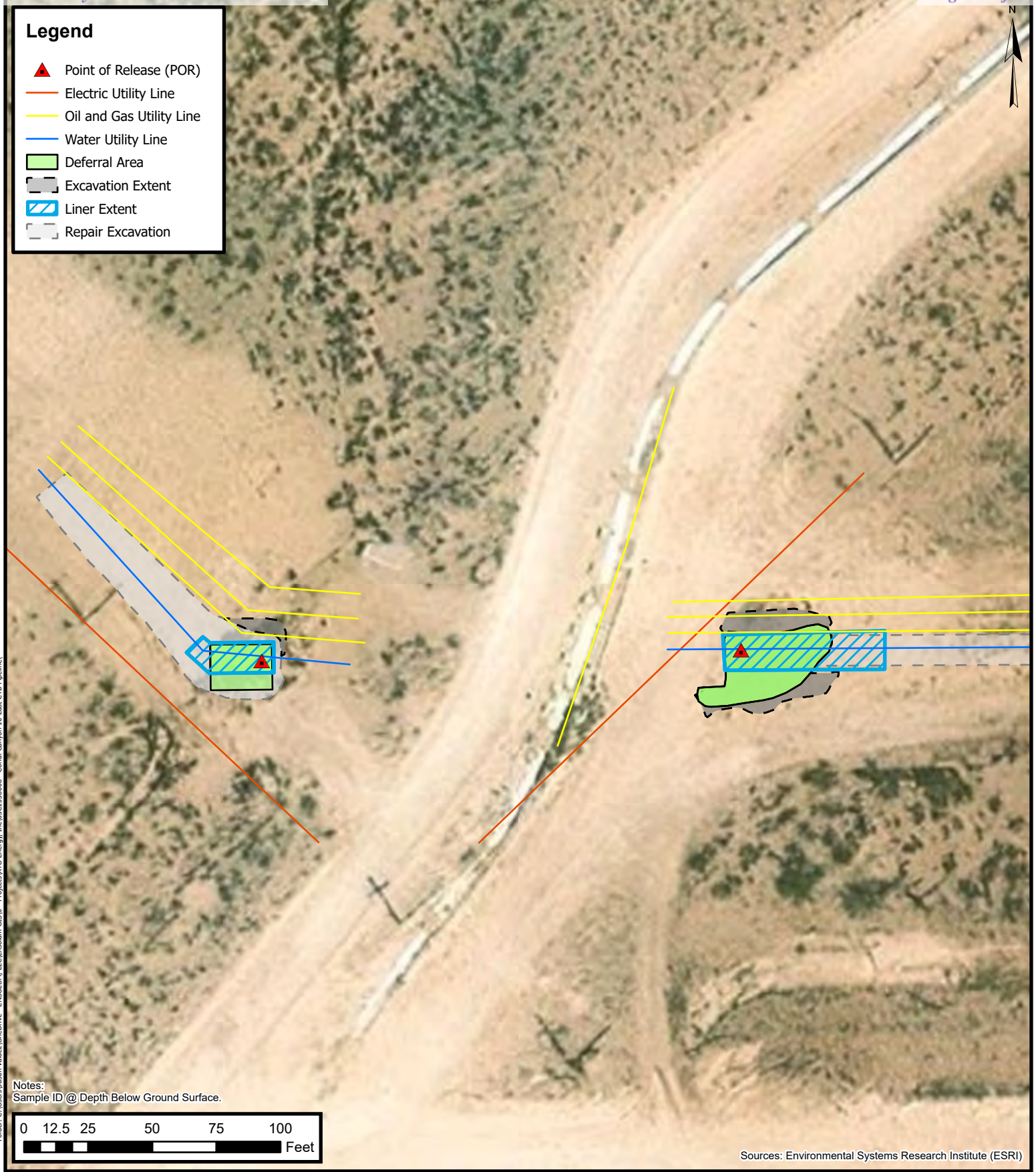
Site Location Map
 XTO Energy, Inc
 Corral Canyon 10 East CTB Pipeline
 Incident Number: nAPP2036549855
 Unit C, Section 10, T 25S, R 29E
 Eddy County, New Mexico

FIGURE
1



Delineation Soil Sample Locations
 XTO Energy, Inc
 Corral Canyon 10 East CTB Pipeline
 Incident Number: nAPP2036549855
 Unit C, Section 10, T 25S, R 29E
 Eddy County, New Mexico

FIGURE
2



Folder: C:\Users\Justin Velazquez\OneDrive - ENSOLUM, LLC\Ensolium GIS\0 - Projects\XTO Energy, Inc\03C1558608 - Corral Canyon 10 East CTB Pipeline



Areas of Requested Deferral
 XTO Energy, Inc
 Corral Canyon 10 East CTB Pipeline
 Project Number: 03C1558608
 32.15158, -103.97361
 Eddy County, New Mexico

FIGURE
3



TABLE



**TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Corral Canyon 10 East CTB Pipeline
XTO Energy, Inc
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Delineation Soil Samples										
PH01	03/18/2021	2	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	40
PH01A	03/18/2021	4	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	28.7
PH02	03/18/2021	2	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	20.4
PH02A	03/18/2021	4	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	25.6
PH03	03/18/2021	2	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	18.8
PH03A	03/18/2021	4	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	36.9
PH04	03/08/2021	2	<0.00200	0.00247	<50.0	<50.0	<50.0	<50.0	<50.0	144
PH04A	03/08/2021	8	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	195
PH05	03/08/2021	4	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	418
PH05A	03/08/2021	8	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	23.3
PH07	03/09/2021	2	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	121
PH07A	03/09/2021	8	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	85.5
PH08	03/09/2021	6	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	166
PH08A	03/09/2021	8	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	117
BH01	10/05/2021	8	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	157
BH01A	10/05/2021	12	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	26.6
BH01B	10/05/2021	16	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	13.4
BH01C	10/05/2021	20	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	15.5
BH02	10/05/2021	12	<0.00202	<0.00404	<49.8	<49.8	<49.8	<49.8	<49.8	787
BH02A	10/05/2021	14	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	1,020
BH02B	10/05/2021	16	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	380
Confirmation Soil Samples										
Eastern Excavation Samples										
FS01	03/08/2021	8	<0.00200	0.0242	<50.0	<50.0	<50.0	<50.0	<50.0	9,860
FS03	03/05/2021	8	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	374
FS05	03/15/2021	8	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	5,460
FS06	03/15/2021	8	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	3,140
FS07	04/01/2021	8	0.00281	0.00281	56.8	<50.1	<50.1	56.8	56.8	201
SW01	03/08/2021	0-8	<0.00202	1.29	<50.0	<50.0	<50.0	<50.0	<50.0	4,920
SW02	03/08/2021	0-8	<0.00200	0.0216	<49.9	<49.9	<49.9	<49.9	<49.9	9,160
SW04	03/05/2021	0-8	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	45.9



**TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Corral Canyon 10 East CTB Pipeline
XTO Energy, Inc
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
SW06	03/05/2021	0 - 8	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	84.6
SW07	03/15/2021	0 - 8	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	2,480
SW08	03/15/2021	0 - 8	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	94.6
SW09	03/15/2021	0 - 8	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	88.3
SW10	04/01/2021	0 - 8	<0.00202	<0.00202	62.9	<50.0	<50.0	62.9	62.9	68.3
SW11	04/01/2021	0 - 8	0.00214	0.00214	<50.0	<50.0	<50.0	<50.0	<50.0	1,380
SW21	06/02/2021	0 - 8	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	116
SW22	06/02/2021	0 - 8	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	51.4
Western Excavation Samples										
FS08	05/25/2021	12	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	1,910
FS09	05/25/2021	12	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	3,550
FS10	05/25/2021	12	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	201
SW12	05/18/2021	0 - 12	<0.00200	0.00446	<50.0	<50.0	<50.0	<50.0	<50.0	36
SW13	05/18/2021	0 - 12	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	41.6
SW14	05/18/2021	0 - 12	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	218
SW15	05/18/2021	0 - 12	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	2,290
SW16	05/18/2021	0 - 12	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	670
SW17	05/18/2021	0 - 12	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	151
SW18	05/27/2021	0 - 12	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	<49.8	397
SW19	05/27/2021	0 - 12	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	141
SW20	05/27/2021	0 - 12	<0.00198	<0.00397	<49.8	<49.8	<49.8	<49.8	<49.8	181

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

NE: not established

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



APPENDIX A

September 10, 2021
Remediation Work Plan



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

September 10, 2021

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

**RE: Remediation Work Plan
Corral Canyon 10 East CTB Pipeline
Incident Number NAPP2036549855
Eddy County, New Mexico**

To Whom It May Concern:

WSP USA Inc. (WSP), on behalf of XTO Energy, Inc. (XTO), presents the following Remediation Work Plan detailing remediation activities completed to date and a proposed work plan to delineate residual impacted soil at the Corral Canyon 10 East Central Tank Battery (CTB) Pipeline (Site) in Unit C, Section 10, Township 25 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the remediation activities completed to date was to address impacts to soil resulting from the release of crude oil and produced water at the Site by safely excavating impacted soil to the extent possible based on the Site conditions and as allowed by XTO safety policy. Once excavation was completed to the extent practical and safe, residual chloride impacts were mitigated by installing an impermeable liner in the subsurface. The proposed work plan is designed to complete vertical delineation of the residual chloride impacts utilizing a truck-mounted hollow-stem auger rig and request approval to include the release area as part of the adjacent well pad and defer final remediation of soil impacts around an active high-pressure fiberglass pipeline for Incident Number NAPP2036549855 until major Site construction, destruction, or pipeline abandonment.

RELEASE BACKGROUND

On December 16, 2020, XTO personnel observed produced water surfacing at two locations from a buried high-pressure produced water pipeline. Approximately 1.2 barrels (bbls) of crude oil and 59.05 bbls of produced water were released onto the surrounding pipeline right-of-way (ROW) that is immediately south of an active tank battery. A vacuum truck was dispatched to the Site to recover free-standing fluid; approximately 1.0 bbl of crude oil and 49.25 bbls of produced water were recovered. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on December 17, 2020. A Release Notification and Corrective Action Form C-141 (Form C-141) was submitted on December 29, 2020. The release was assigned Incident Number NAPP2036549855.



SITE CHARACTERIZATION

WSP characterized the Site 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). Depth to groundwater at the Site is greater than 100 feet below ground surface (bgs) based on a recent soil boring drilled for determination of regional groundwater depth. During May 2021, WSP installed a soil boring (C-04525) within 0.5 miles of the Site utilizing a truck-mounted hollow-stem auger rig. Soil boring C-04525 was drilled to a depth of 110 feet bgs. A WSP geologist logged and described soils continuously. The well record and log are included in Attachment 1. The location of the borehole is approximately 0.16 miles southeast of the Site and is depicted on Figure 1. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period, it was confirmed that groundwater beneath the Site is greater than 110 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips.

The closest continuously flowing or significant watercourse to the Site is an ephemeral drainage, located approximately 195 feet west of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total Petroleum Hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

INITIAL SITE ASSESSMENT, SOIL SAMPLING ACTIVITIES, AND ANALYTICAL RESULTS

On January 19, 2021, WSP personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. At the time of the WSP Site visit, XTO operations had exposed the buried produced water pipeline for repair and completed initial excavation activities at the two release locations. The release areas were located on the east and west sides of an active lease road that travels north-south through the pipeline ROW. The release locations and initial excavation areas were mapped utilizing a handheld Global



Positioning System (GPS) unit are depicted on Figure 2. Approximately 2,400 cubic yards of impacted soil were removed by XTO operations prior to WSP personnel visiting the Site. Photographic documentation was conducted during the Site visits. A photographic log is included in Attachment 2.

Further assessment and remediation efforts were postponed due to ongoing discussions regarding remedial options for addressing the remaining impacted soil in close proximity to multiple active pipelines, including the high-pressure fiberglass water pipeline. XTO safety policy restricts soil disturbing activities to a 2-foot radius of any production equipment or pipelines to protect workers and reduce the likelihood of compromising the foundation of production equipment and structural integrity of pipelines. Due to the age, contents, and construction of the high-pressure fiberglass pipeline, it being buried to an 8- to 12-foot depth, and proximity to multiple other subsurface pipelines, additional safety precautions were warranted.

On March 5, 2021, WSP returned to the Site to complete soil sampling activities in the initial eastern excavation to evaluate the extent of impacted soil. WSP personnel collected 5-point composite soil samples every 200 square feet from the sidewalls and floor of the repair excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite samples FS01 through FS03 were collected from the floor of the excavation from a depth of 8 feet bgs. Composite samples SW01 through SW06 were collected from the sidewalls of the excavation from depths ranging from the ground surface to 8 feet bgs. The soil sample locations were mapped utilizing a handheld GPS unit and are depicted on Figure 3A.

The excavation soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Based on elevated field screening results, excavation samples FS02, SW03, and SW05 were not submitted for laboratory analysis (sample name FS04 inadvertently was omitted from the sample nomenclature). The remaining excavation 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 transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH- DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for excavation floor sample FS03 and excavation sidewall samples SW04 and SW06 indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria and confirmed the eastern extent of the release. Laboratory analytical results and/or field screening results for floor samples FS01 and FS02 and sidewall samples SW01 through SW03, and SW05 indicated that chloride concentrations exceeded the Closure Criteria.



Based on field screening activities and laboratory analytical results for the excavation soil samples, excavation and delineation activities were warranted.

EXCAVATION AND DELINEATION ACTIVITIES AND ANALYTICAL RESULTS

Between March 8, 2021 and June 2, 2021, WSP personnel returned to the Site to oversee excavation and delineation activities in the eastern and western release areas as indicated by visual observations, field screening activities, and laboratory analytical results.

Eastern Excavation

Excavation activities were performed in the eastern excavation to remove impacted soil in the areas surrounding initial sidewall samples SW01 through SW03, and SW05. Further excavation of impacted soil around on the excavation floor was limited by the proximity to and depth of the active high-pressure pipeline. Excavation activities were performed using a hydrovac, track-mounted backhoe, and transport vehicle. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Following removal of impacted soil from the northern southern, and western areas of the repair excavation, subsequent composite sidewall samples SW06 through SW11, SW21, and SW22 were collected. Composite floor samples FS05 through FS07 were collected from the floor of the extended excavation area from a depth of 8 feet bgs. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3A.

Laboratory analytical results for excavation confirmation samples collected from the final excavation extent indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria on the northern and southern sidewalls and the southwestern excavation floor. Laboratory analytical results and/or field screening results for the western sidewall (sidewall sample SW11) and central floor samples (FS01, FS02, FS05, and FS06) indicated that chloride concentrations exceeded the Closure Criteria. Floor samples FS01 and FS02 were collected within 2 feet of the pipeline, as close as XTO safety policy allows for soil removal. Additional excavation of impacted soil in the areas around floor samples FS05 and FS06 was limited by the depth and slope instability of the excavation. Further excavation of impacted soil to the west beyond sidewall sample SW11 was limited by the proximity of active pipelines and the lease road that provides access to the tank battery.

The final eastern excavation extent measured approximately 1,300 square feet. Approximately 110 cubic yards of additional impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico.



Western Excavation

Excavation activities were performed to expand the repair excavation in the western release area using a hydrovac, track-mounted backhoe, and transport vehicle. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively.

Following removal of impacted soil to the extent possible, composite samples FS08 through FS10 were collected from the floor of the excavation from a depth of 12 feet bgs. Composite samples SW12 through SW20 were collected from the sidewalls of the excavation from depths ranging from the ground surface to 12 feet bgs. The repair excavation extended into clean soil and there was no sidewall to sample to confirm removal of impacts to the west. The excavation extent and excavation soil sample locations were mapped utilizing a handheld GPS unit and are depicted on Figure 3B. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above.

Laboratory analytical results indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria in all final sidewall samples. Note that soil represented by sidewall samples SW15 and SW16 was removed, and the extended areas were resampled by collecting samples SW18, SW19, and SW20. Laboratory analytical results for floor samples FS08 and FS09 indicated that chloride concentrations exceeded the Closure Criteria. Floor samples FS08 and FS09 were collected near the active high-pressure fiberglass water pipeline. Further excavation of impacted soil beneath or within 2 feet of the fiberglass water pipeline was deemed unsafe by XTO safety policy.

The final western excavation extent measured approximately 400 square feet. A total of approximately 150 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico.

Delineation Activities

Potholes PH01 through PH08 were advanced via backhoe around the eastern release extent to assess the lateral extent of impacted soil. Potholes PH01 through PH08 were advanced to depths ranging from 4 feet to 8 feet bgs. Delineation soil samples were collected from each pothole from depths ranging from 2 feet to 8 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing PID and Hach® chloride QuanTab® test strips, respectively. The delineation soil samples were collected, handled, and analyzed as described above. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Attachment 3. The potholes and delineation soil sample locations are depicted on Figure 4.



Laboratory analytical results for delineation soil samples PH01/PH01A through PH08/PH08A, collected from depths ranging from 2 feet to 8 feet bgs, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria and successfully defined the lateral extent of the impacted soil. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Attachment 4.

Since all sidewall samples in the western excavation met NMOCD Closure Criteria, no lateral delineation was necessary for the western area.

LINER INSTALLATION

Due to the nature of the release, remaining chloride impacts in the floor of the excavation, and safety concerns for completing additional vertical excavation around the high-pressure fiberglass line, installation of an impermeable liner in the open excavation was determined to be the most suitable option for mitigating chloride impacts to the subsurface. Leaving the excavations open to 8 and 12 feet depths near multiple active pipelines was not safe or feasible at an active tank battery site; therefore, XTO proceeded with liner installation to mitigate the residual chloride impacts immediately. XTO met with the NMOCD on April 23, 2021 to discuss the site and the potential for liner installation.

The remaining impacted soil in the floor of the excavations is characterized by chloride concentrations ranging from 1,910 mg/kg to 9,860 mg/kg at depths greater than 8 to 12 feet bgs near the release points. A 20-mil impermeable liner was installed in the floor of the excavations. The liner was installed at approximately 8 feet bgs in the eastern excavation and 12 feet bgs in the western excavation. The liner extents are depicted on Figure 5. Upon completion of the liner installation, the excavation areas were backfilled with locally procured topsoil and recontoured to match pre-existing Site conditions. The areas were backfilled immediately due to safety concerns with leaving the high-pressure fiberglass pipeline exposed in the open excavations.

REMEDIATION WORK PLAN AND PROPOSED DEFERRAL REQUEST

A total of approximately 2,500 cubic yards of impacted soil were excavated from the Site during repair and remediation excavations; however, residual impacted soil was left in place immediately surrounding an active high-pressure fiberglass produced water pipeline for compliance with XTO safety policy. Further excavation beneath or around the pipeline was not feasible due to presence of the pipeline and the slope at which the pipeline was installed. Laboratory analytical results for sidewall sample SW11 indicated that impacted soil was left in place in the western sidewall of the eastern excavation. Further excavation beyond sample SW11 was limited by the proximity of additional active pipelines and the lease road that supports the entry into the tank battery (reference photos 7 and 8 in Attachment 2).

The western release extent is delineated laterally by excavation samples SW12 through SW14, SW17 through SW20, and FS10. The eastern release extent is delineated laterally by excavation



samples SW04, SW06, SW08 through SW10, SW21, SW22, FS06, and FS07 and delineation soil samples PH01/PH01A through PH08/PH08A. The vertical extent of impacted soil near the release points has not yet been fully delineated due to depth and access limitations using a track hoe.

To achieve full delineation at the Site, XTO proposes to drill boreholes near the eastern and western release points now that the areas are backfilled, to provide vertical delineation of the impacted soil left in place. The boreholes will be advanced as close as possible to the release points while maintaining a safe distance from the buried high-pressure line and not damaging the installed liners. The proposed borehole locations are depicted on Figure 5. The boreholes will be drilled with a track-mounted hollow-stem auger drill rig to achieve the depth necessary for vertical delineation of the impacted soil left in place. Soil from the boreholes will be field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. The boreholes will be advanced to a depth where field screening results indicate compliance with the Closure Criteria. Delineation soil samples will be collected from the boreholes and handled and analyzed following the same procedures as described above.

During the April 23, 2021 meeting with NMOCD, XTO and the regulators discussed the potential of including the ROW within the adjacent active tank battery pad to allow for consideration of deferral around the pipeline. The ROW is barely separated from the significant active facility operations. Health and safety of workers, in addition to potential disturbance to significant areas of landscape to allow for appropriate sloping must be considered. The NMOCD was open to the proposal as detailed in this workplan.

Once full vertical delineation of impacted soil left in place is achieved, XTO proposes to submit a deferral request to complete final remediation during any future major construction/alteration of the pipeline ROW or road or abandonment of the pipeline, whichever occurs first. The proposed deferral request area is depicted on Figure 5. WSP and XTO do not believe deferral will result in imminent risk to human health, the environment, or groundwater. XTO owns and operates the pipeline. The majority of the released fluids were recovered during initial response activities, the impacted soil remaining in place is limited to the area immediately around the fiberglass produced water pipeline, removal of impacted soil has been completed to the extent safely possible, an impermeable liner was installed in the floor of the excavations to prevent future migration of chlorides, and groundwater is documented to be greater than 100 feet bgs beneath the Site. No impacted soil remains in the top four 8 feet of the subsurface, eliminating risk of impact to vegetation or surface water.

XTO will complete the vertical delineation as described above and submit a deferral request within 90 days of the date of approval of this work plan by NMOCD.

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



Sincerely,

WSP USA Inc.

A handwritten signature in black ink, appearing to read 'Jeremy Hill'.

Jeremy Hill
Environmental Scientist

A handwritten signature in black ink, appearing to read 'Ashley L. Ager'.

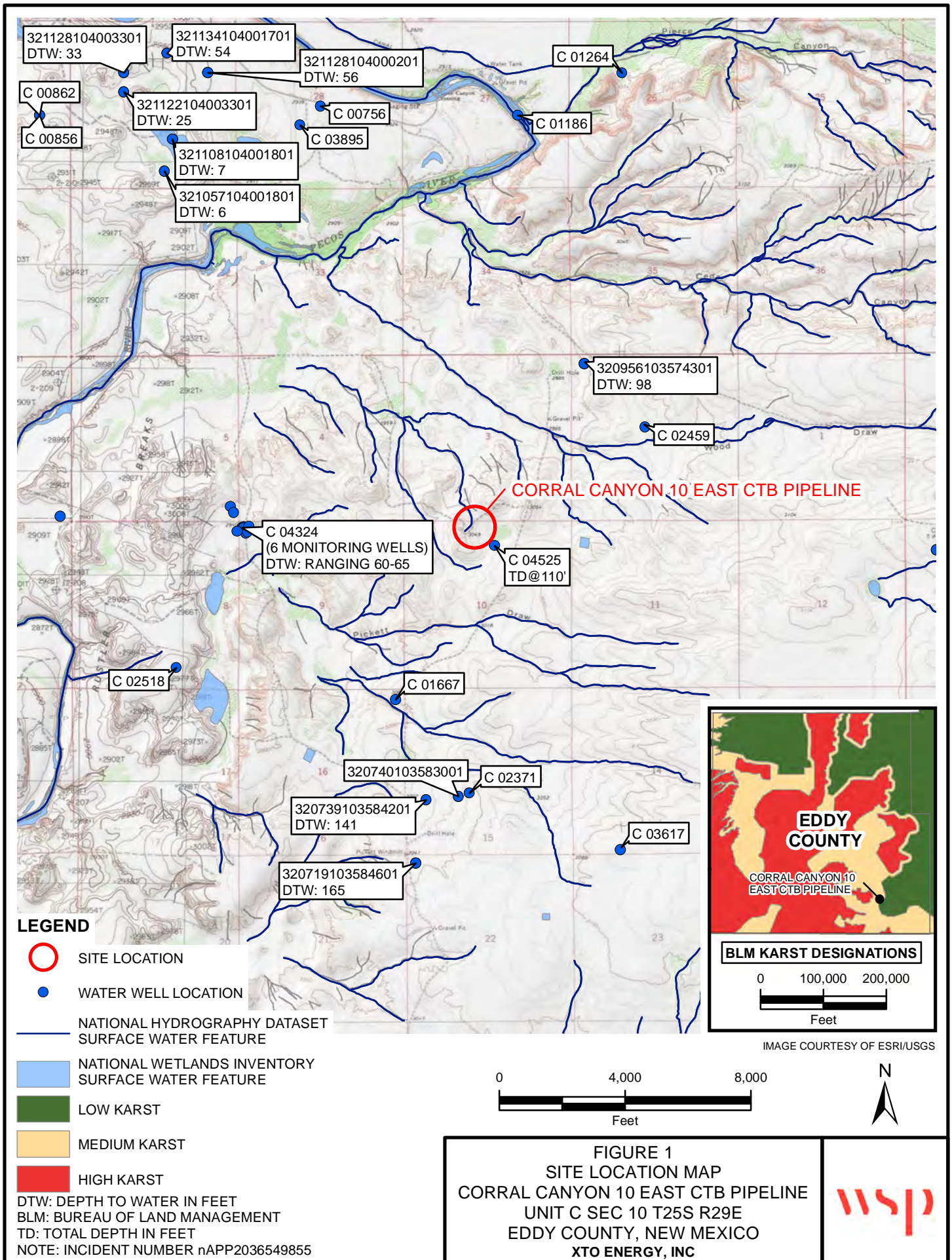
Ashley L. Ager, P.G.
Managing Director, Geologist

cc: Adrian Baker, XTO
Bureau of Land Management

Attachments:

- Figure 1 Site Location Map
- Figure 2 Release Locations
- Figure 3A Excavation Soil Sample Locations- Eastern Extent
- Figure 3B Excavation Soil Sample Locations- Western Extent
- Figure 4 Delineation Soil Sample Locations
- Figure 5 Proposed Deferral Area and Liner Extent
- Table 1 Soil Analytical Results
- Attachment 1 Well Record and Log
- Attachment 2 Photographic Log
- Attachment 3 Lithologic/Sampling Log
- Attachment 4 Laboratory Analytical Reports

FIGURES



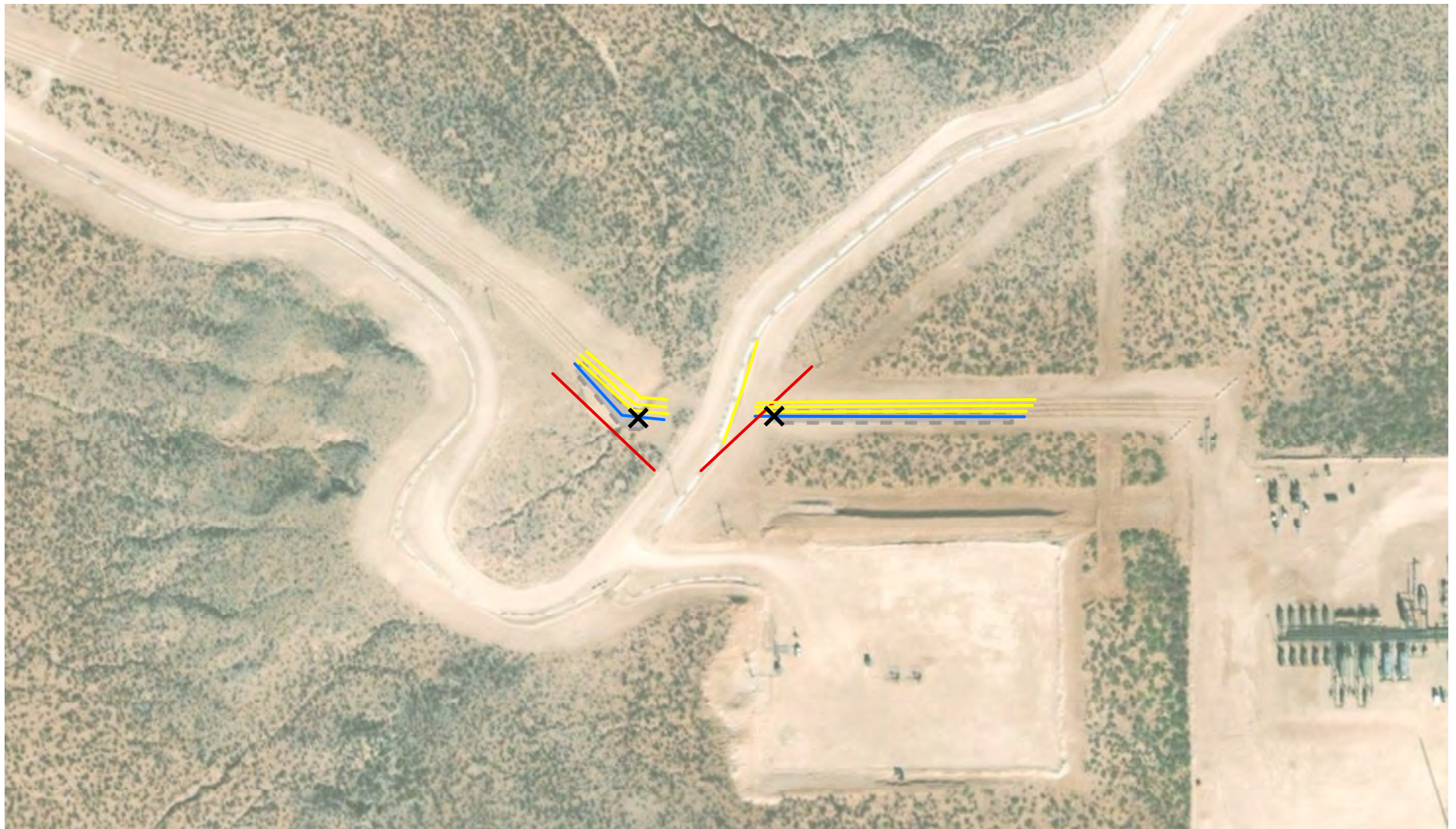







IMAGE COURTESY OF ESRI

LEGEND

-  RELEASE LOCATION
-  OVERHEAD ELECTRIC LINE
-  SUBSURFACE GAS LINES
-  WATER LINE
-  REPAIR EXCAVATION

NOTE: INCIDENT NUMBER nAPP2036549855

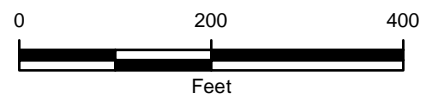
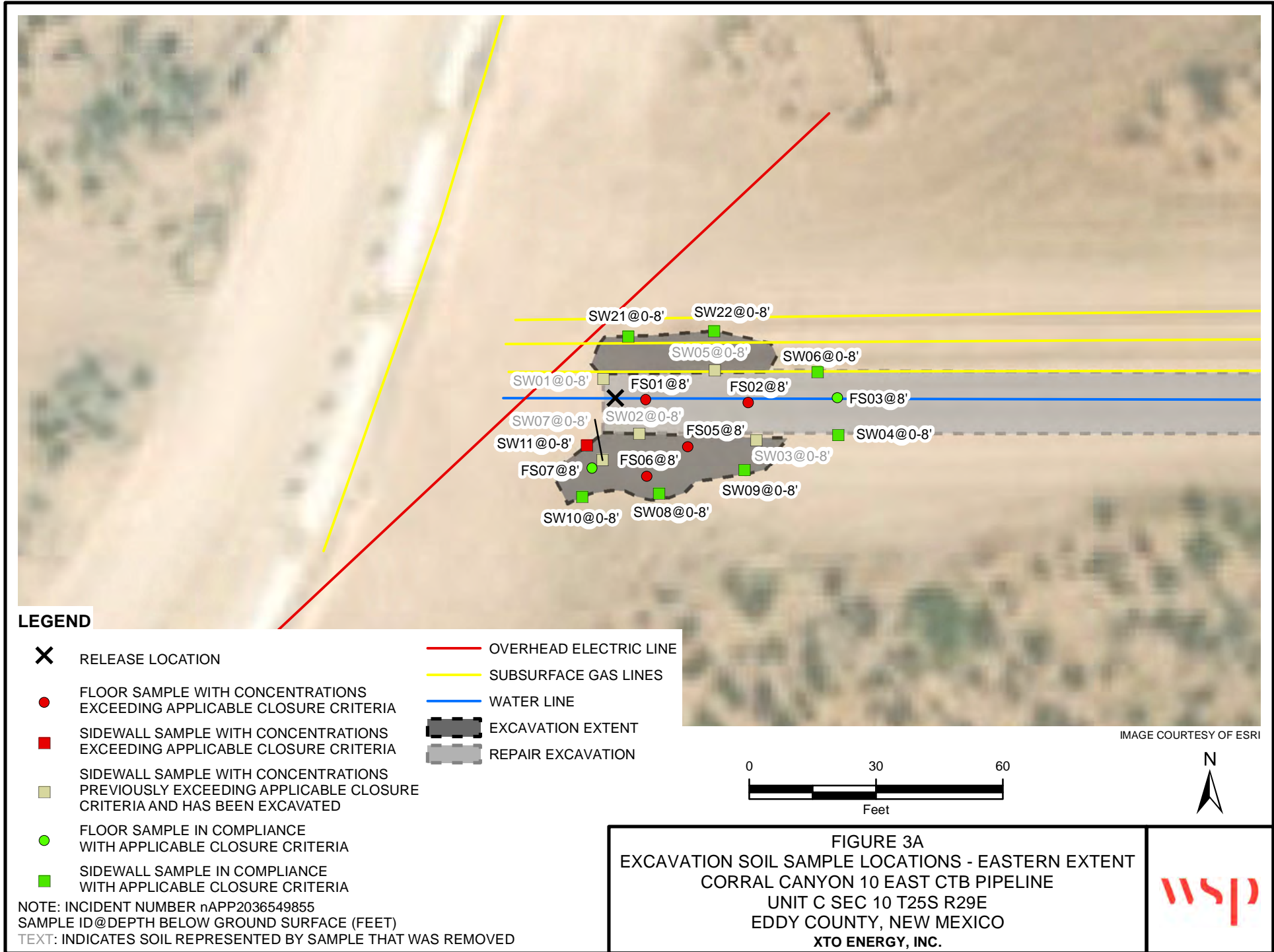


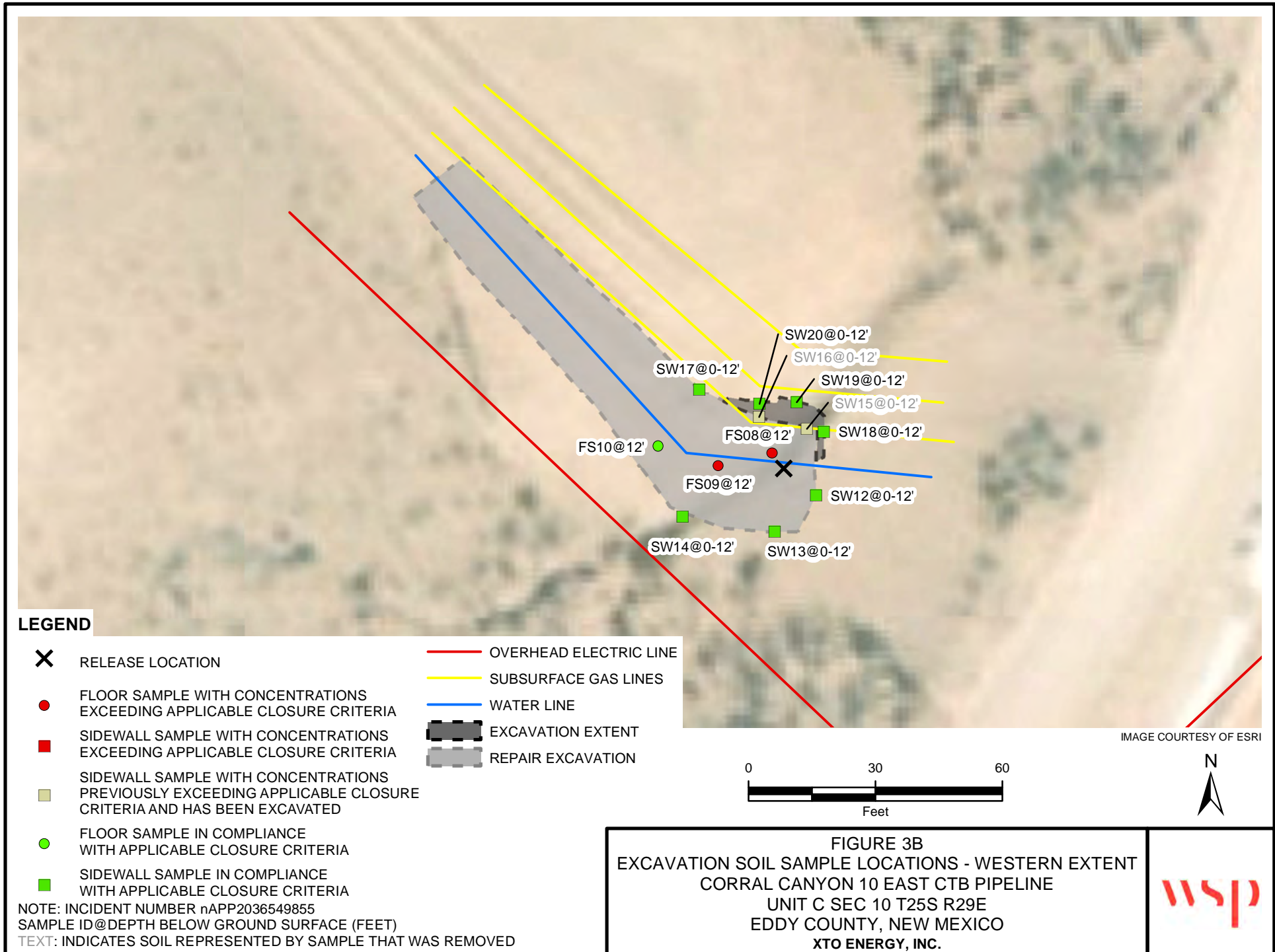
FIGURE 2
RELEASE LOCATIONS
CORRAL CANYON 10 EAST CTB PIPELINE
UNIT C SEC 10 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

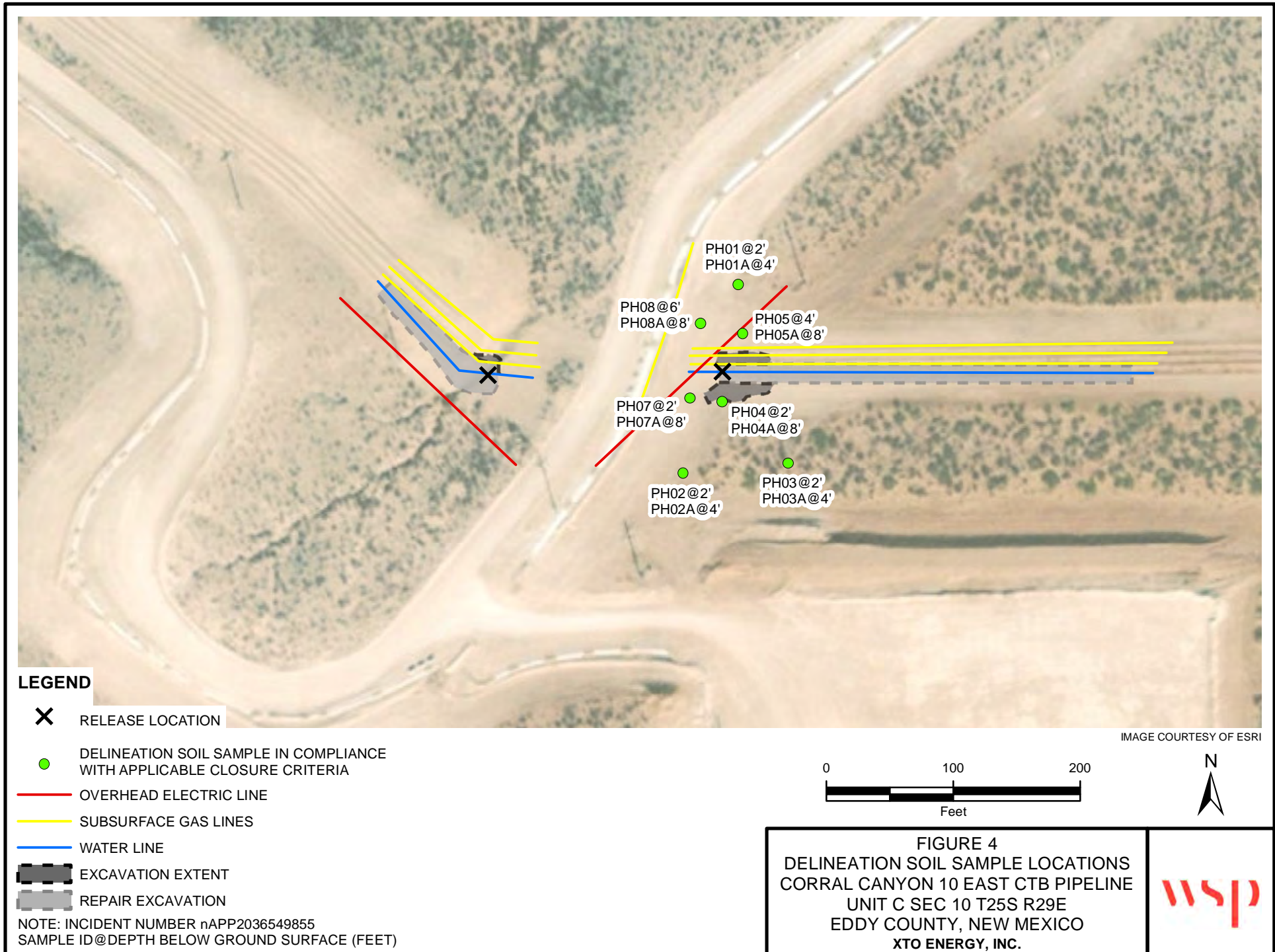


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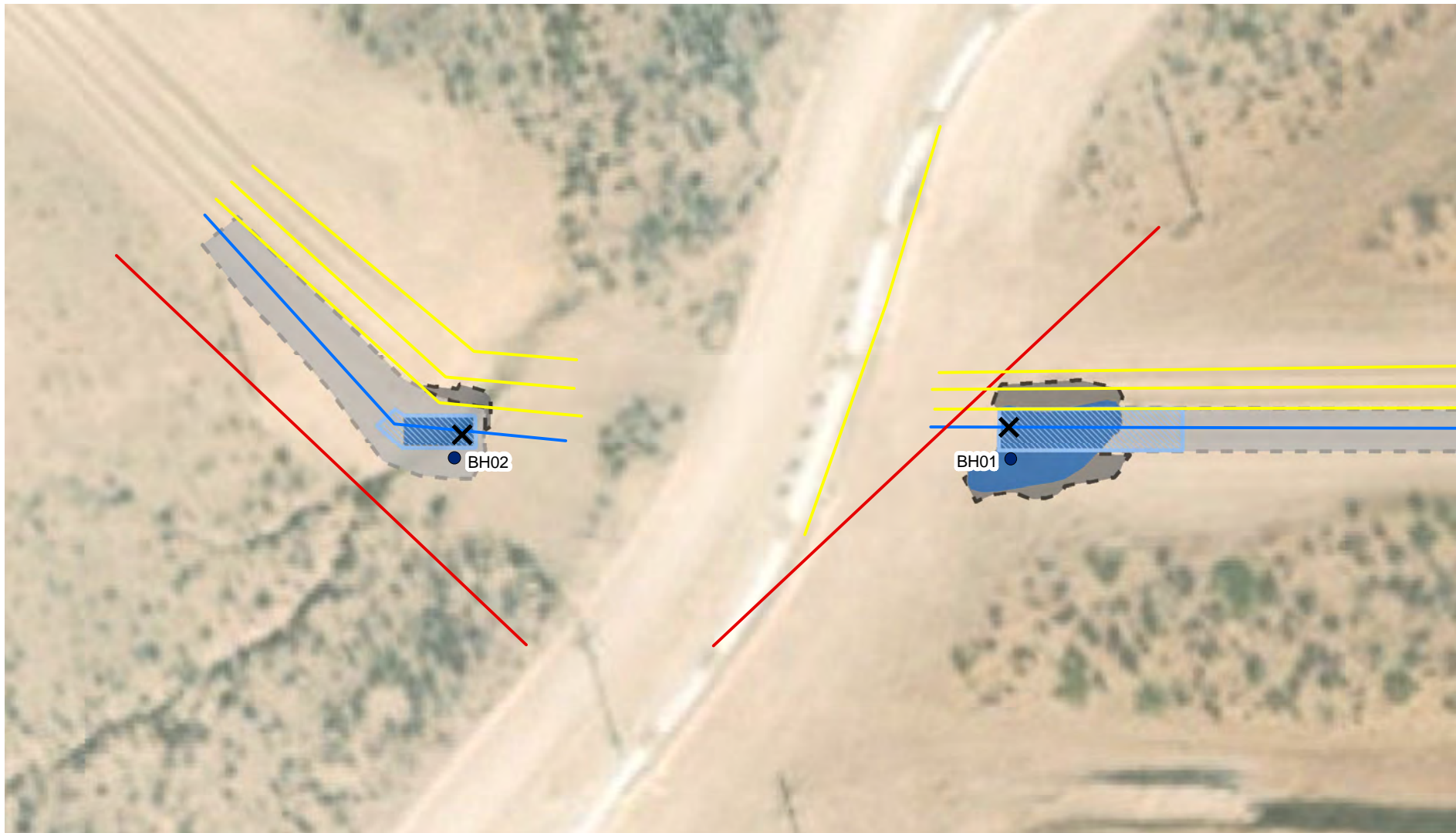


IMAGE COURTESY OF ESRI

LEGEND

- RELEASE LOCATION
- PROPOSED BORING LOCATION
- OVERHEAD ELECTRIC LINE
- SUBSURFACE GAS LINES
- WATER LINE
- EXCAVATION EXTENT
- REPAIR EXCAVATION
- DEFERRAL AREA
- LINER EXTENT

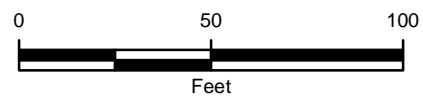


FIGURE 5
LINER EXTENT AND PROPOSED SOIL BORING AND DEFERRAL AREAS
CORRAL CANYON 10 EAST CTB PIPELINE
UNIT C SEC 10 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.



NOTE: INCIDENT NUMBER nAPP2036549855

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TABLE

Table 1

Soil Analytical Results
 Corral Canyon 10 East CTB Pipeline
 Incident Number NAPP2036549855
 Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Eastern Excavation Floor Samples										
FS01	03/08/2021	8	<0.00200	0.0242	<50.0	<50.0	<50.0	<50.0	<50.0	9,860
FS03	03/05/2021	8	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	374
FS05	03/15/2021	8	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	5,460
FS06	03/15/2021	8	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	3,140
FS07	04/01/2021	8	0.00281	0.00281	56.8	<50.1	<50.1	56.8	56.8	201
Eastern Excavation Sidewall Samples										
SW01	03/08/2021	0 - 8	<0.00202	1.29	<50.0	<50.0	<50.0	<50.0	<50.0	4,920
SW02	03/08/2021	0 - 8	<0.00200	0.0216	<49.9	<49.9	<49.9	<49.9	<49.9	9,160
SW04	03/05/2021	0 - 8	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	45.9
SW06	03/05/2021	0 - 8	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	84.6
SW07	03/15/2021	0 - 8	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	2,480
SW08	03/15/2021	0 - 8	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	94.6
SW09	03/15/2021	0 - 8	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	88.3
SW10	04/01/2021	0 - 8	<0.00202	<0.00202	62.9	<50.0	<50.0	62.9	62.9	68.3
SW11	04/01/2021	0 - 8	0.00214	0.00214	<50.0	<50.0	<50.0	<50.0	<50.0	1,380
SW21	06/02/2021	0 - 8	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	116
SW22	06/02/2021	0 - 8	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	51.4

Table 1

Soil Analytical Results
 Corral Canyon 10 East CTB Pipeline
 Incident Number NAPP2036549855
 Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
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FS08	05/25/2021	12	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	1,910
FS09	05/25/2021	12	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	3,550
FS10	05/25/2021	12	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	201
Western Excavation Sidewall Samples										
SW12	05/18/2021	0 - 12	<0.00200	0.00446	<50.0	<50.0	<50.0	<50.0	<50.0	36.0
SW13	05/18/2021	0 - 12	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	41.6
SW14	05/18/2021	0 - 12	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	218
SW15	05/18/2021	0 - 12	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	2,290
SW16	05/18/2021	0 - 12	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	670
SW17	05/18/2021	0 - 12	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	151
SW18	05/27/2021	0 - 12	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	<49.8	397
SW19	05/27/2021	0 - 12	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	141
SW20	05/27/2021	0 - 12	<0.00198	<0.00397	<49.8	<49.8	<49.8	<49.8	<49.8	181

Table 1

**Soil Analytical Results
Corral Canyon 10 East CTB Pipeline
Incident Number NAPP2036549855
Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Delineation Samples										
PH01	03/18/2021	2	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	40.0
PH01A	03/18/2021	4	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	28.7
PH02	03/18/2021	2	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	20.4
PH02A	03/18/2021	4	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	25.6
PH03	03/18/2021	2	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	18.8
PH03A	03/18/2021	4	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	36.9
PH04	03/08/2021	2	<0.00200	0.00247	<50.0	<50.0	<50.0	<50.0	<50.0	144
PH04A	03/08/2021	8	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	195
PH05	03/08/2021	4	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	418
PH05A	03/08/2021	8	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	23.3
PH07	03/09/2021	2	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	121
PH07A	03/09/2021	8	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	85.5
PH08	03/09/2021	6	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	166
PH08A	03/09/2021	8	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	117

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

< - indicates result is less than the stated laboratory method practical quantitation limit

NE - Not Established

BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard

Grey text - indicates impacted soil was removed

ATTACHMENT 1: REFERENCED WELL RECORDS



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

06/07/2021

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

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-4525 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-4525 Pod1.

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

Sincerely,

A handwritten signature in black ink that reads "Lucas Middleton". The signature is written in a cursive style.

Lucas Middleton

Enclosures: as noted above

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
JUN 11 2021 4:02:17



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (MW-1)		WELL TAG ID NO. n/a		OSE FILE NO(S). C-4525			
	WELL OWNER NAME(S) XTO Energy (Kyle Littrell)				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 6401 Holiday Hill Dr.				CITY Midland	STATE TX	ZIP 79707	
	WELL LOCATION (FROM GPS)	DEGREES 32°	MINUTES 8'	SECONDS 57.48"	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84		
		LONGITUDE 103°	58'	18.24"				W
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NW NE Sec. 10 T25S R29E								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249	NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.			
	DRILLING STARTED 05/26/2021	DRILLING ENDED 05/26/2021	DEPTH OF COMPLETED WELL (FT) temporary well material	BORE HOLE DEPTH (FT) 110	DEPTH WATER FIRST ENCOUNTERED (FT) n/a			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger							
	DEPTH (feet bgl)		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)
	FROM	TO						
	0	110	±8.5	Boring- HSA	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						

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	

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		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)
	FROM	TO				
	0	24	24	CALICHE, mod. consolidated, tan-off white, dry	Y ✓ N	
	24	29	5	SAND, poorly graded, very- fine grained, caliche gravel, light-brown	Y ✓ N	
	29	39	10	SAND, poorly graded, very- fine grained, caliche gravel, light-brown, moist	Y ✓ N	
	39	44	5	SAND, poorly graded, very- fine grained, light-brown, moist	Y ✓ N	
	44	59	15	SAND, poorly graded, very- fine grained, light-brown, moist	Y ✓ N	
	59	69	10	SAND, poorly graded, very- fine grained, brown, moist	Y ✓ N	
	69	74	5	SAND, poorly graded, very- fine grained, caliche gravel, brown, moist	Y ✓ N	
	74	79	5	SILTY SAND, poorly graded, very- fine grained, caliche gravel, brown, moist	Y ✓ N	
	79	89	10	SAND, poorly graded, very- fine grained, with silt, brown, moist	Y ✓ N	
	89	94	5	SILTY SAND, poorly graded, very- fine grained, caliche gravel, brown, moist	Y ✓ N	
	94	110	16	SILTY SAND, poorly graded, very- fine grained, brown, moist	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:					TOTAL ESTIMATED WELL YIELD (gpm):	
<input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:					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 backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from WSP on-site geologist.
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:	Shane Eldridge, Carmelo Trevino, Cameron Pruitt

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:	
	 Jackie D. Atkins	06/09/2021
	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

2025 JUN 27 2 17






2021-06-07_C-4525_POD1_OSE_Well Record and Log_cc10-forsign

Final Audit Report

2021-06-09

Created:	2021-06-09
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAA7DODTuQRhG0_AakLR1z5zb63CKyJBAEN

"2021-06-07_C-4525_POD1_OSE_Well Record and Log_cc10-forsign" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)
2021-06-09 - 6:47:39 PM GMT- IP address: 69.21.248.123
-  Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2021-06-09 - 6:48:09 PM GMT
-  Email viewed by Jack Atkins (jack@atkinseng.com)
2021-06-09 - 6:48:32 PM GMT- IP address: 64.90.153.232
-  Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-06-09 - 6:48:58 PM GMT - Time Source: server- IP address: 64.90.153.232
-  Agreement completed.
2021-06-09 - 6:48:58 PM GMT

OSE 377 JUN 10 2021 11:21:17





PLUGGING RECORD



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-4525-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: 04/30/23

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

4) Date well plugging began: 06/08/2021 Date well plugging concluded: 06/08/2021

5) GPS Well Location: Latitude: 32 deg, 8 min, 57.48 sec
Longitude: 103 deg, 58 min, 18.24 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 111 ft below ground level (bgl),
by the following manner: weighted tape

7) Static water level measured at initiation of plugging: n/a ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 04/12/2021

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):

DATE OF JUN 10 2021 10:21:17

- 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:

<u>Depth</u> (ft bgl)	<u>Plugging Material Used</u> (include any additives used)	<u>Volume of Material Placed</u> (gallons)	<u>Theoretical Volume of Borehole/ Casing</u> (gallons)	<u>Placement Method</u> (tremie pipe, other)	<u>Comments</u> ("casing perforated first", "open annular space also plugged", etc.)
0-10'	Hydrated Bentonite	Approx. 15.6 gallons	15.9 gallons	Augers	
10'-110'	Drill Cuttings	Approx. 172 gallons	172 gallons	Boring	

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

102 007 200 10 2021 p2 17

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

06/09/2021

Signature of Well Driller

Date






2021-06-07_C-4525_POD1_Plugging Record-forsigned

Final Audit Report

2021-06-09

Created:	2021-06-09
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAZZbO.JMVUyWV9vJgDxWbmlHLTf9Dxg6_

"2021-06-07_C-4525_POD1_Plugging Record-forsigned" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)
2021-06-09 - 6:48:29 PM GMT- IP address: 69.21.248.123
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-  Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-06-09 - 6:49:38 PM GMT - Time Source: server- IP address: 64.90.153.232
-  Agreement completed.
2021-06-09 - 6:49:38 PM GMT

051 DT JUN 10 2021 PM 2:17



ATTACHMENT 2: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG

XTO Energy, Inc.	Corral Canyon 10 East CTB Pipeline Eddy County, New Mexico	NAPP2036549855
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Photo No.	Date	
1	January 19, 2021	
Eastern Excavation viewing Northwest.		

Photo No.	Date	
2	January 19, 2021	
Western excavation view South.		



PHOTOGRAPHIC LOG

XTO Energy, Inc.	Corral Canyon 10 East CTB Pipeline Eddy County, New Mexico	NAPP2036549855
-------------------------	---	-----------------------

Photo No.	Date	
3	March 8, 2021	
Eastern excavation view East. Unable to hydrovac to spot lines.		

Photo No.	Date	
4	March 8, 2021	
Eastern excavation view North at PH04 location.		



PHOTOGRAPHIC LOG

XTO Energy, Inc.	Corral Canyon 10 East CTB Pipeline Eddy County, New Mexico	NAPP2036549855
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Photo No.	Date	
5	March 8, 2021	
Eastern excavation view South at PH05 location.		

Photo No.	Date	
6	March 15, 2021	
Eastern excavation of south sidewall view Northwest.		



PHOTOGRAPHIC LOG

XTO Energy, Inc.	Corral Canyon 10 East CTB Pipeline Eddy County, New Mexico	NAPP2036549855
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Photo No.	Date	
7	March 15, 2021	
Eastern excavation view South.		

Photo No.	Date	
8	April 1, 2021	
Eastern excavation view Northwest		




PHOTOGRAPHIC LOG


XTO Energy, Inc.	Corral Canyon 10 East CTB Pipeline Eddy County, New Mexico	NAPP2036549855
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Photo No.	Date	
9	May 27, 2021	
Western excavation view West.		


Photo No.	Date	
10	May 27, 2021	
Western excavation view North.		


ATTACHMENT 3: LITHOLOGIC/SAMPLING LOG


 <p style="margin: 0;">WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>				BH or PH Name: PH01		Date: 1/26/2021					
				Site Name: Corral Canyon 10 E Pipeline				RP or Incident Number: NAPP2036549855			
				WSP Job Number: TE012921006				Logged By: J. Hill		Method: Trackhoe	
				Lat/Long: 32.151337, -103.974447		Field Screening: Hatch Chloride Strips, PID		Hole Diameter: 2 feet		Total Depth: 8.0'	
LITHOLOGIC / SOIL SAMPLING LOG											
Comments: TD @ 8.0 feet											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
						0					
D	BDL	0.1	N	PH01	2	2	CCHE	Hard caliche. White/gray. No Odor, No Plasticity, Organic Traces			
D	168	0.2	N	PH01A	4	4	CCHE	Soft caliche. White. No Odor, No Plasticity, Organic Traces			
D	168	0	N			6	CCHE	Soft caliche. White. No Odor, No Plasticity, Organic Traces			
D	196	0	N			8	CCHE	Soft caliche. White. No Odor, No Plasticity, No Organics			


 <p style="text-align: center;">WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>				BH or PH Name: PH02		Date: 1/29/2021					
				Site Name: Corral Canyon 10 E Pipeline				RP or Incident Number: NAPP2036549855			
				WSP Job Number: TE012921006				Logged By J. Hill		Method: Trackhoe	
				Lat/Long: 32.151337, -103.974447		Field Screening: Hatch Chloride Strips, PID		Hole Diameter: 2 feet		Total Depth: 8.0'	
<p>LITHOLOGIC / SOIL SAMPLING LOG</p> <p>Comments: TD @ 8.0 feet</p>											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
D	BDL	0.3	N	PH02	2	0	SWSM	Well graded, fine-med sand w/ silt and CCHE. Brown/White No Odor, No Plasticity, Organic Traces			
D	BDL	0.1	N	PH02A	4	4	CCHE	Soft Caliche. White/tan. No Odor, No Plasticity, Organic Traces			
D	BDL	0.1	N			6	CCHE	Soft Caliche. White/tan. No Odor, No Plasticity, Organic Traces			
D	BDL	0.1	N			8	CCHE	Soft Caliche. White/tan. No Odor, No Plasticity, No Organic			

 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>				BH or PH Name: PH03		Date: 1/29/2021					
				Site Name: Corral Canyon 10 E Pipeline				RP or Incident Number: NAPP2036549855			
				WSP Job Number: TE012921006				Logged By J. Hill		Method: Trackhoe	
				Lat/Long: 32.151337, -103.974447		Field Screening: Hatch Chloride Strips, PID		Hole Diameter: 2 feet		Total Depth: 8.0'	
				Comments: TD @ 8.0 feet							
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
						0					
D	BDL	0.1	N	PH03	2	2	SPSM	Poorly graded, fine-very fine sand w/ silt. Brown/ Red No Odor, No Plasticity, Organic Traces			
D	BDL	0.2	N	PH03A	4	4	SW	Well graded, fine sand with CCHE. Brown/White No Odor, No Plasticity, Organic Traces			
D	BDL	0.4	N			6	CCHE	Hard Caliche. White/tan. No Odor, No Plasticity, Organic Traces			
D	BDL	0.1	N			8	CCHE	Hard Caliche. White/tan. No Odor, No Plasticity, Organic Traces			

 <p style="text-align: center;">WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>				BH or PH Name: PH04		Date: 3/8/2021			
				Site Name: Corral Canyon 10 E Pipeline		RP or Incident Number: NAPP2036549855			
				WSP Job Number: TE012921006		Logged By: J. Hill		Method: Trackhoe	
				Lat/Long: 32.151337, -103.974447		Field Screening: Hatch Chloride Strips, PID		Hole Diameter: 2 feet	
<p style="text-align: center;">LITHOLOGIC / SOIL SAMPLING LOG</p> <p>Comments: TD @ 8.0 feet</p>									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
D	BDL	1.1	N	PH04	2	0	SWSM	Well graded, fine-med sand w/ silt and CCHE. Brown No Odor, No Plasticity, Organic Traces	
D	BDL	0.5	N			4	CCHE	Hard Caliche. White. No Odor, No Plasticity, Organic Traces	
D	BDL	0.2	N			6	CCHE	Hard Caliche. White/tan. No Odor, No Plasticity, Organic Traces	
D	BDL	0.3	N	PH04A	8	8	CCHE	Caliche. White/tan. No Odor, No Plasticity, Organic Traces	

 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>				BH or PH Name: PH05		Date: 3/8/2021			
				Site Name: Corral Canyon 10 E Pipeline		RP or Incident Number: NAPP2036549855			
				WSP Job Number: TE012921006		Logged By: J. Hill		Method: Trackhoe	
				Lat/Long: 32.151337, -103.974447		Field Screening: Hatch Chloride Strips, PID		Hole Diameter: 2 feet	
LITHOLOGIC / SOIL SAMPLING LOG									
Comments: TD @ 8.0 feet									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
D	BDL	0.1	N			0			
D	BDL	0.1	N			2	SM	Poorly graded, silty sand w CCHE. Brown No Odor, No Plasticity, Organic Traces	
D	352	0.0	N	PH05	4	4	SWSM	Well graded, fine-coarse sand w/ silt and CCHE. Brown No Odor, No Plasticity, Organic Traces	
D	BDL	0.0	N			6	CCHE	Coarse Caliche. Tan/gray No Odor, No Plasticity, Organic Traces	
D	BDL	0.0	N	PH05A	8	8	CCHE	Soft Caliche. White/gray No Odor, No Plasticity, Organic Traces	

 <p style="text-align: center;">WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>				BH or PH Name: PH07		Date: 3/9/2021			
				Site Name: Corral Canyon 10 E Pipeline		RP or Incident Number: NAPP2036549855			
				WSP Job Number: TE012921006		Logged By J. Hill		Method: Trackhoe	
				Lat/Long: 32.151337, -103.974447		Field Screening: Hatch Chloride Strips, PID		Hole Diameter: 2 feet	
LITHOLOGIC / SOIL SAMPLING LOG									
Comments: TD @ 8.0 feet									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
D	152	1.0	N	PH07	2	0	CCHE	Hard Caliche. White. No Odor, No Plasticity, Organic Traces	
D	BDL	0.9	N			4	CCHE	Caliche. White/Gray No Odor, No Plasticity, Organic Traces	
D	BDL	0.4	N			6	CCHE	Caliche. White/Gray No Odor, No Plasticity, Organic Traces	
D	BDL	0.7	N	PH07A	8	8	CCHE	Soft Caliche. White/Tan. No Odor, No Plasticity, Organic Traces	

 <p style="text-align: center;">WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>				BH or PH Name: PH08		Date: 3/9/2021					
				Site Name: Corral Canyon 10 E Pipeline				RP or Incident Number: NAPP2036549855			
				WSP Job Number: TE012921006				Logged By J. Hill		Method: Trackhoe	
				Lat/Long: 32.151337, -103.974447				Field Screening: Hatch Chloride Strips, PID		Hole Diameter: 2 feet	
LITHOLOGIC / SOIL SAMPLING LOG											
Comments: TD @ 8.0 feet											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
						0					
D	BDL	0.1	N			2	SWSM	Well graded, fine-coarse sand w/ silt and CCHE. Brown/gray. No Odor, No Plasticity, Organic Traces			
D	BDL	0.0	N			4	CCHE	Soft Caliche. White/Gray No Odor, No Plasticity, Organic Traces			
D	180	0.0	N	PH07	6	6	CCHE	Soft Caliche. White/Tan No Odor, No Plasticity, Organic Traces			
D	128	0.0	N	PH07A	8	8	CCHE	Soft Caliche. White. No Odor, No Plasticity, Organic Traces			

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-307-1
Laboratory Sample Delivery Group: TE012921006
Client Project/Site: Coral Canyon 10 TE Pipeline

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

Attn: Dan Moir

Authorized for release by:
3/16/2021 7:47:27 PM

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



LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.eurofinsus.com/Env

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.

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Client: WSP USA Inc.
Project/Site: Coral Canyon 10 TE Pipeline

Laboratory Job ID: 890-307-1
SDG: TE012921006

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Definitions/Glossary

Client: WSP USA Inc.

Job ID: 890-307-1

Project/Site: Coral Canyon 10 TE Pipeline

SDG: TE012921006

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
SDG: TE012921006

Job ID: 890-307-1

Laboratory: Eurofins Carlsbad**Narrative**

Job Narrative
890-307-1

Receipt

The samples were received on 3/9/2021 1:21 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 4.0°C

Subcontract Lab non-Sister Lab

See attached subcontract report.

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
SDG: TE012921006

Client Sample ID: FS01

Lab Sample ID: 890-307-1

Date Collected: 03/08/21 09:49

Matrix: Solid

Date Received: 03/09/21 13:21

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/14/21 11:00	03/15/21 03:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/14/21 11:00	03/15/21 03:55	1
m,p-Xylenes	0.0174		0.00399		mg/kg		03/14/21 11:00	03/15/21 03:55	1
o-Xylene	0.00684		0.00200		mg/kg		03/14/21 11:00	03/15/21 03:55	1
Toluene	<0.00200	U	0.00200		mg/kg		03/14/21 11:00	03/15/21 03:55	1
Total BTEX	0.0242		0.00200		mg/kg		03/14/21 11:00	03/15/21 03:55	1
Total Xylenes	0.0242		0.00200		mg/kg		03/14/21 11:00	03/15/21 03:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	94		70 - 130	03/14/21 11:00	03/15/21 03:55	1
4-Bromofluorobenzene	117		70 - 130	03/14/21 11:00	03/15/21 03:55	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9860		99.6		mg/kg		03/12/21 17:00	03/12/21 22:34	20

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U F	50.0		mg/kg		03/12/21 16:00	03/12/21 22:23	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U X	50.0		mg/kg		03/12/21 16:00	03/12/21 22:23	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/12/21 22:23	1
Total TPH	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/12/21 22:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	72		70 - 135	03/12/21 16:00	03/12/21 22:23	1
o-Terphenyl	73		70 - 135	03/12/21 16:00	03/12/21 22:23	1

Client Sample ID: SW01

Lab Sample ID: 890-307-2

Date Collected: 03/08/21 10:08

Matrix: Solid

Date Received: 03/09/21 13:21

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/kg		03/14/21 11:00	03/15/21 04:15	1
Ethylbenzene	0.126		0.00202		mg/kg		03/14/21 11:00	03/15/21 04:15	1
m,p-Xylenes	0.780		0.00403		mg/kg		03/14/21 11:00	03/15/21 04:15	1
o-Xylene	0.256		0.00202		mg/kg		03/14/21 11:00	03/15/21 04:15	1
Toluene	0.127		0.00202		mg/kg		03/14/21 11:00	03/15/21 04:15	1
Total BTEX	1.29		0.00202		mg/kg		03/14/21 11:00	03/15/21 04:15	1
Total Xylenes	1.04		0.00202		mg/kg		03/14/21 11:00	03/15/21 04:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	101		70 - 130	03/14/21 11:00	03/15/21 04:15	1
4-Bromofluorobenzene	179	**	70 - 130	03/14/21 11:00	03/15/21 04:15	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4920		49.5		mg/kg		03/12/21 17:00	03/12/21 22:39	10

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/12/21 23:27	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
SDG: TE012921006

Client Sample ID: SW01

Lab Sample ID: 890-307-2

Date Collected: 03/08/21 10:08

Matrix: Solid

Date Received: 03/09/21 13:21

Method: TPH 8015_NM_MOD - General Subcontract Method (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/12/21 23:27	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/12/21 23:27	1
Total TPH	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/12/21 23:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	34	**	70 - 135				03/12/21 16:00	03/12/21 23:27	1
o-Terphenyl	30	**	70 - 135				03/12/21 16:00	03/12/21 23:27	1

Client Sample ID: SW02

Lab Sample ID: 890-307-3

Date Collected: 03/08/21 10:25

Matrix: Solid

Date Received: 03/09/21 13:21

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/14/21 11:00	03/15/21 04:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/14/21 11:00	03/15/21 04:36	1
m,p-Xylenes	0.0113		0.00400		mg/kg		03/14/21 11:00	03/15/21 04:36	1
o-Xylene	0.00559		0.00200		mg/kg		03/14/21 11:00	03/15/21 04:36	1
Toluene	0.00467		0.00200		mg/kg		03/14/21 11:00	03/15/21 04:36	1
Total BTEX	0.0216		0.00200		mg/kg		03/14/21 11:00	03/15/21 04:36	1
Total Xylenes	0.0169		0.00200		mg/kg		03/14/21 11:00	03/15/21 04:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	98		70 - 130				03/14/21 11:00	03/15/21 04:36	1
4-Bromofluorobenzene	110		70 - 130				03/14/21 11:00	03/15/21 04:36	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9160		49.5		mg/kg		03/12/21 17:00	03/12/21 22:44	10

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9	U	49.9		mg/kg		03/12/21 16:00	03/12/21 23:49	1
Gasoline Range Hydrocarbons (GRO)	<49.9	U	49.9		mg/kg		03/12/21 16:00	03/12/21 23:49	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/12/21 16:00	03/12/21 23:49	1
Total TPH	<49.9	U	49.9		mg/kg		03/12/21 16:00	03/12/21 23:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 135				03/12/21 16:00	03/12/21 23:49	1
o-Terphenyl	96		70 - 135				03/12/21 16:00	03/12/21 23:49	1

Client Sample ID: PH04

Lab Sample ID: 890-307-4

Date Collected: 03/08/21 12:18

Matrix: Solid

Date Received: 03/09/21 13:21

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/14/21 11:00	03/15/21 04:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/14/21 11:00	03/15/21 04:57	1
m,p-Xylenes	<0.00399	U	0.00399		mg/kg		03/14/21 11:00	03/15/21 04:57	1
o-Xylene	0.00247		0.00200		mg/kg		03/14/21 11:00	03/15/21 04:57	1
Toluene	<0.00200	U	0.00200		mg/kg		03/14/21 11:00	03/15/21 04:57	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
SDG: TE012921006

Client Sample ID: PH04

Lab Sample ID: 890-307-4

Date Collected: 03/08/21 12:18

Matrix: Solid

Date Received: 03/09/21 13:21

Method: BTEX 8021 - General Subcontract Method (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00247		0.00200		mg/kg		03/14/21 11:00	03/15/21 04:57	1
Total Xylenes	0.00247		0.00200		mg/kg		03/14/21 11:00	03/15/21 04:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	99		70 - 130				03/14/21 11:00	03/15/21 04:57	1
4-Bromofluorobenzene	107		70 - 130				03/14/21 11:00	03/15/21 04:57	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	144		4.95		mg/kg		03/12/21 17:00	03/12/21 22:49	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:10	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:10	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:10	1
Total TPH	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 135				03/12/21 16:00	03/13/21 00:10	1
o-Terphenyl	81		70 - 135				03/12/21 16:00	03/13/21 00:10	1

Client Sample ID: PH04 A

Lab Sample ID: 890-307-5

Date Collected: 03/08/21 13:25

Matrix: Solid

Date Received: 03/09/21 13:21

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/kg		03/14/21 11:00	03/15/21 05:17	1
Ethylbenzene	<0.00198	U	0.00198		mg/kg		03/14/21 11:00	03/15/21 05:17	1
m,p-Xylenes	<0.00396	U	0.00396		mg/kg		03/14/21 11:00	03/15/21 05:17	1
o-Xylene	<0.00198	U	0.00198		mg/kg		03/14/21 11:00	03/15/21 05:17	1
Toluene	<0.00198	U	0.00198		mg/kg		03/14/21 11:00	03/15/21 05:17	1
Total BTEX	<0.00198	U	0.00198		mg/kg		03/14/21 11:00	03/15/21 05:17	1
Total Xylenes	<0.00198	U	0.00198		mg/kg		03/14/21 11:00	03/15/21 05:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	100		70 - 130				03/14/21 11:00	03/15/21 05:17	1
4-Bromofluorobenzene	108		70 - 130				03/14/21 11:00	03/15/21 05:17	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	195		5.03		mg/kg		03/12/21 17:00	03/12/21 22:54	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:31	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:31	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:31	1
Total TPH	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:31	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
 Project/Site: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
 SDG: TE012921006

Client Sample ID: PH04 A

Date Collected: 03/08/21 13:25

Date Received: 03/09/21 13:21

Lab Sample ID: 890-307-5

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 135	03/12/21 16:00	03/13/21 00:31	1
o-Terphenyl	105		70 - 135	03/12/21 16:00	03/13/21 00:31	1

Client Sample ID: PH05

Date Collected: 03/08/21 13:59

Date Received: 03/09/21 13:21

Lab Sample ID: 890-307-6

Matrix: Solid

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/kg		03/14/21 11:00	03/15/21 05:38	1
Ethylbenzene	<0.00198	U	0.00198		mg/kg		03/14/21 11:00	03/15/21 05:38	1
m,p-Xylenes	<0.00397	U	0.00397		mg/kg		03/14/21 11:00	03/15/21 05:38	1
o-Xylene	<0.00198	U	0.00198		mg/kg		03/14/21 11:00	03/15/21 05:38	1
Toluene	<0.00198	U	0.00198		mg/kg		03/14/21 11:00	03/15/21 05:38	1
Total BTEX	<0.00198	U	0.00198		mg/kg		03/14/21 11:00	03/15/21 05:38	1
Total Xylenes	<0.00198	U	0.00198		mg/kg		03/14/21 11:00	03/15/21 05:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	101		70 - 130	03/14/21 11:00	03/15/21 05:38	1
4-Bromofluorobenzene	104		70 - 130	03/14/21 11:00	03/15/21 05:38	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	418		5.00		mg/kg		03/12/21 17:00	03/12/21 23:09	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:52	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:52	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:52	1
Total TPH	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 135	03/12/21 16:00	03/13/21 00:52	1
o-Terphenyl	77		70 - 135	03/12/21 16:00	03/13/21 00:52	1

Client Sample ID: PH05 A

Date Collected: 03/08/21 14:26

Date Received: 03/09/21 13:21

Lab Sample ID: 890-307-7

Matrix: Solid

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/kg		03/14/21 11:00	03/15/21 05:58	1
Ethylbenzene	<0.00199	U	0.00199		mg/kg		03/14/21 11:00	03/15/21 05:58	1
m,p-Xylenes	<0.00398	U	0.00398		mg/kg		03/14/21 11:00	03/15/21 05:58	1
o-Xylene	<0.00199	U	0.00199		mg/kg		03/14/21 11:00	03/15/21 05:58	1
Toluene	<0.00199	U	0.00199		mg/kg		03/14/21 11:00	03/15/21 05:58	1
Total BTEX	<0.00199	U	0.00199		mg/kg		03/14/21 11:00	03/15/21 05:58	1
Total Xylenes	<0.00199	U	0.00199		mg/kg		03/14/21 11:00	03/15/21 05:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	102		70 - 130	03/14/21 11:00	03/15/21 05:58	1

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Client Sample Results

Client: WSP USA Inc.
 Project/Site: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
 SDG: TE012921006

Client Sample ID: PH05 A
 Date Collected: 03/08/21 14:26
 Date Received: 03/09/21 13:21

Lab Sample ID: 890-307-7
 Matrix: Solid

Method: BTEX 8021 - General Subcontract Method (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	110		70 - 130	03/14/21 11:00	03/15/21 05:58	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23.3		4.98		mg/kg		03/12/21 17:00	03/12/21 23:14	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9	U	49.9		mg/kg		03/13/21 09:00	03/13/21 18:52	1
Gasoline Range Hydrocarbons (GRO)	<49.9	U	49.9		mg/kg		03/13/21 09:00	03/13/21 18:52	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/13/21 09:00	03/13/21 18:52	1
Total TPH	<49.9	U	49.9		mg/kg		03/13/21 09:00	03/13/21 18:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 135	03/13/21 09:00	03/13/21 18:52	1
o-Terphenyl	103		70 - 135	03/13/21 09:00	03/13/21 18:52	1

Surrogate Summary

Client: WSP USA Inc.
 Project/Site: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
 SDG: TE012921006

Method: BTEX 8021 - General Subcontract Method

Matrix: SOIL

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)
7723305-1-BKS	Lab Control Sample	104
7723305-1-BLK	Method Blank	115
7723305-1-BSD	Lab Control Sample Dup	102

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method: BTEX 8021 - General Subcontract Method

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)	DFBZ (70-130)
890-307-1	FS01	117	94
890-307-2	SW01	179 **	101
890-307-3	SW02	110	98
890-307-4	PH04	107	99
890-307-5	PH04 A	108	100
890-307-6	PH05	104	101
890-307-7	PH05 A	110	102

Surrogate Legend

BFB = 4-Bromofluorobenzene

DFBZ = 1,4-Difluorobenzene

Method: TPH 8015_NM_MOD - General Subcontract Method

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO (70-135)	OTPH (70-135)
890-307-1	FS01	72	73
890-307-2	SW01	34 **	30 **
890-307-3	SW02	114	96
890-307-4	PH04	90	81
890-307-5	PH04 A	117	105
890-307-6	PH05	78	77
890-307-7	PH05 A	101	103

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
SDG: TE012921006

Method: BTEX 8021 - General Subcontract Method

Lab Sample ID: 7723305-1-BLK
Matrix: SOIL
Analysis Batch: 3153614

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153614_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<.002	U	.002		mg/kg		03/14/21 11:00	03/14/21 23:06	1
Ethylbenzene	<.002	U	.002		mg/kg		03/14/21 11:00	03/14/21 23:06	1
m,p-Xylenes	<.004	U	.004		mg/kg		03/14/21 11:00	03/14/21 23:06	1
o-Xylene	<.002	U	.002		mg/kg		03/14/21 11:00	03/14/21 23:06	1
Toluene	<.002	U	.002		mg/kg		03/14/21 11:00	03/14/21 23:06	1
Surrogate	BLANK %Recovery	BLANK Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	115		70 - 130				03/14/21 11:00	03/14/21 23:06	1

Lab Sample ID: 7723305-1-BKS
Matrix: SOIL
Analysis Batch: 3153614

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153614_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	.1	0.103		mg/kg		103	70 - 130
Ethylbenzene	.1	0.104		mg/kg		104	71 - 129
m,p-Xylenes	.2	0.210		mg/kg		105	70 - 135
o-Xylene	.1	0.101		mg/kg		101	71 - 133
Toluene	.1	0.105		mg/kg		105	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	104		70 - 130				

Lab Sample ID: 7723305-1-BSD
Matrix: SOIL
Analysis Batch: 3153614

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153614_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	.1	0.0991		mg/kg		99	70 - 130	4	35
Ethylbenzene	.1	0.102		mg/kg		102	71 - 129	2	35
m,p-Xylenes	.2	0.205		mg/kg		103	70 - 135	2	35
o-Xylene	.1	0.0980		mg/kg		98	71 - 133	3	35
Toluene	.1	0.102		mg/kg		102	70 - 130	3	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene	102		70 - 130						

Method: CHLORIDE E300 - General Subcontract Method

Lab Sample ID: 7723302-1-BLK
Matrix: SOIL
Analysis Batch: 3153628

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153628_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5	U	5		mg/kg		03/12/21 17:00	03/12/21 21:29	1

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
SDG: TE012921006

Method: CHLORIDE E300 - General Subcontract Method (Continued)

Lab Sample ID: 7723302-1-BKS
Matrix: SOIL
Analysis Batch: 3153628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153628_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	248		mg/kg		99	80 - 120

Lab Sample ID: 7723302-1-BSD
Matrix: SOIL
Analysis Batch: 3153628

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153628_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	250	248		mg/kg		99	80 - 120	0	20

Lab Sample ID: 691133-005 S
Matrix: SOIL
Analysis Batch: 3153628

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3153628_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	195		252	446		mg/kg		100	80 - 120

Lab Sample ID: 691133-005 SD
Matrix: SOIL
Analysis Batch: 3153628

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 3153628_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	195		252	447		mg/kg		100	80 - 120	0	20

Method: TPH 8015_NM_MOD - General Subcontract Method

Lab Sample ID: 7723252-1-BLK
Matrix: SOIL
Analysis Batch: 3153686

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153686_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50	U	50		mg/kg		03/12/21 16:00	03/12/21 21:18	1
Gasoline Range Hydrocarbons (GRO)	<50	U	50		mg/kg		03/12/21 16:00	03/12/21 21:18	1
Motor Oil Range Hydrocarbons (MRO)	<50	U	50		mg/kg		03/12/21 16:00	03/12/21 21:18	1

Lab Sample ID: 7723252-1-BKS
Matrix: SOIL
Analysis Batch: 3153686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153686_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	1000	859		mg/kg		86	70 - 135
Gasoline Range Hydrocarbons (GRO)	1000	934		mg/kg		93	70 - 135

Lab Sample ID: 7723252-1-BSD
Matrix: SOIL
Analysis Batch: 3153686

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153686_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics (DRO)	1000	809		mg/kg		81	70 - 135	6	20
Gasoline Range Hydrocarbons (GRO)	1000	881		mg/kg		88	70 - 135	6	20

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
SDG: TE012921006

Method: TPH 8015_NM_MOD - General Subcontract Method

Lab Sample ID: 691133-001 S
Matrix: SOIL
Analysis Batch: 3153686

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3153686_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	<49.9		998	699		mg/kg		70	70 - 135
Gasoline Range Hydrocarbons (GRO)	<49.9		998	684	X	mg/kg		69	70 - 135

Lab Sample ID: 691133-001 SD
Matrix: SOIL
Analysis Batch: 3153686

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 3153686_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	<49.9		997	925	F	mg/kg		93	70 - 135	28	20
Gasoline Range Hydrocarbons (GRO)	<49.9		997	826		mg/kg		83	70 - 135	19	20

Lab Sample ID: 7723335-1-BLK
Matrix: SOIL
Analysis Batch: 3153696

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153696_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50	U	50		mg/kg		03/13/21 09:00	03/13/21 12:26	1
Gasoline Range Hydrocarbons (GRO)	<50	U	50		mg/kg		03/13/21 09:00	03/13/21 12:26	1
Motor Oil Range Hydrocarbons (MRO)	<50	U	50		mg/kg		03/13/21 09:00	03/13/21 12:26	1

Lab Sample ID: 7723335-1-BKS
Matrix: SOIL
Analysis Batch: 3153696

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153696_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	1000	1110		mg/kg		111	70 - 135
Gasoline Range Hydrocarbons (GRO)	1000	1180		mg/kg		118	70 - 135

Lab Sample ID: 7723335-1-BSD
Matrix: SOIL
Analysis Batch: 3153696

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153696_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	1000	999		mg/kg		100	70 - 135	11	20
Gasoline Range Hydrocarbons (GRO)	1000	1090		mg/kg		109	70 - 135	8	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
SDG: TE012921006

Subcontract

Analysis Batch: 3153614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-307-1	FS01	Total/NA	Solid	BTEX 8021	3153614_P
890-307-2	SW01	Total/NA	Solid	BTEX 8021	3153614_P
890-307-3	SW02	Total/NA	Solid	BTEX 8021	3153614_P
890-307-4	PH04	Total/NA	Solid	BTEX 8021	3153614_P
890-307-5	PH04 A	Total/NA	Solid	BTEX 8021	3153614_P
890-307-6	PH05	Total/NA	Solid	BTEX 8021	3153614_P
890-307-7	PH05 A	Total/NA	Solid	BTEX 8021	3153614_P
7723305-1-BLK	Method Blank	Total/NA	SOIL	BTEX 8021	3153614_P
7723305-1-BKS	Lab Control Sample	Total/NA	SOIL	BTEX 8021	3153614_P
7723305-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	BTEX 8021	3153614_P

Analysis Batch: 3153628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-307-1	FS01	Total/NA	Solid	CHLORIDE E300	3153628_P
890-307-2	SW01	Total/NA	Solid	CHLORIDE E300	3153628_P
890-307-3	SW02	Total/NA	Solid	CHLORIDE E300	3153628_P
890-307-4	PH04	Total/NA	Solid	CHLORIDE E300	3153628_P
890-307-5	PH04 A	Total/NA	Solid	CHLORIDE E300	3153628_P
890-307-6	PH05	Total/NA	Solid	CHLORIDE E300	3153628_P
890-307-7	PH05 A	Total/NA	Solid	CHLORIDE E300	3153628_P
7723302-1-BLK	Method Blank	Total/NA	SOIL	CHLORIDE E300	3153628_P
7723302-1-BKS	Lab Control Sample	Total/NA	SOIL	CHLORIDE E300	3153628_P
7723302-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	CHLORIDE E300	3153628_P
691133-005 S	Matrix Spike	Total/NA	SOIL	CHLORIDE E300	3153628_P
691133-005 SD	Matrix Spike Duplicate	Total/NA	SOIL	CHLORIDE E300	3153628_P

Analysis Batch: 3153686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-307-1	FS01	Total/NA	Solid	TPH	3153686_P
890-307-2	SW01	Total/NA	Solid	8015_NM_MOD TPH	3153686_P
890-307-3	SW02	Total/NA	Solid	8015_NM_MOD TPH	3153686_P
890-307-4	PH04	Total/NA	Solid	8015_NM_MOD TPH	3153686_P
890-307-5	PH04 A	Total/NA	Solid	8015_NM_MOD TPH	3153686_P
890-307-6	PH05	Total/NA	Solid	8015_NM_MOD TPH	3153686_P
7723252-1-BLK	Method Blank	Total/NA	SOIL	8015_NM_MOD TPH	3153686_P
7723252-1-BKS	Lab Control Sample	Total/NA	SOIL	8015_NM_MOD TPH	3153686_P
7723252-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	8015_NM_MOD TPH	3153686_P
691133-001 S	Matrix Spike	Total/NA	SOIL	8015_NM_MOD TPH	3153686_P
691133-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	8015_NM_MOD TPH	3153686_P

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
SDG: TE012921006

Subcontract

Analysis Batch: 3153696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-307-7	PH05 A	Total/NA	Solid	TPH	3153696_P
7723335-1-BLK	Method Blank	Total/NA	SOIL	8015_NM_MOD TPH	3153696_P
7723335-1-BKS	Lab Control Sample	Total/NA	SOIL	8015_NM_MOD TPH	3153696_P
7723335-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	8015_NM_MOD TPH	3153696_P

Prep Batch: 3153614_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-307-1	FS01	Total/NA	Solid	SW5035A	
890-307-2	SW01	Total/NA	Solid	SW5035A	
890-307-3	SW02	Total/NA	Solid	SW5035A	
890-307-4	PH04	Total/NA	Solid	SW5035A	
890-307-5	PH04 A	Total/NA	Solid	SW5035A	
890-307-6	PH05	Total/NA	Solid	SW5035A	
890-307-7	PH05 A	Total/NA	Solid	SW5035A	
7723305-1-BLK	Method Blank	Total/NA	SOIL	SW5035A	
7723305-1-BKS	Lab Control Sample	Total/NA	SOIL	SW5035A	
7723305-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW5035A	

Prep Batch: 3153628_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-307-1	FS01	Total/NA	Solid	E300P	
890-307-2	SW01	Total/NA	Solid	E300P	
890-307-3	SW02	Total/NA	Solid	E300P	
890-307-4	PH04	Total/NA	Solid	E300P	
890-307-5	PH04 A	Total/NA	Solid	E300P	
890-307-6	PH05	Total/NA	Solid	E300P	
890-307-7	PH05 A	Total/NA	Solid	E300P	
7723302-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723302-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723302-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
691133-005 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
691133-005 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3153686_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-307-1	FS01	Total/NA	Solid	SW8015P	
890-307-2	SW01	Total/NA	Solid	SW8015P	
890-307-3	SW02	Total/NA	Solid	SW8015P	
890-307-4	PH04	Total/NA	Solid	SW8015P	
890-307-5	PH04 A	Total/NA	Solid	SW8015P	
890-307-6	PH05	Total/NA	Solid	SW8015P	
7723252-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723252-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	

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QC Association Summary

Client: WSP USA Inc.
 Project/Site: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
 SDG: TE012921006

Subcontract (Continued)

Prep Batch: 3153686_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
7723252-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
691133-001 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
691133-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3153696_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-307-7	PH05 A	Total/NA	Solid	SW8015P	
7723335-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723335-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723335-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
SDG: TE012921006

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Method Summary

Client: WSP USA Inc.
Project/Site: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
SDG: TE012921006

Method	Method Description	Protocol	Laboratory
Subcontract	BTEX 8021	None	XM
Subcontract	CHLORIDE E300	None	XM
Subcontract	TPH 8015_NM_MOD	None	XM

Protocol References:

None = None

Laboratory References:

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

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Sample Summary

Client: WSP USA Inc.
Project/Site: Coral Canyon 10 TE Pipeline

Job ID: 890-307-1
SDG: TE012921006

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-307-1	FS01	Solid	03/08/21 09:49	03/09/21 13:21	
890-307-2	SW01	Solid	03/08/21 10:08	03/09/21 13:21	
890-307-3	SW02	Solid	03/08/21 10:25	03/09/21 13:21	
890-307-4	PH04	Solid	03/08/21 12:18	03/09/21 13:21	
890-307-5	PH04 A	Solid	03/08/21 13:25	03/09/21 13:21	
890-307-6	PH05	Solid	03/08/21 13:59	03/09/21 13:21	
890-307-7	PH05 A	Solid	03/08/21 14:26	03/09/21 13:21	

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- 11
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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)794-1295
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta GA (770-449-8800) Tampa, FL (813-620-2000)

Chain of Custody

Work Order No: _____

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 W. Mermod St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Jeremy.Hill@wsp.com, Dan.Moir@wsp.com

Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> RP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund State of Project: _____ Reporting Level: <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> V Deliverables: <input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____	Work Order Comments Work Order Notes
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Project Name: Conrad Change 10E Pwls Turn Around
 Project Number: TFE 010521006 Routine
 P.O. Number: SPILL LAB 12/26/20 Rush: _____
 Sampler's Name: Jeremy Hill Due Date: _____

TEMPERATURE RECEIPT
 Temperature (°C): 4.2/4.0 Thermometer ID: _____
 Received Intact: Yes No
 Cooler Custody Seals: Yes AND N/A Correction Factor: _____
 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)	ANALYSIS REQUEST	Work Order Notes
ES01	S	3/5/11	0949	8.0'	1	X	X	X		CC# 1081711001 APP# 2036544855 API# 38-015-46385
Swee1			1006	0-8'						← 6 reports
Swee2			1025	0-8'						
PH04			1218	2.0'						Discont
PH04A			1325	4.0'						
PH05			1354	4.0'						
PH05B			1426	8.0'						



890-307 Chain of Custody

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 Ti 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 Ti 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
<i>[Signature]</i>	<i>[Signature]</i>	3/9/21 12:15	<i>[Signature]</i>	<i>[Signature]</i>	3-9-21 1252

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-307-1
SDG Number: TE012921006

Login Number: 307
List Number: 1
Creator: Clifton, Cloe

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	

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Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-310-1
Laboratory Sample Delivery Group: TE012921006
Client Project/Site: Corral Canyon 10 E Pipeline

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

Attn: Dan Moir

Authorized for release by:
3/18/2021 6:34:01 PM

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



LINKS

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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.

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Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Laboratory Job ID: 890-310-1
SDG: TE012921006

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Definitions/Glossary

Client: WSP USA Inc.

Job ID: 890-310-1

Project/Site: Corral Canyon 10 E Pipeline

SDG: TE012921006

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: Corral Canyon 10 E Pipeline

Job ID: 890-310-1
SDG: TE012921006

Job ID: 890-310-1

Laboratory: Eurofins Carlsbad**Narrative**

Job Narrative
890-310-1

Receipt

The samples were received on 3/9/2021 12:52 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 4.0°C

Subcontract Lab non-Sister Lab

See attached subcontract report.

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-310-1
SDG: TE012921006

Client Sample ID: FS03

Lab Sample ID: 890-310-1

Date Collected: 03/05/21 10:12

Matrix: Solid

Date Received: 03/09/21 12:52

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/kg		03/17/21 08:00	03/18/21 02:46	1
Ethylbenzene	<0.00201	U	0.00201		mg/kg		03/17/21 08:00	03/18/21 02:46	1
m,p-Xylenes	<0.00402	U	0.00402		mg/kg		03/17/21 08:00	03/18/21 02:46	1
o-Xylene	<0.00201	U	0.00201		mg/kg		03/17/21 08:00	03/18/21 02:46	1
Toluene	<0.00201	U	0.00201		mg/kg		03/17/21 08:00	03/18/21 02:46	1
Total BTEX	<0.00201	U	0.00201		mg/kg		03/17/21 08:00	03/18/21 02:46	1
Total Xylenes	<0.00201	U	0.00201		mg/kg		03/17/21 08:00	03/18/21 02:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	120		70 - 130	03/17/21 08:00	03/18/21 02:46	1
4-Bromofluorobenzene	111		70 - 130	03/17/21 08:00	03/18/21 02:46	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	374		4.97		mg/kg		03/12/21 17:00	03/12/21 23:29	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 02:17	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 02:17	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 02:17	1
Total TPH	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 02:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 135	03/12/21 16:00	03/13/21 02:17	1
o-Terphenyl	85		70 - 135	03/12/21 16:00	03/13/21 02:17	1

Client Sample ID: SW04

Lab Sample ID: 890-310-2

Date Collected: 03/05/21 12:09

Matrix: Solid

Date Received: 03/09/21 12:52

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/17/21 08:00	03/18/21 03:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/17/21 08:00	03/18/21 03:12	1
m,p-Xylenes	<0.00399	U	0.00399		mg/kg		03/17/21 08:00	03/18/21 03:12	1
o-Xylene	<0.00200	U	0.00200		mg/kg		03/17/21 08:00	03/18/21 03:12	1
Toluene	<0.00200	U	0.00200		mg/kg		03/17/21 08:00	03/18/21 03:12	1
Total BTEX	<0.00200	U	0.00200		mg/kg		03/17/21 08:00	03/18/21 03:12	1
Total Xylenes	<0.00200	U	0.00200		mg/kg		03/17/21 08:00	03/18/21 03:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	115		70 - 130	03/17/21 08:00	03/18/21 03:12	1
4-Bromofluorobenzene	100		70 - 130	03/17/21 08:00	03/18/21 03:12	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45.9		5.04		mg/kg		03/12/21 17:00	03/12/21 23:34	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 02:59	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-310-1
SDG: TE012921006

Client Sample ID: SW04

Lab Sample ID: 890-310-2

Date Collected: 03/05/21 12:09

Matrix: Solid

Date Received: 03/09/21 12:52

Method: TPH 8015_NM_MOD - General Subcontract Method (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 02:59	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 02:59	1
Total TPH	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 02:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 135				03/12/21 16:00	03/13/21 02:59	1
o-Terphenyl	86		70 - 135				03/12/21 16:00	03/13/21 02:59	1

Client Sample ID: SW06

Lab Sample ID: 890-310-3

Date Collected: 03/05/21 13:17

Matrix: Solid

Date Received: 03/09/21 12:52

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/17/21 08:00	03/18/21 04:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/17/21 08:00	03/18/21 04:54	1
m,p-Xylenes	<0.00401	U	0.00401		mg/kg		03/17/21 08:00	03/18/21 04:54	1
o-Xylene	<0.00200	U	0.00200		mg/kg		03/17/21 08:00	03/18/21 04:54	1
Toluene	<0.00200	U	0.00200		mg/kg		03/17/21 08:00	03/18/21 04:54	1
Total BTEX	<0.00200	U	0.00200		mg/kg		03/17/21 08:00	03/18/21 04:54	1
Total Xylenes	<0.00200	U	0.00200		mg/kg		03/17/21 08:00	03/18/21 04:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	103		70 - 130				03/17/21 08:00	03/18/21 04:54	1
4-Bromofluorobenzene	100		70 - 130				03/17/21 08:00	03/18/21 04:54	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	84.6		4.96		mg/kg		03/12/21 17:00	03/12/21 23:39	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9	U	49.9		mg/kg		03/12/21 16:00	03/13/21 03:20	1
Gasoline Range Hydrocarbons (GRO)	<49.9	U	49.9		mg/kg		03/12/21 16:00	03/13/21 03:20	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/12/21 16:00	03/13/21 03:20	1
Total TPH	<49.9	U	49.9		mg/kg		03/12/21 16:00	03/13/21 03:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 135				03/12/21 16:00	03/13/21 03:20	1
o-Terphenyl	88		70 - 135				03/12/21 16:00	03/13/21 03:20	1

Eurofins Carlsbad

Surrogate Summary

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-310-1
 SDG: TE012921006

Method: BTEX 8021 - General Subcontract Method

Matrix: SOIL

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)
7723610-1-BKS	Lab Control Sample	85
7723610-1-BLK	Method Blank	72
7723610-1-BSD	Lab Control Sample Dup	99

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method: BTEX 8021 - General Subcontract Method

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)	DFBZ (70-130)
890-310-1	FS03	111	120
890-310-2	SW04	100	115
890-310-3	SW06	100	103

Surrogate Legend

BFB = 4-Bromofluorobenzene

DFBZ = 1,4-Difluorobenzene

Method: TPH 8015_NM_MOD - General Subcontract Method

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO (70-135)	OTPH (70-135)
890-310-1	FS03	93	85
890-310-2	SW04	89	86
890-310-3	SW06	93	88

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-310-1
SDG: TE012921006

Method: BTEX 8021 - General Subcontract Method

Lab Sample ID: 7723610-1-BLK
Matrix: SOIL
Analysis Batch: 3154067

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3154067_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<.002	U	.002		mg/kg		03/17/21 08:00	03/17/21 22:54	1
Ethylbenzene	<.002	U	.002		mg/kg		03/17/21 08:00	03/17/21 22:54	1
m,p-Xylenes	<.004	U	.004		mg/kg		03/17/21 08:00	03/17/21 22:54	1
o-Xylene	<.002	U	.002		mg/kg		03/17/21 08:00	03/17/21 22:54	1
Toluene	<.002	U	.002		mg/kg		03/17/21 08:00	03/17/21 22:54	1
Surrogate	BLANK %Recovery	BLANK Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	72		70 - 130				03/17/21 08:00	03/17/21 22:54	1

Lab Sample ID: 7723610-1-BKS
Matrix: SOIL
Analysis Batch: 3154067

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3154067_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	.1	0.107		mg/kg		107	70 - 130
Ethylbenzene	.1	0.0997		mg/kg		100	71 - 129
m,p-Xylenes	.2	0.203		mg/kg		102	70 - 135
o-Xylene	.1	0.100		mg/kg		100	71 - 133
Toluene	.1	0.0993		mg/kg		99	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	85		70 - 130				

Lab Sample ID: 7723610-1-BSD
Matrix: SOIL
Analysis Batch: 3154067

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3154067_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	.1	0.112		mg/kg		112	70 - 130	5	35
Ethylbenzene	.1	0.104		mg/kg		104	71 - 129	4	35
m,p-Xylenes	.2	0.213		mg/kg		107	70 - 135	5	35
o-Xylene	.1	0.108		mg/kg		108	71 - 133	8	35
Toluene	.1	0.104		mg/kg		104	70 - 130	5	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene	99		70 - 130						

Method: CHLORIDE E300 - General Subcontract Method

Lab Sample ID: 7723302-1-BLK
Matrix: SOIL
Analysis Batch: 3153628

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153628_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5	U	5		mg/kg		03/12/21 17:00	03/12/21 21:29	1

Eurofins Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-310-1
SDG: TE012921006

Method: CHLORIDE E300 - General Subcontract Method (Continued)

Lab Sample ID: 7723302-1-BKS
Matrix: SOIL
Analysis Batch: 3153628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153628_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	248		mg/kg		99	80 - 120

Lab Sample ID: 7723302-1-BSD
Matrix: SOIL
Analysis Batch: 3153628

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153628_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	250	248		mg/kg		99	80 - 120	0	20

Method: TPH 8015_NM_MOD - General Subcontract Method

Lab Sample ID: 7723247-1-BLK
Matrix: SOIL
Analysis Batch: 3153683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153683_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50	U	50		mg/kg		03/12/21 16:00	03/12/21 21:18	1
Gasoline Range Hydrocarbons (GRO)	<50	U	50		mg/kg		03/12/21 16:00	03/12/21 21:18	1
Motor Oil Range Hydrocarbons (MRO)	<50	U	50		mg/kg		03/12/21 16:00	03/12/21 21:18	1

Lab Sample ID: 7723247-1-BKS
Matrix: SOIL
Analysis Batch: 3153683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153683_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	1000	949		mg/kg		95	70 - 135
Gasoline Range Hydrocarbons (GRO)	1000	961		mg/kg		96	70 - 135

Lab Sample ID: 7723247-1-BSD
Matrix: SOIL
Analysis Batch: 3153683

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153683_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics (DRO)	1000	952		mg/kg		95	70 - 135	0	20
Gasoline Range Hydrocarbons (GRO)	1000	965		mg/kg		97	70 - 135	0	20

Lab Sample ID: 7723252-1-BLK
Matrix: SOIL
Analysis Batch: 3153686

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153686_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50	U	50		mg/kg		03/12/21 16:00	03/12/21 21:18	1
Gasoline Range Hydrocarbons (GRO)	<50	U	50		mg/kg		03/12/21 16:00	03/12/21 21:18	1
Motor Oil Range Hydrocarbons (MRO)	<50	U	50		mg/kg		03/12/21 16:00	03/12/21 21:18	1

Eurofins Carlsbad

QC Sample Results

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-310-1
 SDG: TE012921006

Method: TPH 8015_NM_MOD - General Subcontract Method (Continued)

Lab Sample ID: 7723252-1-BKS
Matrix: SOIL
Analysis Batch: 3153686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153686_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	1000	859		mg/kg		86	70 - 135
Gasoline Range Hydrocarbons (GRO)	1000	934		mg/kg		93	70 - 135

Lab Sample ID: 7723252-1-BSD
Matrix: SOIL
Analysis Batch: 3153686

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153686_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	1000	809		mg/kg		81	70 - 135	6	20
Gasoline Range Hydrocarbons (GRO)	1000	881		mg/kg		88	70 - 135	6	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-310-1
SDG: TE012921006

Subcontract

Analysis Batch: 3153628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-310-1	FS03	Total/NA	Solid	CHLORIDE E300	3153628_P
890-310-2	SW04	Total/NA	Solid	CHLORIDE E300	3153628_P
890-310-3	SW06	Total/NA	Solid	CHLORIDE E300	3153628_P
7723302-1-BLK	Method Blank	Total/NA	SOIL	CHLORIDE E300	3153628_P
7723302-1-BKS	Lab Control Sample	Total/NA	SOIL	CHLORIDE E300	3153628_P
7723302-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	CHLORIDE E300	3153628_P

Analysis Batch: 3153683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-310-1	FS03	Total/NA	Solid	TPH	3153683_P
7723247-1-BLK	Method Blank	Total/NA	SOIL	8015_NM_MOD TPH	3153683_P
7723247-1-BKS	Lab Control Sample	Total/NA	SOIL	8015_NM_MOD TPH	3153683_P
7723247-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	8015_NM_MOD TPH	3153683_P

Analysis Batch: 3153686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-310-2	SW04	Total/NA	Solid	TPH	3153686_P
890-310-3	SW06	Total/NA	Solid	8015_NM_MOD TPH	3153686_P
7723252-1-BLK	Method Blank	Total/NA	SOIL	8015_NM_MOD TPH	3153686_P
7723252-1-BKS	Lab Control Sample	Total/NA	SOIL	8015_NM_MOD TPH	3153686_P
7723252-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	8015_NM_MOD TPH	3153686_P

Analysis Batch: 3154067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-310-1	FS03	Total/NA	Solid	BTEX 8021	3154067_P
890-310-2	SW04	Total/NA	Solid	BTEX 8021	3154067_P
890-310-3	SW06	Total/NA	Solid	BTEX 8021	3154067_P
7723610-1-BLK	Method Blank	Total/NA	SOIL	BTEX 8021	3154067_P
7723610-1-BKS	Lab Control Sample	Total/NA	SOIL	BTEX 8021	3154067_P
7723610-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	BTEX 8021	3154067_P

Prep Batch: 3153628_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-310-1	FS03	Total/NA	Solid	E300P	
890-310-2	SW04	Total/NA	Solid	E300P	
890-310-3	SW06	Total/NA	Solid	E300P	
7723302-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723302-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723302-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	

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QC Association Summary

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-310-1
 SDG: TE012921006

Subcontract

Prep Batch: 3153683_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-310-1	FS03	Total/NA	Solid	SW8015P	
7723247-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723247-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723247-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3153686_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-310-2	SW04	Total/NA	Solid	SW8015P	
890-310-3	SW06	Total/NA	Solid	SW8015P	
7723252-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723252-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723252-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3154067_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-310-1	FS03	Total/NA	Solid	SW5035A	
890-310-2	SW04	Total/NA	Solid	SW5035A	
890-310-3	SW06	Total/NA	Solid	SW5035A	
7723610-1-BLK	Method Blank	Total/NA	SOIL	SW5035A	
7723610-1-BKS	Lab Control Sample	Total/NA	SOIL	SW5035A	
7723610-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW5035A	

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-310-1
SDG: TE012921006

Client Sample ID: FS03

Lab Sample ID: 890-310-1

Date Collected: 03/05/21 10:12

Matrix: Solid

Date Received: 03/09/21 12:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3154067_P	03/17/21 08:00		XM
Total/NA	Analysis	BTEX 8021		1	3154067	03/18/21 02:46	KTL	XM
Total/NA	Prep	E300P		1	3153628_P	03/12/21 17:00		XM
Total/NA	Analysis	CHLORIDE E300		1	3153628	03/12/21 23:29	CHE	XM
Total/NA	Prep	SW8015P		1	3153683_P	03/12/21 16:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3153683	03/13/21 02:17	ARM	XM

Client Sample ID: SW04

Lab Sample ID: 890-310-2

Date Collected: 03/05/21 12:09

Matrix: Solid

Date Received: 03/09/21 12:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3154067_P	03/17/21 08:00		XM
Total/NA	Analysis	BTEX 8021		1	3154067	03/18/21 03:12	KTL	XM
Total/NA	Prep	E300P		1	3153628_P	03/12/21 17:00		XM
Total/NA	Analysis	CHLORIDE E300		1	3153628	03/12/21 23:34	CHE	XM
Total/NA	Prep	SW8015P		1	3153686_P	03/12/21 16:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3153686	03/13/21 02:59	ARM	XM

Client Sample ID: SW06

Lab Sample ID: 890-310-3

Date Collected: 03/05/21 13:17

Matrix: Solid

Date Received: 03/09/21 12:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3154067_P	03/17/21 08:00		XM
Total/NA	Analysis	BTEX 8021		1	3154067	03/18/21 04:54	KTL	XM
Total/NA	Prep	E300P		1	3153628_P	03/12/21 17:00		XM
Total/NA	Analysis	CHLORIDE E300		1	3153628	03/12/21 23:39	CHE	XM
Total/NA	Prep	SW8015P		1	3153686_P	03/12/21 16:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3153686	03/13/21 03:20	ARM	XM

Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-310-1
SDG: TE012921006

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

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

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Method Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-310-1
SDG: TE012921006

Method	Method Description	Protocol	Laboratory
Subcontract	BTEX 8021	None	XM
Subcontract	CHLORIDE E300	None	XM
Subcontract	TPH 8015_NM_MOD	None	XM

Protocol References:

None = None

Laboratory References:

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

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Sample Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-310-1
SDG: TE012921006

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-310-1	FS03	Solid	03/05/21 10:12	03/09/21 12:52	
890-310-2	SW04	Solid	03/05/21 12:09	03/09/21 12:52	
890-310-3	SW06	Solid	03/05/21 13:17	03/09/21 12:52	

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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

Chain of Custody


Work Order No: _____

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littlell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 W. Mermod St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	jeremy.hill@wsp.com, Dan.Moir@wsp.com

Program: UST/PST	<input type="checkbox"/> RP	<input type="checkbox"/> Brownfields	<input type="checkbox"/> RC	<input type="checkbox"/> Superfund
State of Project:				
Reporting Level:	<input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> BT/UST <input type="checkbox"/> RP <input type="checkbox"/> Level IV			
Deliverables:	<input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:			

Project Name:	Corral Canyon 10E pipeline	Turn Around	
Project Number:	TE 61892 1006	Routine	<input checked="" type="checkbox"/>
P.O. Number:	Spill data 12/26/20	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Well Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Temperature (°C):	22.4	Thermometer ID				
Received Intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Correction Factor: 2MM-007			
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Total Containers:			
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	N/A			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers			Sample Comments
					TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	
FS63	S	3/5/21	1612	8.0	1	X	X	
SW04	S		1804	6-8'	1	X	X	
SW06	S		1317	0-8'	1	X	X	
 890-310 Chain of Custody								
TAT starts the day received by the lab, if received by 4:30pm								

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 AI Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO2 Na Sr Ti 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 TI 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
<i>[Signature]</i>	<i>[Signature]</i>	3/9/21 12:45	<i>[Signature]</i>	<i>[Signature]</i>	3-9-21 1252

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-310-1
SDG Number: TE012921006

Login Number: 310
List Number: 1
Creator: Clifton, Cloe

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	

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Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-315-1
Laboratory Sample Delivery Group: TE012921006
Client Project/Site: Corral Canyon 10E Pipeline

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

Attn: Dan Moir

Authorized for release by:
3/16/2021 7:48:44 PM

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



LINKS

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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.

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Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Laboratory Job ID: 890-315-1
SDG: TE012921006

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-315-1
SDG: TE012921006

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: Corral Canyon 10E Pipeline

Job ID: 890-315-1
SDG: TE012921006

Job ID: 890-315-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-315-1

Receipt

The samples were received on 3/9/2021 3:47 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 4.2°C

Subcontract Lab non-Sister Lab

See attached subcontract report.

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Client Sample Results

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-315-1
 SDG: TE012921006

Client Sample ID: PH07
Date Collected: 03/09/21 11:56
Date Received: 03/09/21 15:47

Lab Sample ID: 890-315-1
Matrix: Solid

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/kg		03/14/21 11:00	03/15/21 01:11	1
Ethylbenzene	<0.00199	U	0.00199		mg/kg		03/14/21 11:00	03/15/21 01:11	1
m,p-Xylenes	<0.00398	U	0.00398		mg/kg		03/14/21 11:00	03/15/21 01:11	1
o-Xylene	<0.00199	U	0.00199		mg/kg		03/14/21 11:00	03/15/21 01:11	1
Toluene	<0.00199	U	0.00199		mg/kg		03/14/21 11:00	03/15/21 01:11	1
Total BTEX	<0.00199	U	0.00199		mg/kg		03/14/21 11:00	03/15/21 01:11	1
Total Xylenes	<0.00199	U	0.00199		mg/kg		03/14/21 11:00	03/15/21 01:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	90		70 - 130	03/14/21 11:00	03/15/21 01:11	1
4-Bromofluorobenzene	106		70 - 130	03/14/21 11:00	03/15/21 01:11	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	121		4.99		mg/kg		03/12/21 16:45	03/12/21 20:54	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:52	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:52	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:52	1
Total TPH	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 00:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 135	03/12/21 16:00	03/13/21 00:52	1
o-Terphenyl	99		70 - 135	03/12/21 16:00	03/13/21 00:52	1

Client Sample ID: PH07 A
Date Collected: 03/09/21 12:44
Date Received: 03/09/21 15:47

Lab Sample ID: 890-315-2
Matrix: Solid

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/14/21 11:00	03/15/21 01:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/14/21 11:00	03/15/21 01:31	1
m,p-Xylenes	<0.00400	U	0.00400		mg/kg		03/14/21 11:00	03/15/21 01:31	1
o-Xylene	<0.00200	U	0.00200		mg/kg		03/14/21 11:00	03/15/21 01:31	1
Toluene	<0.00200	U	0.00200		mg/kg		03/14/21 11:00	03/15/21 01:31	1
Total BTEX	<0.00200	U	0.00200		mg/kg		03/14/21 11:00	03/15/21 01:31	1
Total Xylenes	<0.00200	U	0.00200		mg/kg		03/14/21 11:00	03/15/21 01:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	100		70 - 130	03/14/21 11:00	03/15/21 01:31	1
4-Bromofluorobenzene	105		70 - 130	03/14/21 11:00	03/15/21 01:31	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	85.5		4.95		mg/kg		03/12/21 17:00	03/12/21 21:44	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 01:13	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-315-1
SDG: TE012921006

Client Sample ID: PH07 A

Lab Sample ID: 890-315-2

Date Collected: 03/09/21 12:44

Matrix: Solid

Date Received: 03/09/21 15:47

Method: TPH 8015_NM_MOD - General Subcontract Method (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 01:13	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 01:13	1
Total TPH	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 01:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 135				03/12/21 16:00	03/13/21 01:13	1
o-Terphenyl	75		70 - 135				03/12/21 16:00	03/13/21 01:13	1

Client Sample ID: PH08

Lab Sample ID: 890-315-3

Date Collected: 03/09/21 13:37

Matrix: Solid

Date Received: 03/09/21 15:47

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/kg		03/14/21 11:00	03/15/21 01:52	1
Ethylbenzene	<0.00201	U	0.00201		mg/kg		03/14/21 11:00	03/15/21 01:52	1
m,p-Xylenes	<0.00402	U	0.00402		mg/kg		03/14/21 11:00	03/15/21 01:52	1
o-Xylene	<0.00201	U	0.00201		mg/kg		03/14/21 11:00	03/15/21 01:52	1
Toluene	<0.00201	U	0.00201		mg/kg		03/14/21 11:00	03/15/21 01:52	1
Total BTEX	<0.00201	U	0.00201		mg/kg		03/14/21 11:00	03/15/21 01:52	1
Total Xylenes	<0.00201	U	0.00201		mg/kg		03/14/21 11:00	03/15/21 01:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	100		70 - 130				03/14/21 11:00	03/15/21 01:52	1
4-Bromofluorobenzene	108		70 - 130				03/14/21 11:00	03/15/21 01:52	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	166		5.04		mg/kg		03/12/21 17:00	03/12/21 21:59	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 01:35	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 01:35	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 01:35	1
Total TPH	<50.0	U	50.0		mg/kg		03/12/21 16:00	03/13/21 01:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 135				03/12/21 16:00	03/13/21 01:35	1
o-Terphenyl	80		70 - 135				03/12/21 16:00	03/13/21 01:35	1

Client Sample ID: PH08 A

Lab Sample ID: 890-315-4

Date Collected: 03/09/21 13:43

Matrix: Solid

Date Received: 03/09/21 15:47

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/kg		03/14/21 11:00	03/15/21 02:12	1
Ethylbenzene	<0.00201	U	0.00201		mg/kg		03/14/21 11:00	03/15/21 02:12	1
m,p-Xylenes	<0.00402	U	0.00402		mg/kg		03/14/21 11:00	03/15/21 02:12	1
o-Xylene	<0.00201	U	0.00201		mg/kg		03/14/21 11:00	03/15/21 02:12	1
Toluene	<0.00201	U	0.00201		mg/kg		03/14/21 11:00	03/15/21 02:12	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-315-1
 SDG: TE012921006

Client Sample ID: PH08 A

Lab Sample ID: 890-315-4

Date Collected: 03/09/21 13:43

Matrix: Solid

Date Received: 03/09/21 15:47

Method: BTEX 8021 - General Subcontract Method (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00201	U	0.00201		mg/kg		03/14/21 11:00	03/15/21 02:12	1
Total Xylenes	<0.00201	U	0.00201		mg/kg		03/14/21 11:00	03/15/21 02:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	94		70 - 130				03/14/21 11:00	03/15/21 02:12	1
4-Bromofluorobenzene	98		70 - 130				03/14/21 11:00	03/15/21 02:12	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	117		4.99		mg/kg		03/12/21 17:00	03/12/21 22:04	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9	U	49.9		mg/kg		03/12/21 16:00	03/13/21 01:56	1
Gasoline Range Hydrocarbons (GRO)	<49.9	U	49.9		mg/kg		03/12/21 16:00	03/13/21 01:56	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/12/21 16:00	03/13/21 01:56	1
Total TPH	<49.9	U	49.9		mg/kg		03/12/21 16:00	03/13/21 01:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 135				03/12/21 16:00	03/13/21 01:56	1
o-Terphenyl	78		70 - 135				03/12/21 16:00	03/13/21 01:56	1

Surrogate Summary

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-315-1
 SDG: TE012921006

Method: BTEX 8021 - General Subcontract Method

Matrix: SOIL

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)
7723305-1-BKS	Lab Control Sample	104
7723305-1-BLK	Method Blank	115
7723305-1-BSD	Lab Control Sample Dup	102

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method: BTEX 8021 - General Subcontract Method

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)	DFBZ (70-130)
890-315-1	PH07	106	90
890-315-2	PH07 A	105	100
890-315-3	PH08	108	100
890-315-4	PH08 A	98	94

Surrogate Legend

BFB = 4-Bromofluorobenzene

DFBZ = 1,4-Difluorobenzene

Method: TPH 8015_NM_MOD - General Subcontract Method

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO (70-135)	OTPH (70-135)
890-315-1	PH07	108	99
890-315-2	PH07 A	84	75
890-315-3	PH08	86	80
890-315-4	PH08 A	86	78

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-315-1
SDG: TE012921006

Method: BTEX 8021 - General Subcontract Method

Lab Sample ID: 7723305-1-BLK
Matrix: SOIL
Analysis Batch: 3153614

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153614_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<.002	U	.002		mg/kg		03/14/21 11:00	03/14/21 23:06	1
Ethylbenzene	<.002	U	.002		mg/kg		03/14/21 11:00	03/14/21 23:06	1
m,p-Xylenes	<.004	U	.004		mg/kg		03/14/21 11:00	03/14/21 23:06	1
o-Xylene	<.002	U	.002		mg/kg		03/14/21 11:00	03/14/21 23:06	1
Toluene	<.002	U	.002		mg/kg		03/14/21 11:00	03/14/21 23:06	1
Surrogate	%Recovery	BLANK Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	115		70 - 130				03/14/21 11:00	03/14/21 23:06	1

Lab Sample ID: 7723305-1-BKS
Matrix: SOIL
Analysis Batch: 3153614

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153614_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	.1	0.103		mg/kg		103	70 - 130
Ethylbenzene	.1	0.104		mg/kg		104	71 - 129
m,p-Xylenes	.2	0.210		mg/kg		105	70 - 135
o-Xylene	.1	0.101		mg/kg		101	71 - 133
Toluene	.1	0.105		mg/kg		105	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	104		70 - 130				

Lab Sample ID: 7723305-1-BSD
Matrix: SOIL
Analysis Batch: 3153614

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153614_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	.1	0.0991		mg/kg		99	70 - 130	4	35
Ethylbenzene	.1	0.102		mg/kg		102	71 - 129	2	35
m,p-Xylenes	.2	0.205		mg/kg		103	70 - 135	2	35
o-Xylene	.1	0.0980		mg/kg		98	71 - 133	3	35
Toluene	.1	0.102		mg/kg		102	70 - 130	3	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene	102		70 - 130						

Method: CHLORIDE E300 - General Subcontract Method

Lab Sample ID: 7723297-1-BLK
Matrix: SOIL
Analysis Batch: 3153625

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153625_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5	U	5		mg/kg		03/12/21 16:45	03/12/21 18:44	1

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-315-1
SDG: TE012921006

Method: CHLORIDE E300 - General Subcontract Method (Continued)

Lab Sample ID: 7723297-1-BKS
Matrix: SOIL
Analysis Batch: 3153625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153625_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	246		mg/kg		98	80 - 120

Lab Sample ID: 7723297-1-BSD
Matrix: SOIL
Analysis Batch: 3153625

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153625_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	250	245		mg/kg		98	80 - 120	0	20

Lab Sample ID: 7723302-1-BLK
Matrix: SOIL
Analysis Batch: 3153628

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153628_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5	U	5		mg/kg		03/12/21 17:00	03/12/21 21:29	1

Lab Sample ID: 7723302-1-BKS
Matrix: SOIL
Analysis Batch: 3153628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153628_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	248		mg/kg		99	80 - 120

Lab Sample ID: 7723302-1-BSD
Matrix: SOIL
Analysis Batch: 3153628

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153628_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	250	248		mg/kg		99	80 - 120	0	20

Lab Sample ID: 691120-002 S
Matrix: SOIL
Analysis Batch: 3153628

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3153628_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	85.5		248	335		mg/kg		101	80 - 120

Lab Sample ID: 691120-002 SD
Matrix: SOIL
Analysis Batch: 3153628

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 3153628_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	85.5		248	335		mg/kg		101	80 - 120	0	20

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QC Sample Results

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-315-1
 SDG: TE012921006

Method: TPH 8015_NM_MOD - General Subcontract Method

Lab Sample ID: 7723247-1-BLK
Matrix: SOIL
Analysis Batch: 3153683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153683_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50	U	50		mg/kg		03/12/21 16:00	03/12/21 21:18	1
Gasoline Range Hydrocarbons (GRO)	<50	U	50		mg/kg		03/12/21 16:00	03/12/21 21:18	1
Motor Oil Range Hydrocarbons (MRO)	<50	U	50		mg/kg		03/12/21 16:00	03/12/21 21:18	1

Lab Sample ID: 7723247-1-BKS
Matrix: SOIL
Analysis Batch: 3153683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153683_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	1000	949		mg/kg		95	70 - 135
Gasoline Range Hydrocarbons (GRO)	1000	961		mg/kg		96	70 - 135

Lab Sample ID: 7723247-1-BSD
Matrix: SOIL
Analysis Batch: 3153683

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153683_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	1000	952		mg/kg		95	70 - 135	0	20
Gasoline Range Hydrocarbons (GRO)	1000	965		mg/kg		97	70 - 135	0	20

QC Association Summary

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-315-1
 SDG: TE012921006

Subcontract

Analysis Batch: 3153614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-315-1	PH07	Total/NA	Solid	BTEX 8021	3153614_P
890-315-2	PH07 A	Total/NA	Solid	BTEX 8021	3153614_P
890-315-3	PH08	Total/NA	Solid	BTEX 8021	3153614_P
890-315-4	PH08 A	Total/NA	Solid	BTEX 8021	3153614_P
7723305-1-BLK	Method Blank	Total/NA	SOIL	BTEX 8021	3153614_P
7723305-1-BKS	Lab Control Sample	Total/NA	SOIL	BTEX 8021	3153614_P
7723305-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	BTEX 8021	3153614_P

Analysis Batch: 3153625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-315-1	PH07	Total/NA	Solid	CHLORIDE E300	3153625_P
7723297-1-BLK	Method Blank	Total/NA	SOIL	CHLORIDE E300	3153625_P
7723297-1-BKS	Lab Control Sample	Total/NA	SOIL	CHLORIDE E300	3153625_P
7723297-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	CHLORIDE E300	3153625_P

Analysis Batch: 3153628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-315-2	PH07 A	Total/NA	Solid	CHLORIDE E300	3153628_P
890-315-3	PH08	Total/NA	Solid	CHLORIDE E300	3153628_P
890-315-4	PH08 A	Total/NA	Solid	CHLORIDE E300	3153628_P
7723302-1-BLK	Method Blank	Total/NA	SOIL	CHLORIDE E300	3153628_P
7723302-1-BKS	Lab Control Sample	Total/NA	SOIL	CHLORIDE E300	3153628_P
7723302-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	CHLORIDE E300	3153628_P
691120-002 S	Matrix Spike	Total/NA	SOIL	CHLORIDE E300	3153628_P
691120-002 SD	Matrix Spike Duplicate	Total/NA	SOIL	CHLORIDE E300	3153628_P

Analysis Batch: 3153683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-315-1	PH07	Total/NA	Solid	TPH	3153683_P
890-315-2	PH07 A	Total/NA	Solid	8015_NM_MOD TPH	3153683_P
890-315-3	PH08	Total/NA	Solid	8015_NM_MOD TPH	3153683_P
890-315-4	PH08 A	Total/NA	Solid	8015_NM_MOD TPH	3153683_P
7723247-1-BLK	Method Blank	Total/NA	SOIL	8015_NM_MOD TPH	3153683_P
7723247-1-BKS	Lab Control Sample	Total/NA	SOIL	8015_NM_MOD TPH	3153683_P
7723247-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	8015_NM_MOD TPH	3153683_P

Prep Batch: 3153614_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-315-1	PH07	Total/NA	Solid	SW5035A	
890-315-2	PH07 A	Total/NA	Solid	SW5035A	
890-315-3	PH08	Total/NA	Solid	SW5035A	
890-315-4	PH08 A	Total/NA	Solid	SW5035A	
7723305-1-BLK	Method Blank	Total/NA	SOIL	SW5035A	
7723305-1-BKS	Lab Control Sample	Total/NA	SOIL	SW5035A	
7723305-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW5035A	

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QC Association Summary

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-315-1
 SDG: TE012921006

Subcontract

Prep Batch: 3153625_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-315-1	PH07	Total/NA	Solid	E300P	
7723297-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723297-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723297-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3153628_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-315-2	PH07 A	Total/NA	Solid	E300P	
890-315-3	PH08	Total/NA	Solid	E300P	
890-315-4	PH08 A	Total/NA	Solid	E300P	
7723302-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723302-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723302-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
691120-002 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
691120-002 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3153683_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-315-1	PH07	Total/NA	Solid	SW8015P	
890-315-2	PH07 A	Total/NA	Solid	SW8015P	
890-315-3	PH08	Total/NA	Solid	SW8015P	
890-315-4	PH08 A	Total/NA	Solid	SW8015P	
7723247-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723247-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723247-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-315-1
SDG: TE012921006

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

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

- 1
- 2
- 3
- 4
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- 10
- 11
- 12
- 13

Method Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-315-1
SDG: TE012921006

Method	Method Description	Protocol	Laboratory
Subcontract	BTEX 8021	None	XM
Subcontract	CHLORIDE E300	None	XM
Subcontract	TPH 8015_NM_MOD	None	XM

Protocol References:

None = None

Laboratory References:

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

- 1
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Sample Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-315-1
SDG: TE012921006

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-315-1	PH07	Solid	03/09/21 11:56	03/09/21 15:47	
890-315-2	PH07 A	Solid	03/09/21 12:44	03/09/21 15:47	
890-315-3	PH08	Solid	03/09/21 13:37	03/09/21 15:47	
890-315-4	PH08 A	Solid	03/09/21 13:43	03/09/21 15:47	

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- 10
- 11
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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

Chain of Custody

Work Order No: _____

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street Midland, TX 79705	Address:	522 W. Mermod St. Carlsbad, NM 88220
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	jeremy.hill@wsp.com, Dan.Moir@wsp.com

Program:	UST/PST <input type="checkbox"/> RP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> PT/UST <input type="checkbox"/> RP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____

Project Name:	Cornell Center 10E Data	Turn Around	
Project Number:	TE 012421006	Routine	<input checked="" type="checkbox"/>
P.O. Number:	Spill Date: 12/30/20	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	
SAMPLE RECEIPT	Temp Blank: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Wet Ice: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Temperature (°C):	7.4/4.2	Thermometer ID	
Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	ZFM 0.957
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Total Containers:	4
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH07	S	3/9/11	1156	2.0	1	X	X	X
PH07A			1244	8.0				
PH08			1337	6.0				
PH08K			1343	9.0				



890-315 Chain of Custody
TAT starts the day received by the lab, if received by 4:30pm
Sample Comments: discrete
Work Order Notes: CCE 1081711001
In. B NAPP 2036 549855
N01 30-018-46335

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mn Mo Ni K Se Ag SiO2 Na Sr Ti 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 Ti U 1631 / 245.1 / 17470 / 17471 : 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
		3-9-21 15:45 ²			

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-315-1
SDG Number: TE012921006

Login Number: 315
List Number: 1
Creator: Clifton, Cloe

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	

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Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-391-1
Client Project/Site: Thriller

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

Attn: Dan Moir

Authorized for release by:
3/29/2021 8:37:35 AM

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



LINKS

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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.

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Client: WSP USA Inc.
Project/Site: Thriller

Laboratory Job ID: 890-391-1

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

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.
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.
α	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

Eurofins Xenco, Carlsbad

Case Narrative

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

Job ID: 890-391-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-391-1

Receipt

The samples were received on 3/18/2021 2:30 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 1.0°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: PH01 (890-391-1), PH01 A (890-391-2), PH02 (890-391-3), PH02 A (890-391-4), PH03 (890-391-5) and PH03 A (890-391-6).

GC Semi VOA

Method 8015MOD_NM: The laboratory control sample (LCS) and the matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-834 and analytical batch 880-847 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10. These analytes were biased high in the LCS, MS/MSD and were not detected in the associated samples; therefore, the data have been reported.



Client Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

Client Sample ID: PH01
Date Collected: 03/18/21 10:05
Date Received: 03/18/21 14:30

Lab Sample ID: 890-391-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		03/26/21 14:28	03/27/21 03:40	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/26/21 14:28	03/27/21 03:40	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/26/21 14:28	03/27/21 03:40	1
Total BTEX	<0.00201	U	0.00201	mg/Kg		03/26/21 14:28	03/27/21 03:40	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/26/21 14:28	03/27/21 03:40	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/26/21 14:28	03/27/21 03:40	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/26/21 14:28	03/27/21 03:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	03/26/21 14:28	03/27/21 03:40	1
1,4-Difluorobenzene (Surr)	101		70 - 130	03/26/21 14:28	03/27/21 03:40	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		03/25/21 09:19	03/25/21 14:31	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/25/21 09:19	03/25/21 14:31	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/25/21 09:19	03/25/21 14:31	1
Total TPH	<49.9	U	49.9	mg/Kg		03/25/21 09:19	03/25/21 14:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	03/25/21 09:19	03/25/21 14:31	1
o-Terphenyl	110		70 - 130	03/25/21 09:19	03/25/21 14:31	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	40.0		4.95	mg/Kg			03/23/21 21:55	1

Client Sample ID: PH01 A
Date Collected: 03/18/21 10:10
Date Received: 03/18/21 14:30

Lab Sample ID: 890-391-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		03/26/21 14:28	03/27/21 04:00	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/26/21 14:28	03/27/21 04:00	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/26/21 14:28	03/27/21 04:00	1
Total BTEX	<0.00201	U	0.00201	mg/Kg		03/26/21 14:28	03/27/21 04:00	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/26/21 14:28	03/27/21 04:00	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/26/21 14:28	03/27/21 04:00	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/26/21 14:28	03/27/21 04:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	03/26/21 14:28	03/27/21 04:00	1
1,4-Difluorobenzene (Surr)	102		70 - 130	03/26/21 14:28	03/27/21 04:00	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		03/24/21 09:46	03/25/21 19:01	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

Client Sample ID: PH01 A

Lab Sample ID: 890-391-2

Date Collected: 03/18/21 10:10

Matrix: Solid

Date Received: 03/18/21 14:30

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		03/24/21 09:46	03/25/21 19:01	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		03/24/21 09:46	03/25/21 19:01	1
Total TPH	<49.8	U	49.8	mg/Kg		03/24/21 09:46	03/25/21 19:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			03/24/21 09:46	03/25/21 19:01	1
o-Terphenyl	112		70 - 130			03/24/21 09:46	03/25/21 19:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28.7		5.04	mg/Kg			03/23/21 22:11	1

Client Sample ID: PH02

Lab Sample ID: 890-391-3

Date Collected: 03/18/21 10:20

Matrix: Solid

Date Received: 03/18/21 14:30

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/26/21 14:28	03/27/21 04:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/26/21 14:28	03/27/21 04:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/26/21 14:28	03/27/21 04:21	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		03/26/21 14:28	03/27/21 04:21	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/26/21 14:28	03/27/21 04:21	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/26/21 14:28	03/27/21 04:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/26/21 14:28	03/27/21 04:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130			03/26/21 14:28	03/27/21 04:21	1
1,4-Difluorobenzene (Surr)	102		70 - 130			03/26/21 14:28	03/27/21 04:21	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		03/24/21 09:46	03/25/21 19:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/21 09:46	03/25/21 19:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/21 09:46	03/25/21 19:22	1
Total TPH	<50.0	U	50.0	mg/Kg		03/24/21 09:46	03/25/21 19:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			03/24/21 09:46	03/25/21 19:22	1
o-Terphenyl	113		70 - 130			03/24/21 09:46	03/25/21 19:22	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.4		5.02	mg/Kg			03/23/21 22:16	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

Client Sample ID: PH02 A

Lab Sample ID: 890-391-4

Date Collected: 03/18/21 10:30

Matrix: Solid

Date Received: 03/18/21 14:30

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/26/21 14:28	03/27/21 04:41	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/26/21 14:28	03/27/21 04:41	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/26/21 14:28	03/27/21 04:41	1
Total BTEX	<0.00199	U	0.00199	mg/Kg		03/26/21 14:28	03/27/21 04:41	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/26/21 14:28	03/27/21 04:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/26/21 14:28	03/27/21 04:41	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/26/21 14:28	03/27/21 04:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	03/26/21 14:28	03/27/21 04:41	1
1,4-Difluorobenzene (Surr)	100		70 - 130	03/26/21 14:28	03/27/21 04:41	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		03/24/21 09:46	03/25/21 19:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/24/21 09:46	03/25/21 19:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/24/21 09:46	03/25/21 19:43	1
Total TPH	<49.9	U	49.9	mg/Kg		03/24/21 09:46	03/25/21 19:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	03/24/21 09:46	03/25/21 19:43	1
o-Terphenyl	107		70 - 130	03/24/21 09:46	03/25/21 19:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.6		4.98	mg/Kg			03/23/21 22:21	1

Client Sample ID: PH03

Lab Sample ID: 890-391-5

Date Collected: 03/18/21 10:40

Matrix: Solid

Date Received: 03/18/21 14:30

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/26/21 14:28	03/27/21 05:02	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/26/21 14:28	03/27/21 05:02	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/26/21 14:28	03/27/21 05:02	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		03/26/21 14:28	03/27/21 05:02	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/26/21 14:28	03/27/21 05:02	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/26/21 14:28	03/27/21 05:02	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/26/21 14:28	03/27/21 05:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	03/26/21 14:28	03/27/21 05:02	1
1,4-Difluorobenzene (Surr)	101		70 - 130	03/26/21 14:28	03/27/21 05:02	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	<50.0	U	50.0	mg/Kg		03/24/21 09:46	03/25/21 20:04	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

Client Sample ID: PH03
Date Collected: 03/18/21 10:40
Date Received: 03/18/21 14:30

Lab Sample ID: 890-391-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/21 09:46	03/25/21 20:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/21 09:46	03/25/21 20:04	1
Total TPH	<50.0	U	50.0	mg/Kg		03/24/21 09:46	03/25/21 20:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			03/24/21 09:46	03/25/21 20:04	1
o-Terphenyl	118		70 - 130			03/24/21 09:46	03/25/21 20:04	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.8		4.99	mg/Kg			03/23/21 22:26	1

Client Sample ID: PH03 A
Date Collected: 03/18/21 10:45
Date Received: 03/18/21 14:30

Lab Sample ID: 890-391-6
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		03/26/21 14:28	03/27/21 11:16	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/26/21 14:28	03/27/21 11:16	1
Toluene	<0.00202	U	0.00202	mg/Kg		03/26/21 14:28	03/27/21 11:16	1
Total BTEX	<0.00202	U	0.00202	mg/Kg		03/26/21 14:28	03/27/21 11:16	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		03/26/21 14:28	03/27/21 11:16	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		03/26/21 14:28	03/27/21 11:16	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/26/21 14:28	03/27/21 11:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130			03/26/21 14:28	03/27/21 11:16	1
1,4-Difluorobenzene (Surr)	103		70 - 130			03/26/21 14:28	03/27/21 11:16	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		03/24/21 09:46	03/25/21 20:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/21 09:46	03/25/21 20:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/21 09:46	03/25/21 20:25	1
Total TPH	<50.0	U	50.0	mg/Kg		03/24/21 09:46	03/25/21 20:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			03/24/21 09:46	03/25/21 20:25	1
o-Terphenyl	118		70 - 130			03/24/21 09:46	03/25/21 20:25	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.9		5.00	mg/Kg			03/23/21 22:42	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-391-1	PH01	114	101
890-391-2	PH01 A	112	102
890-391-3	PH02	109	102
890-391-4	PH02 A	108	100
890-391-5	PH03	107	101
890-391-6	PH03 A	107	103
LCS 880-910/1-A	Lab Control Sample	102	101
LCSD 880-910/2-A	Lab Control Sample Dup	102	100
MB 880-803/5-A	Method Blank	102	95
MB 880-910/5-A	Method Blank	104	96

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	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-391-1	PH01	110	110
890-391-2	PH01 A	99	112
890-391-3	PH02	101	113
890-391-4	PH02 A	98	107
890-391-5	PH03	103	118
890-391-6	PH03 A	102	118
LCS 880-799/2-A	Lab Control Sample	115	108
LCS 880-834/2-A	Lab Control Sample	108	102
LCSD 880-799/3-A	Lab Control Sample Dup	109	102
LCSD 880-834/3-A	Lab Control Sample Dup	103	95
MB 880-799/1-A	Method Blank	90	97
MB 880-834/1-A	Method Blank	102	107

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-803/5-A
Matrix: Solid
Analysis Batch: 904

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 803

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		03/24/21 10:57	03/26/21 14:32	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/21 10:57	03/26/21 14:32	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/21 10:57	03/26/21 14:32	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		03/24/21 10:57	03/26/21 14:32	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/24/21 10:57	03/26/21 14:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/24/21 10:57	03/26/21 14:32	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/21 10:57	03/26/21 14:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130			03/24/21 10:57	03/26/21 14:32	1
1,4-Difluorobenzene (Surr)	95		70 - 130			03/24/21 10:57	03/26/21 14:32	1

Lab Sample ID: MB 880-910/5-A
Matrix: Solid
Analysis Batch: 904

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 910

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		03/26/21 14:28	03/27/21 01:50	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/26/21 14:28	03/27/21 01:50	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/26/21 14:28	03/27/21 01:50	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		03/26/21 14:28	03/27/21 01:50	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/26/21 14:28	03/27/21 01:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/26/21 14:28	03/27/21 01:50	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/26/21 14:28	03/27/21 01:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			03/26/21 14:28	03/27/21 01:50	1
1,4-Difluorobenzene (Surr)	96		70 - 130			03/26/21 14:28	03/27/21 01:50	1

Lab Sample ID: LCS 880-910/1-A
Matrix: Solid
Analysis Batch: 904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 910

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	0.100	0.1051		mg/Kg		105	70 - 130
Toluene	0.100	0.1012		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	0.200	0.2131		mg/Kg		107	70 - 130
o-Xylene	0.100	0.1061		mg/Kg		106	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	102		70 - 130				
1,4-Difluorobenzene (Surr)	101		70 - 130				

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

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

Lab Sample ID: LCSD 880-910/2-A
Matrix: Solid
Analysis Batch: 904

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 910

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1019		mg/Kg		102	70 - 130	3	35
Ethylbenzene	0.100	0.1067		mg/Kg		107	70 - 130	1	35
Toluene	0.100	0.1036		mg/Kg		104	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2144		mg/Kg		107	70 - 130	1	35
o-Xylene	0.100	0.1076		mg/Kg		108	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

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

Lab Sample ID: MB 880-799/1-A
Matrix: Solid
Analysis Batch: 832

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 799

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		03/24/21 09:46	03/25/21 11:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/21 09:46	03/25/21 11:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/21 09:46	03/25/21 11:36	1
Total TPH	<50.0	U	50.0	mg/Kg		03/24/21 09:46	03/25/21 11:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	03/24/21 09:46	03/25/21 11:36	1
o-Terphenyl	97		70 - 130	03/24/21 09:46	03/25/21 11:36	1

Lab Sample ID: LCS 880-799/2-A
Matrix: Solid
Analysis Batch: 832

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 799

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1179		mg/Kg		118	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1077		mg/Kg		108	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: LCSD 880-799/3-A
Matrix: Solid
Analysis Batch: 832

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 799

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1185		mg/Kg		118	70 - 130	0	20

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

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

Lab Sample ID: LCSD 880-799/3-A
Matrix: Solid
Analysis Batch: 832

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 799

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)	1000	1069		mg/Kg		107	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: MB 880-834/1-A
Matrix: Solid
Analysis Batch: 847

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 834

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		03/25/21 09:19	03/25/21 12:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/25/21 09:19	03/25/21 12:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/25/21 09:19	03/25/21 12:03	1
Total TPH	<50.0	U	50.0	mg/Kg		03/25/21 09:19	03/25/21 12:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	03/25/21 09:19	03/25/21 12:03	1
o-Terphenyl	107		70 - 130	03/25/21 09:19	03/25/21 12:03	1

Lab Sample ID: LCS 880-834/2-A
Matrix: Solid
Analysis Batch: 847

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 834

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1376	*+	mg/Kg		138	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1123		mg/Kg		112	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: LCSD 880-834/3-A
Matrix: Solid
Analysis Batch: 847

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 834

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1230		mg/Kg		123	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	1000	1109		mg/Kg		111	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	103		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

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

Lab Sample ID: LCSD 880-834/3-A
Matrix: Solid
Analysis Batch: 847

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 834

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
<i>o</i> -Terphenyl	95		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-678/1-A
Matrix: Solid
Analysis Batch: 764

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	<5.00	U	5.00	mg/Kg			03/23/21 21:40	1

Lab Sample ID: LCS 880-678/2-A
Matrix: Solid
Analysis Batch: 764

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				Limits
Chloride	250	249.5		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-678/3-A
Matrix: Solid
Analysis Batch: 764

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

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier				Limits		
Chloride	250	246.7		mg/Kg		99	90 - 110	1	20

Lab Sample ID: 890-391-1 MS
Matrix: Solid
Analysis Batch: 764

Client Sample ID: PH01
Prep Type: Soluble

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Chloride	40.0		248	282.1		mg/Kg		98	90 - 110

Lab Sample ID: 890-391-1 MSD
Matrix: Solid
Analysis Batch: 764

Client Sample ID: PH01
Prep Type: Soluble

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chloride	40.0		248	281.2		mg/Kg		97	90 - 110	0	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

GC VOA

Prep Batch: 803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-803/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-391-1	PH01	Total/NA	Solid	8021B	910
890-391-2	PH01 A	Total/NA	Solid	8021B	910
890-391-3	PH02	Total/NA	Solid	8021B	910
890-391-4	PH02 A	Total/NA	Solid	8021B	910
890-391-5	PH03	Total/NA	Solid	8021B	910
890-391-6	PH03 A	Total/NA	Solid	8021B	910
MB 880-803/5-A	Method Blank	Total/NA	Solid	8021B	803
MB 880-910/5-A	Method Blank	Total/NA	Solid	8021B	910
LCS 880-910/1-A	Lab Control Sample	Total/NA	Solid	8021B	910
LCSD 880-910/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	910

Prep Batch: 910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-391-1	PH01	Total/NA	Solid	5035	
890-391-2	PH01 A	Total/NA	Solid	5035	
890-391-3	PH02	Total/NA	Solid	5035	
890-391-4	PH02 A	Total/NA	Solid	5035	
890-391-5	PH03	Total/NA	Solid	5035	
890-391-6	PH03 A	Total/NA	Solid	5035	
MB 880-910/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-910/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-910/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-391-2	PH01 A	Total/NA	Solid	8015NM Prep	
890-391-3	PH02	Total/NA	Solid	8015NM Prep	
890-391-4	PH02 A	Total/NA	Solid	8015NM Prep	
890-391-5	PH03	Total/NA	Solid	8015NM Prep	
890-391-6	PH03 A	Total/NA	Solid	8015NM Prep	
MB 880-799/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-799/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-799/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-391-2	PH01 A	Total/NA	Solid	8015B NM	799
890-391-3	PH02	Total/NA	Solid	8015B NM	799
890-391-4	PH02 A	Total/NA	Solid	8015B NM	799
890-391-5	PH03	Total/NA	Solid	8015B NM	799
890-391-6	PH03 A	Total/NA	Solid	8015B NM	799
MB 880-799/1-A	Method Blank	Total/NA	Solid	8015B NM	799
LCS 880-799/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	799
LCSD 880-799/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	799

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

GC Semi VOA

Prep Batch: 834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-391-1	PH01	Total/NA	Solid	8015NM Prep	
MB 880-834/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-834/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-834/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-391-1	PH01	Total/NA	Solid	8015B NM	834
MB 880-834/1-A	Method Blank	Total/NA	Solid	8015B NM	834
LCS 880-834/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	834
LCSD 880-834/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	834

HPLC/IC

Leach Batch: 678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-391-1	PH01	Soluble	Solid	DI Leach	
890-391-2	PH01 A	Soluble	Solid	DI Leach	
890-391-3	PH02	Soluble	Solid	DI Leach	
890-391-4	PH02 A	Soluble	Solid	DI Leach	
890-391-5	PH03	Soluble	Solid	DI Leach	
890-391-6	PH03 A	Soluble	Solid	DI Leach	
MB 880-678/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-678/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-678/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-391-1 MS	PH01	Soluble	Solid	DI Leach	
890-391-1 MSD	PH01	Soluble	Solid	DI Leach	

Analysis Batch: 764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-391-1	PH01	Soluble	Solid	300.0	678
890-391-2	PH01 A	Soluble	Solid	300.0	678
890-391-3	PH02	Soluble	Solid	300.0	678
890-391-4	PH02 A	Soluble	Solid	300.0	678
890-391-5	PH03	Soluble	Solid	300.0	678
890-391-6	PH03 A	Soluble	Solid	300.0	678
MB 880-678/1-A	Method Blank	Soluble	Solid	300.0	678
LCS 880-678/2-A	Lab Control Sample	Soluble	Solid	300.0	678
LCSD 880-678/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	678
890-391-1 MS	PH01	Soluble	Solid	300.0	678
890-391-1 MSD	PH01	Soluble	Solid	300.0	678

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

Client Sample ID: PH01
Date Collected: 03/18/21 10:05
Date Received: 03/18/21 14:30

Lab Sample ID: 890-391-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			910	03/26/21 14:28	MR	XM
Total/NA	Analysis	8021B		1	904	03/27/21 03:40	MR	XM
Total/NA	Prep	8015NM Prep			834	03/25/21 09:19	DM	XM
Total/NA	Analysis	8015B NM		1	847	03/25/21 14:31	AM	XM
Soluble	Leach	DI Leach			678	03/22/21 10:54	CH	XM
Soluble	Analysis	300.0		1	764	03/23/21 21:55	WP	XM

Client Sample ID: PH01 A
Date Collected: 03/18/21 10:10
Date Received: 03/18/21 14:30

Lab Sample ID: 890-391-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			910	03/26/21 14:28	MR	XM
Total/NA	Analysis	8021B		1	904	03/27/21 04:00	MR	XM
Total/NA	Prep	8015NM Prep			799	03/24/21 09:46	DM	XM
Total/NA	Analysis	8015B NM		1	832	03/25/21 19:01	AM	XM
Soluble	Leach	DI Leach			678	03/22/21 10:54	CH	XM
Soluble	Analysis	300.0		1	764	03/23/21 22:11	WP	XM

Client Sample ID: PH02
Date Collected: 03/18/21 10:20
Date Received: 03/18/21 14:30

Lab Sample ID: 890-391-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			910	03/26/21 14:28	MR	XM
Total/NA	Analysis	8021B		1	904	03/27/21 04:21	MR	XM
Total/NA	Prep	8015NM Prep			799	03/24/21 09:46	DM	XM
Total/NA	Analysis	8015B NM		1	832	03/25/21 19:22	AM	XM
Soluble	Leach	DI Leach			678	03/22/21 10:54	CH	XM
Soluble	Analysis	300.0		1	764	03/23/21 22:16	WP	XM

Client Sample ID: PH02 A
Date Collected: 03/18/21 10:30
Date Received: 03/18/21 14:30

Lab Sample ID: 890-391-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			910	03/26/21 14:28	MR	XM
Total/NA	Analysis	8021B		1	904	03/27/21 04:41	MR	XM
Total/NA	Prep	8015NM Prep			799	03/24/21 09:46	DM	XM
Total/NA	Analysis	8015B NM		1	832	03/25/21 19:43	AM	XM
Soluble	Leach	DI Leach			678	03/22/21 10:54	CH	XM
Soluble	Analysis	300.0		1	764	03/23/21 22:21	WP	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

Client Sample ID: PH03
Date Collected: 03/18/21 10:40
Date Received: 03/18/21 14:30

Lab Sample ID: 890-391-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			910	03/26/21 14:28	MR	XM
Total/NA	Analysis	8021B		1	904	03/27/21 05:02	MR	XM
Total/NA	Prep	8015NM Prep			799	03/24/21 09:46	DM	XM
Total/NA	Analysis	8015B NM		1	832	03/25/21 20:04	AM	XM
Soluble	Leach	DI Leach			678	03/22/21 10:54	CH	XM
Soluble	Analysis	300.0		1	764	03/23/21 22:26	WP	XM

Client Sample ID: PH03 A
Date Collected: 03/18/21 10:45
Date Received: 03/18/21 14:30

Lab Sample ID: 890-391-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			910	03/26/21 14:28	MR	XM
Total/NA	Analysis	8021B		1	904	03/27/21 11:16	MR	XM
Total/NA	Prep	8015NM Prep			799	03/24/21 09:46	DM	XM
Total/NA	Analysis	8015B NM		1	832	03/25/21 20:25	AM	XM
Soluble	Leach	DI Leach			678	03/22/21 10:54	CH	XM
Soluble	Analysis	300.0		1	764	03/23/21 22:42	WP	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.
Project/Site: Thriller

Job ID: 890-391-1

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

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Method Summary

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-391-1

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: Thriller

Job ID: 890-391-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-391-1	PH01	Solid	03/18/21 10:05	03/18/21 14:30	
890-391-2	PH01 A	Solid	03/18/21 10:10	03/18/21 14:30	
890-391-3	PH02	Solid	03/18/21 10:20	03/18/21 14:30	
890-391-4	PH02 A	Solid	03/18/21 10:30	03/18/21 14:30	
890-391-5	PH03	Solid	03/18/21 10:40	03/18/21 14:30	
890-391-6	PH03 A	Solid	03/18/21 10:45	03/18/21 14:30	

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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 Page 1 of 1

Chain of Custody

Work Order No: _____

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; Corey.Kennedy@wsp.com; Dan.Moir@wsp.com

Project Name:	Thriller	Turn Around	
Project Number:	TE012921012	Routine	<input checked="" type="checkbox"/>
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Well Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Temperature (°C):	121.0	Thermometer ID: <u>MM-007</u>				
Received Intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Correction Factor: <u>-0.2</u>			
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Total Containers:			
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No				

ANALYSIS REQUEST		Work Order Notes	
TPH (EPA 8015)	<input checked="" type="checkbox"/>	Cost Center:	1067741001
BTEX (EPA 0-8021)	<input checked="" type="checkbox"/>	Incident ID:	NAPP2100428768
Chloride (EPA 300.0)	<input checked="" type="checkbox"/>	TAT starts the day received by the lab, if received by 4:30pm	
Number of Containers		Sample Comments	



Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	Other Elements
PH01	S	3.18.21	1005	2'	1	X	X	X	
PH01A	S	3.18.21	1010	4'	1	X	X	X	
PH02	S	3.18.21	1020	2'	1	X	X	X	
PH02A	S	3.18.21	1030	4'	1	X	X	X	
PH03	S	3.18.21	1040	2'	1	X	X	X	
PH03A	S	3.18.21	1045	4'	1	X	X	X	

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 Ti 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 Ti 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. The signature of the contractor 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
	<i>Spencer Lo</i>	3.18.21/1030			

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-391-1

SDG Number:

Login Number: 391
List Number: 1
Creator: Clifton, Cloe

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	

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Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-391-1

SDG Number:

Login Number: 391

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 03/19/21 12:51 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?	N/A	
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").	N/A	

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Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-481-1
Laboratory Sample Delivery Group: TE012921006
Client Project/Site: Corral Canyon 10 E Pipeline

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

Attn: Dan Moir

Authorized for release by:
4/19/2021 11:23:32 AM

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



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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.

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Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Laboratory Job ID: 890-481-1
SDG: TE012921006

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-481-1
SDG: TE012921006

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
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.
α	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: Corral Canyon 10 E Pipeline

Job ID: 890-481-1
SDG: TE012921006

Job ID: 890-481-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-481-1

Receipt

The samples were received on 4/2/2021 9:09 AM. 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 1.2°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS07 (890-481-1), SW10 (890-481-2) and SW11 (890-481-3).

GC VOA

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: Corral Canyon 10 E Pipeline

Job ID: 890-481-1
SDG: TE012921006

Client Sample ID: FS07

Lab Sample ID: 890-481-1

Date Collected: 04/01/21 16:41

Matrix: Solid

Date Received: 04/02/21 09:09

Sample Depth: - 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00281		0.00200	mg/Kg		04/02/21 13:42	04/03/21 20:19	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/02/21 13:42	04/03/21 20:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/02/21 13:42	04/03/21 20:19	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/02/21 13:42	04/03/21 20:19	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/02/21 13:42	04/03/21 20:19	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/02/21 13:42	04/03/21 20:19	1
Total BTEX	0.00281		0.00200	mg/Kg		04/02/21 13:42	04/03/21 20:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	04/02/21 13:42	04/03/21 20:19	1
1,4-Difluorobenzene (Surr)	110		70 - 130	04/02/21 13:42	04/03/21 20:19	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	56.8		50.1	mg/Kg		04/06/21 13:35	04/07/21 05:16	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		04/06/21 13:35	04/07/21 05:16	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		04/06/21 13:35	04/07/21 05:16	1
Total TPH	56.8		50.1	mg/Kg		04/06/21 13:35	04/07/21 05:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	04/06/21 13:35	04/07/21 05:16	1
o-Terphenyl	83		70 - 130	04/06/21 13:35	04/07/21 05:16	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	201		5.00	mg/Kg			04/17/21 18:15	1

Client Sample ID: SW10

Lab Sample ID: 890-481-2

Date Collected: 04/01/21 16:53

Matrix: Solid

Date Received: 04/02/21 09:09

Sample Depth: 0 - 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		04/02/21 13:42	04/03/21 20:40	1
Toluene	<0.00202	U	0.00202	mg/Kg		04/02/21 13:42	04/03/21 20:40	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		04/02/21 13:42	04/03/21 20:40	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		04/02/21 13:42	04/03/21 20:40	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		04/02/21 13:42	04/03/21 20:40	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		04/02/21 13:42	04/03/21 20:40	1
Total BTEX	<0.00202	U	0.00202	mg/Kg		04/02/21 13:42	04/03/21 20:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	04/02/21 13:42	04/03/21 20:40	1
1,4-Difluorobenzene (Surr)	103		70 - 130	04/02/21 13:42	04/03/21 20:40	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-481-1
SDG: TE012921006

Client Sample ID: SW10

Lab Sample ID: 890-481-2

Date Collected: 04/01/21 16:53

Matrix: Solid

Date Received: 04/02/21 09:09

Sample Depth: 0 - 8

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	62.9		50.0	mg/Kg		04/06/21 13:35	04/07/21 05:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/06/21 13:35	04/07/21 05:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/06/21 13:35	04/07/21 05:38	1
Total TPH	62.9		50.0	mg/Kg		04/06/21 13:35	04/07/21 05:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130	04/06/21 13:35	04/07/21 05:38	1
o-Terphenyl	73		70 - 130	04/06/21 13:35	04/07/21 05:38	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.3		4.96	mg/Kg			04/17/21 18:30	1

Client Sample ID: SW11

Lab Sample ID: 890-481-3

Date Collected: 04/01/21 16:59

Matrix: Solid

Date Received: 04/02/21 09:09

Sample Depth: 0 - 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00214		0.00200	mg/Kg		04/02/21 13:42	04/03/21 22:03	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/02/21 13:42	04/03/21 22:03	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/02/21 13:42	04/03/21 22:03	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		04/02/21 13:42	04/03/21 22:03	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/02/21 13:42	04/03/21 22:03	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		04/02/21 13:42	04/03/21 22:03	1
Total BTEX	0.00214		0.00200	mg/Kg		04/02/21 13:42	04/03/21 22:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	04/02/21 13:42	04/03/21 22:03	1
1,4-Difluorobenzene (Surr)	109		70 - 130	04/02/21 13:42	04/03/21 22:03	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		04/06/21 13:35	04/07/21 06:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/06/21 13:35	04/07/21 06:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/06/21 13:35	04/07/21 06:01	1
Total TPH	<50.0	U	50.0	mg/Kg		04/06/21 13:35	04/07/21 06:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130	04/06/21 13:35	04/07/21 06:01	1
o-Terphenyl	76		70 - 130	04/06/21 13:35	04/07/21 06:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1380		25.0	mg/Kg			04/17/21 18:35	5

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-481-1
SDG: TE012921006

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1	DFBZ1
		(70-130)	(70-130)
890-481-1	FS07	97	110
890-481-2	SW10	106	103
890-481-3	SW11	96	109
LCS 880-1248/1-A	Lab Control Sample	97	115
LCSD 880-1248/2-A	Lab Control Sample Dup	88	96
MB 880-1212/5-A	Method Blank	115	94
MB 880-1239/73	Method Blank	117	100

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	OTPH1
		(70-130)	(70-130)
890-481-1	FS07	90	83
890-481-2	SW10	81	73
890-481-3	SW11	83	76
LCS 880-1378/2-A	Lab Control Sample	105	91
LCSD 880-1378/3-A	Lab Control Sample Dup	104	91
MB 880-1378/1-A	Method Blank	104	100

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-481-1
SDG: TE012921006

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-1212/5-A
Matrix: Solid
Analysis Batch: 1239

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1212

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		04/01/21 16:39	04/03/21 06:13	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/01/21 16:39	04/03/21 06:13	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/01/21 16:39	04/03/21 06:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/01/21 16:39	04/03/21 06:13	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/01/21 16:39	04/03/21 06:13	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/01/21 16:39	04/03/21 06:13	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		04/01/21 16:39	04/03/21 06:13	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	115		70 - 130	04/01/21 16:39	04/03/21 06:13	1
1,4-Difluorobenzene (Surr)	94		70 - 130	04/01/21 16:39	04/03/21 06:13	1

Lab Sample ID: MB 880-1239/73
Matrix: Solid
Analysis Batch: 1239

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

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg			04/03/21 17:12	1
Toluene	<0.00200	U	0.00200	mg/Kg			04/03/21 17:12	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			04/03/21 17:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			04/03/21 17:12	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			04/03/21 17:12	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			04/03/21 17:12	1
Total BTEX	<0.00200	U	0.00200	mg/Kg			04/03/21 17:12	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	117		70 - 130		04/03/21 17:12	1
1,4-Difluorobenzene (Surr)	100		70 - 130		04/03/21 17:12	1

Lab Sample ID: LCS 880-1248/1-A
Matrix: Solid
Analysis Batch: 1239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1248

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	0.100	0.1084		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1028		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	0.200	0.2094		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1040		mg/Kg		104	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	115		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-481-1
SDG: TE012921006

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

Lab Sample ID: LCSD 880-1248/2-A
Matrix: Solid
Analysis Batch: 1239

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1248

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
							RPD	Limit		
Benzene	0.100	0.09489		mg/Kg		95	70 - 130	15	35	
Toluene	0.100	0.09916		mg/Kg		99	70 - 130	9	35	
Ethylbenzene	0.100	0.09331		mg/Kg		93	70 - 130	10	35	
m-Xylene & p-Xylene	0.200	0.1859		mg/Kg		93	70 - 130	12	35	
o-Xylene	0.100	0.09199		mg/Kg		92	70 - 130	12	35	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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

Lab Sample ID: MB 880-1378/1-A
Matrix: Solid
Analysis Batch: 1362

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1378

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/06/21 13:35	04/06/21 21:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/06/21 13:35	04/06/21 21:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/06/21 13:35	04/06/21 21:27	1
Total TPH	<50.0	U	50.0	mg/Kg		04/06/21 13:35	04/06/21 21:27	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	104		70 - 130	04/06/21 13:35	04/06/21 21:27	1
o-Terphenyl	100		70 - 130	04/06/21 13:35	04/06/21 21:27	1

Lab Sample ID: LCS 880-1378/2-A
Matrix: Solid
Analysis Batch: 1362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1378

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1146		mg/Kg		115	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	940.9		mg/Kg		94	70 - 130	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	105		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: LCSD 880-1378/3-A
Matrix: Solid
Analysis Batch: 1362

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1378

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
							RPD	Limit		
Gasoline Range Organics (GRO)-C6-C10	1000	1181		mg/Kg		118	70 - 130	3	20	

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-481-1
SDG: TE012921006

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

Lab Sample ID: LCSD 880-1378/3-A
Matrix: Solid
Analysis Batch: 1362

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1378

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)	1000	934.7		mg/Kg		93	70 - 130	1	20
Surrogate		LCSD %Recovery	LCSD Qualifier				Limits		
1-Chlorooctane		104					70 - 130		
o-Terphenyl		91					70 - 130		

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1764/1-A
Matrix: Solid
Analysis Batch: 1932

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			04/17/21 16:28	1

Lab Sample ID: LCS 880-1764/2-A
Matrix: Solid
Analysis Batch: 1932

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	242.2		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-1764/3-A
Matrix: Solid
Analysis Batch: 1932

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	244.8		mg/Kg		98	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-481-1
SDG: TE012921006

GC VOA

Prep Batch: 1212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-1212/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 1239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-481-1	FS07	Total/NA	Solid	8021B	1248
890-481-2	SW10	Total/NA	Solid	8021B	1248
890-481-3	SW11	Total/NA	Solid	8021B	1248
MB 880-1212/5-A	Method Blank	Total/NA	Solid	8021B	1212
MB 880-1239/73	Method Blank	Total/NA	Solid	8021B	
LCS 880-1248/1-A	Lab Control Sample	Total/NA	Solid	8021B	1248
LCSD 880-1248/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1248

Prep Batch: 1248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-481-1	FS07	Total/NA	Solid	5035	
890-481-2	SW10	Total/NA	Solid	5035	
890-481-3	SW11	Total/NA	Solid	5035	
LCS 880-1248/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1248/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 1362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-481-1	FS07	Total/NA	Solid	8015B NM	1378
890-481-2	SW10	Total/NA	Solid	8015B NM	1378
890-481-3	SW11	Total/NA	Solid	8015B NM	1378
MB 880-1378/1-A	Method Blank	Total/NA	Solid	8015B NM	1378
LCS 880-1378/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1378
LCSD 880-1378/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1378

Prep Batch: 1378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-481-1	FS07	Total/NA	Solid	8015NM Prep	
890-481-2	SW10	Total/NA	Solid	8015NM Prep	
890-481-3	SW11	Total/NA	Solid	8015NM Prep	
MB 880-1378/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1378/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1378/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 1764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-481-1	FS07	Soluble	Solid	DI Leach	
890-481-2	SW10	Soluble	Solid	DI Leach	
890-481-3	SW11	Soluble	Solid	DI Leach	
MB 880-1764/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1764/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1764/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-481-1
SDG: TE012921006

HPLC/IC

Analysis Batch: 1932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-481-1	FS07	Soluble	Solid	300.0	1764
890-481-2	SW10	Soluble	Solid	300.0	1764
890-481-3	SW11	Soluble	Solid	300.0	1764
MB 880-1764/1-A	Method Blank	Soluble	Solid	300.0	1764
LCS 880-1764/2-A	Lab Control Sample	Soluble	Solid	300.0	1764
LCSD 880-1764/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1764

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Lab Chronicle

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-481-1
 SDG: TE012921006

Client Sample ID: FS07

Lab Sample ID: 890-481-1

Date Collected: 04/01/21 16:41

Matrix: Solid

Date Received: 04/02/21 09:09

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1248	04/02/21 13:42	KL	XM
Total/NA	Analysis	8021B		1	1239	04/03/21 20:19	KL	XM
Total/NA	Prep	8015NM Prep			1378	04/06/21 13:35	DM	XM
Total/NA	Analysis	8015B NM		1	1362	04/07/21 05:16	AJ	XM
Soluble	Leach	DI Leach			1764	04/14/21 08:53	CH	XM
Soluble	Analysis	300.0		1	1932	04/17/21 18:15	WP	XM

Client Sample ID: SW10

Lab Sample ID: 890-481-2

Date Collected: 04/01/21 16:53

Matrix: Solid

Date Received: 04/02/21 09:09

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1248	04/02/21 13:42	KL	XM
Total/NA	Analysis	8021B		1	1239	04/03/21 20:40	KL	XM
Total/NA	Prep	8015NM Prep			1378	04/06/21 13:35	DM	XM
Total/NA	Analysis	8015B NM		1	1362	04/07/21 05:38	AJ	XM
Soluble	Leach	DI Leach			1764	04/14/21 08:53	CH	XM
Soluble	Analysis	300.0		1	1932	04/17/21 18:30	WP	XM

Client Sample ID: SW11

Lab Sample ID: 890-481-3

Date Collected: 04/01/21 16:59

Matrix: Solid

Date Received: 04/02/21 09:09

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1248	04/02/21 13:42	KL	XM
Total/NA	Analysis	8021B		1	1239	04/03/21 22:03	KL	XM
Total/NA	Prep	8015NM Prep			1378	04/06/21 13:35	DM	XM
Total/NA	Analysis	8015B NM		1	1362	04/07/21 06:01	AJ	XM
Soluble	Leach	DI Leach			1764	04/14/21 08:53	CH	XM
Soluble	Analysis	300.0		5	1932	04/17/21 18:35	WP	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.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-481-1
SDG: TE012921006

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

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Method Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-481-1
SDG: TE012921006

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: Corral Canyon 10 E Pipeline

Job ID: 890-481-1
SDG: TE012921006

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-481-1	FS07	Solid	04/01/21 16:41	04/02/21 09:09	- 8
890-481-2	SW10	Solid	04/01/21 16:53	04/02/21 09:09	0 - 8
890-481-3	SW11	Solid	04/01/21 16:59	04/02/21 09:09	0 - 8

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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)794-1295
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Chain of Custody

Work Order No: _____

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 W. Mermaid St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	jeremy.hill@wsp.com, Dan.Moir@wsp.com

Program: UST/RST	<input type="checkbox"/> RP	<input type="checkbox"/> Crownfields	<input type="checkbox"/> RC	<input type="checkbox"/> Superfund
State of Project:				
Reporting Level: I	<input type="checkbox"/> Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> ST/UST	<input type="checkbox"/> RP
Deliverables: EDD	<input type="checkbox"/>	ADAPT	<input type="checkbox"/>	Other: <input type="checkbox"/>

Project Name:	Cond Canyon 10E pipeline	Turn Around	
Project Number:	TE018121006	Routine	<input checked="" type="checkbox"/>
P.O. Number:	9011 date 12/16/20	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Temperature (°C):	14/1.2	Thermometer ID		ZUM-007		
Received Intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Correction Factor:	-0.2		
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Total Containers:			
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers			Sample Comments
					TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	
FS07	S	4/1/11	1641	8.0'	1	X	X	
SW10	S			0-8'		X	X	
SW11	S			0-8'		X	X	



890-481 Chain of Custody

Work Order Notes
 CC 1081711001
 ADL
 30-015-46325
 Inc.
 N/A 000065449855

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 Ti 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 TI U 1631 / 245.1 / 7470. / 7474 .Hg

Notice: Signature of the 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.

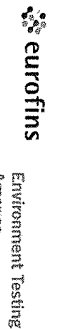
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		4-22-0909			

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Eurofins Xenco, Carlsbad

1089 N Canal St
 Carlsbad NM 88220
 Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking No(s)	COCC No:
Client Contact: Eurofins Xenco		Phone	Kramer, Jessica		890-147 1
Shipping/Receiving			E-Mail: Jessica.kramer@eurofins.com	State of Origin	Page 1 of 1
Company: Eurofins Xenco			Accreditations Required (See note)	NEW Mexico	Page 1 of 1
Address: 1211 W Florida Ave		Due Date Requested	NELAP - Louisiana NELAP - Texas		Job #:
City: Midland		4/8/2021			890-481-1
State, Zip: TX, 79701		TAT Requested (days)			Preservation Codes
Phone: 432-704-5440(Tel)					A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amphot H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:
Email:		WO #:			M - Hexane N - None O - Na2O2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)
Project Name: Corral Canyon 10 E Pipeline		Project #:			
Site:		SSOW#:			
Sample Identification - Client ID (Lab ID)					
FS07 (890-481-1)	Sample Date	Sample Time	Sample Type (G=Comp, B=Trisue A=Al)	Matrix (W=Water, S=Soil, O=Organic, A=Al)	Field Filtered Sample (Yes or No)
	4/1/21	16:41	Mountain	Solid	<input checked="" type="checkbox"/>
	4/1/21	16:53	Mountain	Solid	<input checked="" type="checkbox"/>
	4/1/21	16:59	Mountain	Solid	<input checked="" type="checkbox"/>
	4/1/21		Mountain	Solid	<input checked="" type="checkbox"/>
Analysis Requested					
Perform MS/MSD (Yes or No)					
8015MOD_NM/8016NM_S_Prep Full TPH					
300_ORGFM_28D/DI_LEACH Chloride					
8021B/6035FP_Calc BTEX					
Total Number of containers					
Special Instructions/Note:					

Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon our 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/shipment, 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 compliance to Eurofins Xenco LLC.

Possible Hazard Identification

Unconfirmed 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 *Chris Coffey* Date/Time *4-2-21* Company _____

Relinquished by _____ Date/Time _____ Company _____

Relinquished by _____ Date/Time _____ Company _____

Custody Seals Intact: Custody Seal No Yes No

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-481-1
SDG Number: TE012921006

Login Number: 481
List Number: 1
Creator: Clifton, Cloe

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	

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Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-481-1
SDG Number: TE012921006

Login Number: 481
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 04/02/21 02:26 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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Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-701-1
Laboratory Sample Delivery Group: TE012921006
Client Project/Site: Corral Canyon 10E Pipeline

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

Attn: Dan Moir

Authorized for release by:
5/25/2021 6:12:30 PM

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



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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.

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Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Laboratory Job ID: 890-701-1
SDG: TE012921006

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-701-1
SDG: TE012921006

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high 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
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: Corral Canyon 10E Pipeline

Job ID: 890-701-1
SDG: TE012921006

Job ID: 890-701-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-701-1

Receipt

The samples were received on 5/19/2021 4:45 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 4.6°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: SW12 (890-701-1), SW13 (890-701-2) and SW14 (890-701-3).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 880-3332 and analytical batch 880-3336 were outside control limits: (LCS 880-3332/1-A), (LCSD 880-3332/2-A), (880-2354-A-21-A MS) and (880-2354-A-21-B MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

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 continuing calibration verification (CCV) associated with batch 880-3369 recovered above the upper control limit for Diesel Range Organics (Over C10-C28) The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The samples associated with this CCV that had a detection in this range were only reported if there were multiple runs to confirm.

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: Corral Canyon 10E Pipeline

Job ID: 890-701-1
SDG: TE012921006

Client Sample ID: SW12

Lab Sample ID: 890-701-1

Date Collected: 05/18/21 12:36

Matrix: Solid

Date Received: 05/19/21 16:45

Sample Depth: 0 - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U **	0.00200	mg/Kg		05/21/21 15:00	05/22/21 06:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/21/21 15:00	05/22/21 06:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/21/21 15:00	05/22/21 06:49	1
m-Xylene & p-Xylene	0.00446		0.00399	mg/Kg		05/21/21 15:00	05/22/21 06:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/21/21 15:00	05/22/21 06:49	1
Xylenes, Total	0.00446		0.00399	mg/Kg		05/21/21 15:00	05/22/21 06:49	1
Total BTEX	0.00446		0.00399	mg/Kg		05/21/21 15:00	05/22/21 06:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	140	S1+	70 - 130	05/21/21 15:00	05/22/21 06:49	1
1,4-Difluorobenzene (Surr)	98		70 - 130	05/21/21 15:00	05/22/21 06:49	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		05/21/21 11:01	05/23/21 08:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/21/21 11:01	05/23/21 08:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/21/21 11:01	05/23/21 08:51	1
Total TPH	<50.0	U	50.0	mg/Kg		05/21/21 11:01	05/23/21 08:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130	05/21/21 11:01	05/23/21 08:51	1
o-Terphenyl	81		70 - 130	05/21/21 11:01	05/23/21 08:51	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.0		4.99	mg/Kg			05/24/21 16:24	1

Client Sample ID: SW13

Lab Sample ID: 890-701-2

Date Collected: 05/18/21 12:41

Matrix: Solid

Date Received: 05/19/21 16:45

Sample Depth: 0 - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U **	0.00199	mg/Kg		05/21/21 15:00	05/22/21 07:15	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/21/21 15:00	05/22/21 07:15	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/21/21 15:00	05/22/21 07:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/21/21 15:00	05/22/21 07:15	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/21/21 15:00	05/22/21 07:15	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/21/21 15:00	05/22/21 07:15	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		05/21/21 15:00	05/22/21 07:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	05/21/21 15:00	05/22/21 07:15	1
1,4-Difluorobenzene (Surr)	97		70 - 130	05/21/21 15:00	05/22/21 07:15	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-701-1
SDG: TE012921006

Client Sample ID: SW13

Lab Sample ID: 890-701-2

Date Collected: 05/18/21 12:41

Matrix: Solid

Date Received: 05/19/21 16:45

Sample Depth: 0 - 12

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		05/21/21 11:01	05/23/21 09:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		05/21/21 11:01	05/23/21 09:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/21/21 11:01	05/23/21 09:12	1
Total TPH	<49.9	U	49.9	mg/Kg		05/21/21 11:01	05/23/21 09:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	05/21/21 11:01	05/23/21 09:12	1
o-Terphenyl	93		70 - 130	05/21/21 11:01	05/23/21 09:12	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.6		4.95	mg/Kg			05/24/21 16:39	1

Client Sample ID: SW14

Lab Sample ID: 890-701-3

Date Collected: 05/18/21 12:48

Matrix: Solid

Date Received: 05/19/21 16:45

Sample Depth: 0 - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U **	0.00199	mg/Kg		05/21/21 15:00	05/22/21 07:40	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/21/21 15:00	05/22/21 07:40	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/21/21 15:00	05/22/21 07:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/21/21 15:00	05/22/21 07:40	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/21/21 15:00	05/22/21 07:40	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/21/21 15:00	05/22/21 07:40	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		05/21/21 15:00	05/22/21 07:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	05/21/21 15:00	05/22/21 07:40	1
1,4-Difluorobenzene (Surr)	101		70 - 130	05/21/21 15:00	05/22/21 07:40	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		05/21/21 11:01	05/23/21 09:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/21/21 11:01	05/23/21 09:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/21/21 11:01	05/23/21 09:33	1
Total TPH	<50.0	U	50.0	mg/Kg		05/21/21 11:01	05/23/21 09:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	05/21/21 11:01	05/23/21 09:33	1
o-Terphenyl	86		70 - 130	05/21/21 11:01	05/23/21 09:33	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	218		4.96	mg/Kg			05/24/21 16:44	1

Euofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-701-1
SDG: TE012921006

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-701-1	SW12	140 S1+	98
890-701-2	SW13	116	97
890-701-3	SW14	120	101
LCS 880-3332/1-A	Lab Control Sample	113	101
LCSD 880-3332/2-A	Lab Control Sample Dup	99	105
MB 880-3313/5-A	Method Blank	81	80
MB 880-3332/5-A	Method Blank	76	85

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-701-1	SW12	84	81
890-701-2	SW13	98	93
890-701-3	SW14	91	86
LCS 880-3342/2-A	Lab Control Sample	96	89
LCSD 880-3342/3-A	Lab Control Sample Dup	97	90
MB 880-3342/1-A	Method Blank	100	100

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-701-1
SDG: TE012921006

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3313/5-A
Matrix: Solid
Analysis Batch: 3336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3313

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		05/21/21 11:00	05/21/21 15:57	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/21/21 11:00	05/21/21 15:57	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/21/21 11:00	05/21/21 15:57	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/21/21 11:00	05/21/21 15:57	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/21/21 11:00	05/21/21 15:57	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/21/21 11:00	05/21/21 15:57	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		05/21/21 11:00	05/21/21 15:57	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	81		70 - 130	05/21/21 11:00	05/21/21 15:57	1
1,4-Difluorobenzene (Surr)	80		70 - 130	05/21/21 11:00	05/21/21 15:57	1

Lab Sample ID: MB 880-3332/5-A
Matrix: Solid
Analysis Batch: 3336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3332

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		05/21/21 09:47	05/22/21 05:08	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/21/21 09:47	05/22/21 05:08	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/21/21 09:47	05/22/21 05:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/21/21 09:47	05/22/21 05:08	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/21/21 09:47	05/22/21 05:08	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/21/21 09:47	05/22/21 05:08	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		05/21/21 09:47	05/22/21 05:08	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	76		70 - 130	05/21/21 09:47	05/22/21 05:08	1
1,4-Difluorobenzene (Surr)	85		70 - 130	05/21/21 09:47	05/22/21 05:08	1

Lab Sample ID: LCS 880-3332/1-A
Matrix: Solid
Analysis Batch: 3336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3332

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	0.100	0.1269		mg/Kg		127	70 - 130
Toluene	0.100	0.1162		mg/Kg		116	70 - 130
Ethylbenzene	0.100	0.1116		mg/Kg		112	70 - 130
m-Xylene & p-Xylene	0.200	0.2178		mg/Kg		109	70 - 130
o-Xylene	0.100	0.1039		mg/Kg		104	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-701-1
SDG: TE012921006

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

Lab Sample ID: LCSD 880-3332/2-A
Matrix: Solid
Analysis Batch: 3336

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3332

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
							RPD	Limit		
Benzene	0.100	0.1350	*+	mg/Kg		135	70 - 130	6	35	
Toluene	0.100	0.1082		mg/Kg		108	70 - 130	7	35	
Ethylbenzene	0.100	0.1021		mg/Kg		102	70 - 130	9	35	
m-Xylene & p-Xylene	0.200	0.1988		mg/Kg		99	70 - 130	9	35	
o-Xylene	0.100	0.09510		mg/Kg		95	70 - 130	9	35	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

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

Lab Sample ID: MB 880-3342/1-A
Matrix: Solid
Analysis Batch: 3369

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3342

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		05/21/21 11:01	05/23/21 01:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/21/21 11:01	05/23/21 01:12	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/21/21 11:01	05/23/21 01:12	1
Total TPH	<50.0	U	50.0	mg/Kg		05/21/21 11:01	05/23/21 01:12	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	100		70 - 130	05/21/21 11:01	05/23/21 01:12	1
o-Terphenyl	100		70 - 130	05/21/21 11:01	05/23/21 01:12	1

Lab Sample ID: LCS 880-3342/2-A
Matrix: Solid
Analysis Batch: 3369

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	814.7		mg/Kg		81	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	941.7		mg/Kg		94	70 - 130	

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	96		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: LCSD 880-3342/3-A
Matrix: Solid
Analysis Batch: 3369

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3342

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
							RPD	Limit		
Gasoline Range Organics (GRO)-C6-C10	1000	827.2		mg/Kg		83	70 - 130	2	20	

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-701-1
SDG: TE012921006

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

Lab Sample ID: LCSD 880-3342/3-A
Matrix: Solid
Analysis Batch: 3369

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3342

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)	1000	950.9		mg/Kg		95	70 - 130	1	20
Surrogate		LCSD %Recovery	LCSD Qualifier				Limits		
1-Chlorooctane		97					70 - 130		
o-Terphenyl		90					70 - 130		

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3410/1-A
Matrix: Solid
Analysis Batch: 3426

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			05/24/21 14:56	1

Lab Sample ID: LCS 880-3410/2-A
Matrix: Solid
Analysis Batch: 3426

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	235.3		mg/Kg		94	90 - 110

Lab Sample ID: LCSD 880-3410/3-A
Matrix: Solid
Analysis Batch: 3426

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	231.8		mg/Kg		93	90 - 110	1	20

Lab Sample ID: 890-701-1 MS
Matrix: Solid
Analysis Batch: 3426

Client Sample ID: SW12
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	36.0		250	278.1		mg/Kg		97	90 - 110

Lab Sample ID: 890-701-1 MSD
Matrix: Solid
Analysis Batch: 3426

Client Sample ID: SW12
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	36.0		250	278.4		mg/Kg		97	90 - 110	0	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-701-1
SDG: TE012921006

GC VOA

Prep Batch: 3313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-3313/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 3332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-701-1	SW12	Total/NA	Solid	5035	
890-701-2	SW13	Total/NA	Solid	5035	
890-701-3	SW14	Total/NA	Solid	5035	
MB 880-3332/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3332/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3332/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-701-1	SW12	Total/NA	Solid	8021B	3332
890-701-2	SW13	Total/NA	Solid	8021B	3332
890-701-3	SW14	Total/NA	Solid	8021B	3332
MB 880-3313/5-A	Method Blank	Total/NA	Solid	8021B	3313
MB 880-3332/5-A	Method Blank	Total/NA	Solid	8021B	3332
LCS 880-3332/1-A	Lab Control Sample	Total/NA	Solid	8021B	3332
LCSD 880-3332/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3332

GC Semi VOA

Prep Batch: 3342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-701-1	SW12	Total/NA	Solid	8015NM Prep	
890-701-2	SW13	Total/NA	Solid	8015NM Prep	
890-701-3	SW14	Total/NA	Solid	8015NM Prep	
MB 880-3342/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3342/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3342/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 3369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-701-1	SW12	Total/NA	Solid	8015B NM	3342
890-701-2	SW13	Total/NA	Solid	8015B NM	3342
890-701-3	SW14	Total/NA	Solid	8015B NM	3342
MB 880-3342/1-A	Method Blank	Total/NA	Solid	8015B NM	3342
LCS 880-3342/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3342
LCSD 880-3342/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3342

HPLC/IC

Leach Batch: 3410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-701-1	SW12	Soluble	Solid	DI Leach	
890-701-2	SW13	Soluble	Solid	DI Leach	
890-701-3	SW14	Soluble	Solid	DI Leach	
MB 880-3410/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3410/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3410/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-701-1 MS	SW12	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-701-1
 SDG: TE012921006

HPLC/IC (Continued)

Leach Batch: 3410 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-701-1 MSD	SW12	Soluble	Solid	DI Leach	

Analysis Batch: 3426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-701-1	SW12	Soluble	Solid	300.0	3410
890-701-2	SW13	Soluble	Solid	300.0	3410
890-701-3	SW14	Soluble	Solid	300.0	3410
MB 880-3410/1-A	Method Blank	Soluble	Solid	300.0	3410
LCS 880-3410/2-A	Lab Control Sample	Soluble	Solid	300.0	3410
LCSD 880-3410/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3410
890-701-1 MS	SW12	Soluble	Solid	300.0	3410
890-701-1 MSD	SW12	Soluble	Solid	300.0	3410

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Lab Chronicle

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-701-1
 SDG: TE012921006

Client Sample ID: SW12

Lab Sample ID: 890-701-1

Date Collected: 05/18/21 12:36

Matrix: Solid

Date Received: 05/19/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3332	05/21/21 15:00	MR	XEN MID
Total/NA	Analysis	8021B		1	3336	05/22/21 06:49	MR	XEN MID
Total/NA	Prep	8015NM Prep			3342	05/21/21 11:01	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3369	05/23/21 08:51	AJ	XEN MID
Soluble	Leach	DI Leach			3410	05/24/21 11:24	SC	XEN MID
Soluble	Analysis	300.0		1	3426	05/24/21 16:24	CH	XEN MID

Client Sample ID: SW13

Lab Sample ID: 890-701-2

Date Collected: 05/18/21 12:41

Matrix: Solid

Date Received: 05/19/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3332	05/21/21 15:00	MR	XEN MID
Total/NA	Analysis	8021B		1	3336	05/22/21 07:15	MR	XEN MID
Total/NA	Prep	8015NM Prep			3342	05/21/21 11:01	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3369	05/23/21 09:12	AJ	XEN MID
Soluble	Leach	DI Leach			3410	05/24/21 11:24	SC	XEN MID
Soluble	Analysis	300.0		1	3426	05/24/21 16:39	CH	XEN MID

Client Sample ID: SW14

Lab Sample ID: 890-701-3

Date Collected: 05/18/21 12:48

Matrix: Solid

Date Received: 05/19/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3332	05/21/21 15:00	MR	XEN MID
Total/NA	Analysis	8021B		1	3336	05/22/21 07:40	MR	XEN MID
Total/NA	Prep	8015NM Prep			3342	05/21/21 11:01	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3369	05/23/21 09:33	AJ	XEN MID
Soluble	Leach	DI Leach			3410	05/24/21 11:24	SC	XEN MID
Soluble	Analysis	300.0		1	3426	05/24/21 16:44	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.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-701-1
SDG: TE012921006

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

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Method Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-701-1
SDG: TE012921006

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: Corral Canyon 10E Pipeline

Job ID: 890-701-1
SDG: TE012921006

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-701-1	SW12	Solid	05/18/21 12:36	05/19/21 16:45	0 - 12
890-701-2	SW13	Solid	05/18/21 12:41	05/19/21 16:45	0 - 12
890-701-3	SW14	Solid	05/18/21 12:48	05/19/21 16:45	0 - 12

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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) 820-2000

www.xenco.com Page of

Chain of Custody

Work Order No: _____

Project Manager:	Dan Moir	Bill to: (if different):	Kyle Litrell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 W. Mermod St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Jeremy.Hill@wsp.com, Dan.Moir@wsp.com

Program: UST/PST	<input type="checkbox"/> RP	<input type="checkbox"/> Brownfields	<input type="checkbox"/> RC	<input type="checkbox"/> Perfund	
State of Project:					
Reporting Level:	Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> P/T/UST	<input type="checkbox"/> RP	<input type="checkbox"/> Level IV
Deliverables:	EDD	<input type="checkbox"/>	ADAPT	<input type="checkbox"/>	Other:

Project Name:	Central Camp 1000 0.0.0.0	Turn Around	<input checked="" type="checkbox"/>
Project Number:	TE010421006	Routine	<input checked="" type="checkbox"/>
P.O. Number:	\$11 Int: 1/24/20	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

Temperature (°C):	4.8 / 4.6	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:	S/N 14-0009		
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2		
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Total Containers:			



Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST	Work Order Notes
SW12	S	5/12/11	1236	0-15'	1	X	X	X		CC 1041711001
SW13	S	5/12/11	1241		1	X	X	X		APL
SW14	S	5/12/11	1248		1	X	X	X		30-015-46305
										In
										NA0020765444855
										TAT starts the day received by the lab, if received by 4:30pm
										Sample Comments
										Depth

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 Ti 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 Ti 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
		5/12/11 16:45			

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Eurofins Xenco, Carlisbad

1089 N Canal St
 Carlisbad NM 88220
 Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



Environment Testing
 America

Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking No(s)	COC No:					
Client Contact:	Phone	Kramer Jessica	E-Mail	890-228 1	Page 1 of 1					
Shipping/Receiving	Company	EUROFINS XENCO	Accreditations Required (See note)	State of Origin:	Page 1 of 1					
Address:	1211 W Florida Ave	5/25/2021	NE LAP - Louisiana NE LAP - Texas	New Mexico	Job #:					
City:	Midland	TAT Requested (days)			890-701-1					
State, Zip:	TX 79701									
Phone:	432-704-5440(Tel)	PO #								
Email:		WO #								
Project Name:	Corral Canyon 15 B Dipelm	Project #:								
Site:		SSOV#:								
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BI=Issue, A=AI)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note:
SW#12 (890-701-1)	5/18/21	12:36	Mountain	Solid		X	X	X	1	
SW#13 (890-701-2)	5/18/21	12:41	Mountain	Solid		X	X	X	1	
SW#14 (890-701-3)	5/18/21	12:48	Mountain	Solid		X	X	X	1	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon our subcontracted 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/test/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 compliance to Eurofins Xenco LLC.</p>										
Possible Hazard Identification										
Unconfirmed Deliverable Requested I II III IV Other (Specify) Primary Deliverable Rank 2										
Empty Kit Relinquished by _____ Date _____ Time _____ Method of Shipment: _____										
Relinquished by: <i>[Signature]</i> Date/Time: 5-20-21 Company: _____										
Relinquished by: _____ Date/Time: _____ Company: _____										
Relinquished by: _____ Date/Time: _____ Company: _____										
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No _____ Cooler Temperature(s) °C and Other Remarks: _____										

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-701-1
SDG Number: TE012921006

Login Number: 701
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	

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Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-701-1
SDG Number: TE012921006

Login Number: 701
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 05/21/21 11:17 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	

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Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-702-1
Laboratory Sample Delivery Group: TE012921006
Client Project/Site: Corral Canyon 10E Pipeline

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

Attn: Dan Moir

Authorized for release by:
5/25/2021 6:14:48 PM

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



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

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Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Laboratory Job ID: 890-702-1
SDG: TE012921006

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-702-1
SDG: TE012921006

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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
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.
α	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: Corral Canyon 10E Pipeline

Job ID: 890-702-1
SDG: TE012921006

Job ID: 890-702-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-702-1

Receipt

The samples were received on 5/19/2021 4:47 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 4.6°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: SW15 (890-702-1), SW16 (890-702-2) and SW17 (890-702-3).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 880-3332 and analytical batch 880-3336 were outside control limits: (LCS 880-3332/1-A), (LCSD 880-3332/2-A), (880-2354-A-21-A MS) and (880-2354-A-21-B MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

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: Corral Canyon 10E Pipeline

Job ID: 890-702-1
SDG: TE012921006

Client Sample ID: SW15

Lab Sample ID: 890-702-1

Date Collected: 05/18/21 11:51

Matrix: Solid

Date Received: 05/19/21 16:47

Sample Depth: 0 - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U **	0.00200	mg/Kg		05/21/21 15:00	05/22/21 08:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/21/21 15:00	05/22/21 08:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/21/21 15:00	05/22/21 08:05	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		05/21/21 15:00	05/22/21 08:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/21/21 15:00	05/22/21 08:05	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		05/21/21 15:00	05/22/21 08:05	1
Total BTEX	<0.00401	U	0.00401	mg/Kg		05/21/21 15:00	05/22/21 08:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	05/21/21 15:00	05/22/21 08:05	1
1,4-Difluorobenzene (Surr)	97		70 - 130	05/21/21 15:00	05/22/21 08:05	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		05/21/21 09:00	05/23/21 07:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		05/21/21 09:00	05/23/21 07:07	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/21/21 09:00	05/23/21 07:07	1
Total TPH	<49.9	U	49.9	mg/Kg		05/21/21 09:00	05/23/21 07:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	05/21/21 09:00	05/23/21 07:07	1
o-Terphenyl	109		70 - 130	05/21/21 09:00	05/23/21 07:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2290		25.0	mg/Kg			05/24/21 17:00	5

Client Sample ID: SW16

Lab Sample ID: 890-702-2

Date Collected: 05/18/21 11:59

Matrix: Solid

Date Received: 05/19/21 16:47

Sample Depth: 0 - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U **	0.00201	mg/Kg		05/21/21 15:00	05/22/21 08:31	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/21/21 15:00	05/22/21 08:31	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		05/21/21 15:00	05/22/21 08:31	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/21/21 15:00	05/22/21 08:31	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		05/21/21 15:00	05/22/21 08:31	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/21/21 15:00	05/22/21 08:31	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		05/21/21 15:00	05/22/21 08:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	05/21/21 15:00	05/22/21 08:31	1
1,4-Difluorobenzene (Surr)	102		70 - 130	05/21/21 15:00	05/22/21 08:31	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-702-1
SDG: TE012921006

Client Sample ID: SW16

Lab Sample ID: 890-702-2

Date Collected: 05/18/21 11:59

Matrix: Solid

Date Received: 05/19/21 16:47

Sample Depth: 0 - 12

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		05/21/21 09:00	05/23/21 07:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		05/21/21 09:00	05/23/21 07:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/21/21 09:00	05/23/21 07:28	1
Total TPH	<49.9	U	49.9	mg/Kg		05/21/21 09:00	05/23/21 07:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130	05/21/21 09:00	05/23/21 07:28	1
o-Terphenyl	116		70 - 130	05/21/21 09:00	05/23/21 07:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	670		4.98	mg/Kg			05/24/21 17:05	1

Client Sample ID: SW17

Lab Sample ID: 890-702-3

Date Collected: 05/18/21 12:31

Matrix: Solid

Date Received: 05/19/21 16:47

Sample Depth: 0 - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U **	0.00201	mg/Kg		05/21/21 15:00	05/22/21 08:56	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/21/21 15:00	05/22/21 08:56	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		05/21/21 15:00	05/22/21 08:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/21/21 15:00	05/22/21 08:56	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		05/21/21 15:00	05/22/21 08:56	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/21/21 15:00	05/22/21 08:56	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		05/21/21 15:00	05/22/21 08:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	05/21/21 15:00	05/22/21 08:56	1
1,4-Difluorobenzene (Surr)	102		70 - 130	05/21/21 15:00	05/22/21 08:56	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		05/21/21 09:00	05/23/21 07:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		05/21/21 09:00	05/23/21 07:49	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/21/21 09:00	05/23/21 07:49	1
Total TPH	<49.9	U	49.9	mg/Kg		05/21/21 09:00	05/23/21 07:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	05/21/21 09:00	05/23/21 07:49	1
o-Terphenyl	108		70 - 130	05/21/21 09:00	05/23/21 07:49	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	151		5.00	mg/Kg			05/24/21 17:10	1

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Surrogate Summary

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-702-1
 SDG: TE012921006

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-702-1	SW15	120	97
890-702-2	SW16	119	102
890-702-3	SW17	122	102
LCS 880-3332/1-A	Lab Control Sample	113	101
LCSD 880-3332/2-A	Lab Control Sample Dup	99	105
MB 880-3313/5-A	Method Blank	81	80
MB 880-3332/5-A	Method Blank	76	85

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-702-1	SW15	107	109
890-702-2	SW16	116	116
890-702-3	SW17	108	108
LCS 880-3319/2-A	Lab Control Sample	113	105
LCSD 880-3319/3-A	Lab Control Sample Dup	112	105
MB 880-3319/1-A	Method Blank	118	124

Surrogate Legend
 1CO = 1-Chlorooctane
 OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-702-1
SDG: TE012921006

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3313/5-A
Matrix: Solid
Analysis Batch: 3336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3313

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		05/21/21 11:00	05/21/21 15:57	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/21/21 11:00	05/21/21 15:57	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/21/21 11:00	05/21/21 15:57	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/21/21 11:00	05/21/21 15:57	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/21/21 11:00	05/21/21 15:57	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/21/21 11:00	05/21/21 15:57	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		05/21/21 11:00	05/21/21 15:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		70 - 130			05/21/21 11:00	05/21/21 15:57	1
1,4-Difluorobenzene (Surr)	80		70 - 130			05/21/21 11:00	05/21/21 15:57	1

Lab Sample ID: MB 880-3332/5-A
Matrix: Solid
Analysis Batch: 3336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3332

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		05/21/21 09:47	05/22/21 05:08	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/21/21 09:47	05/22/21 05:08	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/21/21 09:47	05/22/21 05:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/21/21 09:47	05/22/21 05:08	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/21/21 09:47	05/22/21 05:08	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/21/21 09:47	05/22/21 05:08	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		05/21/21 09:47	05/22/21 05:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		70 - 130			05/21/21 09:47	05/22/21 05:08	1
1,4-Difluorobenzene (Surr)	85		70 - 130			05/21/21 09:47	05/22/21 05:08	1

Lab Sample ID: LCS 880-3332/1-A
Matrix: Solid
Analysis Batch: 3336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3332

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	0.100	0.1162		mg/Kg		116	70 - 130
Ethylbenzene	0.100	0.1116		mg/Kg		112	70 - 130
m-Xylene & p-Xylene	0.200	0.2178		mg/Kg		109	70 - 130
o-Xylene	0.100	0.1039		mg/Kg		104	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	113		70 - 130				
1,4-Difluorobenzene (Surr)	101		70 - 130				

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-702-1
SDG: TE012921006

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

Lab Sample ID: LCSD 880-3332/2-A
Matrix: Solid
Analysis Batch: 3336

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3332

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1350	*+	mg/Kg		135	70 - 130	6	35
Toluene	0.100	0.1082		mg/Kg		108	70 - 130	7	35
Ethylbenzene	0.100	0.1021		mg/Kg		102	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.1988		mg/Kg		99	70 - 130	9	35
o-Xylene	0.100	0.09510		mg/Kg		95	70 - 130	9	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

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

Lab Sample ID: MB 880-3319/1-A
Matrix: Solid
Analysis Batch: 3367

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3319

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		05/21/21 09:00	05/23/21 01:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/21/21 09:00	05/23/21 01:12	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/21/21 09:00	05/23/21 01:12	1
Total TPH	<50.0	U	50.0	mg/Kg		05/21/21 09:00	05/23/21 01:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	05/21/21 09:00	05/23/21 01:12	1
o-Terphenyl	124		70 - 130	05/21/21 09:00	05/23/21 01:12	1

Lab Sample ID: LCS 880-3319/2-A
Matrix: Solid
Analysis Batch: 3367

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3319

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	876.0		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1091		mg/Kg		109	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: LCSD 880-3319/3-A
Matrix: Solid
Analysis Batch: 3367

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3319

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	870.1		mg/Kg		87	70 - 130	1	20

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-702-1
SDG: TE012921006

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

Lab Sample ID: LCSD 880-3319/3-A
Matrix: Solid
Analysis Batch: 3367

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3319

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)	1000	1083		mg/Kg		108	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	105		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3410/1-A
Matrix: Solid
Analysis Batch: 3426

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			05/24/21 14:56	1

Lab Sample ID: LCS 880-3410/2-A
Matrix: Solid
Analysis Batch: 3426

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	235.3		mg/Kg		94	90 - 110

Lab Sample ID: LCSD 880-3410/3-A
Matrix: Solid
Analysis Batch: 3426

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	231.8		mg/Kg		93	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-702-1
SDG: TE012921006

GC VOA

Prep Batch: 3313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-3313/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 3332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-702-1	SW15	Total/NA	Solid	5035	
890-702-2	SW16	Total/NA	Solid	5035	
890-702-3	SW17	Total/NA	Solid	5035	
MB 880-3332/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3332/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3332/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-702-1	SW15	Total/NA	Solid	8021B	3332
890-702-2	SW16	Total/NA	Solid	8021B	3332
890-702-3	SW17	Total/NA	Solid	8021B	3332
MB 880-3313/5-A	Method Blank	Total/NA	Solid	8021B	3313
MB 880-3332/5-A	Method Blank	Total/NA	Solid	8021B	3332
LCS 880-3332/1-A	Lab Control Sample	Total/NA	Solid	8021B	3332
LCSD 880-3332/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3332

GC Semi VOA

Prep Batch: 3319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-702-1	SW15	Total/NA	Solid	8015NM Prep	
890-702-2	SW16	Total/NA	Solid	8015NM Prep	
890-702-3	SW17	Total/NA	Solid	8015NM Prep	
MB 880-3319/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3319/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3319/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 3367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-702-1	SW15	Total/NA	Solid	8015B NM	3319
890-702-2	SW16	Total/NA	Solid	8015B NM	3319
890-702-3	SW17	Total/NA	Solid	8015B NM	3319
MB 880-3319/1-A	Method Blank	Total/NA	Solid	8015B NM	3319
LCS 880-3319/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3319
LCSD 880-3319/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3319

HPLC/IC

Leach Batch: 3410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-702-1	SW15	Soluble	Solid	DI Leach	
890-702-2	SW16	Soluble	Solid	DI Leach	
890-702-3	SW17	Soluble	Solid	DI Leach	
MB 880-3410/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3410/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3410/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-702-1
SDG: TE012921006

HPLC/IC

Analysis Batch: 3426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-702-1	SW15	Soluble	Solid	300.0	3410
890-702-2	SW16	Soluble	Solid	300.0	3410
890-702-3	SW17	Soluble	Solid	300.0	3410
MB 880-3410/1-A	Method Blank	Soluble	Solid	300.0	3410
LCS 880-3410/2-A	Lab Control Sample	Soluble	Solid	300.0	3410
LCSD 880-3410/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3410

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Lab Chronicle

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-702-1
 SDG: TE012921006

Client Sample ID: SW15

Lab Sample ID: 890-702-1

Date Collected: 05/18/21 11:51

Matrix: Solid

Date Received: 05/19/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3332	05/21/21 15:00	MR	XEN MID
Total/NA	Analysis	8021B		1	3336	05/22/21 08:05	MR	XEN MID
Total/NA	Prep	8015NM Prep			3319	05/21/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3367	05/23/21 07:07	AJ	XEN MID
Soluble	Leach	DI Leach			3410	05/24/21 11:24	SC	XEN MID
Soluble	Analysis	300.0		5	3426	05/24/21 17:00	CH	XEN MID

Client Sample ID: SW16

Lab Sample ID: 890-702-2

Date Collected: 05/18/21 11:59

Matrix: Solid

Date Received: 05/19/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3332	05/21/21 15:00	MR	XEN MID
Total/NA	Analysis	8021B		1	3336	05/22/21 08:31	MR	XEN MID
Total/NA	Prep	8015NM Prep			3319	05/21/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3367	05/23/21 07:28	AJ	XEN MID
Soluble	Leach	DI Leach			3410	05/24/21 11:24	SC	XEN MID
Soluble	Analysis	300.0		1	3426	05/24/21 17:05	CH	XEN MID

Client Sample ID: SW17

Lab Sample ID: 890-702-3

Date Collected: 05/18/21 12:31

Matrix: Solid

Date Received: 05/19/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3332	05/21/21 15:00	MR	XEN MID
Total/NA	Analysis	8021B		1	3336	05/22/21 08:56	MR	XEN MID
Total/NA	Prep	8015NM Prep			3319	05/21/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3367	05/23/21 07:49	AJ	XEN MID
Soluble	Leach	DI Leach			3410	05/24/21 11:24	SC	XEN MID
Soluble	Analysis	300.0		1	3426	05/24/21 17:10	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.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-702-1
SDG: TE012921006

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

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Method Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-702-1
SDG: TE012921006

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: Corral Canyon 10E Pipeline

Job ID: 890-702-1
SDG: TE012921006

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-702-1	SW15	Solid	05/18/21 11:51	05/19/21 16:47	0 - 12
890-702-2	SW16	Solid	05/18/21 11:59	05/19/21 16:47	0 - 12
890-702-3	SW17	Solid	05/18/21 12:31	05/19/21 16:47	0 - 12

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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)

Chain of Custody

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littlell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 W. Merrimod St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	jeremy.hill@wsp.com, Dan.Moir@wsp.com

Program: UST/PST	<input type="checkbox"/> RP	<input type="checkbox"/> Brownfields	<input type="checkbox"/> RC	<input type="checkbox"/> \$perfund
State of Project:				
Reporting Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> PST/UST	<input type="checkbox"/> RP	<input type="checkbox"/> \$level IV
Deliverables: EDD	<input type="checkbox"/>	ADaPT	<input type="checkbox"/>	Other: _____

Project Name:	TE01981006	Turn Around	
Project Number:	91 Central Camp. 16 E. park	Routine	<input checked="" type="checkbox"/>
P.O. Number:	Spill del. 12/26/20	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

Temperature (°C):	48/46	Thermometer ID	TMM-001
Received Intact:	Yes	Correction Factor:	-0.2
Cooler Custody Seals:	Yes	Total Containers:	
Sample Custody Seals:	Yes		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers			Sample Comments
					TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	
SW15	S	5/14/11	1151	0-10"	1	X	X	
SW16			1159			X	X	
SW17			1231			X	X	

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 Ti 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 Ti 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.

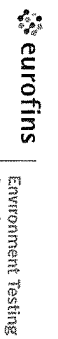
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time



Eurofins Xenco, Carlsbad

1089 N Canal St.
 Carlsbad NM 88220
 Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking No(s)	COC No:				
Client Contact: Shipping/Receiving		Phone:	Kramer, Jessica	New Mexico	890-228 1				
Company: Eurofins Xenco		E-Mail: jessica.kramer@eurofinsel.com	Accreditations Required (See note) NELAP - Louisiana NELAP - Texas		Page: Page 1 of 1				
Address: 1211 W Florida Ave.		Due Date Requested: 5/25/2021	Analysis Requested		Job #: 890-702-1				
City: Midland		TAT Requested (days)	Field Filtered Sample (Yes or No)		Preservation Codes				
State, Zip: TX 79701			Perform MS/MSD (Yes or No)		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 Na2SS2O3 G Antichlor S H2SO4 H Ascorbic Acid T TSP Dodecylhydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other-				
Phone: 432-704-5440(Tel)		PO #:	8015MOD_NM/8015NM_S_Prep Full TPH						
Email: 432-704-5440(Tel)		WO #:	300_ORGFM_28D/DI_LEACH Chloride						
Project Name: Corral Canyon 15 B Dipelm		Project #: 89000004	8021B/5035FP_Calc BTEX						
Site: SSONW#:		SSONW#:							
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=washleach, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note
SW15 (890-702-1)		5/18/21	11 51	Solid	Solid	X	X	X	
SW16 (890-702-2)		5/18/21	11 59	Solid	Solid	X	X	X	
SW17 (890-702-3)		5/18/21	12 31	Solid	Solid	X	X	X	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon our 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/test/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 compliance to Eurofins Xenco LLC</p>									
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Unconfirmed					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested I II III IV Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by					Date	Time	Method of Shipment:		
Relinquished by: <i>Cecilia B 2021</i>		Date/Time:	Company:	Received by: <i>[Signature]</i>	Date/Time:	Company:			
Relinquished by:		Date/Time:	Company:	Received by:	Date/Time:	Company:			
Relinquished by:		Date/Time:	Company:	Received by:	Date/Time:	Company:			
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:					

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-702-1
SDG Number: TE012921006

Login Number: 702
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	

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Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-702-1
SDG Number: TE012921006

Login Number: 702
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 05/21/21 11:18 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	

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Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-729-1
Laboratory Sample Delivery Group: TE012921006
Client Project/Site: Corral Canyon 10 E Pipeline

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

Attn: Dan Moir

Authorized for release by:
5/28/2021 8:11:01 PM

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



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www.eurofinsus.com/Env

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.

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Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Laboratory Job ID: 890-729-1
SDG: TE012921006

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-729-1
SDG: TE012921006

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
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.
α	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: Corral Canyon 10 E Pipeline

Job ID: 890-729-1
SDG: TE012921006

Job ID: 890-729-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-729-1

Receipt

The samples were received on 5/25/2021 1:13 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 2.2°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS08 (890-729-1), FS09 (890-729-2), FS10 (890-729-3) and FS11 (890-729-4).

GC VOA

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.

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-729-1
SDG: TE012921006

Client Sample ID: FS08

Lab Sample ID: 890-729-1

Date Collected: 05/25/21 09:26

Matrix: Solid

Date Received: 05/25/21 13:13

Sample Depth: - 12.0

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/26/21 16:00	05/27/21 13:50	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/26/21 16:00	05/27/21 13:50	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/26/21 16:00	05/27/21 13:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/26/21 16:00	05/27/21 13:50	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/26/21 16:00	05/27/21 13:50	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/26/21 16:00	05/27/21 13:50	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		05/26/21 16:00	05/27/21 13:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	05/26/21 16:00	05/27/21 13:50	1
1,4-Difluorobenzene (Surr)	107		70 - 130	05/26/21 16:00	05/27/21 13:50	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		05/26/21 10:57	05/26/21 20:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/26/21 10:57	05/26/21 20:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/26/21 10:57	05/26/21 20:59	1
Total TPH	<50.0	U	50.0	mg/Kg		05/26/21 10:57	05/26/21 20:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	05/26/21 10:57	05/26/21 20:59	1
o-Terphenyl	105		70 - 130	05/26/21 10:57	05/26/21 20:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1910		25.2	mg/Kg			05/28/21 15:43	5

Client Sample ID: FS09

Lab Sample ID: 890-729-2

Date Collected: 05/25/21 09:55

Matrix: Solid

Date Received: 05/25/21 13:13

Sample Depth: - 12.0

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		05/26/21 16:00	05/27/21 14:11	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/26/21 16:00	05/27/21 14:11	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/26/21 16:00	05/27/21 14:11	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/26/21 16:00	05/27/21 14:11	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/26/21 16:00	05/27/21 14:11	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/26/21 16:00	05/27/21 14:11	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		05/26/21 16:00	05/27/21 14:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	05/26/21 16:00	05/27/21 14:11	1
1,4-Difluorobenzene (Surr)	108		70 - 130	05/26/21 16:00	05/27/21 14:11	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-729-1
 SDG: TE012921006

Client Sample ID: FS09

Lab Sample ID: 890-729-2

Date Collected: 05/25/21 09:55

Matrix: Solid

Date Received: 05/25/21 13:13

Sample Depth: - 12.0

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		05/26/21 10:57	05/26/21 21:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		05/26/21 10:57	05/26/21 21:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/26/21 10:57	05/26/21 21:21	1
Total TPH	<49.9	U	49.9	mg/Kg		05/26/21 10:57	05/26/21 21:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	05/26/21 10:57	05/26/21 21:21	1
o-Terphenyl	98		70 - 130	05/26/21 10:57	05/26/21 21:21	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3550		25.0	mg/Kg			05/28/21 15:48	5

Client Sample ID: FS10

Lab Sample ID: 890-729-3

Date Collected: 05/25/21 10:19

Matrix: Solid

Date Received: 05/25/21 13:13

Sample Depth: - 12.0

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		05/26/21 16:00	05/27/21 14:31	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/26/21 16:00	05/27/21 14:31	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		05/26/21 16:00	05/27/21 14:31	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/26/21 16:00	05/27/21 14:31	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		05/26/21 16:00	05/27/21 14:31	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/26/21 16:00	05/27/21 14:31	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		05/26/21 16:00	05/27/21 14:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	05/26/21 16:00	05/27/21 14:31	1
1,4-Difluorobenzene (Surr)	96		70 - 130	05/26/21 16:00	05/27/21 14:31	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		05/26/21 10:57	05/26/21 21:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/26/21 10:57	05/26/21 21:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/26/21 10:57	05/26/21 21:42	1
Total TPH	<50.0	U	50.0	mg/Kg		05/26/21 10:57	05/26/21 21:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	05/26/21 10:57	05/26/21 21:42	1
o-Terphenyl	99		70 - 130	05/26/21 10:57	05/26/21 21:42	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	201		5.05	mg/Kg			05/28/21 12:37	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-729-1
 SDG: TE012921006

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)
890-729-1	FS08	117	107
890-729-2	FS09	105	108
890-729-3	FS10	108	96
LCS 880-3541/1-A	Lab Control Sample	112	104
LCSD 880-3541/2-A	Lab Control Sample Dup	113	104
MB 880-3541/5-A	Method Blank	87	96

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)
890-729-1	FS08	101	105
890-729-2	FS09	95	98
890-729-3	FS10	101	99
LCS 880-3527/2-A	Lab Control Sample	100	95
LCSD 880-3527/3-A	Lab Control Sample Dup	101	96
MB 880-3527/1-A	Method Blank	100	103

Surrogate Legend
 1CO = 1-Chlorooctane
 OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-729-1
SDG: TE012921006

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3541/5-A
Matrix: Solid
Analysis Batch: 3558

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3541

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/26/21 16:00	05/27/21 11:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/26/21 16:00	05/27/21 11:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/26/21 16:00	05/27/21 11:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/26/21 16:00	05/27/21 11:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/26/21 16:00	05/27/21 11:26	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/26/21 16:00	05/27/21 11:26	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		05/26/21 16:00	05/27/21 11:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	05/26/21 16:00	05/27/21 11:26	1
1,4-Difluorobenzene (Surr)	96		70 - 130	05/26/21 16:00	05/27/21 11:26	1

Lab Sample ID: LCS 880-3541/1-A
Matrix: Solid
Analysis Batch: 3558

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3541

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1094		mg/Kg		109	70 - 130
Toluene	0.100	0.1037		mg/Kg		104	70 - 130
Ethylbenzene	0.100	0.1072		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	0.200	0.2293		mg/Kg		115	70 - 130
o-Xylene	0.100	0.1137		mg/Kg		114	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-3541/2-A
Matrix: Solid
Analysis Batch: 3558

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3541

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1083		mg/Kg		108	70 - 130	1	35
Toluene	0.100	0.1039		mg/Kg		104	70 - 130	0	35
Ethylbenzene	0.100	0.1087		mg/Kg		109	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2353		mg/Kg		118	70 - 130	3	35
o-Xylene	0.100	0.1177		mg/Kg		118	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-729-1
SDG: TE012921006

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

Lab Sample ID: MB 880-3527/1-A
Matrix: Solid
Analysis Batch: 3504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3527

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		05/26/21 10:57	05/26/21 12:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/26/21 10:57	05/26/21 12:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/26/21 10:57	05/26/21 12:45	1
Total TPH	<50.0	U	50.0	mg/Kg		05/26/21 10:57	05/26/21 12:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	05/26/21 10:57	05/26/21 12:45	1
o-Terphenyl	103		70 - 130	05/26/21 10:57	05/26/21 12:45	1

Lab Sample ID: LCS 880-3527/2-A
Matrix: Solid
Analysis Batch: 3504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3527

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1073		mg/Kg		107	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1174		mg/Kg		117	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	95		70 - 130

Lab Sample ID: LCSD 880-3527/3-A
Matrix: Solid
Analysis Batch: 3504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3527

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	967.4		mg/Kg		97	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	1000	1193		mg/Kg		119	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	96		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3529/1-A
Matrix: Solid
Analysis Batch: 3607

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			05/28/21 10:59	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-729-1
SDG: TE012921006

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-3529/2-A
Matrix: Solid
Analysis Batch: 3607

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	243.8		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-3529/3-A
Matrix: Solid
Analysis Batch: 3607

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	243.7		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-729-2 MS
Matrix: Solid
Analysis Batch: 3607

Client Sample ID: FS09
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3550		1250	4843		mg/Kg		104	90 - 110

Lab Sample ID: 890-729-2 MSD
Matrix: Solid
Analysis Batch: 3607

Client Sample ID: FS09
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3550		1250	4838		mg/Kg		103	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-729-1
SDG: TE012921006

GC VOA

Prep Batch: 3541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-729-1	FS08	Total/NA	Solid	5035	
890-729-2	FS09	Total/NA	Solid	5035	
890-729-3	FS10	Total/NA	Solid	5035	
MB 880-3541/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3541/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3541/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-729-1	FS08	Total/NA	Solid	8021B	3541
890-729-2	FS09	Total/NA	Solid	8021B	3541
890-729-3	FS10	Total/NA	Solid	8021B	3541
MB 880-3541/5-A	Method Blank	Total/NA	Solid	8021B	3541
LCS 880-3541/1-A	Lab Control Sample	Total/NA	Solid	8021B	3541
LCSD 880-3541/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3541

GC Semi VOA

Analysis Batch: 3504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-729-1	FS08	Total/NA	Solid	8015B NM	3527
890-729-2	FS09	Total/NA	Solid	8015B NM	3527
890-729-3	FS10	Total/NA	Solid	8015B NM	3527
MB 880-3527/1-A	Method Blank	Total/NA	Solid	8015B NM	3527
LCS 880-3527/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3527
LCSD 880-3527/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3527

Prep Batch: 3527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-729-1	FS08	Total/NA	Solid	8015NM Prep	
890-729-2	FS09	Total/NA	Solid	8015NM Prep	
890-729-3	FS10	Total/NA	Solid	8015NM Prep	
MB 880-3527/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3527/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3527/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 3529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-729-1	FS08	Soluble	Solid	DI Leach	
890-729-2	FS09	Soluble	Solid	DI Leach	
890-729-3	FS10	Soluble	Solid	DI Leach	
MB 880-3529/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3529/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3529/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-729-2 MS	FS09	Soluble	Solid	DI Leach	
890-729-2 MSD	FS09	Soluble	Solid	DI Leach	

Analysis Batch: 3607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-729-1	FS08	Soluble	Solid	300.0	3529

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-729-1
SDG: TE012921006

HPLC/IC (Continued)

Analysis Batch: 3607 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-729-2	FS09	Soluble	Solid	300.0	3529
890-729-3	FS10	Soluble	Solid	300.0	3529
MB 880-3529/1-A	Method Blank	Soluble	Solid	300.0	3529
LCS 880-3529/2-A	Lab Control Sample	Soluble	Solid	300.0	3529
LCSD 880-3529/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3529
890-729-2 MS	FS09	Soluble	Solid	300.0	3529
890-729-2 MSD	FS09	Soluble	Solid	300.0	3529

- 1
- 2
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- 12
- 13
- 14

Lab Chronicle

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-729-1
 SDG: TE012921006

Client Sample ID: FS08

Lab Sample ID: 890-729-1

Date Collected: 05/25/21 09:26

Matrix: Solid

Date Received: 05/25/21 13:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3541	05/26/21 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3558	05/27/21 13:50	KL	XEN MID
Total/NA	Prep	8015NM Prep			3527	05/26/21 10:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3504	05/26/21 20:59	AJ	XEN MID
Soluble	Leach	DI Leach			3529	05/26/21 10:59	CH	XEN MID
Soluble	Analysis	300.0		5	3607	05/28/21 15:43	SC	XEN MID

Client Sample ID: FS09

Lab Sample ID: 890-729-2

Date Collected: 05/25/21 09:55

Matrix: Solid

Date Received: 05/25/21 13:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3541	05/26/21 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3558	05/27/21 14:11	KL	XEN MID
Total/NA	Prep	8015NM Prep			3527	05/26/21 10:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3504	05/26/21 21:21	AJ	XEN MID
Soluble	Leach	DI Leach			3529	05/26/21 10:59	CH	XEN MID
Soluble	Analysis	300.0		5	3607	05/28/21 15:48	SC	XEN MID

Client Sample ID: FS10

Lab Sample ID: 890-729-3

Date Collected: 05/25/21 10:19

Matrix: Solid

Date Received: 05/25/21 13:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3541	05/26/21 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3558	05/27/21 14:31	KL	XEN MID
Total/NA	Prep	8015NM Prep			3527	05/26/21 10:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3504	05/26/21 21:42	AJ	XEN MID
Soluble	Leach	DI Leach			3529	05/26/21 10:59	CH	XEN MID
Soluble	Analysis	300.0		1	3607	05/28/21 12:37	SC	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.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-729-1
SDG: TE012921006

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
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- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-729-1
SDG: TE012921006

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: Corral Canyon 10 E Pipeline

Job ID: 890-729-1
SDG: TE012921006

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-729-1	FS08	Solid	05/25/21 09:26	05/25/21 13:13	- 12.0
890-729-2	FS09	Solid	05/25/21 09:55	05/25/21 13:13	- 12.0
890-729-3	FS10	Solid	05/25/21 10:19	05/25/21 13:13	- 12.0

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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 (813-820-2000)

Chain of Custody

Work Order No: _____

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Page _____ of _____

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littlell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 W. Mermod St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	jeremy.hill@wsp.com, Dan.Moir@wsp.com

Program:	UST/PST	<input type="checkbox"/> RP	<input type="checkbox"/> Trowfields	<input type="checkbox"/> RC	<input type="checkbox"/> \$perfund
State of Project:					
Reporting Level:	Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> PT/UST	<input type="checkbox"/> RP	<input type="checkbox"/> Level IV
Deliverables:	EDD	<input type="checkbox"/>	ADAPT	<input type="checkbox"/>	Other: _____

Project Name:	Conal Canyon WE P. 16th	Turn Around	
Project Number:	TE 01992/006	Routine	<input checked="" type="checkbox"/>
P.O. Number:	Sp-11 date 12/26/20	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Temperature (°C):	2.4/2.2	Thermometer ID				
Received Intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Correction Factor:			2WML-007
Cooler Custody Seals:	Yes	<input type="checkbox"/> No	Total Containers:			-0.2
Sample Custody Seals:	Yes	<input type="checkbox"/> No				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	Sample Comments
F508	S	5-5-11	0926	12.0'	1	X	X	X	Composite
F509			0955						
F510			1019						
F511			1036						

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 Ti 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 Ti U 1631/245.1/2470.1/2474.Hg

Notice: Signature of this document and requirement 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
		5.25.21 1313			

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-729-1
SDG Number: TE012921006

Login Number: 729
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	

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Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-729-1
SDG Number: TE012921006

Login Number: 729
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 05/26/21 11:22 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	

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Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-741-1
Laboratory Sample Delivery Group: TE012921006
Client Project/Site: Corral Canyon 10 E Pipeline

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

Attn: Dan Moir

Authorized for release by:
6/2/2021 2:01:43 PM

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



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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.

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Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Laboratory Job ID: 890-741-1
SDG: TE012921006

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-741-1
SDG: TE012921006

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low 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.
α	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: Corral Canyon 10 E Pipeline

Job ID: 890-741-1
SDG: TE012921006

Job ID: 890-741-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-741-1

Comments

No additional comments.

Receipt

The samples were received on 5/27/2021 4:08 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 was 5.2° C.

GC VOA

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

GC Semi VOA

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-741-1
SDG: TE012921006

Client Sample ID: SW18

Lab Sample ID: 890-741-1

Date Collected: 05/27/21 12:33

Matrix: Solid

Date Received: 05/27/21 16:08

Sample Depth: 0 - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/29/21 11:13	05/29/21 19:52	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/29/21 11:13	05/29/21 19:52	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/29/21 11:13	05/29/21 19:52	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/29/21 11:13	05/29/21 19:52	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/29/21 11:13	05/29/21 19:52	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/29/21 11:13	05/29/21 19:52	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		05/29/21 11:13	05/29/21 19:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	05/29/21 11:13	05/29/21 19:52	1
1,4-Difluorobenzene (Surr)	96		70 - 130	05/29/21 11:13	05/29/21 19:52	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		05/29/21 12:49	05/29/21 16:53	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		05/29/21 12:49	05/29/21 16:53	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		05/29/21 12:49	05/29/21 16:53	1
Total TPH	<49.8	U	49.8	mg/Kg		05/29/21 12:49	05/29/21 16:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	05/29/21 12:49	05/29/21 16:53	1
o-Terphenyl	79		70 - 130	05/29/21 12:49	05/29/21 16:53	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	397		5.02	mg/Kg			06/02/21 00:28	1

Client Sample ID: SW19

Lab Sample ID: 890-741-2

Date Collected: 05/27/21 13:11

Matrix: Solid

Date Received: 05/27/21 16:08

Sample Depth: 0 - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		05/29/21 11:13	05/29/21 20:13	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/29/21 11:13	05/29/21 20:13	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		05/29/21 11:13	05/29/21 20:13	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/29/21 11:13	05/29/21 20:13	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		05/29/21 11:13	05/29/21 20:13	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/29/21 11:13	05/29/21 20:13	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		05/29/21 11:13	05/29/21 20:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	05/29/21 11:13	05/29/21 20:13	1
1,4-Difluorobenzene (Surr)	95		70 - 130	05/29/21 11:13	05/29/21 20:13	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-741-1
 SDG: TE012921006

Client Sample ID: SW19

Lab Sample ID: 890-741-2

Date Collected: 05/27/21 13:11

Matrix: Solid

Date Received: 05/27/21 16:08

Sample Depth: 0 - 12

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		05/29/21 12:49	05/29/21 17:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/29/21 12:49	05/29/21 17:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/29/21 12:49	05/29/21 17:14	1
Total TPH	<50.0	U	50.0	mg/Kg		05/29/21 12:49	05/29/21 17:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130	05/29/21 12:49	05/29/21 17:14	1
o-Terphenyl	69	S1-	70 - 130	05/29/21 12:49	05/29/21 17:14	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	141		4.97	mg/Kg			06/02/21 00:43	1

Client Sample ID: SW20

Lab Sample ID: 890-741-3

Date Collected: 05/27/21 13:19

Matrix: Solid

Date Received: 05/27/21 16:08

Sample Depth: 0 - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		05/29/21 11:13	05/29/21 20:33	1
Toluene	<0.00198	U	0.00198	mg/Kg		05/29/21 11:13	05/29/21 20:33	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		05/29/21 11:13	05/29/21 20:33	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		05/29/21 11:13	05/29/21 20:33	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		05/29/21 11:13	05/29/21 20:33	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		05/29/21 11:13	05/29/21 20:33	1
Total BTEX	<0.00397	U	0.00397	mg/Kg		05/29/21 11:13	05/29/21 20:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	05/29/21 11:13	05/29/21 20:33	1
1,4-Difluorobenzene (Surr)	95		70 - 130	05/29/21 11:13	05/29/21 20:33	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		05/29/21 12:49	05/29/21 17:35	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		05/29/21 12:49	05/29/21 17:35	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		05/29/21 12:49	05/29/21 17:35	1
Total TPH	<49.8	U	49.8	mg/Kg		05/29/21 12:49	05/29/21 17:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130	05/29/21 12:49	05/29/21 17:35	1
o-Terphenyl	70		70 - 130	05/29/21 12:49	05/29/21 17:35	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	181		5.05	mg/Kg			06/02/21 00:48	1

Euofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-741-1
SDG: TE012921006

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1	DFBZ1
		(70-130)	(70-130)
890-741-1	SW18	106	96
890-741-2	SW19	103	95
890-741-3	SW20	94	95
LCS 880-3652/1-A	Lab Control Sample	106	106
LCSD 880-3652/2-A	Lab Control Sample Dup	114	105
MB 880-3652/5-A	Method Blank	90	91

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	OTPH1
		(70-130)	(70-130)
890-741-1	SW18	93	79
890-741-2	SW19	83	69 S1-
890-741-3	SW20	84	70
LCS 880-3659/2-A	Lab Control Sample	93	76
LCSD 880-3659/3-A	Lab Control Sample Dup	92	74
MB 880-3659/1-A	Method Blank	96	84

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-741-1
SDG: TE012921006

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3652/5-A
Matrix: Solid
Analysis Batch: 3653

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3652

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/29/21 11:13	05/29/21 14:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/29/21 11:13	05/29/21 14:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/29/21 11:13	05/29/21 14:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/29/21 11:13	05/29/21 14:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/29/21 11:13	05/29/21 14:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/29/21 11:13	05/29/21 14:25	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		05/29/21 11:13	05/29/21 14:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	05/29/21 11:13	05/29/21 14:25	1
1,4-Difluorobenzene (Surr)	91		70 - 130	05/29/21 11:13	05/29/21 14:25	1

Lab Sample ID: LCS 880-3652/1-A
Matrix: Solid
Analysis Batch: 3653

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3652

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1125		mg/Kg		112	70 - 130
Toluene	0.100	0.1053		mg/Kg		105	70 - 130
Ethylbenzene	0.100	0.1056		mg/Kg		106	70 - 130
m-Xylene & p-Xylene	0.200	0.2268		mg/Kg		113	70 - 130
o-Xylene	0.100	0.1142		mg/Kg		114	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-3652/2-A
Matrix: Solid
Analysis Batch: 3653

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3652

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1095		mg/Kg		109	70 - 130	3	35
Toluene	0.100	0.1048		mg/Kg		105	70 - 130	1	35
Ethylbenzene	0.100	0.1064		mg/Kg		106	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2317		mg/Kg		116	70 - 130	2	35
o-Xylene	0.100	0.1170		mg/Kg		117	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-741-1
SDG: TE012921006

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

Lab Sample ID: MB 880-3659/1-A
Matrix: Solid
Analysis Batch: 3662

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3659

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		05/29/21 12:49	05/29/21 14:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/29/21 12:49	05/29/21 14:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/29/21 12:49	05/29/21 14:42	1
Total TPH	<50.0	U	50.0	mg/Kg		05/29/21 12:49	05/29/21 14:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	05/29/21 12:49	05/29/21 14:42	1
o-Terphenyl	84		70 - 130	05/29/21 12:49	05/29/21 14:42	1

Lab Sample ID: LCS 880-3659/2-A
Matrix: Solid
Analysis Batch: 3662

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3659

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	813.2		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	1000	895.2		mg/Kg		90	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	76		70 - 130

Lab Sample ID: LCSD 880-3659/3-A
Matrix: Solid
Analysis Batch: 3662

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3659

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	799.2		mg/Kg		80	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	872.7		mg/Kg		87	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	74		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3679/1-A
Matrix: Solid
Analysis Batch: 3709

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			06/01/21 22:46	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-741-1
 SDG: TE012921006

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-3679/2-A
Matrix: Solid
Analysis Batch: 3709

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	246.1		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-3679/3-A
Matrix: Solid
Analysis Batch: 3709

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	246.3		mg/Kg		99	90 - 110	0	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-741-1
SDG: TE012921006

GC VOA

Prep Batch: 3652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-741-1	SW18	Total/NA	Solid	5035	
890-741-2	SW19	Total/NA	Solid	5035	
890-741-3	SW20	Total/NA	Solid	5035	
MB 880-3652/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3652/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3652/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-741-1	SW18	Total/NA	Solid	8021B	3652
890-741-2	SW19	Total/NA	Solid	8021B	3652
890-741-3	SW20	Total/NA	Solid	8021B	3652
MB 880-3652/5-A	Method Blank	Total/NA	Solid	8021B	3652
LCS 880-3652/1-A	Lab Control Sample	Total/NA	Solid	8021B	3652
LCSD 880-3652/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3652

GC Semi VOA

Prep Batch: 3659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-741-1	SW18	Total/NA	Solid	8015NM Prep	
890-741-2	SW19	Total/NA	Solid	8015NM Prep	
890-741-3	SW20	Total/NA	Solid	8015NM Prep	
MB 880-3659/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3659/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3659/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 3662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-741-1	SW18	Total/NA	Solid	8015B NM	3659
890-741-2	SW19	Total/NA	Solid	8015B NM	3659
890-741-3	SW20	Total/NA	Solid	8015B NM	3659
MB 880-3659/1-A	Method Blank	Total/NA	Solid	8015B NM	3659
LCS 880-3659/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3659
LCSD 880-3659/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3659

HPLC/IC

Leach Batch: 3679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-741-1	SW18	Soluble	Solid	DI Leach	
890-741-2	SW19	Soluble	Solid	DI Leach	
890-741-3	SW20	Soluble	Solid	DI Leach	
MB 880-3679/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3679/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3679/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 3709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-741-1	SW18	Soluble	Solid	300.0	3679
890-741-2	SW19	Soluble	Solid	300.0	3679
890-741-3	SW20	Soluble	Solid	300.0	3679

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-741-1
SDG: TE012921006

HPLC/IC (Continued)

Analysis Batch: 3709 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-3679/1-A	Method Blank	Soluble	Solid	300.0	3679
LCS 880-3679/2-A	Lab Control Sample	Soluble	Solid	300.0	3679
LCSD 880-3679/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3679

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Lab Chronicle

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-741-1
 SDG: TE012921006

Client Sample ID: SW18

Lab Sample ID: 890-741-1

Date Collected: 05/27/21 12:33

Matrix: Solid

Date Received: 05/27/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3652	05/29/21 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	3653	05/29/21 19:52	KL	XEN MID
Total/NA	Prep	8015NM Prep			3659	05/29/21 12:49	AM	XEN MID
Total/NA	Analysis	8015B NM		1	3662	05/29/21 16:53	AM	XEN MID
Soluble	Leach	DI Leach			3679	06/01/21 09:04	CH	XEN MID
Soluble	Analysis	300.0		1	3709	06/02/21 00:28	CH	XEN MID

Client Sample ID: SW19

Lab Sample ID: 890-741-2

Date Collected: 05/27/21 13:11

Matrix: Solid

Date Received: 05/27/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3652	05/29/21 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	3653	05/29/21 20:13	KL	XEN MID
Total/NA	Prep	8015NM Prep			3659	05/29/21 12:49	AM	XEN MID
Total/NA	Analysis	8015B NM		1	3662	05/29/21 17:14	AM	XEN MID
Soluble	Leach	DI Leach			3679	06/01/21 09:04	CH	XEN MID
Soluble	Analysis	300.0		1	3709	06/02/21 00:43	CH	XEN MID

Client Sample ID: SW20

Lab Sample ID: 890-741-3

Date Collected: 05/27/21 13:19

Matrix: Solid

Date Received: 05/27/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3652	05/29/21 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	3653	05/29/21 20:33	KL	XEN MID
Total/NA	Prep	8015NM Prep			3659	05/29/21 12:49	AM	XEN MID
Total/NA	Analysis	8015B NM		1	3662	05/29/21 17:35	AM	XEN MID
Soluble	Leach	DI Leach			3679	06/01/21 09:04	CH	XEN MID
Soluble	Analysis	300.0		1	3709	06/02/21 00:48	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.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-741-1
SDG: TE012921006

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

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Method Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 E Pipeline

Job ID: 890-741-1
SDG: TE012921006

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: Corral Canyon 10 E Pipeline

Job ID: 890-741-1
SDG: TE012921006

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-741-1	SW18	Solid	05/27/21 12:33	05/27/21 16:08	0 - 12
890-741-2	SW19	Solid	05/27/21 13:11	05/27/21 16:08	0 - 12
890-741-3	SW20	Solid	05/27/21 13:19	05/27/21 16:08	0 - 12

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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

Chain of Custody

Work Order No: _____

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Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 W. Mermod St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Jeremy.Hill@wsp.com, Dan.Moir@wsp.com

Program:	UST/PST	<input type="checkbox"/> RP	<input type="checkbox"/> Brownfields	<input type="checkbox"/> RC	<input type="checkbox"/> Superfund
State of Project:	Reporting Level I	<input type="checkbox"/> Level III	<input type="checkbox"/> P1/UST	<input type="checkbox"/> RP	<input type="checkbox"/> P1/IV
Deliverables:	EDD	<input type="checkbox"/>	ADAPT	<input type="checkbox"/>	Other:

Project Name:	Condenser 1675 Pkline	Turn Around	
Project Number:	TR 019921006	Routine	<input checked="" type="checkbox"/>
P.O. Number:	Spill abt 18/20/18	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Temperature (°C):	5.4/5.2	Thermometer ID		TMM-009		
Received Intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Correction Factor:	-0.2		
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Total Containers:	-		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers			Sample Comments	
					TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)		
SW18	S	5/27/18	1233	6-12'	X	1	1	1	Adapted Samples to
SW19	S		1311			1	1	1	
SW20	S		1314			1	1	1	

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 Ti 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 Ti U 1631/245.1/7470.1/7471.Hg

Notice: Signature of the 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
		5-27-21-1000			

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-741-1
SDG Number: TE012921006

Login Number: 741
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	

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Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-741-1

SDG Number: TE012921006

Login Number: 741

List Source: Eurofins Xenco, Midland

List Number: 2

List Creation: 05/29/21 11:02 AM

Creator: Kramer, Jessica

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?	N/A	
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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Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-769-1
Laboratory Sample Delivery Group: TE012921006
Client Project/Site: Corral Canyon 10E Pipeline

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

Attn: Kalei Jennings

Authorized for release by:
6/8/2021 2:27:55 PM

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



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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.

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Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Laboratory Job ID: 890-769-1
SDG: TE012921006

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-769-1
SDG: TE012921006

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
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.
α	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: Corral Canyon 10E Pipeline

Job ID: 890-769-1
SDG: TE012921006

Job ID: 890-769-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-769-1

Comments

No additional comments.

Receipt

The samples were received on 6/2/2021 3:50 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 was 4.0° C.

GC VOA

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

GC Semi VOA

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-769-1
SDG: TE012921006

Client Sample ID: SW21

Lab Sample ID: 890-769-1

Date Collected: 06/02/21 12:58

Matrix: Solid

Date Received: 06/02/21 15:50

Sample Depth: 0 - 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		06/04/21 08:00	06/04/21 13:31	1
Toluene	<0.00198	U	0.00198	mg/Kg		06/04/21 08:00	06/04/21 13:31	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		06/04/21 08:00	06/04/21 13:31	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		06/04/21 08:00	06/04/21 13:31	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		06/04/21 08:00	06/04/21 13:31	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		06/04/21 08:00	06/04/21 13:31	1
Total BTEX	<0.00396	U	0.00396	mg/Kg		06/04/21 08:00	06/04/21 13:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	06/04/21 08:00	06/04/21 13:31	1
1,4-Difluorobenzene (Surr)	99		70 - 130	06/04/21 08:00	06/04/21 13:31	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		06/07/21 14:43	06/08/21 02:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/07/21 14:43	06/08/21 02:11	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/07/21 14:43	06/08/21 02:11	1
Total TPH	<49.9	U	49.9	mg/Kg		06/07/21 14:43	06/08/21 02:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	06/07/21 14:43	06/08/21 02:11	1
o-Terphenyl	99		70 - 130	06/07/21 14:43	06/08/21 02:11	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	116		4.97	mg/Kg			06/07/21 18:03	1

Client Sample ID: SW22

Lab Sample ID: 890-769-2

Date Collected: 06/02/21 13:12

Matrix: Solid

Date Received: 06/02/21 15:50

Sample Depth: 0 - 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		06/04/21 08:00	06/04/21 13:52	1
Toluene	<0.00198	U	0.00198	mg/Kg		06/04/21 08:00	06/04/21 13:52	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		06/04/21 08:00	06/04/21 13:52	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		06/04/21 08:00	06/04/21 13:52	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		06/04/21 08:00	06/04/21 13:52	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		06/04/21 08:00	06/04/21 13:52	1
Total BTEX	<0.00397	U	0.00397	mg/Kg		06/04/21 08:00	06/04/21 13:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	06/04/21 08:00	06/04/21 13:52	1
1,4-Difluorobenzene (Surr)	102		70 - 130	06/04/21 08:00	06/04/21 13:52	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-769-1
 SDG: TE012921006

Client Sample ID: SW22

Lab Sample ID: 890-769-2

Date Collected: 06/02/21 13:12

Matrix: Solid

Date Received: 06/02/21 15:50

Sample Depth: 0 - 8

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		06/07/21 14:43	06/08/21 02:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/07/21 14:43	06/08/21 02:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/07/21 14:43	06/08/21 02:32	1
Total TPH	<49.9	U	49.9	mg/Kg		06/07/21 14:43	06/08/21 02:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	06/07/21 14:43	06/08/21 02:32	1
o-Terphenyl	113		70 - 130	06/07/21 14:43	06/08/21 02:32	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	51.4		4.98	mg/Kg			06/07/21 18:09	1

Surrogate Summary

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-769-1
 SDG: TE012921006

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)
890-769-1	SW21	108	99
890-769-2	SW22	111	102
LCS 880-3777/1-A	Lab Control Sample	115	104
LCSD 880-3777/2-A	Lab Control Sample Dup	112	104
MB 880-3777/5-A	Method Blank	88	92

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)
890-769-1	SW21	103	99
890-769-2	SW22	118	113
LCS 880-3863/2-A	Lab Control Sample	97	87
LCSD 880-3863/3-A	Lab Control Sample Dup	99	92
MB 880-3863/1-A	Method Blank	120	116

Surrogate Legend
 1CO = 1-Chlorooctane
 OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-769-1
SDG: TE012921006

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3777/5-A
Matrix: Solid
Analysis Batch: 3787

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3777

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/04/21 08:00	06/04/21 12:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/04/21 08:00	06/04/21 12:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		06/04/21 08:00	06/04/21 12:09	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	88		70 - 130	06/04/21 08:00	06/04/21 12:09	1
1,4-Difluorobenzene (Surr)	92		70 - 130	06/04/21 08:00	06/04/21 12:09	1

Lab Sample ID: LCS 880-3777/1-A
Matrix: Solid
Analysis Batch: 3787

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3777

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	0.100	0.09657		mg/Kg		97	70 - 130
Toluene	0.100	0.09386		mg/Kg		94	70 - 130
Ethylbenzene	0.100	0.09879		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.2112		mg/Kg		106	70 - 130
o-Xylene	0.100	0.1071		mg/Kg		107	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-3777/2-A
Matrix: Solid
Analysis Batch: 3787

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3777

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits	RPD	
		Result	Qualifier					RPD	Limit
Benzene	0.100	0.09276		mg/Kg		93	70 - 130	4	35
Toluene	0.100	0.08908		mg/Kg		89	70 - 130	5	35
Ethylbenzene	0.100	0.09228		mg/Kg		92	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1962		mg/Kg		98	70 - 130	7	35
o-Xylene	0.100	0.09994		mg/Kg		100	70 - 130	7	35

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-769-1
SDG: TE012921006

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

Lab Sample ID: MB 880-3863/1-A
Matrix: Solid
Analysis Batch: 3855

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3863

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		06/07/21 14:43	06/07/21 21:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/07/21 14:43	06/07/21 21:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/07/21 14:43	06/07/21 21:40	1
Total TPH	<50.0	U	50.0	mg/Kg		06/07/21 14:43	06/07/21 21:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	06/07/21 14:43	06/07/21 21:40	1
o-Terphenyl	116		70 - 130	06/07/21 14:43	06/07/21 21:40	1

Lab Sample ID: LCS 880-3863/2-A
Matrix: Solid
Analysis Batch: 3855

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	809.9		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	1000	946.9		mg/Kg		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	87		70 - 130

Lab Sample ID: LCSD 880-3863/3-A
Matrix: Solid
Analysis Batch: 3855

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3863

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	879.0		mg/Kg		88	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	992.3		mg/Kg		99	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	92		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3792/1-A
Matrix: Solid
Analysis Batch: 3857

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			06/07/21 15:30	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-769-1
 SDG: TE012921006

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-3792/2-A
 Matrix: Solid
 Analysis Batch: 3857

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	241.9		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-3792/3-A
 Matrix: Solid
 Analysis Batch: 3857

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	242.4		mg/Kg		97	90 - 110	0	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-769-1
SDG: TE012921006

GC VOA

Prep Batch: 3777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-769-1	SW21	Total/NA	Solid	5035	
890-769-2	SW22	Total/NA	Solid	5035	
MB 880-3777/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3777/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3777/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-769-1	SW21	Total/NA	Solid	8021B	3777
890-769-2	SW22	Total/NA	Solid	8021B	3777
MB 880-3777/5-A	Method Blank	Total/NA	Solid	8021B	3777
LCS 880-3777/1-A	Lab Control Sample	Total/NA	Solid	8021B	3777
LCSD 880-3777/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3777

GC Semi VOA

Analysis Batch: 3855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-769-1	SW21	Total/NA	Solid	8015B NM	3863
890-769-2	SW22	Total/NA	Solid	8015B NM	3863
MB 880-3863/1-A	Method Blank	Total/NA	Solid	8015B NM	3863
LCS 880-3863/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3863
LCSD 880-3863/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3863

Prep Batch: 3863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-769-1	SW21	Total/NA	Solid	8015NM Prep	
890-769-2	SW22	Total/NA	Solid	8015NM Prep	
MB 880-3863/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3863/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3863/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 3792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-769-1	SW21	Soluble	Solid	DI Leach	
890-769-2	SW22	Soluble	Solid	DI Leach	
MB 880-3792/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3792/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3792/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 3857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-769-1	SW21	Soluble	Solid	300.0	3792
890-769-2	SW22	Soluble	Solid	300.0	3792
MB 880-3792/1-A	Method Blank	Soluble	Solid	300.0	3792
LCS 880-3792/2-A	Lab Control Sample	Soluble	Solid	300.0	3792
LCSD 880-3792/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3792

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-769-1
 SDG: TE012921006

Client Sample ID: SW21

Lab Sample ID: 890-769-1

Date Collected: 06/02/21 12:58

Matrix: Solid

Date Received: 06/02/21 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3777	06/04/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3787	06/04/21 13:31	KL	XEN MID
Total/NA	Prep	8015NM Prep			3863	06/07/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3855	06/08/21 02:11	AJ	XEN MID
Soluble	Leach	DI Leach			3792	06/04/21 09:44	CH	XEN MID
Soluble	Analysis	300.0		1	3857	06/07/21 18:03	CH	XEN MID

Client Sample ID: SW22

Lab Sample ID: 890-769-2

Date Collected: 06/02/21 13:12

Matrix: Solid

Date Received: 06/02/21 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3777	06/04/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3787	06/04/21 13:52	KL	XEN MID
Total/NA	Prep	8015NM Prep			3863	06/07/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3855	06/08/21 02:32	AJ	XEN MID
Soluble	Leach	DI Leach			3792	06/04/21 09:44	CH	XEN MID
Soluble	Analysis	300.0		1	3857	06/07/21 18:09	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.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-769-1
SDG: TE012921006

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

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Method Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10E Pipeline

Job ID: 890-769-1
SDG: TE012921006

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: Corral Canyon 10E Pipeline

Job ID: 890-769-1
SDG: TE012921006

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-769-1	SW21	Solid	06/02/21 12:58	06/02/21 15:50	0 - 8
890-769-2	SW22	Solid	06/02/21 13:12	06/02/21 15:50	0 - 8

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Environment Testing
Xenco

Incident # 15977000
Client # 15977000
Cost Center: 1081711001
API: 3001546325

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

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Project Manager:	Kaler Jennings	Bill to: (if different)	
Company Name:	WSP USA	Company Name:	Kyle Littell
Address:	3300 North A Street	Address:	XTO Energy
City, State ZIP:	Midland, TX 79705	City, State ZIP:	3104 E Greene St Carlsbad, NM 88220
Phone:	(817) 683-2503	Email:	kaler.jennings@wsp.com, jeramy.billo@wsp.com

Work Order Comments	
Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RCC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level I <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other: _____

Project Name:	Coral Canyon Oil Pipeline	Turn Around	
Project Number:	TE012921006	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush
Project Location:	Eddy county	Due Date:	
Sampler's Name:	Fatima Smith	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			
SAMPLE RECEIPT			
Samples Received Intact:	<input checked="" type="radio"/> Yes <input type="radio"/> No	Thermometer ID:	ZNDV4001
Cooler Custody Seals:	Yes <input type="radio"/> No <input type="radio"/> N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes <input type="radio"/> No <input type="radio"/> N/A	Temperature Reading:	4.2
Total Containers:		Corrected Temperature:	4.0

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters
SW21	S	6/2/20	1258	0-8'		1	BTEX (EPA 8015)
SW22	S	6/2/20	1312	0-8'		1	TPH (EPA 0-8021)
							Chloride (EPA 3000)



890-789 Chain of Custody

Total 2007/6010 2008/6020: 8RCRA T3PPM 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 Ti 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 Ti U Hg: 1631/245.1/7470/7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Fatima Smith</i>	<i>Joe Corp</i>	6-2-21 1549			

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-769-1
SDG Number: TE012921006

Login Number: 769
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	

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Login Sample Receipt Checklist

Client: WSP USA Inc.


Job Number: 890-769-1
SDG Number: TE012921006


Login Number: 769
List Number: 2
Creator: Copeland, Tatiana


List Source: Eurofins Xenco, Midland
List Creation: 06/04/21 11:11 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	


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 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>				BH or PH Name: PH01		Date: 1/26/2021			
				Site Name: Corral Canyon 10 E Pipeline		RP or Incident Number: NAPP2036549855			
				WSP Job Number: TE012921006		Logged By: J. Hill		Method: Trackhoe	
				Lat/Long: 32.151337, -103.974447		Field Screening: Hatch Chloride Strips, PID		Hole Diameter: 2 feet	
LITHOLOGIC / SOIL SAMPLING LOG									
Comments: TD @ 8.0 feet									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0			
D	BDL	0.1	N	PH01	2	2	CCHE	Hard caliche. White/gray. No Odor, No Plasticity, Organic Traces	
D	168	0.2	N	PH01A	4	4	CCHE	Soft caliche. White. No Odor, No Plasticity, Organic Traces	
D	168	0	N			6	CCHE	Soft caliche. White. No Odor, No Plasticity, Organic Traces	
D	196	0	N			8	CCHE	Soft caliche. White. No Odor, No Plasticity, No Organics	


 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>				BH or PH Name: PH02		Date: 1/29/2021			
				Site Name: Corral Canyon 10 E Pipeline		RP or Incident Number: NAPP2036549855			
				WSP Job Number: TE012921006		Logged By: J. Hill		Method: Trackhoe	
				Lat/Long: 32.151337, -103.974447		Field Screening: Hatch Chloride Strips, PID		Hole Diameter: 2 feet	
LITHOLOGIC / SOIL SAMPLING LOG									
Comments: TD @ 8.0 feet									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
D	BDL	0.3	N	PH02	2	2	SWSM	Well graded, fine-med sand w/ silt and CCHE. Brown/White No Odor, No Plasticity, Organic Traces	
D	BDL	0.1	N	PH02A	4	4	CCHE	Soft Caliche. White/tan. No Odor, No Plasticity, Organic Traces	
D	BDL	0.1	N			6	CCHE	Soft Caliche. White/tan. No Odor, No Plasticity, Organic Traces	
D	BDL	0.1	N			8	CCHE	Soft Caliche. White/tan. No Odor, No Plasticity, No Organic	

 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>				BH or PH Name: PH03		Date: 1/29/2021					
				Site Name: Corral Canyon 10 E Pipeline				RP or Incident Number: NAPP2036549855			
				WSP Job Number: TE012921006				Logged By: J. Hill		Method: Trackhoe	
				Lat/Long: 32.151337, -103.974447		Field Screening: Hatch Chloride Strips, PID		Hole Diameter: 2 feet		Total Depth: 8.0'	
LITHOLOGIC / SOIL SAMPLING LOG											
Comments: TD @ 8.0 feet											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
						0					
D	BDL	0.1	N	PH03	2	2	SPSM	Poorly graded, fine-very fine sand w/ silt. Brown/ Red No Odor, No Plasticity, Organic Traces			
D	BDL	0.2	N	PH03A	4	4	SW	Well graded, fine sand with CCHE. Brown/White No Odor, No Plasticity, Organic Traces			
D	BDL	0.4	N			6	CCHE	Hard Caliche. White/tan. No Odor, No Plasticity, Organic Traces			
D	BDL	0.1	N			8	CCHE	Hard Caliche. White/tan. No Odor, No Plasticity, Organic Traces			

 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>					BH or PH Name: PH04		Date: 3/8/2021					
					Site Name: Corral Canyon 10 E Pipeline		RP or Incident Number: NAPP2036549855					
					WSP Job Number: TE012921006		Logged By: J. Hill					
							Method: Trackhoe					
LITHOLOGIC / SOIL SAMPLING LOG					Lat/Long: 32.151337, -103.974447		Field Screening: Hatch Chloride Strips, PID		Hole Diameter: 2 feet		Total Depth: 8.0'	
Comments: TD @ 8.0 feet												
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks				
						0						
D	BDL	1.1	N	PH04	2	2	SWSM	Well graded, fine-med sand w/ silt and CCHE. Brown No Odor, No Plasticity, Organic Traces				
D	BDL	0.5	N			4	CCHE	Hard Caliche. White. No Odor, No Plasticity, Organic Traces				
D	BDL	0.2	N			6	CCHE	Hard Caliche. White/tan. No Odor, No Plasticity, Organic Traces				
D	BDL	0.3	N	PH04A	8	8	CCHE	Caliche. White/tan. No Odor, No Plasticity, Organic Traces				

 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>				BH or PH Name: PH05		Date: 3/8/2021			
				Site Name: Corral Canyon 10 E Pipeline		RP or Incident Number: NAPP2036549855			
				WSP Job Number: TE012921006		Logged By: J. Hill		Method: Trackhoe	
				Lat/Long: 32.151337, -103.974447		Field Screening: Hatch Chloride Strips, PID		Hole Diameter: 2 feet	
LITHOLOGIC / SOIL SAMPLING LOG									
Comments: TD @ 8.0 feet									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
D	BDL	0.1	N			0			
D	BDL	0.1	N			2	SM	Poorly graded, silty sand w CCHE. Brown No Odor, No Plasticity, Organic Traces	
D	352	0.0	N	PH05	4	4	SWSM	Well graded, fine-coarse sand w/ silt and CCHE. Brown No Odor, No Plasticity, Organic Traces	
D	BDL	0.0	N			6	CCHE	Coarse Caliche. Tan/gray No Odor, No Plasticity, Organic Traces	
D	BDL	0.0	N	PH05A	8	8	CCHE	Soft Caliche. White/gray No Odor, No Plasticity, Organic Traces	


 <p style="text-align: center;">WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>				BH or PH Name: PH07		Date: 3/9/2021					
				Site Name: Corral Canyon 10 E Pipeline				RP or Incident Number: NAPP2036549855			
				WSP Job Number: TE012921006				Logged By J. Hill		Method: Trackhoe	
				Lat/Long: 32.151337, -103.974447		Field Screening: Hatch Chloride Strips, PID		Hole Diameter: 2 feet		Total Depth: 8.0'	
<p>LITHOLOGIC / SOIL SAMPLING LOG</p> <p>Comments: TD @ 8.0 feet</p>											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
D	152	1.0	N	PH07	2	0	CCHE	Hard Caliche. White. No Odor, No Plasticity, Organic Traces			
D	BDL	0.9	N			4	CCHE	Caliche. White/Gray No Odor, No Plasticity, Organic Traces			
D	BDL	0.4	N			6	CCHE	Caliche. White/Gray No Odor, No Plasticity, Organic Traces			
D	BDL	0.7	N	PH07A	8	8	CCHE	Soft Caliche. White/Tan. No Odor, No Plasticity, Organic Traces			


 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>				BH or PH Name: PH08		Date: 3/9/2021			
				Site Name: Corral Canyon 10 E Pipeline		RP or Incident Number: NAPP2036549855			
				WSP Job Number: TE012921006		Logged By: J. Hill		Method: Trackhoe	
				Lat/Long: 32.151337, -103.974447		Field Screening: Hatch Chloride Strips, PID		Hole Diameter: 2 feet	
LITHOLOGIC / SOIL SAMPLING LOG									
Comments: TD @ 8.0 feet									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0			
D	BDL	0.1	N			2	SWSM	Well graded, fine-coarse sand w/ silt and CCHE. Brown/gray. No Odor, No Plasticity, Organic Traces	
D	BDL	0.0	N			4	CCHE	Soft Caliche. White/Gray No Odor, No Plasticity, Organic Traces	
D	180	0.0	N	PH07	6	6	CCHE	Soft Caliche. White/Tan No Odor, No Plasticity, Organic Traces	
D	128	0.0	N	PH07A	8	8	CCHE	Soft Caliche. White. No Odor, No Plasticity, Organic Traces	



APPENDIX B

Boring Logs

		Sample Name: BH01		Date: 10/5/2021				
		Site Name: Corral Canyon 10E Pipeline						
		Incident Number: napp2036549855						
		Job Number: 03C1558608						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.151525, -103.973581			Logged By: Ben Belill		Method: Hollow Stem Auger			
			Hole Diameter: 6"		Total Depth: 20'			
Comments: All chloride tests include a 40% correction factor. Backfilled with hydrated bentonite chips 20' to surface.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	<120	0.1	N	BH01	8	8	SP (fill)	0-10', SAND, brown, moist, poorly graded, fine-medium grain, trace caliche gravel, no stain, no odor, fill.
M	<120	0.1	N		10	10	SP-S	10'-20', SANDSTONE, w/caliche gravel, moist, light brown-brown, poorly graded, fine-medium grain, some off white sub-round caliche gravel, moderately consolidated, no stain, no odor.
M	<120	0.2	N	BH01A	12	12		
M	<120	0.1	N		14	14		*Field screening begins @8' bgs due to the backfill of previously excavated area.
M	<120	0.2	N	BH01B	16	16		
M	<120	0.2	N		18	18		
M	<120	0.2	N	BH01C	20	20		
						Total depth at 20' bgs.		

		Sample Name: BH02		Date: 10/5/2021				
		Site Name: Corral Canyon 10E Pipeline						
		Incident Number: napp2036549855						
		Job Number: 03C1558608						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.151525, -103.973581			Logged By: Ben Belill		Method: Hollow Stem Auger			
			Hole Diameter: 6"		Total Depth: 20'			
Comments: All chloride tests include a 40% correction factor. Backfilled with hydrated bentonite chips 20' to surface.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP (fill)	0-9', SAND, brown, moist, poorly graded, fine-medium grain, trace caliche gravel, no stain, no odor, fill.
						2		
						4		
						6		
						8		
						10	SW-S	9-12', SANDSTONE, conglomerate, dry light brown - tan, medium-fine grain well sorted, abundant small to large well rounded gravel embedded, moderately consolidated, no stain, no odor.
D	3,645	0.2	N	BH02	12	12	CH-S	12'-20', MUDSTONE, moist, reddish brown, moderately consolidated, cohesive, high plasticity, blocky texture, some black mottling, no stain, no odor.
M	3,645	0.2	N	BH02A	14	14		
M	263	0.1	N	BH02B	16	16		
M	308	0.2	N	BH02C	18	18		*Field screening begins @12' bgs due to the backfill of previously excavated area.
M	151	0.2	N	BH02D	20	20		
						Total depth at 20' bgs.		



APPENDIX C

Photographic Log



Photographic Log
XTO Energy, Inc
Corral Canyon 10 East CTB Pipeline
NAPP2036549855



Photograph 1 Date: 10/04/2021
Description: BH01
View: Southwest



Photograph 2 Date: 10/05/2021
Description: BH02
View: West



Photograph 3 Date: 03/15/2021
Description: East Excavation
View: South



Photograph 4 Date: 04/01/2021
Description: East Excavation
View: Northwest



APPENDIX D

Laboratory Analytical Reports and Chain of Custody Documentation



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1371-1
Laboratory Sample Delivery Group: te012921006
Client Project/Site: Corral Canyon 10 Pipeline

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

Attn: Kalei Jennings

Authorized for release by:
10/15/2021 3:48:25 PM

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



LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.eurofinsus.com/Env

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.

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Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Laboratory Job ID: 890-1371-1
SDG: te012921006

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
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
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.
α	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: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

Job ID: 890-1371-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1371-1

Receipt

The samples were received on 10/6/2021 9:40 AM. 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

GC VOA

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.

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

Client Sample ID: BH01

Lab Sample ID: 890-1371-1

Date Collected: 10/05/21 10:45

Matrix: Solid

Date Received: 10/06/21 09:40

Sample Depth: 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/08/21 10:22	10/12/21 13:51	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/08/21 10:22	10/12/21 13:51	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/08/21 10:22	10/12/21 13:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/08/21 10:22	10/12/21 13:51	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/08/21 10:22	10/12/21 13:51	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/08/21 10:22	10/12/21 13:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	10/08/21 10:22	10/12/21 13:51	1
1,4-Difluorobenzene (Surr)	122		70 - 130	10/08/21 10:22	10/12/21 13:51	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/12/21 09:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/11/21 13:34	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	49.9	mg/Kg		10/12/21 10:29	10/13/21 03:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/12/21 10:29	10/13/21 03:59	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/12/21 10:29	10/13/21 03:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	10/12/21 10:29	10/13/21 03:59	1
o-Terphenyl	91		70 - 130	10/12/21 10:29	10/13/21 03:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	157		4.98	mg/Kg			10/15/21 12:07	1

Client Sample ID: BH01A

Lab Sample ID: 890-1371-2

Date Collected: 10/05/21 11:00

Matrix: Solid

Date Received: 10/06/21 09:40

Sample Depth: 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/21 10:22	10/12/21 14:12	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/08/21 10:22	10/12/21 14:12	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/08/21 10:22	10/12/21 14:12	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		10/08/21 10:22	10/12/21 14:12	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/08/21 10:22	10/12/21 14:12	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		10/08/21 10:22	10/12/21 14:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	10/08/21 10:22	10/12/21 14:12	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

Client Sample ID: BH01A

Lab Sample ID: 890-1371-2

Date Collected: 10/05/21 11:00

Matrix: Solid

Date Received: 10/06/21 09:40

Sample Depth: 12

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	107		70 - 130	10/08/21 10:22	10/12/21 14:12	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			10/12/21 09:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/11/21 13:34	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	<49.8	U	49.8	mg/Kg		10/12/21 10:29	10/13/21 04:20	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/12/21 10:29	10/13/21 04:20	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/12/21 10:29	10/13/21 04:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	10/12/21 10:29	10/13/21 04:20	1
o-Terphenyl	90		70 - 130	10/12/21 10:29	10/13/21 04:20	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26.6		5.00	mg/Kg			10/15/21 12:14	1

Client Sample ID: BH01B

Lab Sample ID: 890-1371-3

Date Collected: 10/05/21 11:20

Matrix: Solid

Date Received: 10/06/21 09:40

Sample Depth: 16

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 14:33	1
Toluene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 14:33	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 14:33	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		10/08/21 10:22	10/12/21 14:33	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 14:33	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		10/08/21 10:22	10/12/21 14:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	10/08/21 10:22	10/12/21 14:33	1
1,4-Difluorobenzene (Surr)	119		70 - 130	10/08/21 10:22	10/12/21 14:33	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			10/12/21 09:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/11/21 13:34	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

Client Sample ID: BH01B

Lab Sample ID: 890-1371-3

Date Collected: 10/05/21 11:20

Matrix: Solid

Date Received: 10/06/21 09:40

Sample Depth: 16

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		10/12/21 10:29	10/13/21 04:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/12/21 10:29	10/13/21 04:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/12/21 10:29	10/13/21 04:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	10/12/21 10:29	10/13/21 04:42	1
o-Terphenyl	89		70 - 130	10/12/21 10:29	10/13/21 04:42	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.4		5.00	mg/Kg			10/15/21 12:30	1

Client Sample ID: BH01C

Lab Sample ID: 890-1371-4

Date Collected: 10/05/21 12:00

Matrix: Solid

Date Received: 10/06/21 09:40

Sample Depth: 20

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 14:58	1
Toluene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 14:58	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 14:58	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		10/08/21 10:22	10/12/21 14:58	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 14:58	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		10/08/21 10:22	10/12/21 14:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	10/08/21 10:22	10/12/21 14:58	1
1,4-Difluorobenzene (Surr)	113		70 - 130	10/08/21 10:22	10/12/21 14:58	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			10/12/21 09:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/11/21 13:34	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	49.9	mg/Kg		10/12/21 10:29	10/13/21 05:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/12/21 10:29	10/13/21 05:03	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/12/21 10:29	10/13/21 05:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	10/12/21 10:29	10/13/21 05:03	1
o-Terphenyl	89		70 - 130	10/12/21 10:29	10/13/21 05:03	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

Client Sample ID: BH01C

Lab Sample ID: 890-1371-4

Date Collected: 10/05/21 12:00

Matrix: Solid

Date Received: 10/06/21 09:40

Sample Depth: 20

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.5		5.02	mg/Kg			10/15/21 12:36	1

Client Sample ID: BH02

Lab Sample ID: 890-1371-5

Date Collected: 10/05/21 13:30

Matrix: Solid

Date Received: 10/06/21 09:40

Sample Depth: 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 15:19	1
Toluene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 15:19	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 15:19	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		10/08/21 10:22	10/12/21 15:19	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 15:19	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		10/08/21 10:22	10/12/21 15:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130			10/08/21 10:22	10/12/21 15:19	1
1,4-Difluorobenzene (Surr)	101		70 - 130			10/08/21 10:22	10/12/21 15:19	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			10/12/21 09:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/11/21 13:34	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	<49.8	U	49.8	mg/Kg		10/12/21 10:29	10/13/21 05:25	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/12/21 10:29	10/13/21 05:25	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/12/21 10:29	10/13/21 05:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			10/12/21 10:29	10/13/21 05:25	1
o-Terphenyl	92		70 - 130			10/12/21 10:29	10/13/21 05:25	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	787		4.98	mg/Kg			10/15/21 12:53	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

Client Sample ID: BH02A

Lab Sample ID: 890-1371-6

Date Collected: 10/05/21 13:45

Matrix: Solid

Date Received: 10/06/21 09:40

Sample Depth: 14

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 15:39	1
Toluene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 15:39	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 15:39	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		10/08/21 10:22	10/12/21 15:39	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		10/08/21 10:22	10/12/21 15:39	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		10/08/21 10:22	10/12/21 15:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	10/08/21 10:22	10/12/21 15:39	1
1,4-Difluorobenzene (Surr)	103		70 - 130	10/08/21 10:22	10/12/21 15:39	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			10/12/21 09:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/11/21 13:34	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	<49.8	U	49.8	mg/Kg		10/12/21 10:29	10/13/21 05:46	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/12/21 10:29	10/13/21 05:46	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/12/21 10:29	10/13/21 05:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	10/12/21 10:29	10/13/21 05:46	1
o-Terphenyl	91		70 - 130	10/12/21 10:29	10/13/21 05:46	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1020		5.00	mg/Kg			10/15/21 12:58	1

Client Sample ID: BH02B

Lab Sample ID: 890-1371-7

Date Collected: 10/05/21 14:00

Matrix: Solid

Date Received: 10/06/21 09:40

Sample Depth: 16

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/21 10:22	10/12/21 16:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/08/21 10:22	10/12/21 16:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/08/21 10:22	10/12/21 16:43	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		10/08/21 10:22	10/12/21 16:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/08/21 10:22	10/12/21 16:43	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		10/08/21 10:22	10/12/21 16:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	10/08/21 10:22	10/12/21 16:43	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
 SDG: te012921006

Client Sample ID: BH02B

Lab Sample ID: 890-1371-7

Date Collected: 10/05/21 14:00

Matrix: Solid

Date Received: 10/06/21 09:40

Sample Depth: 16

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	92		70 - 130	10/08/21 10:22	10/12/21 16:43	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			10/12/21 09:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/11/21 13:34	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	<50.0	U	50.0	mg/Kg		10/12/21 10:29	10/13/21 06:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/12/21 10:29	10/13/21 06:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/12/21 10:29	10/13/21 06:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	10/12/21 10:29	10/13/21 06:07	1
o-Terphenyl	94		70 - 130	10/12/21 10:29	10/13/21 06:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	380		4.95	mg/Kg			10/15/21 13:04	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-1360-A-41-A MS	Matrix Spike	98	91
890-1360-A-41-B MSD	Matrix Spike Duplicate	301 S1+	115
890-1371-1	BH01	109	122
890-1371-2	BH01A	104	107
890-1371-3	BH01B	94	119
890-1371-4	BH01C	112	113
890-1371-5	BH02	90	101
890-1371-6	BH02A	93	103
890-1371-7	BH02B	94	92
LCS 880-9106/1-A	Lab Control Sample	118	112
LCSD 880-9106/2-A	Lab Control Sample Dup	98	85
MB 880-8976/5-A	Method Blank	105	110
MB 880-9106/5-A	Method Blank	110	100

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
880-6818-A-1-I MS	Matrix Spike	101	94
880-6818-A-1-J MSD	Matrix Spike Duplicate	105	98
890-1371-1	BH01	91	91
890-1371-2	BH01A	87	90
890-1371-3	BH01B	89	89
890-1371-4	BH01C	89	89
890-1371-5	BH02	91	92
890-1371-6	BH02A	90	91
890-1371-7	BH02B	95	94
LCS 880-9289/2-A	Lab Control Sample	90	85
LCSD 880-9289/3-A	Lab Control Sample Dup	87	81
MB 880-9289/1-A	Method Blank	102	106

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-8976/5-A
Matrix: Solid
Analysis Batch: 9270

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8976

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/06/21 17:00	10/11/21 20:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/06/21 17:00	10/11/21 20:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/06/21 17:00	10/11/21 20:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/06/21 17:00	10/11/21 20:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/06/21 17:00	10/11/21 20:37	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/06/21 17:00	10/11/21 20:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	10/06/21 17:00	10/11/21 20:37	1
1,4-Difluorobenzene (Surr)	110		70 - 130	10/06/21 17:00	10/11/21 20:37	1

Lab Sample ID: MB 880-9106/5-A
Matrix: Solid
Analysis Batch: 9270

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9106

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/21 10:22	10/12/21 07:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/08/21 10:22	10/12/21 07:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/08/21 10:22	10/12/21 07:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/08/21 10:22	10/12/21 07:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/08/21 10:22	10/12/21 07:36	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/08/21 10:22	10/12/21 07:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	10/08/21 10:22	10/12/21 07:36	1
1,4-Difluorobenzene (Surr)	100		70 - 130	10/08/21 10:22	10/12/21 07:36	1

Lab Sample ID: LCS 880-9106/1-A
Matrix: Solid
Analysis Batch: 9270

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9106

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07635		mg/Kg		76	70 - 130
Toluene	0.100	0.1009		mg/Kg		101	70 - 130
Ethylbenzene	0.100	0.1018		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.1881		mg/Kg		94	70 - 130
o-Xylene	0.100	0.08402		mg/Kg		84	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: LCSD 880-9106/2-A
Matrix: Solid
Analysis Batch: 9270

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 9106

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.07215		mg/Kg		72	70 - 130	6	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

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

Lab Sample ID: LCSD 880-9106/2-A
Matrix: Solid
Analysis Batch: 9270

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 9106

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit	
Toluene	0.100	0.09037		mg/Kg		90	70 - 130	11	35	
Ethylbenzene	0.100	0.08529		mg/Kg		85	70 - 130	18	35	
m-Xylene & p-Xylene	0.200	0.1618		mg/Kg		81	70 - 130	15	35	
o-Xylene	0.100	0.07486		mg/Kg		75	70 - 130	12	35	
		LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)	98		70 - 130							
1,4-Difluorobenzene (Surr)	85		70 - 130							

Lab Sample ID: 890-1360-A-41-A MS
Matrix: Solid
Analysis Batch: 9270

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 9106

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1 F2	0.100	0.007936	F1	mg/Kg		8	70 - 130		
Toluene	<0.00199	U F1 F2	0.100	0.02852	F1	mg/Kg		29	70 - 130		
Ethylbenzene	<0.00199	U F1 F2	0.100	0.02876	F1	mg/Kg		29	70 - 130		
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.200	0.05962	F1	mg/Kg		30	70 - 130		
o-Xylene	<0.00199	U F1 F2	0.100	0.03183	F1	mg/Kg		32	70 - 130		
		MS	MS								
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	98		70 - 130								
1,4-Difluorobenzene (Surr)	91		70 - 130								

Lab Sample ID: 890-1360-A-41-B MSD
Matrix: Solid
Analysis Batch: 9270

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 9106

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1 F2	0.0992	0.01810	F1 F2	mg/Kg		18	70 - 130	78	35
Toluene	<0.00199	U F1 F2	0.0992	0.005283	F1 F2	mg/Kg		5	70 - 130	137	35
Ethylbenzene	<0.00199	U F1 F2	0.0992	0.01758	F1 F2	mg/Kg		18	70 - 130	48	35
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.198	0.08565	F1 F2	mg/Kg		43	70 - 130	36	35
o-Xylene	<0.00199	U F1 F2	0.0992	0.06923	F2	mg/Kg		70	70 - 130	74	35
		MSD	MSD								
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	301	S1+	70 - 130								
1,4-Difluorobenzene (Surr)	115		70 - 130								

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

Lab Sample ID: MB 880-9289/1-A
Matrix: Solid
Analysis Batch: 9267

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9289

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		10/12/21 10:29	10/12/21 21:31		1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

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

Lab Sample ID: MB 880-9289/1-A
Matrix: Solid
Analysis Batch: 9267

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9289

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/12/21 10:29	10/12/21 21:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/12/21 10:29	10/12/21 21:31	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	102		70 - 130	10/12/21 10:29	10/12/21 21:31	1
o-Terphenyl	106		70 - 130	10/12/21 10:29	10/12/21 21:31	1

Lab Sample ID: LCS 880-9289/2-A
Matrix: Solid
Analysis Batch: 9267

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9289

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (Over C10-C28)	1000	928.8		mg/Kg		93	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1-Chlorooctane	90		70 - 130
o-Terphenyl	85		70 - 130

Lab Sample ID: LCSD 880-9289/3-A
Matrix: Solid
Analysis Batch: 9267

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 9289

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics (Over C10-C28)	1000	945.9		mg/Kg		95	70 - 130	2	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1-Chlorooctane	87		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: 880-6818-A-1 MS
Matrix: Solid
Analysis Batch: 9267

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 9289

Analyte	Sample	Sample	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	876.6		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	938.7		mg/Kg		94	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1-Chlorooctane	101		70 - 130
o-Terphenyl	94		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

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

Lab Sample ID: 880-6818-A-1-J MSD
Matrix: Solid
Analysis Batch: 9267

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 9289

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	<49.9	U	1000	928.9		mg/Kg		91	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	994.0		mg/Kg		99	70 - 130	6	20
Surrogate	%Recovery	MSD Qualifier	MSD	Limits							
1-Chlorooctane	105			70 - 130							
o-Terphenyl	98			70 - 130							

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-9409/1-A
Matrix: Solid
Analysis Batch: 9528

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			10/15/21 09:50	1

Lab Sample ID: LCS 880-9409/2-A
Matrix: Solid
Analysis Batch: 9528

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	255.4		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-9409/3-A
Matrix: Solid
Analysis Batch: 9528

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	256.1		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-1371-2 MS
Matrix: Solid
Analysis Batch: 9528

Client Sample ID: BH01A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	26.6		250	268.7		mg/Kg		97	90 - 110

Lab Sample ID: 890-1371-2 MSD
Matrix: Solid
Analysis Batch: 9528

Client Sample ID: BH01A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	26.6		250	269.5		mg/Kg		97	90 - 110	0	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
 SDG: te012921006

GC VOA

Prep Batch: 8976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-8976/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 9106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1371-1	BH01	Total/NA	Solid	5035	
890-1371-2	BH01A	Total/NA	Solid	5035	
890-1371-3	BH01B	Total/NA	Solid	5035	
890-1371-4	BH01C	Total/NA	Solid	5035	
890-1371-5	BH02	Total/NA	Solid	5035	
890-1371-6	BH02A	Total/NA	Solid	5035	
890-1371-7	BH02B	Total/NA	Solid	5035	
MB 880-9106/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-9106/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 880-9106/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1360-A-41-A MS	Matrix Spike	Total/NA	Solid	5035	
890-1360-A-41-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 9270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1371-1	BH01	Total/NA	Solid	8021B	9106
890-1371-2	BH01A	Total/NA	Solid	8021B	9106
890-1371-3	BH01B	Total/NA	Solid	8021B	9106
890-1371-4	BH01C	Total/NA	Solid	8021B	9106
890-1371-5	BH02	Total/NA	Solid	8021B	9106
890-1371-6	BH02A	Total/NA	Solid	8021B	9106
890-1371-7	BH02B	Total/NA	Solid	8021B	9106
MB 880-8976/5-A	Method Blank	Total/NA	Solid	8021B	8976
MB 880-9106/5-A	Method Blank	Total/NA	Solid	8021B	9106
LCS 880-9106/1-A	Lab Control Sample	Total/NA	Solid	8021B	9106
LCS 880-9106/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	9106
890-1360-A-41-A MS	Matrix Spike	Total/NA	Solid	8021B	9106
890-1360-A-41-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	9106

Analysis Batch: 9276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1371-1	BH01	Total/NA	Solid	Total BTEX	
890-1371-2	BH01A	Total/NA	Solid	Total BTEX	
890-1371-3	BH01B	Total/NA	Solid	Total BTEX	
890-1371-4	BH01C	Total/NA	Solid	Total BTEX	
890-1371-5	BH02	Total/NA	Solid	Total BTEX	
890-1371-6	BH02A	Total/NA	Solid	Total BTEX	
890-1371-7	BH02B	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 9189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1371-1	BH01	Total/NA	Solid	8015 NM	
890-1371-2	BH01A	Total/NA	Solid	8015 NM	
890-1371-3	BH01B	Total/NA	Solid	8015 NM	
890-1371-4	BH01C	Total/NA	Solid	8015 NM	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

GC Semi VOA (Continued)

Analysis Batch: 9189 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1371-5	BH02	Total/NA	Solid	8015 NM	
890-1371-6	BH02A	Total/NA	Solid	8015 NM	
890-1371-7	BH02B	Total/NA	Solid	8015 NM	

Analysis Batch: 9267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1371-1	BH01	Total/NA	Solid	8015B NM	9289
890-1371-2	BH01A	Total/NA	Solid	8015B NM	9289
890-1371-3	BH01B	Total/NA	Solid	8015B NM	9289
890-1371-4	BH01C	Total/NA	Solid	8015B NM	9289
890-1371-5	BH02	Total/NA	Solid	8015B NM	9289
890-1371-6	BH02A	Total/NA	Solid	8015B NM	9289
890-1371-7	BH02B	Total/NA	Solid	8015B NM	9289
MB 880-9289/1-A	Method Blank	Total/NA	Solid	8015B NM	9289
LCS 880-9289/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9289
LCSD 880-9289/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9289
880-6818-A-1-I MS	Matrix Spike	Total/NA	Solid	8015B NM	9289
880-6818-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	9289

Prep Batch: 9289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1371-1	BH01	Total/NA	Solid	8015NM Prep	
890-1371-2	BH01A	Total/NA	Solid	8015NM Prep	
890-1371-3	BH01B	Total/NA	Solid	8015NM Prep	
890-1371-4	BH01C	Total/NA	Solid	8015NM Prep	
890-1371-5	BH02	Total/NA	Solid	8015NM Prep	
890-1371-6	BH02A	Total/NA	Solid	8015NM Prep	
890-1371-7	BH02B	Total/NA	Solid	8015NM Prep	
MB 880-9289/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9289/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9289/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6818-A-1-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-6818-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 9409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1371-1	BH01	Soluble	Solid	DI Leach	
890-1371-2	BH01A	Soluble	Solid	DI Leach	
890-1371-3	BH01B	Soluble	Solid	DI Leach	
890-1371-4	BH01C	Soluble	Solid	DI Leach	
890-1371-5	BH02	Soluble	Solid	DI Leach	
890-1371-6	BH02A	Soluble	Solid	DI Leach	
890-1371-7	BH02B	Soluble	Solid	DI Leach	
MB 880-9409/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-9409/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-9409/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1371-2 MS	BH01A	Soluble	Solid	DI Leach	
890-1371-2 MSD	BH01A	Soluble	Solid	DI Leach	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

HPLC/IC

Analysis Batch: 9528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1371-1	BH01	Soluble	Solid	300.0	9409
890-1371-2	BH01A	Soluble	Solid	300.0	9409
890-1371-3	BH01B	Soluble	Solid	300.0	9409
890-1371-4	BH01C	Soluble	Solid	300.0	9409
890-1371-5	BH02	Soluble	Solid	300.0	9409
890-1371-6	BH02A	Soluble	Solid	300.0	9409
890-1371-7	BH02B	Soluble	Solid	300.0	9409
MB 880-9409/1-A	Method Blank	Soluble	Solid	300.0	9409
LCS 880-9409/2-A	Lab Control Sample	Soluble	Solid	300.0	9409
LCSD 880-9409/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	9409
890-1371-2 MS	BH01A	Soluble	Solid	300.0	9409
890-1371-2 MSD	BH01A	Soluble	Solid	300.0	9409

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

Client Sample ID: BH01

Lab Sample ID: 890-1371-1

Date Collected: 10/05/21 10:45

Matrix: Solid

Date Received: 10/06/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			9106	10/08/21 10:22	KL	XEN MID
Total/NA	Analysis	8021B		1	9270	10/12/21 13:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	9276	10/12/21 09:02	KL	XEN MID
Total/NA	Analysis	8015 NM		1	9189	10/11/21 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			9289	10/12/21 10:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1	9267	10/13/21 03:59	AJ	XEN MID
Soluble	Leach	DI Leach			9409	10/13/21 18:21	CA	XEN MID
Soluble	Analysis	300.0		1	9528	10/15/21 12:07	CH	XEN MID

Client Sample ID: BH01A

Lab Sample ID: 890-1371-2

Date Collected: 10/05/21 11:00

Matrix: Solid

Date Received: 10/06/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			9106	10/08/21 10:22	KL	XEN MID
Total/NA	Analysis	8021B		1	9270	10/12/21 14:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	9276	10/12/21 09:02	KL	XEN MID
Total/NA	Analysis	8015 NM		1	9189	10/11/21 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			9289	10/12/21 10:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1	9267	10/13/21 04:20	AJ	XEN MID
Soluble	Leach	DI Leach			9409	10/13/21 18:21	CA	XEN MID
Soluble	Analysis	300.0		1	9528	10/15/21 12:14	CH	XEN MID

Client Sample ID: BH01B

Lab Sample ID: 890-1371-3

Date Collected: 10/05/21 11:20

Matrix: Solid

Date Received: 10/06/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			9106	10/08/21 10:22	KL	XEN MID
Total/NA	Analysis	8021B		1	9270	10/12/21 14:33	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	9276	10/12/21 09:02	KL	XEN MID
Total/NA	Analysis	8015 NM		1	9189	10/11/21 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			9289	10/12/21 10:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1	9267	10/13/21 04:42	AJ	XEN MID
Soluble	Leach	DI Leach			9409	10/13/21 18:21	CA	XEN MID
Soluble	Analysis	300.0		1	9528	10/15/21 12:30	CH	XEN MID

Client Sample ID: BH01C

Lab Sample ID: 890-1371-4

Date Collected: 10/05/21 12:00

Matrix: Solid

Date Received: 10/06/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			9106	10/08/21 10:22	KL	XEN MID
Total/NA	Analysis	8021B		1	9270	10/12/21 14:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	9276	10/12/21 09:02	KL	XEN MID

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

Client Sample ID: BH01C

Lab Sample ID: 890-1371-4

Date Collected: 10/05/21 12:00

Matrix: Solid

Date Received: 10/06/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	9189	10/11/21 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			9289	10/12/21 10:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1	9267	10/13/21 05:03	AJ	XEN MID
Soluble	Leach	DI Leach			9409	10/13/21 18:21	CA	XEN MID
Soluble	Analysis	300.0		1	9528	10/15/21 12:36	CH	XEN MID

Client Sample ID: BH02

Lab Sample ID: 890-1371-5

Date Collected: 10/05/21 13:30

Matrix: Solid

Date Received: 10/06/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			9106	10/08/21 10:22	KL	XEN MID
Total/NA	Analysis	8021B		1	9270	10/12/21 15:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	9276	10/12/21 09:02	KL	XEN MID
Total/NA	Analysis	8015 NM		1	9189	10/11/21 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			9289	10/12/21 10:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1	9267	10/13/21 05:25	AJ	XEN MID
Soluble	Leach	DI Leach			9409	10/13/21 18:21	CA	XEN MID
Soluble	Analysis	300.0		1	9528	10/15/21 12:53	CH	XEN MID

Client Sample ID: BH02A

Lab Sample ID: 890-1371-6

Date Collected: 10/05/21 13:45

Matrix: Solid

Date Received: 10/06/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			9106	10/08/21 10:22	KL	XEN MID
Total/NA	Analysis	8021B		1	9270	10/12/21 15:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	9276	10/12/21 09:02	KL	XEN MID
Total/NA	Analysis	8015 NM		1	9189	10/11/21 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			9289	10/12/21 10:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1	9267	10/13/21 05:46	AJ	XEN MID
Soluble	Leach	DI Leach			9409	10/13/21 18:21	CA	XEN MID
Soluble	Analysis	300.0		1	9528	10/15/21 12:58	CH	XEN MID

Client Sample ID: BH02B

Lab Sample ID: 890-1371-7

Date Collected: 10/05/21 14:00

Matrix: Solid

Date Received: 10/06/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			9106	10/08/21 10:22	KL	XEN MID
Total/NA	Analysis	8021B		1	9270	10/12/21 16:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	9276	10/12/21 09:02	KL	XEN MID
Total/NA	Analysis	8015 NM		1	9189	10/11/21 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			9289	10/12/21 10:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1	9267	10/13/21 06:07	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

Client Sample ID: BH02B
Date Collected: 10/05/21 14:00
Date Received: 10/06/21 09:40

Lab Sample ID: 890-1371-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			9409	10/13/21 18:21	CA	XEN MID
Soluble	Analysis	300.0		1	9528	10/15/21 13:04	CH	XEN MID

Laboratory References:

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

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Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

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	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

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Method Summary

Client: WSP USA Inc.
 Project/Site: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
 SDG: te012921006

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (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.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

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: Corral Canyon 10 Pipeline

Job ID: 890-1371-1
SDG: te012921006

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1371-1	BH01	Solid	10/05/21 10:45	10/06/21 09:40	8
890-1371-2	BH01A	Solid	10/05/21 11:00	10/06/21 09:40	12
890-1371-3	BH01B	Solid	10/05/21 11:20	10/06/21 09:40	16
890-1371-4	BH01C	Solid	10/05/21 12:00	10/06/21 09:40	20
890-1371-5	BH02	Solid	10/05/21 13:30	10/06/21 09:40	12
890-1371-6	BH02A	Solid	10/05/21 13:45	10/06/21 09:40	14
890-1371-7	BH02B	Solid	10/05/21 14:00	10/06/21 09:40	16

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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)

Chain of Custody

Work Order No: _____

Page 1 of 1

Project Manager:	Kelli Trevino	Bill to: (if different)	Adrian Baker
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	ben.beillill@wsp.com

Program:	UST/PST	PRP	Groundfields	RC	Deepfund
State of Project:					
Reporting Level:	Level II	Level III	ST/UST	RP	Level IV
Deliverables:	EDD	Ad&PT	Other:		

Project Name:	Local Pymn 10 Pipeline	Turn Around	IV
Project Number:	TE012921006	Routine	
P.O. Number:	NAPP2036549833	Rush:	
Sampler's Name:	Benjamin Beillill	Due Date:	
SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice: Yes No
Temperature (°C):	2.6/2.4	Thermometer ID	TMM-007
Received Intact:	Yes No	Correction Factor:	1.0.2
Cooler Custody Seals:	Yes No N/A	Total Containers:	
Sample Custody Seals:	Yes No N/A		

Number of Containers	
TPH (EPA 8015)	X
BTEX (EPA 0-8021)	X
Chloride (EPA 300.0)	X

ANALYSIS REQUEST	
890-1371 Chain of Custody	
TAT starts the day received by the lab, if received by 4:30pm	
Work Order Notes	
APE: FW 2021.036549833	
APE: 30-015-46325	
Sample Comments	
Hold BHOZC	
BHOZD pending results of BHOZB & PM.	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	Other
BHD1	S	10/5/21	1045	8'	X	X	X	
BHD1A			1100	12'	X	X	X	
BHD1B			1120	16'	X	X	X	
BHD1C			1200	20'	X	X	X	
BHOZ			1330	12'	X	X	X	
BHOZA			1345	14'	X	X	X	
BHOZB			1400	16'	X	X	X	
BHOZC			1430	18'	X	X	X	
BHOZD			1500	20'	X	X	X	

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 Ti 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 TI U 1631 / 245.1 / 7470 / 7471 : Hg

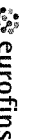
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility 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

Eurofins Xenco, Carlsbad

1089 N Canal St
 Carlsbad NM 88220
 Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record



Environment Testing
 America

Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking No(s)	COC No																																																								
Client Contact: Eurofins Xenco		Phone	Kramer Jessica	New Mexico	890-451-1																																																								
Address: 1211 W Florida Ave		Due Date Requested	Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Page 1 of 1																																																								
City: Midland		TAT Requested (days):	Job # 890-1371-1																																																										
State Zip: TX 79701		PO #:	Preservation Codes																																																										
Phone: 432-704-5440(Tel)		WC #:	A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amnolur H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - Na2CO3 P - Na2CO3S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)																																																										
Project Name: Corral Canyon 10 Pipeline		Project #:	Other:																																																										
Site:		SSOVW#:																																																											
Sample Identification - Client ID (Lab ID)																																																													
BH01 (890-1371-1)	10/5/21	10:45	Mountain	Solid	1																																																								
BH01A (890-1371-2)	10/5/21	11:00	Mountain	Solid	1																																																								
BH01B (890-1371-3)	10/5/21	11:20	Mountain	Solid	1																																																								
BH01C (890-1371-4)	10/5/21	12:00	Mountain	Solid	1																																																								
BH02 (890-1371-5)	10/5/21	13:30	Mountain	Solid	1																																																								
BH02A (890-1371-6)	10/5/21	13:45	Mountain	Solid	1																																																								
BH02B (890-1371-7)	10/5/21	14:00	Mountain	Solid	1																																																								
<table border="1"> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>Perform MS/MSD (Yes or No)</td> <td>8015MOD_NM/8015NM_S_Prep (MOD) Full TPH</td> <td>8015MOD_Calc</td> <td>300_ORGFM_28D/DI_LEACH Chloride</td> <td>8021B/6036FP_Calc (MOD) BTEX</td> <td>Total_BTEX_GCV</td> <td>Total Number of containers</td> </tr> <tr> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>1</td> </tr> <tr> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>1</td> </tr> <tr> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>1</td> </tr> <tr> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>1</td> </tr> <tr> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>1</td> </tr> <tr> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>1</td> </tr> </table>						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/6036FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers			X	X	X	X	X	1			X	X	X	X	X	1			X	X	X	X	X	1			X	X	X	X	X	1			X	X	X	X	X	1			X	X	X	X	X	1
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/6036FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers																																																						
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<p>Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon out-subcontracted 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 analysts/instrument 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 compliance to Eurofins Xenco LLC.</p>																																																													
Possible Hazard Identification																																																													
Unconfirmed																																																													
Deliverable Requested I, II, III, IV, Other (Specify)		Primary Deliverable Rank 2																																																											
Empty Kit Reinquished by		Date	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																																																										
Reinquished by: <i>[Signature]</i>		Date/Time: 10.6.21	<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																																																										
Reinquished by:		Date/Time:	Special Instructions/QC Requirements																																																										
Reinquished by:		Date/Time:	Method of Shipment:																																																										
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No	Cooler Temperature(s) and Other Remarks: 2.11.20																																																										

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1371-1

SDG Number: te012921006

Login Number: 1371

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	

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Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1371-1
SDG Number: te012921006

Login Number: 1371
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 10/07/21 11:17 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	2.1 / 2.6
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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APPENDIX E

XTO Do Not Dig Letter

May 8, 2025

New Mexico Oil Conservation Division
506 West Texas
Artesia, New Mexico 88210

**RE: Do Not Dig Order
Corral Canyon 10 East CTB Pipeline
Incident Number NAPP2036549855
Eddy County, New Mexico**

To Whom It May Concern:


XTO Energy, Inc. (XTO), is submitting the following Do Not Dig Order for the residual impacted soil left in place in close proximity to XTO's high-pressure fiberglass water pipeline at the Corral Canyon 10 East Central Tank Battery (CTB) Pipeline (Site) in Unit C, Section 10, Township 25 South, Range 29 East, in Eddy County, New Mexico.

XTO safety policy restricts soil disturbing activities to a 2-foot radius of any production equipment or pipelines to protect workers and reduce the likelihood of compromising the foundation of production equipment and structural integrity of pipelines.

Chloride impacted soil at the subject site remains in place in close proximity to multiple active pipelines, including a high-pressure fiberglass water pipeline buried to an 8- to 12-foot depth. Due to safety concerns, XTO is issuing this Do Not Dig Order within 2 feet of the high-pressure fiberglass water pipeline.

If you have any questions or comments, please do not hesitate to contact me at (575) 988-4374.

Sincerely,



Dale Woodall
Water Coordinator
XTO Energy
3104 E Greene Street
Carlsbad, NM 88220
575-988-4374
Robert.D.Woodall@ExxonMobil.com



APPENDIX B

2025 Laboratory Analytical Reports and Chain-of-Custody Documentation



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

September 29, 2025

KATHERINE KHAN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: CORRAL CANYON 10 EAST

Enclosed are the results of analyses for samples received by the laboratory on 09/25/25 13:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/25/2025	Sampling Date:	09/24/2025
Reported:	09/29/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 10 EAST	Sampling Condition:	Cool & Intact
Project Number:	03C1558608	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.15158-103.97361		

Sample ID: SW11 A 0-4 (H255999-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2025	ND	1.90	94.8	2.00	0.318	
Toluene*	<0.050	0.050	09/26/2025	ND	1.98	98.9	2.00	1.92	
Ethylbenzene*	<0.050	0.050	09/26/2025	ND	1.96	98.2	2.00	2.47	
Total Xylenes*	<0.150	0.150	09/26/2025	ND	6.05	101	6.00	2.38	
Total BTEX	<0.300	0.300	09/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 70.4-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	09/26/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/26/2025	ND	198	98.9	200	0.206	
DRO >C10-C28*	<10.0	10.0	09/26/2025	ND	212	106	200	0.703	
EXT DRO >C28-C36	<10.0	10.0	09/26/2025	ND					

Surrogate: 1-Chlorooctane 90.0 % 52.4-130

Surrogate: 1-Chlorooctadecane 91.5 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 09/25/2025
 Reported: 09/29/2025
 Project Name: CORRAL CANYON 10 EAST
 Project Number: 03C1558608
 Project Location: XTO 32.15158-103.97361

Sampling Date: 09/24/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW11 B 4-8 (H255999-02)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2025	ND	1.90	94.8	2.00	0.318	
Toluene*	<0.050	0.050	09/26/2025	ND	1.98	98.9	2.00	1.92	
Ethylbenzene*	<0.050	0.050	09/26/2025	ND	1.96	98.2	2.00	2.47	
Total Xylenes*	<0.150	0.150	09/26/2025	ND	6.05	101	6.00	2.38	
Total BTEX	<0.300	0.300	09/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	09/26/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/26/2025	ND	198	98.9	200	0.206	
DRO >C10-C28*	<10.0	10.0	09/26/2025	ND	212	106	200	0.703	
EXT DRO >C28-C36	<10.0	10.0	09/26/2025	ND					

Surrogate: 1-Chlorooctane 88.9 % 52.4-130

Surrogate: 1-Chlorooctadecane 87.8 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: Ensolum, LLC
 Project Manager: Katherine Kahn
 Address: 3122 National Parks Hwy
 City: Carlsbad
 Phone #: 303.319.9604
 Project #: 03C1558608
 Project Name: Corral Canyon 10 East
 Project Location: 32.15158,-103.97361
 Sampler Name: Chris Wright

P.O. #: _____
 Company: XTO Energy Inc
 Attn: Dale Woodall
 Address: 3104 E Green St
 City: Carlsbad
 State: NM Zip: 88220
 Phone #: _____
 Fax #: _____

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chlorides	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
1855999	SM1A	0-4	C	1								9/24/25	1458	✓	✓	✓
2	SM1B	4-8	C	1								9/24/25	1309	✓	✓	✓

FOR LAB USE ONLY

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Relinquished By: _____
 Date: 9/25/25
 Time: 1355

Received By: _____
 Date: _____
 Time: _____

Delivered By: (Circle One)
 Observed Temp. °C: 0.4
 Corrected Temp. °C: 0.7

Sampler - UPS - Bus - Other: _____

Sample Condition:
 Cool Intact: Yes No
 Bacteria (only) Sample Condition: Yes No

Standard: Standard Rush
 Turndown Time: 48 hrs
 Thermofield ID: #140
 Correction Factor: #10.3

REMARKS:
 Incident: NAPP2036549855 GFCM: 48605000 - Spills
 Cost Center: 2142171001

Verbal Result: Yes No Add'l Phone #: _____
 All Results are emailed. Please provide Email address:
 KK@ResolutionConsultantsLLC.com, TMorrissey@ensolum.com,
 KThomason@ensolum.com, CWright@ensolum.com

CHECKED BY: _____ (Initials)

FORM-006 R.3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 538879

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 538879
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2036549855
Incident Name	NAPP2036549855 CORRAL CANYON 10 EAST CTB PIPELINE @ FAPP2218240516
Incident Type	Oil Release
Incident Status	Remediation Closure Report Received
Incident Facility	[fAPP2218240516] XTO PERMIAN MIDSTREAM NGGS

Location of Release Source	
<i>Please answer all the questions in this group.</i>	
Site Name	CORRAL CANYON 10 EAST CTB PIPELINE
Date Release Discovered	12/16/2020
Surface Owner	Federal

Incident Details	
<i>Please answer all the questions in this group.</i>	
Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
<i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i>	
Crude Oil Released (bbls) Details	Cause: Equipment Failure Flow Line - Production Crude Oil Released: 1 BBL Recovered: 1 BBL Lost: 0 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure Flow Line - Production Produced Water Released: 59 BBL Recovered: 49 BBL Lost: 10 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 538879

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 538879
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.

With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.

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	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	<i>Not answered.</i>

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Richard Kotzur Title: Senior Project Manager Email: NMEEnvNotifications@exxonmobil.com Date: 12/30/2025
--	--

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QUESTIONS, Page 3

Action 538879

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 538879
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Zero feet, overlying, or within area
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1/2 and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	9860
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	62.9
GRO+DRO (EPA SW-846 Method 8015M)	62.9
BTEX (EPA SW-846 Method 8021B or 8260B)	1.3
Benzene (EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	12/16/2020
On what date will (or did) the final sampling or liner inspection occur	09/24/2025
On what date will (or was) the remediation complete(d)	06/02/2021
What is the estimated surface area (in square feet) that will be reclaimed	1700
What is the estimated volume (in cubic yards) that will be reclaimed	2660
What is the estimated surface area (in square feet) that will be remediated	1700
What is the estimated volume (in cubic yards) that will be remediated	2660

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 538879

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 538879
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:

(Select all answers below that apply.)

(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	fEEM0112334510 HALFWAY DISPOSAL AND LANDFILL
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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.

I hereby agree and sign off to the above statement	Name: Richard Kotzur Title: Senior Project Manager Email: NMEnvNotifications@exxonmobil.com Date: 12/30/2025
--	---

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5

Action 538879

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 538879
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only	
<i>Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 538879

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 538879
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	507212
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/24/2025
What was the (estimated) number of samples that were to be gathered	2
What was the sampling surface area in square feet	200

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	1700
What was the total volume (cubic yards) remediated	2660
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	1700
What was the total volume (in cubic yards) reclaimed	2660

Summarize any additional remediation activities not included by answers (above)	Site assessment, delineation soil sampling, excavation, excavation soil sampling, and liner installation activities were conducted at the Site to address the extent of impacted soil from the December 16, 2020 crude oil and produced water release (Incident Number nAPP2036549855). A total of approximately 2,660 cubic yards of soil were removed from the Site during pipeline repairs and remediation activities. The eastern excavation measured roughly 1,300 square feet extending to a depth of 8 feet bgs, and the final western excavation extent measured approximately 400 square feet completed to a depth of 12 feet bgs. Two 20-mil impermeable liners were installed in the floor of both excavations at depths of approximately 8 feet bgs in the eastern excavation and 12 feet bgs in the western excavation prior to backfilling activities. Impacted soil was excavated to the reclamation requirement within the top four feet of soil and to the revised Closure Criteria at depths greater than 4 feet bgs. Groundwater is documented to be greater than 100 feet bgs beneath the Site, and the mapped wetland located approximately 200 feet from the excavation extents was determined to be topographically upgradient from the releases so is highly unlikely to be impacted from the releases.
---	---

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 (in .pdf format) 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.

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.

I hereby agree and sign off to the above statement	Name: Richard Kotzur Title: Senior Project Manager Email: NMEnvNotifications@exxonmobil.com Date: 12/30/2025
--	---

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QUESTIONS, Page 7

Action 538879

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 538879
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 538879

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 538879
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
nvez	Given the extraordinary circumstances involving this incident, the final remediation closure report is approved and the release resolved. This determination is based on the site specifics and should not be used in any future incident. Reclamation activities should be resolved with the current landowner (BLM) and any determination made by BLM will be evaluated by OCD.	2/24/2026