

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

State of New Mexico  
Energy Minerals and Natural  
Resources Department  
  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

|                |                |
|----------------|----------------|
| Incident ID    | nAPP2132244500 |
| District RP    |                |
| Facility ID    |                |
| Application ID |                |

## Release Notification

### Responsible Party

|                         |                              |
|-------------------------|------------------------------|
| Responsible Party       | OGRID                        |
| Contact Name            | Contact Telephone            |
| Contact email           | Incident # (assigned by OCD) |
| Contact mailing address |                              |

### Location of Release Source

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

|                         |                      |
|-------------------------|----------------------|
| Site Name               | Site Type            |
| Date Release Discovered | API# (if applicable) |

| Unit Letter | Section | Township | Range | County |
|-------------|---------|----------|-------|--------|
|             |         |          |       |        |

Surface Owner:  State  Federal  Tribal  Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

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

|   |  |  |
|---|--|--|
| <input type="checkbox"/> Crude Oil        | Volume Released (bbls)   | Volume Recovered (bbls)                                  |
| <input type="checkbox"/> Produced Water   | Volume Released (bbls)   | Volume Recovered (bbls)                                  |
|   | Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <input type="checkbox"/> Condensate       | Volume Released (bbls)   | Volume Recovered (bbls)                                  |
| <input type="checkbox"/> Natural Gas      | Volume Released (Mcf)  | Volume Recovered (Mcf)                                   |
| <input type="checkbox"/> Other (describe) | Volume/Weight Released (provide units)   | Volume/Weight Recovered (provide units)                  |

Cause of Release

State of New Mexico  
Oil Conservation Division

Page 2

|                |                |
|----------------|----------------|
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|  |  |
|--|--|
| Was this a major release as defined by 19.15.29.7(A) NMAC?<br><br><input type="checkbox"/> Yes <input type="checkbox"/> No | If YES, for what reason(s) does the responsible party consider this a major release? |
| If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?               |  |

### Initial Response

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

|  |
|--|
| <input type="checkbox"/> The source of the release has been stopped.<br><input type="checkbox"/> The impacted area has been secured to protect human health and the environment.<br><input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.<br><input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.   |
| If all the actions described above have <u>not</u> been undertaken, explain why:   |
| Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.  |
| 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. |
| Printed Name: _____ Title: _____<br>Signature: <u>Adrian Bafes</u> Date: _____<br>email: _____ Telephone: _____  |
| <b><u>OCD Only</u></b><br><br>Received by: _____ Date: _____   |

|  |                          |         |
|--|--------------------------|---------|
| <b>Location:</b>                         | <b>JRU DI 1A Battery</b> |         |
| <b>Spill Date:</b>                       | <b>11/12/2021</b>        |         |
| <b>Area 1</b>                            |                          |         |
| Approximate Area =                       | 11.00                    | sq. ft. |
| Average Saturation (or depth) of spill = | 0.25                     | inches  |
|  |                          |         |
| Average Porosity Factor =                | 0.20                     |         |
|  |                          |         |
| <b>VOLUME OF LEAK</b>                    |                          |         |
| Total Condensate=                        | 0.01                     | bbls    |
| Total Produced Water =                   | 0.00                     | bbls    |
| <b>TOTAL VOLUME OF LEAK</b>              |                          |         |
| Total Condensate =                       | 0.01                     | bbls    |
| Total Produced Water =                   | 0.00                     | bbls    |
| <b>TOTAL VOLUME RECOVERED</b>            |                          |         |
| Total Condensate=                        | 0.00                     | bbls    |
| Total Produced Water =                   | 0.00                     | bbls    |

|                |                |
|----------------|----------------|
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## Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico  
Oil Conservation Division

Page 4

|                |                |
|----------------|----------------|
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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.

Printed Name: \_\_\_\_\_ Adrian Baker \_\_\_\_\_ Title: \_\_\_\_\_ Environmental Coordinator \_\_\_\_\_

*Adrian Baker*

Signature: \_\_\_\_\_ Date: \_\_\_\_\_ 02/10/2022 \_\_\_\_\_

Email: \_\_\_\_\_ adrian.baker@exxonmobil.com \_\_\_\_\_ Telephone: \_\_\_\_\_ 432-236-3808 \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

|                |                |
|----------------|----------------|
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| District RP    |                |
| Facility ID    |                |
| Application ID |                |

## Closure

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

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

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: \_\_\_\_\_ Adrian Baker \_\_\_\_\_ Title: \_\_\_\_\_ Environmental Coordinator \_\_\_\_\_

Signature:  \_\_\_\_\_ Date: \_\_\_\_\_ 02/10/2022 \_\_\_\_\_

email: \_\_\_\_\_ adrian.baker@exxonmobil.com \_\_\_\_\_ Telephone: \_\_\_\_\_ (432)-236-3808 \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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

Closure Approved by:  \_\_\_\_\_ Date: \_\_\_\_\_ 02/16/2022 \_\_\_\_\_

Printed Name: \_\_\_\_\_ Jennifer Nobui \_\_\_\_\_ Title: \_\_\_\_\_ Environmental Specialist A \_\_\_\_\_



**WSP USA**

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

February 10, 2022

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

**RE: Closure Request  
JRUI 1A Tank Battery  
Incident Number nAPP2132244500  
Eddy County, New Mexico**

To Whom it May Concern:

WSP USA Inc. (WSP) on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment and soil sampling activities at the JRUI 1A Tank Battery (Site) in Unit F, Section 21, Township 22 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a small condensate release and flare fire at the Site. Based on the site assessment activities and laboratory analytical results from the soil sampling event, XTO is submitting this Closure Request, and requesting no further action (NFA) for Incident Number nAPP2132244500.

#### **RELEASE BACKGROUND**

On November 12, 2021, a back pressure valve failed, resulting in the release of 0.01 barrels (bbls) of condensate through the flare stack which resulted in a small fire. The fire extinguished itself on the ground and there were no fluids to recover. XTO reported the release immediately via email to the New Mexico Oil Conservation Division (NMOCD) and submitted a Release Notification Form C-141 (Form C-141) on November 18, 2021. The release was assigned Incident Number nAPP2132244500.

#### **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 estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is the New Mexico Office of the State Engineer (NMOSE) well C-03015, located approximately 0.95 miles southeast of the Site. The groundwater well has a reported depth to groundwater of 262 feet bgs and a total depth of 1,316 feet bgs. Ground surface elevation at the groundwater well location is 3,285 feet above mean sea level (amsl),



which is approximately 118 feet higher in elevation than the Site. All wells used for depth to groundwater determination are depicted on Figure 1. The referenced well records are included in Attachment 1.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 843 feet southwest 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 underlain by unstable geology (high 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

### **SITE ASSESSMENT AND DELINEATION ACTIVITIES**

On January 7, 2022, WSP personnel visited the Site to evaluate the flare fire release extent based on information provided on the Form C-141, visual observations, and information provided by on-site XTO personnel. One pothole (PH01) was advanced to a depth of 1-foot bgs beneath the flare at the location of the fire, to assess for the presence or absence of impacted soil. Delineation soil samples PH01 and PH01A were collected from the pothole at depths of 0.5 feet bgs and 1-foot bgs, respectively. The delineation soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The flare and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Field screening results and observations for the soil samples were logged on a lithologic/soil sampling log, which is included in Attachment 2. Photographic documentation was conducted during the Site visit. A photographic log is included in Attachment 3.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were 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-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

### SOIL ANALYTICAL RESULTS

Laboratory analytical results for delineation soil samples PH01 and PH01A indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Site Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical report is included as Attachment 4.

### CLOSURE REQUEST

Site assessment activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from the November 12, 2021 condensate release and flare fire. Laboratory analytical results for the soil samples collected within the release extent, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on the soil sample analytical results, no impacted soil was identified, and no further remediation was required. As such, XTO respectfully requests NFA for Incident Number nAPP2132244500.

If you have any questions or comments, please do not hesitate to contact Ms. Aimee Cole at (720) 384-7365.

Sincerely,

WSP USA Inc.

A handwritten signature in black ink that reads "Katoch".

Nihaar Katoch  
Assistant Consultant, Geologist

A handwritten signature in black ink that reads "Aimee Cole".

Aimee Cole  
Senior Consultant, Environmental Scientist

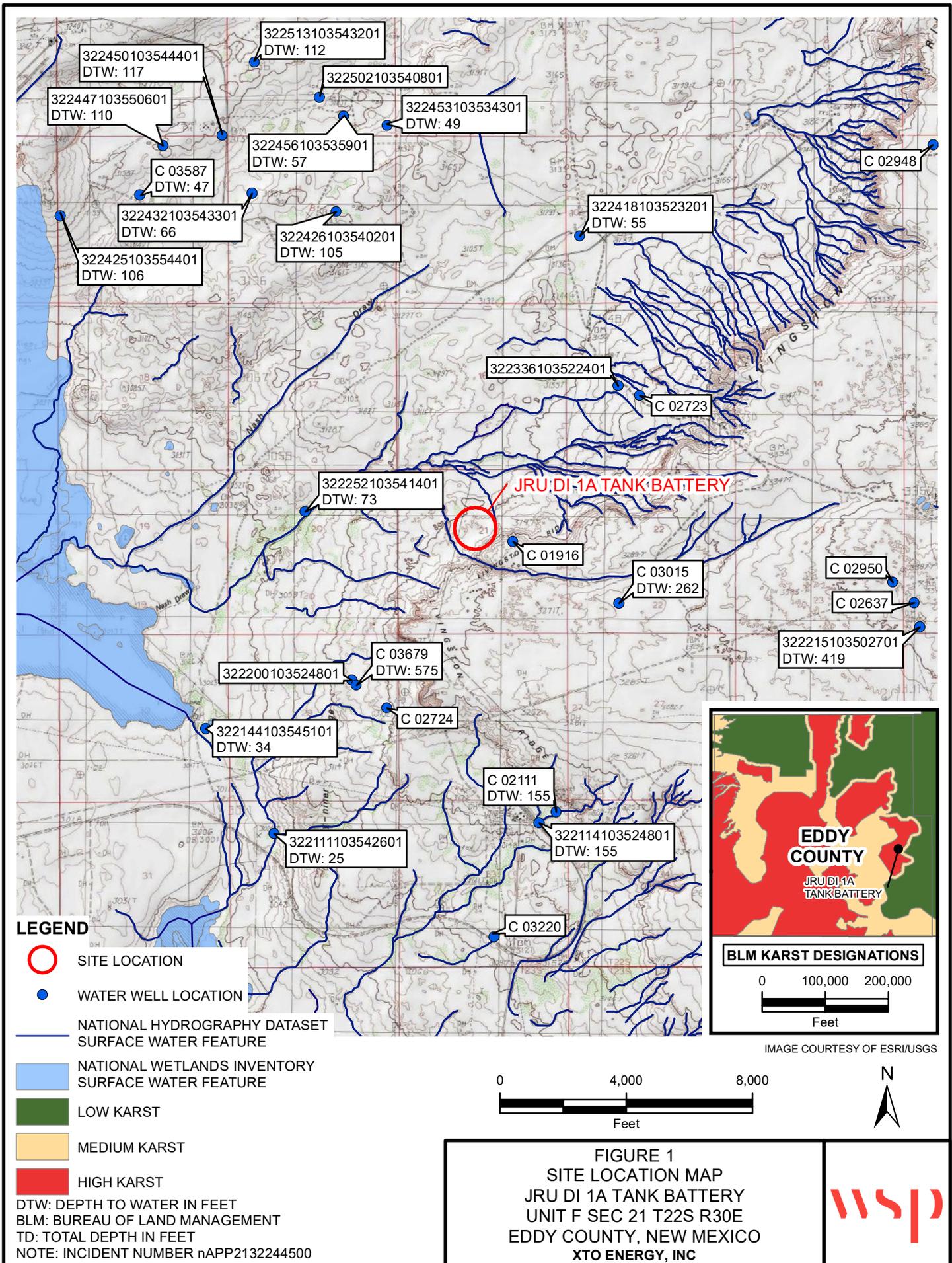
cc: Shelby Pennington, XTO  
Adrian Baker, XTO  
Bureau of Land Management



Attachments:

- Figure 1 Site Location Map
- Figure 2 Delineation Soil Sample Locations
- Table 1 Soil Analytical Results
- Attachment 1 Referenced Well Records
- Attachment 2 Lithologic/Sampling Log
- Attachment 3 Photographic Log
- Attachment 4 Laboratory Analytical Reports

FIGURES



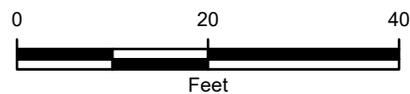


**LEGEND**

-  DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
-  FLARE STACK
-  GAS LINE
-  RELEASE EXTENT

NOTE: INCIDENT NUMBER NAPP2132244500  
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI



**FIGURE 2**  
**DELINEATION SOIL SAMPLE LOCATIONS**  
 JRU DI 1A TANK BATTERY  
 UNIT F SEC 21 T22S R30E  
 EDDY COUNTY, NEW MEXICO  
**XTO ENERGY, INC.**



TABLES

Table 1

**Soil Analytical Results**  
**JRU DI 1A Tank Battery**  
**Incident Number: nAPP2132244500**  
**Eddy County, New Mexico**

| Sample ID   | Sample Date | Sample Depth<br>(ft bgs) | Benzene<br>(mg/kg) | BTEX<br>(mg/kg) | TPH-GRO<br>(mg/kg) | TPH-DRO<br>(mg/kg) | TPH-ORO<br>(mg/kg) | Total<br>GRO+DRO<br>(mg/kg) | TPH<br>(mg/kg) | Chloride<br>(mg/kg) |
|---|-------------|--------------------------|--------------------|-----------------|--------------------|--------------------|--------------------|-----------------------------|----------------|---------------------|
| <b>NMOCD Table 1 Closure Criteria (NMAC 19.15.29)</b> |             |                          | 10                 | 50              | NE                 | NE                 | NE                 | NE                          | <b>100</b>     | <b>600</b>          |
| <b>Delineation Soil Samples</b>                       |             |                          |                    |                 |                    |                    |                    |                             |                |                     |
| PH01  | 01/07/2022  | 0.5                      | <0.00200           | <0.00400        | <49.9              | <49.9              | <49.9              | <49.9                       | <49.9          | 29.3                |
| PH01A   | 01/07/2022  | 1                        | <0.00198           | <0.00396        | <50.0              | <50.0              | <50.0              | <50.0                       | <50.0          | 15.8                |

**NOTES:**

ft - feet/foot

mg/Kg - milligrams per kilogram

bgs - below ground surface

GRO - Gasoline range organics

DRO - Diesel range organics

ORO - Oil range organics

BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes

TPH - Total petroleum hydrocarbons

&lt; - indicates result is less than the stated laboratory method practical quantitation limit

NE - Not Established

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

ATTACHMENT 1: REFERENCED WELL RECORDS



# New Mexico Office of the State Engineer

## Water Right Summary

**WR File Number:** C 03015                      **Subbasin:** CUB                      **Cross Reference:** -  
**Primary Purpose:** MON MONITORING WELL  
**Primary Status:** PMT PERMIT  
**Total Acres:**    **Subfile:** -    **Header:** -  
**Total Diversion:** 0    **Cause/Case:** -  
**Owner:** U.S. DEPT OF ENERGY - WIPP  
**Contact:** HAROLD JOHNSON

**Documents on File**

| Trn #                  | Doc                  | File/Act                   | Status |     | Transaction Desc.       | From/ | Acres | Diversion | Consumptive |
|------------------------|----------------------|----------------------------|--------|-----|-------------------------|-------|-------|-----------|-------------|
|                        |                      |                            | 1      | 2   |                         | To    |       |           |             |
| <a href="#">288525</a> | <a href="#">EXPL</a> | <a href="#">2003-11-25</a> | PMT    | LOG | C 03015 MONITORING WELL | T     | 0     | 0         |             |

**Current Points of Diversion**

(NAD83 UTM in meters)

| POD Number              | Well Tag | Source   | Q | 64Q16Q4Sec | Tws | Rng        | X      | Y        | Other Location Desc |
|-------------------------|----------|----------|---|------------|-----|------------|--------|----------|---------------------|
| <a href="#">C 03015</a> |          | Artesian | 1 | 4          | 3   | 22 22S 30E | 606099 | 3582353* |                     |

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

**Source**

| Acres | Diversion | CU | Use | Priority | Source Description |
|-------|-----------|----|-----|----------|--------------------|
| 0     | 0         |    | MON |          | GW                 |

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

12/16/21 1:16 PM

WATER RIGHT SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

|                 |                   |                                    |            |           |            |                       |            |          |          |
|-----------------|-------------------|------------------------------------|------------|-----------|------------|-----------------------|------------|----------|----------|
|                 |                   | (quarters are 1=NW 2=NE 3=SW 4=SE) |            |           |            | (NAD83 UTM in meters) |            |          |          |
|                 |                   | (quarters are smallest to largest) |            |           |            |                       |            |          |          |
| <b>Well Tag</b> | <b>POD Number</b> | <b>Q64</b>                         | <b>Q16</b> | <b>Q4</b> | <b>Sec</b> | <b>Tws</b>            | <b>Rng</b> | <b>X</b> | <b>Y</b> |
| C               | 03015             | 1                                  | 4          | 3         | 22         | 22S                   | 30E        | 606099   | 3582353* |

---

|                                     |   |                              |
|-------------------------------------|---|------------------------------|
| <b>Driller License:</b> 331         | <b>Driller Company:</b> SBQ2, LLC DBA STEWART BROTHERS DRILLING CO. | <b>Driller Name:</b>         |
| <b>Drill Start Date:</b> 01/21/2004 | <b>Drill Finish Date:</b> 01/25/2004                                | <b>Plug Date:</b>            |
| <b>Log File Date:</b> 03/04/2004    | <b>PCW Rev Date:</b>  | <b>Source:</b> Artesian      |
| <b>Pump Type:</b>                   | <b>Pipe Discharge Size:</b>   | <b>Estimated Yield:</b>      |
| <b>Casing Size:</b> 6.00            | <b>Depth Well:</b> 1316 feet  | <b>Depth Water:</b> 262 feet |

| Water Bearing Stratifications: | Top | Bottom | Description   |
|--------------------------------|-----|--------|---------------|
|                                | 362 | 385    | Other/Unknown |

---

| Casing Perforations: | Top | Bottom |
|----------------------|-----|--------|
|                      | 261 | 386    |

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

12/16/21 1:17 PM

POINT OF DIVERSION SUMMARY



USGS Home  
Contact USGS  
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## National Water Information System: Web Interface

USGS Water Resources (Cooperator Access) Data Category: Site Information Geographic Area: United States GO

Click for News Bulletins

# USGS 32252103541401 22S.30E.20.12310

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

## Well Site

### DESCRIPTION:

Latitude 32°22'52", Longitude 103°54'14" NAD27  
Eddy County, New Mexico , Hydrologic Unit 13060011  
Well depth: 129 feet  
Land surface altitude: 3,065 feet above NAVD88.  
Well completed in "Other aquifers" (N9999OTHER) national aquifer.  
Well completed in "Rustler Formation" (312RSLR) local aquifer

### AVAILABLE DATA:

| Data Type  | Begin Date                          | End Date   | Count |
|--|-------------------------------------|------------|-------|
| <a href="#">Field groundwater-level measurements</a> | 1952-02-26                          | 1959-02-19 | 2     |
| <a href="#">Revisions</a>                            | Unavailable (site:0) (timeseries:0) |            |       |

### OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center  
Email questions about this site to [New Mexico Water Science Center Water-Data Inquiries](#)

[Questions about sites/data?](#)

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Title: NWIS Site Information for USA: Site Inventory

URL: <https://waterdata.usgs.gov/nwis/inventory?>

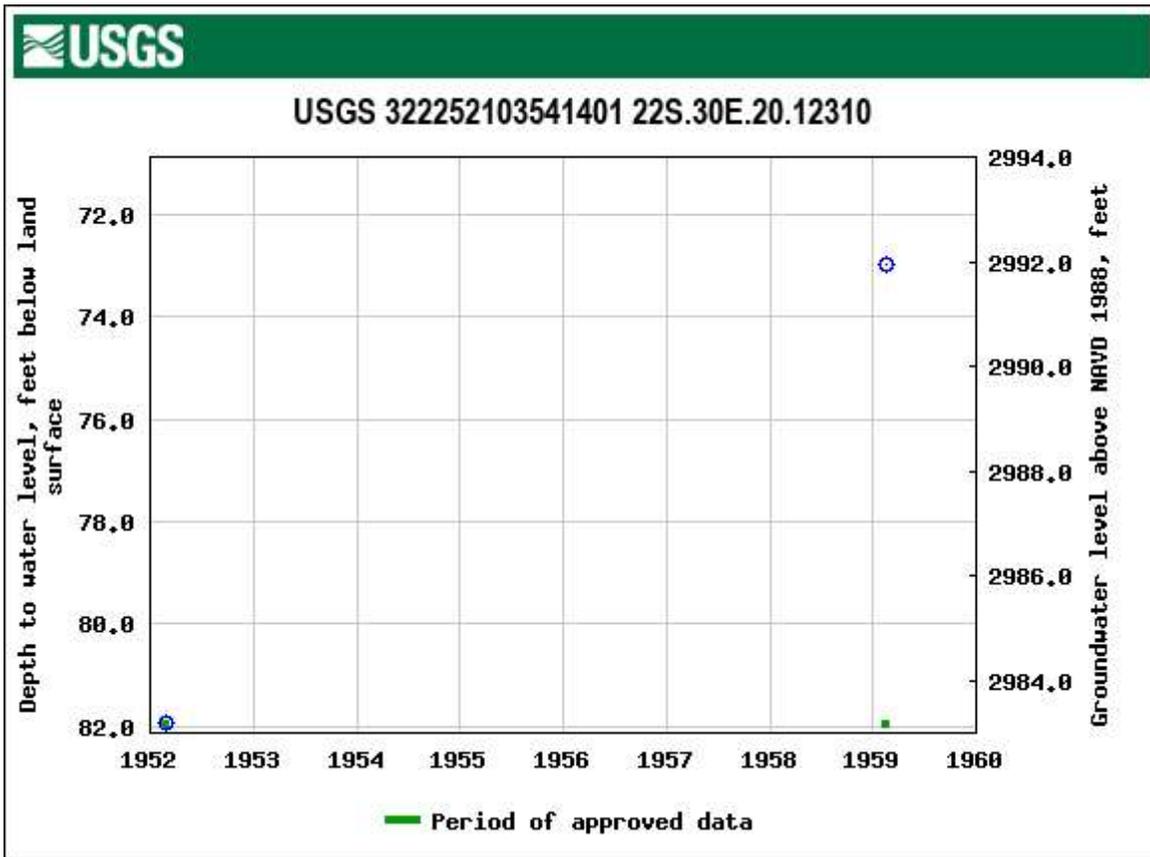


**agency\_code=USGS&site\_no=322252103541401**

Page Contact Information: [New Mexico Water Data Support Team](#)

Page Last Modified: 2021-12-16 15:20:23 EST

0.28 0.26 sdww02



ATTACHMENT 2: LITHOLOGIC/SAMPLING LOG

|  <p><b>WSP USA</b><br/>508 West Stevens Street<br/>Carlsbad, New Mexico 88220</p> |                |             |   | BH or PH Name: <b>PH01</b>                   |                       | Date: <b>01-07-2022</b> |                            |  |  |
|--|----------------|-------------|---|--|-----------------------|-------------------------|----------------------------|--|--|
|  |                |             |   | Site Name: <b>JRU DI 1A Tank Battery</b>     |                       |                         |                            |  |  |
|  |                |             |   | RP or Incident Number: <b>NAPP2132244500</b> |                       |                         |                            |  |  |
|  |                |             |   | WSP Job Number: <b>31403236.020.0129</b>     |                       |                         |                            |  |  |
| <b>LITHOLOGIC / SOIL SAMPLING LOG</b>  |                |             |   |  |                       | Logged By: <b>MR</b>    | Method: <b>Backhoe</b>     |  |  |
| Lat/Long: <b>32.37987, -103.88678</b>  |                |             | Field Screening: <b>Hach chloride strips, PID</b> |  |                       | Hole Diameter:          | Total Depth: <b>1 feet</b> |  |  |
| Comments: All chloride field screenings include a 40% correction factor<br>M-moist; D-dry; Y-yes; N-no   |                |             |   |  |                       |                         |                            |  |  |
| Moisture Content   | Chloride (ppm) | Vapor (ppm) | Staining  | Sample #                                     | Sample Depth (ft bgs) | Depth (ft bgs)          | USCS/Rock Symbol           | Lithology/Remarks  |  |
| M  | <132           | 0.4         | N   | PH01   | 0.5                   | 0                       | SM                         | SILTY SAND, poorly graded sand, moist, no staining, no odor, non-plastic fine brown sand |  |
| M  | <132           | 0.2         | N   | PH01A  | 1                     | 1                       | SM                         | SILTY SAND, poorly graded sand, moist, no staining, no odor, non-plastic fine brown sand |  |
| TD @ 1 ft bgs  |                |             |   |  |                       |                         |                            |  |  |

**ATTACHMENT 3: PHOTOGRAPHIC LOG**



|                         |   |                       |
|-------------------------|---|-----------------------|
| <b>PHOTOGRAPHIC LOG</b> |   |                       |
| <b>XTO Energy</b>       | <b>JRU DI 1A Tank Battery</b><br><b>Eddy County, New Mexico</b> | <b>nAPP2132244500</b> |

| Photo No.   | Date            |   |
|---|-----------------|---|
| 1   | January 7, 2022 |   |
| West facing view of flare stack during the initial site assessment. |                 |  |



|                         |   |                       |
|-------------------------|---|-----------------------|
| <b>PHOTOGRAPHIC LOG</b> |   |                       |
| <b>XTO Energy</b>       | <b>JRU DI 1A Tank Battery</b><br><b>Eddy County, New Mexico</b> | <b>nAPP2132244500</b> |

| Photo No.  | Date            |   |
|--|-----------------|---|
| 2  | January 7, 2022 |  |
| East facing view of flare stack after delineation activities |                 |   |

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS



Environment Testing  
America

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

## ANALYTICAL REPORT

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

Laboratory Job ID: 890-1810-1  
Laboratory SDG: 31403236.020.0129 TASK 14.02  
Client Project/Site: JRU DI 1A  
Revision: 2

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

Attn: Kalei Jennings

Authorized for release by:  
1/24/2022 2:54:01 PM

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



### LINKS

Review your project  
results through  
**Total Access**

Have a Question?



Visit us at:  
[www.eurofinsus.com/Env](http://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.*

Client: WSP USA Inc.  
Project/Site: JRU DI 1A

Laboratory Job ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Table of Contents

|                                  |    |
|----------------------------------|----|
| Cover Page . . . . .             | 1  |
| Table of Contents . . . . .      | 2  |
| Definitions/Glossary . . . . .   | 3  |
| Case Narrative . . . . .         | 4  |
| Client Sample Results . . . . .  | 5  |
| Surrogate Summary . . . . .      | 7  |
| QC Sample Results . . . . .      | 8  |
| QC Association Summary . . . . . | 14 |
| Lab Chronicle . . . . .          | 16 |
| Certification Summary . . . . .  | 17 |
| Method Summary . . . . .         | 18 |
| Sample Summary . . . . .         | 19 |
| Chain of Custody . . . . .       | 20 |
| Receipt Checklists . . . . .     | 21 |

## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: JRU DI 1A

Job ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

## 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: JRU DI 1A

Job ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

---

## Job ID: 890-1810-1

---

### Laboratory: Eurofins Carlsbad

#### Narrative

---

#### Job Narrative 890-1810-1

---

#### REVISION

The report being provided is a revision of the original report sent on 1/14/2022. The report (revision 2) is being revised due to Per client email, corrected sample depth for PH01 to 0.5'.

#### Report revision history

The report being provided is a revision of the original report sent on 1/14/2022. The report (revision 2) is being revised due to Per client email, corrected sample depth for PH01 to 0.5'.

Revision 1 - 1/14/2022 - Reason - PH reported on final report in error.

#### Receipt

The samples were received on 1/7/2022 2:17 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°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

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-16424 and analytical batch 880-16336 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: PH01A (890-1810-2), (880-10005-A-48-D), (880-10005-A-48-E MS) and (880-10005-A-48-F MSD). Evidence of matrix interferences is not obvious.

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: JRU DI 1AJob ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

Client Sample ID: PH01

Lab Sample ID: 890-1810-1

Date Collected: 01/07/22 12:04

Matrix: Solid

Date Received: 01/07/22 14:17

Sample Depth: 0.5

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

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 13:27 | 1       |
| Toluene             | <0.00200 | U         | 0.00200 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 13:27 | 1       |
| Ethylbenzene        | <0.00200 | U         | 0.00200 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 13:27 | 1       |
| m-Xylene & p-Xylene | <0.00400 | U         | 0.00400 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 13:27 | 1       |
| o-Xylene            | <0.00200 | U         | 0.00200 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 13:27 | 1       |
| Xylenes, Total      | <0.00400 | U         | 0.00400 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 13:27 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 117       |           | 70 - 130 | 01/11/22 07:30 | 01/11/22 13:27 | 1       |
| 1,4-Difluorobenzene (Surr)  | 106       |           | 70 - 130 | 01/11/22 07:30 | 01/11/22 13:27 | 1       |

## Method: Total BTEX - Total BTEX Calculation

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00400 | U         | 0.00400 | mg/Kg |   |          | 01/12/22 13:10 | 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 |   |          | 01/12/22 14:00 | 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 | <49.9  | U         | 49.9 | mg/Kg |   | 01/10/22 11:18 | 01/11/22 00:47 | 1       |
| Diesel Range Organics (Over C10-C28) | <49.9  | U         | 49.9 | mg/Kg |   | 01/10/22 11:18 | 01/11/22 00:47 | 1       |
| Oil Range Organics (Over C28-C36)    | <49.9  | U         | 49.9 | mg/Kg |   | 01/10/22 11:18 | 01/11/22 00:47 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 94        |           | 70 - 130 | 01/10/22 11:18 | 01/11/22 00:47 | 1       |
| o-Terphenyl    | 93        |           | 70 - 130 | 01/10/22 11:18 | 01/11/22 00:47 | 1       |

## Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 29.3   |           | 4.95 | mg/Kg |   |          | 01/13/22 21:52 | 1       |

Client Sample ID: PH01A

Lab Sample ID: 890-1810-2

Date Collected: 01/07/22 12:06

Matrix: Solid

Date Received: 01/07/22 14:17

Sample Depth: 1

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

| Analyte             | Result   | Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|----------|-----------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00198 | U         | 0.00198 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 13:48 | 1       |
| Toluene             | <0.00198 | U         | 0.00198 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 13:48 | 1       |
| Ethylbenzene        | <0.00198 | U         | 0.00198 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 13:48 | 1       |
| m-Xylene & p-Xylene | <0.00396 | U         | 0.00396 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 13:48 | 1       |
| o-Xylene            | <0.00198 | U         | 0.00198 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 13:48 | 1       |
| Xylenes, Total      | <0.00396 | U         | 0.00396 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 13:48 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 107       |           | 70 - 130 | 01/11/22 07:30 | 01/11/22 13:48 | 1       |

Eurofins Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: JRU DI 1AJob ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

Client Sample ID: PH01A

Lab Sample ID: 890-1810-2

Date Collected: 01/07/22 12:06

Matrix: Solid

Date Received: 01/07/22 14:17

Sample Depth: 1

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

| Surrogate                  | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,4-Difluorobenzene (Surr) | 99        |           | 70 - 130 | 01/11/22 07:30 | 01/11/22 13:48 | 1       |

## Method: Total BTEX - Total BTEX Calculation

| Analyte    | Result   | Qualifier | RL      | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------|----------|-----------|---------|-------|---|----------|----------------|---------|
| Total BTEX | <0.00396 | U         | 0.00396 | mg/Kg |   |          | 01/12/22 13:10 | 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 |   |          | 01/12/22 14:00 | 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 | <50.0  | U         | 50.0 | mg/Kg |   | 01/11/22 13:47 | 01/12/22 02:00 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.0  | U         | 50.0 | mg/Kg |   | 01/11/22 13:47 | 01/12/22 02:00 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.0  | U         | 50.0 | mg/Kg |   | 01/11/22 13:47 | 01/12/22 02:00 | 1       |

| Surrogate      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 59        | S1-       | 70 - 130 | 01/11/22 13:47 | 01/12/22 02:00 | 1       |
| o-Terphenyl    | 62        | S1-       | 70 - 130 | 01/11/22 13:47 | 01/12/22 02:00 | 1       |

## Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte  | Result | Qualifier | RL   | Unit  | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|---|----------|----------------|---------|
| Chloride | 15.8   |           | 5.00 | mg/Kg |   |          | 01/13/22 21:59 | 1       |

## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: JRU DI 1AJob ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

## 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) |
| 890-1808-A-1-A MS  | Matrix Spike           | 113      | 97       |
| 890-1808-A-1-B MSD | Matrix Spike Duplicate | 114      | 99       |
| 890-1810-1         | PH01                   | 117      | 106      |
| 890-1810-2         | PH01A                  | 107      | 99       |
| LCS 880-16375/1-A  | Lab Control Sample     | 106      | 102      |
| LCSD 880-16375/2-A | Lab Control Sample Dup | 100      | 95       |
| MB 880-16375/5-A   | Method Blank           | 122      | 104      |

## 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) |
| 880-10005-A-48-E MS  | Matrix Spike           | 65 S1-   | 61 S1-   |
| 880-10005-A-48-F MSD | Matrix Spike Duplicate | 67 S1-   | 64 S1-   |
| 890-1808-A-1-E MS    | Matrix Spike           | 75       | 66 S1-   |
| 890-1808-A-1-F MSD   | Matrix Spike Duplicate | 77       | 75       |
| 890-1810-1           | PH01                   | 94       | 93       |
| 890-1810-2           | PH01A                  | 59 S1-   | 62 S1-   |
| LCS 880-16541/2-A    | Lab Control Sample     | 94       | 92       |
| LCSD 880-16541/3-A   | Lab Control Sample Dup | 97       | 93       |
| MB 880-16541/1-A     | Method Blank           | 71       | 76       |

## Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

## 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       | 1CO2     | OTPH2    |
|--------------------|------------------------|----------|----------|
|                    |                        | (70-130) | (70-130) |
| LCS 880-16424/2-A  | Lab Control Sample     | 88       | 82       |
| LCSD 880-16424/3-A | Lab Control Sample Dup | 90       | 85       |
| MB 880-16424/1-A   | Method Blank           | 85       | 86       |

## Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

### QC Sample Results

Client: WSP USA Inc.  
Project/Site: JRU DI 1A

Job ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

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

Lab Sample ID: MB 880-16375/5-A  
Matrix: Solid  
Analysis Batch: 16473

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 16375

| Analyte             | MB Result | MB Qualifier | RL      | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------|-----------|--------------|---------|-------|---|----------------|----------------|---------|
| Benzene             | <0.00200  | U            | 0.00200 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 10:56 | 1       |
| Toluene             | <0.00200  | U            | 0.00200 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 10:56 | 1       |
| Ethylbenzene        | <0.00200  | U            | 0.00200 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 10:56 | 1       |
| m-Xylene & p-Xylene | <0.00400  | U            | 0.00400 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 10:56 | 1       |
| o-Xylene            | <0.00200  | U            | 0.00200 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 10:56 | 1       |
| Xylenes, Total      | <0.00400  | U            | 0.00400 | mg/Kg |   | 01/11/22 07:30 | 01/11/22 10:56 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 122          |              | 70 - 130 | 01/11/22 07:30 | 01/11/22 10:56 | 1       |
| 1,4-Difluorobenzene (Surr)  | 104          |              | 70 - 130 | 01/11/22 07:30 | 01/11/22 10:56 | 1       |

Lab Sample ID: LCS 880-16375/1-A  
Matrix: Solid  
Analysis Batch: 16473

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 16375

| Analyte             | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------------|-------------|------------|---------------|-------|---|------|--------------|
| Benzene             | 0.100       | 0.08315    |               | mg/Kg |   | 83   | 70 - 130     |
| Toluene             | 0.100       | 0.08870    |               | mg/Kg |   | 89   | 70 - 130     |
| Ethylbenzene        | 0.100       | 0.09339    |               | mg/Kg |   | 93   | 70 - 130     |
| m-Xylene & p-Xylene | 0.200       | 0.1861     |               | mg/Kg |   | 93   | 70 - 130     |
| o-Xylene            | 0.100       | 0.08889    |               | mg/Kg |   | 89   | 70 - 130     |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr) | 106           |               | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 102           |               | 70 - 130 |

Lab Sample ID: LCSD 880-16375/2-A  
Matrix: Solid  
Analysis Batch: 16473

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 16375

| Analyte             | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Benzene             | 0.100       | 0.07953     |                | mg/Kg |   | 80   | 70 - 130     | 4   | 35        |
| Toluene             | 0.100       | 0.08523     |                | mg/Kg |   | 85   | 70 - 130     | 4   | 35        |
| Ethylbenzene        | 0.100       | 0.08496     |                | mg/Kg |   | 85   | 70 - 130     | 9   | 35        |
| m-Xylene & p-Xylene | 0.200       | 0.1720      |                | mg/Kg |   | 86   | 70 - 130     | 8   | 35        |
| o-Xylene            | 0.100       | 0.08408     |                | mg/Kg |   | 84   | 70 - 130     | 6   | 35        |

| Surrogate                   | LCSD %Recovery | LCSD Qualifier | Limits   |
|-----------------------------|----------------|----------------|----------|
| 4-Bromofluorobenzene (Surr) | 100            |                | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 95             |                | 70 - 130 |

Lab Sample ID: 890-1808-A-1-A MS  
Matrix: Solid  
Analysis Batch: 16473

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 16375

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Benzene | <0.00202      | U                | 0.0996      | 0.07065   |              | mg/Kg |   | 71   | 70 - 130     |
| Toluene | <0.00202      | U                | 0.0996      | 0.08138   |              | mg/Kg |   | 81   | 70 - 130     |

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### QC Sample Results

Client: WSP USA Inc.  
Project/Site: JRU DI 1A

Job ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

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

Lab Sample ID: 890-1808-A-1-A MS  
Matrix: Solid  
Analysis Batch: 16473

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 16375

| Analyte             | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Ethylbenzene        | <0.00202      | U                | 0.0996      | 0.08297   |              | mg/Kg |   | 83   | 70 - 130     |
| m-Xylene & p-Xylene | <0.00403      | U                | 0.199       | 0.1604    |              | mg/Kg |   | 81   | 70 - 130     |
| o-Xylene            | <0.00202      | U                | 0.0996      | 0.07909   |              | mg/Kg |   | 79   | 70 - 130     |

| Surrogate                   | MS %Recovery | MS Qualifier | Limits   |
|-----------------------------|--------------|--------------|----------|
| 4-Bromofluorobenzene (Surr) | 113          |              | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 97           |              | 70 - 130 |

Lab Sample ID: 890-1808-A-1-B MSD  
Matrix: Solid  
Analysis Batch: 16473

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 16375

| Analyte             | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|---------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| Benzene             | <0.00202      | U                | 0.100       | 0.07696    |               | mg/Kg |   | 77   | 70 - 130     | 9   | 35    |
| Toluene             | <0.00202      | U                | 0.100       | 0.08435    |               | mg/Kg |   | 84   | 70 - 130     | 4   | 35    |
| Ethylbenzene        | <0.00202      | U                | 0.100       | 0.08810    |               | mg/Kg |   | 88   | 70 - 130     | 6   | 35    |
| m-Xylene & p-Xylene | <0.00403      | U                | 0.200       | 0.1699     |               | mg/Kg |   | 85   | 70 - 130     | 6   | 35    |
| o-Xylene            | <0.00202      | U                | 0.100       | 0.08222    |               | mg/Kg |   | 82   | 70 - 130     | 4   | 35    |

| Surrogate                   | MSD %Recovery | MSD Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr) | 114           |               | 70 - 130 |
| 1,4-Difluorobenzene (Surr)  | 99            |               | 70 - 130 |

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

Lab Sample ID: MB 880-16424/1-A  
Matrix: Solid  
Analysis Batch: 16336

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 16424

| 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 |   | 01/10/22 11:18 | 01/10/22 20:35 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.0     | U            | 50.0 | mg/Kg |   | 01/10/22 11:18 | 01/10/22 20:35 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.0     | U            | 50.0 | mg/Kg |   | 01/10/22 11:18 | 01/10/22 20:35 | 1       |

| Surrogate      | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|--------------|--------------|----------|----------------|----------------|---------|
| 1-Chlorooctane | 85           |              | 70 - 130 | 01/10/22 11:18 | 01/10/22 20:35 | 1       |
| o-Terphenyl    | 86           |              | 70 - 130 | 01/10/22 11:18 | 01/10/22 20:35 | 1       |

Lab Sample ID: LCS 880-16424/2-A  
Matrix: Solid  
Analysis Batch: 16336

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 16424

| Analyte                              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Gasoline Range Organics (GRO)-C6-C10 | 1000        | 826.7      |               | mg/Kg |   | 83   | 70 - 130     |
| Diesel Range Organics (Over C10-C28) | 1000        | 915.4      |               | mg/Kg |   | 92   | 70 - 130     |

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### QC Sample Results

Client: WSP USA Inc.  
Project/Site: JRU DI 1A

Job ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

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

**Lab Sample ID: LCS 880-16424/2-A**  
**Matrix: Solid**  
**Analysis Batch: 16336**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 16424**

| Surrogate      | LCS LCS   |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 88        |           | 70 - 130 |
| o-Terphenyl    | 82        |           | 70 - 130 |

**Lab Sample ID: LCSD 880-16424/3-A**  
**Matrix: Solid**  
**Analysis Batch: 16336**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 16424**

| Analyte                              | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits |       | RPD Limit |  |
|--------------------------------------|-------------|-------------|----------------|-------|---|------|--------------|-------|-----------|--|
|                                      |             |             |                |       |   |      | RPD          | Limit |           |  |
| Gasoline Range Organics (GRO)-C6-C10 | 1000        | 841.5       |                | mg/Kg |   | 84   | 70 - 130     | 2     | 20        |  |
| Diesel Range Organics (Over C10-C28) | 1000        | 916.2       |                | mg/Kg |   | 92   | 70 - 130     | 0     | 20        |  |

| Surrogate      | LCSD LCSD |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 90        |           | 70 - 130 |
| o-Terphenyl    | 85        |           | 70 - 130 |

**Lab Sample ID: 890-1808-A-1-E MS**  
**Matrix: Solid**  
**Analysis Batch: 16336**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 16424**

| Analyte                              | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |       |
|--------------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|-------|
|                                      |               |                  |             |           |              |       |   |      | RPD          | Limit |
| Gasoline Range Organics (GRO)-C6-C10 | <49.9         | U                | 996         | 977.5     |              | mg/Kg |   | 95   | 70 - 130     |       |
| Diesel Range Organics (Over C10-C28) | <49.9         | U                | 996         | 851.8     |              | mg/Kg |   | 86   | 70 - 130     |       |

| Surrogate      | MS MS     |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 75        |           | 70 - 130 |
| o-Terphenyl    | 66        | S1-       | 70 - 130 |

**Lab Sample ID: 890-1808-A-1-F MSD**  
**Matrix: Solid**  
**Analysis Batch: 16336**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 16424**

| Analyte                              | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits |       | RPD Limit |  |
|--------------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-------|-----------|--|
|                                      |               |                  |             |            |               |       |   |      | RPD          | Limit |           |  |
| Gasoline Range Organics (GRO)-C6-C10 | <49.9         | U                | 999         | 1093       |               | mg/Kg |   | 107  | 70 - 130     | 11    | 20        |  |
| Diesel Range Organics (Over C10-C28) | <49.9         | U                | 999         | 862.8      |               | mg/Kg |   | 86   | 70 - 130     | 1     | 20        |  |

| Surrogate      | MSD MSD   |           | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 77        |           | 70 - 130 |
| o-Terphenyl    | 75        |           | 70 - 130 |

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### QC Sample Results

Client: WSP USA Inc.  
Project/Site: JRU DI 1A

Job ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

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

**Lab Sample ID: MB 880-16541/1-A**  
**Matrix: Solid**  
**Analysis Batch: 16483**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 16541**

| 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 |   | 01/11/22 13:47 | 01/11/22 22:28 | 1       |
| Diesel Range Organics (Over C10-C28) | <50.0  | U         | 50.0 | mg/Kg |   | 01/11/22 13:47 | 01/11/22 22:28 | 1       |
| Oil Range Organics (Over C28-C36)    | <50.0  | U         | 50.0 | mg/Kg |   | 01/11/22 13:47 | 01/11/22 22:28 | 1       |

| Surrogate      | MB        | MB        | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|-----------|----------|----------------|----------------|---------|
|                | %Recovery | Qualifier |          |                |                |         |
| 1-Chlorooctane | 71        |           | 70 - 130 | 01/11/22 13:47 | 01/11/22 22:28 | 1       |
| o-Terphenyl    | 76        |           | 70 - 130 | 01/11/22 13:47 | 01/11/22 22:28 | 1       |

**Lab Sample ID: LCS 880-16541/2-A**  
**Matrix: Solid**  
**Analysis Batch: 16483**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 16541**

| Analyte                              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------------------|-------------|------------|---------------|-------|---|------|--------------|
|                                      |             |            |               |       |   |      |              |
| Diesel Range Organics (Over C10-C28) | 1000        | 894.0      |               | mg/Kg |   | 89   | 70 - 130     |

| Surrogate      | LCS       | LCS       | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 94        |           | 70 - 130 |
| o-Terphenyl    | 92        |           | 70 - 130 |

**Lab Sample ID: LCSD 880-16541/3-A**  
**Matrix: Solid**  
**Analysis Batch: 16483**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 16541**

| Analyte                              | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD |       |
|--------------------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-------|
|                                      |             |             |                |       |   |      |              | RPD | Limit |
| Gasoline Range Organics (GRO)-C6-C10 | 1000        | 840.1       |                | mg/Kg |   | 84   | 70 - 130     | 7   | 20    |
| Diesel Range Organics (Over C10-C28) | 1000        | 979.9       |                | mg/Kg |   | 98   | 70 - 130     | 9   | 20    |

| Surrogate      | LCSD      | LCSD      | Limits   |
|----------------|-----------|-----------|----------|
|                | %Recovery | Qualifier |          |
| 1-Chlorooctane | 97        |           | 70 - 130 |
| o-Terphenyl    | 93        |           | 70 - 130 |

**Lab Sample ID: 880-10005-A-48-E MS**  
**Matrix: Solid**  
**Analysis Batch: 16483**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 16541**

| Analyte                              | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
|                                      |               |                  |             |           |              |       |   |      |              |
| Diesel Range Organics (Over C10-C28) | <49.9         | U                | 996         | 786.7     |              | mg/Kg |   | 79   | 70 - 130     |

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### QC Sample Results

Client: WSP USA Inc.  
Project/Site: JRU DI 1A

Job ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

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

Lab Sample ID: 880-10005-A-48-E MS  
Matrix: Solid  
Analysis Batch: 16483

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 16541

| Surrogate      | %Recovery | MS MS<br>Qualifier | Limits   |
|----------------|-----------|--------------------|----------|
| 1-Chlorooctane | 65        | S1-                | 70 - 130 |
| o-Terphenyl    | 61        | S1-                | 70 - 130 |

Lab Sample ID: 880-10005-A-48-F MSD  
Matrix: Solid  
Analysis Batch: 16483

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 16541

| 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                | 999         | 744.4      |               | mg/Kg |   | 73   | 70 - 130     | 2   | 20        |
| Diesel Range Organics (Over C10-C28) | <49.9         | U                | 999         | 826.5      |               | mg/Kg |   | 83   | 70 - 130     | 5   | 20        |

| Surrogate      | %Recovery | MSD MSD<br>Qualifier | Limits   |
|----------------|-----------|----------------------|----------|
| 1-Chlorooctane | 67        | S1-                  | 70 - 130 |
| o-Terphenyl    | 64        | S1-                  | 70 - 130 |

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-16629/1-A  
Matrix: Solid  
Analysis Batch: 16695

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 |   |          | 01/13/22 19:23 | 1       |

Lab Sample ID: LCS 880-16629/2-A  
Matrix: Solid  
Analysis Batch: 16695

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

| Analyte  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------|-------------|------------|---------------|-------|---|------|--------------|
| Chloride | 250         | 272.1      |               | mg/Kg |   | 109  | 90 - 110     |

Lab Sample ID: LCSD 880-16629/3-A  
Matrix: Solid  
Analysis Batch: 16695

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         | 272.5       |                | mg/Kg |   | 109  | 90 - 110     | 0   | 20        |

Lab Sample ID: 880-10083-A-3-C MS  
Matrix: Solid  
Analysis Batch: 16695

Client Sample ID: Matrix Spike  
Prep Type: Soluble

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Chloride | 445           |                  | 248         | 680.1     |              | mg/Kg |   | 95   | 90 - 110     |

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### QC Sample Results

Client: WSP USA Inc.  
Project/Site: JRU DI 1A

Job ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

#### Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-10083-A-3-D MSD  
Matrix: Solid  
Analysis Batch: 16695

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Soluble

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Chloride | 445           |                  | 248         | 680.4      |               | mg/Kg |   | 95   | 90 - 110     | 0   | 20        |

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- 14

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: JRU DI 1AJob ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

## GC VOA

## Prep Batch: 16375

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 890-1810-1         | PH01                   | Total/NA  | Solid  | 5035   |            |
| 890-1810-2         | PH01A                  | Total/NA  | Solid  | 5035   |            |
| MB 880-16375/5-A   | Method Blank           | Total/NA  | Solid  | 5035   |            |
| LCS 880-16375/1-A  | Lab Control Sample     | Total/NA  | Solid  | 5035   |            |
| LCSD 880-16375/2-A | Lab Control Sample Dup | Total/NA  | Solid  | 5035   |            |
| 890-1808-A-1-A MS  | Matrix Spike           | Total/NA  | Solid  | 5035   |            |
| 890-1808-A-1-B MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 5035   |            |

## Analysis Batch: 16473

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 890-1810-1         | PH01                   | Total/NA  | Solid  | 8021B  | 16375      |
| 890-1810-2         | PH01A                  | Total/NA  | Solid  | 8021B  | 16375      |
| MB 880-16375/5-A   | Method Blank           | Total/NA  | Solid  | 8021B  | 16375      |
| LCS 880-16375/1-A  | Lab Control Sample     | Total/NA  | Solid  | 8021B  | 16375      |
| LCSD 880-16375/2-A | Lab Control Sample Dup | Total/NA  | Solid  | 8021B  | 16375      |
| 890-1808-A-1-A MS  | Matrix Spike           | Total/NA  | Solid  | 8021B  | 16375      |
| 890-1808-A-1-B MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8021B  | 16375      |

## Analysis Batch: 16668

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method     | Prep Batch |
|---------------|------------------|-----------|--------|------------|------------|
| 890-1810-1    | PH01             | Total/NA  | Solid  | Total BTEX |            |
| 890-1810-2    | PH01A            | Total/NA  | Solid  | Total BTEX |            |

## GC Semi VOA

## Analysis Batch: 16336

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|--------------------|------------------------|-----------|--------|----------|------------|
| 890-1810-1         | PH01                   | Total/NA  | Solid  | 8015B NM | 16424      |
| MB 880-16424/1-A   | Method Blank           | Total/NA  | Solid  | 8015B NM | 16424      |
| LCS 880-16424/2-A  | Lab Control Sample     | Total/NA  | Solid  | 8015B NM | 16424      |
| LCSD 880-16424/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 8015B NM | 16424      |
| 890-1808-A-1-E MS  | Matrix Spike           | Total/NA  | Solid  | 8015B NM | 16424      |
| 890-1808-A-1-F MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8015B NM | 16424      |

## Prep Batch: 16424

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method      | Prep Batch |
|--------------------|------------------------|-----------|--------|-------------|------------|
| 890-1810-1         | PH01                   | Total/NA  | Solid  | 8015NM Prep |            |
| MB 880-16424/1-A   | Method Blank           | Total/NA  | Solid  | 8015NM Prep |            |
| LCS 880-16424/2-A  | Lab Control Sample     | Total/NA  | Solid  | 8015NM Prep |            |
| LCSD 880-16424/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 8015NM Prep |            |
| 890-1808-A-1-E MS  | Matrix Spike           | Total/NA  | Solid  | 8015NM Prep |            |
| 890-1808-A-1-F MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8015NM Prep |            |

## Analysis Batch: 16483

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|----------------------|------------------------|-----------|--------|----------|------------|
| 890-1810-2           | PH01A                  | Total/NA  | Solid  | 8015B NM | 16541      |
| MB 880-16541/1-A     | Method Blank           | Total/NA  | Solid  | 8015B NM | 16541      |
| LCS 880-16541/2-A    | Lab Control Sample     | Total/NA  | Solid  | 8015B NM | 16541      |
| LCSD 880-16541/3-A   | Lab Control Sample Dup | Total/NA  | Solid  | 8015B NM | 16541      |
| 880-10005-A-48-E MS  | Matrix Spike           | Total/NA  | Solid  | 8015B NM | 16541      |
| 880-10005-A-48-F MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8015B NM | 16541      |

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: JRU DI 1AJob ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

## GC Semi VOA

## Prep Batch: 16541

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method      | Prep Batch |
|----------------------|------------------------|-----------|--------|-------------|------------|
| 890-1810-2           | PH01A                  | Total/NA  | Solid  | 8015NM Prep |            |
| MB 880-16541/1-A     | Method Blank           | Total/NA  | Solid  | 8015NM Prep |            |
| LCS 880-16541/2-A    | Lab Control Sample     | Total/NA  | Solid  | 8015NM Prep |            |
| LCSD 880-16541/3-A   | Lab Control Sample Dup | Total/NA  | Solid  | 8015NM Prep |            |
| 880-10005-A-48-E MS  | Matrix Spike           | Total/NA  | Solid  | 8015NM Prep |            |
| 880-10005-A-48-F MSD | Matrix Spike Duplicate | Total/NA  | Solid  | 8015NM Prep |            |

## Analysis Batch: 16554

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method  | Prep Batch |
|---------------|------------------|-----------|--------|---------|------------|
| 890-1810-1    | PH01             | Total/NA  | Solid  | 8015 NM |            |
| 890-1810-2    | PH01A            | Total/NA  | Solid  | 8015 NM |            |

## HPLC/IC

## Leach Batch: 16629

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|---------------------|------------------------|-----------|--------|----------|------------|
| 890-1810-1          | PH01                   | Soluble   | Solid  | DI Leach |            |
| 890-1810-2          | PH01A                  | Soluble   | Solid  | DI Leach |            |
| MB 880-16629/1-A    | Method Blank           | Soluble   | Solid  | DI Leach |            |
| LCS 880-16629/2-A   | Lab Control Sample     | Soluble   | Solid  | DI Leach |            |
| LCSD 880-16629/3-A  | Lab Control Sample Dup | Soluble   | Solid  | DI Leach |            |
| 880-10083-A-3-C MS  | Matrix Spike           | Soluble   | Solid  | DI Leach |            |
| 880-10083-A-3-D MSD | Matrix Spike Duplicate | Soluble   | Solid  | DI Leach |            |

## Analysis Batch: 16695

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 890-1810-1          | PH01                   | Soluble   | Solid  | 300.0  | 16629      |
| 890-1810-2          | PH01A                  | Soluble   | Solid  | 300.0  | 16629      |
| MB 880-16629/1-A    | Method Blank           | Soluble   | Solid  | 300.0  | 16629      |
| LCS 880-16629/2-A   | Lab Control Sample     | Soluble   | Solid  | 300.0  | 16629      |
| LCSD 880-16629/3-A  | Lab Control Sample Dup | Soluble   | Solid  | 300.0  | 16629      |
| 880-10083-A-3-C MS  | Matrix Spike           | Soluble   | Solid  | 300.0  | 16629      |
| 880-10083-A-3-D MSD | Matrix Spike Duplicate | Soluble   | Solid  | 300.0  | 16629      |

## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: JRU DI 1A

Job ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

Client Sample ID: PH01

Lab Sample ID: 890-1810-1

Date Collected: 01/07/22 12:04

Matrix: Solid

Date Received: 01/07/22 14:17

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Prep       | 5035         |     |                 | 16375        | 01/11/22 07:30       | KL      | XEN MID |
| Total/NA  | Analysis   | 8021B        |     | 1               | 16473        | 01/11/22 13:27       | MR      | XEN MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1               | 16668        | 01/12/22 13:10       | AJ      | XEN MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1               | 16554        | 01/12/22 14:00       | AJ      | XEN MID |
| Total/NA  | Prep       | 8015NM Prep  |     |                 | 16424        | 01/10/22 11:18       | DM      | XEN MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1               | 16336        | 01/11/22 00:47       | AJ      | XEN MID |
| Soluble   | Leach      | DI Leach     |     |                 | 16629        | 01/12/22 10:44       | CH      | XEN MID |
| Soluble   | Analysis   | 300.0        |     | 1               | 16695        | 01/13/22 21:52       | CH      | XEN MID |

Client Sample ID: PH01A

Lab Sample ID: 890-1810-2

Date Collected: 01/07/22 12:06

Matrix: Solid

Date Received: 01/07/22 14:17

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Prep       | 5035         |     |                 | 16375        | 01/11/22 07:30       | KL      | XEN MID |
| Total/NA  | Analysis   | 8021B        |     | 1               | 16473        | 01/11/22 13:48       | MR      | XEN MID |
| Total/NA  | Analysis   | Total BTEX   |     | 1               | 16668        | 01/12/22 13:10       | AJ      | XEN MID |
| Total/NA  | Analysis   | 8015 NM      |     | 1               | 16554        | 01/12/22 14:00       | AJ      | XEN MID |
| Total/NA  | Prep       | 8015NM Prep  |     |                 | 16541        | 01/11/22 13:47       | DM      | XEN MID |
| Total/NA  | Analysis   | 8015B NM     |     | 1               | 16483        | 01/12/22 02:00       | AJ      | XEN MID |
| Soluble   | Leach      | DI Leach     |     |                 | 16629        | 01/12/22 10:44       | CH      | XEN MID |
| Soluble   | Analysis   | 300.0        |     | 1               | 16695        | 01/13/22 21:59       | CH      | XEN MID |

## Laboratory References:

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

# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: JRU DI 1A

Job ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

## Laboratory: Eurofins 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: JRU DI 1A

Job ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

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

# Sample Summary

Client: WSP USA Inc.  
Project/Site: JRU DI 1A

Job ID: 890-1810-1  
SDG: 31403236.020.0129 TASK 14.02

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Depth |
|---------------|------------------|--------|----------------|----------------|-------|
| 890-1810-1    | PH01             | Solid  | 01/07/22 12:04 | 01/07/22 14:17 | 0.5   |
| 890-1810-2    | PH01A            | Solid  | 01/07/22 12:06 | 01/07/22 14:17 | 1     |

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### Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1810-1  
 SDG Number: 31403236.020.0129 TASK 14.02

**Login Number: 1810**  
**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: 890-1810-1  
SDG Number: 31403236.020.0129 TASK 14.02

**Login Number: 1810**  
**List Number: 2**  
**Creator: Lowe, Katie**

**List Source: Eurofins Midland**  
**List Creation: 01/10/22 08:22 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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**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
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**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
 Action 80538

**CONDITIONS**

|   |   |
|---|---|
| Operator:<br>XTO ENERGY, INC<br>6401 Holiday Hill Road<br>Midland, TX 79707 | OGRID:<br>5380  |
|   | Action Number:<br>80538                                   |
|   | Action Type:<br>[C-141] Release Corrective Action (C-141) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|------------|-----------|----------------|
| jnobui     | None      | 2/16/2022      |