District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

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

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

QUESTIONS					
Operator:		OGRID:			
WPX Energy Permian, LLC		246289			
Devon Energy - Regulatory		Action Number:			
Oklahoma City, OK 73102		30617			
		Action Type:			
		[NOTIFY] Notification Of Release (NOR)			
QUESTIONS					
Location of Release Source					
Please answer all of the questions in this group.					
Site Name	RDX Federal 21 #04	14			
Date Release Discovered	06/03/2021				
Surface Owner	Federal				
Incident Details					
Please answer all of the questions in this group.					
Incident Type	Produced Water Rel	ease			
Did this release result in a fire or is the result of a fire	No				
Has this release reached or does it have a reasonable probability of reaching a watercourse	No				
Has this release endangered or does it have a reasonable probability of endagering public health	No				
Has this release substantially damaged or will it substantially damage property or the environment	No				
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No				

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications	ations for the volumes provided should be attached to the follow-up C-141 submission.
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Valve Produced Water Spilled: 200 BBL Recovered: 150 BBL Lost: 50 BBL]
Is the concentration of dissolved chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.
Was this a major release as defined by 19.15.29.7(A) NMAC	Yes, major release.
Reasons why this would be considered a submission for a notification of a major release	 Unauthorized release of a volume, excluding gases, of 25 barrels or more
If YES, was immediate notice given to the OCD, by whom	Not answered.
If YES, was immediate notice given to the OCD, to whom	Not answered.
If YES, was immediate notice given to the OCD, when	Not answered.
If YES, was immediate notice given to the OCD, by what means (phone, email, etc)	Not answered.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natur	al gas (i.e. gas only) are to be submitted on the C-129 form.

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury. The source of the release has been stopped True The impacted area has been secured to protect human health and the environment True Released materials have been contained via the use of berms or dikes, absorbent pads, or other True containment devices All free liquids and recoverable materials have been removed and managed appropriately True If all the actions described above have not been undertaken, explain why Not answered.

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 prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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Action 30617

District I

1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

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

ACKNOWLEDGMENTS

Operator:	OGRID:
WPX Energy Permian, LLC	246289
Devon Energy - Regulatory	Action Number:
Oklahoma City, OK 73102	30617
	Action Type:
	[NOTIFY] Notification Of Release (NOR)

ACKNOWLEDGMENTS

I acknowledge that I am authorized to submit notification of a releases on behalf of my operator.

I acknowledge that upon submitting this application, I will be creating an new incident file (assigned to my operator) to track the notification(s) and corrective action(s) for a release, pursuant to NMAC $\overline{\checkmark}$ 19.15.29. I acknowledge that creating a new incident file will require my operator to file subsequent submission(s) of form "C-141, Application for administrative approval of a release notification and corrective action", $\overline{\vee}$

pursuant to NMAC 19.15.29 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 4

certain release notifications and perform corrective actions for releases which may endanger public health or the environment. I acknowledge the fact that 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 \checkmark

that pose a threat to groundwater, surface water, human health or the environment

V I acknowledge the fact that, 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.

ACKNOWLEDGMENTS

Page 2 of 111

Action 30617

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

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

CONDITIONS

Operator:	OGRID:
WPX Energy Permian, LLC	246289
Devon Energy - Regulatory	Action Number:
Oklahoma City, OK 73102	30617
	Action Type:
	[NOTIFY] Notification Of Release (NOR)

CONDITIONS

Created By	Condition	Condition Date
system	When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141.	6/4/2021

Page 3cof 111 CONDITIONS

Action 30617

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

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

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

- \checkmark Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. \checkmark Field data
- Data table of soil contaminant concentration data
- \checkmark 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.

	21 12:00:14 AM State of New Mexico		Page 5 of			
			Incident ID	nAPP2115533694		
Page 4	Oil Conservation Divis	sion	District RP			
			Facility ID			
			Application ID			
public health or the environ failed to adequately investig		y the OCD does not relieve th a threat to groundwater, surfactor of responsibility for comp Title: Environme Date: 08/26/2021	e operator of liability sh ace water, human health liance with any other fe ental Profession	ould their operations have or the environment. In deral, state, or local laws		
_{email:} lynda.laumba		Telephone: 575-7	25-1647			

Received by OCD: 8/27/2021 12:00:14 AM Form C-141 State of New Mexico

Oil Conservation Division

Remediation Plan Checklist: Each of the following items must be included in the plan.

	Page	6	of	<u>11</u>	1
2115533	694				

Incident IDnAPP2115533694District RPFacility IDApplication ID

Remediation Plan

Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points \square Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required) Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation. Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction. Extents of contamination must be fully delineated. Contamination does not cause an imminent risk to human health, the environment, or groundwater. I hereby certify that the information given above is true and 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. ______{Title:} Environmental Professional Printed Name: Lynda Laumbach forde tomback Date: 08/26/2021 Signature: email: lynda.laumbach@dvn.com Telephone: 575-725-1647 **OCD Only** Received by: Date: Approved Approved with Attached Conditions of Approval Denied Deferral Approved Signature: Date:

Page 5

Received by OCD: 8/27/2021 12:00:14 AM Form C-141 State of New Mexico

Oil Conservation Division

Remediation Plan Checklist: Each of the following items must be included in the plan.

	Page	7	of	111	l
APP2115533	694				

Incident ID	nAPP2115533694
District RP	
Facility ID	
Application ID	

Remediation Plan

Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points М Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required) Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation. Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction. Extents of contamination must be fully delineated. Contamination does not cause an imminent risk to human health, the environment, or groundwater. I hereby certify that the information given above is true and 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: Lynda Laumbach Title: Environmental Professional Inde tombac Date: 08/26/2021 Signature: email: lynda.laumbach@dvn.com Telephone: 575-725-1647 **OCD Only** Date: 1/10/2022 Received by: Robert Hamlet Approved X Approved with Attached Conditions of Approval Denied Deferral Approved Robert Hamlet Date: 1/10/2022 Signature:

Form C-1 Page 5

WSP USA

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

August 23, 2021

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

RE: Remediation Work Plan RDX Federal 21 #044 Incident Number nAPP2115533694 Eddy County, New Mexico WPX Energy Permian, LLC.

To Whom it May Concern:

WSP USA Inc. (WSP), on behalf of WPX Energy Permian, LLC. (WPX), presents the following Remediation Work Plan detailing site assessment, previous soil sampling activities, and a proposed remediation plan at the RDX Federal 21 #044 (Site), located in Unit P, Section 21 Township 26 South, Range 30 East, Eddy County, New Mexico (Figure 1). Based on field observations, field screening activities, and laboratory analytical results from soil sampling activities, WPX is submitting this Remediation Work Plan, describing the site assessment and soil sampling that has occurred and proposed remedial activities.

RELEASE BACKGROUND

On June 3, 2021, a valve failure caused the release of approximately 200 barrels (bbls) of produced water onto the adjacent right-of-way (ROW). A vacuum truck was dispatched to the Site to recover free-standing fluid; approximately 150 bbls of produced water were recovered. WPX reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on June 4, 2021 and was subsequently assigned Incident Number nAPP2115533694.

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 data collected from a recently drilled soil boring. On December 9, 2020, WPX advanced a soil boring to approximately 110 feet bgs, which is located approximately 0.15 miles west of the Site. The boring was left open for at least 72 hours to allow for possible groundwater to equilibrate. No groundwater was encountered during drilling activity

wsp

District II Page 2

nor observed post the 72-hour waiting period. The referenced boring record is included as Attachment 1.

The closest continuously flowing or significant watercourse to the Site is an intermittent riverine, located approximately 760 feet east to southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

The reclamation requirement for removal of waste containing soil with chloride and TPH concentrations of 600 mg/kg and 100 mg/kg, respectively, applies to the top 4 feet of the pasture to be reclaimed following remediation, per NMAC 19.15.29.13.D (1).

SITE ASSESSMENT ACTIVITIES

On June 4, 2021, WSP personnel conducted site assessment activities to evaluate the release extent. Additionally, WSP reviewed and verified the Form C-141 incident descriptions (release source and release location) with visual soil impacts present onsite; it was confirmed that the subject release was contained to the ROW and crowded pipeline corridor.

WSP personnel collected one representative surface sample nearest to the release source. The soil sample was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach[®] chloride QuanTab[®] test strips, respectively. Based on elevated field screening results, the soil sample was not submitted for laboratory analysis. The release extent was mapped using a handheld Global Positioning System (GPS) unit and measured 13,250 square feet (Figure 2). Based on visual observation and results from

vsp

District II Page 3

field screening, remediation of impacted soils appeared warranted. Photographs documenting the site visit are included in Attachment 2.

DELINEATION SOIL SAMPLING ACTIVITIES

On July 8, 2021, WSP personnel visited the Site for further evaluation of the release extent and proceeded to advance nine delineation boreholes (BH01 through BH09) within and around the mapped release extent. Delineation depths were driven by field screening soil samples for chloride and volatile aromatic hydrocarbons. WSP collected three discrete soil samples per borehole at the following depth intervals: 1 to 1.5 feet bgs, 2 to 2.5 feet bgs, and 4 to 4.5 feet bgs. The borehole locations were mapped utilizing a GPS unit and are depicted on Figure 2. Lithologic sampling logs are included in Attachment 3.

The delineation 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-GRO, TPH-DRO, and TPH-ORO following EPA Method 8015M/D; and chloride following EPA Method 300.0.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH concentrations for all borehole samples were compliant with Closure Criteria. Chloride concentrations from sample intervals shallower than 4 feet bgs at boreholes BH01 through BH03 and BH05 exceeded chloride concentration per the reclamation criteria. The laboratory analytical results are summarized on the attached Table 1 and complete laboratory analytical reports are included in Attachment 4.

PROPOSED WORK PLAN OPTIONS

Impacts have been vertically defined through soil borings advanced within the release footprint and range from 1.5 to 4 feet bgs. Boreholes BH06 through BH09 representatively define the lateral migration of impacts to the north, east and south. Horizontal delineation to the west will be further defined through delineation soil sampling or 5-point composite sidewall samples following the removal of residual impacts. Based on analytical data associated with borehole BH05, impacts appear to be limited to the top 1.5 feet but will be verified during excavation and confirmation sampling activities. An estimated 1,961 cubic yards of soil is impacted by the subject release based on soil sampling activities and visual observation. Due to the proximity of subsurface and aboveground utilities, WPX will coordinate with internal or third-party pipeline groups for safety guidance associated with soil disturbance near utilities. If impacted soil cannot be safely removed at this time, WPX will provide supporting risk documentation for NMOCD review.



District II Page 4

Impacted soil will be excavated pursuant to NMAC 19.15.29 to ensure extent of the contaminated soil not meeting the Closure Criteria has been identified and removed. Excavated soil will then be transferred to: (a) a New Mexico approved landfill facility for disposal and the excavation will be backfilled with Non-waste containing soil, as defined by "Procedures for Implementation of the Spill Rule" (September 6, 2019) or (b) an on-site ex-situ treatment¹. If the on-site treatment is selected, non-waste containing soils will be treated soils with each confirmation sample testing below the most protective concentrations in Table I of 19.15.29.12 NMAC and representing no more than 100 cubic yards.

PROPOSED SAMPLING

WPX is requesting a variance to the 200 square foot confirmation sampling requirement for the areas to be excavated, which would require an estimated 67 floor samples within the release extent, excluding sidewall samples. Due to the large extent of the impacted area (13,250 square feet), WSP proposes increasing the confirmation sampling size to collecting a 5-point composite sample to represent each 500 square foot area for the floors and sidewalls of the excavation.

PROPOSED SCHEDULE

WPX will begin the additional proposed remediation activities following approval of this work plan by NMOCD.

If you have any questions or comments, please do not hesitate to contact Mr. Daniel R. Moir at (303) 887-2946.

Sincerely,

WSP USA Inc.

Anna Byers

Anna Byers Consultant, Geologist

Daniel R. Moir, P.G. Lead Consultant, Geologist

¹ SA-1000[™] (manufactured by 3 Tier[™] Technologies) is the proposed agent to assist with the treatment of chloride impacted soil. A FAQ overview sheet is included as Attachment 5.

vsp

District II Page 5

cc: Lynda Laumbach, Devon Bureau of Land Management

Attachments:

- Figure 1 Site Location Map
- Figure 2 Delineation Soil Sample Locations

Table 1Soil Analytical Results

Attachment 1 Referenced Well Record

Attachment 2 Photographic Log

Attachment 3 Lithologic/Soil Sampling Log

Attachment 4 Laboratory Analytical Reports

Attachment 5 FAQ – Bio-Regen SA-1000 For Salt Remediation

FIGURI

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TABLES

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Table 1

Soil Analytical Results RDX Federal 21 #044 Incident Number nAPP2115533694 Eddy County, New Mexico WPX Energy Permian, LLC.

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Clo	osure Criteria (NM	AC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Samples										
BH01	07/08/2021	1 - 1.5	< 0.00199	< 0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	18,100*
BH01	07/08/2021	2 - 2.5	< 0.00202	< 0.00404	<49.8	<49.8	<49.8	<49.8	<49.8	13,900*
BH01	07/08/2021	4 - 4.5	< 0.00200	< 0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	1,850
BH02	07/08/2021	1 - 1.5	< 0.00200	< 0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	6,080*
BH02	07/08/2021	2 - 2.5	< 0.00200	< 0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	10,500*
BH02	07/08/2021	4 - 4.5	< 0.00199	< 0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	179
BH03	07/08/2021	1 - 1.5	< 0.00202	< 0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	6,900*
BH03	07/08/2021	2 - 2.5	< 0.00200	< 0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	5,400*
BH03	07/08/2021	4 - 4.5	< 0.00200	< 0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	2,980
BH04	07/08/2021	1 - 1.5	< 0.00199	< 0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	62.6
BH04	07/08/2021	2 - 2.5	< 0.00200	< 0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	<5.00
BH04	07/08/2021	4 - 4.5	< 0.00198	< 0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	123
BH05	07/08/2021	1 - 1.5	< 0.00199	< 0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	14,000*
BH05	07/08/2021	2 - 2.5	< 0.00199	< 0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	452
BH05	07/08/2021	4 - 4.5	< 0.00201	< 0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	16.8
BH06	07/08/2021	1 - 1.5	< 0.00202	< 0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	81.4
BH06	07/08/2021	2 - 2.5	< 0.00200	< 0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	14.3
BH06	07/08/2021	4 - 4.5	< 0.00199	< 0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<4.95

Table 1

Soil Analytical Results RDX Federal 21 #044 Incident Number nAPP2115533694 Eddy County, New Mexico WPX Energy Permian, LLC.

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Clo	osure Criteria (NM	AC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000
BH07	07/08/2021	1 - 1.5	<0.00199	< 0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	8.93
BH07	07/08/2021	2 - 2.5	< 0.00198	< 0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	12.3
BH07	07/08/2021	4 - 4.5	< 0.00202	< 0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	97.8
BH08	07/08/2021	1 - 1.5	< 0.00200	< 0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	12.1
BH08	07/08/2021	2 - 2.5	< 0.00198	< 0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	26.7
BH08	07/08/2021	4 - 4.5	< 0.00202	< 0.00403	<50.0	<50.0	<50.0	<50.0	< 50.0	21.8
BH09	07/08/2021	1 - 1.5	< 0.00202	< 0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	116
BH09	07/08/2021	2 - 2.5	< 0.00199	< 0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	435
BH09	07/08/2021	4 - 4.5	< 0.00200	< 0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	371

Notes:

ft - feet/foot

mg/kg - milligrams per kilograms

 $\ensuremath{\mathsf{BTEX}}\xspace$ - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - oil range organics

ORO - oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

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

NE - Not Established

BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard Greyed data represents samples that were excavated

* - indicates sample was collected in area to be reclaimed after remediation is complete;

closure criteria in the top 4 feet of soil is 100 mg/kg for TPH and 600 mg/kg for chloride.

•

		HR	1						MONITORING W	ELL COMPLETION	N DIAGR	AM		
				IAN	C E		Boring/Wel		W-1	Location: RDX Federal C	com 21-43			
	714	ŠÖ	LUI		NS		Date:			Client:				
Drilling Me	thod:		Sampling	Method:			Logged By:		0/2020	WPX End Drilled By:	ergy			
0	ir Rotar	у		No	one				nn, P.G.	Talon L	PE			
Gravel Pack		1	Gravel Pac	ck Depth Inte			Seal Type:	r	Seal Depth Interval:	Latitude:				
Casing Type	0/20 San	1d Diameter:		3 B Depth Inter	ags			lone al Depth (ft. BC	None	32.0225 Longitude:	/1			
PVC		2-inch		0-100 fe	eet bgs		Boring rou		10	-103.884	371			
Screen Type		Slot:	_	Diameter:		Interval:	Well Total	Depth (ft. BGS	·		DTW Date:			
PVC		0.010-ii	nch	2-inch	100 -	105 ft		10	05	> 105	12/16/2	020		
Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks		[] 의 이슈 Lithology/Remarks		Well Comple	
0 5 10 15	NM	L	D	N	N	NM	SP	NS	-	range to tan poorly graded fine sand				
20	NM	Н	D	Ν	N	NM	CL	NS	Pale orange/tan/pa silt, fine sand, a					
25 30 35 40 45	NM	L	D	N	N	NM	SP	NS		e red poorly graded sand	-			
50 55 60	NM	L	D	N	N	NM	SP	NS	• •	Golden yellow poorly graded fine sand with minor silt and clay				
65 70 75	NM	L	D	N	N	NM	SP	NS	Pale orange to pale red poorly graded fine sand with minor silt/clay					
80 85 90	NM	М	D	N	N	NM	SC	NS	Buff to orange color fine sand with medium sand and clay					
95	NM	Н	D	Ν	Ν	NM	CL	NS	Brown orange clay w	ith silt and fine sand				
100 105	NM	Н	D	N	N	NM	SC	NS	fine sand - TD Boring	Golden yellow and buff colored clay with he sand - TD Boring: 110' BGS; Sand 110' 105' BGS				

wsp

PHOTOGRAPHIC LOG								
WPX Energy Permian,	RDX Federal 21 #044	31403360.000.0348						
LLC.	Eddy County, NM							

noto No.	Date
1	June 4, 2021
	initial repair of the se source

Photo No.	Date
2	June 4, 2021
	acing south, down ight of way

•

wsp

PHOTOGRAPHIC LOG									
WPX Energy Permian,	RDX Federal 21 #044	31403360.000.0348							
LLC.	Eddy County, NM								

Photo No.	Date
3	July 8, 2021
	rn release extent northeast

Photo No.	Date
4	July 8, 2021
	release extent area g south

•

wsp

PHOTOGRAPHIC LOG								
WPX Energy Permian,	RDX Federal 21 #044	31403360.000.0348						
LLC.	Eddy County, NM							

Photo No.	Date
6	July 8, 2021
Hand auger del:	ineation activities

.

									Comple ID:		ate:	
					ws	P USA			Sample ID:			
							troat		BH01 Site Name: RDX Federal 2		/8/2021	'
				Car	08 West S Isbad, Nev	w Mexico	88220		Incident Number: nAPP2115533694			
									WSP Job Number: 31403360.000.0348			
	LITHOLOGIC / SOIL SAMPLING LOG							Logged By: Anna Byers	M	lethod: Hand Auger		
Lat/Long: Field Screening:							Hole Diameter:	T	otal Depth:			
32.023 Comm	3879, -103	.881775			Chloride				2.5 inches	4.	.5 feet	
		t "M" - Me	oist; NA	- Not Analyz	zed; Chloric	de values d	ude correct	on factor				
ure ent	Content (ppm) (ppm											
Moisture Content	hloi hpr	Vapor (ppm)	tain	amp	Depth (ft bgc)	(ft bgs)	CS/		Litho	logy/Rei	marks	
≥o	0 0		S	S	(ft bgs)		NSU S					
						0		Surface	staining			
						[
					-	_						
М	16,300	NA	No	BH01	1-1.5	1	SP	1 - 4.5' b	gs: moist brown, poo	orly-grad	ed SAND (f.) with some s	ilt,
]	F			city, no odor, trace ro		. ,	
					-	L						
М	13,284	NA	No	BH01	2-2.5	2	SP					
	,		_	-		[
					-	_						
					-	3						
						Ŭ						
					_	L						
М	2,416	NA	No	BH01	4-4.5	4	SP					
IVI	2,410	INA	INU		4-4.5	- 4	35					
					-	4.5						
							To	otal Depth	1			
	$\overline{}$											
				$\overline{}$								
					$\overline{}$							
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11									\sim			
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L												

					1410	DUCA			Sample ID:	D	ate:	
					WS	P USA			BH02	7/	/8/2021	
				5	08 West S	Stevens S	Street		Site Name: RDX Federal 21 #044			
				Car	lsbad, Ne	w Mexico	88220		Incident Number: nAPP2115533694			
									WSP Job Number: 31403360.000.0348			
		LITH	OLOG	IC / SOIL	SAMPL	ING LO	G		Logged By: Anna Byers	M	lethod: Hand Auger	
Lat/Lo	Lat/Long: Field Screening:								Hole Diameter:	T	otal Depth:	
	3584, -103	.881771			Chloride				2.5 inches	4.	.5 feet	
Comm Moist		t "M" - M	nist: NA	- Not Analyz	zed: Chloric	te values c	to not incl	ude correcti	on factor			
WOIGU			5151, 1471	Not 7 thaty								
∃t e	e C	5	b	#	Sample		USCS/Rock Symbol					
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth	Deptin	S/R mb		Lithol	logy/Rei	marks	
Mo	(p Chl	s ≥)	Sta	San	(ft bgs)	(ft bgs)	SS					
	-			0)			n					
						0		Surface	staining			
						-						
					-	┢						
М	5,908	NA	No	BH02	1-1.5	1	SP	1 - 4' bas	s: moist brown. poorly	/-gradeo	d SAND (f.) with some silt,	
	_,								city, no odor, trace ro		(,,,	
					_	L						
				DUIGE								
Μ	11,104	NA	No	BH02	2-2.5	2	SP					
					-	\mathbf{F}						
					-	F						
						3						
					-							
					_	L						
	100			DUIDO								
D	196	NA	No	BH02	4-4.5	4	SM			SAND (f.), no plasticity, no odor,	
					-	4.5		trace roo	115			
							Тс	otal Depth				
	\sim											
		$\overline{}$										
				$\overline{}$								
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					14/2	DUCA			Sample ID:		Date:		
					VVS	P USA			BH03		7/8/2021		
				5	08 West 8	Stevens S	Site Name: RDX Federal 21 #044						
				Car	lsbad, Ne	w Mexico		Incident Number: nAPP2115533694					
									WSP Job Number: 31403360.000.0348				
	LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Anna Byers		Method: Hand Auger		
Lat/Lo 32.02	ong: 23137, -103	881758			Field Scre Chloride	ening:			Hole Diameter: 2.5 inches		Total Depth: 4.5 feet		
Comr	ments:										1.0 1001		
Moist	Moisture Content "M" - Moist; NA - Not Analyzed; Chloride values do not include correction factor												
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	(ft bgs)	USCS/Rock Symbol		Lithology/Remarks				
М	7,452	NA	No	BH03	1-1.5	0	SP	Surface staining 1 - 4.5' bgs: moist brown, poorly-graded SAND (f.) with some silt no plasticity, no odor, trace roots					
М	9,432	NA	No	BH03	2-2.5	2	SP						
M	3,976	NA	No	BH03	4-4.5	4 4.5	SP	otal Depth					

										Ĩ		
_		_	_		14/0	DUOA			Sample ID:		Date:	
					VVS	P USA			BH04		7/8/2021	
				5	08 West S	Stevens S	Street		Site Name: RDX Federal	21 #044		
				Car	lsbad, Ne	w Mexico		Incident Number: nAPP2115533694				
									WSP Job Number: 31403360.000.0348			
		LITH	OLOG	IC / SOIL	SAMPL	ING LO	Logged By: Anna Byers		Method: Hand Auger			
Lat/Lo	na.				Field Scre			Hole Diameter:		Total Depth:		
32.023	3382, -103	.881761			Chloride	<u>-</u>			2.5 inches		4.5 feet	
Comm	ents: Chlo	oride value	es do n	ot include co	rrection fac	ctor						
Moistu	ire Conten	t "D" - Dr	y; NA -	Not Analyzed	d; BDL - Be	low Detec	of Low Rang	e HACH Chloride Test S	strips			
Moisture Content	Chloride (ppm)	\mathfrak{P} \mathfrak							1.50			
ont	ph	Vapor (ppm)	Staining	Sample #	Depth	(ft bgs)	SC		Litho	ology/R	emarks	
≥u	0	/ _	Ś	Sa	(ft bgs)		USCS/Rock Symbol					
					1	0						
					L L	- v						
					-	-						
					_	Γ						
D	120	NA	No	BH04	1-1.5	1				oorly-gr	aded SAND (f.), no plasticity,	
					-	Ļ		no odor,	trace roots			
					_	L						
	יסס	NLA	NL:		0.05	2	014					
D	BDL	NA	No	BH04	2-2.5			z - 4.5 D trace roo		r SAND	(f.), no plasticicty, no odor,	
					-	-		liace iou	15			
					-	-						
					-	3						
						L						
					_							
D	BDL	NA	No	BH04	4-4.5	4	SM					
					-	4.5						
						4.0	To	tal Depth				
							10					
	\sim											
				$\overline{}$								
						$\overline{}$						
								\sim				
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									0	D		
					ws	P USA			Sample ID:		ite:	
							Ano - L		BH05 Site Name: BDX Federal 2		3/2021	
				5 Car	08 West S sbad, Ne	stevens S w Mexico	88220		Site Name: RDX Federal 21 #044 Incident Number: nAPP2115533694			
					,				WSP Job Number: 31403360.000.0348			
		LITH	OLOG	IC / SOIL	SAMPL	ING LO	Logged By: Anna Byers	Me	ethod: Hand Auger			
Lat/Lo	ong:				Field Scre	ening:			Hole Diameter:		tal Depth:	
	3726, -103		es do n	ot include co	Chloride	stor			2.5 inches	4.5	5 feet	
							BDL - Belo	w Detection Limit of Low R	ange HAC	H Chloride Test Strips		
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	(ft bgs)	USCS/Rock Symbol		Lithol	ogy/Rem	narks	
Μ	12,088	12,088 NA No BH05 1-1.5 1 SP surface							urface - 2' bgs: moist brown poorly-graded SAND (f.), no plasticity, o odor, trace roots			
Μ	4,672	NA	No	BH05	2-2.5	2	SM	2 - 4.5' b trace roo	ogs: moist brown SILTY SAND (f.), no plasticicty, no odor, ots			
D	BDL	NA	No	BH05	4-4.5	4		dry brow	n SILTY SAND (f.)			

			_		1410	DUCA			Sample ID:	Date:		
					vvs	P USA			BH06	7/8/2021		
			-	5	08 West S	Stevens S	Street		Site Name: RDX Federal 21 #044			
				Car	sbad, Ne	w Mexico	88220		Incident Number: nAPP2115533694			
									WSP Job Number: 314033	360.000.0348		
		LITHO	OLOG	IC / SOIL				Logged By: Anna Byers	Method: Hand	d Auger		
Lat/Long: 32.024084	1 -103 9	221722			Field Scre	ening:			Hole Diameter: 2.5 inches	Total Depth:		
			s do no	ot include co	Chloride rrection fac	ctor			2.5 1101165	4.5 feet		
Moisture C	Content	"D" - Dry	; Moist	ure Content	"M" - Moist	; NA - Not		; BDL - Belo	w Detection Limit of Low R	ange HACH Chloride	Test Strips	
Moisture Content Chloride	(mqq)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	(ft bgs)	USCS/Rock Symbol		Lithology/Remarks			
МВ	M BDL NA No BH06 1-1.5 1 SM surface -								4' bgs: moist brown s ts, no odor	SILTY SAND (f.),	no plasticity,	
D 1	120	NA	No	BH06	2-2.5	2	SM	dry brow	n SILTY SAND (f.), no	o plasticity, trace	roots, no odor	
D 1	120	NA	No	BH06	4-4.5	3	SW	4 - 4.5' b no odor	gs: dry brown well-gra	aded SAND (f c	c.), no plasticity,	
						4.5	Ta	otal Depth				

									Sample ID:	Dett		
					ws	P USA			-	Date		
									BH07		2021	
				5 Car	08 West 8 sbad, Ne	Stevens S	Street		Site Name: RDX Federal 21 #044			
				Our	5544, 146		00220		Incident Number: nAPP2115533694 WSP Job Number: 31403360.000.0348			
				IC / SOIL	SAMDI		G					
Lat/Lo	na.	LIIN	OLUG		Field Scre		9		Logged By: Anna Byers Hole Diameter:		hod: Hand Auger al Depth:	
32.023	3866, -103	.881570			Chloride	orning.			2.5 inches	4.5 f		
Comm	nents: Chlo	ride value	es do no	ot include co	rrection fac	tor	Applyzod		w Datastian Limit of Low D		Chlorida Toot Strips	
worsu	Moisture Content "D" - Dry; Moisture Content "M" - Moist; NA - Not Analyzed; BDL - Below Detection Limit of Low Range HACH Chloride Test Strips											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	(ft bgs)	USCS/Rock Symbol		Lithol	ogy/Rema	arks	
M BDL NA No BH07 1-1.5 1 SM surface - 4' bgs: brown SILTY SAND (f.), no plasticity,), no plasticity,		
					-	-		trace roo	its, no odor			
D	BDL	NA	No	BH07	2-2.5	2	SM	dry brow	n SILTY SAND (f.)			
						- 3						
D	BDL	NA	No	BH07	4-4.5	4	SW	4 - 4.5' b no odor	gs: dry brown well-gra	aded SAN	ID (f c.), no plasticity,	
						4.5	Та	tal Danth				
							To	otal Depth				

								Sample ID:	Date:				
				ws	P USA			3H08					
			-	08 West S		Street	_	BH08 7/8/2021 Site Name: RDX Federal 21 #044					
			Car	lsbad, Ne	w Mexico	88220		Incident Number: nAPP2115533694					
							-	WSP Job Number: 31403360.000.0348					
	LITH	OLOG	IC / SOIL	. SAMPL	ING LO	I	_ogged By: Anna Byers	Method: Hand Aug	er				
Lat/Long:				Field Scre	ening:		I	Hole Diameter:	Total Depth:				
32.023220, -10 Comments: Ch		oo do n	at include on	Chloride	tor		2	2.5 inches	4.5 feet				
						Analyzed;	BDL - Belov	v Detection Limit of Low F	Range HACH Chloride Test	Strips			
Moisture Content Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		Lithology/Remarks					
M BDL	NA	No	BH08	1-1.5	0		surface to gravel, no	face to 4' bgs: moist brown poorly-graded SAND with silt and vel, no plasticity, no odor, trace roots					
M BDL	NA	No	BH08	2-2.5	2	SP-SM							
D BDL	NA	No	BH08	4-4.5	4 4.5		trace root	gs: dry brown SILTY s, no odor	SAND (f.), no plasticit	iy,			
							tal Depth						

					14/2	P USA			Sample ID:		Date:	
					003	r USA			BH09		7/8/2021	
				5	08 West S	Stevens S	Street		Site Name: RDX Federal 21 #044			
				Car	sbad, Ne		88220		Incident Number: nAPP2115533694 WSP Job Number: 31403360.000.0348			
/	LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Anna Byers	;	Method: Hand Auger	
Lat/Lo 32.022	ong: 2902, -103	.881758			Field Scre Chloride	ening:			Hole Diameter: 2.5 inches		Total Depth: 4.5 feet	
Comm	nents:											
Moistu	ure Conten	it "D" - Dr	y; NA -	Not Analyzed	l; Chloride	values do	e correction	factor				
e t	e		g	#	Sample		o ck					
stul	oric pm)	Vapor (ppm)	inir	Jple	Depth	Depth	S/R mba		Lith	nology/R	Remarks	
Moisture Content	Chloride (ppm)	≥ q	Staining	Sample #	(ft bgs)	(ft bgs)	USCS/Rock Symbol					
				.,		0	\supset					
						0						
					-	-						
_				DUICE			05.01					
D	144	NA	No	BH09	1-1.5	_ 1	SP-SM	surface t	o 2' bgs: dry brown o plasticity, no odor	poorly-	graded SAND (f.) with silt and	
					-	F		giavei, II		, uace i	10013	
						-						
D	412	NA	No	BH09	2-2.5	2	SM			Y SANE	O (f.), no plasticity, no odor,	
					-	ŀ		trace roo	15			
					-	Ľ						
					_	3						
					-	-						
					-	-						
D	412	NA	No	BH09	4-4.5	4	SM					
					-	4.5						
						4.0	То	tal Depth				
		$\overline{\ }$										
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eurofins

Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-914-1

Laboratory Sample Delivery Group: 31403360.000.0348 Client Project/Site: RDX Federal 21 #044

For:

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

Attn: Joseph Hernandez

RAMER

Authorized for release by: 7/15/2021 2:44:49 PM

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

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

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

LINKS **Review your project** results through Total Access Have a Question? Ask-The Expert Visit us at: www.eurofinsus.com/Env

Released to Imaging: 1/10/2022 9:31:38 AM
Laboratory Job ID: 890-914-1 SDG: 31403360.000.0348

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2

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Job ID: 890-914-1
SDG: 31403360.000.0348

LOQ

MCL

MDA MDC

MDL

MQL NC

ND

NEG

POS

PQL

QC RER

RL

RPD

TEF

TEQ

TNTC

PRES

ML MPN

Qualifiers		3
GC VOA		
Qualifier	Qualifier Description	
S1+	Surrogate recovery exceeds control limits, high biased.	
U	Indicates the analyte was analyzed for but not detected.	5
GC Semi VOA		
Qualifier	Qualifier Description	
S1+	Surrogate recovery exceeds control limits, high biased.	
U	Indicates the analyte was analyzed for but not detected.	
HPLC/IC		
Qualifier	Qualifier Description	8
U	Indicates the analyte was analyzed for but not detected.	
Glossary		9
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	10
Dil Fac	Dilution Factor	13
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)	

Limit of Quantitation (DoD/DOE)

Method Detection Limit Minimum Level (Dioxin)

Most Probable Number Method Quantitation Limit

Not Calculated

Negative / Absent

Positive / Present

Presumptive Quality Control

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

EPA recommended "Maximum Contaminant Level" Minimum Detectable Activity (Radiochemistry)

Minimum Detectable Concentration (Radiochemistry)

Not Detected at the reporting limit (or MDL or EDL if shown)

Job ID: 890-914-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-914-1

Receipt

The samples were received on 7/8/2021 4:25 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 5.2°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: BH01 (890-914-1), BH01 (890-914-2), BH01 (890-914-3), BH02 (890-914-4), BH02 (890-914-5), BH02 (890-914-6), BH03 (890-914-7), BH03 (890-914-8), BH03 (890-914-9), BH04 (890-914-10), BH04 (890-914-11), BH04 (890-914-12), BH05 (890-914-13), BH05 (890-914-14) and BH05 (890-914-15).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH02 (890-914-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

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

HPLC/IC

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

RL

0.00199

0.00199

0.00199

0.00398

0.00199

0.00398

0.00398

Limits

70 - 130

70 - 130

MDL Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Job ID: 890-914-1 SDG: 31403360.000.0348

Client Sample ID: BH01

Project/Site: RDX Federal 21 #044

Date Collected: 07/08/21 10:51 Date Received: 07/08/21 16:25

Sample Depth: 1 - 1.5

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

Xylenes, Total

Total BTEX

Surrogate

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Client: WSP USA Inc.

Lab Sample ID: 890-914-1

Analyzed

07/11/21 19:12

07/11/21 19:12

07/11/21 19:12

07/11/21 19:12

07/11/21 19:12

07/11/21 19:12

07/11/21 19:12

Analyzed

07/11/21 19:12

07/11/21 19:12

Lab Sample ID: 890-914-2

Matrix: Solid

Prepared

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

Prepared

07/10/21 10:35

07/10/21 10:35

D

Matrix: Solid

Dil Fac

1

1

1

1

1

1

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

Method: 8021B - Volatile Organic Compounds (GC)

Result Qualifier

<0.00199 U

<0.00199 U

<0.00199 U

<0.00398 U

<0.00199 U

<0.00398 U

<0.00398 U

%Recovery Qualifier

107 92

l	ic 🖌
l	1
l	
l	1
l	
l	1 1
l	1
l	
	1 1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	07/12/21 13:20	07/14/21 01:46	1
o-Terphenyl	144	S1+	70 - 130	07/12/21 13:20	07/14/21 01:46	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18100	100	mg/Kg			07/12/21 22:00	20

Client Sample ID: BH01 Date Collected: 07/08/21 10:53

Date Received: 07/08/21 16:25

Sample Depth: 2 - 2.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/10/21 10:35	07/11/21 19:33	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/10/21 10:35	07/11/21 19:33	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/10/21 10:35	07/11/21 19:33	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		07/10/21 10:35	07/11/21 19:33	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/10/21 10:35	07/11/21 19:33	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		07/10/21 10:35	07/11/21 19:33	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		07/10/21 10:35	07/11/21 19:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130				07/10/21 10:35	07/11/21 19:33	1
1,4-Difluorobenzene (Surr)	92		70 _ 130				07/10/21 10:35	07/11/21 19:33	1

Job ID: 890-914-1 SDG: 31403360.000.0348

Client Sample ID: BH01

Project/Site: RDX Federal 21 #044

Date Collected: 07/08/21 10:53 Date Received: 07/08/21 16:25

Sample Depth: 2 - 2.5

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		07/12/21 13:20	07/14/21 02:49	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		07/12/21 13:20	07/14/21 02:49	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/12/21 13:20	07/14/21 02:49	1
Total TPH	<49.8	U	49.8		mg/Kg		07/12/21 13:20	07/14/21 02:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130				07/12/21 13:20	07/14/21 02:49	1
o-Terphenyl	123		70 - 130				07/12/21 13:20	07/14/21 02:49	1

Method: 300.0 - Anions, Ion Chrom	atography - S	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13900		101		mg/Kg			07/12/21 22:05	20

Client Sample ID: BH01

Date Collected: 07/08/21 10:56 Date Received: 07/08/21 16:25 Sample Depth: 4 - 4.5

Method: 8021B - Volatile Orga	nic Compounds ((GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 19:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 19:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 19:53	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/10/21 10:35	07/11/21 19:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 19:53	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/10/21 10:35	07/11/21 19:53	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		07/10/21 10:35	07/11/21 19:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130				07/10/21 10:35	07/11/21 19:53	1

1,4-Difluorobenzene (Surr)	92		70 - 130				07/10/21 10:35	07/11/21 19:53	1
- Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 03:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 03:09	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 03:09	1
Total TPH	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 03:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane			70 - 130				07/12/21 13:20	07/14/21 03:09	1
o-Terphenyl	135	S1+	70 - 130				07/12/21 13:20	07/14/21 03:09	1
- Method: 300.0 - Anions, Ion Chro	omatography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1850		25.0		mg/Kg			07/12/21 22:11	5

Eurofins Xenco, Carlsbad

Lab Sample ID: 890-914-2 Matrix: Solid

Lab Sample ID: 890-914-3 Matrix: Solid

RL

0.00200

0.00200

0.00200

0.00401

0.00200

0.00401

0.00401

Limits

70 - 130

70 - 130

MDL Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Job ID: 890-914-1 SDG: 31403360.000.0348

Client Sample ID: BH02

Project/Site: RDX Federal 21 #044

Date Collected: 07/08/21 10:29 Date Received: 07/08/21 16:25

Sample Depth: 1 - 1.5

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

Xylenes, Total

Total BTEX

Surrogate

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Client: WSP USA Inc.

Prepared

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

Prepared

07/10/21 10:35

07/10/21 10:35

D

Lab Sample ID: 890-914-4

Analyzed

Analyzed

Lab Sample ID: 890-914-5

Matrix: Solid

Matrix: Solid 5 Dil Fac 07/11/21 20:13 1 07/11/21 20:13 1 07/11/21 20:13 1 07/11/21 20:13 1 07/11/21 20:13 1 07/11/21 20:13 07/11/21 20:13 1 Dil Fac 07/11/21 20:13 07/11/21 20:13 1

Method: 8015B N	I - Diesel Range	Organics (DRO) (GC)
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Method: 8021B - Volatile Organic Compounds (GC)

Result Qualifier

<0.00200 U

<0.00200 U

<0.00200 U

<0.00401 U

<0.00200 U

<0.00401 U

<0.00401 U

%Recovery Qualifier

101

94

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 03:30	1	
(GRO)-C6-C10										
Diesel Range Organics (Over	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 03:30	1	
C10-C28)										
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 03:30	1	
Total TPH	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 03:30	1	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	07/12/21 13:20	07/14/21 03:30	1
o-Terphenyl	124		70 - 130	07/12/21 13:20	07/14/21 03:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6080	49.7	mg/K	g —		07/12/21 22:28	10

Client Sample ID: BH02

Date Collected: 07/08/21 10:31 Date Received: 07/08/21 16:25

Sample Depth: 2 - 2.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 20:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 20:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 20:34	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/10/21 10:35	07/11/21 20:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 20:34	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/10/21 10:35	07/11/21 20:34	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		07/10/21 10:35	07/11/21 20:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130				07/10/21 10:35	07/11/21 20:34	1
1,4-Difluorobenzene (Surr)	92		70 - 130				07/10/21 10:35	07/11/21 20:34	1

Matrix: Solid

5

13

1

Client Sample Results

Job ID: 890-914-1 SDG: 31403360.000.0348

Lab Sample ID: 890-914-5

Lab Sample ID: 890-914-6

07/10/21 10:35 07/11/21 21:55

Matrix: Solid

Client Sample ID: BH02

Project/Site: RDX Federal 21 #044

Date Collected: 07/08/21 10:31 Date Received: 07/08/21 16:25

Sample Depth: 2 - 2.5

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		07/12/21 13:20	07/14/21 03:51	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		07/12/21 13:20	07/14/21 03:51	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/12/21 13:20	07/14/21 03:51	1
Total TPH	<49.8	U	49.8		mg/Kg		07/12/21 13:20	07/14/21 03:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130				07/12/21 13:20	07/14/21 03:51	1
o-Terphenyl	140	S1+	70 - 130				07/12/21 13:20	07/14/21 03:51	1

Analyte	Result Qual	lifier RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10500	50.2	mg/Kg			07/14/21 11:15	10

Client Sample ID: BH02

Date Collected: 07/08/21 10:33 Date Received: 07/08/21 16:25 Sample Depth: 4 - 4.5

1,4-Difluorobenzene (Surr)

Method: 8021B - Volatile Orga	nic Compounds ((GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/10/21 10:35	07/11/21 21:55	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/10/21 10:35	07/11/21 21:55	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/10/21 10:35	07/11/21 21:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/10/21 10:35	07/11/21 21:55	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/10/21 10:35	07/11/21 21:55	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/10/21 10:35	07/11/21 21:55	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		07/10/21 10:35	07/11/21 21:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130				07/10/21 10:35	07/11/21 21:55	1

70 - 130

93

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.7	U	49.7		mg/Kg		07/12/21 13:20	07/14/21 04:12	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.7	U	49.7		mg/Kg		07/12/21 13:20	07/14/21 04:12	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		07/12/21 13:20	07/14/21 04:12	1
Total TPH	<49.7	U	49.7		mg/Kg		07/12/21 13:20	07/14/21 04:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				07/12/21 13:20	07/14/21 04:12	1
o-Terphenyl	128		70 - 130				07/12/21 13:20	07/14/21 04:12	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	179		5.00		mg/Kg			07/14/21 11:20	1

Method: 8021B - Volatile Organic Compounds (GC)

Result Qualifier

<0.00202 U

<0.00202 U

<0.00202 U

<0.00403 U

<0.00202 U

<0.00403 U

<0.00403 U

%Recovery Qualifier

99

Client Sample Results

RL

0.00202

0.00202

0.00202

0.00403

0.00202

0.00403

0.00403

Limits

70 - 130

MDL Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

D

Prepared

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

Prepared

07/10/21 10:35

Job ID: 890-914-1 SDG: 31403360.000.0348

Analyzed

07/11/21 22:16

07/11/21 22:16

07/11/21 22:16

07/11/21 22:16

07/11/21 22:16

07/11/21 22:16

07/11/21 22:16

Analyzed

07/11/21 22:16

Lab Sample ID: 890-914-8

Matrix: Solid

Client Sample ID: BH03

Project/Site: RDX Federal 21 #044

Date Collected: 07/08/21 10:04 Date Received: 07/08/21 16:25

Sample Depth: 1 - 1.5

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

Xylenes, Total

Total BTEX

Surrogate

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

Client: WSP USA Inc.

Lab Sample ID: 890-914-7

Matrix: Solid

Dil Fac

1

1

1

1

1

Dil Fac

1,4-Difluorobenzene (Surr)	91		70 - 130				07/10/21 10:35	07/11/21 22:16	1	
Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 04:32	1	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 04:32	1	
C10-C28)										
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 04:32	1	
Total TPH	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 04:32	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1-Chlorooctane	103		70 - 130				07/12/21 13:20	07/14/21 04:32	1	
o-Terphenyl	125		70 - 130				07/12/21 13:20	07/14/21 04:32	1	

Method: 300.0 - Anio	ons, Ion	Chromat	tograp	hy -	So	luble

1	Analyte	Result	Qualifier	RL	MDL	Unit	0)	Prepared	Analyzed	Dil Fac
	Chloride	6900		49.6		mg/Kg				07/14/21 11:26	10

Client Sample ID: BH03 Date Collected: 07/08/21 10:07

Date Received: 07/08/21 16:25

Sample Depth: 2 - 2.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 22:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 22:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 22:36	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/10/21 10:35	07/11/21 22:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 22:36	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/10/21 10:35	07/11/21 22:36	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		07/10/21 10:35	07/11/21 22:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130				07/10/21 10:35	07/11/21 22:36	1
1,4-Difluorobenzene (Surr)	87		70 - 130				07/10/21 10:35	07/11/21 22:36	1

Job ID: 890-914-1 SDG: 31403360.000.0348

Lab Sample ID: 890-914-8

Client Sample ID: BH03

Project/Site: RDX Federal 21 #044

Date Collected: 07/08/21 10:07 Date Received: 07/08/21 16:25

Sample Depth: 2 - 2.5

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 04:53	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 04:53	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 04:53	1
Total TPH	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 04:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				07/12/21 13:20	07/14/21 04:53	1
o-Terphenyl	128		70 - 130				07/12/21 13:20	07/14/21 04:53	1

Method. 300.0 - Anions, ion Chromatography - Soluble										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	5400		24.8		mg/Kg			07/12/21 23:01	5

Client Sample ID: BH03

Date Collected: 07/08/21 10:11 Date Received: 07/08/21 16:25 Sample Depth: 4 - 4.5

1,4-Difluorobenzene (Surr)

Method: 8021B - Volatile Orga						_	<u> </u>		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 22:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 22:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 22:57	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/10/21 10:35	07/11/21 22:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:35	07/11/21 22:57	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/10/21 10:35	07/11/21 22:57	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		07/10/21 10:35	07/11/21 22:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130				07/10/21 10:35	07/11/21 22:57	1

70 - 130

89

Method: 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac <50.0 U 50.0 Gasoline Range Organics mg/Kg 07/12/21 13:20 07/14/21 05:14 1 (GRO)-C6-C10 <50.0 U 50.0 07/12/21 13:20 07/14/21 05:14 **Diesel Range Organics (Over** mg/Kg 1 C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 07/12/21 13:20 07/14/21 05:14 1 Total TPH mg/Kg 07/12/21 13:20 07/14/21 05:14 <50.0 U 50.0 1 %Recovery Qualifier Limits Dil Fac Surrogate Prepared Analyzed 1-Chlorooctane 70 - 130 07/12/21 13:20 07/14/21 05:14 112 1 o-Terphenyl 151 S1+ 70 - 130 07/12/21 13:20 07/14/21 05:14 1 Method: 300.0 - Anions, Ion Chromatography - Soluble MDL Unit Analyte **Result Qualifier** RL D Prepared Analyzed Dil Fac 25.0 Chloride 2980 mg/Kg 07/12/21 23:06 5

Eurofins Xenco, Carlsbad

Matrix: Solid

Lab Sample ID: 890-914-9

07/11/21 22:57

07/10/21 10:35

Matrix: Solid

1

Method: 8021B - Volatile Organic Compounds (GC)

Result Qualifier

<0.00199 U

<0.00199 U

<0.00199 U

<0.00398 U

<0.00199 U

<0.00398 U

RL

0.00199

0.00199

0.00199

0.00398

0.00199

0.00398

MDL

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

D

Prepared

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

Dil Fac

1

1

1

1

Job ID: 890-914-1 SDG: 31403360.000.0348

Client Sample ID: BH04

Project/Site: RDX Federal 21 #044

Date Collected: 07/08/21 10:17 Date Received: 07/08/21 16:25

Sample Depth: 1 - 1.5

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

Xylenes, Total

m-Xylene & p-Xylene

Client: WSP USA Inc.

3DG. 31	403	300.000	0.0340
Samplo	יחו	800-01	14-10

Lab Sample ID: 890-914-10 Matrix: Solid

Analyzed 07/11/21 23:17

07/11/21 23:17

07/11/21 23:17

07/11/21 23:17

07/11/21 23:17

07/11/21 23:17

Lab Sample ID: 890-914-11

Matrix: Solid

Total BTEX	<0.00398	U	0.00398		mg/Kg		07/10/21 10:35	07/11/21 23:17	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	i
4-Bromofluorobenzene (Surr)			70 - 130				07/10/21 10:35	07/11/21 23:17	1	
1,4-Difluorobenzene (Surr)	93		70 - 130				07/10/21 10:35	07/11/21 23:17	1	
- Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 05:35	1	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 05:35	1	
C10-C28)										
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 05:35	1	
Total TPH	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 05:35	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1-Chlorooctane			70 - 130				07/12/21 13:20	07/14/21 05:35	1	
o-Terphenyl	153	S1+	70 - 130				07/12/21 13:20	07/14/21 05:35	1	
_ Method: 300.0 - Anions, Ion Chro	matography -	Soluble								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Chloride 62.6 4.95 mg/Kg 07/12/21 23:12 1

Client Sample ID: BH04 Date Collected: 07/08/21 10:19

Date Received: 07/08/21 16:25

Sample Depth: 2 - 2.5

Method: 8021B - Volatile Organic Compounds (GC) Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Benzene < 0.00200 U 0.00200 07/10/21 10:35 07/11/21 23:38 mg/Kg 1 Toluene <0.00200 U 0.00200 mg/Kg 07/10/21 10:35 07/11/21 23:38 Ethylbenzene <0.00200 U 0.00200 mg/Kg 07/10/21 10:35 07/11/21 23:38 1 m-Xylene & p-Xylene 0.00399 07/11/21 23:38 <0.00399 U mg/Kg 07/10/21 10:35 o-Xylene <0.00200 U 0.00200 mg/Kg 07/10/21 10:35 07/11/21 23:38 1 Xylenes, Total <0.00399 U 0.00399 mg/Kg 07/10/21 10:35 07/11/21 23:38 1 Total BTEX <0.00399 U 0.00399 mg/Kg 07/10/21 10:35 07/11/21 23:38 1 Qualifier Limits Dil Fac Surrogate %Recovery Prepared Analyzed 4-Bromofluorobenzene (Surr) 112 70 - 130 07/10/21 10:35 07/11/21 23:38 1 70 - 130 07/10/21 10:35 07/11/21 23:38 1,4-Difluorobenzene (Surr) 90 1

Job ID: 890-914-1 SDG: 31403360.000.0348

Lab Sample ID: 890-914-11

Lab Sample ID: 890-914-12

Matrix: Solid

1

Client Sample ID: BH04

Project/Site: RDX Federal 21 #044

Date Collected: 07/08/21 10:19 Date Received: 07/08/21 16:25

Samp

Client: WSP USA Inc.

Method: 8015B NM - Diesel Rang									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 06:16	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 06:16	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 06:16	1
Total TPH	<50.0	U	50.0		mg/Kg		07/12/21 13:20	07/14/21 06:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130				07/12/21 13:20	07/14/21 06:16	1
o-Terphenyl	145	S1+	70 - 130				07/12/21 13:20	07/14/21 06:16	1

Method: 300.0 - Anions, Ion Chromatography - Soluble										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	<5.00	U	5.00		mg/Kg			07/12/21 23:17	1

Client Sample ID: BH04

Date Collected: 07/08/21 10:22 Date Received: 07/08/21 16:25 Sample Depth: 4 - 4.5

Method: 8021B - Volatile Orga	inic Compounds ((GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/10/21 10:35	07/11/21 23:58	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/10/21 10:35	07/11/21 23:58	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/10/21 10:35	07/11/21 23:58	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		07/10/21 10:35	07/11/21 23:58	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/10/21 10:35	07/11/21 23:58	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		07/10/21 10:35	07/11/21 23:58	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		07/10/21 10:35	07/11/21 23:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130				07/10/21 10:35	07/11/21 23:58	1

88

1,4-Difluorobenzene (Surr) 70 - 130 07/10/21 10:35 07/11/21 23:58 Method: 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac <50.0 U Gasoline Range Organics 50.0 07/12/21 13:20 07/14/21 06:36 mg/Kg 1 (GRO)-C6-C10 <50.0 U 50.0 07/12/21 13:20 07/14/21 06:36 **Diesel Range Organics (Over** mg/Kg 1 C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 07/12/21 13:20 07/14/21 06:36 1 Total TPH mg/Kg 07/14/21 06:36 <50.0 U 50.0 07/12/21 13:20 1 Qualifier Dil Fac %Recovery Surrogate Limits Prepared Analyzed 70 - 130 07/12/21 13:20 1-Chlorooctane 07/14/21 06:36 104 1 o-Terphenyl 121 70 - 130 07/12/21 13:20 07/14/21 06:36 1 Method: 300.0 - Anions, Ion Chromatography - Soluble MDL Unit Analyte **Result Qualifier** RL D Prepared Analyzed Dil Fac Chloride 123 5.01 mg/Kg 07/12/21 23:23 1

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Matrix: Solid

RL

0.00199

0.00199

0.00199

0.00398

0.00199

0.00398

0.00398

Limits

70 - 130

70 - 130

MDL Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Job ID: 890-914-1 SDG: 31403360.000.0348

Client Sample ID: BH05

Project/Site: RDX Federal 21 #044

Date Collected: 07/08/21 10:39 Date Received: 07/08/21 16:25

Sample Depth: 1 - 1.5

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

Xylenes, Total

Total BTEX

Surrogate

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Client: WSP USA Inc.

SDG: 31403360.000.034

Lab Sample ID: 890-914-13 Matrix: Solid

Analyzed

07/12/21 00:19

07/12/21 00:19

07/12/21 00:19

07/12/21 00:19

07/12/21 00:19

07/12/21 00:19

07/12/21 00:19

Analyzed

07/12/21 00:19

07/12/21 00:19

Lab Sample ID: 890-914-14

Matrix: Solid

Prepared

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

07/10/21 10:35

Prepared

07/10/21 10:35

07/10/21 10:35

D

4

Dil Fac

1

1

1

1

1

Method: 8015E	3 NM - Die	sel Range	Organics	(DRO)	(GC)
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Method: 8021B - Volatile Organic Compounds (GC)

Result Qualifier

<0.00199 U

<0.00199 U

<0.00199 U

<0.00398 U

<0.00199 U

<0.00398 U

<0.00398 U

%Recovery Qualifier

110 93

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 06:57	1	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 06:57	1	
C10-C28)										
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 06:57	1	
Total TPH	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 06:57	1	
• · ·	~~-	• ····								

	Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
	1-Chlorooctane	107		70 - 130		07/12/21 13:20	07/14/21 06:57	1
l	o-Terphenyl	145	S1+	70 - 130	6	07/12/21 13:20	07/14/21 06:57	1
	_							

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14000	99.0	mg/Kg			07/14/21 21:39	20

Client Sample ID: BH05

Date Collected: 07/08/21 10:42 Date Received: 07/08/21 16:25

Sample Depth: 2 - 2.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/10/21 10:35	07/12/21 00:39	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/10/21 10:35	07/12/21 00:39	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/10/21 10:35	07/12/21 00:39	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/10/21 10:35	07/12/21 00:39	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/10/21 10:35	07/12/21 00:39	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/10/21 10:35	07/12/21 00:39	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		07/10/21 10:35	07/12/21 00:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130				07/10/21 10:35	07/12/21 00:39	1
1,4-Difluorobenzene (Surr)	93		70 - 130				07/10/21 10:35	07/12/21 00:39	1

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Released to Imaging: 1/10/2022 9:31:38 AM

SDG: 31403360.000.0348

Client Sample ID: BH05

Project/Site: RDX Federal 21 #044

Date Collected: 07/08/21 10:42 Date Received: 07/08/21 16:25

Sample Depth: 2 - 2.5

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 07:18	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 07:18	
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 07:18	
Total TPH	<49.9	U	49.9		mg/Kg		07/12/21 13:20	07/14/21 07:18	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1-Chlorooctane			70 - 130				07/12/21 13:20	07/14/21 07:18	
o-Terphenyl	136	S1+	70 - 130				07/12/21 13:20	07/14/21 07:18	

Method: 500.0 - Anions, ion Chrom	alography -	Soluple							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	452		5.02		mg/Kg			07/14/21 21:50	1

Client Sample ID: BH05

Date Collected: 07/08/21 10:45 Date Received: 07/08/21 16:25 Sample Depth: 4 - 4.5

Method: 8021B - Volatile Orga	nic Compounds ((GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/10/21 10:35	07/12/21 01:00	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/10/21 10:35	07/12/21 01:00	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/10/21 10:35	07/12/21 01:00	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/10/21 10:35	07/12/21 01:00	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/10/21 10:35	07/12/21 01:00	1
Xylenes, Total	< 0.00402	U	0.00402		mg/Kg		07/10/21 10:35	07/12/21 01:00	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		07/10/21 10:35	07/12/21 01:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130				07/10/21 10:35	07/12/21 01:00	1

			10 - 100				01710/21 10:00	011122101100	
1,4-Difluorobenzene (Surr)	90		70 - 130				07/10/21 10:35	07/12/21 01:00	1
– Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		07/12/21 10:12	07/13/21 03:16	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.9	U	49.9		mg/Kg		07/12/21 10:12	07/13/21 03:16	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/12/21 10:12	07/13/21 03:16	1
Total TPH	<49.9	U	49.9		mg/Kg		07/12/21 10:12	07/13/21 03:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130				07/12/21 10:12	07/13/21 03:16	1
o-Terphenyl	114		70 - 130				07/12/21 10:12	07/13/21 03:16	1
_ Method: 300.0 - Anions, Ion Chro	omatography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.8		4.98		mg/Kg			07/14/21 21:44	1

Eurofins Xenco, Carlsbad

Released to Imaging: 1/10/2022 9:31:38 AM

Job ID: 890-914-1

Lab Sample ID: 890-914-14 Matrix: Solid

Lab Sample ID: 890-914-15

Matrix: Solid

Project/Site: RDX Federal 21 #044

Method: 8021B - Volatile Organic Compounds (GC) Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
890-914-1	BH01	107	92		
890-914-2	BH01	104	92		
890-914-3	BH01	104	92		- 5
890-914-4	BH02	101	94		
890-914-5	BH02	111	92		
890-914-6	BH02	103	93		
890-914-7	BH03	99	91		
890-914-8	BH03	104	87		
890-914-9	BH03	107	89		
890-914-10	BH04	101	93		
890-914-11	BH04	112	90		
890-914-12	BH04	107	88		
890-914-13	BH05	110	93		
890-914-14	BH05	106	93		
890-914-15	BH05	108	90		
LCS 880-5016/1-A	Lab Control Sample	131 S1+	118		
LCSD 880-5016/2-A	Lab Control Sample Dup	134 S1+	123		
MB 880-5016/5-A	Method Blank	89	91		
MB 880-5043/5-A	Method Blank	117	84		

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-914-1	BH01	118	144 S1+
890-914-1 MS	BH01	125	127
890-914-1 MSD	BH01	114	122
890-914-2	BH01	107	123
890-914-3	BH01	117	135 S1+
890-914-4	BH02	105	124
890-914-5	BH02	104	140 S1+
890-914-6	BH02	108	128
890-914-7	BH03	103	125
890-914-8	BH03	108	128
890-914-9	BH03	112	151 S1+
890-914-10	BH04	110	153 S1+
890-914-11	BH04	114	145 S1+
890-914-12	BH04	104	121
890-914-13	BH05	107	145 S1+
890-914-14	BH05	107	136 S1+
890-914-15	BH05	100	114
LCS 880-5077/2-A	Lab Control Sample	93	99
LCS 880-5097/2-A	Lab Control Sample	123	99 127
			88
LCSD 880-5077/3-A	Lab Control Sample Dup	83	88

Prep Type: Total/NA

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Page 50 of 111

Job ID: 890-914-1 SDG: 31403360.000.0348

Prep Type: Total/NA

Surrogate Summary

		Surrogat	te Sum [,]	mary	
lient: WSP USA Inc.				Job ID: 890-914-1	1
oject/Site: RDX Fede) (Conti	SDG: 31403360.000.0348	
atrix: Solid	I - Diesel Range Organics			Prep Type: Total/NA	
				Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1		
ab Sample ID	Client Sample ID	(70-130)	(70-130)		
CSD 880-5097/3-A	Lab Control Sample Dup	109	122		
IB 880-5077/1-A	Method Blank	93	105		
IB 880-5097/1-A	Method Blank	110	136 S1+		
Surrogate Legend					
1CO = 1-Chlorooctane OTPH = o-Terphenyl					
OTFIT - 0-Terpheny					

QC Sample Results

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-501 Matrix: Solid Analysis Batch: 5061	6/5-A									Client Sa	mple ID: Metho Prep Type: Prep Bat	Total/NA
-	Ν	ІВ МВ										
Analyte	Res	ult Qua	lifier	RL	MDL	Unit		D	Pr	repared	Analyzed	Dil Fac
Benzene	<0.002	00 U	0	.00200		mg/Kg	3	_	07/10	0/21 10:35	07/11/21 17:08	1
Toluene	<0.002	0 U 00	0	.00200		mg/Kg	9		07/10	0/21 10:35	07/11/21 17:08	1
Ethylbenzene	<0.002	00 U	0	.00200		mg/Kg	9		07/10	0/21 10:35	07/11/21 17:08	1
m-Xylene & p-Xylene	<0.004	00 U	0	.00400		mg/Kg]		07/10	0/21 10:35	07/11/21 17:08	1
o-Xylene	<0.002	0 U 00	0	.00200		mg/Kg	9		07/10	0/21 10:35	07/11/21 17:08	1
Xylenes, Total	<0.004	00 U	0	.00400		mg/Kg	9		07/10	0/21 10:35	07/11/21 17:08	1
Total BTEX	<0.004	00 U	0	.00400		mg/Kg]		07/10	0/21 10:35	07/11/21 17:08	1
	л	1B MB										
Surrogate	%Recove	ry Qua	lifier Lin	nits					Pi	repared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		89	70	- 130					07/1	0/21 10:35	07/11/21 17:08	1
1,4-Difluorobenzene (Surr)		91	70	- 130					07/10	0/21 10:35	07/11/21 17:08	1
Lab Sample ID: LCS 880-50 Matrix: Solid Analysis Batch: 5061											ID: Lab Contro Prep Type: Prep Bat	Total/NA
			Spike	LC	S LCS	5					%Rec.	
Analyte			Added	Resu	lt Qua	lifier	Unit		D	%Rec	Limits	
Benzene			0.100	0.0710	2		mg/Kg			71	70 - 130	
Toluene			0.100	0.0773	0		mg/Kg			77	70 - 130	
Ethylbenzene			0.100	0.0893	7		mg/Kg			89	70 - 130	
m-Xylene & p-Xylene			0.200	0.191	1		mg/Kg			96	70 ₋ 130	
o-Xylene			0.100	0.103	8		mg/Kg			104	70 - 130	
	LCS L	cs										
Surrogate	%Recovery G	ualifier	Limits									
4-Bromofluorobenzene (Surr)	131 S	1+	70 - 130	_								
1,4-Difluorobenzene (Surr)	118		70 - 130									
_ Lab Sample ID: LCSD 880-5 Matrix: Solid	016/2-A						CI	ient	Sam	ple ID: La	ab Control San Prep Type:	

Matrix: Solid Analysis Batch: 5061								ype: To p Batch	
•	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08194		mg/Kg		82	70 - 130	14	35
Toluene	0.100	0.08937		mg/Kg		89	70 - 130	14	35
Ethylbenzene	0.100	0.1025		mg/Kg		103	70 - 130	14	35
m-Xylene & p-Xylene	0.200	0.2168		mg/Kg		108	70 - 130	13	35
o-Xylene	0.100	0.1176		mg/Kg		118	70 - 130	12	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	134	S1+	70 - 130
1,4-Difluorobenzene (Surr)	123		70 - 130

Lab Sample ID: MB 880-5043/5-A Client Sample ID: Method Blank Matrix: Solid Prep Type: Total/NA Analysis Batch: 5061 Prep Batch: 5043 MB MB Analyte Result Qualifier MDL Unit Dil Fac RL D Prepared Analyzed Benzene <0.00200 U 0.00200 mg/Kg 07/10/21 09:30 07/11/21 06:17 1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044 Job ID: 890-914-1 SDG: 31403360.000.0348

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

Lab Sample ID: MB 880-5043/5-A	L										Client Sa	ample ID: Meth	
Matrix: Solid												Prep Type:	Total/NA
Analysis Batch: 5061												Prep Bat	ch: 5043
	N	1B MB	в										
Analyte	Res	ult Qu	ualifier	RL		MDL	Unit		D	Pr	repared	Analyzed	Dil Fac
Toluene	<0.002	00 U		0.00200			mg/Kg]	_	07/10	0/21 09:30	07/11/21 06:17	1
Ethylbenzene	< 0.002	0 U 00		0.00200			mg/Kg	9		07/10	0/21 09:30	07/11/21 06:17	1
m-Xylene & p-Xylene	<0.004	00 U		0.00400			mg/Kg	3		07/10	0/21 09:30	07/11/21 06:17	
o-Xylene	< 0.002	00 U		0.00200			mg/Kg	3		07/10	0/21 09:30	07/11/21 06:17	
Xylenes, Total	<0.004	00 U		0.00400			mg/Kg	3		07/10	0/21 09:30	07/11/21 06:17	
Total BTEX	<0.004	00 U		0.00400			mg/Kg			07/10	0/21 09:30	07/11/21 06:17	
	٨	1B MI	в										
Surrogate	%Recove	ry Qi	ualifier	Limits						Pi	repared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	1	17		70 - 130						07/1	0/21 09:30	07/11/21 06:17	
1,4-Difluorobenzene (Surr)		84		70 - 130						07/1	0/21 09:30	07/11/21 06:17	-
lethod: 8015B NM - Diesel I	Range Org	anic	s (DR	O) (GC)									
Lab Sample ID: MB 880-5077/1-A											Client Sa	ample ID: Meth	od Blani
Matrix: Solid												Prep Type:	Total/N/
Analysis Batch: 5065												Prep Bat	ch: 507
	Ν	IB ME	в										
Analyte	Res	ult Qu	ualifier	RL		MDL	Unit		D	Pr	repared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<50	0.0 U		50.0			mg/Kg]	_	07/12	2/21 10:12	07/12/21 20:16	
Diesel Range Organics (Over C10-C28)	<50	0.0 U		50.0			mg/Kg	9		07/12	2/21 10:12	07/12/21 20:16	
Oll Range Organics (Over C28-C36)	<50	.0 U		50.0			mg/Kg	9		07/12	2/21 10:12	07/12/21 20:16	
Total TPH	<50	.0 U		50.0			mg/Kg	9		07/12	2/21 10:12	07/12/21 20:16	
	л	18 MI	в										
Surrogate	%Recove	ry Qi	ualifier	Limits						Pi	repared	Analyzed	Dil Fac
1-Chlorooctane		93		70 - 130						07/1	2/21 10:12	07/12/21 20:16	
o-Terphenyl	1	05		70 - 130						07/1	2/21 10:12	07/12/21 20:16	
Lab Sample ID: LCS 880-5077/2- Matrix: Solid	A								С	lient	Sample	ID: Lab Contro Prep Type:	-
Analysis Batch: 5065												Prep Bat	ch: 507
Analyte				Spike Added	Result	LCS		Unit		D	%Rec	%Rec. Limits	
Gasoline Range Organics				1000	1006	Qua		mg/Kg			101	70 - 130	
(GRO)-C6-C10				1000	1000			ilig/itg			101	70 - 150	
Diesel Range Organics (Over				1000	1179			mg/Kg			118	70 - 130	
C10-C28)								0 0					
	LCS L	cs											
Surrogate	%Recovery G	ualifie	r	Limits									
1-Chlorooctane	93			70 - 130									

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Project/Site: RDX Federal 21 #044

Client: WSP USA Inc.

Job ID: 890-914-1 SDG: 31403360.000.0348

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

Matrix: Solid													ab Contro Prep ⁻	Гуре: То	
Analysis Batch: 5065														p Batch	
				Spike		LCSD	LCS	D					%Rec.		RP
Analyte				Added		Result			Unit		D	%Rec	Limits	RPD	Lim
Gasoline Range Organics				1000		971.0			mg/Kg			97	70 - 130	4	
GRO)-C6-C10				1000		07 1.0			mg/rtg			01	10-100		-
Diesel Range Organics (Over				1000		1008			mg/Kg			101	70 - 130	16	2
C10-C28)									0 0						
	1.000		-												
	LCSD														
Surrogate	%Recovery	Qua	lifier	Limits											
1-Chlorooctane	83			70 - 130											
p-Terphenyl	88			70 - 130											
ch Semale ID: MD 880 5007/4	•													Mathad	Dia
Lab Sample ID: MB 880-5097/1	-A											Chefit Sa	ample ID:		
Matrix: Solid														Type: To	
Analysis Batch: 5107													Pre	p Batch	1: 505
			MB		_					_			_		
Analyte			Qualifier		RL		MDL			<u>D</u>		repared	Analyz		Dil Fa
Gasoline Range Organics	<	\$50.0	U		50.0			mg/Kg			07/12	2/21 13:20	07/14/21	00:44	
GRO)-C6-C10											07/1				
Diesel Range Organics (Over	<	\$50.0	U		50.0			mg/Kg			07/12	2/21 13:20	07/14/21	00:44	
C10-C28) DII Range Organics (Over C28-C36)		\$0.0			50.0			malka			07/11	2/21 13:20	07/14/21	00.44	
								mg/Kg					07/14/21		
otal TPH	<	\$50.0	U		50.0			mg/Kg			07/12	2/21 13:20	07/14/21	00:44	
		ΜВ	МВ												
Surrogate	%Reco	very	Qualifier	Limi	ts						Pi	repared	Analy	zed	Dil F
I-Chlorooctane		110		70 - 1	130						07/1	2/21 13:20	07/14/21		
o-Terphenyl		136	S1+	70 - 1	130						07/1	2/21 13:20	07/14/21	00:44	
_ab Sample ID: LCS 880-5097/	2-A									С	lient	Sample	ID: Lab C	ontrol S	Samp
Matrix: Solid													Prep ⁻	Гуре: То	otal/N
Analysis Batch: 5107														p Batch	
				Spike		LCS	LCS						%Rec.	•	
Analyte				Added		Result	Qual	ifier	Unit		D	%Rec	Limits		
Gasoline Range Organics				1000		908.3			mg/Kg			91	70 - 130		
GRO)-C6-C10															
Diesel Range Organics (Over				1000		1085			mg/Kg			108	70 - 130		
C10-C28)															
	1.05	100													
		LCS													
Surrogate	%Recovery	Qua	iiiier	Limits											
1-Chlorooctane	123			70 - 130											
p-Terphenyl	127			70 - 130											
ab Sample ID: LCSD 890 500	7/2 A								C 1	ont	S		ab Contro	Som-	
Lab Sample ID: LCSD 880-509	1.3-A								CII	ent	Sam	pie ID: L			
Matrix: Solid														Type: To	
Analysis Batch: 5107				• "				_						p Batch	
				Spike		LCSD					_	A/ =	%Rec.		RF
Analyte				Added		Result	Qual	ifier	Unit		_ <u>D</u>	%Rec	Limits	RPD	Lin
Gasoline Range Organics				1000		812.6			mg/Kg			81	70 - 130	11	2
GRO)-C6-C10 Diesel Range Organics (Over				1000		990.6			mg/Kg			99	70 - 130	9	:

QC Sample Results

Lab Sample ID: LCSD 880-5097/3-A

Matrix: Solid

Surrogate

1-Chlorooctane

Analysis Batch: 5107

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

LCSD LCSD %Recovery Qualifier

109

8 9	
Job ID: 890-914-1	
SDG: 31403360.000.0348	
Client Sample ID: Lab Control Sample Dup	
Prep Type: Total/NA Prep Batch: 5097	
Thep Batch. 5057	
Client Sample ID: BH01	

Prep Type: Total/NA Prep Batch: 5097

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01 4	nple ID: BH0	Client San			
NA	ype: Total/N	Prep T			
	Batch: 509				
PD	RP	%Rec.			
mit	RPD Lim	Limits	%Rec	D	

%Rec. Limits 70 - 130

70 - 130

o-Terphenyl	122		70 - 130					
Lab Sample ID: 890-914-1 MS Matrix: Solid Analysis Batch: 5107								
	Sample	Sample	Spike	MS	MS			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	996	1031		mg/Kg		104
Diesel Range Organics (Over C10-C28)	<50.0	U	996	1227		mg/Kg		123

Limits

70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	125		70 - 130
o-Terphenyl	127		70 - 130

Lab Sample ID: 890-914-1 MSD Matrix: Solid Analysis Batch: 5107										nple ID: ype: Tot p Batch:	tal/NA
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	996	957.8		mg/Kg		96	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	<50.0	U	996	1127		mg/Kg		113	70 - 130	8	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	114		70 _ 130								
o-Terphenyl	122		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-5011/1-A Matrix: Solid Analysis Batch: 5102										Clier	nt Sa	ample ID: Metho Prep Type:	
-	MB	МВ											
Analyte	Result	Qualifier		RL		MDL	Unit		D	Prepare	ed	Analyzed	Dil Fac
Chloride	<5.00	U		5.00			mg/Kg					07/14/21 19:19	1
- Lab Sample ID: LCS 880-5011/2-A									Clie	nt Sam	ple	ID: Lab Control	Sample
Matrix: Solid												Prep Type:	Soluble
Analysis Batch: 5102													
			Spike		LCS	LCS						%Rec.	
Analyte			Added		Result	Qual	ifier	Unit	D	%Re	€C	Limits	
Chloride			250		258.6			mg/Kg		10)3	90 - 110	

Client: WSP USA Inc.

QC Sample Results

Job ID: 890-914-1 SDG: 31403360.000.0348

Project/Site: RDX Federal 21 #044

Lab Sample ID: LCSD 880-5011	/ 3-A						CI	ient S	Sam	ple ID:	Lab Contro	l Sampl	e Dup
Matrix: Solid												Type: S	
Analysis Batch: 5102												.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
			Spike	LCS	D LC	SD					%Rec.		RPD
Analyte			Added	Resu	lt Qu	alifier	Unit		D	%Rec	Limits	RPD	Limit
Chloride			250	258	.2		mg/Kg		_	103	90 - 110	0	20
Lab Sample ID: MB 880-5009/1	- A									Client S	Sample ID:	Method	Blank
Matrix: Solid												Type: S	
Analysis Batch: 5127													
		МВ МВ											
Analyte	Re	sult Quali	ifier	RL	MDL	. Unit		D	P	repared	Analyz	ed	Dil Fac
Chloride	<	5.00 U		5.00		mg/K	g			-	07/12/21	20:38	1
Lab Sample ID: LCS 880-5009/2	2-A							Cli	ent	Sample	e ID: Lab Co	ontrol S	ample
Matrix: Solid												Type: S	
Analysis Batch: 5127													
			Spike	LC	S LC	s					%Rec.		
Analyte			Added	Resu	lt Qu	alifier	Unit		D	%Rec	Limits		
Chloride			250	264	.7		mg/Kg		_	106	90 - 110		
Lab Sample ID: LCSD 880-5009	9/3-A						CI	ient S	Sam	ple ID:	Lab Contro	ol Sampl	e Dup
Matrix: Solid											Prep	Type: S	oluble
Analysis Batch: 5127													
-			Spike	LCS	D LC	SD					%Rec.		RPD
Analyte			Added	Resu	lt Qua	alifier	Unit		D	%Rec	Limits	RPD	Limit
Chloride			250	263	.3		mg/Kg		_	105	90 - 110	1	20
Lab Sample ID: 890-914-3 MS											Client Sar	nple ID:	BH01
Matrix: Solid											Prep	Type: S	oluble
Analysis Batch: 5127													
	Sample	Sample	Spike	N	S MS						%Rec.		
Analyte	Result	Qualifier	Added	Resu	lt Qua	alifier	Unit		D	%Rec	Limits		
Chloride	1850		1250	318	51		mg/Kg		_	107	90 - 110		
Lab Sample ID: 890-914-3 MSD)										Client Sar	nple ID:	BH01
Matrix: Solid												Type: S	
Analysis Batch: 5127													
-	Sample	Sample	Spike	MS	D MS	D					%Rec.		RPD
Analyte	Result	Qualifier	Added	Resu	lt Qua	alifier	Unit		D	%Rec	Limits	RPD	Limit

QC Association Summary

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044 Page 57 of 111

Job ID: 890-914-1 SDG: 31403360.000.0348

GC VOA

Prep Batch: 5016

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
390-914-1	BH01	Total/NA	Solid	5035	
390-914-2	BH01	Total/NA	Solid	5035	
90-914-3	BH01	Total/NA	Solid	5035	
90-914-4	BH02	Total/NA	Solid	5035	
0-914-5	BH02	Total/NA	Solid	5035	
0-914-6	BH02	Total/NA	Solid	5035	
0-914-7	BH03	Total/NA	Solid	5035	
0-914-8	BH03	Total/NA	Solid	5035	
0-914-9	BH03	Total/NA	Solid	5035	
0-914-10	BH04	Total/NA	Solid	5035	
0-914-11	BH04	Total/NA	Solid	5035	
0-914-12	BH04	Total/NA	Solid	5035	
0-914-13	BH05	Total/NA	Solid	5035	
0-914-14	BH05	Total/NA	Solid	5035	
0-914-15	BH05	Total/NA	Solid	5035	
B 880-5016/5-A	Method Blank	Total/NA	Solid	5035	
S 880-5016/1-A	Lab Control Sample	Total/NA	Solid	5035	
CSD 880-5016/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
n Rotch: 5042					
p Batch: 5043					

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-5043/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 5061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-914-1	BH01	Total/NA	Solid	8021B	5016
890-914-2	BH01	Total/NA	Solid	8021B	5016
890-914-3	BH01	Total/NA	Solid	8021B	5016
890-914-4	BH02	Total/NA	Solid	8021B	5016
890-914-5	BH02	Total/NA	Solid	8021B	5016
890-914-6	BH02	Total/NA	Solid	8021B	5016
890-914-7	BH03	Total/NA	Solid	8021B	5016
890-914-8	BH03	Total/NA	Solid	8021B	5016
890-914-9	BH03	Total/NA	Solid	8021B	5016
890-914-10	BH04	Total/NA	Solid	8021B	5016
890-914-11	BH04	Total/NA	Solid	8021B	5016
890-914-12	BH04	Total/NA	Solid	8021B	5016
890-914-13	BH05	Total/NA	Solid	8021B	5016
890-914-14	BH05	Total/NA	Solid	8021B	5016
890-914-15	BH05	Total/NA	Solid	8021B	5016
MB 880-5016/5-A	Method Blank	Total/NA	Solid	8021B	5016
MB 880-5043/5-A	Method Blank	Total/NA	Solid	8021B	5043
LCS 880-5016/1-A	Lab Control Sample	Total/NA	Solid	8021B	5016
LCSD 880-5016/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	5016

GC Semi VOA

Analysis Batch: 5065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-914-15	BH05	Total/NA	Solid	8015B NM	5077
MB 880-5077/1-A	Method Blank	Total/NA	Solid	8015B NM	5077

QC Association Summary

GC Semi VOA (Continued)

Analysis Batch: 5065 (Continued)

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
LCS 880-5077/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	5077
LCSD 880-5077/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	5077

Prep Batch: 5077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-914-15	BH05	Total/NA	Solid	8015NM Prep	
MB 880-5077/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-5077/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-5077/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Prep Batch: 5097

IVID 000-507771-A	Method Blank	Total/INA	5011ú	ou i sinivi Piep		
LCS 880-5077/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep		8
LCSD 880-5077/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep		
 Prep Batch: 5097						9
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch	
890-914-1	BH01	Total/NA	Solid	8015NM Prep		
890-914-2	BH01	Total/NA	Solid	8015NM Prep		
890-914-3	BH01	Total/NA	Solid	8015NM Prep		
890-914-4	BH02	Total/NA	Solid	8015NM Prep		
890-914-5	BH02	Total/NA	Solid	8015NM Prep		
890-914-6	BH02	Total/NA	Solid	8015NM Prep		4.0
890-914-7	BH03	Total/NA	Solid	8015NM Prep		13
890-914-8	BH03	Total/NA	Solid	8015NM Prep		
890-914-9	BH03	Total/NA	Solid	8015NM Prep		
890-914-10	BH04	Total/NA	Solid	8015NM Prep		
890-914-11	BH04	Total/NA	Solid	8015NM Prep		
890-914-12	BH04	Total/NA	Solid	8015NM Prep		
890-914-13	BH05	Total/NA	Solid	8015NM Prep		
890-914-14	BH05	Total/NA	Solid	8015NM Prep		
MB 880-5097/1-A	Method Blank	Total/NA	Solid	8015NM Prep		
LCS 880-5097/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep		
LCSD 880-5097/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep		
890-914-1 MS	BH01	Total/NA	Solid	8015NM Prep		
890-914-1 MSD	BH01	Total/NA	Solid	8015NM Prep		

Analysis Batch: 5107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-914-1	BH01	Total/NA	Solid	8015B NM	5097
890-914-2	BH01	Total/NA	Solid	8015B NM	5097
890-914-3	BH01	Total/NA	Solid	8015B NM	5097
890-914-4	BH02	Total/NA	Solid	8015B NM	5097
890-914-5	BH02	Total/NA	Solid	8015B NM	5097
890-914-6	BH02	Total/NA	Solid	8015B NM	5097
890-914-7	BH03	Total/NA	Solid	8015B NM	5097
890-914-8	BH03	Total/NA	Solid	8015B NM	5097
890-914-9	BH03	Total/NA	Solid	8015B NM	5097
890-914-10	BH04	Total/NA	Solid	8015B NM	5097
890-914-11	BH04	Total/NA	Solid	8015B NM	5097
890-914-12	BH04	Total/NA	Solid	8015B NM	5097
890-914-13	BH05	Total/NA	Solid	8015B NM	5097
890-914-14	BH05	Total/NA	Solid	8015B NM	5097
MB 880-5097/1-A	Method Blank	Total/NA	Solid	8015B NM	5097
LCS 880-5097/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	5097
LCSD 880-5097/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	5097

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Job ID: 890-914-1

SDG: 31403360.000.0348

Job ID: 890-914-1 SDG: 31403360.000.0348

Project/Site: RDX Federal 21 #044 GC Semi VOA (Continued)

Client: WSP USA Inc.

Analysis Batch: 5107 (Continued)

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-914-1 MS	BH01	Total/NA	Solid	8015B NM	5097
890-914-1 MSD	BH01	Total/NA	Solid	8015B NM	5097

HPLC/IC

Leach Batch: 5009

890-914-1 MS	BH01	Total/NA	Solid	8015B NM	5097
890-914-1 MSD	BH01	Total/NA	Solid	8015B NM	5097
IPLC/IC					
each Batch: 5009					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-914-1	BH01	Soluble	Solid	DI Leach	
890-914-2	BH01	Soluble	Solid	DI Leach	
890-914-3	BH01	Soluble	Solid	DI Leach	
890-914-4	BH02	Soluble	Solid	DI Leach	
890-914-5	BH02	Soluble	Solid	DI Leach	
890-914-6	BH02	Soluble	Solid	DI Leach	
890-914-7	BH03	Soluble	Solid	DI Leach	
890-914-8	BH03	Soluble	Solid	DI Leach	
890-914-9	BH03	Soluble	Solid	DI Leach	
890-914-10	BH04	Soluble	Solid	DI Leach	
890-914-11	BH04	Soluble	Solid	DI Leach	
890-914-12	BH04	Soluble	Solid	DI Leach	
MB 880-5009/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-5009/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-5009/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-914-3 MS	BH01	Soluble	Solid	DI Leach	
890-914-3 MSD	BH01	Soluble	Solid	DI Leach	

Leach Batch: 5011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-914-13	BH05	Soluble	Solid	DI Leach	
890-914-14	BH05	Soluble	Solid	DI Leach	
890-914-15	BH05	Soluble	Solid	DI Leach	
MB 880-5011/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-5011/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-5011/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 5102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-914-13	BH05	Soluble	Solid	300.0	5011
890-914-14	BH05	Soluble	Solid	300.0	5011
890-914-15	BH05	Soluble	Solid	300.0	5011
MB 880-5011/1-A	Method Blank	Soluble	Solid	300.0	5011
LCS 880-5011/2-A	Lab Control Sample	Soluble	Solid	300.0	5011
LCSD 880-5011/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	5011

Analysis Batch: 5127

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-914-1	BH01	Soluble	Solid	300.0	5009
890-914-2	BH01	Soluble	Solid	300.0	5009
890-914-3	BH01	Soluble	Solid	300.0	5009
890-914-4	BH02	Soluble	Solid	300.0	5009
890-914-5	BH02	Soluble	Solid	300.0	5009
890-914-6	BH02	Soluble	Solid	300.0	5009

QC Association Summary

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044 Job ID: 890-914-1 SDG: 31403360.000.0348

HPLC/IC (Continued)

Analysis Batch: 5127 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-914-7	BH03	Soluble	Solid	300.0	5009
890-914-8	BH03	Soluble	Solid	300.0	5009
890-914-9	BH03	Soluble	Solid	300.0	5009
890-914-10	BH04	Soluble	Solid	300.0	5009
890-914-11	BH04	Soluble	Solid	300.0	5009
890-914-12	BH04	Soluble	Solid	300.0	5009
MB 880-5009/1-A	Method Blank	Soluble	Solid	300.0	5009
LCS 880-5009/2-A	Lab Control Sample	Soluble	Solid	300.0	5009
LCSD 880-5009/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	5009
890-914-3 MS	BH01	Soluble	Solid	300.0	5009
890-914-3 MSD	BH01	Soluble	Solid	300.0	5009

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Lab Chronicle

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044

Client Sample ID: BH01

Date Collected: 07/08/21 10:51 Date Received: 07/08/21 16:25

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	5016	07/10/21 10:35	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5061	07/11/21 19:12	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	5097	07/12/21 13:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5107	07/14/21 01:46	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	5009	07/12/21 13:00	СН	XEN MID
Soluble	Analysis	300.0		20			5127	07/12/21 22:00	СН	XEN MID

Client Sample ID: BH01 Date Collected: 07/08/21 10:53

Date Received: 07/08/21 16:25

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	5016	07/10/21 10:35	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5061	07/11/21 19:33	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	5097	07/12/21 13:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5107	07/14/21 02:49	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	5009	07/12/21 13:00	СН	XEN MID
Soluble	Analysis	300.0		20			5127	07/12/21 22:05	CH	XEN MID

Client Sample ID: BH01

Date Collected: 07/08/21 10:56 Date Received: 07/08/21 16:25

Lab Sample ID: 890-914-3 Matrix: Solid

Lab Sample ID: 890-914-4

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	5016	07/10/21 10:35	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5061	07/11/21 19:53	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	5097	07/12/21 13:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5107	07/14/21 03:09	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	5009	07/12/21 13:00	СН	XEN MID
Soluble	Analysis	300.0		5			5127	07/12/21 22:11	СН	XEN MID

Client Sample ID: BH02 Date Collected: 07/08/21 10:29 Date Received: 07/08/21 16:25

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	5016	07/10/21 10:35	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5061	07/11/21 20:13	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	5097	07/12/21 13:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5107	07/14/21 03:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	5009	07/12/21 13:00	СН	XEN MID
Soluble	Analysis	300.0		10			5127	07/12/21 22:28	СН	XEN MID

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Job ID: 890-914-1 SDG: 31403360.000.0348

Lab Sample ID: 890-914-1 Matrix: Solid

Lab Sample ID: 890-914-2

Matrix: Solid

Job ID: 890-914-1 SDG: 31403360.000.0348

Lab Sample ID: 890-914-5

Lab Sample ID: 890-914-6

Matrix: Solid

Matrix: Solid

Date Collected: 07/08/21 10:31 Date Received: 07/08/21 16:25

Client Sample ID: BH02

Project/Site: RDX Federal 21 #044

Client: WSP USA Inc.

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	5016	07/10/21 10:35	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5061	07/11/21 20:34	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	5097	07/12/21 13:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5107	07/14/21 03:51	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	5009	07/12/21 13:00	СН	XEN MID
Soluble	Analysis	300.0		10			5127	07/14/21 11:15	СН	XEN MID

Lab Chronicle

Client Sample ID: BH02 Date Collected: 07/08/21 10:33

Date Received: 07/08/21 16:25

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	5016	07/10/21 10:35	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5061	07/11/21 21:55	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	5097	07/12/21 13:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5107	07/14/21 04:12	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	5009	07/12/21 13:00	СН	XEN MID
Soluble	Analysis	300.0		1			5127	07/14/21 11:20	СН	XEN MID

Client Sample ID: BH03

Date Collected: 07/08/21 10:04

Date Received: 07/08/21 16:25 Batch Batch Dil Initial Final Batch Prepared Prep Type Type Method or Analyzed Run Eactor Amount Amount Number

Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	5016	07/10/21 10:35	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5061	07/11/21 22:16	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	5097	07/12/21 13:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5107	07/14/21 04:32	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	5009	07/12/21 13:00	СН	XEN MID
Soluble	Analysis	300.0		10			5127	07/14/21 11:26	СН	XEN MID

Client Sample ID: BH03 Date Collected: 07/08/21 10:07 Date Received: 07/08/21 16:25

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	5016	07/10/21 10:35	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5061	07/11/21 22:36	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	5097	07/12/21 13:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5107	07/14/21 04:53	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	5009	07/12/21 13:00	СН	XEN MID
Soluble	Analysis	300.0		5			5127	07/12/21 23:01	СН	XEN MID

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Lab Sample ID: 890-914-7 Matrix: Solid

Lab Sample ID: 890-914-8

Matrix: Solid

Lab Chronicle

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044

Client Sample ID: BH03

Date Collected: 07/08/21 10:11 Date Received: 07/08/21 16:25

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	5016	07/10/21 10:35	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5061	07/11/21 22:57	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	5097	07/12/21 13:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5107	07/14/21 05:14	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	5009	07/12/21 13:00	СН	XEN MID
Soluble	Analysis	300.0		5			5127	07/12/21 23:06	CH	XEN MID

Client Sample ID: BH04

Date Collected: 07/08/21 10:17 Date Received: 07/08/21 16:25

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	5016	07/10/21 10:35	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5061	07/11/21 23:17	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	5097	07/12/21 13:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5107	07/14/21 05:35	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	5009	07/12/21 13:00	СН	XEN MID
Soluble	Analysis	300.0		1			5127	07/12/21 23:12	СН	XEN MID

Client Sample ID: BH04

Date Collected: 07/08/21 10:19 Date Received: 07/08/21 16:25

Lab Sample ID: 890-914-11 Matrix: Solid

Lab Sample ID: 890-914-12

Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 5035 5016 07/10/21 10:35 Prep 5.01 g 5 mL KL XEN MID Total/NA Analysis 8021B 5 mL 5061 07/11/21 23:38 KL XEN MID 1 5 mL Total/NA 8015NM Prep 10.01 g 10 mL 07/12/21 13:20 DM XEN MID Prep 5097 Total/NA 8015B NM 07/14/21 06:16 XEN MID Analysis 1 5107 AJ 5.00 g 50 mL 07/12/21 13:00 XEN MID Soluble Leach DI Leach 5009 СН 07/12/21 23:17 CH XEN MID Soluble Analysis 300.0 5127 1

Client Sample ID: BH04 Date Collected: 07/08/21 10:22 Date Received: 07/08/21 16:25

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	5016	07/10/21 10:35	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5061	07/11/21 23:58	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	5097	07/12/21 13:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5107	07/14/21 06:36	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	5009	07/12/21 13:00	СН	XEN MID
Soluble	Analysis	300.0		1			5127	07/12/21 23:23	СН	XEN MID

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Job ID: 890-914-1 SDG: 31403360.000.0348

Lab Sample ID: 890-914-9 Matrix: Solid

Lab Sample ID: 890-914-10

Matrix: Solid

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Job ID: 890-914-1 SDG: 31403360.000.0348

Lab Sample ID: 890-914-13 Matrix: Solid

Lab Sample ID: 890-914-14

Matrix: Solid

Date Collected: 07/08/21 10:39 Date Received: 07/08/21 16:25

Client Sample ID: BH05

Project/Site: RDX Federal 21 #044

Client: WSP USA Inc.

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	5016	07/10/21 10:35	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5061	07/12/21 00:19	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	5097	07/12/21 13:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5107	07/14/21 06:57	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	5011	07/09/21 12:40	СН	XEN MID
Soluble	Analysis	300.0		20			5102	07/14/21 21:39	СН	XEN MID

Client Sample ID: BH05

Date Collected: 07/08/21 10:42 Date Received: 07/08/21 16:25

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	5016	07/10/21 10:35	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5061	07/12/21 00:39	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	5097	07/12/21 13:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5107	07/14/21 07:18	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	5011	07/09/21 12:40	СН	XEN MID
Soluble	Analysis	300.0		1			5102	07/14/21 21:50	CH	XEN MID

Client Sample ID: BH05

Date Collected: 07/08/21 10:45 Date Received: 07/08/21 16:25

Lab Sample ID: 890-914-15 Matrix: Solid

-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	5016	07/10/21 10:35	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5061	07/12/21 01:00	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	5077	07/12/21 10:12	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5065	07/13/21 03:16	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	5011	07/09/21 12:40	СН	XEN MID
Soluble	Analysis	300.0		1			5102	07/14/21 21:44	СН	XEN MID

Laboratory References:

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

aboratory: Eurofi less otherwise noted, all a	ns Xenco, Midland	4			
less otherwise noted, all a					
	alytes for this laboratory we	ere covered under each accr	reditation/certification below.		_ ;
Authority	Pr	rogram	Identification Number	Expiration Date	
ēxas	NE	ELAP	T104704400-20-21	06-30-22	
The following analytes	are included in this report, bi	ut the laboratory is not certif	ied by the governing authority. This list ma	av include analytes for which	
the agency does not off		,			
Analysis Method	Prep Method	Matrix	Analyte		
8015B NM	8015NM Prep	Solid	Total TPH		
8021B	5035	Solid	Total BTEX		
					l

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Project/Site: RDX Federal 21 #044

Job ID: 890-914-1 SDG: 31403360.000.0348

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

Protocol References:

Client: WSP USA Inc.

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

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Sample Summary

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044 SDG: 31403360.000.0348

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-914-1	BH01	Solid	07/08/21 10:51	07/08/21 16:25	1 - 1.5	4
390-914-2	BH01	Solid	07/08/21 10:53	07/08/21 16:25	2 - 2.5	
390-914-3	BH01	Solid	07/08/21 10:56	07/08/21 16:25	4 - 4.5	ę
390-914-4	BH02	Solid	07/08/21 10:29	07/08/21 16:25	1 - 1.5	
390-914-5	BH02	Solid	07/08/21 10:31	07/08/21 16:25	2 - 2.5	
390-914-6	BH02	Solid	07/08/21 10:33	07/08/21 16:25	4 - 4.5	
390-914-7	BH03	Solid	07/08/21 10:04	07/08/21 16:25	1 - 1.5	
390-914-8	BH03	Solid	07/08/21 10:07	07/08/21 16:25	2 - 2.5	
390-914-9	BH03	Solid	07/08/21 10:11	07/08/21 16:25	4 - 4.5	
90-914-10	BH04	Solid	07/08/21 10:17	07/08/21 16:25	1 - 1.5	
390-914-11	BH04	Solid	07/08/21 10:19	07/08/21 16:25	2 - 2.5	
390-914-12	BH04	Solid	07/08/21 10:22	07/08/21 16:25	4 - 4.5	9
390-914-13	BH05	Solid	07/08/21 10:39	07/08/21 16:25	1 - 1.5	
90-914-14	BH05	Solid	07/08/21 10:42	07/08/21 16:25	2 - 2.5	
90-914-15	BH05	Solid	07/08/21 10:45	07/08/21 16:25	4 - 4.5	
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Xenco **Environment Testing**

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

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Wash Order Commonte	www.xenco.com	Work Order No:
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Received by: (Signature) Date/Time	Relinquished by: (Signature)	Date/Time		ıre)	Received by: (Signature)	Receiv	nature)	d by: (Sign	Relinquished by: (Signature)
 It assigns standard terms and conditions are due to circumstances beyond the control ms will be enforced unless previously negotiated. 	Notce: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated	company to Eurofins Xen any losses or expenses in le submitted to Eurofins X	om client billty for : ach samp	chase order fr e any responsi rge of \$5 for e:	nstitutes a valid pu and shall not assum ch project and a ch	t of samples cc ost of samples e applied to ea	it and relinquishmen liable only for the c arge of \$85.00 will b	f this documen ; Xenco will be A minimum ch	Notice: Signature o of service. Eurofin: of Eurofins Xenco.
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			-	4-4.5'	1033 1				Bitz2
			-	2-2.5	1031 2				BHTØ2
			-	1-1.5'	1029 1				BIHE 2
			-	4-4.5'	1054 1				Bital
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None: NO DI Water: H ₂ O			Code	Rush	Adutine	,0348	31403360.0000.0348	3146	Project Number
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	CARLSBAD, NM BELLA Repo	CARISBAD,		City, State ZIP			MIDLAND, TX	mit	City, State ZIP:
	BUENA VISTA DE State	5315 BUEN		Address:		A STREET	M NORTH	3300	Address:
Program: UST/PST] PRP Brownfields RRC Superfund		WPX ENDER	ne:	Company Name	0		SP USA	: WSP	Company Name:
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www.xenco.com Page (d, NM (575) 988-3199	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	obs, NM (Hot					

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Revised Date: 08/25/2020 Rev. 2020.2

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113	assigns standard terms and condition	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	nt company to E	urchase order from clier	samples constitutes a valid p	ent and relinquishment of	Notice: Signature of this docun
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Sample Comments		TPH Chic	BTE	Depth Grab/ # of Comp Cont	Date Time Sampled Sampled	ation Matrix	Sample Identification
NaUH+Ascorbic Acid: SAPC			_		Corrected Temperature:		Total Containers:
			_	S	Temperature Reading A	Yes No N/A	Sample Custody Seals:
			-Pf			No NIA	Cooler Custody Seals:
NaHSO4: NABIS			1 8		Thermometer ID:	Yes No	Samples Received Intact:
H ₃ PO ₄ : HP			3ø	Yes No	Yes No Wet Ice:	Temp Blank:	SAMPLE RECEIPT
H ₂ SO ₄ : H ₂ NaCH: Na			21B	the lab, if received by 4:3upm	the lab, if re	nA112115533694	PO# nA
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Cool: Cool MeOH: Me			<u></u>		Due Date:	EDDY LOUNTY	Project Location:
None: NO DI Water: H ₂ O			de	Rush Code	348 Aledutine	3403300 000 0348	Project Number:
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		CARLSBAD, um BOLLO	CARL	City, State ZIP:	TX HOMES	MIDLAND, TX	City, State ZIP: W
	State of Project:	BUENA VISTA DE	5315	Address:	A STREET	3380 NORTH	Address:
srownfields 🗌 RRC 📋 Superfund L	Program: UST/PST PRP Brownfields RRC	WPX ENERCY	MAM	Company Name:		WSP USA	Company Name:
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com Page / of ot	www.xenco.com						
ĉ		EL Paso, 1X (915) 565-3443, Lubbock, 1X (906) /94-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	I X (915) 585-3 M (575) 392-78	EL Paso, Hobbs, N		ACHEO	
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Chain of Custody

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ruos n canar st Carlsbad NM 88220 Phone 575-988-3199 Fax: 575-988-3199		Chain of Custody Record	of Cust	ody Re	906	ord														eu	💸 eurotins	ns	An	Environment Testing America	ment I	Test	Ing
Client Information (Sub Contract Lab)	Sampler			Lab PM Kramer	er Je	Jessica							Carrier Tracking No(s).	Track	ng No	(s)			<u>@</u> 0	COC No: 890-293 1	ະອັ ສິ						
Shipping/Receiving	in i			E-Mail jessica kramer@eurofinset.com	a kra	mer@	geuro	ofinse	t.con	-		70	State of Origin New Mexico	"Origi	6 - 6				ס ס	Page: Page 1 of 2	of 2						
Eurofins Xenco				2	Accreditations Required (See note) NELAP - Texas	itations P - T	s Requ	Jired (1	See no	te)		ļ							<u>م</u> د	Job # 890-914-1	4-1						
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Site	SSOW#:				CONTRACTOR DATA	3D/DI_L	015NM	Calc B1										nt	Harry Speak	Other-							
		Sample	Sample Type	Matrix (W=water S=solid,	d Filtered form MS/I	ORGFM_2	MOD_NM/	B/5035FP_										l Number	ı Number								
Sample Identification - Client ID (Lab ID)	Sample Date	Time	G=grab) BT=Tissue, A=A Preservation Code	Ē	NOT A DOUBLOS	30	80	80;	<u>.</u>	-		4	-		4	<u></u>		/+			Speci	pecial Instructions/Note	struc	ction	s/No	ĕ	
BH01 (890-914-1)	7/8/21	10 51 Mountain		Solid		×	×	×					1						- }			And	ter ray dige				in the second
BH01 (890-914-2)	7/8/21	10 53 Mountain		Solid		×	×	×					_					<i>a</i>	<u>بعبن</u> محمد ال								
BH01 (890-914-3)	7/8/21	10 56 Mountain		Solid		×	×	×										Sec. 8									
BH02 (890-914-4)	7/8/21	10 29 Mountain		Solid		×	×	×										8. J. A	<u>.</u>								
BH02 (890-914-5)	7/8/21	10 31 Mountain		Solid		×	×	×										Cale: 1									
BH02 (890-914-6)	7/8/21	10 33 Mountain		Solid		×	×	×																			
BH03 (890-914-7)	7/8/21	Mountain		Solid		×	×	×		ļ	ļ	ļ						<u></u>									
BH03 (890-914-8)	7/8/21	10.07 Mountain		Solid		×	×	×											A								
Вноз (890-914-9)	7/8/21	10 11 Mountain		Solid	—	×	×	×																			
Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC.	places the ownership being analyzed the s urn the signed Chain	p of method, ana samples must be of Custody atte	alyte & accredita shipped back sting to said cor	ation compliano to the Eurofins ; mplicance to Eu	e upor Xenco Irofins	n out si LLC la Xenco	ubcon aborat	tract la ory or	aborato other i	nstruc	This stions	ample vill be	shipn provic	1entis /ed	forwa .ny ch	Inded	to ac	credit	n-of-c tation	xustod status	y If the	e labor d be bi	atory rough	does It to Eu	not cu .rofins	ırrenti s Xenc	8 <
Possible Hazard Identification Unconfirmed					Sa	Sample Disposal (A fee	le Disposal (A f)osal	(A	ee m	ayb	eas	assessed if san	ed if	sam	ples	a	reta	inec	may be assessed if samples are retained longer	yer th	than 1	month)	(th			
Deliverable Requested II III IV Other (specify)	Primary Deliverable Rank	able Rank 2			sp	Special Instructions/QC	Instru	Laction	IS/QC		Requirements	nent	5											NOTE IO	č		
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Ver 11/01/2020

Eurofins Xenco, Carlsbad

14

Job Number: 890-914-1

SDG Number: 31403360.000.0348

List Source: Eurofins Xenco, Carlsbad

Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 914 List Number: 1 Creator: Clifton, Cloe

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	N/A	

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 914 List Number: 2 Creator: Lowe, Katie

<6mm (1/4").

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	
s 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	True	
Received by OCD: 8/27/2021 12:00:14 AM

Review your project results through

Total Access

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The

www.eurofinsus.com/Env

Visit us at:

Expert

Released to Imaging: 1/10/2022 9:31:38 AM

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Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-912-1

Laboratory Sample Delivery Group: 31403360.000.0348 Client Project/Site: RDX Federal 21 #044

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

Attn: Joseph Hernandez

RAMER

Authorized for release by: 7/15/2021 2:43:13 PM

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

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

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

For: LINKS

Laboratory Job ID: 890-912-1 SDG: 31403360.000.0348

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QC Sample Results	15
QC Association Summary	21
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Client: WSP USA Inc.
Project/Site: RDX Federal 21 #044

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Job ID: 890-912-1
SDG: 31403360.000.0348

Qualifiers

Qualifiers		3
GC VOA		3
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	
F2	MS/MSD RPD exceeds control limits	5
S1-	Surrogate recovery exceeds control limits, low biased.	
S1+	Surrogate recovery exceeds control limits, high biased.	
U	Indicates the analyte was analyzed for but not detected.	
GC Semi VO	Α.	
Qualifier	Qualifier Description	
*+	LCS and/or LCSD is outside acceptance limits, high biased.	8
U	Indicates the analyte was analyzed for but not detected.	
HPLC/IC		9
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	
U	Indicates the analyte was analyzed for but not detected.	
Glossary		
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	4.0
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	

OIL	Contains Thee Eliquid
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

Job ID: 890-912-1

SDG: 31403360.000.0348

Job ID: 890-912-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-912-1

Receipt

The samples were received on 7/8/2021 4:22 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 5.2°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: BH06 (890-912-1), BH06 (890-912-2), BH06 (890-912-3), BH07 (890-912-4), BH07 (890-912-5), BH07 (890-912-6), BH08 (890-912-7), BH08 (890-912-8), BH08 (890-912-9), BH09 (890-912-10), BH09 (890-912-11) and BH09 (890-912-12).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH09 (890-912-11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-5018 and analytical batch 880-5063 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Re-analysis was performed from previous run on analytical batch 5063. Run confirms results. BH06 (890-912-1), BH06 (890-912-2), BH06 (890-912-3), BH07 (890-912-4), BH07 (890-912-5), BH07 (890-912-6), BH08 (890-912-7), BH08 (890-912-8), BH08 (890-912-9), BH09 (890-912-10), (CCV 880-5089/20) and (880-3880-A-11-E)

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 laboratory control sample (LCS) associated with preparation batch 880-5069 and analytical batch 880-5067 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

Job ID: 890-912-1 SDG: 31403360.000.0348

Lab Sample ID: 890-912-1

Matrix: Solid

Date Collected: 07/08/21 11:06 Date Received: 07/08/21 16:22 Sample Depth: 1 - 1.5

Client Sample ID: BH06

Project/Site: RDX Federal 21 #044

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/12/21 11:34	07/12/21 21:00	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/12/21 11:34	07/12/21 21:00	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/12/21 11:34	07/12/21 21:00	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		07/12/21 11:34	07/12/21 21:00	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/12/21 11:34	07/12/21 21:00	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		07/12/21 11:34	07/12/21 21:00	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		07/12/21 11:34	07/12/21 21:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130				07/12/21 11:34	07/12/21 21:00	1
1,4-Difluorobenzene (Surr)	81		70 - 130				07/12/21 11:34	07/12/21 21:00	1
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/12/21 11:44	07/14/21 08:20	1
Diesel Range Organics (Over	<50.0	U	50.0		mg/Kg		07/12/21 11:44	07/14/21 08:20	1
C10-C28) Oll Range Organics (Over C28-C36)	<50.0		50.0		mg/Kg		07/12/21 11:44	07/14/21 08:20	-
Oli Ralige Organics (Over 020-030)	<50.0								
		U	50.0		mg/Kg		07/12/21 11:44	07/14/21 08:20	1
Total TPH	<50.0								
Total TPH Surrogate	< 30.0 %Recovery		Limits				Prepared	Analyzed	Dil Fac
			Limits				Prepared 07/12/21 11:44	Analyzed 07/14/21 08:20	Dil Fac

	Chloride	81.4		4.96		mg/Kg			07/14/21 20:45	1	
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Method: 300.0 - Anions, Ion Chromatography - Soluble											
		•						••••	0		
	o-Terphenvl	97		70 - 130				07/12/21 11:44	07/14/21 08:20	1	

Client Sample ID: BH06 Date Collected: 07/08/21 11:08

Date Received: 07/08/21 16:22

Sample Depth: 2 - 2.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00200	U	0.00200		mg/Kg		07/12/21 11:34	07/12/21 21:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/12/21 11:34	07/12/21 21:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/12/21 11:34	07/12/21 21:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/12/21 11:34	07/12/21 21:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/12/21 11:34	07/12/21 21:26	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/12/21 11:34	07/12/21 21:26	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		07/12/21 11:34	07/12/21 21:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130				07/12/21 11:34	07/12/21 21:26	1
1,4-Difluorobenzene (Surr)	91		70 _ 130				07/12/21 11:34	07/12/21 21:26	1

Lab Sample ID: 890-912-2

Matrix: Solid

Matrix: Solid

5

Client Sample Results

Job ID: 890-912-1 SDG: 31403360.000.0348

Lab Sample ID: 890-912-2

Lab Sample ID: 890-912-3

Matrix: Solid

Client Sample ID: BH06

Project/Site: RDX Federal 21 #044

Date Collected: 07/08/21 11:08 Date Received: 07/08/21 16:22

Sample Depth: 2 - 2.5

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		07/12/21 11:44	07/14/21 08:41	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.9	U	49.9		mg/Kg		07/12/21 11:44	07/14/21 08:41	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/12/21 11:44	07/14/21 08:41	1
Total TPH	<49.9	U	49.9		mg/Kg		07/12/21 11:44	07/14/21 08:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130				07/12/21 11:44	07/14/21 08:41	1
o-Terphenyl	116		70 - 130				07/12/21 11:44	07/14/21 08:41	1

Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.3	F1	5.00		mg/Kg			07/14/21 20:50	1

Client Sample ID: BH06

Date Collected: 07/08/21 11:11 Date Received: 07/08/21 16:22 Sample Depth: 4 - 4.5

Method: 8021B - Volatile Orga	Method: 8021B - Volatile Organic Compounds (GC)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
Benzene	< 0.00199	U	0.00199		mg/Kg		07/12/21 11:34	07/12/21 21:53	1			
Toluene	<0.00199	U	0.00199		mg/Kg		07/12/21 11:34	07/12/21 21:53	1			
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/12/21 11:34	07/12/21 21:53	1			
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/12/21 11:34	07/12/21 21:53	1			
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/12/21 11:34	07/12/21 21:53	1			
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/12/21 11:34	07/12/21 21:53	1			
Total BTEX	<0.00398	U	0.00398		mg/Kg		07/12/21 11:34	07/12/21 21:53	1			
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)	85		70 - 130				07/12/21 11:34	07/12/21 21:53	1			

1,4-Difluorobenzene (Surr)	89		70 - 130				07/12/21 11:34	07/12/21 21:53	1
Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/12/21 11:44	07/14/21 09:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/12/21 11:44	07/14/21 09:02	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/12/21 11:44	07/14/21 09:02	1
Total TPH	<49.9	U	49.9		mg/Kg		07/12/21 11:44	07/14/21 09:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130				07/12/21 11:44	07/14/21 09:02	1
o-Terphenyl	93		70 - 130				07/12/21 11:44	07/14/21 09:02	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95		mg/Kg			07/14/21 21:07	1

Project/Site: RDX Federal 21 #044

Client Sample ID: BH07

Client: WSP USA Inc.

Client Sample Results

Job ID: 890-912-1 SDG: 31403360.000.0348

Lab Sample ID: 890-912-4

Matrix: Solid

5

Date Collected: 07/08/21 11:34 Date Received: 07/08/21 16:22 Sample Depth: 1 - 1.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/12/21 11:34	07/12/21 22:19	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/12/21 11:34	07/12/21 22:19	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/12/21 11:34	07/12/21 22:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/12/21 11:34	07/12/21 22:19	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/12/21 11:34	07/12/21 22:19	1
Kylenes, Total	<0.00398	U	0.00398		mg/Kg		07/12/21 11:34	07/12/21 22:19	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		07/12/21 11:34	07/12/21 22:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130				07/12/21 11:34	07/12/21 22:19	1
1,4-Difluorobenzene (Surr)	87		70 - 130				07/12/21 11:34	07/12/21 22:19	1
Method: 8015B NM - Diesel Ra	nge Organics (D	RO) (GC)							
Analyte	. .	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Gasoline Range Organics	<50.0	U 50.0	mg/Kg	07/12/21 11:44	07/14/21 09:23	1	
(GRO)-C6-C10							
Diesel Range Organics (Over	<50.0	U 50.0	mg/Kg	07/12/21 11:44	07/14/21 09:23	1	
C10-C28)							
Oll Range Organics (Over C28-C36)	<50.0	U 50.0	mg/Kg	07/12/21 11:44	07/14/21 09:23	1	
Total TPH	<50.0	U 50.0	mg/Kg	07/12/21 11:44	07/14/21 09:23	1	
-							

	Surrogate	%Recovery	Qualifier	Limits	Prepare	d	Analyzed	Dil Fac
	1-Chlorooctane	98		70 - 130	07/12/21 1	1:44	07/14/21 09:23	1
	o-Terphenyl	104		70 - 130	07/12/21 1	1:44	07/14/21 09:23	1
1								

Method: 300.0) - An i	ons,	lon	Chromat	tograp	hy	- S	olu	aple	
					_			-		

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.93		4.96		mg/Kg			07/15/21 12:46	1

Client Sample ID: BH07 Date Collected: 07/08/21 11:36

Date Received: 07/08/21 16:22

Sample Depth: 2 - 2.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00198	U	0.00198		mg/Kg		07/12/21 11:34	07/12/21 22:45	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/12/21 11:34	07/12/21 22:45	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/12/21 11:34	07/12/21 22:45	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		07/12/21 11:34	07/12/21 22:45	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/12/21 11:34	07/12/21 22:45	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		07/12/21 11:34	07/12/21 22:45	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		07/12/21 11:34	07/12/21 22:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130				07/12/21 11:34	07/12/21 22:45	1
1,4-Difluorobenzene (Surr)	84		70 _ 130				07/12/21 11:34	07/12/21 22:45	1

Lab Sample ID: 890-912-5

Matrix: Solid

Job ID: 890-912-1 SDG: 31403360.000.0348

Lab Sample ID: 890-912-5

Lab Sample ID: 890-912-6

07/12/21 11:34 07/12/21 23:12

Matrix: Solid

1

Client Sample ID: BH07

Project/Site: RDX Federal 21 #044

Date Collected: 07/08/21 11:36 Date Received: 07/08/21 16:22

Sample Depth: 2 - 2.5

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		07/12/21 08:54	07/12/21 17:01	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.9	U *+	49.9		mg/Kg		07/12/21 08:54	07/12/21 17:01	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/12/21 08:54	07/12/21 17:01	1
Total TPH	<49.9	U	49.9		mg/Kg		07/12/21 08:54	07/12/21 17:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130				07/12/21 08:54	07/12/21 17:01	1
o-Terphenyl	123		70 - 130				07/12/21 08:54	07/12/21 17:01	1

wethod: 300.0 - Anions, ion Chrom	atography - a	Soluble								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	12.3		4.97		mg/Kg			07/14/21 21:28	1	

Client Sample ID: BH07

Date Collected: 07/08/21 11:38 Date Received: 07/08/21 16:22 Sample Depth: 4 - 4.5

Method: 8021B - Volatile Orga	nic Compounds ((GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/12/21 11:34	07/12/21 23:12	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/12/21 11:34	07/12/21 23:12	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/12/21 11:34	07/12/21 23:12	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		07/12/21 11:34	07/12/21 23:12	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/12/21 11:34	07/12/21 23:12	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		07/12/21 11:34	07/12/21 23:12	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		07/12/21 11:34	07/12/21 23:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130				07/12/21 11:34	07/12/21 23:12	1

70 - 130

88

	,	
1,4-Difluorobenzene	(Surr)	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		07/12/21 08:54	07/12/21 17:28	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.9	U *+	49.9		mg/Kg		07/12/21 08:54	07/12/21 17:28	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/12/21 08:54	07/12/21 17:28	1
Total TPH	<49.9	U	49.9		mg/Kg		07/12/21 08:54	07/12/21 17:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane			70 - 130				07/12/21 08:54	07/12/21 17:28	1
o-Terphenyl	128		70 - 130				07/12/21 08:54	07/12/21 17:28	1
- Method: 300.0 - Anions, Ion Chro	omatography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	97.8		5.00		mg/Kg			07/14/21 21:33	1

Eurofins Xenco, Carlsbad

Matrix: Solid

5

Job ID: 890-912-1 SDG: 31403360.000.0348

Lab Sample ID: 890-912-7

07/12/21 17:49

07/12/21 17:49

Analyzed

07/12/21 21:16

Lab Sample ID: 890-912-8

Dil Fac

Matrix: Solid

1

07/12/21 08:54

07/12/21 08:54

Matrix: Solid

5

Date Collected: 07/08/21 11:44 Date Received: 07/08/21 16:22 Sample Depth: 1 - 1.5

Client Sample ID: BH08

Project/Site: RDX Federal 21 #044

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200		mg/Kg		07/12/21 11:34	07/12/21 23:38	
Toluene	<0.00200	U	0.00200		mg/Kg		07/12/21 11:34	07/12/21 23:38	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/12/21 11:34	07/12/21 23:38	
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/12/21 11:34	07/12/21 23:38	
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/12/21 11:34	07/12/21 23:38	
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/12/21 11:34	07/12/21 23:38	
Total BTEX	<0.00399	U	0.00399		mg/Kg		07/12/21 11:34	07/12/21 23:38	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	109		70 - 130				07/12/21 11:34	07/12/21 23:38	
1,4-Difluorobenzene (Surr)	100		70 - 130				07/12/21 11:34	07/12/21 23:38	
Method: 8015B NM - Diesel Ra	ange Organics (D	RO) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		07/12/21 08:54	07/12/21 17:49	
(GRO)-C6-C10 Diesel Range Organics (Over	<49.9	U *+	49.9		mg/Kg		07/12/21 08:54	07/12/21 17:49	

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108	70 - 130	07/12/21 08:54	07/12/21 17:49	1
o-Terphenyl	119	70 - 130	07/12/21 08:54	07/12/21 17:49	1

49.9

49.9

mg/Kg

mg/Kg

Method: 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result	Qualifier	RL	MDL	Unit		D	Prepared
	Chloride	12.1		4.96		mg/Kg		_	

<49.9 U

<49.9 U

Client Sample ID: BH08 Date Collected: 07/08/21 11:46

Oll Range Organics (Over C28-C36)

Total TPH

Sample Depth: 2 - 2.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/12/21 11:34	07/13/21 00:04	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/12/21 11:34	07/13/21 00:04	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/12/21 11:34	07/13/21 00:04	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		07/12/21 11:34	07/13/21 00:04	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/12/21 11:34	07/13/21 00:04	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		07/12/21 11:34	07/13/21 00:04	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		07/12/21 11:34	07/13/21 00:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130				07/12/21 11:34	07/13/21 00:04	1
1,4-Difluorobenzene (Surr)	85		70 - 130				07/12/21 11:34	07/13/21 00:04	1

Date Received: 07/08/21 16:22

Job ID: 890-912-1 SDG: 31403360.000.0348

Lab Sample ID: 890-912-8

Lab Sample ID: 890-912-9

Matrix: Solid

Client Sample ID: BH08

Project/Site: RDX Federal 21 #044

Date Collected: 07/08/21 11:46 Date Received: 07/08/21 16:22

Sample Depth: 2 - 2.5

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0		mg/Kg		07/12/21 08:54	07/12/21 18:10	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U *+	50.0		mg/Kg		07/12/21 08:54	07/12/21 18:10	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/12/21 08:54	07/12/21 18:10	1
Total TPH	<50.0	U	50.0		mg/Kg		07/12/21 08:54	07/12/21 18:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130				07/12/21 08:54	07/12/21 18:10	1
o-Terphenyl	119		70 _ 130				07/12/21 08:54	07/12/21 18:10	1

Method: 300.0 - Anions, ion Chrom	latography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26.7		4.95		mg/Kg			07/12/21 21:22	1

Client Sample ID: BH08

Date Collected: 07/08/21 11:48 Date Received: 07/08/21 16:22 Sample Depth: 4 - 4.5

Method: 8021B - Volatile Orga	nic Compounds ((GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/12/21 11:34	07/13/21 00:29	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/12/21 11:34	07/13/21 00:29	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/12/21 11:34	07/13/21 00:29	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		07/12/21 11:34	07/13/21 00:29	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/12/21 11:34	07/13/21 00:29	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		07/12/21 11:34	07/13/21 00:29	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		07/12/21 11:34	07/13/21 00:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130				07/12/21 11:34	07/13/21 00:29	1

1,4-Difluorobenzene (Surr)	83		70 - 130				07/12/21 11:34	07/13/21 00:29	1
– Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/12/21 08:54	07/12/21 18:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0		mg/Kg		07/12/21 08:54	07/12/21 18:31	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/12/21 08:54	07/12/21 18:31	1
Total TPH	<50.0	U	50.0		mg/Kg		07/12/21 08:54	07/12/21 18:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130				07/12/21 08:54	07/12/21 18:31	1
o-Terphenyl	117		70 - 130				07/12/21 08:54	07/12/21 18:31	1
- Method: 300.0 - Anions, Ion Chro	matography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.8		5.02		mg/Kg			07/14/21 11:09	1

Eurofins Xenco, Carlsbad

Matrix: Solid

5

RL

0.00202

0.00202

0.00202

0.00403

0.00202

0.00403

0.00403

Limits

70 - 130

70 - 130

MDL

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

D

Prepared

07/12/21 11:34

07/12/21 11:34

07/12/21 11:34

07/12/21 11:34

07/12/21 11:34

07/12/21 11:34

07/12/21 11:34

Prepared

07/12/21 11:34

07/12/21 11:34

Job ID: 890-912-1 SDG: 31403360.000.0348

Client Sample ID: BH09

Project/Site: RDX Federal 21 #044

Date Collected: 07/08/21 11:55 Date Received: 07/08/21 16:22

Sample Depth: 1 - 1.5

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

Xylenes, Total

Total BTEX

Surrogate

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Client: WSP USA Inc.

Lab Sample ID: 890-912-10

Analyzed

07/13/21 00:55

07/13/21 00:55

07/13/21 00:55

07/13/21 00:55

07/13/21 00:55

07/13/21 00:55

07/13/21 00:55

Analyzed

07/13/21 00:55

07/13/21 00:55

Matrix: Solid

Method: 8015B NM	- Diesel Range	Organics	(DRO)	(GC)
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Method: 8021B - Volatile Organic Compounds (GC)

Result Qualifier

<0.00202 U

<0.00202 U

<0.00202 U

<0.00403 U

<0.00202 U

<0.00403 U

<0.00403 U

110 97 Qualifier

%Recovery

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		07/12/21 08:54	07/12/21 18:52	1	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.9	U *+	49.9		mg/Kg		07/12/21 08:54	07/12/21 18:52	1	
C10-C28)										
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/12/21 08:54	07/12/21 18:52	1	
Total TPH	<49.9	U	49.9		mg/Kg		07/12/21 08:54	07/12/21 18:52	1	
Surrogata	% Pacavary	Qualifiar	Limite				Propared	Analyzod	Dil Eac	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	07/12/21 08:54	07/12/21 18:52	1
o-Terphenyl	94		70 - 130	07/12/21 08:54	07/12/21 18:52	1
_						

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	116		5.00		mg/Kg			07/12/21 21:43	1

Client Sample ID: BH09

Date Collected: 07/08/21 11:57 Date Received: 07/08/21 16:22

Sample Depth: 2 - 2.5

Lab Sample ID: 890-912-11 Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Benzene < 0.00199 U 0.00199 07/10/21 10:40 07/11/21 12:29 mg/Kg 1 Toluene <0.00199 U 0.00199 mg/Kg 07/10/21 10:40 07/11/21 12:29 1 Ethylbenzene <0.00199 U 0.00199 mg/Kg 07/10/21 10:40 07/11/21 12:29 1 m-Xylene & p-Xylene 0.00398 07/11/21 12:29 <0.00398 U mg/Kg 07/10/21 10:40 1 o-Xylene <0.00199 U 0.00199 mg/Kg 07/10/21 10:40 07/11/21 12:29 1 Xylenes, Total <0.00398 U 0.00398 mg/Kg 07/10/21 10:40 07/11/21 12:29 1 Total BTEX <0.00398 U 0.00398 mg/Kg 07/10/21 10:40 07/11/21 12:29 1 Qualifier Limits Surrogate %Recovery Prepared Analyzed Dil Fac 120 70 - 130 07/10/21 10:40 07/11/21 12:29 4-Bromofluorobenzene (Surr) 1 07/10/21 10:40 1,4-Difluorobenzene (Surr) 105 70 - 130 07/11/21 12:29 1

Job ID: 890-912-1 SDG: 31403360.000.0348

Lab Sample ID: 890-912-12

Matrix: Solid

Client Sample ID: BH09

Project/Site: RDX Federal 21 #044

Date Collected: 07/08/21 11:57 Date Received: 07/08/21 16:22

Sample Depth: 2 - 2.5

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		07/12/21 08:54	07/12/21 19:13	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.9	U *+	49.9		mg/Kg		07/12/21 08:54	07/12/21 19:13	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/12/21 08:54	07/12/21 19:13	1
Total TPH	<49.9	U	49.9		mg/Kg		07/12/21 08:54	07/12/21 19:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130				07/12/21 08:54	07/12/21 19:13	1
o-Terphenyl	120		70 - 130				07/12/21 08:54	07/12/21 19:13	1

Method: 300.0 - Anions, ion Chromatography - Soluble										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	435		4.98		mg/Kg			07/12/21 21:49	1	

Client Sample ID: BH09

Date Collected: 07/08/21 12:00 Date Received: 07/08/21 16:22 Sample Depth: 4 - 4.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:40	07/11/21 12:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:40	07/11/21 12:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:40	07/11/21 12:49	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/10/21 10:40	07/11/21 12:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/10/21 10:40	07/11/21 12:49	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/10/21 10:40	07/11/21 12:49	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		07/10/21 10:40	07/11/21 12:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130				07/10/21 10:40	07/11/21 12:49	1
1 4-Difluorobenzene (Surr)	106		70 130				07/10/21 10:40	07/11/21 12:49	1

1,4-Difluorobenzene (Surr)	106		70 - 130				07/10/21 10:40	07/11/21 12:49	1
– Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/12/21 08:54	07/12/21 19:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0		mg/Kg		07/12/21 08:54	07/12/21 19:34	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/12/21 08:54	07/12/21 19:34	1
Total TPH	<50.0	U	50.0		mg/Kg		07/12/21 08:54	07/12/21 19:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				07/12/21 08:54	07/12/21 19:34	1
o-Terphenyl	111		70 - 130				07/12/21 08:54	07/12/21 19:34	1
_ Method: 300.0 - Anions, Ion Chro	omatography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	371		5.00		mg/Kg			07/12/21 21:54	1

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044

Method: 8021B - Volatile Organic Compounds (GC) Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-912-1	BH06	93	81	
890-912-2	BH06	84	91	
890-912-3	BH06	85	89	
890-912-4	BH07	88	87	
890-912-5	BH07	87	84	
890-912-6	BH07	95	88	
890-912-7	BH08	109	100	
890-912-8	BH08	100	85	
390-912-9	BH08	90	83	
390-912-10	BH09	110	97	
390-912-11	BH09	120	105	
390-912-12	BH09	125	106	
390-912-A-1-C MSD	890-912-A-1-C MSD	112	101	
390-912-A-1-E MS	890-912-A-1-E MS	177 S1+	99	
LCS 880-5018/1-A	Lab Control Sample	102	97	
_CS 880-5090/1-A	Lab Control Sample	91	102	
LCSD 880-5018/2-A	Lab Control Sample Dup	106	99	
LCSD 880-5090/2-A	Lab Control Sample Dup	94	100	
MB 880-5018/5-A	Method Blank	119	98	
MB 880-5046/5-A	Method Blank	116	101	
MB 880-5090/5-A	Method Blank	64 S1-	83	

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

 Lab Sample ID
 Client Sample ID
 1CO1
 OTPH1

 B00-912-1
 BH06
 87
 97

 890-912-2
 BH06
 104
 116

 890-912-3
 BH06
 86
 93

 890-912-4
 BH07
 98
 104

 890-912-5
 BH07
 112
 123

 890-912-6
 BH07
 115
 128

0000.22	51100		
890-912-3	BH06	86	93
890-912-4	BH07	98	104
890-912-5	BH07	112	123
890-912-6	BH07	115	128
890-912-7	BH08	108	119
890-912-8	BH08	105	119
890-912-9	BH08	106	117
890-912-10	BH09	89	94
890-912-11	BH09	112	120
890-912-12	BH09	108	111
LCS 880-5069/2-A	Lab Control Sample	113	107
LCS 880-5091/2-A	Lab Control Sample	98	103
LCSD 880-5069/3-A	Lab Control Sample Dup	97	93
LCSD 880-5091/3-A	Lab Control Sample Dup	97	99
MB 880-5069/1-A	Method Blank	93	102
MB 880-5091/1-A	Method Blank	99	108

Eurofins Xenco, Carlsbad

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Job ID: 890-912-1

Prep Type: Total/NA

SDG: 31403360.000.0348

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Received by OCD: 8/27/2021 12:00:14 AM

Surrogate Summary

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044

Surrogate Legend

1CO = 1-Chlorooctane OTPH = o-Terphenyl Page 86 of 111

Job ID: 890-912-1 SDG: 31403360.000.0348

QC Sample Results

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-5018/5-A Matrix: Solid Analysis Batch: 5063							Client Sa	mple ID: Metho Prep Type: 1 Prep Bato	otal/NA
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene <0	.00200	U	0.00200		mg/Kg		07/10/21 10:40	07/11/21 07:07	1
Toluene <0	.00200	U	0.00200		mg/Kg		07/10/21 10:40	07/11/21 07:07	1
Ethylbenzene <0	.00200	U	0.00200		mg/Kg		07/10/21 10:40	07/11/21 07:07	1
m-Xylene & p-Xylene <0	.00400	U	0.00400		mg/Kg		07/10/21 10:40	07/11/21 07:07	1
o-Xylene <0	.00200	U	0.00200		mg/Kg		07/10/21 10:40	07/11/21 07:07	1
Xylenes, Total <0	.00400	U	0.00400		mg/Kg		07/10/21 10:40	07/11/21 07:07	1
Total BTEX <0	.00400	U	0.00400		mg/Kg		07/10/21 10:40	07/11/21 07:07	1
	МВ	МВ							
Surrogate %Re	covery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130				07/10/21 10:40	07/11/21 07:07	1
1,4-Difluorobenzene (Surr)	98		70 - 130				07/10/21 10:40	07/11/21 07:07	1

Lab Sample ID: LCS 880-5018/1-A Matrix: Solid

Analysis Batch: 5063

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08221		mg/Kg		82	70 - 130	
Toluene	0.100	0.09529		mg/Kg		95	70 - 130	
Ethylbenzene	0.100	0.1013		mg/Kg		101	70 - 130	
m-Xylene & p-Xylene	0.200	0.2079		mg/Kg		104	70 _ 130	
o-Xylene	0.100	0.1063		mg/Kg		106	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-5018/2-A Matrix: Solid

					Pre	p Batch	: 50 18	
Spike	LCSD	LCSD				%Rec.		RPD
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
0.100	0.08010		mg/Kg		80	70 - 130	3	35
0.100	0.09339		mg/Kg		93	70 - 130	2	35
0.100	0.09779		mg/Kg		98	70 - 130	4	35
0.200	0.2006		mg/Kg		100	70 - 130	4	35
0.100	0.1038		mg/Kg		104	70 - 130	2	35
	Added 0.100 0.100 0.100 0.100 0.200	Added Result 0.100 0.08010 0.100 0.09339 0.100 0.09779 0.200 0.2006	Added Result Qualifier 0.100 0.08010	Added Result Qualifier Unit 0.100 0.08010 mg/Kg 0.100 0.09339 mg/Kg 0.100 0.09779 mg/Kg 0.200 0.2006 mg/Kg	Added Result Qualifier Unit D 0.100 0.08010 mg/Kg 0.100 0.09339 mg/Kg 0.100 0.09779 mg/Kg 0.200 0.2006 mg/Kg	Added Result Qualifier Unit D %Rec 0.100 0.08010 mg/Kg 80 0.100 0.09339 mg/Kg 93 0.100 0.09779 mg/Kg 98 0.200 0.2006 mg/Kg 100	Spike LCSD LCSD %Rec. Added Result Qualifier Unit D %Rec. 0.100 0.08010 mg/Kg 80 70 - 130 0.100 0.09339 mg/Kg 93 70 - 130 0.100 0.09779 mg/Kg 98 70 - 130 0.200 0.2006 mg/Kg 100 70 - 130	Added Result Qualifier Unit D %Rec Limits RPD 0.100 0.08010 mg/Kg 80 70 - 130 3 0.100 0.09339 mg/Kg 93 70 - 130 2 0.100 0.09779 mg/Kg 98 70 - 130 4 0.200 0.2006 mg/Kg 100 70 - 130 4

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 890-912-A-1-C MSD Matrix: Solid Analysis Batch: 5063								t Sample		12-A-1-C Type: To p Batch	tal/NA
•	•	Sample	Spike		MSD		_		%Rec.		RPD
Analyte Benzene	Result <0.00199	Qualifier	Added	0.08778	Qualifier F2	mg/Kg	<u>D</u>	%Rec 88	Limits 70 - 130	RPD 66	Limit 35

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Client Sample ID: Lab Control Sample Ρ

Client Sample ID: Lab Control Sample Dup

rep Type: Total/NA	
Prep Batch: 5018	

Prep Type: Total/NA

QC Sample Results

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044 Job ID: 890-912-1 SDG: 31403360.000.0348

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

Lab Sample ID: 890-912-A-1									C	Jiem	Comple	ID: 890-91		
Matrix: Solid													ype: To	
Analysis Batch: 5063	<u> </u>	•		• "								-	Batch	
A	Sample			Spike		MSD		11		-	0/ D	%Rec.		RP
Analyte	Result		ifier	Added	Result		ifier	Unit		. <u>D</u>	%Rec	Limits	RPD	Lim
Toluene	< 0.00199	U		0.0992	0.09572	F2		mg/Kg			96	70 - 130	43	3
Ethylbenzene	<0.00199	U		0.0992	0.09400			mg/Kg			95	70 - 130	30	3
m-Xylene & p-Xylene		U		0.198	0.1942			mg/Kg			98	70 - 130	28	3
o-Xylene	<0.00199	U		0.0992	0.09608			mg/Kg			97	70 - 130	20	3
	MSD	MSD)											
Surrogate	%Recovery	Qual	lifier	Limits										
4-Bromofluorobenzene (Surr)	112			70 - 130										
1,4-Difluorobenzene (Surr)	101			70 - 130										
Lab Sample ID: 890-912-A-1	I-E MS									Clie	nt Samp	le ID: 890-9	912-A-1	-E M
Matrix: Solid													ype: To	
Analysis Batch: 5063													Batch	
	Sample	Sam	ple	Spike	MS	MS						%Rec.		
Analyte	Result			Added	Result		ifier	Unit		D	%Rec	Limits		
Benzene	<0.00199	U		0.0990	0.04444			mg/Kg			45	70 - 130		
Toluene	< 0.00199	U		0.0990	0.06155			mg/Kg			62	70 - 130		
Ethylbenzene	< 0.00199	U		0.0990	0.06957	• •		mg/Kg			70	70 - 130		
m-Xylene & p-Xylene		U		0.198	0.1468			mg/Kg			70	70 - 130		
	<0.00398	U		0.0990	0.07898						80	70 - 130 70 - 130		
o-Xylene	<0.00199	0		0.0990	0.07090			mg/Kg			80	70 - 130		
0	MS	MS	1: 6 :	1 : :4-										
	%Recovery	Qual	lifier	Limits										
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)	%Recovery 	Qual	lifier	Limits 70 - 130 70 - 130							Client Sa	ample ID: N	lathod	Plan
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid	%Recovery 	Qual	lifier	70 - 130							Client Sa		ype: To	tal/N
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid	%Recovery 	Qual		70 - 130							Client Sa	Prep T		tal/N
1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063	<u>%Recovery</u> 177 99 96/5-A	Qual S1+		70 - 130		MDL	Unit		D		Client Sa	Prep T	ype: To b Batch	tal/N. : 504
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte		Qual S1+ MB esult	МВ	70 - 130 70 - 130		MDL	Unit mg/Kg		<u>D</u>	Pr		Prep T Prep	ype: To b Batch	tal/N : 504
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene	<u>%Recovery</u> 177 99 96/5-A <u>R</u>	Qual S1+ MB esult	MB Qualifier U	70 - 130 70 - 130 RL		MDL	mg/Kg		<u>D</u>	Pr 07/09	repared	Prep T Prep Analyze	ype: To b Batch ed 9:33	tal/N. : 504
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene	<u>%Recovery</u> 177 99 16/5-A 16/5-A 8 <0.0	MB esult	MB Qualifier U U	70 - 130 70 - 130 		MDL			<u>D</u>	Pr 07/09 07/09	r epared 9/21 16:38	Prep T Prep Analyze 07/10/21 1	ype: To b Batch ed 9:33 9:33	tal/N : 504
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene Ethylbenzene	<u>%Recovery</u> 177 99 96/5-A 177 99 16/5-A 17/5-A	Qual S1+ MB esult 0200 0200 0200	MB Qualifier U U U	70 - 130 70 - 130 RL 0.00200 0.00200 0.00200		MDL	mg/Kg mg/Kg mg/Kg		D	Pr 07/09 07/09 07/09	Tepared 9/21 16:38 9/21 16:38 9/21 16:38	Prep T Prep 07/10/21 1 07/10/21 1 07/10/21 1	ype: To b Batch 9:33 9:33 9:33	tal/N. : 504
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	%Recovery 177 99 16/5-A 	Qual S1+ MB esult 0200 0200 0200 0200	MB Qualifier U U U U	70 - 130 70 - 130 RL 0.00200 0.00200 0.00200 0.00400		MDL	mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	Pr 07/09 07/09 07/09	Pepared 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38	Prep T Prep 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1	ype: To b Batch 9:33 9:33 9:33 9:33	tal/N. : 504
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	%Recovery 177 99 96/5-A 	Qual S1+ MB esult 0200 0200 0200 0200 0200	MB Qualifier U U U U U	70 - 130 70 - 130 RL 0.00200 0.00200 0.00200 0.00400 0.00200		MDL	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	Pr 07/09 07/09 07/09 07/09	epared 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38	Prep T Prep 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1	ype: To b Batch 9:33 9:33 9:33 9:33 9:33 9:33	tal/N. : 504
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Xylenes, Total	%Recovery 177 99 %6/5-A R <0.0	Qual S1+ MB esult 0200 0200 0200 0200 0200 0200 0200 02	MB Qualifier U U U U U U U	70 - 130 70 - 130 RL 0.00200 0.00200 0.00200 0.00400 0.00400 0.00400		MDL	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	Pr 07/09 07/09 07/09 07/09 07/09	repared 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38	Prep T Prep 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1	ype: To D Batch 9:33 9:33 9:33 9:33 9:33 9:33 9:33 9:33	tal/N. : 504
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Xylenes, Total	%Recovery 177 99 %6/5-A R <0.0	Qual S1+ MB esuit D200 D200 D200 D200 D200 D200 D200 D20	MB Qualifier U U U U U U U U U	70 - 130 70 - 130 RL 0.00200 0.00200 0.00200 0.00400 0.00200		MDL	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	Pr 07/09 07/09 07/09 07/09 07/09	epared 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38	Prep T Prep 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1	ype: To D Batch 9:33 9:33 9:33 9:33 9:33 9:33 9:33 9:33	tal/N. : 504
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Xylenes, Total Total BTEX	%Recovery 177 99 86/5-A 	Qual S1+ MB esult D200 D200 D200 D200 D200 D200 D200 D20	MB Qualifier U U U U U U U U U U MB	70 - 130 70 - 130 70 - 130 RL 0.00200 0.00200 0.00200 0.00400 0.00400 0.00400		MDL	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	Pr 07/09 07/09 07/09 07/09 07/09 07/09	repared 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38	Prep T Prep 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1	ype: To b Batch 9:33 9:33 9:33 9:33 9:33 9:33 9:33 9:3	tal/N : 504 Dil Fa
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Xylenes, Total Total BTEX Surrogate	%Recovery 177 99 %6/5-A R <0.0	Qual S1+ MB esult 0200 0200 0200 0200 0200 0200 0200 02	MB Qualifier U U U U U U U U U U MB	70 - 130 70 - 130 70 - 130 RL 0.00200 0.00200 0.00400 0.00400 0.00400 0.00400 0.00400 Limits		MDL	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	Pr 07/09 07/09 07/09 07/09 07/09 07/09 07/09	Pepared 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38	Prep T Prep 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1	ype: To b Batch 9:33 9:33 9:33 9:33 9:33 9:33 9:33 9:3	tal/N : 504 Dil Fa
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Xylenes, Total Total BTEX Surrogate 4-Bromofluorobenzene (Surr)	%Recovery 177 99 86/5-A 	Qual S1+ MB esuit 0200 0200 0200 0200 0200 0200 0200 02	MB Qualifier U U U U U U U U U U MB	70 - 130 70 - 130 70 - 130 RL 0.00200 0.00200 0.00200 0.00400 0.00400 0.00400 0.00400 0.00400 0.00400 0.00400		MDL	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	Pr 07/09 07/09 07/09 07/09 07/09 07/09 Pr 07/09	Pepared 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38 0/21 16:38	Prep T Prep T Prep 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1	ype: To b Batch 9:33 9:33 9:33 9:33 9:33 9:33 9:33 9:3	tal/N : 504 Dil Fa
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Xylenes, Total Total BTEX Surrogate 4-Bromofluorobenzene (Surr)	%Recovery 177 99 86/5-A 	Qual S1+ MB esult 0200 0200 0200 0200 0200 0200 0200 02	MB Qualifier U U U U U U U U U U MB	70 - 130 70 - 130 70 - 130 RL 0.00200 0.00200 0.00400 0.00400 0.00400 0.00400 0.00400 Limits		MDL	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg		D	Pr 07/09 07/09 07/09 07/09 07/09 07/09 Pr 07/09	Pepared 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38	Prep T Prep 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1	ype: To b Batch 9:33 9:33 9:33 9:33 9:33 9:33 9:33 9:3	tal/N : 504 Dil Fa
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Xylenes, Total Total BTEX Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)	<u>%Recovery</u> <u>177</u> 99 <u>16/5-A</u> <u>R</u> <u>86/5-A</u> <u>99</u> <u>86/5-A</u>	Qual S1+ MB esuit 0200 0200 0200 0200 0200 0200 0200 02	MB Qualifier U U U U U U U U U U MB	70 - 130 70 - 130 70 - 130 RL 0.00200 0.00200 0.00200 0.00400 0.00400 0.00400 0.00400 0.00400 0.00400 0.00400		MDL	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	Pr 07/05 07/05 07/05 07/05 07/05 07/05 07/05	Pepared 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 9/21 16:38 9/21 16:38	Prep T Prep T Prep 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1	ype: To b Batch 9:33 9:33 9:33 9:33 9:33 9:33 9:33 9:3	tal/N : 504 Dil F <i>e</i>
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Xylenes, Total Total BTEX Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-509	<u>%Recovery</u> <u>177</u> 99 <u>16/5-A</u> <u>R</u> <u>86/5-A</u> <u>99</u> <u>86/5-A</u>	Qual S1+ MB esuit 0200 0200 0200 0200 0200 0200 0200 02	MB Qualifier U U U U U U U U U U MB	70 - 130 70 - 130 70 - 130 RL 0.00200 0.00200 0.00200 0.00400 0.00400 0.00400 0.00400 0.00400 0.00400 0.00400		MDL	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	Pr 07/05 07/05 07/05 07/05 07/05 07/05 07/05	Pepared 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 9/21 16:38 9/21 16:38	Prep T Prep 07/10/21 1 07/10/21 1	ype: To b Batch 9:33 9:33 9:33 9:33 9:33 9:33 9:33 9:3	tal/N 504 Dil Fa
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Xylenes, Total Total BTEX Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-509 Matrix: Solid	<u>%Recovery</u> <u>177</u> 99 <u>16/5-A</u> <u>R</u> <u>86/5-A</u> <u>99</u> <u>86/5-A</u>	Qual S1+ MB esuit 0200 0200 0200 0200 0200 0200 0200 02	MB Qualifier U U U U U U U U U U MB	70 - 130 70 - 130 70 - 130 RL 0.00200 0.00200 0.00200 0.00400 0.00400 0.00400 0.00400 0.00400 0.00400 0.00400		MDL	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	Pr 07/05 07/05 07/05 07/05 07/05 07/05 07/05	Pepared 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 9/21 16:38 9/21 16:38	Analyze 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1	ype: To b Batch 9:33 9:33 9:33 9:33 9:33 9:33 9:33 9:3	tal/N : 504 Dil Fa Dil Fa Blan tal/N
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Xylenes, Total Total BTEX Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-509 Matrix: Solid	<u>%Recovery</u> <u>177</u> 99 <u>16/5-A</u> <u>R</u> <u>86/5-A</u> <u>99</u> <u>86/5-A</u>	Qual S1+ MB esuit 0200 0200 0200 0200 0200 0200 0200 02	MB Qualifier U U U U U U U U MB Qualifier	70 - 130 70 - 130 70 - 130 RL 0.00200 0.00200 0.00200 0.00400 0.00400 0.00400 0.00400 0.00400 0.00400 0.00400		MDL	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	Pr 07/05 07/05 07/05 07/05 07/05 07/05 07/05	Pepared 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 9/21 16:38 9/21 16:38	Analyze 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1	ype: To b Batch 9:33 9:33 9:33 9:33 9:33 9:33 9:33 9:3	tal/N. : 504 Dil Fa Dil Fa Blan tal/N.
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Xylenes, Total Total BTEX Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-509 Matrix: Solid Analysis Batch: 5089	<u>%Recovery</u> 177 99 16/5-A R <0.0	Qual S1+ S1+ D200 D200 D200 D200 D200 D200 D200 D20	MB Qualifier U U U U U U U U MB Qualifier	70 - 130 70 - 130 70 - 130 RL 0.00200 0.00200 0.00200 0.00400 0.00400 0.00400 0.00400 0.00400 0.00400 0.00400		MDL	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg			Pr 07/05 07/05 07/05 07/05 07/05 07/05 Pr 07/05	Pepared 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 3/21 16:38 9/21 16:38 9/21 16:38	Analyze 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1 07/10/21 1	ype: To b Batch 9:33 9:33 9:33 9:33 9:33 9:33 9:33 9:3	tal/N/ : 504 Dil Fa Dil Fa Blan tal/N/ : 509
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-504 Matrix: Solid Analysis Batch: 5063 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Xylenes, Total Total BTEX Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: MB 880-509	<u>%Recovery</u> 177 99 16/5-A R <0.0	Qual S1+ S1+ D200 D200 D200 D200 D200 D200 D200 D20	MB Qualifier U U U U U U MB Qualifier	70 - 130 70 - 130 70 - 130 0.00200 0.00200 0.00400 0.00400 0.00400 0.00400 0.00400 <u>Limits</u> 70 - 130 70 - 130			mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg			Pr 07/09 07/09 07/09 07/09 07/09 07/09 07/09 07/09	repared 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38 9/21 16:38	Prep T Prep T Prep 07/10/21 1	ype: To b Batch 9:33 9:33 9:33 9:33 9:33 9:33 9:33 9:3	tal/N/ : 504 Dil Fa Dil Fa Blan tal/N/

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7/15/2021

Client: WSP USA Inc.

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7

Job ID: 890-912-1 SDG: 31403360.000.0348

Prep Batch: 5090

Project/Site: RDX Federal 21 #044 Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 880-5090/5-A Matrix: Solid							Client Sa	mple ID: Metho Prep Type: 기	
Analysis Batch: 5089								Prep Bate	:h: 5090
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/12/21 11:34	07/12/21 15:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/12/21 11:34	07/12/21 15:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/12/21 11:34	07/12/21 15:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/12/21 11:34	07/12/21 15:00	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		07/12/21 11:34	07/12/21 15:00	1
	МВ	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	64	S1-	70 - 130				07/12/21 11:34	07/12/21 15:00	1
1,4-Difluorobenzene (Surr)	83		70 - 130				07/12/21 11:34	07/12/21 15:00	1
- Lab Sample ID: LCS 880-5090/1-A						c	lient Sample I	D: Lab Control	Sample
Matrix: Solid								Prep Type: 1	

Analysis Batch: 5089

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09946		mg/Kg		99	70 - 130	
Toluene	0.100	0.09449		mg/Kg		94	70 - 130	
Ethylbenzene	0.100	0.1108		mg/Kg		111	70 - 130	
m-Xylene & p-Xylene	0.200	0.1952		mg/Kg		98	70 - 130	
o-Xylene	0.100	0.09618		mg/Kg		96	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-5090/2-A Matrix: Solid

Analysis Batch: 5089

							p Batch	: 5090
Spike	LCSD	LCSD				%Rec.		RPD
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
0.100	0.09172		mg/Kg		92	70 - 130	8	35
0.100	0.08959		mg/Kg		90	70 - 130	5	35
0.100	0.1021		mg/Kg		102	70 - 130	8	35
0.200	0.1806		mg/Kg		90	70 - 130	8	35
0.100	0.09059		mg/Kg		91	70 - 130	6	35
	Added 0.100 0.100 0.100 0.100 0.200	Added Result 0.100 0.09172 0.100 0.08959 0.100 0.1021 0.200 0.1806	Added Result Qualifier 0.100 0.09172 0.009172 0.100 0.08959 0.100 0.100 0.1021 0.200	Added Result Qualifier Unit 0.100 0.09172 mg/Kg 0.100 0.08959 mg/Kg 0.100 0.1021 mg/Kg 0.200 0.1806 mg/Kg	Added Result Qualifier Unit D 0.100 0.09172 mg/Kg 0.100 0.08959 mg/Kg 0.100 0.1021 mg/Kg 0.200 0.1806 mg/Kg	Added Result Qualifier Unit D %Rec 0.100 0.09172 mg/Kg 92 0.100 0.08959 mg/Kg 90 0.100 0.1021 mg/Kg 102 0.200 0.1806 mg/Kg 90	Spike LCSD LCSD Wret Added Result Qualifier Unit D %Rec. 0.100 0.09172 mg/Kg 92 70 - 130 0.100 0.08959 mg/Kg 90 70 - 130 0.100 0.1021 mg/Kg 102 70 - 130 0.200 0.1806 mg/Kg 90 70 - 130	Added Result Qualifier Unit D %Rec. 0.100 0.09172 mg/Kg 92 70 - 130 8 0.100 0.08959 mg/Kg 90 70 - 130 5 0.100 0.1021 mg/Kg 102 70 - 130 8 0.200 0.1806 mg/Kg 90 70 - 130 8

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

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

Eurofins Xenco, Carlsbad	

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

Lab Sample ID: MB 880-5069/ [,] Matrix: Solid Analysis Batch: 5067	I-A											Client Sa	imple ID: M Prep Ty Prep	pe: To	
		MB								_	_				
Analyte Gasoline Range Organics		sult 50.0	Qualifier		RL 50.0		MDL	Unit mg/Kg		D		repared 2/21 08:54	Analyze		Dil Fac
(GRO)-C6-C10		50.0	0		50.0			myrry	1		0771	2/21 00.04	0//12/21 10	.41	1
Diesel Range Organics (Over C10-C28)	<5	50.0	U		50.0			mg/Kg	ļ		07/1	2/21 08:54	07/12/21 10	:41	1
Oll Range Organics (Over C28-C36)	<5	50.0	U		50.0			mg/Kg	1		07/1	2/21 08:54	07/12/21 10	:41	1
Total TPH	<5	50.0	U		50.0			mg/Kg	1		07/1	2/21 08:54	07/12/21 10	:41	1
		ΜВ	МВ												
Surrogate	%Recov	/ery	Qualifier	Lim	nits						P	repared	Analyze	d	Dil Fac
1-Chlorooctane		93		70 -	130						07/1	2/21 08:54	07/12/21 10):41	1
o-Terphenyl		102		70 -	. 130						07/1	2/21 08:54	07/12/21 10):41	1
Lab Sample ID: LCS 880-5069	/2-A									С	lient	Sample I	ID: Lab Cor	ntrol S	Sample
Matrix: Solid													Prep Ty	pe: To	otal/NA
Analysis Batch: 5067													Prep	Batcl	n: 5069
				Spike			LCS						%Rec.		
Analyte				Added		Result	Qua	lifier	Unit			%Rec	Limits		
Gasoline Range Organics				1000		1138			mg/Kg			114	70 - 130		
(GRO)-C6-C10 Diesel Range Organics (Over				1000		1374	*+		mg/Kg			137	70 - 130		
C10-C28)				1000		107 1			ingrig			101	10-100		
	LCS	LCS													
Surrogate	%Recovery	Qual	lifier	Limits											
1-Chlorooctane	113			70 - 130	-										
o-Terphenyl	107			70 - 130											
Lab Sample ID: LCSD 880-506	9/3-A								Cli	ent	Sam	nole ID: La	ab Control	Samp	le Dup
Matrix: Solid													Prep Ty		
Analysis Batch: 5067															n: 5069
-				Spike		LCSD	LCS	D					%Rec.		RPD
Analyte				Added		Result	Qua	lifier	Unit		D	%Rec	Limits	RPD	Limit
Gasoline Range Organics				1000		1005			mg/Kg			101	70 - 130	12	20
(GRO)-C6-C10 Diesel Range Organics (Over				1000		1193			ma/Ka			119	70 - 130	14	20
C10-C28)				1000		1195			mg/Kg			119	70 - 150	14	20
	LCSD	LCS	D												
Surrogate		Qua		Limits											
1-Chlorooctane	97			70 - 130	-										
o-Terphenyl	93			70 - 130											
Lab Sample ID: MB 880-5091/	I-A											Client Sa	mple ID: M	ethor	l Blank
Matrix: Solid	•												Prep Ty		
Analysis Batch: 5109														-	n: 5091
-		ΜВ	МВ												
Analyte	Res	sult	Qualifier		RL		MDL	Unit		D	P	repared	Analyze	tt	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<5	50.0	U		50.0		_	mg/Kg		-	07/1	2/21 11:44	07/14/21 00	:44	1
Diesel Range Organics (Over C10-C28)	<5	50.0	U		50.0			mg/Kg	J		07/1	2/21 11:44	07/14/21 00	:44	1
Oll Range Organics (Over C28-C36)	<5	50.0	U		50.0			mg/Kg	1		07/1	2/21 11:44	07/14/21 00	:44	1
Total TPH		50.0			50.0			mg/Kg				2/21 11:44	07/14/21 00		1

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Job ID: 890-912-1

SDG: 31403360.000.0348

QC Sample Results

Client: WSP USA Inc.

Project/Site: RDX Federal 21 #044

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

Job ID: 890-912-1 SDG: 31403360.000.0348	

0		MB MB									
Surrogate	%Reco	very Qualifier	Limits				P	repared	Analyze	d	Dil Fac
1-Chlorooctane		99	70 - 13	0			07/1	2/21 11:44	07/14/21 00):44	
o-Terphenyl		108	70 - 13	0			07/1	2/21 11:44	07/14/21 00):44	
Lab Sample ID: LCS 880-509	1/2-A						Client	Sample	ID: Lab Co	ntrol Sa	ample
Matrix: Solid									Prep Ty		
Analysis Batch: 5109										Batch	
			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics			1000	704.1		mg/Kg		70	70 - 130		
(GRO)-C6-C10											
Diesel Range Organics (Over			1000	826.9		mg/Kg		83	70 - 130		
C10-C28)											
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	98		70 - 130								
o-Terphenyl	103		70 - 130								
Lab Sample ID: LCSD 880-50	91/3-A					Clie	ent Sam	ple ID: L	ab Control		
Matrix: Solid									Prep Ty		
Analysis Batch: 5109										Batch	
			Spike		LCSD		_		%Rec.		RPD
Analyte	·		Added		Qualifier	Unit	<u>D</u>	%Rec	Limits	RPD	Limi
Gasoline Range Organics			1000	735.5		mg/Kg		74	70 - 130	4	20
(GRO)-C6-C10 Diesel Range Organics (Over			1000	797.4		mg/Kg		80	70 - 130	4	20
C10-C28)			1000	101.4		mg/rtg		00	70 - 100	-	20
,	(
0	LCSD		1								
Surrogate	%Recovery	Qualifier	Limits 70 - 130								
1 Chloropotono			70 - 130								
1-Chlorooctane	97 00		70 130								
	97 99		70 - 130								
o-Terphenyl	99	ography	70 - 130								
o-Terphenyl lethod: 300.0 - Anions, Io	99 on Chromate	ography	70 - 130					Client Sa	ample ID: M	ethod	Blank
o-Terphenyl lethod: 300.0 - Anions, lo Lab Sample ID: MB 880-5011/	99 on Chromate	ography	70 - 130					Client Sa	ample ID: M Pren T		
o-Terphenyl lethod: 300.0 - Anions, lo Lab Sample ID: MB 880-5011/ Matrix: Solid	99 on Chromate	ography	70 - 130					Client Sa	ample ID: M Prep T		
o- <i>Terphenyl</i> lethod: 300.0 - Anions, lo Lab Sample ID: MB 880-5011/ Matrix: Solid	99 on Chromate		70 - 130					Client Sa			
o-Terphenyl lethod: 300.0 - Anions, lo Lab Sample ID: MB 880-5011/ Matrix: Solid Analysis Batch: 5102	99 on Chromato /1-A	MB MB		RL	MDL Unit		DP		Prep T	ype: So	oluble
o- <i>Terphenyl</i> lethod: 300.0 - Anions, lo Lab Sample ID: MB 880-5011/ Matrix: Solid Analysis Batch: 5102 Analyte	99 on Chromato /1-A 	MB MB			MDL Unit		<u>D</u> P	Client Sa	Prep T Analyze	ype: So	
o- <i>Terphenyl</i> lethod: 300.0 - Anions, lo Lab Sample ID: MB 880-5011/ Matrix: Solid Analysis Batch: 5102 Analyte	99 on Chromato /1-A 	MB MB		RL	MDL Unit		D _ P		Prep T	ype: So	Diuble Dil Fac
o-Terphenyl lethod: 300.0 - Anions, lo Lab Sample ID: MB 880-5011/ Matrix: Solid Analysis Batch: 5102 Analyte Chloride	99 on Chromato /1-A Re <	MB MB						repared	Prep T Analyze	ype: So d):19	Dil Fa
o-Terphenyl lethod: 300.0 - Anions, lo Lab Sample ID: MB 880-5011/ Matrix: Solid Analysis Batch: 5102 Analyte Chloride Lab Sample ID: LCS 880-5011	99 on Chromato /1-A Re <	MB MB						repared	Prep T Analyze 07/14/21 15	ype: So d D:19	Dil Fac
o-Terphenyl lethod: 300.0 - Anions, lo Lab Sample ID: MB 880-5011/ Matrix: Solid Analysis Batch: 5102 Analyte Chloride Lab Sample ID: LCS 880-5017 Matrix: Solid	99 on Chromato /1-A Re <	MB MB						repared	Prep T <u>Analyze</u> 07/14/21 19 ID: Lab Con	ype: So d D:19	Dil Fac
o-Terphenyl lethod: 300.0 - Anions, lo Lab Sample ID: MB 880-5011/ Matrix: Solid Analysis Batch: 5102 Analyte Chloride Lab Sample ID: LCS 880-5017 Matrix: Solid	99 on Chromato /1-A Re <	MB MB		00				repared	Prep T <u>Analyze</u> 07/14/21 19 ID: Lab Con	ype: So d D:19	Dil Fac
o-Terphenyl lethod: 300.0 - Anions, lo Lab Sample ID: MB 880-5011/ Matrix: Solid Analysis Batch: 5102 Analyte Chloride Lab Sample ID: LCS 880-5017 Matrix: Solid Analysis Batch: 5102	99 on Chromato /1-A Re <	MB MB	5.	LCS	mg/ł			repared	Analyze 07/14/21 19 ID: Lab Col Prep T	ype: So d D:19	Dil Fac
o-Terpheny/ lethod: 300.0 - Anions, lo Lab Sample ID: MB 880-5011/ Matrix: Solid Analysis Batch: 5102 Analyte Chloride Lab Sample ID: LCS 880-5017 Matrix: Solid Analysis Batch: 5102 Analyte	99 on Chromato /1-A Re <	MB MB		LCS	LCS	ζg	Client	repared Sample	Analyze 07/14/21 19 ID: Lab Con Prep T %Rec.	ype: So d D:19	Dil Fac
o-Terphenyl lethod: 300.0 - Anions, lo Lab Sample ID: MB 880-5011/ Matrix: Solid Analysis Batch: 5102 Analyte Chloride Lab Sample ID: LCS 880-501' Matrix: Solid Analysis Batch: 5102 Analyte Chloride	99 on Chromate /1-A 	MB MB	Spike Added	LCS Result	LCS	<g Unit mg/Kg</g 	Client	Sample %Rec 103	Analyze 07/14/21 19 ID: Lab Con Prep T %Rec. Limits 90 - 110	ype: So d D:19	Dil Fac
o-Terphenyl lethod: 300.0 - Anions, lo Lab Sample ID: MB 880-5011/ Matrix: Solid Analysis Batch: 5102 Analyte Chloride Lab Sample ID: LCS 880-501 Matrix: Solid Analysis Batch: 5102 Analyte Chloride Lab Sample ID: LCSD 880-50	99 on Chromate /1-A 	MB MB	Spike Added	LCS Result	LCS	<g Unit mg/Kg</g 	Client	Sample %Rec 103	Prep T Analyze 07/14/21 19 ID: Lab Con Prep T %Rec. Limits 90 - 110 ab Control	ype: So d D:19 mtrol So ype: So Sample	Dil Fa ample Diuble
o-Terpheny/ lethod: 300.0 - Anions, lo Lab Sample ID: MB 880-5011/ Matrix: Solid Analysis Batch: 5102 Analyte Chloride Lab Sample ID: LCS 880-501/ Matrix: Solid Analyte Chloride Lab Sample ID: LCSD 880-50 Matrix: Solid	99 on Chromate /1-A 	MB MB	Spike Added	LCS Result	LCS	<g Unit mg/Kg</g 	Client	Sample %Rec 103	Analyze 07/14/21 19 ID: Lab Con Prep T %Rec. Limits 90 - 110	ype: So d D:19 mtrol So ype: So Sample	Dil Faa ample bluble
o-Terpheny/ Method: 300.0 - Anions, Io Lab Sample ID: MB 880-5011/ Matrix: Solid Analysis Batch: 5102 Analyte Chloride Lab Sample ID: LCS 880-501/ Matrix: Solid Analyte Chloride Lab Sample ID: LCSD 880-50 Matrix: Solid	99 on Chromate /1-A 	MB MB	5. Spike Added 250	00 LCS Result 258.6	LCS Qualifier	<g Unit mg/Kg</g 	Client	Sample %Rec 103	Prep T Analyze 07/14/21 19 ID: Lab Con Prep T %Rec. Limits 90 - 110 ab Control Prep T	ype: So d D:19 mtrol So ype: So Sample	Dil Fac
o-Terphenyl Method: 300.0 - Anions, Io Lab Sample ID: MB 880-5011/ Matrix: Solid Analysis Batch: 5102 Analyte Chloride Lab Sample ID: LCS 880-5017 Matrix: Solid Analysis Batch: 5102 Analyte	99 on Chromate /1-A 	MB MB	Spike Added	LCS Result 258.6	LCS	<g Unit mg/Kg</g 	Client	Sample %Rec 103	Prep T Analyze 07/14/21 19 ID: Lab Con Prep T %Rec. Limits 90 - 110 ab Control	ype: So d D:19 mtrol So ype: So Sample	Dil Fac

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QC Sample Results

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044 Job ID: 890-912-1 SDG: 31403360.000.0348

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-912-2 MS Matrix: Solid									Client Sa Prep	mple ID: Type: So	
Analysis Batch: 5102											
	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte		Qualifier	Added	Result		Unit	D	%Rec	Limits		
Chloride	14.3	F1	250	304.6	F1	mg/Kg		116	90 - 110		
Lab Sample ID: 890-912-2 MSD									Client Sa	mple ID:	BH06
Matrix: Solid									Prep	Type: So	oluble
Analysis Batch: 5102											
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	14.3	F1	250	304.7	F1	mg/Kg		116	90 - 110	0	20
Lab Sample ID: MB 880-5009/1-A								Client S	Sample ID:	Method	Blank
Matrix: Solid								onent		Type: So	
Analysis Batch: 5127									Trop	Type. O	Jubic
		MB MB									
Analyte	R	esult Qualifier		RL	MDL Unit		D	Prepared	Analyz	zed	Dil Fac
Chloride		<5.00 U		5.00	mg/K	g		•	07/12/21	20:38	1
Γ											
Lab Sample ID: LCS 880-5009/2-A							Clier	nt Sample	e ID: Lab C		
Matrix: Solid									Prep	Type: So	bluble
Analysis Batch: 5127											
			Spike		LCS		_		%Rec.		
Analyte			Added		Qualifier	Unit	D		Limits		
Chloride											
			250	264.7		mg/Kg		106	90 - 110		
Lab Sample ID: LCSD 880-5009/3-A	L .		250	264.7			ent Sa		Lab Contro	ol Sample	e Dup
			250	264.7			ent Sa		Lab Contro	ol Sample Type: Se	
Lab Sample ID: LCSD 880-5009/3-A	L		250	264.7			ent Sa		Lab Contro		
Lab Sample ID: LCSD 880-5009/3-A Matrix: Solid			250 Spike		LCSD		ent Sa		Lab Contro		
Lab Sample ID: LCSD 880-5009/3-A Matrix: Solid	L .			LCSD	LCSD Qualifier		ent Sa	mple ID:	Lab Contro Prep		oluble

Client Sample ID

Method Blank

Lab Control Sample

890-912-A-1-C MSD

890-912-A-1-E MS

Client Sample ID

Client Sample ID

Method Blank

Method Blank

Lab Control Sample

890-912-A-1-C MSD

890-912-A-1-E MS

Lab Control Sample Dup

BH09

BH09

Method Blank

Lab Control Sample Dup

BH09

BH09

QC Association Summary

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Prep Type

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Matrix

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Matrix

Solid

Matrix

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044

GC VOA

890-912-11

890-912-12

Prep Batch: 5018 Lab Sample ID

MB 880-5018/5-A

LCS 880-5018/1-A

LCSD 880-5018/2-A

890-912-A-1-C MSD

890-912-A-1-E MS

Prep Batch: 5046

Lab Sample ID

Lab Sample ID

MB 880-5018/5-A

MB 880-5046/5-A

LCS 880-5018/1-A

LCSD 880-5018/2-A

890-912-A-1-C MSD

890-912-A-1-E MS

890-912-11

890-912-12

MB 880-5046/5-A

Analysis Batch: 5063

Job ID: 890-912-1 SDG: 31403360.000.0348

Method

5035

5035

5035

5035

5035

5035

5035

Method

Method

8021B

8021B

8021B

8021B

8021B

8021B

8021B

8021B

5035

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Prep Batch

Prep Batch

Prep Batch

5018

5018

5018

5046

5018

5018

5018

5018

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Analysis Batch: 5089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-912-1	BH06	Total/NA	Solid	8021B	5090
890-912-2	BH06	Total/NA	Solid	8021B	5090
890-912-3	BH06	Total/NA	Solid	8021B	5090
890-912-4	BH07	Total/NA	Solid	8021B	5090
890-912-5	BH07	Total/NA	Solid	8021B	5090
890-912-6	BH07	Total/NA	Solid	8021B	5090
890-912-7	BH08	Total/NA	Solid	8021B	5090
890-912-8	BH08	Total/NA	Solid	8021B	5090
890-912-9	BH08	Total/NA	Solid	8021B	5090
890-912-10	BH09	Total/NA	Solid	8021B	5090
MB 880-5090/5-A	Method Blank	Total/NA	Solid	8021B	5090
LCS 880-5090/1-A	Lab Control Sample	Total/NA	Solid	8021B	5090
LCSD 880-5090/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	5090

Prep Batch: 5090

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-912-1	BH06	Total/NA	Solid	5035	
890-912-2	BH06	Total/NA	Solid	5035	
890-912-3	BH06	Total/NA	Solid	5035	
890-912-4	BH07	Total/NA	Solid	5035	
890-912-5	BH07	Total/NA	Solid	5035	
890-912-6	BH07	Total/NA	Solid	5035	
890-912-7	BH08	Total/NA	Solid	5035	
890-912-8	BH08	Total/NA	Solid	5035	
890-912-9	BH08	Total/NA	Solid	5035	
890-912-10	BH09	Total/NA	Solid	5035	

GC VOA (Continued)

Prep Batch: 5090 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-5090/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-5090/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-5090/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 5067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-912-5	BH07	Total/NA	Solid	8015B NM	5069
890-912-6	BH07	Total/NA	Solid	8015B NM	5069
890-912-7	BH08	Total/NA	Solid	8015B NM	5069
890-912-8	BH08	Total/NA	Solid	8015B NM	5069
890-912-9	BH08	Total/NA	Solid	8015B NM	5069
890-912-10	BH09	Total/NA	Solid	8015B NM	5069
890-912-11	BH09	Total/NA	Solid	8015B NM	5069
890-912-12	BH09	Total/NA	Solid	8015B NM	5069
MB 880-5069/1-A	Method Blank	Total/NA	Solid	8015B NM	5069
LCS 880-5069/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	5069
LCSD 880-5069/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	5069

Prep Batch: 5069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-912-5	BH07	Total/NA	Solid	8015NM Prep	
890-912-6	BH07	Total/NA	Solid	8015NM Prep	
890-912-7	BH08	Total/NA	Solid	8015NM Prep	
890-912-8	BH08	Total/NA	Solid	8015NM Prep	
890-912-9	BH08	Total/NA	Solid	8015NM Prep	
890-912-10	BH09	Total/NA	Solid	8015NM Prep	
890-912-11	BH09	Total/NA	Solid	8015NM Prep	
890-912-12	BH09	Total/NA	Solid	8015NM Prep	
MB 880-5069/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-5069/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-5069/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Prep Batch: 5091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-912-1	BH06	Total/NA	Solid	8015NM Prep	
890-912-2	BH06	Total/NA	Solid	8015NM Prep	
890-912-3	BH06	Total/NA	Solid	8015NM Prep	
890-912-4	BH07	Total/NA	Solid	8015NM Prep	
MB 880-5091/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-5091/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-5091/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 5109

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-912-1	BH06	Total/NA	Solid	8015B NM	5091
890-912-2	BH06	Total/NA	Solid	8015B NM	5091
890-912-3	BH06	Total/NA	Solid	8015B NM	5091
890-912-4	BH07	Total/NA	Solid	8015B NM	5091
MB 880-5091/1-A	Method Blank	Total/NA	Solid	8015B NM	5091

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Job ID: 890-912-1

SDG: 31403360.000.0348

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GC Semi VOA (Continued)

Analysis Batch: 5109 (Continued)

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
LCS 880-5091/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	5091
LCSD 880-5091/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	5091

HPLC/IC

Leach Batch: 5009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-912-7	BH08	Soluble	Solid	DI Leach	8
890-912-8	BH08	Soluble	Solid	DI Leach	U
890-912-9	BH08	Soluble	Solid	DI Leach	Q
890-912-10	BH09	Soluble	Solid	DI Leach	3
890-912-11	BH09	Soluble	Solid	DI Leach	10
890-912-12	BH09	Soluble	Solid	DI Leach	10
MB 880-5009/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-5009/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-5009/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	10

Leach Batch: 5011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-912-1	BH06	Soluble	Solid	DI Leach	
890-912-2	BH06	Soluble	Solid	DI Leach	
890-912-3	BH06	Soluble	Solid	DI Leach	
890-912-4	BH07	Soluble	Solid	DI Leach	
890-912-5	BH07	Soluble	Solid	DI Leach	
890-912-6	BH07	Soluble	Solid	DI Leach	
MB 880-5011/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-5011/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-5011/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-912-2 MS	BH06	Soluble	Solid	DI Leach	
890-912-2 MSD	BH06	Soluble	Solid	DI Leach	

Analysis Batch: 5102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-912-1	BH06	Soluble	Solid	300.0	5011
890-912-2	BH06	Soluble	Solid	300.0	5011
890-912-3	BH06	Soluble	Solid	300.0	5011
890-912-4	BH07	Soluble	Solid	300.0	5011
890-912-5	BH07	Soluble	Solid	300.0	5011
890-912-6	BH07	Soluble	Solid	300.0	5011
MB 880-5011/1-A	Method Blank	Soluble	Solid	300.0	5011
LCS 880-5011/2-A	Lab Control Sample	Soluble	Solid	300.0	5011
LCSD 880-5011/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	5011
890-912-2 MS	BH06	Soluble	Solid	300.0	5011
890-912-2 MSD	BH06	Soluble	Solid	300.0	5011

Analysis Batch: 5127

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-912-7	BH08	Soluble	Solid	300.0	5009
890-912-8	BH08	Soluble	Solid	300.0	5009
890-912-9	BH08	Soluble	Solid	300.0	5009
890-912-10	BH09	Soluble	Solid	300.0	5009

Eurofins Xenco, Carlsbad

Job ID: 890-912-1

SDG: 31403360.000.0348

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044 Job ID: 890-912-1 SDG: 31403360.000.0348

HPLC/IC (Continued)

Analysis Batch: 5127 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-912-11	BH09	Soluble	Solid	300.0	5009
890-912-12	BH09	Soluble	Solid	300.0	5009
MB 880-5009/1-A	Method Blank	Soluble	Solid	300.0	5009
LCS 880-5009/2-A	Lab Control Sample	Soluble	Solid	300.0	5009
LCSD 880-5009/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	5009

Eurofins Xenco, Carlsbad

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Job ID: 890-912-1 SDG: 31403360.000.0348

Lab Sample ID: 890-912-1 Matrix: Solid

Lab Sample ID: 890-912-2

Matrix: Solid

Date Collected: 07/08/21 11:06 Date Received: 07/08/21 16:22

Client Sample ID: BH06

Project/Site: RDX Federal 21 #044

Client: WSP USA Inc.

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	5090	07/12/21 11:34	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5089	07/12/21 21:00	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	5091	07/12/21 11:44	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5109	07/14/21 08:20	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	5011	07/09/21 12:40	СН	XEN MID
Soluble	Analysis	300.0		1			5102	07/14/21 20:45	СН	XEN MID

Client Sample ID: BH06

Date Collected: 07/08/21 11:08 Date Received: 07/08/21 16:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	5090	07/12/21 11:34	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5089	07/12/21 21:26	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	5091	07/12/21 11:44	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5109	07/14/21 08:41	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	5011	07/09/21 12:40	СН	XEN MID
Soluble	Analysis	300.0		1			5102	07/14/21 20:50	СН	XEN MID

Client Sample ID: BH06

Date Collected: 07/08/21 11:11 Date Received: 07/08/21 16:22

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 5035 5090 07/12/21 11:34 Prep 5.02 g 5 mL MR XEN MID Total/NA Analysis 8021B 5 mL 5089 07/12/21 21:53 MR XEN MID 1 5 mL Total/NA 8015NM Prep 10.03 g 10 mL 07/12/21 11:44 DM XEN MID Prep 5091 Total/NA 8015B NM 07/14/21 09:02 AJ XEN MID Analysis 1 5109 5.05 g 50 mL 5011 07/09/21 12:40 XEN MID Soluble Leach DI Leach СН 07/14/21 21:07 CH XEN MID Soluble Analysis 300.0 5102 1

Client Sample ID: BH07 Date Collected: 07/08/21 11:34 Date Received: 07/08/21 16:22

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	5090	07/12/21 11:34	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5089	07/12/21 22:19	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	5091	07/12/21 11:44	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5109	07/14/21 09:23	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	5011	07/09/21 12:40	СН	XEN MID
Soluble	Analysis	300.0		1			5102	07/15/21 12:46	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Sample ID: 890-912-3 Matrix: Solid

Lab Sample ID: 890-912-4

Matrix: Solid

Lab Chronicle

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044

Client Sample ID: BH07

Date Collected: 07/08/21 11:36 Date Received: 07/08/21 16:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	5090	07/12/21 11:34	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5089	07/12/21 22:45	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	5069	07/12/21 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5067	07/12/21 17:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	5011	07/09/21 12:40	СН	XEN MID
Soluble	Analysis	300.0		1			5102	07/14/21 21:28	СН	XEN MID

Client Sample ID: BH07 Date Collected: 07/08/21 11:38

Date Received: 07/08/21 16:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	5090	07/12/21 11:34	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5089	07/12/21 23:12	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	5069	07/12/21 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5067	07/12/21 17:28	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	5011	07/09/21 12:40	СН	XEN MID
Soluble	Analysis	300.0		1			5102	07/14/21 21:33	CH	XEN MID

Client Sample ID: BH08

Date Collected: 07/08/21 11:44 Date Received: 07/08/21 16:22

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 5035 5090 07/12/21 11:34 Prep 5.01 g 5 mL MR XEN MID Total/NA Analysis 8021B 5 mL 5089 07/12/21 23:38 MR XEN MID 1 5 mL Total/NA 8015NM Prep 10.02 g 10 mL 07/12/21 08:54 DM XEN MID Prep 5069 Total/NA 8015B NM 5067 07/12/21 17:49 XEN MID Analysis 1 AJ 5.04 g 50 mL 07/12/21 13:00 XEN MID Soluble Leach DI Leach 5009 СН 07/12/21 21:16 XEN MID Soluble Analysis 300.0 5127 CH 1

Client Sample ID: BH08 Date Collected: 07/08/21 11:46 Date Received: 07/08/21 16:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	5090	07/12/21 11:34	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5089	07/13/21 00:04	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	5069	07/12/21 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5067	07/12/21 18:10	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	5009	07/12/21 13:00	СН	XEN MID
Soluble	Analysis	300.0		1			5127	07/12/21 21:22	СН	XEN MID

Eurofins Xenco, Carlsbad

Job ID: 890-912-1 SDG: 31403360.000.0348

Lab Sample ID: 890-912-5 Matrix: Solid

5 Lab Sample ID: 890-912-6 9 Matrix: Solid

Lab Sample ID: 890-912-7 Matrix: Solid

Lab Sample ID: 890-912-8

Matrix: Solid

Job ID: 890-912-1 SDG: 31403360.000.0348

Lab Sample ID: 890-912-9 Matrix: Solid

Lab Sample ID: 890-912-10

Lab Sample ID: 890-912-11

Matrix: Solid

Matrix: Solid

Client Sample ID: BH08 Date Collected: 07/08/21 11:48 Date Received: 07/08/21 16:22

Project/Site: RDX Federal 21 #044

Client: WSP USA Inc.

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	5090	07/12/21 11:34	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5089	07/13/21 00:29	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	5069	07/12/21 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5067	07/12/21 18:31	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	5009	07/12/21 13:00	СН	XEN MID
Soluble	Analysis	300.0		1			5127	07/14/21 11:09	СН	XEN MID

Client Sample ID: BH09

Date Collected: 07/08/21 11:55 Date Received: 07/08/21 16:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	5090	07/12/21 11:34	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5089	07/13/21 00:55	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	5069	07/12/21 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5067	07/12/21 18:52	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	5009	07/12/21 13:00	СН	XEN MID
Soluble	Analysis	300.0		1			5127	07/12/21 21:43	СН	XEN MID

Client Sample ID: BH09

Date Collected: 07/08/21 11:57 Date Received: 07/08/21 16:22

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 5035 5018 07/10/21 10:40 Prep 5.02 g 5 mL KL XEN MID Total/NA Analysis 8021B 5 mL 5063 07/11/21 12:29 MR XEN MID 1 5 mL Total/NA 8015NM Prep 10.03 g 07/12/21 08:54 XEN MID Prep 10 mL 5069 DM Total/NA 8015B NM 5067 07/12/21 19:13 XEN MID Analysis 1 AJ 5.02 g 50 mL 07/12/21 13:00 XEN MID Soluble Leach DI Leach 5009 СН 07/12/21 21:49 CH XEN MID Soluble Analysis 300.0 5127 1

Client Sample ID: BH09 Date Collected: 07/08/21 12:00 Date Received: 07/08/21 16:22

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	5018	07/10/21 10:40	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	5063	07/11/21 12:49	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	5069	07/12/21 08:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			5067	07/12/21 19:34	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	5009	07/12/21 13:00	СН	XEN MID
Soluble	Analysis	300.0		1			5127	07/12/21 21:54	СН	XEN MID

Laboratory References:

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

Eurofins Xenco, Carlsbad

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Lab Sample ID: 890-912-12 Matrix: Solid

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Accreditation/Certification Summary

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044 Job ID: 890-912-1 SDG: 31403360.000.0348

Laboratory: Eurofins Xenco, Midland

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

uthority exas		ogram	Identification Number	Expiration Date
		ELAP	T104704400-20-21	06-30-22
The following analytes	are included in this report, bu	it the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for v
the agency does not of		Matrix		
Analysis Method	Prep Method	Matrix	Analyte	
6 ,		Matrix Solid	Analyte Total TPH	

Method Summary

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044

Job ID: 890-912-1 SDG: 31403360.000.0348

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

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

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Job ID: 890-912-1 SDG: 31403360.000.0348

Client: WSP USA Inc. Project/Site: RDX Federal 21 #044

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-912-1	BH06	Solid	07/08/21 11:06	07/08/21 16:22	1 - 1.5
890-912-2	BH06	Solid	07/08/21 11:08	07/08/21 16:22	2 - 2.5
890-912-3	BH06	Solid	07/08/21 11:11	07/08/21 16:22	4 - 4.5
890-912-4	BH07	Solid	07/08/21 11:34	07/08/21 16:22	1 - 1.5
890-912-5	BH07	Solid	07/08/21 11:36	07/08/21 16:22	2 - 2.5
890-912-6	BH07	Solid	07/08/21 11:38	07/08/21 16:22	4 - 4.5
890-912-7	BH08	Solid	07/08/21 11:44	07/08/21 16:22	1 - 1.5
390-912-8	BH08	Solid	07/08/21 11:46	07/08/21 16:22	2 - 2.5
890-912-9	BH08	Solid	07/08/21 11:48	07/08/21 16:22	4 - 4.5
890-912-10	BH09	Solid	07/08/21 11:55	07/08/21 16:22	1 - 1.5
890-912-11	BH09	Solid	07/08/21 11:57	07/08/21 16:22	2 - 2.5
890-912-12	BH09	Solid	07/08/21 12:00	07/08/21 16:22	4 - 4.5

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No:

1 Um ag	Relinguished by: (Signature)	Notice: Signature of this document	s) and Met	200.7 / 6010	Bitter	Billog	SHR 8	BHIDB	BHAT	BHAT	BHOF	Bitale	BHOL	134766	Sample Identification	Total Containers:	Sample Custody Seals:	Cooler Custody Seals:	Samples Received Intact:	SAMPLE RECEIPT		~	Project Location: EDD	er:	Project Name: RDX F	Phone: (28)	City, State ZIP: MID			Project Manager: Jos	
Nº C	or Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated. Realinguished by: (Signature) / Received by: (Signature) / Date/Time / Relinguished by: (Signature) / Received by: (Signature)	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the contru-	lyzod	200.8 / 6020: 8RCRA 13PPM	V V 1155 1-	н 8ни	1146 2				1134	4	1 1108 2	5 7/8/21 1106 1	Matrix Date Time Sampled Sampled	Corrected Temperature:	Yes No N/A Temperature Reading:	Yes No INTA Correction Factor:	Yes No Thermometer ID: 7	Temp Blank: Yes No Wet Ice:	Sn	is	EDDY COUNTY Due Date:	Kout	RDX FEDERAL 21 # WHH Turn Around	1762 - 2329 Email:	1785	NORTH A STREET	USA	OSEPH HERNAUDEZ BI	
1/8/21 4:14	arge of \$5 for each sample submitted to Eurofins	chase order from client company to Eurofins Xer e any responsibility for any losses or expenses ir	BOID. BRCRA	Texas 11 Al Sb As Ba Be B	1-1.51 4 1 / 1 / 1	H-4.5'	2-2.5	1-1.5/ 1	4-45' 1 1 / V	2-2.5' I X	1-1.5' 1 1 A	4-4.5	2-2.5	1-1.5 Grap 1 A	Depth Grab/ #of Comp Cont BTE TPH Chic	Ć	Ef	epi A	8	Ø19	2 \ 5 (V	B)	l)	Rush Code		anna, byers @ wsp. com	City, State ZIP: CARLSBAI	Address: 5315 BUE	WPX F	Bill to: (if different)	
λ Ν	Xenco, but not analyzed. These terms will be e Relinguished by: (Signature)	nco, its affiliates and subcontractors. It assign ncurred by the client if such losses are due to i	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se	Cd Ca Cr Co Cu Fe Pb Mg Mr													890-912 Chain of Custody								ANALYSIS REQUEST		CARLSBAD, UM 80220 Report	BUENA VISTA DR State o		LAUMBACH	
	Received by: (Signature)	s. It assigns standard terms and conditions are due to circumstances beyond the control	Ni Se Ag TI U Hg: 1631/245.1/7470 /7471	Mn Mo Ni K Se Ag SiO, Na Sr Ti											Sar	NaOH+A			NaHSO4: NABIS	H ₃ PO ₄ : HP	H ₂ SO ₄ : H ₂	HCL: HC	Cool: Cool	None: NO	Pre	Deliverables: EDD ADaPT	☐ Level III ∐ PST/UST ∐	State of Project:	Program: UST/PST 🗌 PRP 🗌 Brownfields 🗌 RRC 🗌	Work Order Comments	www.xenco.com Page
	Date/Time		7470 / 7471	Sn U V Zn									CST	ine lasced	Sample Comments	NaUH+Ascorbic Acid: SAPC	Zn Acetate+NaOH: Zn	NaSU ₃	NABIS	q	2 NaOH: Na		oi MeOH: Me	DI Water: H ₂ O	Preservative Codes	Other:			RRC Superfund	ts	1 of

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Revised Date: 08/25/2020 Rev. 2020 2

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Xenco

Environment Testing

Revised Date 08/25/2020 Rev. 2020.		0				σ
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	lue to circumstances beyond the control ill be enforced unless previously negotiated.	of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of service. Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	ume any responsibility for an charge of \$5 for each sample	at of samples and shall not as: applied to each project and a	co will be liable only for the co nimum charge of \$85.00 will be	of service. Eurofins Xen
	assigns standard terms and conditions	Notice: Stanature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	purchase order from client c	of samples constitutes a valid	document and relinouishment	Notice: Signature of this
17470 17471	Ni Se Ag TI U Hg: 1631 / 245.1 / 7470 / 7471	Cd Cr Co Cu Pb Mn Mo	6010: 8RC		Me	Circle Method(s) a
TI Sn U V Zn	Mg Mn Mo Ni K Se Ag SiO2 Na Sr	AI Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb M	13PPM Texas 11 AI S	8RCRA 13F	010 200.8 / 6020:	Total 200.7 / 6010
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		XXX	4.45 Sant 1	\$\$1 n6/8/7	S	BHDA
N COT	Tinc	XXX	2:25 Brub 1	7/8/21 1157	S	BHDA
Sample Comments		BTI	Depth Comp Cont	Date Time Sampled Sampled	ntification Matrix	Sample Identification
		40				I otal Containers
NaOH+Ascorbic Acid: SAPC	NaOH	E	- UD	Temperature reading.	als. Yes NO IN/A	Sample Custody Seals.
Zn Acetate+NaOH: Zn	Zn Ac	PA	02.20	- Contraction	V No	Cooler Custody Seals.
Na2S2O3: NaSO3	Na ₂ S ₂) 8	Par		Voc No	Coolor Custody Sools:
NaHSO4: NABIS	NaHS	p.	1	Thermonter ID:		
; HP	H ₃ PO ₄ : HP	15	ZD ater	25	IDT Temp Blank:	
: H ₂ NaOH: Na	H ₂ S0 ₄ : H ₂	M			- A007/15532/094	PO #:
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Cool MeOH: Me	Cool: Cool	>		-		Project postion:
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Preservative Codes			Turn Around	190H	DA FEDGERI 21	Project Name:
Oner.		WSPKER	anna byes@	29 Email:	(281) 702 - 2329	Phone:
		CAPELSBAD, NM 88210	City, State ZIP:	SOULLE	MIDLAND 1X,	City, State ZIP:
		P	Address:	A STREET	3300 NORTH A	Address:
RRC Supertund	Program: UST/PST _ PRP Brownfields RRC	ENERCY	Company Name:		WSP USA	Company Name:
	Work Order Comments	LYNDA LANMBACH	Bill to: (if different)	IANDE2	JOSEPH HERNANDEZ	Project Manager:
ge 2 of 2	www.xenco.com Page	HODDS, NM (9/5) 332-7330, Caristian, NM (3/3) 300-3133	HODDS, NM ()			
		EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	EL Paso, TX (Xenco	
	Work Order No:	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	Midland, TX (43	Environment Testing	- 4.4	
		Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300	Houston. TX		ofins	eurofins
		Chain of Custody	CT CT		1	

Carlsbad NM 88220		Chain of Custody Record	T Cust	ody Re	°°°	d													4	5			Environr America	'опти	ent Te	Environment Testing America
Phone 5/5-988-3199 Fax. 575-988-3199	Sampler.											5					l									
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Address. 1211 W Florida Ave	Due Date Requested 7/14/2021	ed							Ana	alvsis		Requested	Pate	2					Pre	Preservation Codes	ion C	odes	"			
City Midland	TAT Requested (days)	ays)		20000	<u>na standi</u> kantila					}				'				11. M) œ >	NaOH	-		M - Hexane N None	ne		
State, Zip: TX, 79701					n Salah San sa ki													1	m o c	- 211 Actetate Nitric Acid NaHSO4	cid e	0 7 0	Na	204S		
Phone 432-704-5440(Tel)	PO #					le	TPH											đ		MeOH Amchlor	-		? - Na H2;	2S20 304	ω	
Email	WO #				1772070	Chlorid	p Full				·							- As-	I	Ascorpic Acia Ice Di Water	IC ACIC		1 TSP Dode U - Acetone	P Dod	TSP Dodecahydrate Acetone	rdrate
Project Name: BDX Eadaral 31 #044	Project #:				20" 200000	CH		x										ners		K - EDTA	:		· 오 · 우 모 ·	pH 4-5		
Site:	SSOM#:				00000000	_LE		BTE										onta	2			,	-	Canon (about)	(6,000	
	SSOVV#.				000000000000000000000000000000000000000	8D/DI_		Calc E										ofco	Other-	, r						
			Sample Type		Filtered m MS/N	RGFM_2	OD_NM/	5035FP_										lumber								
Sample Identification - Client ID (Lab ID)	Sample Date	Sample (29	O=waste/oil, D=waste/oil, BT=Tissue, A=Air)	or whether	300_0		B021B									·····	Total		2		Inct		2002	Noto	•
	N		1.300.53	Sauch	\hat{X}				Aeres 1					<u>terror</u> k				X		1		I				
BH06 (890-912-1)	7/8/21	Mountain		Solid		×	×	×						· · ·					allenst-eil							
BH06 (890-912-2)	7/8/21	11 08 Mountain		Solid		×	×	×											estan select 60							
BH06 (890-912-3)	7/8/21	11 11 Mountain		Solid		×	×	×										-	24632555							
BH07 (890-912-4)	7/8/21	11 34 Mountain		Solid		×	×	<u> </u>				-						4	nata di B							
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BH08 (890-912-7)	7/8/21	11 44 Mountain		Solid		×	×	×										A	<u>mbadan</u>							
BH08 (890-912-8)	7/8/21	11 46 Mountain		Solid		×	×	×										-	ada serie T							
BH08 (890-912-9)	7/8/21	11 48 Mountain		Solid		×	×	×										4	<u>eetteennet</u> te							
Note: Since laboratory accreditations are subject to change. Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped tack to the Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC.	places the ownership being analyzed the s urn the signed Chain	o of method, anal amples must be of Custody attes	lyte & accredita shipped back t ting to said con	tion complianc o the Eurofins pplicance to Eu	e upon Xenco (Irofins)	out sul LLC lat	boontro LC	act lab ny or o	orator ther in	ies. T	his sa ions v	ill be	shipr	ent is ed A	forwa ny cha	rded u	to ac	chain credita	of-cus	tody i atus st	f the k	aborat 1e bro	ory dc	yes no	t curre	ently Jenco
Possible Hazard Identification					San	Sample Disposal (A fee may be assessed if samples	Dispo	sal (Afe	e m		ass	ess	dif	sam	oles	are	etali	red I	are retained longer	r than	11	month)	ਣ		
Deliverable Requested 1 II III IV Other (specify)	Primary Deliverable Rank	able Rank 2			Spe	Special Instructions/QC	al Instructions/QC	tions		Requirements	uiren	lents		ints.						2				NOTING		
Empty Kit Relinquished by		Date			Time			\checkmark	ſ		\sum	١	A	thod	of Shi	Method of Shipment:										
Relinquished by Use and T.9.2	Date/Time:			Company		Real	ed by		\mathcal{G}	\mathcal{I}	W	$\ $	\mathbb{N}	\mathcal{M}		Datedime	รี่	ert		MUN	<u>e</u>		Company	YUK		
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Custody Seals Infact. Custody Seal No ∆ Yes ∆ No						Cooler Temperature(s) °	Temp	eratur	e(s)°C	Cand	and Other Remarks	Rem	arks [.]		ł							┟				

Ver 11/01/2020

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1089 N Canal St.

Chain of Custody Record

13

14

Job Number: 890-912-1

SDG Number: 31403360.000.0348

List Source: Eurofins Xenco, Carlsbad

Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 912 List Number: 1 Creator: Olivas, Nathaniel

<6mm (1/4").

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	
s 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	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 912 List Number: 2 Creator: Lowe, Katie

<6mm (1/4").

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	True	

Job Number: 890-912-1 SDG Number: 31403360.000.0348 List Source: Eurofins Xenco, Midland 5 6 7 8 9 10 11 12 13 List Creation: 07/10/21 03:02 PM

14

Received by OCD: 8/27/2021 12:00:14 AM

Released to Imaging: 1/10/2022 9:31:38 AM



FAQ – Bio-Regen SA-1000 For Salt Remediation

What is SA-1000?

3Tier Technologies **SA-1000** is a new management tool for remediation of high sodium and metal contaminated soils and wastewater streams. **SA-1000** is an advanced treatment product combing two, next generation, Polyelectrolyte Enhanced Organic Bio-Polymers (PEB) with bio-available calcium.

This uniquely blended product possess the following properties and functions; optimal molecular mass, active functional groups, hydrophilic and hydrophobic sites, positively and negatively charged sites, non-ionic sites, and specific interactions between molecules themselves and organic/mineral compounds. The combination of these diverse properties and functions provide a product that utilizes multiple functions and mechanisms to detoxify, neutralize and bind, salts and chlorides with the added ability to convert a myriad of toxic metals to benign residual metals.

What is 3 Tier's Polyelectrolyte Enhanced Biopolymer (PEB)?

The foundation of **SA-1000** is an advanced blend of two Polyelectrolyte Enhanced Biopolymer (PEB) that are derived from very stable, organic compounds found in brown and oxidized black coal. Our proprietary processing technology purifies and unleashes the vast potential of these massive molecular formulas.

PEB is a highly reactive long-chain molecule providing a purified carbon source available with various concentrations of fulvic acids, highly reaction functional groups, high CEC potential, and low ash and ballast. **SA-1000** contains a combination of negatively charged molecules for reactions with positively charged Na and a new generation of non-ionic molecules for negatively charged chlorides. This unique combination with the addition of calcium creates a complete remediation tool for salts, chlorides and metals. PEB is an all-natural, highly soluble, liquid concentrate that is safe and easy to use for both soil and aqueous application

Why is the PEB important to the salt remediation process?

PEB naturally binds, adsorbs, and coordinates sodium cations and chlorine anions which allow excessive amounts of salts/chlorides to become more mobile in terms of sodium cations and chloride anions, which eliminates the salt's/chlorides ability to bind to soil particles, especially clay. This reaction allows sodium/chlorides to be safely leached and naturally filtered through the soil profile. Any sodium/chloride residue creates a new mineral formation resulting in sodium, chloride, cation and anion conversion into physically and mechanically bound status, thus eliminating salt toxicity resulting in desalination and salt toxicity reduction/elimination. This process also improves the growing profile by reversing negative osmotic pressure, reducing electrical conductivity, increasing soluble organic matter allowing proper nutrient and moisture retention, percolation, and uptake, therefore allowing new plants to establish and regenerate soil back to a healthy and productive state. In aqueous solutions, the reactions are similar, resulting in the precipitation of most of the sodium, chlorides and metals with the remaining soluble forms being neutralized into non-toxic forms.



How does SA-1000 work?

SA-1000 possesses several beneficial characteristics that buffers the treatment environment, creates a foundation for maximum biological, geological and chemical reactions, is both hydrophobic and hydrophilic, and is designed to work effectively in both soil and aqueous environments. Through these various reactions with contaminants, **SA-1000** attracts various contaminants, reverses their negative impact in their environment and reduces/or eliminates the harmful impact through the following processes:

- SA-1000 adsorbs and coordinates sodium cations and chlorine anions which allow excessive amounts
 of salt to become more mobile in terms of sodium cations and chloride anions that have a natural ability
 to safely filter through the soil or precipitate out of water. Any sodium residue creates a new mineral
 formation resulting in sodium, chlorine, cation and anion conversion into physically and mechanically
 bound status, thus eliminating salt toxicity resulting in desalination and salt toxicity reduction/
 elimination.
- **SA-1000** with bio-available calcium is immediately soluble and active compared to gypsum applications. See results within a couple weeks.
- In soil, SA-1000 creates fresh soil organic matter that results in increased CEC, reduced Electrical Conductivity (EC), better water holding capacity through osmotic pressure reduction, and soil porosity/structure that results in healthy, active soil for re-use.
- **SA-1000** will naturally stimulate toxic organic and mineral pollutants decomposition into neutral soil mineral compounds such as converting Chromium VI to Chromium III which is accomplished by an abundance of hydroxyl and phenol groups. These functional groups are key to the metal complexation resulting in the binding of various metals which protects the environment.

How does SA-1000 improve the soil condition?

When frack/production water or drilling muds are accidentally released onto healthy soils, the results on vegetation are immediate, with devastating results. The impact of the sodium increases compaction through interactions with clay particles, reduces the ability for moisture to naturally penetrate the soils, dramatically increases Electrical Conductivity (EC), and limits natural nutrient conversion and availability to plants resulting in certain death.

Treatment of soils with **SA-1000** creates fresh soil organic matter that results in healthy, active soil for re-use. **SA-1000** will increase CEC while reducing electrical conductivity, improve water holding capacity by reducing the osmotic pressure, and soil porosity/structure by releasing the sodium for the clay and reversing the charge of the clay particles forcing them apart. **SA-1000** helps safely regenerate soil affected by salts/chlorides/metals and promotes improved soil structure for healthy, productive use of the site.

How quickly will SA-1000 work and when can you expect desired results?

In most of our project sites, the application of **SA-1000** resulted in a reduction in excess of 75% of Total Soluble Salts and over 80% reduction in chlorides within 30 days after application. While results may vary from one project site to the next, it is important to evaluate results after a minimum of six months. At such time **SA-1000** full impact would be realized in terms of improving the soil structure.

In most cases, the speed in which the product will work is impacted by a variety of variables. The most important factor is accurate soil analysis the clearly defines the level of contamination and soil structure/type. This information will insure proper application dosage of the treatment for the desired results. Other critical factors include soil moisture after application (Limited or no rainfall will slow analytical results), proper dosing rate and application, and the establishment of accurate expectations. A reasonable expectation is to see significant results in 30 days if the recommended dosage is used.

Once SA-1000 is applied is it safe to apply seed and any other required nutrients?

Yes, the impact of **SA-1000** is almost immediate in terms of detoxifying and buffering the soil structure. If desired, you may apply seed & required nutrients to the treated soil immediately after the application of **SA-1000**. With the proper moisture level & rain fall, germination may be seen in as little as 2 weeks

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

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

District IV

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

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

CONDITIONS

Operator:	OGRID:
WPX Energy Permian, LLC	246289
Devon Energy - Regulatory	Action Number:
Oklahoma City, OK 73102	44701
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

	Created By	Condition	Condition Date
	rhamlet	The Workplan/Remediation Plan is approved with the following conditions: Please make sure the floor confirmation samples are delineated/excavated to meet closure criteria standards for proven depth to water determination. Sidewall samples should be delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The variance for confirmation samples of 500 ft2 is approved.	1/10/2022

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Action 44701