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

State of New Mexico Energy Minerals and Natural **Resources Department**

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

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

)

Page 1 of 78

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Longitude

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

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

Unit Letter	Section	Township	Range	County

Surface Owner: State Federal Tribal Private (Name: _

Nature and Volume of Release

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

Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water $>10.000 \text{ mg/l}^2$	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release?
Yes No	
If YES, was immediate ne	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Initial Response

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

The source of the release has been stopped.

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

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

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

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

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name:	Title:
Signature: afus	Date:
email:	Telephone:
OCD Only	
Received by:	Date:

•

Location:	Thriller Battery					
Spill Date:	3/18/2021					
	Area 1					
Approximate A	rea =	607.00	sq. ft.			
Average Satura	tion (or depth) of spill =	0.50	inches			
Average Porosity Factor = 0.03						
	VOLUME OF LEAK					
Total Crude Oil	=	0.14	bbls			
	TOTAL VOLUME OF LEAK					
Total Crude Oil	=	0.14	bbls			
	TOTAL VOLUME RECOVERED					
Total Crude Oil	=	0.00	bbls			

Page 6

Oil Conservation Division

Incident ID	nAPP2108546355
District RP	
Facility ID	
Application ID	

Closure

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

Closure Report Attachment Checklist: Each of the following a	Closure Report Attachment Checklist: Each of the following items must be included in the closure report.					
A scaled site and sampling diagram as described in 19.15.29.11 NMAC						
Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)						
Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)						
Description of remediation activities						
I hereby certify that the information given above is true and complet and regulations all operators are required to report and/or file certai may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and ren human health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regula restore, reclaim, and re-vegetate the impacted surface area to the co accordance with 19.15.29.13 NMAC including notification to the O Printed Name: Kyle Littrell	ete to the best of m n release notificati c C-141 report by mediate contamina a C-141 report do ations. The resport nditions that exist DCD when reclam	y knowledge and understand that pursuant to OCD rules ions and perform corrective actions for releases which whe OCD does not relieve the operator of liability thion that pose a threat to groundwater, surface water, es not relieve the operator of responsibility for asible party acknowledges they must substantially ed prior to the release or their final land use in ation and re-vegetation are complete. <u>Environmental Manager</u>				
	Date: <u>05/</u>	422.221				
email:Kyle.Littrell@exxonmobil.com	Telephone:	432-221-7331				
OCD Only						
Received by: Robert Hamlet	Date:	8/10/2021				
Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and/	of liability should water, human heal or regulations.	their operations have failed to adequately investigate and th, or the environment nor does not relieve the responsible				
Closure Approved by: <u>Robert Hamlet</u>	Date:	8/10/2021				
Printed Name: <u>Robert Hamlet</u>	Title:	Environmental Specialist - Advanced				

WSP USA

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

May 28, 2021

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

RE: Closure Request Thriller Battery Incident Numbers nAPP2108546355, nAPP2108544357, and nAPP2110463633 Eddy County, New Mexico

To Whom It May Concern:

WSP USA Inc. (WSP) on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment and soil sampling activities at the Thriller Battery (Site) in Unit A, Section 32, Township 25 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following three flare fire release events at the Site. Based on field observations and soil sample analytical results, XTO is submitting this Closure Request, and requesting no further action (NFA) for Incident Numbers nAPP2108546355, nAPP2108544357, and nAPP2110463633.

RELEASE BACKGROUND

On March 18, 2021, the battery vapor recovery unit (VRU) shut down, causing the release of approximately 0.14 barrels (bbls) of condensate through the flare stack, which resulted in a small fire. The fire extinguished itself and there were no standing fluids to recover. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on March 19, 2021. A Release Notification and Corrective Action Form C-141 (Form C-141) was submitted on March 26, 2021 and the release was assigned Incident Number nAPP2108546355.

On March 19, 2021, the battery VRU shut down, causing the release of approximately 0.28 bbls of condensate through the flare stack, which resulted in a small fire. The fire extinguished itself and there were no standing fluids to recover. XTO reported the release to the NMOCD via email on March 20, 2021. A Form C-141 on was submitted on March 26, 2021 and the release was assigned Incident Number nAPP2108544357.

On April 4, 2021, an open vacuum breaker caused approximately 0.11 bbls of crude oil to release through the flare stack, which resulted in a small fire. The fire extinguished itself and there were no standing fluids to recover. XTO reported the release to the NMOCD via email on April 5, 2021.

vsp

District II Page 2

A Form C-141 on was submitted on April 14, 2021 and the release was assigned Incident Number nAPP2110463633.

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 between 50 feet and 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 320532104001701, located approximately 0.37 miles west of the Site. The groundwater well has a reported depth to groundwater of 98 feet bgs and a total depth of 128 feet bgs. Ground surface elevation at the groundwater well location is 2,988 feet above mean sea level (amsl), which is approximately 6 feet higher in elevation than the Site. All wells used for depth to groundwater determination are depicted on Figure 1. The referenced well records are included in Attachment 1. There are no regional or Site-specific hydrological conditions, such as shallow surface water, karst features, wetlands, or vegetation that suggest the Site is conducive to shallow groundwater.

The closest continuously flowing or significant watercourse to the Site is an intermittent stream, located approximately 2,065 feet east 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: 10,000 mg/kg

vsp

District II Page 3

SITE ASSESSMENT ACTIVITIES

On April 29, 2021, WSP personnel visited the Site to evaluate the flare fire release extents based on information provided on the Form C-141s, visual observations, and information provided by on-site XTO personnel. The release extents from the three flare fires overlapped and were evaluated simultaneously. Three potholes (PH01 through PH03) were advanced using a track-mounted backhoe to a depth of approximately 2 feet bgs near the flare stack. Delineation soil samples were collected from the potholes from depths of approximately 1-foot and 2 feet bgs to assess for the presence or absence of impacted soil. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach[®] chloride QuanTab[®] test strips, respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling log, which are included in Attachment 2. The delineation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was conducted during the site visit and are included in Attachment 3.

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

SOIL ANALYTICAL RESULTS

Laboratory analytical results for delineation soil samples from potholes PH01 through PH03 indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

CLOSURE REQUEST

Site assessment activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from three flare fire release events at the Site. Laboratory analytical results for the soil samples collected within the release extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on the soil sample analytical results, no impacted soil was identified, and no further remediation was required. As such, XTO respectfully requests NFA for Incident Numbers nAPP2108546355, nAPP2108544357, and nAPP2110463633.

wsp

District II Page 4

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

Sincerely,

WSP USA Inc.

pen L

Spencer Lo Staff Geologist

Ashley L. Ager

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

cc: Kyle Littrell, XTO Ryan Mann, New Mexico State Land Office

Attachments:

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

Table 1 Soil Analytical Results

- Attachment 1 Referenced Well Records
- Attachment 2 Lithologic/Sampling Logs
- Attachment 3 Photographic Log
- Attachment 4 Laboratory Analytical Reports

FIGUR

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P:\XTO Energy\GIS\MXD\012921051_THRILLER\012921051_FIG01_SL_RECEPTOR_2021.mxd



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Table 1

Soil Analytical Results Thriller Battery Incident Numbers: nAPP2108544357, nAPP2108546355, and nAPP2110463633 Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)		AC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	10,000
Delineation Samples	l .									
PH01	04/29/2021	1	< 0.00200	< 0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	76.4
PH01A	04/29/2021	2	< 0.00199	< 0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	394
PH02	04/29/2021	1	< 0.00200	< 0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	91.6
PH02A	04/29/2021	2	< 0.00202	< 0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	17.7
PH03	04/29/2021	1	< 0.00201	< 0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	684
PH03A	04/29/2021	2	< 0.00199	< 0.00398	<49.9	71.2	<49.9	71.2	71.2	1,650

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

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

NE - Not Established

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

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USGS 320532104001701 25S.29E.32.21111

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°05'32", Longitude 104°00'17" NAD27 Eddy County, New Mexico , Hydrologic Unit 13060011 Well depth: 128 feet Land surface altitude: 2,988 feet above NAVD88. Well completed in "Other aquifers" (N99990THER) national aquifer. Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1949-03-11	1992-11-03	24
Revisions	Unavailable (site:0) (timese	eries:0)

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center Email questions about this site to <u>New Mexico Water Science Center Water-Data</u> <u>Inquiries</u>

USGS 320532104001701 25S.29E.32.21111



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USGS 320307104005301 26S.28E.13.11214

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°03'07", Longitude 104°00'53" NAD27 Eddy County, New Mexico , Hydrologic Unit 13060011 Well depth: not determined. Land surface altitude: 2,858 feet above NAVD88. Well completed in "Other aquifers" (N99990THER) national aquifer. Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1948-12-15	2003-01-27	33
Revisions	Unavailable (site:0) (timese	eries:0)

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center Email questions about this site to <u>New Mexico Water Science Center Water-Data</u> <u>Inquiries</u>

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Received by OCD: 6/4/2021 12:24:34 PM





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USGS 320454104015601 26S.28E.02.112111

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°04'54", Longitude 104°01'56" NAD27 Eddy County, New Mexico , Hydrologic Unit 13060011 Well depth: not determined. Land surface altitude: 2,913 feet above NAVD88. Well completed in "Other aquifers" (N99990THER) national aquifer. Well completed in "Castile Formation" (312CSTL) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1948-12-06	1948-12-06	3
Revisions	Unavailable (site:0) (timese	eries:0)

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center Email questions about this site to <u>New Mexico Water Science Center Water-Data</u> <u>Inquiries</u>



USGS 320454104015601 26S.28E.02.112111



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USGS 320719103584601 25S.29E.16.44444

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°07'19", Longitude 103°58'46" NAD27 Eddy County, New Mexico , Hydrologic Unit 13060011 Well depth: 200 feet Land surface altitude: 3,042 feet above NAVD88. Well completed in "Other aquifers" (N99990THER) national aquifer. Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1958-08-19	1977-01-14	15
Revisions	Unavailable (site:0) (timese	eries:0)

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center Email questions about this site to <u>New Mexico Water Science Center Water-Data</u> <u>Inquiries</u>



USGS 320719103584601 25S.29E.16.44444



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USGS 320739103584201 25S.29E.15.31134

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°07'39", Longitude 103°58'42" NAD27 Eddy County, New Mexico , Hydrologic Unit 13060011 Well depth: 192 feet Land surface altitude: 3,017 feet above NAVD88. Well completed in "Other aquifers" (N99990THER) national aquifer. Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1983-02-01	1998-01-29	12
<u>Revisions</u>	Unavailable (site:0) (timese	eries:0)

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center Email questions about this site to <u>New Mexico Water Science Center Water-Data</u> <u>Inquiries</u>



USGS 320739103584201 25S.29E.15.31134



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New Mexico Office of the State Engineer Point of Diversion Summary

			(quarters a	are 1=N	W 2=N	VE 3=SW	4=SE)			
			(quarters	are sma	allest t	o largest)		(NAD83 I	JTM in meters)	
Well Tag	POE	Number	Q64 Q1	6 Q4	Sec	Tws	Rng	Х	Y	
	C 0	1337	2	2 1	30	258	29E	591926	3552642*	
Driller Lice	ense:	24	Driller C	ompai	ıy:	BRI	NINST	OOL, M.D		
Driller Nar	ne:	HOWARD HEM	LER							
Drill Start	Date:	08/25/1966	Drill Fini	sh Da	te:	08	/30/196	66 P	lug Date:	
Log File Da	ate:	01/26/1967	PCW Rev	v Date	:			S	ource:	Shallow
Pump Type	e:		Pipe Disc	harge	Size	:		E	stimated Yield	:
Casing Size	e:	7.00	Depth We	ell:		18	0 feet	D	epth Water:	30 feet
x	Wate	er Bearing Stratif	ications:	Тс	op 1	Bottom	Desc	ription		
				,	73	93	Sands	stone/Grav	el/Conglomerate	e
				10	53	172	Sands	stone/Grav	el/Conglomerate	e
x		Casing Per	forations:	То	op 1	Bottom				
				10	53	172				
ĸ										

*UTM location was derived from PLSS - see Help

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

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer Point of Diversion Summary

			(quart	ers are	1=NV	/ 2=N	IE 3=SW	4=SE)				
			(quai	ters are	e smal	lest to	o largest)		(NAD83	3 UTM	1 in meters)	
Well Tag	POE) Number	Q64	Q16	Q4	Sec	Tws	Rng		X	Y	
	C 0	3507 POD1	1	3	3	05	26S	29E	59306	4	3548313	
َ Driller Lic	ense:	1058	Driller	Com	pan	y:	KE	'S DR	ILLING &	& PU	MP SERVI	CE
Driller Nai	me:	KEY, CLINTON										
Drill Start	Date:	08/26/2011	Drill F	inish	Date	:	08	/26/20	11	Plug	Date:	
Log File Da	ate:	09/12/2011	PCW	Rcv D	ate:					Sour	ce:	Shallow
Pump Type	e:	SUBMER	Pipe D	ischa	rge S	Size:				Estir	nated Yield	: 35 GPM
Casing Size	e:	6.00	Depth	Well:			14	0 feet		Dept	h Water:	78 feet
¢.	Wate	er Bearing Stratifica	ations:		Тој) I	Bottom	Desc	ription			
					7	8	79	Shale	e/Mudston	ne/Sil	tstone	
					10	5	106	Sand	stone/Gra	vel/C	Conglomerat	e
x		Casing Perfor	rations:		Тој	p I	Bottom					
					7	5	112					
x												

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

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer Point of Diversion Summary

			(quart	ers are	1=NV	V 2=N	IE 3=SW	7 4=SE)				
			(qua	rters are	e sma	llest to	o largest)		(NAD8	3 UT	M in meters)	
Well Tag	POD	Number	Q64	Q16	Q4	Sec	Tws	Rng		Х	Y	
	C 0	3508 POD1	1	3	3	05	26S	29E	59306	53	3548361 🧧	
Driller Lic	ense:	1058	Driller	· Com	ipan	y:	KE	Y'S DRI	ILLING a	& PI	JMP SERVIC	Œ
Driller Na	me:	KEY, CLINTON										
Drill Start	Date:	08/24/2011	Drill F	inish	Dat	e:	08	8/24/201	1	Plu	g Date:	
Log File D	ate:	09/12/2011	PCW	Rcv D	Date:					Sou	rce:	Shallow
Ритр Тур	e:	SUBMER	Pipe D	lischa	rge	Size:				Esti	imated Yield	: 40 GPM
Casing Siz	e:	6.00	Depth	Well:	:		14	10 feet		Dep	oth Water:	75 feet
c	Wate	er Bearing Stratifica	ations:		То	рE	Bottom	Descr	ription			
					7	5	76	Shale	/Mudstor	ne/S	iltstone	
<u> </u>		Casing Perfor	rations:		То	рE	Bottom					
					6	5	105					
x												

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

POINT OF DIVERSION SUMMARY

	51		Į	WS 508 West S	P USA Stevens S	treet		BH or PH Name: PH01 Site Name:	Thriller	Date: 4/29/2021	
			Са	rlsbad, Nev	<i>w</i> Mexico	88220		RP or Incident Numbe	er:		
	LITH			SAMDI		2		LTE Job Number:	TE012921	051 Method:	Backhoo
Lat/Long:	L	OLO		Field Scree	ening:	5		Hole Diameter:		Total Depth:	Dackilde
32.092560,-103	.999463			Chloride, P	ID			-		2'	
Field screening	value inclu	udes 60	% error facto	or. TD @ 2'							
Moisture Content Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		Li	ithology/R	Remarks	
D <186	0.0	N	PH01		0	CCHE	0-2'	Caliche w/ sand, stain, trace silt, m	well sorte n-f grained	d, light brown	, tan, no odor, no
D <186	0.0	N	PH01A	2'	2						
				-	-			TD @ 2'			

	\\'	5)	t Ca	WS 508 West S risbad, Nev	P USA Stevens S w Mexico	itreet 88220		BH or PH Name: PH02 Site Name:	Date: 4/29/2021 Thriller
									LTE Job Number:	TE012921051
		LITH	OLOO	GIC / SOI	L SAMPL	ING LO	G		Logged By SL	Method: Backhoe
Lat/Lo 32.09 Comn	ong: 2577,-103.9 nents:	999407			Field Scree Chloride, P	ening: PID			Hole Diameter: -	Total Depth: 2'
Field	screening v	alue inclu	udes 60	% error facto	or. TD @ 2'	1				
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		Litł	hology/Remarks
					 - -	0	CCHE	0-1'	Caliche w/ sand, w stain, trace silt, m-	vell sorted, light brown, tan, no odor, no f grained
D	<186	0.0	Ν	PH01	1'	1		41.01		
					-	ŀ		1'-2'	Sand w/ caliche, bi	rown, well sorted, m-t grained, no odor
	777	0.0	NI		21		SP-SM			
U	311	0.0	IN	PHUTA	2	2			TD @ 2'	
						3 4 5 6 7 8 9 10 11 11				

	• • •			t Ca	WS 508 West S rlsbad, Net	P USA Stevens S w Mexico	treet 88220	B F S R	BH or PH Name: PH03 Bite Name: RP or Incident Numbe TE Job Number:	Thriller r: TE012921	Date: 4/29/2021 051	
		LITH	OLO	GIC / SOI	L SAMPL	ING LO	G	L	ogged By SL		Method:	Backhoe
Lat/Lo 32.09	ng: 2564103.9	999508			Field Scree	ening:		F	lole Diameter:		Total Depth:	
Comm	nents:				Chionde, P						2	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		Li	thology/F	Remarks	
D	<186	0.0	Ν	PH01	1 - 1'		CCHE	0-1' (s	Caliche w/ sand, v stain, trace silt, m	well sorte -f grained	ed, light brown, d	tan, no odor, no
D	435	0.0	Ν	PH01A	2'	2	SP-SM	1'-2' S r	Sand w/ caliche, l no stain	brown, we	ell sorted, m-f	grained, no odor

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PHOTOGRAPHIC LOG										
XTO Energy, Inc.	Thriller Battery	TE012921051								
	Eddy County, NM									



Photo No.	Date	1	2		4 The	
2	April 29, 2021				Lin VA	
Northern view of	PH03 delineation.					
				- 200		
			1	•		

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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: 890-602-1

Laboratory Sample Delivery Group: TE012921051 Client Project/Site: Thriller

For:

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

Attn: Dan Moir

RAMER

Authorized for release by: 5/4/2021 3:51:49 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: 8/10/2021 10:27:45 AM

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	Definitions/Glossary		
------------------------------------	-------------------------------------------------------------------------------------------------------------	---------------------------------------	----
Client: WSP US Project/Site: Th	SA Inc. riller	Job ID: 890-602-1 SDG: TE012921051	2
Qualifiers			2
			ပ
Qualifier	Qualifier Description		
U	Indicates the analyte was analyzed for but not detected.		
GC Semi VOA			5
Qualifier	Qualifier Description		
*+	LCS and/or LCSD is outside acceptance limits, high biased.		
U	Indicates the analyte was analyzed for but not detected.		
HPLC/IC			
Qualifier	Qualifier Description		
F1	MS and/or MSD recovery exceeds control limits.		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)		12
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			
	Minimum Level (Dioxin)		
MOL	Mote Flobable Number		
NC	Net Calculated		
	Not Detected at the reporting limit (or MDL or EDL if shown)		
NEG	Not beledied at the reporting infinit (of MDE of EDE if shown)		
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)		

TEQ TNTC Too Numerous To Count

Eurofins Xenco, Carlsbad

.

Case Narrative

Job ID: 890-602-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-602-1

Receipt

The samples were received on 4/29/2021 4:39 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: PH01 (890-602-1) and PH01A (890-602-2).

GC VOA

Method 8021B: Internal standard responses were outside of acceptance limits for the following samples: PH01 (890-602-1) and PH01A (890-602-2). The sample(s) shows evidence of matrix interference.

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 880-2571 and analytical batch 880-2589 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.

Eurofins Xenco, Carlsbad

5/4/2021

Job ID: 890-602-1 SDG: TE012921051

Lab Sample ID: 890-602-1

Matrix: Solid

Date Collected: 04/29/21 11:00 Date Received: 04/29/21 16:39

Client Sample ID: PH01

Client: WSP USA Inc.

Project/Site: Thriller

Sample Depth: -1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:10	05/01/21 20:19	
Toluene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:10	05/01/21 20:19	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:10	05/01/21 20:19	
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/30/21 10:10	05/01/21 20:19	
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:10	05/01/21 20:19	
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/30/21 10:10	05/01/21 20:19	
Total BTEX	<0.00399	U	0.00399	mg/Kg		04/30/21 10:10	05/01/21 20:19	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	115		70 - 130			04/30/21 10:10	05/01/21 20:19	
1.4-Difluorobenzene (Surr)	103		70 - 130			04/30/21 10:10	05/01/21 20:19	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		04/30/21 16:30	05/01/21 14:51	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U *+	49.9	mg/Kg		04/30/21 16:30	05/01/21 14:51	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/30/21 16:30	05/01/21 14:51	1
Total TPH	<49.9	U	49.9	mg/Kg		04/30/21 16:30	05/01/21 14:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1 Chloropotono	105		70 120			04/20/21 16:20	05/01/01 11:51	1

1 01		00	10-100			04/00/21 10.00	00/01/21 14.01	
o-Te	rphenyl	111	70 - 130			04/30/21 16:30	05/01/21 14:51	1
Met	hod: 300.0 - Anions, Ion Chromatograph	y - Soluble						
Anal	yte Res	ult Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chlo	pride 7	6.4	4.98	mg/Kg			05/03/21 18:14	1

Client Sample ID: PH01A Date Collected: 04/29/21 11:10

Method: 8021B - Volatile Organic Compounds (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Benzene <0.00199 U 0.00199 mg/Kg 04/30/21 10:10 05/01/21 20:40 Toluene <0.00199 U 0.00199 mg/Kg 04/30/21 10:10 05/01/21 20:40 Ethylbenzene <0.00199 U 0.00199 mg/Kg 04/30/21 10:10 05/01/21 20:40 m-Xylene & p-Xylene 0.00398 04/30/21 10:10 05/01/21 20:40 <0.00398 U mg/Kg o-Xylene <0.00199 U 0.00199 mg/Kg 04/30/21 10:10 05/01/21 20:40 05/01/21 20:40 Xylenes, Total <0.00398 U 0.00398 mg/Kg 04/30/21 10:10 Total BTEX <0.00398 U 0.00398 mg/Kg 04/30/21 10:10 05/01/21 20:40 Qualifier Limits Dil Fac Surrogate %Recovery Prepared Analyzed 4-Bromofluorobenzene (Surr) 102 70 - 130 04/30/21 10:10 05/01/21 20:40 70 - 130 04/30/21 10:10 05/01/21 20:40 1,4-Difluorobenzene (Surr) 86

Lab Sample ID: 890-602-2

Matrix: Solid

1

1

1

1

1

1

1

1

Date Received: 04/29/21 16:39 Sample Depth: - 2

Client Sample Results

Job ID: 890-602-1 SDG: TE012921051

Client Sample ID: PH01A

Date Collected: 04/29/21 11:10 Date Received: 04/29/21 16:39

Sample Depth: - 2

Client: WSP USA Inc.

Project/Site: Thriller

Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		04/30/21 16:30	05/01/21 15:14	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U *+	50.0	mg/Kg		04/30/21 16:30	05/01/21 15:14	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 16:30	05/01/21 15:14	1
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 16:30	05/01/21 15:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			04/30/21 16:30	05/01/21 15:14	1
o-Terphenyl	117		70 - 130			04/30/21 16:30	05/01/21 15:14	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	394	F1	5.00	mg/Kg			05/03/21 18:20	1

Lab Sample ID: 890-602-2 Matrix: Solid

Surrogate Summary

Client: WSP USA Inc. Project/Site: Thriller

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)		5
890-602-1	PH01	115	103		
890-602-2	PH01A	102	86		6
LCS 880-2532/1-A	Lab Control Sample	108	105		
LCSD 880-2532/2-A	Lab Control Sample Dup	106	105		
MB 880-2532/5-A	Method Blank	100	98		
MB 880-2540/5-A	Method Blank	102	100		8
Surrogate Legend					
BFB = 4-Bromofluorobe	nzene (Surr)				9
DFBZ = 1 4-Difluoroben	zene (Surr)				

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

Matrix: Solid Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits) 1CO1 OTPH1 (70-130) (70-130) Lab Sample ID **Client Sample ID** 890-602-1 PH01 105 111 890-602-2 PH01A 107 117 LCS 880-2571/2-A Lab Control Sample 107 108 LCSD 880-2571/3-A Lab Control Sample Dup 108 105 MB 880-2571/1-A Method Blank 99 105

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

SDG: TE012921051

Prep Type: Total/NA

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Project/Site: Thriller

Client: WSP USA Inc.

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-253	2/5-A							C	lient Sa	ample ID: Me	thod	Blank
Matrix: Solid										Prep Typ	e: To	tal/NA
Analysis Batch: 2530										Prep l	Batch	: 2532
	MB	MB										
Analyte	Result	Qualifier	RL		Unit		D	Pre	pared	Analyzed		Dil Fac
Benzene	<0.00200	U	0.00200		mg/K	g		04/30/	21 10:10	05/01/21 12:	33	1
Toluene	<0.00200	U	0.00200		mg/K	g		04/30/	21 10:10	05/01/21 12:	33	1
Ethylbenzene	<0.00200	U	0.00200		mg/K	g		04/30/	21 10:10	05/01/21 12:	33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/K	g		04/30/	21 10:10	05/01/21 12:	33	1
o-Xylene	<0.00200	U	0.00200		mg/K	g		04/30/	21 10:10	05/01/21 12:	33	1
Xylenes, Total	<0.00400	U	0.00400		mg/K	g		04/30/	21 10:10	05/01/21 12:	33	1
Total BTEX	<0.00400	U	0.00400		mg/K	g		04/30/	21 10:10	05/01/21 12:	33	1
	MB	MB										
Surrogate	%Recovery	Qualifier	Limits					Pre	epared	Analyzed		Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130					04/30	/21 10:10	05/01/21 12:	33	1
1,4-Difluorobenzene (Surr)	98	1	70 - 130					04/30/	/21 10:10	05/01/21 12:	33	1
Lab Sample ID: LCS 880-25	32/1-A						C	lient S	Sample	ID: Lab Con	trol S	ample
Matrix: Solid									- ann pro	Pron Tyr		tal/NA
Analysis Batch: 2530										Pren	Ratch	· 2532
Analysis Datch. 2000			Snike	LCS	LCS					%Rec	Jaton	. 2002
Analyte				Result	Qualifier	Unit		п	%Rec	l imits		
Benzene			0 100	0 1002	Quanner	ma/Ka		<u> </u>	100	70 130		
			0.100	0.1002		ma/Ka			100	70 - 130		
Ethylhonzono			0.100	0.1017		mg/Kg			102	70 - 130		
			0.100	0.1070		mg/Kg			107	70 - 130		
			0.200	0.2130		mg/Kg			100	70 - 130		
0-Xylene			0.100	0.1036		mg/Kg			104	70 - 130		
	LCS LCS	5										
Surrogate	%Recovery Qua	alifier	Limits									
4-Bromofluorobenzene (Surr)	108		70 - 130									
1,4-Difluorobenzene (Surr)	105		70 - 130									
- Lah Sample ID: LCSD 880-2	532/2-A					Cli	ont	Samr		ah Control S	amnl	
Matrix: Solid	552/2-A						ent	Jamp				e Dup tal/NA
Analysis Batch: 2530										Prop	Ratch	· 2532
Analysis Datch. 2000			Snike							%Rec	Jaich	. 2332 PDD
Analyte			Added	Posult	Qualifier	Unit		п	%Pec	Jimite	PPD	Limit
Benzene			0.100	0 1002	Quaimer	ma/Ka		<u> </u>	100	70 130		35
			0.100	0.1002		mg/Kg			100	70 - 130	0	35
			0.100	0.1017		mg/Kg			102	70 - 130	0	30
			0.100	0.1036		mg/Kg			104	70 - 130		30
			0.200	0.2092		mg/Kg			105	70 - 130 70 - 130	2 1	35
o Xylene			0.100	0.1020		mg/itg			102	70 - 100		00
Surrogato	LCSD LCS	SD	Limite									
A Bromofluoroberzono (Surr)		er	70 120									
1,4-Difluorobenzene (Surr)	105		70 - 130									
-			-									
Lab Sample ID: MB 880-254	0/5-A							C	lient Sa	ample ID: Me	thod	Blank
Matrix: Solid										Prep Typ	e: To	tal/NA
Analysis Batch: 2530										Prep l	Batch	: 2540
	MB	MB										
Analyte	Result	Qualifier	RL		Unit		D	Pre	pared	Analyzed		Dil Fac
Benzene	<0.00200	U	0.00200		mg/K	g		04/30/	21 13:50	05/01/21 00:	58	1

Eurofins Xenco, Carlsbad

Client: WSP USA Inc.

Project/Site: Thriller

QC Sample Results

Job ID: 890-602-1 SDG: TE012921051

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

Lab Sample ID: MB 880-2540/5-/ Matrix: Solid	A								Client Sa	ample ID: Meth Prep Type:	od Blank Total/NA
Analysis Batch: 2530										Prep Bat	ch: 2540
	MB	MB									
Analyte	Result	Qualifier					D	P	repared	Analyzed	Dil Fac
	<0.00200	0	0.00200		mg/K	g		04/3	0/21 13:50	05/01/21 00:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/K	g		04/3	0/21 13:50	05/01/21 00:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/K	g		04/3	0/21 13:50	05/01/21 00:58	1
o-Xylene	<0.00200	U	0.00200		mg/K	g		04/3	0/21 13:50	05/01/21 00:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/K	g		04/3	0/21 13:50	05/01/21 00:58	1
Total BTEX	<0.00400	U	0.00400		mg/K	g		04/3	0/21 13:50	05/01/21 00:58	1
	MB	MB									
Surrogate	%Recovery	Qualifier	Limits					P	repared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130				-	04/3	0/21 13:50	05/01/21 00:58	1
1,4-Difluorobenzene (Surr)	100	1	70 - 130					04/3	0/21 13:50	05/01/21 00:58	1
Method: 8015B NM - Diesel	Range Orga	nics (DR	(U) (GC)								
Lab Sample ID: MB 880-2571/1-/	Δ								Client Sa	ample ID: Meth	od Blank
Matrix: Solid										Pren Type:	Total/NA
Analysis Batch: 2589										Pren Bat	ch: 2571
	МВ	МВ								1.00 20	
Analyte	Result	Qualifier	RL		Unit		D	Р	repared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0		mg/K	g		04/3	0/21 16:30	05/01/21 11:38	1
(GRO)-C6-C10											
Diesel Range Organics (Over	<50.0	U	50.0		mg/K	g		04/3	0/21 16:30	05/01/21 11:38	1
C10-C28)											
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/K	g		04/3	0/21 16:30	05/01/21 11:38	1
Total TPH	<50.0	U	50.0		mg/K	g		04/3	0/21 16:30	05/01/21 11:38	1
	МВ	MB									
Surrogate	%Recovery	Qualifier	Limits					Р	repared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				_	04/3	0/21 16:30	05/01/21 11:38	1
o-Terphenyl	105		70 - 130					04/3	0/21 16:30	05/01/21 11:38	1
							~				
Lab Sample ID: LCS 880-2571/2	-A						Cli	ent	Sample	ID: Lab Contro	Sample
Matrix: Solid										Prep Type:	Total/NA
Analysis Batch: 2589										Prep Bat	tch: 2571
			Spike	LCS	LCS					%Rec.	
Analyte			Added	Result	Qualifier	Unit		<u>D</u>	%Rec	Limits	
Gasoline Range Organics			1000	1159		mg/Kg			116	70 - 130	
(GRU)-C6-C10 Dissel Pange Organize (Over			1000	1110		malla			111	70 120	
C10-C28)			1000	1112		mg/Kg			TT	10 - 130	
Suma mata			Lingita								
	⁷⁰ Recovery Qua	aufier									
	107		70 - 130								
o-rerpnenyi	108		70 - 130								

Project/Site: Thriller

Job ID: 890-602-1 SDG: TE012921051

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

_ Lab Sample ID: LCSD 880-2571/ Matrix: Solid	/3-A					Cli	ient Sa	mple ID	Lab Contro Prep	ol Sampl Type: To	e Dup tal/NA
Analysis Batch: 2589									Pre	p Batch	: 2571
			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics			1000	1057		mg/Kg		106	70 - 130	9	20
(GRO)-C6-C10											
Diesel Range Organics (Over			1000	1325	*+	mg/Kg		132	70 - 130	17	20
C10-C28)											
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	l imits								
	108	quanter	70 130	_							
o-Tembenvl	105		70 130								
	100		101100								
Method: 300.0 - Anions, Ion	Chromat	ography									
Lab Sample ID: MB 880-2556/1-/	A							Client	Sample ID:	Method	Blank
Matrix: Solid									Prep	Type: S	oluble
Analysis Batch: 2608											
		MB MB									
Analyte	R	esult Qualifier		RL	Unit		D	Prepared	Analy	zed	Dil Fac
Chloride		5.00 U		5.00	mg/k	ζg			05/03/21	15:17	1
 	•						Clie	at Samn		ontrol S	amplo
Lab Sample ID. LCS 660-2556/2	-A						Cilei	nt Samp	le ID. Lab C		ample
Matrix: Solid									Prep	Type: S	eldulo
Analysis Batch: 2608									~-		
			Spike	LCS	LCS		_		%Rec.		
Analyte			Added	Result	Qualifier	Unit		%Rec	Limits		
Chloride			250	263.2		mg/Kg		105	90 _ 110		
Lab Sample ID: LCSD 880-2556/	/3-A					Cli	ient Sa	mple ID	: Lab Contro	ol Samol	e Dup
Matrix: Solid	•••								Pren	Type: S	oluble
Analysis Batch: 2608									1100	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	orabio
Analysis Datch. 2000			Sniko						%Pec		PPD
Analyta			Addad	Beault	Qualifiar	Unit		% Baa	/intec.	PPD	Limit
			Audeu	259.2						2	20
			250	200.2		mg/kg		103	90 - 110	2	20
 Lab Sample ID: 890-602-2 MS									Client Sam		
Matrix: Solid									Pron	Type: S	alubla
Analysis Batch: 2609									Пер	Type. O	oluble
Analysis Balch. 2000	Sampla	Sampla	Spike	Ме	MC				% Bee		
• • •	Sample	Sample	Spike	1913	NIS		_		%Rec.		
Analyte	Result		Added	Result	Qualifier		Ľ	%Rec			
Chionae	394	F1	250	602.0	FT	mg/Kg		83	90 - 110		
Lab Sample ID: 890-602-2 MSD									Client Sam	nle ID· G	
Matrix: Solid									Dron	Type: 9	oluble
Analysis Batch: 2609									гіер	iype. S	
Analysis Daton. 2000	Samula	Sample	Calka	MOD	Men				% Paa		000
Analyta	Dearth	Qualifier	Shire	IVISU Decisit		l ln !4		0/ D	/orteu.	000	
	Result		Added	Kesult			<u> </u>	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
Chioride	394	F1	250	607.8	F1	mg/Kg		86	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc. Project/Site: Thriller

Job ID: 890-602-1 SDG: TE012921051

GC VOA

Analysis Batch: 2530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-602-1	PH01	Total/NA	Solid	8021B	2532
890-602-2	PH01A	Total/NA	Solid	8021B	2532 🤤
MB 880-2532/5-A	Method Blank	Total/NA	Solid	8021B	2532
MB 880-2540/5-A	Method Blank	Total/NA	Solid	8021B	2540
LCS 880-2532/1-A	Lab Control Sample	Total/NA	Solid	8021B	2532
LCSD 880-2532/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2532
Prep Batch: 2532					8
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-602-1	PH01	Total/NA	Solid	5035	9
890-602-2	PH01A	Total/NA	Solid	5035	
MB 880-2532/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2532/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2532/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
Prep Batch: 2540					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
MB 880-2540/5-A	Method Blank	Total/NA	Solid	5035	11
GC Semi VOA					

Prep Batch: 2571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-602-1	PH01	Total/NA	Solid	8015NM Prep	
890-602-2	PH01A	Total/NA	Solid	8015NM Prep	
MB 880-2571/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2571/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2571/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 2589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-602-1	PH01	Total/NA	Solid	8015B NM	2571
890-602-2	PH01A	Total/NA	Solid	8015B NM	2571
MB 880-2571/1-A	Method Blank	Total/NA	Solid	8015B NM	2571
LCS 880-2571/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2571
LCSD 880-2571/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2571

HPLC/IC

Leach Batch: 2556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-602-1	PH01	Soluble	Solid	DI Leach	
890-602-2	PH01A	Soluble	Solid	DI Leach	
MB 880-2556/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2556/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2556/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-602-2 MS	PH01A	Soluble	Solid	DI Leach	
890-602-2 MSD	PH01A	Soluble	Solid	DI Leach	
Analysis Batch: 2608					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-602-1	PH01	Soluble	Solid	300.0	2556

Client: WSP USA Inc.	
Project/Site: Thriller	

Job ID: 890-602-1 SDG: TE012921051

HPLC/IC (Continued)

Analysis Batch: 2608 (Continued)

HPLC/IC (Continue	ed)					
Analysis Batch: 2608	(Continued)					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-602-2	PH01A	Soluble	Solid	300.0	2556	
MB 880-2556/1-A	Method Blank	Soluble	Solid	300.0	2556	ρ
LCS 880-2556/2-A	Lab Control Sample	Soluble	Solid	300.0	2556	
LCSD 880-2556/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2556	
890-602-2 MS	PH01A	Soluble	Solid	300.0	2556	
890-602-2 MSD	PH01A	Soluble	Solid	300.0	2556	
						B 9
					1	3

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Lab Chronicle

Client: WSP USA Inc. Project/Site: Thriller

Client Sample ID: PH01 Date Collected: 04/29/21 11:00

Date Received: 04/29/21 16:39

_	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2532	04/30/21 10:10	MR	XM
Total/NA	Analysis	8021B		1	2530	05/01/21 20:19	MR	XM
Total/NA	Prep	8015NM Prep			2571	04/30/21 16:30	DM	XM
Total/NA	Analysis	8015B NM		1	2589	05/01/21 14:51	AJ	XM
Soluble	Leach	DI Leach			2556	04/30/21 14:42	СН	XM
Soluble	Analysis	300.0		1	2608	05/03/21 18:14	CH	XM

Client Sample ID: PH01A Date Collected: 04/29/21 11:10 Date Received: 04/29/21 16:39

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2532	04/30/21 10:10	MR	XM
Total/NA	Analysis	8021B		1	2530	05/01/21 20:40	MR	XM
Total/NA	Prep	8015NM Prep			2571	04/30/21 16:30	DM	XM
Total/NA	Analysis	8015B NM		1	2589	05/01/21 15:14	AJ	XM
Soluble	Leach	DI Leach			2556	04/30/21 14:42	СН	XM
Soluble	Analysis	300.0		1	2608	05/03/21 18:20	СН	XM

Laboratory References:

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

Eurofins Xenco, Carlsbad

Job ID: 890-602-1

Matrix: Solid

Matrix: Solid

5

9

SDG: TE012921051

Lab Sample ID: 890-602-1

Lab Sample ID: 890-602-2

Page 48 of 78

	Α	ccreditation/C	ertification Summary		
Client: WSP USA Inc. Project/Site: Thriller				Job ID: 890-602 SDG: TE01292105	.1 51 2
Laboratory: Euro	fins Xenco, Midland				- 2
Unless otherwise noted, all	analytes for this laboratory we	re covered under each acc	reditation/certification below.		
Authority	Pro	ogram	Identification Number	Expiration Date	
Texas	NE	LAP	T104704400-20-21	06-30-21	
The following analytes	s are included in this report, bu	t the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for which	5
the agency does not o	offer certification.				
Analysis Method	Prep Method	Matrix	Analyte		
8015B NM	8015NM Prep	Solid			
8021B	5035	50110	IOTAL BIEX		
					8
					9
					10
					10
					13

Eurofins Xenco, Carlsbad

.

Method Summary

Client: WSP USA Inc. Project/Site: Thriller Job ID: 890-602-1 SDG: TE012921051

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

Protocol References:

ASTM = ASTM International

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

Laboratory References:

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

Client: WSP USA Inc. Project/Site: Thriller

Job ID: 890-602-1 SDG: TE012921051

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-602-1	PH01	Solid	04/29/21 11:00	04/29/21 16:39	- 1
890-602-2	PH01A	Solid	04/29/21 11:10	04/29/21 16:39	- 2

				-	Chai	in of	Custody			Work Or	der No:		
	DRATORIES		Houston, TX Midland, TX	(281) 240-4200 ((432-704-5440)	Dallas,T)) EL Pasc	x (214) 9(b,TX (915	2-0300 San Antonii)585-3443 Lubbock	5,TX (210) 509-3334 ,TX (806)794-1296				of	
Project Manager: D	an Moir		Bi	Il to: (if different)	Kyle	Littrell				Work	Order Comme	ents	
Company Name: W	VSP		0	ompany Name	XTO) Energy			Program: US		Brownfields	RRC Duperfunc	
Address: 3:	300 North A Street		A	ddress:	3104	f East G	reen Street		State of P	roject:			
City, State ZIP: M	lidland, TX 79705		C	ity, State ZIP:	Carl	sbad, NI	A 88220		Reporting:Lev	/el IIevel III	ST/UST		
Phone: (3	303) 887-2946		Email: Sp	pencer.Lo@wsp	com,Kale	i. Jenning	s@wsp.com.Dan Mc	ir@wsp.com	Deliverables:		ADaPT	Other:	
Project Name:	Thrill	Ŷ	Turn	Around			A	NALYSIS REQU	IEST			Work Order Notes	v
Project Number:	TE01292	1051	Routine								Incide	nt IDs: nAPP210854	4357,
P.O. Number:			Rush:								nAPP2	2108546355,	
Sampler's Name:	Spence	r Lo	Due Da	ite:							nAPP;	2110463633	
SAMPLE RECEIP	Temp Blank	Yes No	Wet Ice:	Yes No	3	_					Cost C	Center: 1067741001	
Temperature (°C):	1.1		hermometer ID)	0)						
Received Intact:	(Yes) No	T-NS	1-007		5)	8021	300	11011011011011010101010101010101010101	in of Custody		T		
Cooler Custody Seals:	Yes Ma N/A	Correc	ction Factor:	1.0	801	A 0=	(EPA	-	_	-	TAT	starts the day recevied in the starts the day received by 4:30pr	by the
Sample Identifi	ication Matrix	Date	Time	Depth	H (EP	EX (E	loride					Sample Comments	S
PH01	s	4/29/2021	1100			×	× (
PH01A	S	4/29/2021	1110	2'	-1 ×	×	×						
					#	\parallel	<u> </u>						
					+								
			_								/		
					+					-			
					-								
Total 200.7 / 601 Circle Method(s)	0 200.8 / 6020: and Metal(s) to be a	nalyzed .	CRA 13PPM	Texas 11 . 6010: 8RCF	Al Sb , A Sb	As Ba As Ba	Be B Cd Ca C Be Cd Cr Co	r Co Cu Fe P Cu Pb Mn Mo	b Mg Mn Mo Ni Se Ag Tl	Ni K Se Ag U	SiO2 Na Sr 1631 / 24	TI Sn U V Zn 5.1 / 7470 / 7471	: Hg
Notice: Signature of this doc of service. Xenco will be liab	ument and refinquishment ble only for the cost of samu a of \$75.00 will be applied to	of samples constitutes and shall not	tutes a valid purch accume any rospo a charge of \$5 fo	nase order from cl msibility for any to r each sample sui	lient comp osses or e omitted to	any to Xer xpenses i Xenco, bu	ico, its affiliates and s ncurred by the client i it not analyzed. These	ubcontractors. It ass f such losses are due terms will be enforce	ions standard term to circumstances b d unless previously	e and conditions eyond the control negotiated.			
Relinquished by: (\$	Signature)	Received	oy: (Signature	ت 	Dat	e/Time	Relinqu	ished by: (Signa	ture	Received by: ()	Signature)	Date/Time	Ű
- X	6	JAN M		4	1881	1, 164	00 2 11-	a for					
3	2	· Obe	V	- 4	-29-21	16:	£ ▲						

Released to Imaging: 8/10/2021 10:27:45 AM

5/4/2021

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Received by OCD: 6/4/2021 12:24:34 PM

Eurofins Xenco, Carlsbad 1089 N Canal St. Carlsbad NM 88220 Phone 575-988-3199 Fax 575-988-3199 Client Information (Sub Contract Lab) Client Contact Shipping/Receiving Company Eurofins Xenco Address 1211 W Florida Ave City Eurofins Xenco 1211 W Florida Ave City Midland State, Zip TX, 79701 Phone 432-704-5440(Tel) Email Project Name: Thriller Sile:	Champler Phone Due Date Requested 5/5/2021 TAT Requested (days) PO # WO #: Project #: 89000004		Matrix	AS/MSD (Yes or No)		5FP_Calc BTEX	Anal	- Texas		Sted	Xico			iber of containers		C No C NO		rofins of 1 2-1 2-1 2-1 2-1 - 2-1 - 2-1 - - - - - - - - - -	A Pater P C C C C C C C C C C C C C C C C C C	rofins Envirc of 1 ation Codes ration Codes Ameri 2-1 2-1 2-1 2-1 2-1 2-1 2-1 2-1 2-1 2-1	rofins 2.1 of 1 of 1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.	rofins 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1
Midland State, Zip TX, 79701 Phone 432-704-5440(Tel) Email Project Name: Thriller Site:	PO # PO # Project # 8500004 SSOW#:			Sample (Yes or No) ISD (Yes or No)	1015NM_S_Prep Full TPH	Calc BTEX									of containers	of containers ຊຼຸກລະກາດຫາສຸ	of Conter-	of containers C Zn Acetate C Zn Acetate C Ninic Acid F MeOH G Amchor H Ascorbic Acid H Ascorbic Acid C EDA K EDTA C EDA	of containers C Zn Acetate C	of containers C Zn Acetate D Nutric Acid F MeOH G Anchior H Ascorbic Acid P Na2 H Ascorbic Acid F MeOH H Ascorbic Acid T TSP S DI Water C DN Acetate C Zn Acetate C Zn Acetate C Zn Acetate P Na2 C	of Contern of Contern of Contern of Contern of Contern of Contern of Contern	of Other of Other
Sample Identification - Client ID (Lab ID)	Sample Date Ti	Sample Type (C=com me G=grat	e Matrix (W=water S=solid, P, O=waste/oli,) BT=Tissue, A=Air)	Field Filtered S Perform MS/M	8015MOD_NM/8	8021B/5035FP_C									Total Number o	Total Number (Total Number c	Total Number c Speccial	Total Number of Special Inst	Total Number c Special Instructio	Total Number c Special Instructions/	Total Number c Special Instructions/No
PH01 (890-602-1)	4/29/21 11 Moi	00 Prese	Nation Code: Solid	X	×	× ×		andras Discont			1101405021					- X					→ X	1 X
PH01A (890-602-2)	4/29/21 11 Mou	Intain	Solid		×				++	++												
											<u> </u>											
Note. Since laboratory accreditations are subject to change, Eurofins Xenco LLC maintain accreditation in the State of Origin listed above for analysistlests/matrix LLC attention immediately If all requested accreditations are current to date re Possible Hazard Identification	places the ownership of me being analyzed the sample urn the signed Chain of Cus	sthod analyte & access must be shipped attesting to satisfy the strength of th	creditation complia back to the Eurofir aid complicance to	nce upon 1s Xenco I Eurofins >	out sub LLC lab Kenco L	contrac pratory _C	laboratori	es. This tructions	sample will be p	shipme) ÷ ÷	d Any	nt is forwarded d Any change	int is forwarded under d Any changes to ac	nt is forwarded under chain d Any changes to accredit	It is forwarded under chain-of-cu d Any changes to accreditation	It is forwarded under chain-of-custody if d Any changes to accreditation status sh	nt is forwarded under chain-of-custody If the lat d Any changes to accreditation status should be d to accreditation defined to accreditation	It is forwarded under chain-of-custody If the laborat d Any changes to accreditation status should be bro	nt is forwarded under chain-of-custody If the laboratory dor d Any changes to accreditation status should be brought to	It is forwarded under chain-of-custody If the laboratory does no d Any changes to accreditation status should be brought to Euro	It is forwarded under chain-of-custody If the laboratory does not cu d Any changes to accreditation status should be brought to Eurofini
Uncontirmed Deliverable Requested 1 II III IV Other (specify)	Primary Deliverable	Rank 2		Spe	cial In	structi	Client ons/QC F	Require	Disy ments	oosal		3y Lai	3y Lab	3y Lab	3y Lab	3y Lab Archive	3y Lab Archive For	3y Lab Archive For	3y Lab Archive For	3y Lab Archive For Mor	3y Lab Archive For Months	3y Lab Archive For Months
Empty Kit Relinquished by	Date			Time						Met	ត	d of (d of Shipme	d of Shipment.	d of Shipment.	d of Shipment.	d of Shipment.	d of Shipment.	d of Shipment.	d of Shipment.	d of Shipment.	d of Shipment.
Relinquished by CLUP CLAR 4 30.2) Relinquished by	Date/Time: Date/Time:		Company Company		Receiv	d by		d)					Date/T	Date/Time:	Date/Time:	Date/Time:	DaterTime. DaterTime.	Date/Time 20-21 3 W/ 1	Date/Time: 20-21 3 W/ D	Date/Time: 2 3 W/ 1 Compa	Date/Time: Date/Time: Date/Time: Company	Date/Time: Date/Time: Date/Time: Company
Relinquished by Custody Seals Intact Custody Seal No	Date/Time:		Company		Receiv	emper	ature(s) °C	and Othe	er Rema	Ŕŝ			Date/T	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time: Compa	Date/Time: Company	Date/Time: Company
					Cooler	Temper	ature(s) °C	and Othe	ər Rema	rks	1											

Ver 11/01/2020

Job Number: 890-602-1 SDG Number: TE012921051

List Source: Eurofins Carlsbad

Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 602 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").

Job Number: 890-602-1 SDG Number: TE012921051

List Source: Eurofins Midland

List Creation: 04/30/21 02:14 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 602 List Number: 2 Creator: Copeland, Tatiana

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	

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

Received by OCD: 6/4/2021 12:24:34 PM

🔅 eurofins

Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-603-1

Laboratory Sample Delivery Group: TE012921051 Client Project/Site: Thriller

For:

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

Attn: Dan Moir

RAMER

Authorized for release by: 5/4/2021 3:53:23 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

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Certification Summary	17
Method Summary	18
Sample Summary	19
Chain of Custody	20
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	Definitions/Glossary	
Client: WSP US Project/Site: Th	SA Inc. Job ID: 890-603 ariller SDG: TE01292105	-1 51 2
Qualifiers		_
		- P
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	_
GC Somi VOA		5
Qualifier	Qualifier Description	
*+	LCS and/or LCSD is outside acceptance limits, high biased.	- 6
U	Indicates the analyte was analyzed for but not detected.	
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	- 8
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)	
Dil Fac	Dilution Factor	
	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
	Estimated Detection Limit (Diaxin)	
LOD		
MCI	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)	
KPD TEE	Relative Percent Difference, a measure of the relative difference between two points	
	Ioxicity Equivalent Factor (Dioxin)	
IEQ		

TNTC Too Numerous To Count

.

4

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Job ID: 890-603-1 SDG: TE012921051

Job ID: 890-603-1

Client: WSP USA Inc.

Project/Site: Thriller

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-603-1

Receipt

The samples were received on 4/29/2021 4:13 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-2571 and analytical batch 880-2589 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.

Job ID: 890-603-1 SDG: TE012921051

Lab Sample ID: 890-603-1 Matrix: Solid

Date Collected: 04/29/21 11:20 Date Received: 04/29/21 16:13

Client Sample ID: PH02

Sample Depth: - 1

Client: WSP USA Inc.

Project/Site: Thriller

Method: 8021B - Volatile Organic	c Compounds ((GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:10	05/01/21 21:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:10	05/01/21 21:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:10	05/01/21 21:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/30/21 10:10	05/01/21 21:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:10	05/01/21 21:00	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/30/21 10:10	05/01/21 21:00	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/30/21 10:10	05/01/21 21:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			04/30/21 10:10	05/01/21 21:00	1
1,4-Difluorobenzene (Surr)	107		70 - 130			04/30/21 10:10	05/01/21 21:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		04/30/21 16:30	05/01/21 15:35	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U *+	50.0	mg/Kg		04/30/21 16:30	05/01/21 15:35	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 16:30	05/01/21 15:35	1
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 16:30	05/01/21 15:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	04/30/21 16:30	05/01/21 15:35	1
o-Terphenyl	104		70 - 130	04/30/21 16:30	05/01/21 15:35	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	91.6		4.98	mg/Kg			05/03/21 18:36	1

Client Sample ID: PH02A Date Collected: 04/29/21 11:30

Date Received: 04/29/21 16:13 Sample Depth: - 2

Sample Depth: - 2

Method: 8021B - Volatile Orga	ethod: 8021B - Volatile Organic Compounds (GC)											
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac				
Benzene	<0.00202	U	0.00202	mg/Kg		04/30/21 13:50	05/01/21 06:20	1				
Toluene	<0.00202	U	0.00202	mg/Kg		04/30/21 13:50	05/01/21 06:20	1				
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		04/30/21 13:50	05/01/21 06:20	1				
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		04/30/21 13:50	05/01/21 06:20	1				
o-Xylene	<0.00202	U	0.00202	mg/Kg		04/30/21 13:50	05/01/21 06:20	1				
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		04/30/21 13:50	05/01/21 06:20	1				
Total BTEX	<0.00403	U	0.00403	mg/Kg		04/30/21 13:50	05/01/21 06:20	1				
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac				
4-Bromofluorobenzene (Surr)	105		70 - 130			04/30/21 13:50	05/01/21 06:20	1				
1,4-Difluorobenzene (Surr)	107		70 - 130			04/30/21 13:50	05/01/21 06:20	1				

Lab Sample ID: 890-603-2

Matrix: Solid

Released to Imaging: 8/10/2021 10:27:45 AM

5/4/2021

Client Sample Results

Job ID: 890-603-1 SDG: TE012921051

Lab Sample ID: 890-603-2

Lab Sample ID: 890-603-3

Client Sample ID: PH02A

Date Collected: 04/29/21 11:30 Date Received: 04/29/21 16:13

Sample Depth: - 2

Client: WSP USA Inc.

Project/Site: Thriller

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/30/21 16:30	05/01/21 15:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0	mg/Kg		04/30/21 16:30	05/01/21 15:56	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 16:30	05/01/21 15:56	1
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 16:30	05/01/21 15:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			04/30/21 16:30	05/01/21 15:56	1
o-Terphenyl	118		70 - 130			04/30/21 16:30	05/01/21 15:56	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Analyte	Result	Quaimer	RL	Unit	 Prepareu	Analyzeu
Chloride	17.7		4.97	mg/Kg		05/03/21 17:10

Client Sample ID: PH03

Date Collected: 04/29/21 11:40 Date Received: 04/29/21 16:13 Sample Depth: -1

Method: 8021B - Volatile Orga	nic Compounds	(GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/30/21 13:50	05/01/21 06:40	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/30/21 13:50	05/01/21 06:40	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/30/21 13:50	05/01/21 06:40	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/30/21 13:50	05/01/21 06:40	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/30/21 13:50	05/01/21 06:40	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/30/21 13:50	05/01/21 06:40	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		04/30/21 13:50	05/01/21 06:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			04/30/21 13:50	05/01/21 06:40	1

1,4-Difluorobenzene (Surr)	106		70 - 130			04/30/21 13:50	05/01/21 06:40	1
- Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/30/21 16:30	05/01/21 16:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9	mg/Kg		04/30/21 16:30	05/01/21 16:18	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/30/21 16:30	05/01/21 16:18	1
Total TPH	<49.9	U	49.9	mg/Kg		04/30/21 16:30	05/01/21 16:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130			04/30/21 16:30	05/01/21 16:18	1
o-Terphenyl	120		70 - 130			04/30/21 16:30	05/01/21 16:18	1

Method: 300.0 - Anions, Ion Chromatography - Soluble											
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Chloride	684		50.4	mg/Kg			05/03/21 17:26	10			

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Matrix: Solid

5

1

Matrix: Solid

5

Job ID: 890-603-1 SDG: TE012921051

Lab Sample ID: 890-603-4

Matrix: Solid

Client Sample ID: PH03A Date Collected: 04/29/21 11:50 Date Received: 04/29/21 16:13

Sample Depth: - 2

Client: WSP USA Inc.

Project/Site: Thriller

Method: 8021B - Volatile Organic	c Compounds	(GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		04/30/21 15:09	05/01/21 07:01	1
Toluene	<0.00199	U	0.00199	mg/Kg		04/30/21 15:09	05/01/21 07:01	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/30/21 15:09	05/01/21 07:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/30/21 15:09	05/01/21 07:01	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		04/30/21 15:09	05/01/21 07:01	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/30/21 15:09	05/01/21 07:01	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		04/30/21 15:09	05/01/21 07:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			04/30/21 15:09	05/01/21 07:01	1
1,4-Difluorobenzene (Surr)	106		70 - 130			04/30/21 15:09	05/01/21 07:01	1
- Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)	DI	Unit	P	Propared	Applyzod	Dil Eac
(GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/30/21 10.30	05/01/21 16.39	1
Diesel Range Organics (Over	71.2	*+	49.9	mg/Kg		04/30/21 16:30	05/01/21 16:39	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/30/21 16:30	05/01/21 16:39	1
Total TPH	71.2		49.9	mg/Kg		04/30/21 16:30	05/01/21 16:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			04/30/21 16:30	05/01/21 16:39	1
o-Terphenyl	111		70 - 130			04/30/21 16:30	05/01/21 16:39	1
- Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1650		25.1	mg/Kg			05/03/21 17:31	5

5/4/2021

Surrogate Summary

Client: WSP USA Inc. Project/Site: Thriller

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

				Percent Surrogate Recovery
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-603-1	PH02	106	107	
890-603-2	PH02A	105	107	
890-603-3	PH03	108	106	
890-603-4	PH03A	106	106	
LCS 880-2532/1-A	Lab Control Sample	108	105	
LCS 880-2540/1-A	Lab Control Sample	98	106	
LCS 880-2567/1-A	Lab Control Sample	104	101	
LCSD 880-2532/2-A	Lab Control Sample Dup	106	105	
LCSD 880-2540/2-A	Lab Control Sample Dup	101	104	
LCSD 880-2567/2-A	Lab Control Sample Dup	106	102	
MB 880-2519/5-A	Method Blank	90	90	
MB 880-2531/5-A	Method Blank	102	103	
MB 880-2532/5-A	Method Blank	100	98	
MB 880-2540/5-A	Method Blank	102	100	
MB 880-2567/5-A	Method Blank	93	91	
Surrogate Legend				
BFB = 4-Bromofluorober	nzene (Surr)			
DFBZ = 1,4-Difluorobenz	zene (Surr)			

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

Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits) 1CO1 OTPH1 (70-130) (70-130) Lab Sample ID **Client Sample ID** 890-603-1 PH02 100 104 890-603-2 PH02A 106 118 890-603-3 PH03 113 120 890-603-4 PH03A 104 111 LCS 880-2571/2-A Lab Control Sample 107 108 LCSD 880-2571/3-A Lab Control Sample Dup 108 105 MB 880-2571/1-A Method Blank 99 105 Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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Job	ID:	890-	603-1
SDG:	TEC	0129	21051

Prep Type: Total/NA

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-2519/5-A						Client Sa	mple ID: Metho	d Blank
Matrix: Solid							Prep Type:	Total/NA
Analysis Batch: 2544							Prep Bate	ch: 2519
Analyte	MB Result	MB Qualifier	PI	Unit	п	Propared	Analyzed	Dil Eac
Renzene	<0.00200			0mit ma/Ka		04/30/21 09:09	05/01/21 12:34	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/30/21 09:09	05/01/21 12:34	1
Ethylbenzene	<0.00200	0	0.00200	mg/Kg		04/30/21 09:09	05/01/21 12:34	1
m-Xylene & n-Xylene	<0.00200		0.00200	mg/Kg		04/30/21 09:09	05/01/21 12:34	
	<0.00400	0	0.00400	mg/Kg		04/30/21 09:09	05/01/21 12:34	1
	<0.00200		0.00200	mg/Kg		04/30/21 09:09	05/01/21 12:34	1
Total BTEX	<0.00400		0.00400	mg/Kg		04/30/21 09:09	05/01/21 12:34	
	×0.00 + 00	0	0.00+00	ing/itg		04/30/21 03:03	03/01/21 12.34	I
	MB	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130			04/30/21 09:09	05/01/21 12:34	1
1,4-Difluorobenzene (Surr)	90		70 - 130			04/30/21 09:09	05/01/21 12:34	1
Lab Sample ID: MB 880-2531/5-A						Client Sa	mple ID: Metho	d Blank
Matrix: Solid							Prep Type:	Total/NA
Analysis Batch: 2530							Prep Bate	ch: 2531
	МВ	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:02	04/30/21 13:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:02	04/30/21 13:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:02	04/30/21 13:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/30/21 10:02	04/30/21 13:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:02	04/30/21 13:04	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/30/21 10:02	04/30/21 13:04	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/30/21 10:02	04/30/21 13:04	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130			04/30/21 10:02	04/30/21 13:04	1
1,4-Difluorobenzene (Surr)	103		70 - 130			04/30/21 10:02	04/30/21 13:04	1
- Lab Sample ID: MB 880-2532/5-A						Client Sa	mple ID: Metho	d Blank
Matrix: Solid							· Prep Type:	Total/NA
Analysis Batch: 2530							Prep Bat	ch: 2532
	МВ	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:10	05/01/21 12:33	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:10	05/01/21 12:33	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:10	05/01/21 12:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/30/21 10:10	05/01/21 12:33	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:10	05/01/21 12:33	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/30/21 10:10	05/01/21 12:33	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/30/21 10:10	05/01/21 12:33	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			04/30/21 10.10	05/01/21 12:33	1

Job ID: 890-603-1 SDG: TE012921051

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04/30/21 10:10 05/01/21 12:33

1,4-Difluorobenzene (Surr)

70 - 130

98

Client: WSP USA Inc.

Project/Site: Thriller

QC Sample Results

Job ID: 890-603-1 SDG: TE012921051

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

Lab Sample ID: LCS 880-25 Matrix: Solid Analysis Batch: 2530	32/1-A						Client	Sample	e ID: Lab Co Prep 1 Pre	ontrol S Type: To p Batch	ample tal/NA : 2532
			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Benzene			0.100	0.1002		mg/Kg		100	70 - 130		
Toluene			0.100	0.1017		mg/Kg		102	70 - 130		
Ethylbenzene			0.100	0.1070		mg/Kg		107	70 - 130		
m-Xylene & p-Xylene			0.200	0.2130		mg/Kg		106	70 - 130		
o-Xylene			0.100	0.1036		mg/Kg		104	70 - 130		
	LCS	LCS									
Surrogate	%Recoverv	Qualifier	Limits								
4-Bromofluorobenzene (Surr)			70 - 130								
1,4-Difluorobenzene (Surr)	105		70 - 130								
Lab Sample ID: LCSD 880-2	532/2-A					Clie	nt Sam	ple ID:	Lab Contro	I Samp	e Dup
Matrix: Solid									Prep 1	Type: To	tal/NA
Analysis Batch: 2530									Pre	p Batch	: 2532
_			Spike	LCSD	LCSD				%Rec.	-	RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene			0.100	0.1002		mg/Kg		100	70 - 130	0	35
Toluene			0.100	0.1017		mg/Kg		102	70 - 130	0	35
Ethylbenzene			0.100	0.1038		mg/Kg		104	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2092		mg/Kg		105	70 - 130	2	35
o-Xylene			0.100	0.1025		mg/Kg		102	70 - 130	1	35
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	106		70 - 130								
1,4-Difluorobenzene (Surr)	105		70 - 130								
Lab Sample ID: MB 880-254 Matrix: Solid Analysis Batch: 2530	0/5-A	MB MB						Client S	Sample ID: Prep 1 Pre	Method ſype: To p Batch	Blank tal/NA : 2540

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 00:58	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 00:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 00:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/30/21 13:50	05/01/21 00:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 00:58	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/30/21 13:50	05/01/21 00:58	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/30/21 13:50	05/01/21 00:58	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130			04/30/21 13:50	05/01/21 00:58	1
1,4-Difluorobenzene (Surr)	100		70 - 130			04/30/21 13:50	05/01/21 00:58	1
Lab Sample ID: LCS 880-2540/1-A					c	lient Sample I	D: Lab Control	Sample
Matrix: Solid							Prep Type:	Total/NA

~				Uncin	oumpic		ond of oumpic
						Prep	Type: Total/NA
						Pre	p Batch: 2540
Spike	LCS	LCS				%Rec.	
Added	Result	Qualifier	Unit	D	%Rec	Limits	
0.100	0.09679		mg/Kg		97	70 - 130	
	Spike 	Spike LCS Added Result 0.100 0.09679	Spike LCS LCS Added Result Qualifier 0.100 0.09679	Spike LCS LCS Added Result Qualifier Unit 0.100 0.09679 mg/Kg	Spike LCS LCS <u>Added</u> <u>Result</u> <u>Qualifier</u> <u>Unit</u> <u>D</u> 0.100 0.09679	Spike LCS LCS Added Result Qualifier Unit D %Rec 0.100 0.09679 mg/Kg 97	Prep Spike LCS LCS %Rec. Added Result Qualifier Unit D %Rec Limits 0.100 0.09679 mg/Kg 97 70 - 130

Job ID: 890-603-1 SDG: TE012921051

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

Lab Sample ID: LCS 880-25	40/1-A							Clie	nt	Sample	ID: Lab Co	ntrol S	ample
Matrix: Solid											Prep T	ype: To	tal/NA
Analysis Batch: 2530											Prep	Batch	1: 2540
				Spike	LCS	LCS					%Rec.		
Analyte				Added	Result	Qualifier	Unit		<u> </u>	%Rec	Limits		
Toluene				0.100	0.09743		mg/Kg			97	70 - 130		
Ethylbenzene				0.100	0.1008		mg/Kg			101	70 - 130		
m-Xylene & p-Xylene				0.200	0.2054		mg/Kg			103	70 - 130		
o-Xylene				0.100	0.09986		mg/Kg			100	70 - 130		
	LCS	LCS											
Surrogate	%Recovery	Qua	lifier	Limits									
4-Bromofluorobenzene (Surr)	98			70 - 130									
1,4-Difluorobenzene (Surr)	106			70 - 130									
- Lab Sample ID: LCSD 880-2	540/2-A						CI	ient Sa	ami	ole ID: L	ab Control	Samp	le Dup
Matrix: Solid											Prep T	vpe: To	tal/NA
Analysis Batch: 2530											Prep	Batch	: 2540
				Spike	LCSD	LCSD					%Rec.		RPD
Analyte				Added	Result	Qualifier	Unit	0	5	%Rec	Limits	RPD	Limit
Benzene				0.100	0.1003		mg/Kg			100	70 - 130	4	35
Toluene				0.100	0.1026		mg/Kg			103	70 - 130	5	35
Ethylbenzene				0.100	0.1057		mg/Kg			106	70 - 130	5	35
m-Xylene & p-Xylene				0.200	0.2159		mg/Kg			108	70 - 130	5	35
o-Xylene				0.100	0.1048		mg/Kg			105	70 - 130	5	35
,							0 0						
	LCSD	LCS	D										
Surrogate	%Recovery	Qua	lifier	Limits									
4-Bromofluorobenzene (Surr)	101			70 - 130									
1,4-Difluorobenzene (Surr)	104			70 - 130									
Lab Sample ID: MB 880-256	7/ 5-A									Client Sa	ample ID: N	/lethod	Blank
Matrix: Solid											Prep T	ype: To	tal/NA
Analysis Batch: 2544											Prep	Batch	: 2567
-		ΜВ	MB										
Analyte	Re	sult	Qualifier	RL		Unit		D	Pr	epared	Analyze	ed	Dil Fac
Benzene	<0.00	200	U	0.00200		mg/Kg	g	04	1/30	/21 15:09	05/01/21 2	3:26	1
Toluene	<0.00	200	U	0.00200		mg/Kg	g	04	1/30	/21 15:09	05/01/21 2	3:26	1
Ethylbenzene	<0.00	200	U	0.00200		mg/Kg	g	04	1/30	/21 15:09	05/01/21 2	3:26	1
m-Xylene & p-Xylene	<0.00	400	U	0.00400		mg/Kg	9	04	1/30	/21 15:09	05/01/21 2	3:26	1
o-Xylene	<0.00	200	U	0.00200		mg/Kg	9	04	4/30	/21 15:09	05/01/21 2	3:26	1
Xylenes, Total	<0.00	400	U	0.00400		mg/Kg	g	04	1/30	/21 15:09	05/01/21 2	3:26	1
Total BTEX	<0.00	400	U	0.00400		mg/Kg	9	04	4/30	/21 15:09	05/01/21 2	3:26	1
		ΜВ	МВ										
Surrogate	%Recov	/ery	Qualifier	Limits					Pr	epared	Analyze	ed	Dil Fac
4-Bromofluorobenzene (Surr)		93		70 - 130				04	4/30	0/21 15:09	05/01/21 2	23:26	1
1,4-Difluorobenzene (Surr)		91		70 - 130				04	4/30	/21 15:09	05/01/21 2	23:26	1
- Lab Sample ID: LCS 880-25	67/1-A							Clie	nt	Sample	ID: Lab Co	ntrol S	ample
Matrix: Solid								5.10			Pren Tr	vpe: To	tal/NA
Analysis Batch: 2544											Pror	Batch	: 2567
Analysis Buton, 2014				Spike	LCS	LCS					%Rec.	Junon	2007
Analyte				Added	Result	Qualifier	Unit	г	5	%Rec	Limits		
Benzene				0.100	0.1113		ma/Ka			111	70 - 130		
Toluene				0.100	0 1050		mg/Kg			105	70 - 130		
10100110				0.100	0.1000		mg/ixy			100	10-100		

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

Lab Sample ID: LCS 880-256	57/1-A						Client	Sample	ID: Lab Co	ontrol Sa	ampie
Matrix: Solid									Prep 1	ype: To	tal/NA
Analysis Batch: 2544									Pre	p Batch	2567
			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Ethylbenzene			0.100	0.1041		mg/Kg		104	70 - 130		
m-Xylene & p-Xylene			0.200	0.2170		mg/Kg		109	70 - 130		
o-Xylene			0.100	0.1095		mg/Kg		110	70 - 130		
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)			70 - 130								
1,4-Difluorobenzene (Surr)	101		70 - 130								
 Lab Sample ID: LCSD 880-2	567/2-A					Clier	nt Sam	ple ID: I	Lab Contro	I Sampl	e Dup
Lab Sample ID: LCSD 880-29 Matrix: Solid Analysis Batch: 2544	567/2-A					Clier	nt Sam	iple ID: I	Lab Contro Prep 1 Pre	l Sampl ype: To p Batch	e Dup tal/NA : 2567
Lab Sample ID: LCSD 880-2 Matrix: Solid Analysis Batch: 2544	567/2-A		Spike	LCSD	LCSD	Clier	nt Sam	iple ID: I	Lab Contro Prep 1 Pre %Rec.	l Sampl ype: To p Batch	e Dup tal/NA : 2567 RPD
Lab Sample ID: LCSD 880-24 Matrix: Solid Analysis Batch: 2544 Analyte	567/2-A		Spike Added	LCSD Result	LCSD Qualifier	Clier	nt Sam	%Rec	Lab Contro Prep 1 Pre %Rec. Limits	I Sampl ype: To p Batch RPD	e Dup tal/NA : 2567 RPD Limit
Lab Sample ID: LCSD 880-28 Matrix: Solid Analysis Batch: 2544 Analyte Benzene	567/2-A 		Spike 	LCSD Result 0.1111	LCSD Qualifier	Clier	nt Sam	%Rec 111	Lab Contro Prep 1 Pre %Rec. Limits 70 - 130	I Sampl Type: To p Batch 	e Dup tal/NA : 2567 RPD Limit 35
Lab Sample ID: LCSD 880-25 Matrix: Solid Analysis Batch: 2544 Analyte Benzene Toluene	567/2-A 		Spike <u>Added</u> 0.100 0.100	LCSD Result 0.1111 0.1045	LCSD Qualifier	Clier - Unit mg/Kg mg/Kg	nt Sam	%Rec 111 105	Lab Contro Prep 1 Pre %Rec. Limits 70 - 130 70 - 130	I Sampl Type: To p Batch 	e Dup tal/NA : 2567 RPD Limit 35 35
Lab Sample ID: LCSD 880-24 Matrix: Solid Analysis Batch: 2544 Analyte Benzene Toluene Ethylbenzene	567/2-A 		Spike Added 0.100 0.100 0.100	LCSD Result 0.1111 0.1045 0.1055	LCSD Qualifier	Clier - Unit mg/Kg mg/Kg mg/Kg	nt Sam	%Rec 111 105 105	Lab Contro Prep 1 Pre %Rec. Limits 70 - 130 70 - 130 70 - 130	I Sampl Type: To p Batch RPD 0 0 1	e Dup tal/NA : 2567 RPD Limit 35 35 35
Lab Sample ID: LCSD 880-23 Matrix: Solid Analysis Batch: 2544 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	567/2-A 		Spike Added 0.100 0.100 0.100 0.100 0.200	LCSD Result 0.1111 0.1045 0.1055 0.2224	LCSD Qualifier	Unit mg/Kg mg/Kg mg/Kg mg/Kg	nt Sam	%Rec 111 105 105 111	Lab Contro Prep 1 Pre %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130	I Sampl Type: To p Batch RPD 0 0 1 2	e Dup tal/NA : 2567 RPD Limit 35 35 35 35 35
Lab Sample ID: LCSD 880-28 Matrix: Solid Analysis Batch: 2544 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	567/2-A 		Spike <u>Added</u> 0.100 0.100 0.100 0.200 0.100	LCSD Result 0.1111 0.1045 0.1055 0.2224 0.1117	LCSD Qualifier	Clier mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	nt Sam	%Rec 111 105 105 111 112	Lab Contro Prep 1 %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	I Sampl Type: To p Batch 0 0 1 2 2	e Dup tal/NA : 2567 RPD Limit 35 35 35 35 35 35
Lab Sample ID: LCSD 880-23 Matrix: Solid Analysis Batch: 2544 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	567/2-A	LCSD	Spike Added 0.100 0.100 0.100 0.100 0.100 0.100 0.100	LCSD Result 0.1111 0.1045 0.1055 0.2224 0.1117	LCSD Qualifier	Clier mg/Kg mg/Kg mg/Kg mg/Kg	nt Sam	%Rec 111 105 105 111 112	Lab Contro Prep 1 %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	I Sampl Type: To p Batch 0 0 1 2 2	e Dup tal/NA : 2567 RPD Limit 35 35 35 35 35 35
Lab Sample ID: LCSD 880-24 Matrix: Solid Analysis Batch: 2544 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate	567/2-A LCSD %Recovery	LCSD Qualifier	Spike Added 0.100 0.100 0.100 0.100 0.200 0.100 Limits	LCSD Result 0.1111 0.1045 0.1055 0.2224 0.1117	LCSD Qualifier	Unit mg/Kg mg/Kg mg/Kg mg/Kg	nt Sam	%Rec 111 105 105 111 112	Lab Contro Prep 1 Pre %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	I Sampl ype: To p Batch RPD 0 0 1 2 2	e Dup tal/NA : 2567 RPD Limit 35 35 35 35 35 35
Lab Sample ID: LCSD 880-28 Matrix: Solid Analysis Batch: 2544 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr)	567/2-A 	LCSD Qualifier	Spike Added 0.100 0.100 0.100 0.100 0.200 0.100 0.200 0.100 0.200 0.100 0.200 0.100	LCSD Result 0.1111 0.1045 0.1055 0.2224 0.1117	LCSD Qualifier	Unit mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	nt Sam	%Rec 111 105 105 111 112	Lab Contro Prep 1 Pre %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	I Sampl ype: To p Batch 0 0 1 2 2	e Dup tal/NA : 2567 RPD Limit 35 35 35 35 35 35

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

Lab Sample ID: MB 880-2571/1-A Matrix: Solid Analysis Batch: 2589						Client Sa	mple ID: Metho Prep Type: 1 Prep Bato	d Blank Iotal/NA ch: 2571
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/30/21 16:30	05/01/21 11:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/30/21 16:30	05/01/21 11:38	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 16:30	05/01/21 11:38	1
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 16:30	05/01/21 11:38	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			04/30/21 16:30	05/01/21 11:38	1
o-Terphenyl	105		70 - 130			04/30/21 16:30	05/01/21 11:38	1
- Lab Sample ID: LCS 880-2571/2-A					c	lient Sample I	D: Lab Control	Sample
Matrix: Solid							Prep Type: 1	iotal/NA

Analysis Batch: 2589 Prep Batch: 2571 Spike LCS LCS %Rec. Added Result Qualifier Analyte Unit %Rec Limits D Gasoline Range Organics 1000 1159 mg/Kg 116 70 - 130

(GRO)-C6-C10

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

Lab Sample ID: LCS 880-25 Matrix: Solid	71/2-A						Client	Sample	ID: Lab Co Prep 1	ontrol Sa Type: To	ample tal/NA
Analysis Batch: 2589									Pre	p Batch	: 2571
-			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics (Over C10-C28)			1000	1112		mg/Kg		111	70 - 130		
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane			70 - 130								
o-Terphenyl	108		70 - 130								
Lah Samala ID: LCSD 890.3						Clie	nt Com		Lob Contro	l Compl	o Dun
Lab Sample ID: LCSD 880-2	5/1/3-A					Cilei	nt Sam	ipie iD:		n Sampi Funoi To	
Matrix: Solid									Prepi	ype: To	
Analysis Batch: 2569			Spiko	1.050					% Poc	р ватсп	: 23/1 BBD
Analyte			Added	Result	Qualifier	Unit	п	%Pac	/inec.	PPD	Limit
		·	1000	1057	Quaimer	ma/Ka		106	70 130		20
(GRO)-C6-C10			1000	1007		mg/ng		100	70 - 100	5	20
Diesel Range Organics (Over			1000	1325	*+	mg/Kg		132	70 - 130	17	20
C10-C28)											
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	108		70 - 130								
o-Terphenyl	105		70 - 130								
Method: 300.0 - Anions,	Ion Chromat	ography									
Lab Sample ID: MB 880-255 Matrix: Solid	6/1-A							Client S	Sample ID: Prep	Method Type: S	Blank oluble

Analysis Batch: 2608												
	MB	MB										
Analyte	Result	Qualifier		RL		Unit	:	D	Prepared	Analyze	d	Dil Fac
Chloride	<5.00	U		5.00		mg/	Kg			05/03/21 1	5:17	1
Lab Sample ID: LCS 880-2556/2-A								Clie	nt Sample	e ID: Lab Co	ntrol S	ample
Matrix: Solid										Prep 1	Type: S	oluble
Analysis Batch: 2608												
			Spike		LCS	LCS				%Rec.		
Analyte			Added		Result	Qualifier	Unit	6	0 %Rec	Limits		
Chloride			250		263.2		mg/Kg		105	90 - 110		
Lab Sample ID: LCSD 880-2556/3-A							CI	lient Sa	mple ID:	Lab Control	Sampl	e Dup
Matrix: Solid										Prep 1	Type: S	oluble
Analysis Batch: 2608												
			Spike		LCSD	LCSD				%Rec.		RPD
Analyte			Added		Result	Qualifier	Unit	[0 %Rec	Limits	RPD	Limit
Chloride			250		258.2		mg/Kg		103	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc. Project/Site: Thriller

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Job ID: 890-603-1 SDG: TE012921051

GC VOA

Prep Batch: 2519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-2519/5-A	Method Blank	Total/NA	Solid	5035	
Analysis Batch: 2530					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-603-1	PH02	Total/NA	Solid	8021B	2532
890-603-2	PH02A	Total/NA	Solid	8021B	2540
890-603-3	PH03	Total/NA	Solid	8021B	2540
890-603-4	PH03A	Total/NA	Solid	8021B	2567
MB 880-2531/5-A	Method Blank	Total/NA	Solid	8021B	2531
MB 880-2532/5-A	Method Blank	Total/NA	Solid	8021B	2532
MB 880-2540/5-A	Method Blank	Total/NA	Solid	8021B	2540
LCS 880-2532/1-A	Lab Control Sample	Total/NA	Solid	8021B	2532
LCS 880-2540/1-A	Lab Control Sample	Total/NA	Solid	8021B	2540
LCSD 880-2532/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2532
LCSD 880-2540/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2540
– Prep Batch: 2531					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-2531/5-A	Method Blank	Total/NA	Solid	5035	
– Prep Batch: 2532					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-603-1	PH02	Total/NA	Solid	5035	
MB 880-2532/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2532/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2532/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
Prep Batch: 2540					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-603-2	PH02A	Total/NA	Solid	5035	
890-603-3	PH03	Total/NA	Solid	5035	
MB 880-2540/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2540/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2540/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
Analysis Batch: 2544					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
MB 880-2519/5-A	Method Blank	Total/NA	Solid	8021B	2519
MB 880-2567/5-A	Method Blank	Total/NA	Solid	8021B	2567
LCS 880-2567/1-A	Lab Control Sample	Total/NA	Solid	8021B	2567
LCSD 880-2567/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2567
Prep Batch: 2567					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-603-4	PH03A	Total/NA	Solid	5035	
MB 880-2567/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2567/1-A	Lab Control Sample	Total/NA	Solid	5035	

Lab Control Sample Dup

LCSD 880-2567/2-A

Total/NA

Solid

QC Association Summary

Client: WSP USA Inc. Project/Site: Thriller

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Job ID: 890-603-1 SDG: TE012921051

GC Semi VOA

Prep Batch: 2571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-603-1	PH02	Total/NA	Solid	8015NM Prep	
890-603-2	PH02A	Total/NA	Solid	8015NM Prep	
890-603-3	PH03	Total/NA	Solid	8015NM Prep	
890-603-4	PH03A	Total/NA	Solid	8015NM Prep	
MB 880-2571/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2571/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2571/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 2589

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-603-1	PH02	Total/NA	Solid	8015B NM	2571
890-603-2	PH02A	Total/NA	Solid	8015B NM	2571
890-603-3	PH03	Total/NA	Solid	8015B NM	2571
890-603-4	PH03A	Total/NA	Solid	8015B NM	2571
MB 880-2571/1-A	Method Blank	Total/NA	Solid	8015B NM	2571
LCS 880-2571/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2571
LCSD 880-2571/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2571

HPLC/IC

Leach Batch: 2556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-603-1	PH02	Soluble	Solid	DI Leach	
890-603-2	PH02A	Soluble	Solid	DI Leach	
890-603-3	PH03	Soluble	Solid	DI Leach	
890-603-4	PH03A	Soluble	Solid	DI Leach	
MB 880-2556/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2556/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2556/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 2608

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-603-1	PH02	Soluble	Solid	300.0	2556
890-603-2	PH02A	Soluble	Solid	300.0	2556
890-603-3	PH03	Soluble	Solid	300.0	2556
890-603-4	PH03A	Soluble	Solid	300.0	2556
MB 880-2556/1-A	Method Blank	Soluble	Solid	300.0	2556
LCS 880-2556/2-A	Lab Control Sample	Soluble	Solid	300.0	2556
LCSD 880-2556/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2556

Lab Chronicle

Client: WSP USA Inc. Project/Site: Thriller

Client Sample ID: PH02 Date Collected: 04/29/21 11:20

Date Received: 04/29/21 16:13

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2532	04/30/21 10:10	MR	XM
Total/NA	Analysis	8021B		1	2530	05/01/21 21:00	MR	XM
Total/NA	Prep	8015NM Prep			2571	04/30/21 16:30	DM	XM
Total/NA	Analysis	8015B NM		1	2589	05/01/21 15:35	AJ	XM
Soluble	Leach	DI Leach			2556	04/30/21 14:42	СН	XM
Soluble	Analysis	300.0		1	2608	05/03/21 18:36	СН	XM

Client Sample ID: PH02A Date Collected: 04/29/21 11:30 Date Received: 04/29/21 16:13

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2540	04/30/21 13:50	KL	XM
Total/NA	Analysis	8021B		1	2530	05/01/21 06:20	MR	XM
Total/NA	Prep	8015NM Prep			2571	04/30/21 16:30	DM	XM
Total/NA	Analysis	8015B NM		1	2589	05/01/21 15:56	AJ	XM
Soluble	Leach	DI Leach			2556	04/30/21 14:42	СН	XM
Soluble	Analysis	300.0		1	2608	05/03/21 17:10	СН	XM

Client Sample ID: PH03

Date Collected: 04/29/21 11:40 Date Received: 04/29/21 16:13

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab Total/NA 5035 XM Prep 2540 04/30/21 13:50 KL Total/NA Analysis 8021B 2530 05/01/21 06:40 MR XM 1 Total/NA 8015NM Prep 04/30/21 16:30 XM Prep 2571 DM 05/01/21 16:18 Total/NA 8015B NM ХМ Analysis 1 2589 AJ 04/30/21 14:42 XM Soluble Leach DI Leach 2556 СН XM Soluble Analysis 300.0 10 2608 05/03/21 17:26 CH

Client Sample ID: PH03A Date Collected: 04/29/21 11:50 Date Received: 04/29/21 16:13

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2567	04/30/21 15:09	KL	XM
Total/NA	Analysis	8021B		1	2530	05/01/21 07:01	MR	XM
Total/NA	Prep	8015NM Prep			2571	04/30/21 16:30	DM	XM
Total/NA	Analysis	8015B NM		1	2589	05/01/21 16:39	AJ	XM
Soluble	Leach	DI Leach			2556	04/30/21 14:42	СН	XM
Soluble	Analysis	300.0		5	2608	05/03/21 17:31	СН	XM

Laboratory References:

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

Job ID: 890-603-1 SDG: TE012921051

Lab Sample ID: 890-603-1 Matrix: Solid

Lab Sample ID: 890-603-2

Matrix: Solid

9

Lab Sample ID: 890-603-3 Matrix: Solid

Lab Sample ID: 890-603-4

Matrix: Solid

Accreditation/Certification Summary

Job ID: 890-603-1

10

SDG: TE012921051

Laboratory: Eurofins Xenco, Midland

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

Authority		Program	Identification Number	Expiration Date
Texas		NELAP	T104704400-20-21	06-30-21
The following analytes the agency does not o Analysis Method	are included in this report ffer certification. Prep Method	, but the laboratory is not certii Matrix	ied by the governing authority. This list ma	ay include analytes for
8015B NM	8015NM Pren	Solid		
8015B NM	8015NM Prep	Solid	Iotal IPH	

Eurofins Xenco, Carlsbad

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Method Summary

Client: WSP USA Inc. Project/Site: Thriller

Job ID: 890-603-1

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

Protocol References:

ASTM = ASTM International

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

Laboratory References:

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

SDG: TE012921051
Client: WSP USA Inc. Project/Site: Thriller

Job ID: 890-603-1 SDG: TE012921051

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-603-1	PH02	Solid	04/29/21 11:20	04/29/21 16:13	- 1	
890-603-2	PH02A	Solid	04/29/21 11:30	04/29/21 16:13	- 2	
890-603-3	PH03	Solid	04/29/21 11:40	04/29/21 16:13	- 1	5
890-603-4	PH03A	Solid	04/29/21 11:50	04/29/21 16:13	- 2	3
						8
						9
						12
						13

Routine Rush: Intermometer ID Intermometer ID Intermometer ID Intelevel A B ID Intermo	Spencer Lo Temp Blank: Yes No L; No N/A Q N/A To Matrix Sampled S 4/29/202 B B al(s) to be analyzed reinquishment of samples and shall r will be applied to each project :	ample Custody Seals: Yes ample Custody Seals: Yes Sample Identification PH02 PH02A PH03A PH03A PH03A Circle Method(s) and Meta Service. Xenco will be liable only for the service. A minimum charge of \$75.00 w
Routine Rush: Rush: Rush:	Spencer Lo Temp Blank: Yes No L, L No N/A T- A No N/A To Matrix Sampled S 4/29/202 S 4/29/202	ample Custody Seals: Yes ample Custody Seals: Yes Sample Identification PH02 PH02 PH03 PH03 PH03 Total 200.7 / 6010 200.4 Circle Method(s) and Meta
Image: Second	Spencer Lo Temp Blank: Yes No L, L Yes No L, No N/A T- A Mo N/A To Matrix Sampled S 4/29/202 S 4/29/202 S 4/29/202 S 4/29/202	ample Custody Seals: Yes ample Custody Seals: Yes PH02 PH02 PH03 PH03 PH03A
Image: Second	Spencer Lo Temp Blank: Yes No 2, L No N/A T- A No N/A To Date Matrix Sampled S 4/29/202 S 4/29/202 S 4/29/202 S 4/29/202	ample Custody Seals: Yes ample Custody Seals: Yes PH02 PH02A PH03A PH03A PH03A
Image: Note of the second se	Spencer Lo Temp Blank: Yes No L, L No N/A T- A Matrix Date Matrix Sampled S 4/29/202 S 4/29/202 S 4/29/202	ample Custody Seals: Yes Sample Identification PH02 PH02A PH03 PH03A PH03A
Image: Sampled Depth Time Depth Sampled Depth Sampled Depth Sampled Depth Sampled Depth Sampled	Spencer Lo Temp Blank: Yes No 2, L No N/A T- A No N/A To Date Matrix Sampled S 4/29/202 S 4/29/202 S 4/29/202	ample Custody Seals: Yes ample Custody Seals: Yes PH02 PH02A PH03A PH03A
Image: Sampled Dep pt Provide (EPA 8015) X X X X 1 1 1 Number of Containers X X X X X X X BTEX (EPA 0=8021) X X X Chloride (EPA 300.0)	Spencer Lo Temp Blank: Yes No L, L No N/A T- A No N/A To Date Matrix Sampled S 4/29/202 S 4/29/202 S 4/29/202	ample Custody Seals: Yes ample Custody Seals: Yes PH02 PH02A PH03 PH03A PH03A
Image: Note of Containers Image: Note of Containers Image: Note of Containers 1 1 1 1 1 Number of Containers 1 1 1 1 Number of Containers Note of Containers 2 1 1 1 Number of Containers Note of Containers X X X TPH (EPA 8015) Note of Custody Note of Custody X X X X Chloride (EPA 300.0) Note of Custody X X X X Chloride (EPA 300.0) Note of Custody X X X X Chloride (EPA 300.0) Note of Custody	Spencer Lo Temp Blank: Yes No L, L No T- A No N/A T- A Cor Matrix Sampled S 4/29/202 S 4/29/202 S 4/29/202	ample Custody Seals: Yes ample Custody Seals: Yes Sample Identification PH02 PH02A PH03A PH03A
Image: Sampled Depth Number of Containers 1 1 1 1 11120 1 1 1 11130 2' 1' Number of Containers X X TPH (EPA 8015) X X BTEX (EPA 0=8021) X X Chloride (EPA 300.0)	Spencer Lo Temp Blank: Yes No 2, L Yes No 1, No N/A No N/A To Date Matrix S 4/29/202 S 4/29/202	ample Custody Seals: Yes ample Custody Seals: Yes Sample Identification PH02 PH02A PH03
Image: Sampled Depth Depth Rush: 1120 1 Number of Containers X TPH (EPA 8015) X BTEX (EPA 0=8021) X Chloride (EPA 300.0) X Chloride (EPA 300.0) X Chloride (EPA 300.0) X Chloride (EPA 300.0)	Spencer Lo Temp Blank: Yes No 2, L Ves No 1/No N/A No N/A To Date Matrix S 4/29/202 S 4/29/202	ample Custody Seals: Yes Sample Identification PH02 PH02A
Thermometer ID Routine 1120 Image: Sampled 1 Number of Containers × TPH (EPA 8015) × BTEX (EPA 0=8021) × Chloride (EPA 300.0)	Spencer Lo Temp Blank: Yes No L, L No T- A Yes No T- A No N/A Cor Matrix Sampled S 4/29/202	ample Custody Seals: Yes ample Custody Seals: Yes Sample Identification PH02
Sampled Depth Number of Containers TPH (EPA 8015) BTEX (EPA 0=8021) Chloride (EPA 300.0)	Spencer Lo Temp Blank: Yes No L, L Ves No L, No N/A T- A No N/A To Matrix Date Matrix Sampled	ample Custody Seals: Yes Sample Identification
Al Containers PA 8015) (EPA 0=8021) de (EPA 300.0) 890-603 Chain of Custody	Spencer Lo Temp Blank: Yes No L: L Yes No T- A Yes No T- A	ooler Custody Seals: Yes ample Custody Seals: Yes
ection Factor: Wet Ice: Rush: Due Date: Containers D15) 0=8021) PA 300.0) 890-603 Chain of Custody	Spencer Lo Temp Blank: Yes No L, L Yes No N/A Cor	ooler Custody Seals: Yes
Thermometer ID Ces No rainers	Spencer Lo	eceived intact:
Wet Ice: Tes No g	Spencer Lo Temp Blank: Yes No	emperature (°C):
Due Date:	Spencer Lo	SAMPLE RECEIPT
Rush:		ampler's Name:
Routine		.O. Number:
	TE012921051	roject Number:
Turn Around ANALYSIS REQUEST	Thriller	roject Name:
Email: Spencer. Lo@wsp.com,Kalei Jennings@wsp.com,Dan.Moir@wsp.com Deliverables: EDD	2946	hone: (303) 887-2
City, State ZIP: Carlsbad, NM 88220 Reporting:Level II Level III	X 79705	ity, State ZIP: Midland, T)
Address: 3104 East Green Street State of Project:	n A Street	vddress: 3300 North
Company Name: XTO Energy Program: UST/PST PRP		Company Name: WSP
Bill to: (if different) Kyle Littrell Work O		roject Manager: Dan Moir
IS, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000) WWW.XEDC	Hobi	
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334 Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296		XIN
Chain of Custody Work Ord		

Received by OCD: 6/4/2021 12:24:34 PM

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Company Eurofins Xenco						AP - L	s Req	lana	(See n	AP (ſexa	ŝ								968 1 op	-603 7	Ξ							
Address: 1211 W Florida Ave	Due Date Requeste 5/5/2021	a							≥│	nalv.	ŝis	eg	les	e						Pre	ŝerva	ation	00	des					
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PH02 (890-603-1)	4/29/21	11 20 Mountain		Solid		×	×	×											ille a.c., tada				0000	100 C	ŀ	1	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.		
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PH03 (890-603-3)	4/29/21	11 40 Mountain		Solid		×	×	×																					
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Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC maintain accreditation in the State of Origin listed above for analysis/tests/matrix LLC attention immediately If all requested accreditations are current to date, re	places the ownership being analyzed, the s turn the signed Chain	of method an amples must t of Custody att	haiyte & accred be shipped back esting to said c	itation compliar k to the Eurofin omplicance to E	nce upo Is Xenc	o LLC s Xenc	subco labora	Intract atory o	labora r other	tories	This	samp	e ship	ided	s forv	hange	d und	accre	ain-or ditati	f-cus	tody	If th	le lab	orato	yry do ght to	Jes no	of ins	rentl) Xenc	co ^I V
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Job Number: 890-603-1 SDG Number: TE012921051

List Source: Eurofins Carlsbad

Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 603 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	

N/A

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

14

Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 603 List Number: 2 Creator: Copeland, Tatiana

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	

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

14

Job Number: 890-603-1 SDG Number: TE012921051

List Source: Eurofins Midland

List Creation: 04/30/21 02:15 PM

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:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	30662
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2108546355 THRILLER BATTERY, thank you. This closure is approved.	8/10/2021

CONDITIONS

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Action 30662