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Oil Conservation Division

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## Closure

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

Closure Report Attachment Checklist: Each of the following items must be included in the closure report. A scaled site and sampling diagram as described in 19.15.29.11 NMAC Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection) Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling) Description of remediation activities I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete. Printed Name: \_\_\_\_\_Melodie Sanjari\_\_\_\_\_ Title: Environmental Professional Signature: <u>Melodie Sanjari</u> Date: 2/17/2020 email: \_\_msanjari@marathonoil.com\_\_\_\_\_ Telephone: 575-988-8753 **OCD Only** Received by: Jocelyn Harimon Date: 10/31/2022 Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations. Closure Approved by: <u>Robert Hamlet</u> Date: <u>1/4/2023</u> Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced



# closure request MARATHON OIL COMPANY

Created for submission to New Mexico Oil Conservation Division on 10/12/2022

ASHLEY GIOVENGO Project Environmental Scientist

ENERGIZING AMERICA

October 12, 2022

#### **Environmental Incident Group**

State of New Mexico Energy, Minerals, and Natural Resources New Mexico Oil Conservation Division 811 South First Street Artesia, New Mexico 88210

#### RE: CLOSURE REQUEST

COMPANY	Marathon Oil Company
LOCATION	Parkway 19 18 Federal Com #001H
ΑΡΙ	30-015-42545
PLSS	Unit M Sec 19 T19S R30E
GPS	32.6391029, -104.0187531
INCIDENT ID	nAPP2222844442

#### BACKGROUND

Wescom, Inc., hereafter referred to as Wescom, has prepared this Closure Request on behalf of Marathon Oil Company, hereafter referred to as Marathon, regarding the release at the Parkway 19 18 Federal Com #001H (Site) located in Unit M, Section 19 Township 19 South and Range 30 East in Eddy County, New Mexico. The GPS coordinates are as follows: North 32.019665 and West -104.0187531. Surface owner of the Site is Bureau of Land Management (BLM).

On July 8, 2022, a pinhole on the heater treater water leg resulted in the release of approximately 36.2 barrels (bbls) of produced water to lined secondary containment and 1.1 bbls of overspray onto the caliche pad. A small off-pad area was affected by the overspray event. Marathon immediately isolated the source of the leak and 35.1 bbls of produced water were recovered from the lined secondary containment. The spill area is located on the South and West sides of the heater treater containment. The off-pad area is located on the Northwest side of the heater treater containment as shown in Figure 1.

 On September 01, 2022, Wescom personnel arrived onsite to begin delineation of the impacted areas. Wescom personnel returned onsite on September 22, 2022, to conduct a liner inspection, excavate the impacted areas and to collect confirmation samples. All confirmation samples were below applicable Recommended Remediation Action Levels (RRALs) for the Site.



### SURFACE & GROUND WATER

The New Mexico Office of the State Engineer (OSE) records indicates the nearest depth to groundwater measurement is greater than 90 feet below ground surface (bgs) and is 0.81 miles South of the Site. No playas or lakes are located within a one-mile radius of this Site (Attachment C).

#### KARST POTENTIAL

According to data from the Bureau of Land Management, this Site is located within high karst potential as shown in Attachment D. There are no indicators of karst around the Site surface.

#### TARGET REMEDIAL LEVELS

The target cleanup levels are determined using the NMOCD Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC, inserted below) including karst guidelines from the Bureau of Land Management. This Site is in the high karst potential zone and therefore, the applicable RRALs are 10 parts per million (ppm) Benzene, 50 ppm combined benzene, toluene, ethyl benzene, and xylene (BTEX) and 100 ppm Total Petroleum Hydrocarbons (TPH). A chloride concentration at or below 600 mg/kg (ppm) in the soil is also required.

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
		#001H — 32.6391029			_	
Depth to Groundwater		Clo	osure Criteria	(unites in mg	/kg)	
		Chloride * numberical				
		limit or background,				
		whichever is greater	TPH	GRO+DRO	BTEX	Benzene
Based on high karst potential	High	600	100		50	10
No water data within 0.5 mile radius	0.81 Mi	600	100		50	10
less than 50 ft bgs		600	100		50	10
51 ft to 100 ft bgs		10000	2500	1000	50	10
greater than 100 ft bgs		20000	2500	1000	50	10
Surface Water	Yes or No		lf ye	s, then		-
< 300 feet from continuously flowing watercourse or other	No					
significant watercourse?	NO					
< 200 feet from lakebed, sinkhole or playa lake	No					
Water Well or Water Source						
< 500 feet from spring or a private, domestic fresh water						
well used by less than 5 households for domestic or stock	No					
watering purposes?						
< 1000 feet from fresh water well or spring?	No					
Human and Other Areas						
< 300 feet from an occupied permanent residence, school,						
hospital, institution or church?	No					
Within incorporated municipal boundaries or within a						
defined municipal fresh water well field?	No					
< 100 feet from wetland?	No					
Within area overlying a subsurface mine?	No					
Within an unstable area?	No					
Within a 100-year floodplan?	No					

Table: Closure Criteria Statistics



### SITE ASSESSMENT AND DELINEATION

On September 01, 2022, Marathon contracted Wescom to complete horizontal and vertical delineation of the impacted areas. A total of nine samples were jarred and sent to Hall Environmental, for laboratory analysis and all samples were below the applicable RRALs for the Site. A background sample, BG01, was collected 50 feet to the West of the caliche pad, as shown in Figure 1. Delineation sample locations are presented in Figure 1; laboratory analysis results are presented in Table 1 and laboratory analytical reports are included in Attachment E.

Wescom personnel conducted a liner inspection on September 22, 2022, and seven potential release points were identified along the containment walls. During this inspection, there were 7 areas within the containment where the liner had pulled away from the top of the containment wall but did not impact the containment's ability to contain the release in question. Photo documentation of potential liner compromises and completed repairs are shown in Attachment B.

### REMEDIATION ACTIVITES

Beginning on September 22, 2022, Wescom personnel arrived onsite to oversee the removal of impacted soil and to conduct confirmation sampling. A backhoe was used to remove contaminated soil from the spill area to a depth of three feet bgs. Impacted material from the spill area was hauled to an approved disposal facility.

Wescom personnel collected 12 composite confirmation samples over the three-day sampling and excavation period. All the confirmation samples were below the applicable RRALs for the Site, as shown in Table 2. All soil samples were properly packaged, preserved, and transported to Hall Environmental by chain of custody, and analyzed for Total Petroleum Hydrocarbons, or TPH, —Method 8015D, BTEX—Method 8021B, and Chlorides—Method 300.0. Confirmation sample locations are presented in Figure 2 and laboratory analytical reports are included in Attachment E.

The required 48-hour confirmation sampling and liner inspection notifications were sent on September 19, 2022, and September 22, 2022, to <u>OCD.Enviro@state.nm.us</u> and are included in Attachments F and G.

### REQUEST FOR CLOSURE

On behalf of Marathon, Wescom hereby requests closure for the release associated with incident number nAPP2222844442 based on the logic below.

- The spill area has been horizontally and vertically delineated.
- All confirmation areas and samples are below applicable RRALs for the Site.
- The liner/containment had the ability to containment the release in question and there was no evidence of it not doing so.
- Impacted material was removed and properly disposed of at an approved facility.



If you have any questions or comments, please do not hesitate to call Ms. Ashley Giovengo at (505) 382-1211.

Sincerely,

Wescom, Inc.

#### **Ashley Giovengo**

Project Environmental Scientist

cc: Melodie Sanjari, Marathon Oil Company

Environmental Incident Group, NMOCD

# REFERENCE MATERIALS

#### FIGURES

FIGURE 1. Delineation Sampling FIGURE 2. Confirmation Sampling

#### TABLES

**TABLE 1.** Laboratory Analysis Results: Delineation Samples

TABLE 2. Laboratory Analysis Results: Confirmation Samples

#### ATTACHMENTS

ATTACHMENT A.	C-141
ATTACHMENT B.	Site Photos
ATTACHMENT C.	Closure Criteria Supporting Documents
ATTACHMENT D.	Karst Map
ATTACHMENT E.	Hall Environmental Laboratory Analysis Reports
ATTACHMENT F.	48-hour Confirmation Notification Emails
ATTACHMENT G.	48-hour Liner Inspection Notification Emails

# FIGURES

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Parkway 19 18 Federal Com #001H | Incident ID: nAPP2222844442





# TABLE

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Park	Parkway 19 18 Federal Com #001H   nAPP2222844442						
Marathon Oil Company   10.06.2022							
Та	Table 1. Laboratory Analysis Results: Delineation Samples						
Sar	nple Descri	otion	Pet	troleum Hydro	carbons	Inorganic	
			V	olatile	Extractable		
			Benzene	Total BTEX	TPH	Chloride	
Sample ID	Depth (ft.)	Date	(mk/kg)	(mk/kg)	(mk/kg)	(mk/kg)	
<b>Closure Cri</b>	teria		10	50	100	600	
BG01	0	9/2/2022	ND	ND	ND	ND	
BG01	1	9/2/2022	ND	ND	ND	ND	
SS01B	0	9/2/2022	ND	ND	ND	ND	
SS02C	0	9/2/2022	ND	ND	ND	ND	
SS03D	0	9/2/2022	ND	ND	ND	ND	
SS04C	0	9/2/2022	ND	ND	ND	240	
SS05	0	9/2/2022	ND	ND	ND	ND	
SS06	0	9/2/2022	ND	ND	ND	ND	
SS07	0	9/2/2022	ND	ND	ND	96	
SS08	2	9/2/2022	ND	ND	ND	96	
SS09	2	9/2/2022	ND	ND	ND	220	
ABBREVIAT	IONS						
BTEX — Benze	ne, Toluene, Eth	iylene, Xylene		GRO — Gasoline Ra	ange Organics		
DRO — Diesel	DRO — Diesel Range Organics ND — Non-detect						
ft. — Feet	ft. — Feet mg/kg — Milligrams per Kilogram						
TPH — Total Petroleum Hydrocarbons							
Notes							
Bold Red - Res	Bold Red - Results are above closure criteria						
Gray Highlight - Background Samples							

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Parkway 19 18 Federal Com #001H   nAPP2222844442						
	Marathon Oil Company   10.06.2022					
Tabl	e 2. Labor	atory Anal	ysis Resu	ılts: Confirm	ation Sampl	es
Sam	ple Descript	ion	Pet	troleum Hydro	carbons	Inorganic
			V	olatile	Extractable	-
			Benzene	Total BTEX	TPH	Chloride
Sample ID	Depth (ft.)	Date	(mk/kg)	(mk/kg)	(mk/kg)	(mk/kg)
<b>Closure Criter</b>	ia		10	50	100	600
CONF01	3	9/23/2022	ND	ND	ND	150
CONF02	3	9/23/2022	ND	ND	ND	170
CONF03	3	9/23/2022	ND	ND	ND	ND
CONF04	3	9/23/2022	ND	ND	ND	62
CONF05	1.5	9/23/2022	ND	ND	ND	200
CONF06	2	9/26/2022	ND	ND	ND	110
CONF07	2	9/26/2022	ND	ND	ND	230
CONF08	3	9/26/2022	ND	ND	ND	140
CONF09	1.5	9/26/2022	ND	ND	21	430
CONF10	1.5	9/26/2022	ND	ND	21	380
CONF11 Wall	1	9/26/2022	ND	ND	ND	160
CONF12 Wall	1	9/26/2022	ND	ND	979	110
ABBREVIATIO	NS					
BTEX — Benzene, <sup>-</sup>	Toluene, Ethyle	ne, Xylene		GRO — Gasoline Ra	ange Organics	
DRO — Diesel Range Organics				ND — Non-detect		
ft. — Feet mg/kg — Millig			mg/kg — Milligram	s per Kilogram		
TPH — Total Petroleum Hydrocarbons						
Notes						
Bold Red - Results	Bold Red - Results are above closure criteria					
Gray Highlight - Ba	ckground Samp	oles				



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Parkway 19 18 Federal Com #001H | Incident ID: nAPP2222844442

# ATTACHMENT A

C-141



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 Page 14 of 73

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

Incident ID	'nAPP2222844442
District RP	
Facility ID	
Application ID	

### **Release Notification**

#### **Responsible Party**

Responsible Party Marathon Oil Permian LLC	OGRID 372098
Contact Name Melodie Sanjari	Contact Telephone 575-988-8753
Contact email msanjari@marathonoil.com	Incident # (assigned by OCD)
Contact mailing address 4111 S. Tidwell Rd., Carlsbad, NM 8220	

#### **Location of Release Source**

Latitude 32.6391029

Longitude -104.0187531

(NAD 83 in decimal degrees to 5 decimal places)

Site Name PARKWAY 19 18 FEDERAL COM #001H	Site Type Oil & Gas Facility
Date Release Discovered: 8/16/2022	API# (if applicable) 30-015-42545

Unit Letter	Section	Township	Range	County
М	19	19S	30E	Eddy

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

#### Nature and Volume of Release

Material	(s) Released (Select all that apply and attach calculations or specific	justification for the volumes provided below)
Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls) 36.2	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A pinhole on the water leg off the heater treater resulted in the release of approx. 36.2 bbl. of produced water; 1.1 bbl. of which over sprayed onto the engineered pad. The facility was shut in for repairs and a truck was dispatched for recovery of all of the standing fluid within the containment.

ceived by OCD: 10/31/20	022 9:34:14 AM State of New Mexico		Page 15 of
		Incident ID	nAPP2222844442
ge 2	Oil Conservation Division	District RP	
		Facility ID	
		Application ID	
Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible par Volume	ty consider this a major release	
If YES, was immediate n Yes, NOR submitted 8/10	otice given to the OCD? By whom? To whom? Wh 5/2022	nen and by what means (phone, o	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

 $\square$  The source of the release has been stopped.

р

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: <u>Melodie Sanjari</u>	Title: <u>Environmental Professional</u>
Signature: <u>Melodie Savjavi</u>	Date: 8/17/2022
email: <u>msanjari@marathonoil.com</u>	Telephone:575-988-8753
OCD Only	
Received by:	Date:

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Oil Conservation Division

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### Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>90</u> (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	🗌 Yes 🔀 No

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

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

Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
Field data
Data table of soil contaminant concentration data
Depth to water determination
Determination of water sources and significant watercourses within <sup>1</sup> / <sub>2</sub> -mile of the lateral extents of the release
Boring or excavation logs
Photographs including date and GIS information
Topographic/Aerial maps
Laboratory data including chain of custody

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

Received by OCD: 10/3	1/2022 9:34:14 AM State of New Mexico			<b>Page 17 of 73</b>
			Incident ID	nAPP2222844442
Page 4	Oil Conservation Division		District RP	
			Facility ID	
			Application ID	
regulations all operators public health or the envir failed to adequately inve addition, OCD acceptance and/or regulations.	5	cations and perfor CD does not relieve to groundwater, s esponsibility for co Title: Date:	m corrective actions for rele e the operator of liability sho surface water, human health	ases which may endanger ould their operations have or the environment. In leral, state, or local laws
OCD Only Received by: Joc	elyn Harimon	Date:	10/31/2022	

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District RP	
Facility ID	
Application ID	

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### Closure

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

Closure Report Attachment Checklist: Each of the following items must be included in the closure report. A scaled site and sampling diagram as described in 19.15.29.11 NMAC Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection) Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling) Description of remediation activities I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete. Printed Name: \_\_\_\_\_Melodie Sanjari\_\_\_\_\_ Title: Environmental Professional Signature: <u>Melodie Sanjari</u> Date: 2/17/2020 email: msanjari@marathonoil.com Telephone: 575-988-8753 **OCD Only** Received by: Jocelyn Harimon Date: 10/31/2022 Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations. Closure Approved by: \_\_\_\_\_ Date: Printed Name: \_\_\_\_\_ Title:

# ATTACHMENT B

Site Photos





Southeast Side of Spill Area



Northwest Side of Spill Area



Parkway 19 18 Federal Com #001H | Incident ID: nAPP2222844442



Spill Area



Spill Area



Spill Area



Spill Area

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Liner Inspection



Liner Inspection



Parkway 19 18 Federal Com #001H | Incident ID: nAPP2222844442



Liner Inspection



Liner Inspection



Parkway 19 18 Federal Com #001H | Incident ID: nAPP2222844442

/ 24-1322



Liner Inspection



Liner Inspection



Parkway 19 18 Federal Com #001H | Incident ID: nAPP2222844442

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Excavation Area - Off Pad



Excavation Area - South of Heater Treater

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Parkway 19 18 Federal Com #001H | Incident ID: nAPP2222844442



Excavation Area - West of Heater Treater



Removal of Production Pipe



Parkway 19 18 Federal Com #001H | Incident ID: nAPP2222844442



Excavation Area - South of Heater Treater



Excavation Area



Parkway 19 18 Federal Com #001H | Incident ID: nAPP2222844442

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Excavation Area - CONF09 Rescrape



Removal of Contaminated Soil



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Containment Wall Repaired



Containment Wall Repaired



Parkway 19 18 Federal Com #001H | Incident ID: nAPP2222844442



Containment Wall Repaired



Containment Wall Repaired



**Parkway 19 18 Federal Com #001H** | Incident ID: nAPP2222844442

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Containment Wall Repaired



Parkway 19 18 Federal Com #001H | Incident ID: nAPP2222844442

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# ATTACHMENT C

## Closure Criteria Supporting Documents

?

## New Mexico Office of the State Engineer Wells with Well Log Information

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a	(R=POI been rep O=orph C=the f	placed, aned,	(quart				SW 4=SE)								
water right	closed)	DOD		(quarters			largest)	(NAD8	3 UTM in meters	)			(in fe	· ·	<b>T</b> • • • • • • •
POD Number	Code	POD Subbasin	County	Source	qqq 64164		Tws Rng	х	Y	Distance Start Date	Finish Date	Log File Date		Depth Water Driller	License Number
<u>CP 00522</u>		CP	ED	Shallow	3	30	19S 30E	592347	3610451*	1290 08/28/1973	09/01/1973	09/08/1975	120	90 VAN NOY, W.L.	208
<u>CP 00703 POD1</u>		СР	ED	Shallow	4 1	36	19S 29E	591050	3609382	2523 12/02/1986	12/02/1986	12/10/1986	225	115 GLENN, CLARK A."CORKY" (LD)	421
<u>CP 00742</u>		СР	ED	Shallow	33	31	19S 30E	592208	3608940	2769 08/04/1989	08/04/1989	08/10/1989	223	115 GLENN, CLARK A."CORKY" (LD)	421
CP 00739 POD1		СР	ED	Shallow	3 4 4	35	19S 29E	590068	3608622	3657 12/09/1988	12/10/1988	12/20/1988	200	110 COLLIS, ROBERT E. (LD)	1184
<u>CP 00741</u>		СР	ED	Shallow	1 3 2	34	19S 29E	588030	3609533*	4557 04/17/1989	04/20/1989	04/24/1989	230	60 DUBOSE, BILL M. JR.	1107
Record Count: 5															
UTMNAD83 Rad	ius Sear	ch (in mete	<u>rs):</u>												
Easting (X):	592037.2	6		Northing	g (Y):	36117	04.12		Radius: 50	00					

#### \*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.

9/29/22 11:32 AM

WELLS WITH WELL LOG INFORMATION

## New Mexico Office of the State Engineer **Point of Diversion Summary**

			(quart	ers are 1=	NW 2=	=NE 3=	SW 4=SE	E)				
			(qua	rters are s	malles	t to lar	gest)	(NAD8	3 U1	M in me	eters)	
Well Tag	PO	D Number	Q64	Q16 Q4	Sec	Tws	Rng		Х		Y	
	CP	00522		3	30	19S	30E	5923	47	36104	151*	9
Driller Licen	se:	208	Driller Co	ompany	: VA		DY, W.L					
Driller Name	<b>:</b> :	VAN NOY, W.L.										
Drill Start Da	ate:	08/28/1973	Drill Fini	sh Date	:	09/0	01/1973	P	lug	Date:		
Log File Dat	e:	09/08/1975	PCW Rcv	v Date:				S	our	ce:		Shallow
Pump Type:			Pipe Discharge Size: Estimated Yield:						l:			
Casing Size	:	6.63	Depth W	ell:		120	feet	D	ept	h Wate	er:	90 feet
v	Nater	Bearing Stratific	ations:	Тор	Bott	om	Descrip	otion				
				90		120	Sandsto	one/Gra	avel	/Congle	omer	ate
		Casing Perfo	rations:	Тор	Bott	om						
				90		115						

\*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.



## National Wetlands Inventory

## Parkway 19 18 Federal Com #001H - Freshwater Pond 5,002 Ft



#### September 29, 2022

#### Wetlands

- Estuarine and Marine Wetland

Estuarine and Marine Deepwater

- Freshwater Forested/Shrub Wetland

Freshwater Emergent Wetland

**Freshwater Pond** 

Lake Other Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Released to Imaging: 1/4/2023 10:56:18 AM

National Wetlands Inventory (NWI) This page was produced by the NWI mapper
# National Wetlands Inventory

## Parkway 19 18 Federal Com #001H - Riverine 3,837 Ft



#### September 29, 2022

#### Wetlands

- Estuarine and Marine Wetland
- Estuarine and Marine Deepwater Freshwater Forested/Shrub Wetland
  - **Freshwater Pond**

Freshwater Emergent Wetland

Lake Other Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Released to Imaging: 1/4/2023 10:56:18 AM

National Wetlands Inventory (NWI) This page was produced by the NWI mapper

# National Wetlands Inventory

Parkway 19 18 Federal Com #001 - Wetland 4,208 Ft



#### September 29, 2022

#### Wetlands

- Estuarine and Marine Wetland

Estuarine and Marine Deepwater

- Freshwater Forested/Shrub Wetland **Freshwater Pond**

Freshwater Emergent Wetland

Lake Other Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Released to Imaging: 1/4/2023 10:56:18 AM



# Received by OCD: 10/31/2022 9:34:14 AM National Flood Hazard Layer FIRMette



#### Legend

Page 40 of 73



Releasea to Imaging: 1/4/2023 10.96:18 AM 1,500 2.000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Received by OCD: 10/31/2022 9:34:14 AM

## Active Mines Near Parkway 19 18 Federal Com #001H



9/29/2022, 1:57:51 PM

#### **Registered Mines**

Potash

\* Aggregate, Stone etc.



Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS

# ATTACHMENT D

Karst Map



Released to Imaging: 1/4/2023 10:56:18 AM

Parkway 19 18 Federal Com #001H | Incident ID: nAPP2222844442



# ATTACHMENT E

### Hall Environmental Laboratory Analysis Reports

Energizing America wescominc.com | info@wescominc.com | 218-724-1322

Released to Imaging: 1/4/2023 10:56:18 AM

Parkway 19 18 Federal Com #001H | Incident ID: nAPP2222844442

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Marathon Oil Company Client Sample ID: SS01B-0' **Project:** Parkway 1918 Federal Com 001H 08162 Collection Date: 9/2/2022 12:58:00 PM Lab ID: 2209226-001 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/10/2022 12:10:41 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/10/2022 12:10:41 AM 21-129 Surr: DNOP 98.0 %Rec 1 9/10/2022 12:10:41 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 9/10/2022 1:38:20 AM 5.0 mg/Kg 1 Surr: BFB 100 37.7-212 %Rec 1 9/10/2022 1:38:20 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB 9/10/2022 1:38:20 AM Benzene ND 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 9/10/2022 1:38:20 AM Ethylbenzene ND 0.050 mg/Kg 1 9/10/2022 1:38:20 AM Xylenes, Total ND 0.10 mg/Kg 1 9/10/2022 1:38:20 AM Surr: 4-Bromofluorobenzene 94.4 70-130 %Rec 1 9/10/2022 1:38:20 AM Analyst: JMT **EPA METHOD 300.0: ANIONS** Chloride ND 59 9/13/2022 10:04:01 PM ma/Ka 20

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND
- Not Detected at the Reporting Limit POL
- Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- в Analyte detected in the associated Method Blank
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Limit RL

Page 1 of 0

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Marathon Oil Company		Client Sample ID: SS02C-0'           001H 08162         Collection Date: 9/2/2022 2:16:00 PM				
Project:	Parkway 1918 Federal Com	n 001H 08162					
Lab ID:	2209226-002	Matrix: SOIL	Re	ceived Date:	9/7/20	22 7:30:00 AM	
Analyses		Result	RL Q	Qual Units	DF	Date Analyzed	
EPA ME	THOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH	
Diesel R	ange Organics (DRO)	ND	14	mg/Kg	1	9/10/2022 12:21:54 AM	
Motor O	il Range Organics (MRO)	ND	48	mg/Kg	1	9/10/2022 12:21:54 AM	
Surr:	DNOP	91.8	21-129	%Rec	1	9/10/2022 12:21:54 AM	
EPA ME	THOD 8015D: GASOLINE R	ANGE				Analyst: NSB	
Gasoline	e Range Organics (GRO)	ND	4.9	mg/Kg	1	9/10/2022 3:12:10 AM	
Surr:	BFB	99.3	37.7-212	%Rec	1	9/10/2022 3:12:10 AM	
EPA ME	THOD 8021B: VOLATILES					Analyst: NSB	
Benzene	e	ND	0.025	mg/Kg	1	9/10/2022 3:12:10 AM	
Toluene		ND	0.049	mg/Kg	1	9/10/2022 3:12:10 AM	
Ethylber	nzene	ND	0.049	mg/Kg	1	9/10/2022 3:12:10 AM	
Xylenes	, Total	ND	0.098	mg/Kg	1	9/10/2022 3:12:10 AM	
Surr:	4-Bromofluorobenzene	93.8	70-130	%Rec	1	9/10/2022 3:12:10 AM	
EPA ME	THOD 300.0: ANIONS					Analyst: <b>JMT</b>	
Chloride	•	ND	60	mg/Kg	20	9/13/2022 10:16:25 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Marathon Oil Company Client Sample ID: SS03D-0 **Project:** Parkway 1918 Federal Com 001H 08162 Collection Date: 9/2/2022 2:15:00 PM Lab ID: 2209226-003 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/10/2022 12:33:04 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/10/2022 12:33:04 AM 21-129 Surr: DNOP 96.5 %Rec 1 9/10/2022 12:33:04 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 9/10/2022 3:35:35 AM 5.0 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 9/10/2022 3:35:35 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.025 mg/Kg 9/10/2022 3:35:35 AM 1 Toluene ND 0.050 mg/Kg 1 9/10/2022 3:35:35 AM Ethylbenzene ND 0.050 mg/Kg 1 9/10/2022 3:35:35 AM Xylenes, Total ND 0.099 mg/Kg 1 9/10/2022 3:35:35 AM Surr: 4-Bromofluorobenzene 96.3 70-130 %Rec 1 9/10/2022 3:35:35 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride ND 60 9/13/2022 4:20:55 PM ma/Ka 20

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 3 of 0

Date Reported:

### Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Marathon Oil Company		Client Sample ID: SS04C-0'				
Project:	Parkway 1918 Federal Com	n 001H 08162	001H 08162 Collection Date: 9/2/2022 2:20:00 PM				
Lab ID:	2209226-004	Matrix: SOIL	Re	eceived Date:	9/7/20	022 7:30:00 AM	
Analyses		Result	RL (	Qual Units	DF	Date Analyzed	
EPA ME	THOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH	
Diesel R	ange Organics (DRO)	ND	15	mg/Kg	1	9/10/2022 12:44:13 AM	
Motor O	il Range Organics (MRO)	ND	49	mg/Kg	1	9/10/2022 12:44:13 AM	
Surr:	DNOP	85.1	21-129	%Rec	1	9/10/2022 12:44:13 AM	
EPA ME	THOD 8015D: GASOLINE R	ANGE				Analyst: NSB	
Gasoline	e Range Organics (GRO)	ND	4.9	mg/Kg	1	9/10/2022 3:58:54 AM	
Surr:	BFB	99.5	37.7-212	%Rec	1	9/10/2022 3:58:54 AM	
EPA ME	THOD 8021B: VOLATILES					Analyst: NSB	
Benzene	e	ND	0.024	mg/Kg	1	9/10/2022 3:58:54 AM	
Toluene		ND	0.049	mg/Kg	1	9/10/2022 3:58:54 AM	
Ethylber	nzene	ND	0.049	mg/Kg	1	9/10/2022 3:58:54 AM	
Xylenes	, Total	ND	0.097	mg/Kg	1	9/10/2022 3:58:54 AM	
Surr:	4-Bromofluorobenzene	93.4	70-130	%Rec	1	9/10/2022 3:58:54 AM	
EPA ME	THOD 300.0: ANIONS					Analyst: <b>JMT</b>	
Chloride	•	240	60	mg/Kg	20	9/13/2022 4:33:20 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

\* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

- J Analyte detected below quantitation limits
- P Sample pH Not In Range

RL Reporting Limit

Page 4 of 0

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Marathon Oil Company		Client	t Sample ID:	SS05-	0'
Project:	Parkway 1918 Federal Com 00	01H 08162	Coll	ection Date:	9/2/20	22 11:47:00 AM
Lab ID:	2209226-005	Matrix: SOIL	Re	ceived Date:	9/7/20	22 7:30:00 AM
Analyses		Result	RL Q	ual Units	DF	Date Analyzed
EPA MET	THOD 8015M/D: DIESEL RANG	<b>BE ORGANICS</b>				Analyst: DGH
Diesel R	ange Organics (DRO)	ND	15	mg/Kg	1	9/10/2022 12:55:14 AM
Motor Oi	I Range Organics (MRO)	ND	49	mg/Kg	1	9/10/2022 12:55:14 AM
Surr: I	DNOP	95.4	21-129	%Rec	1	9/10/2022 12:55:14 AM
EPA MET	THOD 8015D: GASOLINE RAN	GE				Analyst: NSB
Gasoline	Range Organics (GRO)	ND	4.9	mg/Kg	1	9/10/2022 4:22:26 AM
Surr: I	BFB	95.2	37.7-212	%Rec	1	9/10/2022 4:22:26 AM
EPA MET	THOD 8021B: VOLATILES					Analyst: NSB
Benzene	)	ND	0.025	mg/Kg	1	9/10/2022 4:22:26 AM
Toluene		ND	0.049	mg/Kg	1	9/10/2022 4:22:26 AM
Ethylben	izene	ND	0.049	mg/Kg	1	9/10/2022 4:22:26 AM
Xylenes,	Total	ND	0.098	mg/Kg	1	9/10/2022 4:22:26 AM
Surr: 4	4-Bromofluorobenzene	90.6	70-130	%Rec	1	9/10/2022 4:22:26 AM
EPA MET	EPA METHOD 300.0: ANIONS Analyst: JMT					
Chloride		ND	60	mg/Kg	20	9/13/2022 4:45:44 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

\* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 5 of 0

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Marathon Oil Company		Client	Sample ID:	SS06-	0'
Project:	Parkway 1918 Federal Com	001H 08162	Colle	ection Date:	9/2/20	22 12:05:00 PM
Lab ID:	2209226-006	Matrix: SOIL	Ree	ceived Date:	9/7/20	22 7:30:00 AM
Analyses		Result	RL Q	ual Units	DF	Date Analyzed
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst: DGH
Diesel R	ange Organics (DRO)	ND	14	mg/Kg	1	9/10/2022 1:06:27 AM
Motor Oi	I Range Organics (MRO)	ND	47	mg/Kg	1	9/10/2022 1:06:27 AM
Surr: I	ONOP	85.5	21-129	%Rec	1	9/10/2022 1:06:27 AM
EPA MET	HOD 8015D: GASOLINE RAI	NGE				Analyst: NSB
Gasoline	Range Organics (GRO)	ND	5.0	mg/Kg	1	9/10/2022 4:46:00 AM
Surr: I	BFB	98.4	37.7-212	%Rec	1	9/10/2022 4:46:00 AM
EPA MET	HOD 8021B: VOLATILES					Analyst: NSB
Benzene		ND	0.025	mg/Kg	1	9/10/2022 4:46:00 AM
Toluene		ND	0.050	mg/Kg	1	9/10/2022 4:46:00 AM
Ethylben	zene	ND	0.050	mg/Kg	1	9/10/2022 4:46:00 AM
Xylenes,	Total	ND	0.099	mg/Kg	1	9/10/2022 4:46:00 AM
Surr: 4	4-Bromofluorobenzene	92.2	70-130	%Rec	1	9/10/2022 4:46:00 AM
EPA MET	EPA METHOD 300.0: ANIONS Analyst: JMT					Analyst: JMT
Chloride		65	60	mg/Kg	20	9/13/2022 4:58:08 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

\* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 6 of 0

**Analytical Report** Lab Order 2209226

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

CI IENT•	CLIENT: Marathon Oil Company Client Sample ID: SS07-0'							
		00111 09162		-				
Project:	Parkway 1918 Federal Com		_	<b>Collection Date:</b> 9/2/2022 12:10:00 PM				
Lab ID:	2209226-007	Matrix: SOIL	F	Received Date:	9/7/20	022 7:30:00 AM		
Analyses		Result	RL	Qual Units	DF	Date Analyzed		
EPA MET	THOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH		
Diesel R	ange Organics (DRO)	ND	15	mg/Kg	1	9/10/2022 1:17:39 AM		
Motor Oi	I Range Organics (MRO)	ND	48	mg/Kg	1	9/10/2022 1:17:39 AM		
Surr: I	DNOP	109	21-129	%Rec	1	9/10/2022 1:17:39 AM		
EPA MET	THOD 8015D: GASOLINE RA	ANGE				Analyst: NSB		
Gasoline	e Range Organics (GRO)	ND	4.9	mg/Kg	1	9/10/2022 5:09:25 AM		
Surr: I	BFB	98.4	37.7-212	%Rec	1	9/10/2022 5:09:25 AM		
EPA MET	THOD 8021B: VOLATILES					Analyst: NSB		
Benzene	9	ND	0.025	mg/Kg	1	9/10/2022 5:09:25 AM		
Toluene		ND	0.049	mg/Kg	1	9/10/2022 5:09:25 AM		
Ethylben	izene	ND	0.049	mg/Kg	1	9/10/2022 5:09:25 AM		
Xylenes,	Total	ND	0.098	mg/Kg	1	9/10/2022 5:09:25 AM		
Surr: 4	4-Bromofluorobenzene	92.7	70-130	%Rec	1	9/10/2022 5:09:25 AM		
EPA MET	THOD 300.0: ANIONS					Analyst: <b>JMT</b>		
Chloride		96	60	mg/Kg	20	9/13/2022 5:10:34 PM		

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

\* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference S

в Analyte detected in the associated Method Blank

Е Estimated value

- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 7 of 0

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Marathon Oil Company		Client Sample ID: SS08-2' Collection Date: 9/2/2022 9:15:00 AM			
Project:	Parkway 1918 Federal Com	001H 08162				
Lab ID:	2209226-008	Matrix: SOIL	ŀ	022 7:30:00 AM		
Analyses		Result	RL	Qual Units	DF	Date Analyzed
EPA MET	HOD 8015M/D: DIESEL RAI	NGE ORGANICS				Analyst: DGH
Diesel Ra	ange Organics (DRO)	ND	15	mg/Kg	1	9/10/2022 1:28:50 AM
Motor Oi	I Range Organics (MRO)	ND	49	mg/Kg	1	9/10/2022 1:28:50 AM
Surr: [	DNOP	97.9	21-129	%Rec	1	9/10/2022 1:28:50 AM
EPA MET	HOD 8015D: GASOLINE RA	NGE				Analyst: NSB
Gasoline	Range Organics (GRO)	ND	4.9	mg/Kg	1	9/10/2022 5:32:52 AM
Surr: E	3FB	98.1	37.7-212	%Rec	1	9/10/2022 5:32:52 AM
EPA MET	HOD 8021B: VOLATILES					Analyst: NSB
Benzene	1	ND	0.025	mg/Kg	1	9/10/2022 5:32:52 AM
Toluene		ND	0.049	mg/Kg	1	9/10/2022 5:32:52 AM
Ethylben	zene	ND	0.049	mg/Kg	1	9/10/2022 5:32:52 AM
Xylenes,	Total	ND	0.099	mg/Kg	1	9/10/2022 5:32:52 AM
Surr: 4	1-Bromofluorobenzene	93.1	70-130	%Rec	1	9/10/2022 5:32:52 AM
EPA MET	HOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride		96	59	mg/Kg	20	9/13/2022 5:22:58 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 8 of 0

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Marathon Oil Company		Client Sample ID: SS09-2'           H 08162         Collection Date: 9/2/2022 9:40:00 AM				
Project:	Parkway 1918 Federal Com	001H 08162					
Lab ID:	2209226-009	Matrix: SOIL	L <b>Received Date:</b> 9/7/2022 7:		022 7:30:00 AM		
Analyses		Result	RL	Qual Units	DF	Date Analyzed	
EPA MET	HOD 8015M/D: DIESEL RAI	NGE ORGANICS				Analyst: DGH	
Diesel Ra	ange Organics (DRO)	ND	13	mg/Kg	1	9/10/2022 1:40:01 AM	
Motor Oil	Range Organics (MRO)	ND	44	mg/Kg	1	9/10/2022 1:40:01 AM	
Surr: E	DNOP	93.9	21-129	%Rec	1	9/10/2022 1:40:01 AM	
EPA MET	HOD 8015D: GASOLINE RA	NGE				Analyst: NSB	
Gasoline	Range Organics (GRO)	ND	4.9	mg/Kg	1	9/10/2022 5:56:16 AM	
Surr: E	BFB	98.4	37.7-212	%Rec	1	9/10/2022 5:56:16 AM	
EPA MET	HOD 8021B: VOLATILES					Analyst: NSB	
Benzene		ND	0.024	mg/Kg	1	9/10/2022 5:56:16 AM	
Toluene		ND	0.049	mg/Kg	1	9/10/2022 5:56:16 AM	
Ethylben	zene	ND	0.049	mg/Kg	1	9/10/2022 5:56:16 AM	
Xylenes,	Total	ND	0.097	mg/Kg	1	9/10/2022 5:56:16 AM	
Surr: 4	I-Bromofluorobenzene	93.0	70-130	%Rec	1	9/10/2022 5:56:16 AM	
EPA MET	HOD 300.0: ANIONS					Analyst: <b>JMT</b>	
Chloride		220	60	mg/Kg	20	9/13/2022 5:35:23 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

\* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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**Analytical Report** Lab Order 2209226

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

	-	-				*
CLIENT	: Marathon Oil Company		Client Sample ID: BG01-0'           IH 08162         Collection Date: 9/2/2022 10:05:00 AM			
<b>Project:</b>	Parkway 1918 Federal Con	n 001H 08162				
Lab ID:	2209226-010	Matrix: SOIL	R	eceived Date:	9/7/20	022 7:30:00 AM
Analyses		Result	RL	RL Qual Units DF Date		Date Analyzed
EPA ME	THOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH
Diesel F	Range Organics (DRO)	ND	15	mg/Kg	1	9/10/2022 1:51:10 AM
Motor O	il Range Organics (MRO)	ND	50	mg/Kg	1	9/10/2022 1:51:10 AM
Surr:	DNOP	87.9	21-129	%Rec	1	9/10/2022 1:51:10 AM
EPA ME	THOD 8015D: GASOLINE R	ANGE				Analyst: NSB
Gasolin	e Range Organics (GRO)	ND	5.0	mg/Kg	1	9/10/2022 6:19:40 AM
Surr:	BFB	101	37.7-212	%Rec	1	9/10/2022 6:19:40 AM
EPA ME	THOD 8021B: VOLATILES					Analyst: NSB
Benzen	e	ND	0.025	mg/Kg	1	9/10/2022 6:19:40 AM
Toluene	)	ND	0.050	mg/Kg	1	9/10/2022 6:19:40 AM
Ethylber	nzene	ND	0.050	mg/Kg	1	9/10/2022 6:19:40 AM
Xylenes	, Total	ND	0.10	mg/Kg	1	9/10/2022 6:19:40 AM
Surr:	4-Bromofluorobenzene	95.1	70-130	%Rec	1	9/10/2022 6:19:40 AM
EPA ME	THOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	9	ND	60	mg/Kg	20	9/13/2022 5:47:48 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference S
- в Analyte detected in the associated Method Blank
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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**Analytical Report** Lab Order 2209226

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

	Ţ.					1
CLIENT:	CLIENT: Marathon Oil Company Client Sample ID: BG01-1'					
<b>Project:</b>	Parkway 1918 Federal Com	001H 08162	C	ollection Date:	9/2/20	022 12:00:00 PM
Lab ID:	2209226-011	Matrix: SOIL	Matrix: SOIL         Received Date: 9/7/2022 7:30:00 AM			
Analyses		Result	RL	Qual Units	DF	Date Analyzed
EPA ME	THOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH
Diesel R	Range Organics (DRO)	ND	15	mg/Kg	1	9/10/2022 2:02:17 AM
Motor O	il Range Organics (MRO)	ND	48	mg/Kg	1	9/10/2022 2:02:17 AM
Surr:	DNOP	89.1	21-129	%Rec	1	9/10/2022 2:02:17 AM
EPA ME	THOD 8015D: GASOLINE RA	ANGE				Analyst: NSB
Gasoline	e Range Organics (GRO)	ND	4.9	mg/Kg	1	9/10/2022 6:43:15 AM
Surr:	BFB	97.9	37.7-212	%Rec	1	9/10/2022 6:43:15 AM
EPA ME	THOD 8021B: VOLATILES					Analyst: NSB
Benzene	9	ND	0.025	mg/Kg	1	9/10/2022 6:43:15 AM
Toluene		ND	0.049	mg/Kg	1	9/10/2022 6:43:15 AM
Ethylber	Izene	ND	0.049	mg/Kg	1	9/10/2022 6:43:15 AM
Xylenes,	, Total	ND	0.098	mg/Kg	1	9/10/2022 6:43:15 AM
Surr: 4	4-Bromofluorobenzene	93.2	70-130	%Rec	1	9/10/2022 6:43:15 AM
EPA ME	THOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	;	ND	60	mg/Kg	20	9/13/2022 6:49:52 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference S
- в Analyte detected in the associated Method Blank
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

						-	
CLIENT: Marathon Oil Company Clien				Client Sample ID: BG01-2'			
<b>Project:</b>	Parkway 1918 Federal Com	001H 08162	H 08162 Collection Date: 9/2/2022 12:05:00 PM				
Lab ID:	2209226-012	Matrix: SOIL	<b>Received Date:</b> 9/7/2022 7:30:00 AM			022 7:30:00 AM	
Analyses		Result	RL	Qual Units	DF	Date Analyzed	
EPA ME	THOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH	
Diesel R	Range Organics (DRO)	ND	14	mg/Kg	1	9/10/2022 2:13:22 AM	
Motor O	il Range Organics (MRO)	ND	48	mg/Kg	1	9/10/2022 2:13:22 AM	
Surr:	DNOP	81.8	21-129	%Rec	1	9/10/2022 2:13:22 AM	
EPA ME	THOD 8015D: GASOLINE RA	ANGE				Analyst: NSB	
Gasoline	e Range Organics (GRO)	ND	4.9	mg/Kg	1	9/10/2022 7:53:35 AM	
Surr:	BFB	99.1	37.7-212	%Rec	1	9/10/2022 7:53:35 AM	
EPA ME	THOD 8021B: VOLATILES					Analyst: <b>NSB</b>	
Benzene	e	ND	0.025	mg/Kg	1	9/10/2022 7:53:35 AM	
Toluene	1	ND	0.049	mg/Kg	1	9/10/2022 7:53:35 AM	
Ethylber	nzene	ND	0.049	mg/Kg	1	9/10/2022 7:53:35 AM	
Xylenes	, Total	ND	0.099	mg/Kg	1	9/10/2022 7:53:35 AM	
Surr:	4-Bromofluorobenzene	94.3	70-130	%Rec	1	9/10/2022 7:53:35 AM	
EPA ME	THOD 300.0: ANIONS					Analyst: <b>JMT</b>	
Chloride	÷	ND	60	mg/Kg	20	9/13/2022 7:02:17 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Analytical Report Lab Order 2209E95

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Marathon Oil Company Client Sample ID: CONF01-3' **Project:** Parkway 1918 Federal Com 001H 8 16 2 Collection Date: 9/23/2022 11:00:00 AM Lab ID: 2209E95-001 Matrix: SOIL Received Date: 9/28/2022 7:25:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: mb Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/29/2022 9:01:30 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/29/2022 9:01:30 PM 21-129 Surr: DNOP 80.3 %Rec 1 9/29/2022 9:01:30 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 9/29/2022 5:45:13 PM 4.6 mg/Kg 1 Surr: BFB 92.7 37.7-212 %Rec 1 9/29/2022 5:45:13 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 0.023 mg/Kg 9/29/2022 5:45:13 PM 1 Toluene ND 0.046 mg/Kg 1 9/29/2022 5:45:13 PM Ethylbenzene ND 0.046 mg/Kg 1 9/29/2022 5:45:13 PM Xylenes, Total ND 0.093 mg/Kg 1 9/29/2022 5:45:13 PM Surr: 4-Bromofluorobenzene 98.2 70-130 %Rec 1 9/29/2022 5:45:13 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 60 10/3/2022 9:28:59 PM 150 ma/Ka 20

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 1 of 0

**EPA METHOD 300.0: ANIONS** 

Chloride

**Analytical Report** Lab Order 2209E95

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Marathon Oil Company Client Sample ID: CONF02-3' **Project:** Parkway 1918 Federal Com 001H 8 16 2 Collection Date: 9/23/2022 11:04:00 AM Lab ID: 2209E95-002 Matrix: SOIL Received Date: 9/28/2022 7:25:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: mb Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/29/2022 9:16:14 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 9/29/2022 9:16:14 PM 21-129 Surr: DNOP 89.7 %Rec 1 9/29/2022 9:16:14 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 9/29/2022 6:08:37 PM 5.0 mg/Kg 1 Surr: BFB 92.4 37.7-212 %Rec 1 9/29/2022 6:08:37 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 0.025 mg/Kg 9/29/2022 6:08:37 PM 1 Toluene ND 0.050 mg/Kg 1 9/29/2022 6:08:37 PM Ethylbenzene ND 0.050 mg/Kg 1 9/29/2022 6:08:37 PM Xylenes, Total ND 0.099 mg/Kg 1 9/29/2022 6:08:37 PM Surr: 4-Bromofluorobenzene 98.1 70-130 %Rec 1 9/29/2022 6:08:37 PM

170

60

ma/Ka

20

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

- ND
- Not Detected at the Reporting Limit POL
- Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

- в Analyte detected in the associated Method Blank
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Limit RL

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Analyst: JTT

10/3/2022 9:41:24 PM

**Analytical Report** Lab Order 2209E95

**Date Analyzed** 

Analyst: mb

Analyst: RAA

Analyst: RAA

Analyst: JTT

9/29/2022 9:30:55 PM

9/29/2022 9:30:55 PM

9/29/2022 9:30:55 PM

9/29/2022 6:31:55 PM

10/3/2022 10:18:39 PM

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Marathon Oil Company Client Sample ID: CONF03-3' **Project:** Parkway 1918 Federal Com 001H 8 16 2 Collection Date: 9/23/2022 11:42:00 AM Lab ID: 2209E95-003 Matrix: SOIL Received Date: 9/28/2022 7:25:00 AM Result **RL** Qual Units DF Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 15 mg/Kg 1 Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 Surr: DNOP 67.7 21-129 %Rec 1 **EPA METHOD 8015D: GASOLINE RANGE** Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 Surr: BFB 93.7 37.7-212 %Rec 1 **EPA METHOD 8021B: VOLATILES** Benzene ND 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 Xylenes, Total ND 0.095 mg/Kg 1

**EPA METHOD 300.0: ANIONS** Chloride

Surr: 4-Bromofluorobenzene

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

98.5

ND

70-130

60

%Rec

ma/Ka

1

20

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit
- POL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- в Analyte detected in the associated Method Blank
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Limit RL

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**Analytical Report** Lab Order 2209E95

**Date Analyzed** 

Analyst: mb

Analyst: RAA

Analyst: RAA

Analyst: JTT

9/29/2022 9:45:43 PM

9/29/2022 9:45:43 PM

9/29/2022 9:45:43 PM

9/29/2022 8:05:30 PM 9/29/2022 8:05:30 PM

10/3/2022 10:31:04 PM

Date Reported:

1

1

1

1

1

1

1

1

20

mg/Kg

%Rec

ma/Ka

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Marathon Oil Company Client Sample ID: CONF04-3' **Project:** Parkway 1918 Federal Com 001H 8 16 2 Collection Date: 9/23/2022 11:57:00 AM Lab ID: 2209E95-004 Matrix: SOIL Received Date: 9/28/2022 7:25:00 AM Result **RL** Qual Units DF Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 15 mg/Kg Motor Oil Range Organics (MRO) ND 50 mg/Kg Surr: DNOP 87.6 21-129 %Rec **EPA METHOD 8015D: GASOLINE RANGE** Gasoline Range Organics (GRO) ND 4.9 mg/Kg Surr: BFB 92.8 37.7-212 %Rec **EPA METHOD 8021B: VOLATILES** Benzene ND 0.025 mg/Kg Toluene ND 0.049 mg/Kg 1 Ethylbenzene ND 0.049 mg/Kg 1

#### Xylenes, Total ND 0.098 Surr: 4-Bromofluorobenzene 98.7 70-130 **EPA METHOD 300.0: ANIONS** Chloride 62 60

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- POL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- в Analyte detected in the associated Method Blank
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Limit RL

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**Project:** 

Lab ID:

**CLIENT:** Marathon Oil Company

2209E95-005

Analytical Report Lab Order 2209E95

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

Parkway 1918 Federal Com 001H 8 16 2

Client Sample ID: CONF05-1.5' Collection Date: 9/23/2022 11:45:00 AM Received Date: 9/28/2022 7:25:00 AM

<b>Eub ID:</b> 2209E95 005	Matrix: 5012					
Analyses	Result	<b>RL</b> Qual Units		DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANGE	E ORGANICS				Analyst: <b>mb</b>	
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	9/29/2022 10:00:30 PM	
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	9/29/2022 10:00:30 PM	
Surr: DNOP	103	21-129	%Rec	1	9/29/2022 10:00:30 PM	
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: RAA	
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	9/29/2022 8:28:55 PM	
Surr: BFB	95.9	37.7-212	%Rec	1	9/29/2022 8:28:55 PM	
EPA METHOD 8021B: VOLATILES					Analyst: RAA	
Benzene	ND	0.024	mg/Kg	1	9/29/2022 8:28:55 PM	
Toluene	ND	0.047	mg/Kg	1	9/29/2022 8:28:55 PM	
Ethylbenzene	ND	0.047	mg/Kg	1	9/29/2022 8:28:55 PM	
Xylenes, Total	ND	0.095	mg/Kg	1	9/29/2022 8:28:55 PM	
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	9/29/2022 8:28:55 PM	
EPA METHOD 300.0: ANIONS					Analyst: <b>JTT</b>	
Chloride	200	60	mg/Kg	20	10/3/2022 10:43:28 PM	

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level.
   D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Analytical Report** Lab Order 2209E95

**Date Analyzed** 

Analyst: mb

Analyst: RAA

Analyst: RAA

Analyst: JTT

9/29/2022 10:15:25 PM

9/29/2022 10:15:25 PM

9/29/2022 10:15:25 PM

9/29/2022 8:52:21 PM

10/3/2022 10:55:53 PM

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Marathon Oil Company Client Sample ID: CONF06-2' **Project:** Parkway 1918 Federal Com 001H 8 16 2 Collection Date: 9/26/2022 8:46:00 AM Lab ID: 2209E95-006 Matrix: SOIL Received Date: 9/28/2022 7:25:00 AM Result **RL** Qual Units DF Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 14 mg/Kg 1 Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 Surr: DNOP 83.5 21-129 %Rec 1 **EPA METHOD 8015D: GASOLINE RANGE** Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 Surr: BFB 93.3 37.7-212 %Rec 1 **EPA METHOD 8021B: VOLATILES** Benzene ND 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 Ethylbenzene ND 0.049 mg/Kg 1 Xylenes, Total ND 0.098 mg/Kg 1

98.7

110

70-130

60

%Rec

ma/Ka

1

20

**EPA METHOD 300.0: ANIONS** Chloride

Surr: 4-Bromofluorobenzene

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- POL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- в Analyte detected in the associated Method Blank
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Limit RL

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**EPA METHOD 300.0: ANIONS** 

Chloride

**Analytical Report** Lab Order 2209E95

Analyst: mb

Analyst: RAA

Analyst: RAA

Analyst: JTT

10/3/2022 11:08:17 PM

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Marathon Oil Company Client Sample ID: CONF07-2' **Project:** Parkway 1918 Federal Com 001H 8 16 2 Collection Date: 9/26/2022 8:48:00 AM Lab ID: 2209E95-007 Matrix: SOIL Received Date: 9/28/2022 7:25:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 13 mg/Kg 1 9/29/2022 10:30:17 PM Motor Oil Range Organics (MRO) ND 44 mg/Kg 1 9/29/2022 10:30:17 PM Surr: DNOP 104 21-129 %Rec 1 9/29/2022 10:30:17 PM **EPA METHOD 8015D: GASOLINE RANGE** Gasoline Range Organics (GRO) ND 9/29/2022 9:16:02 PM 4.7 mg/Kg 1 Surr: BFB 93.0 37.7-212 %Rec 1 9/29/2022 9:16:02 PM **EPA METHOD 8021B: VOLATILES** Benzene ND 9/29/2022 9:16:02 PM 0.023 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 9/29/2022 9:16:02 PM Ethylbenzene ND 0.047 mg/Kg 1 9/29/2022 9:16:02 PM Xylenes, Total ND 0.093 mg/Kg 1 9/29/2022 9:16:02 PM Surr: 4-Bromofluorobenzene 98.5 70-130 %Rec 1 9/29/2022 9:16:02 PM

230

60

ma/Ka

20

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

POL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference в Analyte detected in the associated Method Blank

Е Estimated value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

Reporting Limit RL

Page 7 of 0

**Analytical Report** Lab Order 2209E95

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Marathon Oil Company Client Sample ID: CONF08-3' **Project:** Parkway 1918 Federal Com 001H 8 16 2 Collection Date: 9/26/2022 10:52:00 AM Lab ID: 2209E95-008 Matrix: SOIL Received Date: 9/28/2022 7:25:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: mb Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/29/2022 10:45:03 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 9/29/2022 10:45:03 PM Surr: DNOP 100 21-129 %Rec 1 9/29/2022 10:45:03 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 9/29/2022 9:39:43 PM 4.6 mg/Kg 1 Surr: BFB 92.1 37.7-212 %Rec 1 9/29/2022 9:39:43 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 9/29/2022 9:39:43 PM 0.023 mg/Kg 1 Toluene ND 0.046 mg/Kg 1 9/29/2022 9:39:43 PM Ethylbenzene ND 0.046 mg/Kg 1 9/29/2022 9:39:43 PM Xylenes, Total ND 0.092 mg/Kg 1 9/29/2022 9:39:43 PM Surr: 4-Bromofluorobenzene 97.9 70-130 %Rec 1 9/29/2022 9:39:43 PM Analyst: JTT **EPA METHOD 300.0: ANIONS** Chloride 140 60 10/3/2022 11:20:42 PM ma/Ka 20

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

- ND
- Not Detected at the Reporting Limit POL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- в Analyte detected in the associated Method Blank
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Limit RL

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**Project:** 

Lab ID:

**CLIENT:** Marathon Oil Company

2209E95-009

Analytical Report Lab Order 2209E95

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

Parkway 1918 Federal Com 001H 8 16 2

Client Sample ID: CONF09-1.5' Collection Date: 9/26/2022 8:59:00 AM Received Date: 9/28/2022 7:25:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: <b>mb</b>	
Diesel Range Organics (DRO)	21	14	mg/Kg	1	9/29/2022 10:59:59 PM	
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	9/29/2022 10:59:59 PM	
Surr: DNOP	95.1	21-129	%Rec	1	9/29/2022 10:59:59 PM	
EPA METHOD 8015D: GASOLINE RANGE	l .				Analyst: RAA	
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	9/29/2022 10:03:16 PM	
Surr: BFB	90.1	37.7-212	%Rec	1	9/29/2022 10:03:16 PM	
EPA METHOD 8021B: VOLATILES					Analyst: RAA	
Benzene	ND	0.024	mg/Kg	1	9/29/2022 10:03:16 PM	
Toluene	ND	0.049	mg/Kg	1	9/29/2022 10:03:16 PM	
Ethylbenzene	ND	0.049	mg/Kg	1	9/29/2022 10:03:16 PM	
Xylenes, Total	ND	0.097	mg/Kg	1	9/29/2022 10:03:16 PM	
Surr: 4-Bromofluorobenzene	95.3	70-130	%Rec	1	9/29/2022 10:03:16 PM	
EPA METHOD 300.0: ANIONS					Analyst: JTT	
Chloride	430	60	mg/Kg	20	10/4/2022 9:14:39 AM	

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level.
   D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**EPA METHOD 300.0: ANIONS** 

Chloride

Analytical Report Lab Order 2209E95

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Marathon Oil Company Client Sample ID: CONF10-1.5' **Project:** Parkway 1918 Federal Com 001H 8 16 2 Collection Date: 9/26/2022 8:56:00 AM Lab ID: 2209E95-010 Matrix: SOIL Received Date: 9/28/2022 7:25:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: mb Diesel Range Organics (DRO) 21 14 mg/Kg 1 9/29/2022 11:14:49 PM ND Motor Oil Range Organics (MRO) 47 mg/Kg 1 9/29/2022 11:14:49 PM Surr: DNOP 112 21-129 %Rec 1 9/29/2022 11:14:49 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 9/29/2022 10:26:38 PM 4.7 mg/Kg 1 Surr: BFB 91.7 37.7-212 %Rec 1 9/29/2022 10:26:38 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 0.023 mg/Kg 9/29/2022 10:26:38 PM 1 Toluene ND 0.047 mg/Kg 1 9/29/2022 10:26:38 PM Ethylbenzene ND 0.047 mg/Kg 1 9/29/2022 10:26:38 PM Xylenes, Total ND 0.094 mg/Kg 1 9/29/2022 10:26:38 PM Surr: 4-Bromofluorobenzene 97.2 70-130 %Rec 1 9/29/2022 10:26:38 PM

380

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ma/Ka

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Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Analyst: JTT

10/4/2022 9:27:03 AM

Analytical Report Lab Order 2209E95

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: Client Sample ID: CONF11 Wall-1'

CLIENT:Marathon Oil CompanyProject:Parkway 1918 Federal Com 001H 8 16 2Lab ID:2209E95-011Matrix: SOIL

Collection Date: 9/26/2022 9:11:00 AM Received Date: 9/28/2022 7:25:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS				Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	9/29/2022 11:29:34 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	9/29/2022 11:29:34 PM
Surr: DNOP	77.4	21-129	%Rec	1	9/29/2022 11:29:34 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	9/29/2022 10:49:59 PM
Surr: BFB	92.8	37.7-212	%Rec	1	9/29/2022 10:49:59 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.025	mg/Kg	1	9/29/2022 10:49:59 PM
Toluene	ND	0.050	mg/Kg	1	9/29/2022 10:49:59 PM
Ethylbenzene	ND	0.050	mg/Kg	1	9/29/2022 10:49:59 PM
Xylenes, Total	ND	0.099	mg/Kg	1	9/29/2022 10:49:59 PM
Surr: 4-Bromofluorobenzene	98.4	70-130	%Rec	1	9/29/2022 10:49:59 PM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	160	59	mg/Kg	20	10/4/2022 9:39:28 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level.
   D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** 

Chloride

**CLIENT:** Marathon Oil Company

Analytical Report Lab Order 2209E95

10/4/2022 9:51:52 AM

Date Reported:

#### Hall Environmental Analysis Laboratory, Inc.

Parkway 1918 Federal Com 001H 8 16 2

Client Sample ID: CONF12 Wall-1' Collection Date: 9/26/2022 12:04:00 PM

Lab ID: 2209E95-012 Matrix: SOIL Received Date: 9/28/2022 7:25:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: mb Diesel Range Organics (DRO) ND 15 mg/Kg 1 9/29/2022 11:44:26 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/29/2022 11:44:26 PM Surr: DNOP 93.8 21-129 %Rec 1 9/29/2022 11:44:26 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 9/29/2022 11:13:25 PM 5.0 mg/Kg 1 Surr: BFB 91.8 37.7-212 %Rec 1 9/29/2022 11:13:25 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 9/29/2022 11:13:25 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 9/29/2022 11:13:25 PM Ethylbenzene ND 0.050 mg/Kg 1 9/29/2022 11:13:25 PM Xylenes, Total ND 0.10 mg/Kg 1 9/29/2022 11:13:25 PM Surr: 4-Bromofluorobenzene 96.5 70-130 %Rec 1 9/29/2022 11:13:25 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT

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ma/Ka

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Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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# ATTACHMENT F

### 48-Hour Confirmation Sampling Notification Emails

Energizing America wescominc.com | info@wescominc.com | 218-724-1322

Released to Imaging: 1/4/2023 10:56:18 AM

Parkway 19 18 Federal Com #001H | Incident ID: nAPP2222844442

#### Melodie Sanjari

Environmental Professional Permian & Oklahoma 575-988-8753



From: Sanjari, Melodie (MRO)
Sent: Monday, September 19, 2022 11:04 AM
To: Enviro, OCD, EMNRD <<u>OCD.Enviro@state.nm.us</u>>
Cc: Ashley Giovengo <<u>ashley.giovengo@wescominc.com</u>>
Subject: Marathon Oil Company - 48 Hour Notice for Sampling - nAPP2222844442

Good Morning,

Please let this email serve as the required 48 hour notice for final confirmation sampling to close out incident nAPP2222844442 at the Parkway facility. Excavation activities will begin Wednesday morning (9/21/22) and confirmation samples are expected to be collected on the Wednesday and/or potentially Thursday.

Thanks and have a wonderful day.

Melodie Sanjari Environmental Professional Permian & Oklahoma 575-988-8753



# ATTACHMENT G

### 48-Hour Liner Inspection Notification Emails



From:	Ashley Giovengo
To:	Cole Burton
Subject:	FW: Marathon Oil Company - 48 Hour Notice for Sampling - nAPP2222844442
Date:	Wednesday, October 5, 2022 2:12:15 PM

Ashley Giovengo, Environmental Manager - Permian O (218) 724-1322 | C (505) 382-1211 WescomInc.com | ashley.giovengo@WescomInc.com "I am in charge of my own safety."

From: Sanjari, Melodie (MRO) <msanjari@marathonoil.com>
Sent: Thursday, September 22, 2022 7:51 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Cc: Ashley Giovengo <ashley.giovengo@wescominc.com>
Subject: RE: Marathon Oil Company - 48 Hour Notice for Sampling - nAPP2222844442

Good Morning,

Apologies as it was left off of the original notification but a liner integrity inspection will also take place during the excavation and confirmation sampling event.

Thank you

#### Melodie Sanjari

Environmental Professional Permian & Oklahoma 575-988-8753



From: Sanjari, Melodie (MRO)
Sent: Monday, September 19, 2022 11:47 AM
To: Enviro, OCD, EMNRD <<u>OCD.Enviro@state.nm.us</u>>
Subject: RE: Marathon Oil Company - 48 Hour Notice for Sampling - nAPP222284442

Good Morning,

The remediation has been pushed to a start date of Thursday the 22<sup>nd</sup> with potential for samples to be collected on the 22<sup>nd</sup> and/or the 23<sup>rd</sup>.

Thanks

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:
MARATHON OIL PERMIAN LLC	372098
990 Town & Country Blvd.	Action Number:
Houston, TX 77024	154899
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By Condition

We have received your closure report and final C-141 for Incident #NAPP2222844442 PARKWAY 1H, thank you. This closure is approved. 1/4/2023 rhamlet

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Action 154899

Condition Date